



# SafeAccess

A SAFE SCHOOLS TRANSPORTATION STUDY

# Tavares Elementary School

## Tavares, FL

2-6 FCAT FAMILY NIGHT 6-7:30

12-11-14 HOLIDAY STORE

CONG! ASSISTANT PRINCIPAL  
OF THE YEAR LEAH FISCHER

Reading  
&  
Writing

SCIENCE

MATH

August 2013





# Tavares Elementary School Snapshot



December 20, 2012  
Grades: Pre-K – 5<sup>th</sup>

<b>Total Students:</b>	<b>830</b>
■ Provided Bus Transportation:	433
■ Not Provided Bus Transportation:	397
■ Buses Assigned to School (6 reg, 2 ESE)	8
<b>Students Living within the “Walk Zone”:</b>	<b>301</b>
■ Provided Bus Transportation:	155
■ Not Provided Bus Transportation:	146
<b>Students Living within the LCS PRZ *</b>	<b>59</b>
■ Provided Bus Transportation:	14
■ Not Provided Bus Transportation:	45
<b>Observation Day (Sunny)</b>	
■ Walkers:	32
■ Bike Riders:	4



- ✓ Tavares Elementary School website – Click [here](#)
- ✓ City of Tavares website – Click [here](#)
- ✓ Lake County Schools website – Click [here](#)

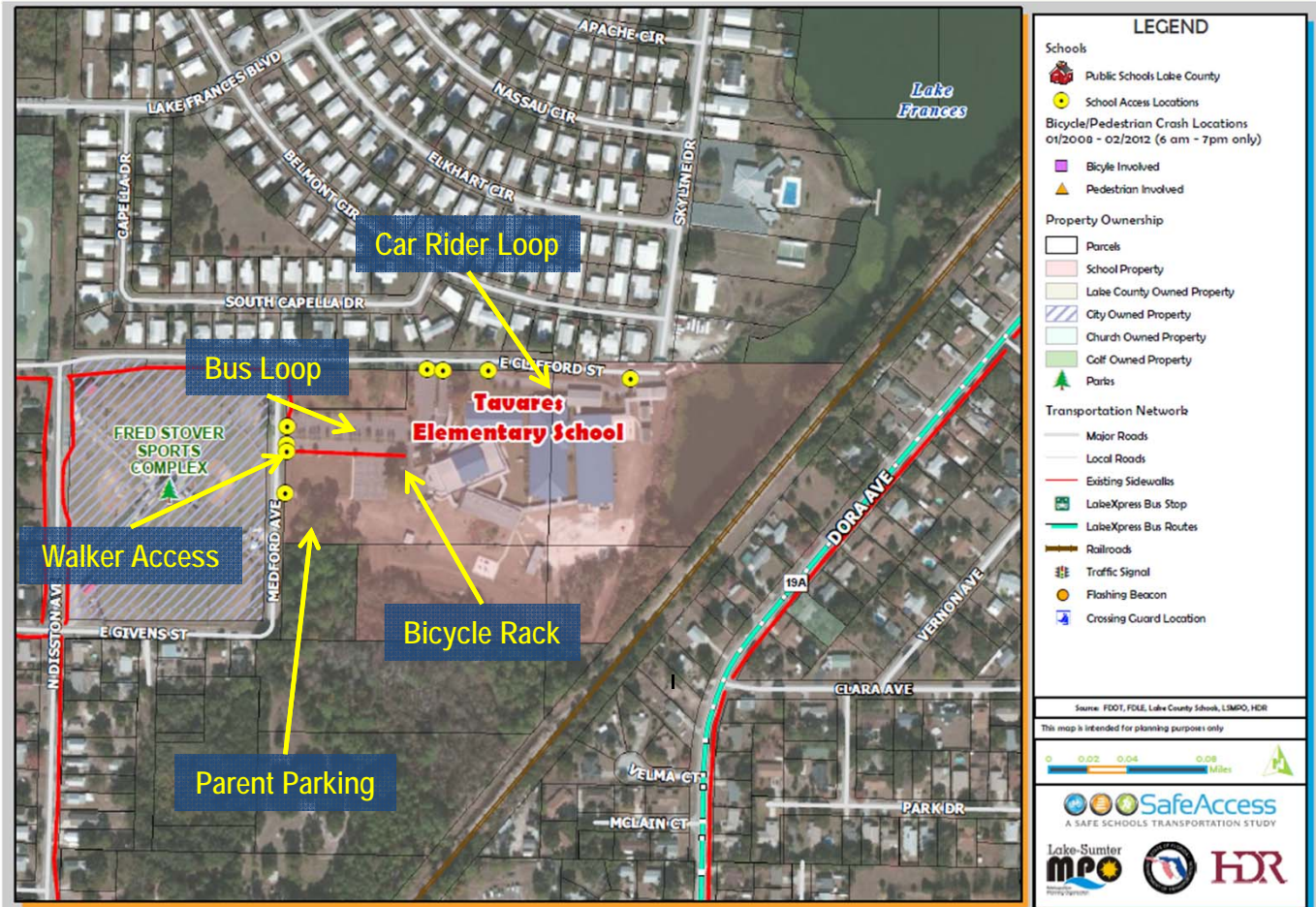
\*LCS PRZ is the Lake County Schools Designated Parent Responsibility Zone



## Findings:

- ✓ All walkers must access school from Medford Ave at bus loop entrance
- ✓ Bus Loop entrance is off of Medford Ave via Clifford St and exit is on Clifford St
- ✓ Vehicles pick-up / drop-off via Givens St and Medford Ave
- ✓ Parent parking provided in dirt lot south of basketball courts
- ✓ 2 daycare buses pick up in bus loop; 2 daycare vans pick up in parking lot

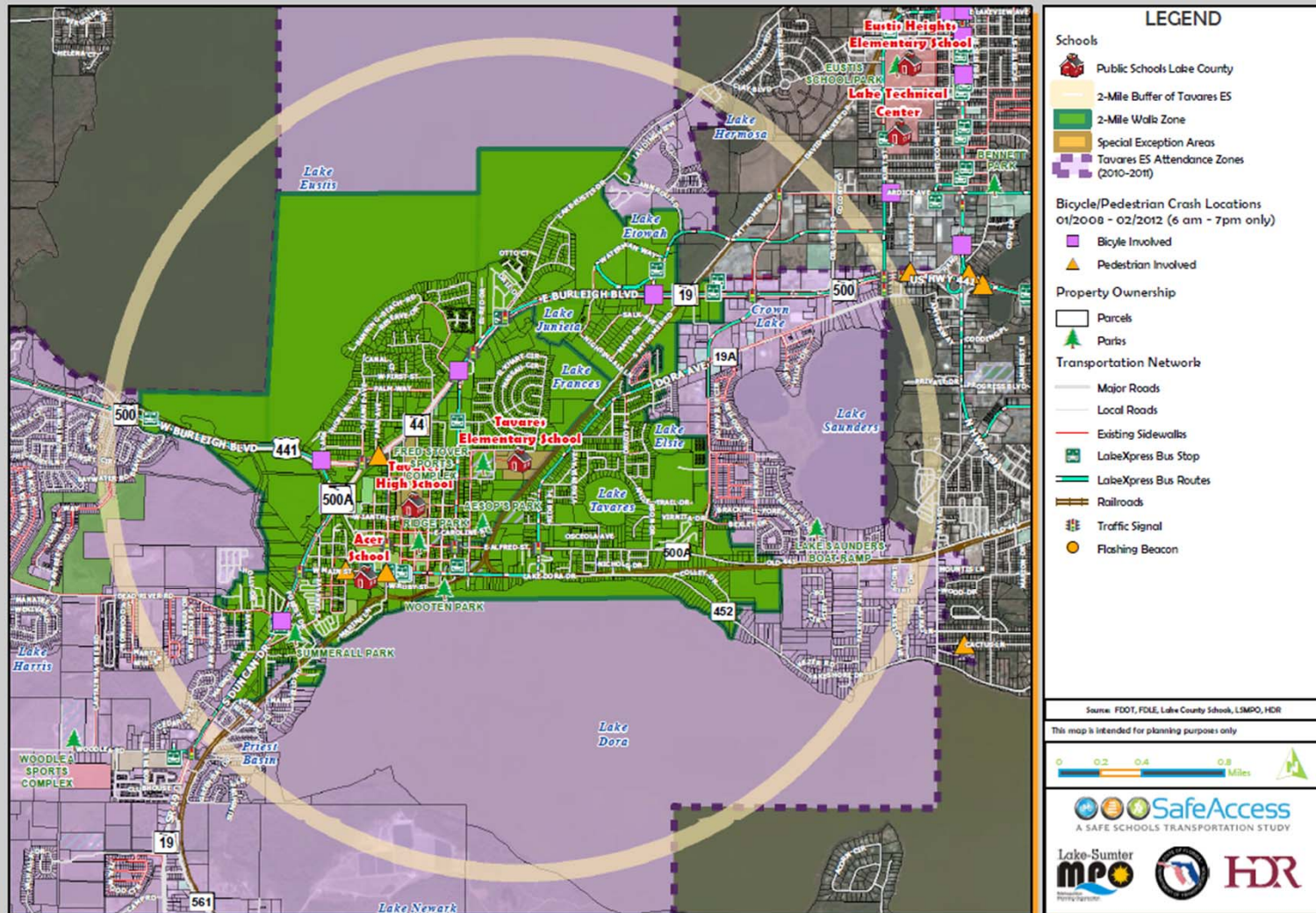
Tavares Elementary School: Student Access Location Map





# Attendance and 2-Mile "Walk" Zone Map

Tavares Elementary School: Attendance and 2-Mile "Walk" Zone Map





# Arrival and Dismissal Schedule

- 7:30 am:** ELC drop-offs start
- 8:00 – 8:35 am:** Regular student drop off;  
Breakfast served in cafeteria
- 8:20 am:** First bell rings; Students  
allowed in classrooms
- 8:35 am:** School starts; Tardy bell rings
- 3:00 pm:** Dismissal
- 4:00 pm:** School office closes



*Note: Students are released one hour early on Wednesdays*





*Afternoon Bus Staging*



*Bus Exit Pavement Damage*



*Bus Exit*

## Findings:

- ✓ 6 regular service buses and 2 ESE buses (8 total)
- ✓ Bus riders released as buses arrive
- ✓ School desires to switch bus loop and car loop but there are challenges with turn radius at existing car loop
- ✓ Buses run over edge of pavement at the current exit
- ✓ Bus operations were observed to be well-run and efficient

## Recommendation:

- ✓ Re-look at switching the car / bus loop
- ✓ Repair pavement and add shoulder at bus loop exit



## Findings:

- ✓ Car riders dismissed all together; 4 loaded at one time in PM; 5 unloaded at one time in AM
- ✓ 6 teachers assist in AM; 8 teachers assist in PM; School utilizes gates
- ✓ One of the gates is through an unpaved area and is accessed from the fire lane
- ✓ Car queue must yield to buses
- ✓ PM queue observed to go from car loop down Medford Ave, across Givens St to beyond Disston Ave
- ✓ Queue did not clear Medford Ave until after 3:20 PM

## Recommendations:

- ✓ Establish and sign car queue route on local streets
- ✓ Pave additional gate at car loop



*Afternoon Pick-up*



*PM Car Queue on Medford Ave*



*Bus Exit Through Car Queue*

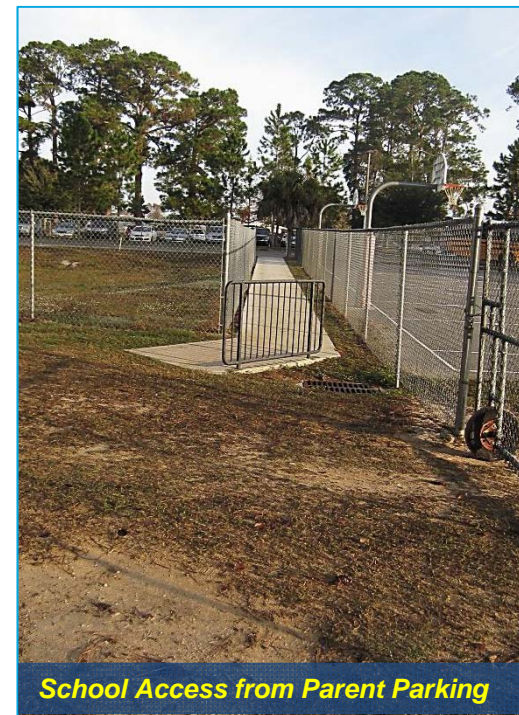


## Findings:

- ✓ Parents remote drop-off / pick-up from parent parking lot; School requires parent to walk student to / from school
- ✓ School desires parent parking lot to be paved

## Recommendations:

- ✓ Pave parent parking lot







## Findings:

- ✓ All 4 bike riders wore helmets; School provides helmets if students don't have one
- ✓ Walkers / bike riders are gathered and walked down to pedestrian gate by teacher
  - ✓ Teacher checks off student name from list to ensure all have left campus
  - ✓ Teacher will not allow students to ride bike without helmet
- ✓ School does not currently have a bicycle / pedestrian safety education program
- ✓ Schools asked City to close baseball field during school hours
  - ✓ Issues with students climbing on bleachers; Concerned about predators hiding
- ✓ City plans to extend sidewalk around ball fields
- ✓ No pedestrian features except faded crosswalk at Dora Ave / Alfred St intersection





### Findings:

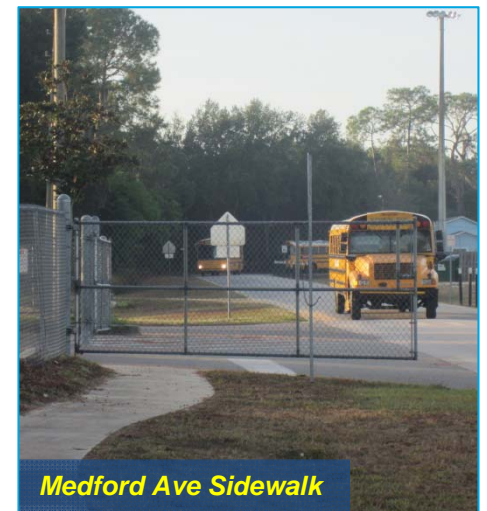
- ✓ Vehicles observed to ignore pedestrian right of way at Alfred St / New Hampshire Ave
- ✓ Sidewalk gaps present on south side of Lake Harris Dr east of SR 19
- ✓ Staff member positioned at walker gate to assist with students crossing Medford Ave
- ✓ Teacher parking lot gate blocks sidewalk
- ✓ No sidewalk on Medford Ave south of school

### Recommendations:

- ✓ Recommend crossing guards at SR 44 / St Clair Abrams Ave and Dora Ave / Alfred St intersections; Install / replace pedestrian features at these locations
- ✓ Install traffic calming features at Alfred St / New Hampshire Ave intersection
- ✓ Close sidewalk gap on Lake Harris Dr
- ✓ Upgrade bicycle parking to inverted “U” or ribbon style; Install on concrete pad
- ✓ Construct new sidewalk around ball fields and along Medford Ave south of school and Givens St to Disston Ave



**Bicycle Rack**



**Medford Ave Sidewalk**



## Findings:

- ✓ The City of Tavares is currently working on a project to convert Alfred St and Caroline St to one-way pair. This project includes streetscape, improved crossings and sidewalks on both sides of these facilities.

## Recommendation:

- ✓ Coordinate with the City on routing and traffic patterns for vehicles and pedestrians during construction.



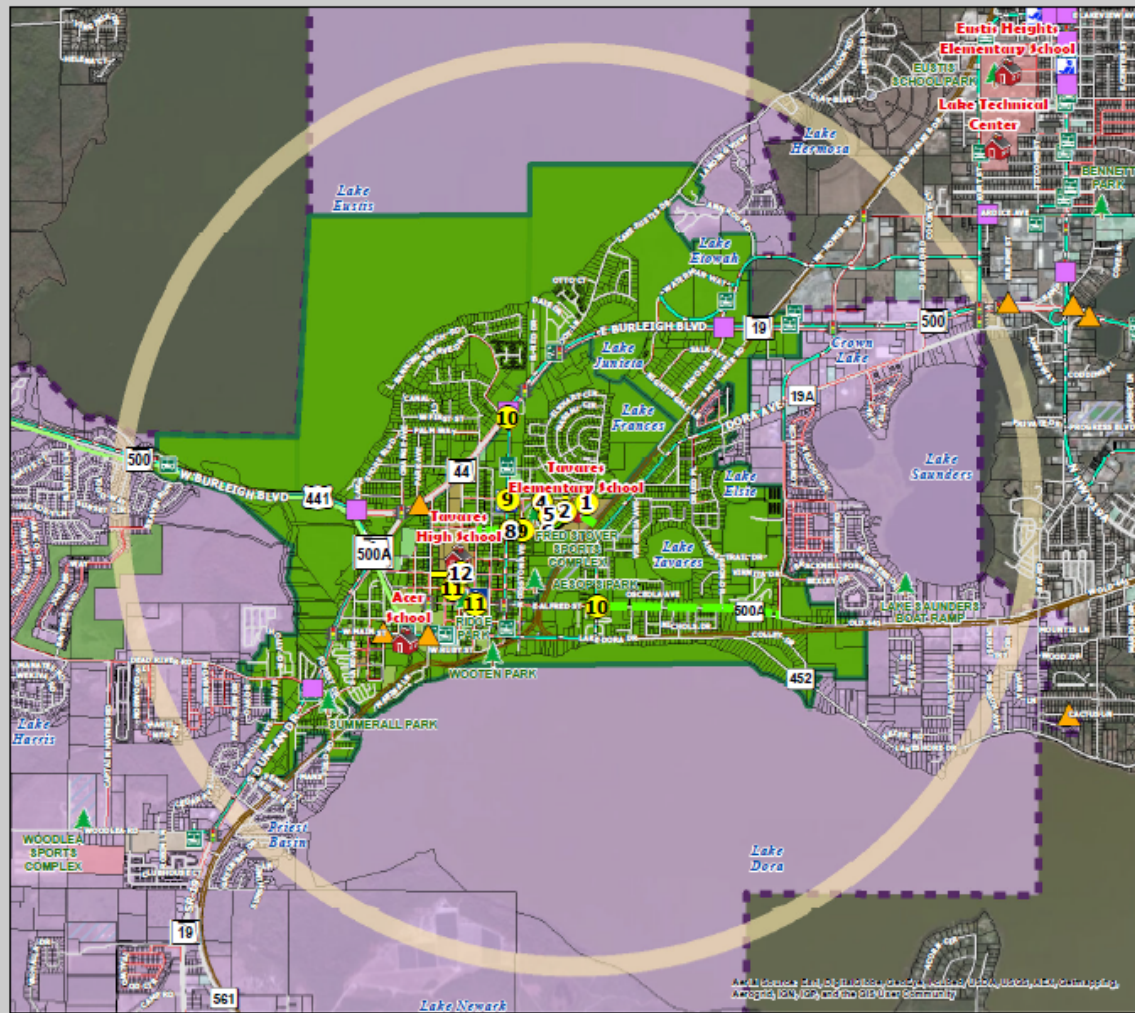






# Transportation Access Master Plan

## Tavares Elementary School: Transportation Access Master Plan



- Schools**
- Public Schools Lake County
  - Crossing Guard Locations
  - Libraries
  - 2-Mile Buffer of Tavares ES
  - 2-Mile Walk Zone
  - Special Exception Areas
  - Tavares ES Attendance Zones (2010-2011)
- Bicycle/Pedestrian Crash Locations 01/2008 - 02/2012 (6 am - 7pm only)**
- Bicycle Involved
  - Pedestrian Involved
- Property Ownership**
- Parcels
  - School Property
  - Lake County Owned Property
  - City Owned Property
  - Church Owned Property
  - Coif Owned Property
  - Parks
- Transportation Network**
- Major Roads
  - Existing Sidewalks
  - Existing Trails
  - LakeXpress Bus Routes & Stops
- Identified Improvement Projects**
- Priority Projects (by Project ID)
  - Recommended Projects

Source: FDOT, FDLE, Lake County Schools, LMPD, HDR

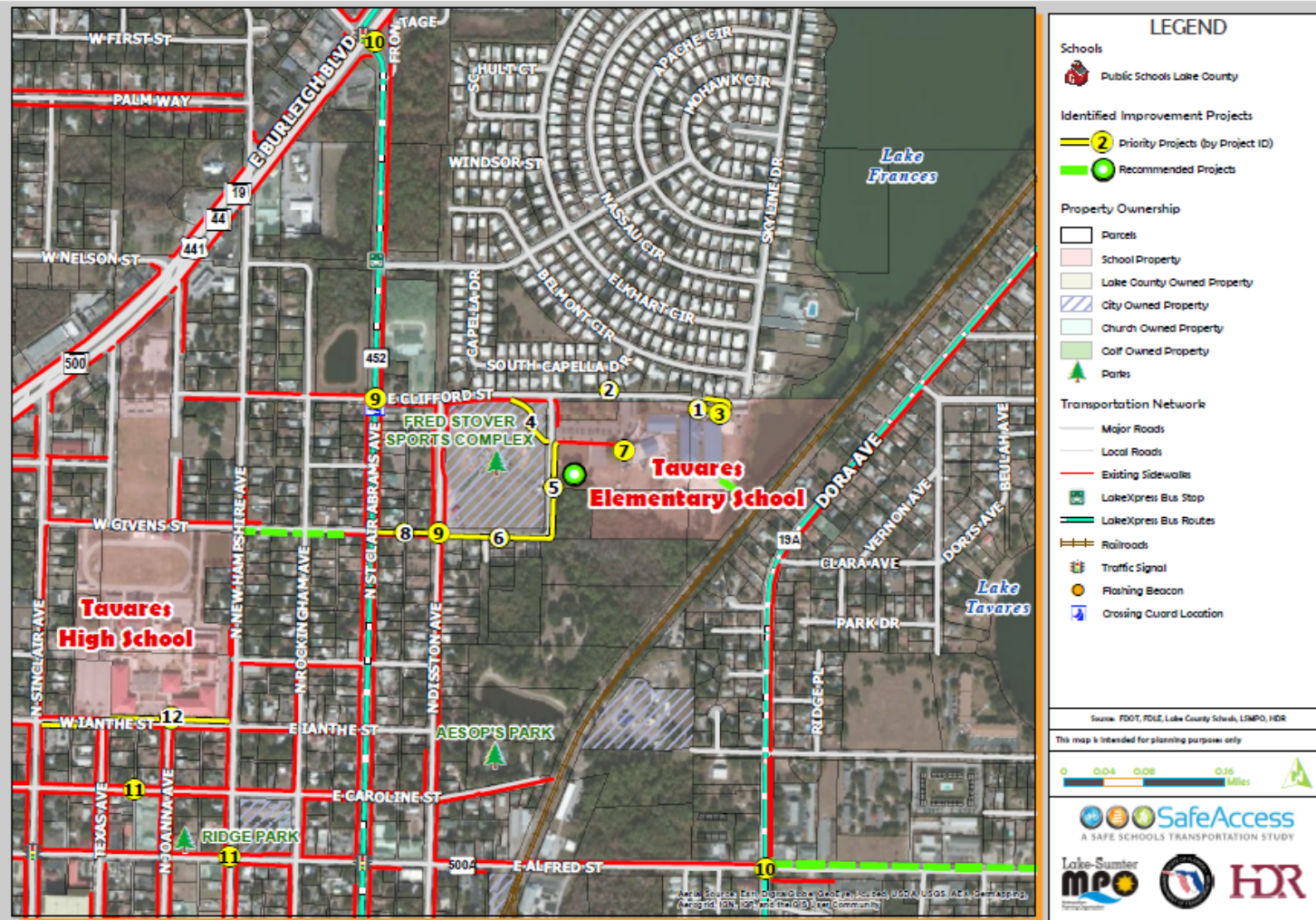
This map is intended for planning purposes only



All data sources are subject to change without notice. The information on this map is for informational purposes only and does not constitute a contract or warranty of any kind.



## Tavares Elementary School: Priority Projects







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## Tavares Elementary School

# Recommended Priority Projects



### Recommendations:

1. Look at swapping bus / car loops
2. Add pavement to bus loop exit
3. Pave additional car loop gate
4. Add sidewalk on north Medford Ave
5. Add sidewalk on south Medford Ave
6. Add sidewalk on Givens St
7. Improve bicycle parking
8. Establish car queue west of Disston Ave; Add crosswalk signage at St Clair Abrams Ave / Givens St
9. Add crosswalks at Disston Ave / Givens St; Add crosswalks at St Clair Abrams Ave / Clifford St
10. Add pedestrian features / crossing guard at Alfred St / Dora Ave and SR 44 / St Clair Abrams Ave



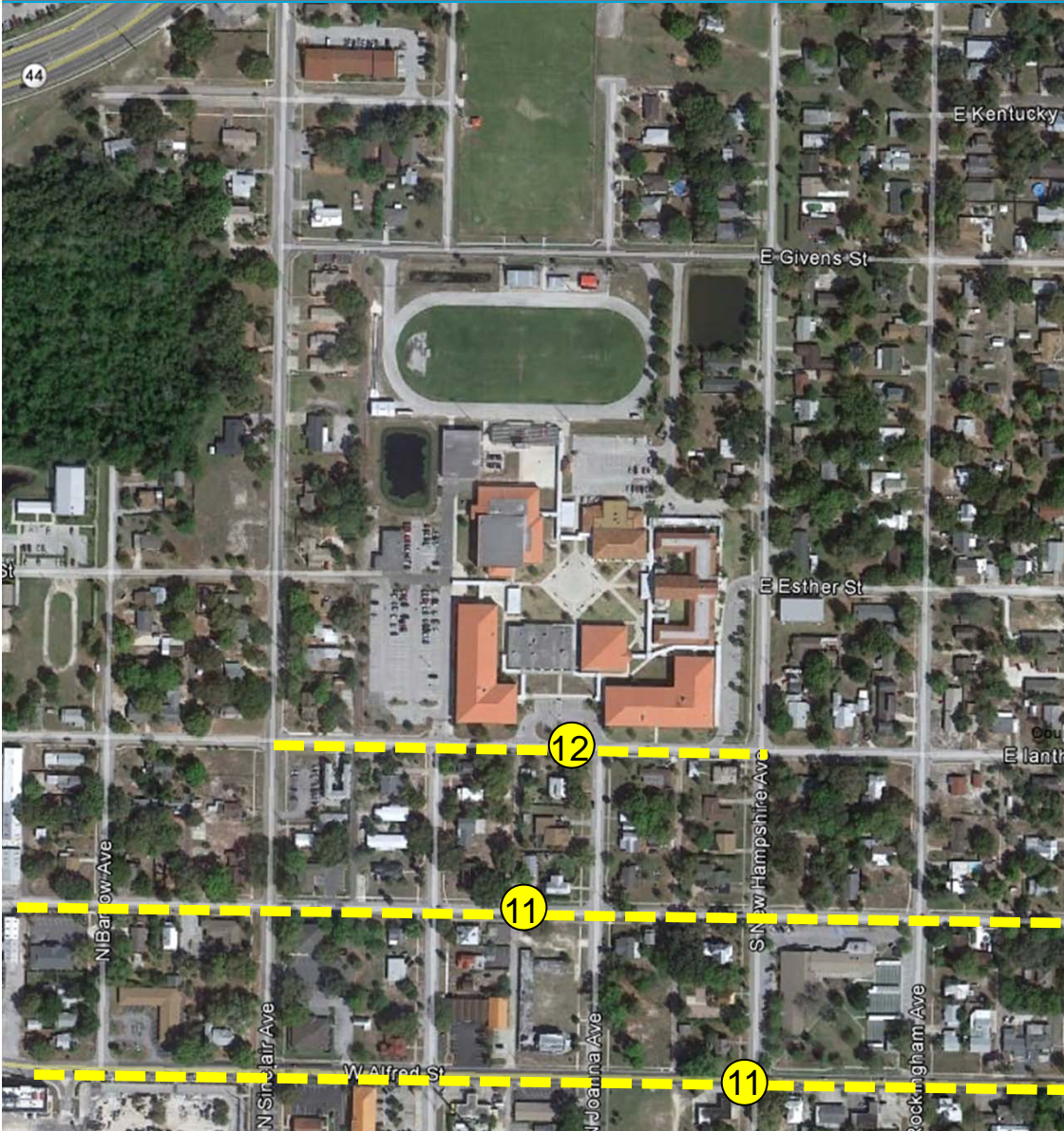


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**Tavares Elementary School**

# Recommended Priority Projects



## Recommendations:

11. Pedestrian signs for Alfred St / Caroline St one-way pair project and yield enforcement on Alfred St at New Hampshire Ave
12. Add / repair sidewalk on lanthe St



# Recommended Project List

Project Number	Roadway	Location	Project
1		At School	Re-look at swapping bus and car loops
2	Clifford St	At Bus Exit	Add pavement on north side of Clifford St
3	Car Loop	At School	Pave access to additional car loop gate
4	Medford Ave	Bus Loop Crosswalk to Clifford St	Add sidewalk on west side around ball field; Repaint midblock crosswalk
5	Medford Ave	Givens to Bus Loop	Add sidewalk on east side
6	Givens St	Medford Ave to Disston Ave	Add sidewalk on south side
7	Bicycle Rack	At School	Upgrade bicycle rack; Install concrete pad
8	Givens St	West of Disston Ave	Establish and sign car queue on local streets west of Disston Ave
	St Clair Abrams Ave	At Givens St	Add signage for existing crosswalk



## Tavares Elementary School

Project Number	Roadway	Location	Project
8	Givens St	West of Disston Ave	Establish and sign car queue on local streets west of Disston Ave
	St Clair Abrams Ave	At Givens St	Add signage for existing crosswalk
*9	Disston Ave	At Givens St	Add crosswalks
	St Clair Abrams Ave	At Clifford St	Add crosswalk on west approach and move stopbar
*10	Alfred St	At Dora Ave	Add pedestrian features to signal; Repaint / add crosswalks; Recommended crossing guard location
	SR 44	St Clair Abrams Ave	Repaint / add crosswalks; Install "pork chops" in right turn lanes; Recommended crossing guard location
*11	One-way pair	Alfred St and Caroline St	Ensure appropriate signage is included for crosswalks
*12	Ianthe St	Sinclair Ave to Texas Ave	Repair / Maintain Sidewalk, Fill Sidewalk Gap (south side)
	Ianthe St	New Hampshire Ave to Texas Ave	Add Sidewalk (north side)

\* Project also benefits Tavares High School

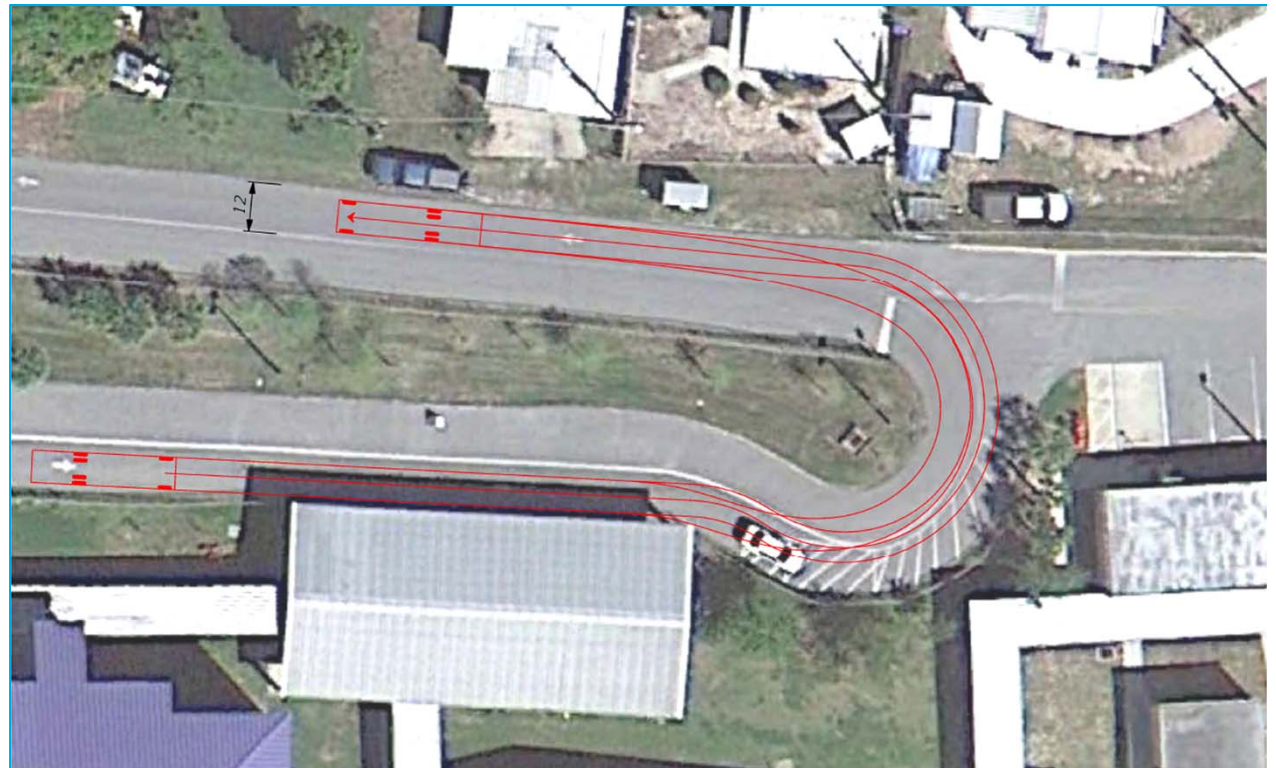


### Findings:

- ✓ Used Microstation Autoturn 8.0 to analyze bus ability to make necessary turns at existing car loop
- ✓ Used turning radius of a 2011 AASHTO 5-Bus-36
- ✓ Bus would need to make slight right turn when starting departure and would require use of right outbound lane
- ✓ Buses could only exit from right lane, they would have to exit in single file
- ✓ Buses would have to track into striped fire lane to exit

### Recommendation:

- ✓ Generally not preferred option
- ✓ If implemented have bus drivers practice driving the loop using the fire lane before school starts







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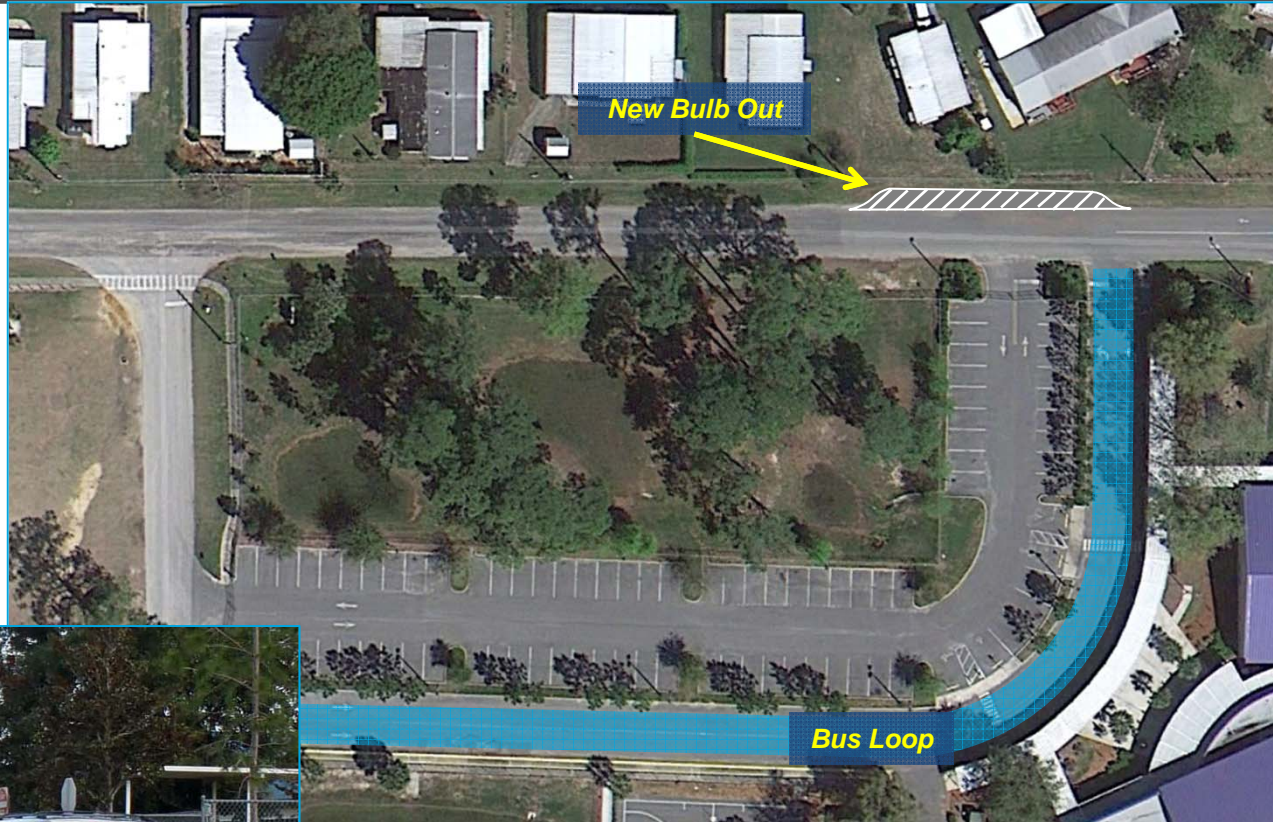
## Tavares Elementary School

# Recommended Project #2

## Improve Bus Loop Exit

### Findings:

- ✓ Cars in the car loop do not block bus exit, but do force buses to turn 'wide' to avoid potential collision with waiting cars in queue
- ✓ When exiting the buses are overrunning the existing edge of pavement, in part due to the cars queued for the car loop



### Recommendation:

- ✓ Extend pavement at bus exit
- ✓ Install pavement markings on new bulb out to disallow parking





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Tavares Elementary School

# Recommended Project #3

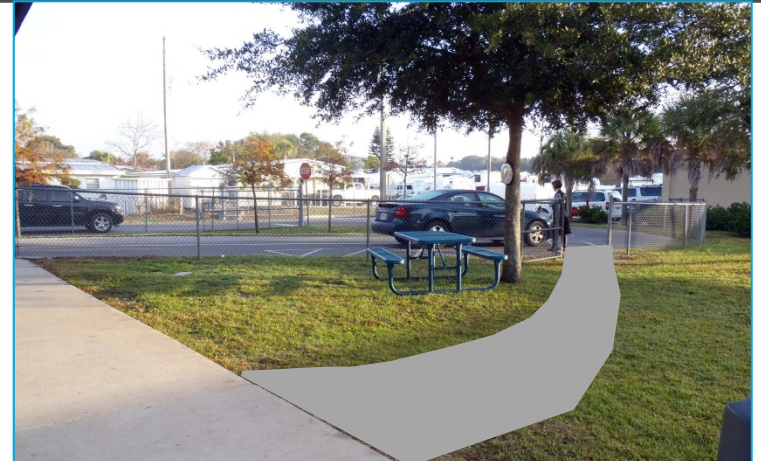
## Pave Access to Additional Car Loop Gate

### Findings:

- ✓ The eastern most gate at the drop-off / pick-up area is not paved on the school side and is accessed via the fire lane

### Recommendation:

- ✓ Provide a sidewalk from the existing paved area to the gate



Add Sidewalk to Connect to Gate



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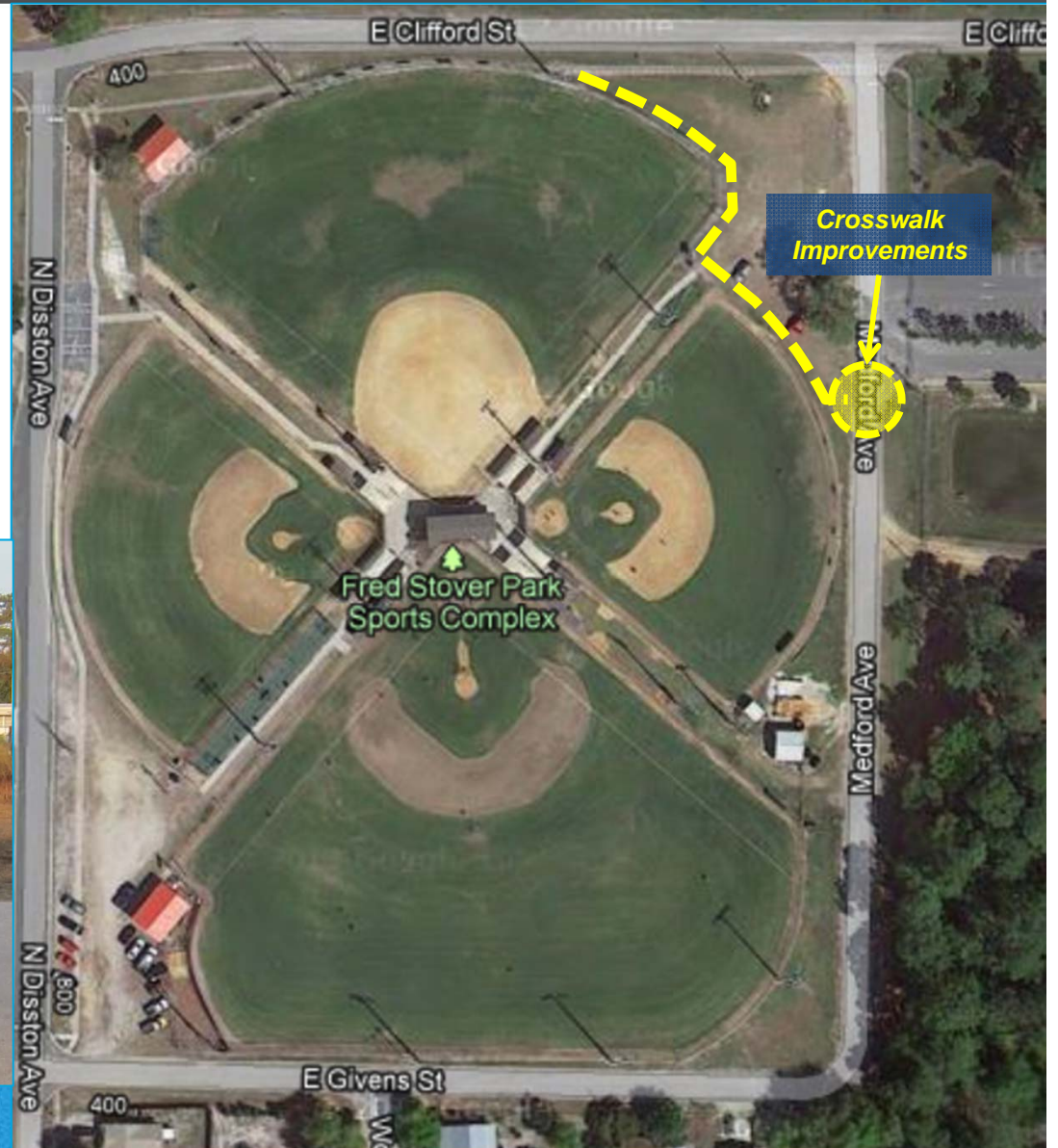
## Tavares Elementary School

# Recommended Project #4

## New Medford Avenue Sidewalk

### Recommendation:

- ✓ Add sidewalk around ball field from Clifford St sidewalk to mid-block crossing at bus loop entrance
  - ✓ Preferred sidewalk width 8'
  - ✓ Repaint Medford Ave crosswalk; Install pavement markings and signage







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## Tavares Elementary School

# Recommended Project #5

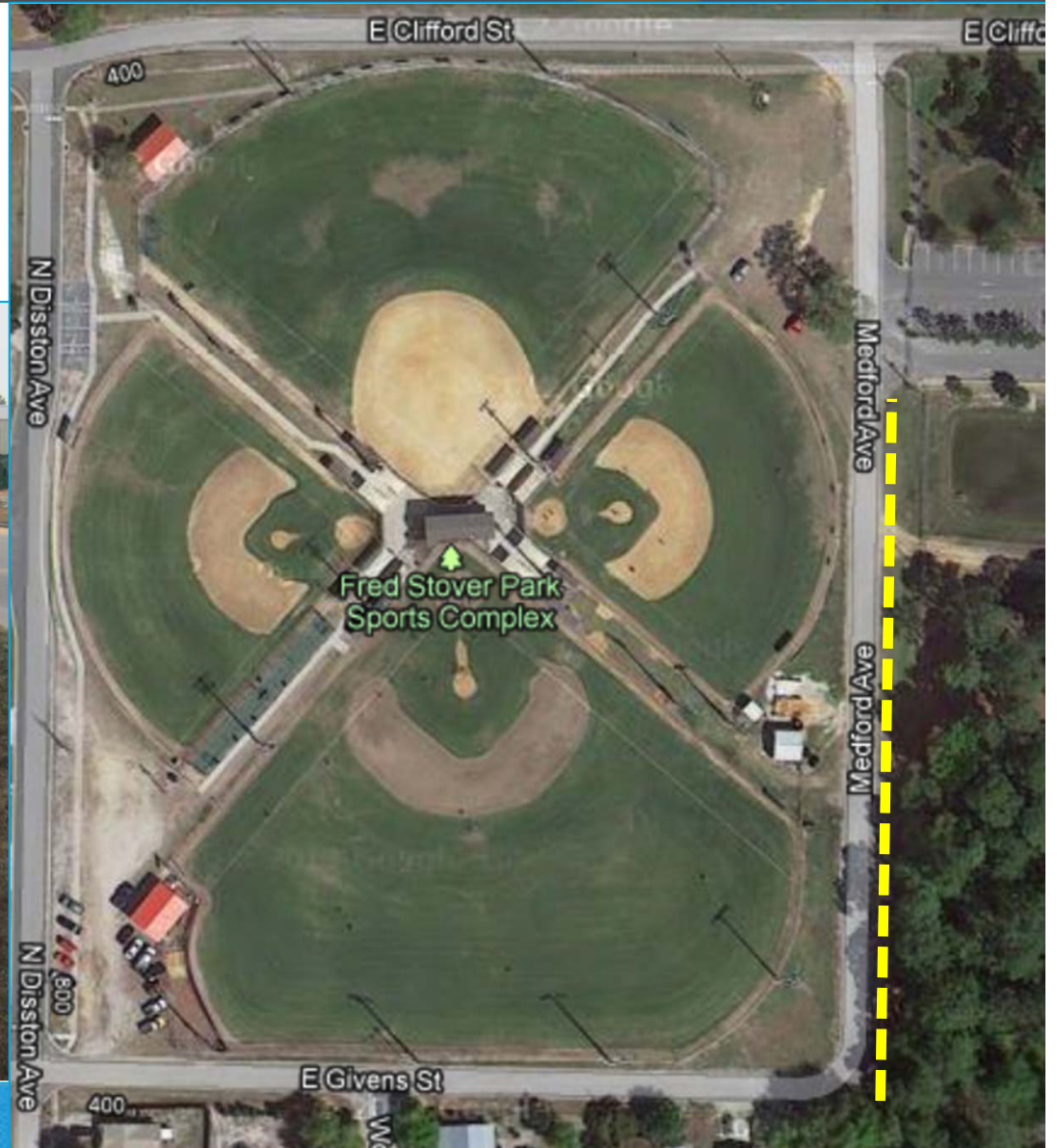
## New Medford Avenue Sidewalk

### Recommendation:

- ✓ Add sidewalk on east side of Medford Ave from bus loop to Givens St
- ✓ Preferred sidewalk width 8'



East Side of Medford Ave Facing South







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## Tavares Elementary School

# Recommended Project #6

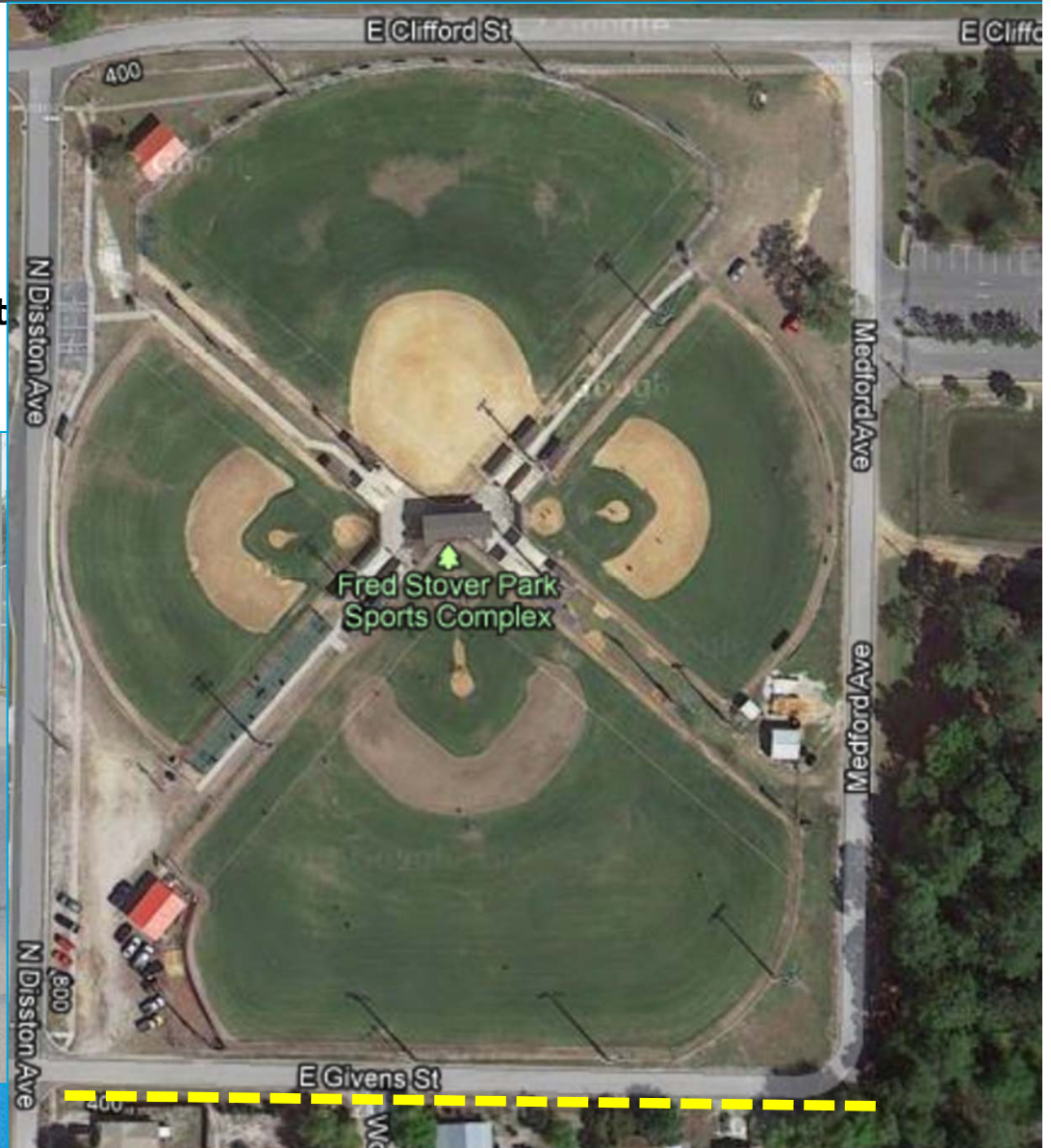
## New Givens St Sidewalk

### Recommendation:

- ✓ Add sidewalk on south side of Givens St from Disston Ave to Medford Ave
  - ✓ Minimum sidewalk width 5'
  - ✓ Not enough ROW on north side without moving outfield fence (preferred)



South Side of Givens St Facing East





# Recommended Project #7

## Upgrade Bicycle Parking

### Recommendation:

- ✓ Upgrade bicycle rack to inverted “U” or ribbon style
- ✓ Place bicycle rack on concrete pad with paved access
- ✓ Install bike cage and cover

\*note: Over time UV radiation from the sun will break down the protective elements in bicycle helmets (styrene, etc). Students should be encouraged to bring helmets inside until covered storage is available.



*Pine Ridge ES Example of Ribbon Racks*



*Current Bicycle Rack*





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Tavares Elementary School

# Recommended Project #8

## Install Car Queue Signage on Local Roads



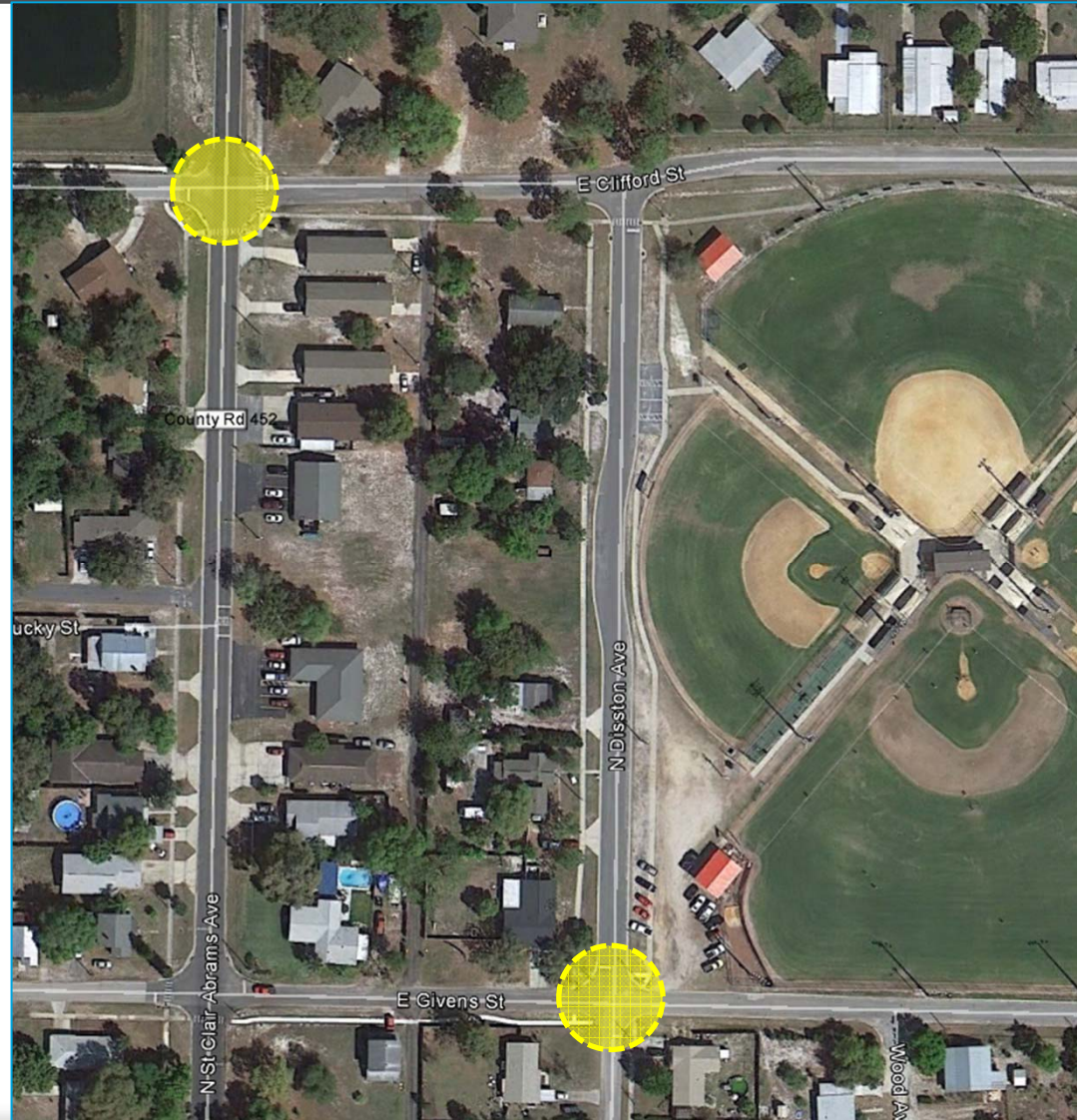
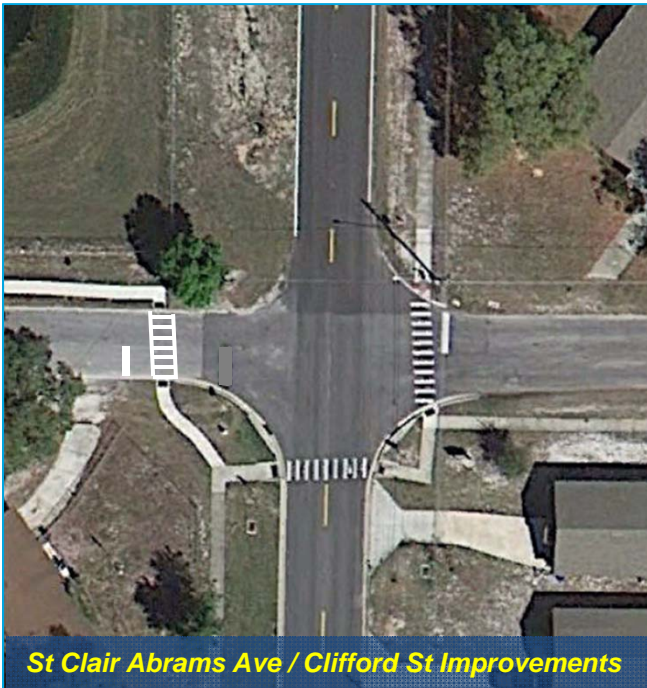
### Recommendation:

- ✓ Install signage west of Disston St establishing designated car queue route
  - ✓ Include expanded route in student handbook
- ✓ Install signage for existing crosswalks at St Clair Abrams Ave / Givens St intersection



### Recommendation:

- ✓ Add crosswalks and pedestrian signage at the following intersections:
  - ✓ Disston Ave / Givens St
  - ✓ Western approach of St Clair Abrams Ave / Clifford St; Move Stop Bar







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## Tavares Elementary School

# Recommended Project #10

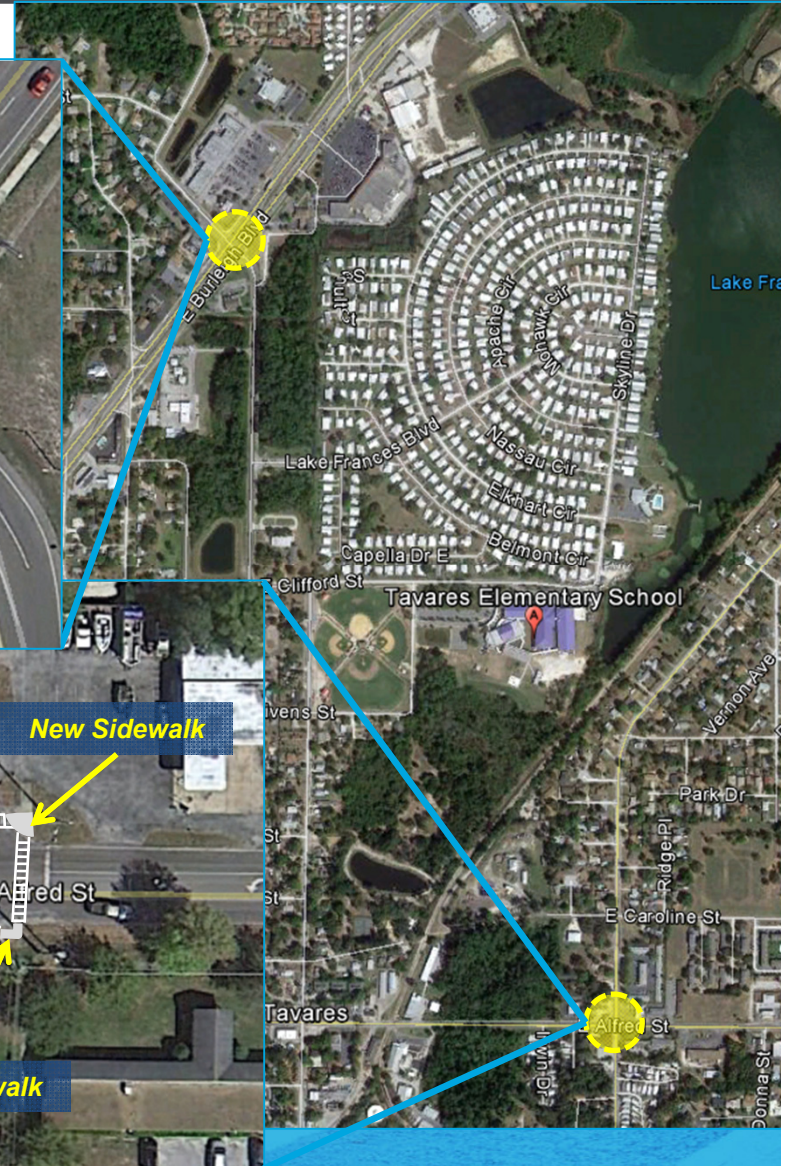
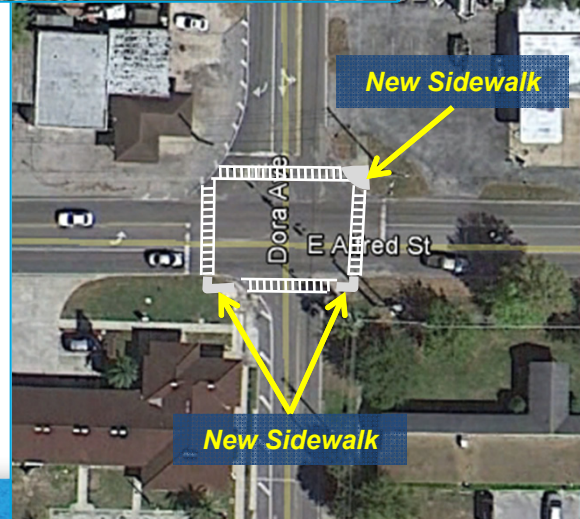
## New Crossing Guards and Intersection Improvements

### Recommendations:

- ✓ Recommend crossing guards to be located at SR 44 / St Clair Abrams Ave and Dora Ave / Alfred St intersections
- ✓ Install / replace crosswalks using high-visibility ladder style
- ✓ Install / replace detectable warning mats
- ✓ Install concrete islands (“pork chops”) at SR 44 / St Clair Abrams Ave to serve as pedestrian refuge

Install sidewalk connections at Dora Ave / Alfred St

Note: The ‘pork chop’ islands in the photos above are illustrative and conceptual in nature. The recommended islands should be designed to have a minimal deflection channelized right turn that provides the pedestrian refuge but forces the driver to stop/yield to approaching traffic from the left to limit the potential for side swipe crashes.





# Recommended Project #11

## Pedestrian Signage and Yield Enforcement at Crosswalks

### Findings:

- ✓ Current vehicular traffic on Alfred St does not yield to pedestrians at the crosswalk at New Hampshire Ave
- ✓ Current crossings will be improved with the Alfred St / Caroline St project

### Recommendations:

- ✓ Include yield to pedestrian signs with the Alfred St / Caroline St project
- ✓ Request enforcement assistance from Tavares Police if issue persists







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## Tavares Elementary School

# Recommended Project #12

Add / Repair Ianthe Street Sidewalk

### Recommendations:

- ✓ Repair / maintain sidewalk on south side from Sinclair Ave to New Hampshire Ave
- ✓ Add sidewalk on north side from New Hampshire Ave to Texas Ave





Priority #	Item	Quantity	Units	Total
3	Sidewalk	32	ft	\$23,800.00
4	Sidewalk	355	ft	\$65,500.00
4	Crosswalk	20	ft	\$45.00
4	Crossing Signage	4	Signs	\$1,200.00
5	Sidewalk	500	ft	\$85,400.00
6	Sidewalk	590	ft	\$69,200.00
8	Signage	5	Signs	\$1,500.00
9	Crosswalk	128	ft	\$286.00
9	Stop Bar	11	ft	\$43.00
9	Crossing Signage	4	Signs	\$1,200.00
9	Queue Signage	1	Signs	\$300.00

### ESTIMATE BASIS AND ASSUMPTIONS:

- Sidewalk estimates based on estimating tool developed for Phase 1, Estimates for all other improvements based on Unit Costs per FDOT Lake County (Area 7) averages (07/2011 - 06/2012).
- Estimate does not include design costs, CEI costs, or utility relocation costs, utility relocation assumed by others.
- The mobilization costs are based on 15% of the construction cost and estimates include maintenance of traffic costs (15% of construction costs).
- Regular excavation & embankment to 1 ft depth is assumed
- No R/W costs included
- No specialized landscaping (beyond sodding) is included.
- Sidewalk is assumed to be 5 feet wide, unit given is in linear feet.



Priority #	Item	Quantity	Units	Total
10	Crosswalk	574	ft	\$1,281.00
10	Ramps	3	Ramps	\$1,710.00
10	Detector Mats	17	Mats	\$5,950.00
10	Island-Southern	1	Island	\$27,200.00
10	Island-Eastern	1	Island	\$24,200.00
10	Island-Northern	1	Island	\$27,700.00
10	Crossing Signage	11	Signs	\$3,300.00
12	Sidewalk	590	ft	\$59,600.00
12	Crosswalk	127	ft	\$284.00

### ESTIMATE BASIS AND ASSUMPTIONS:

- Sidewalk estimates based on estimating tool developed for Phase 1, Estimates for all other improvements based on Unit Costs per FDOT Lake County (Area 7) averages (07/2011 - 06/2012).
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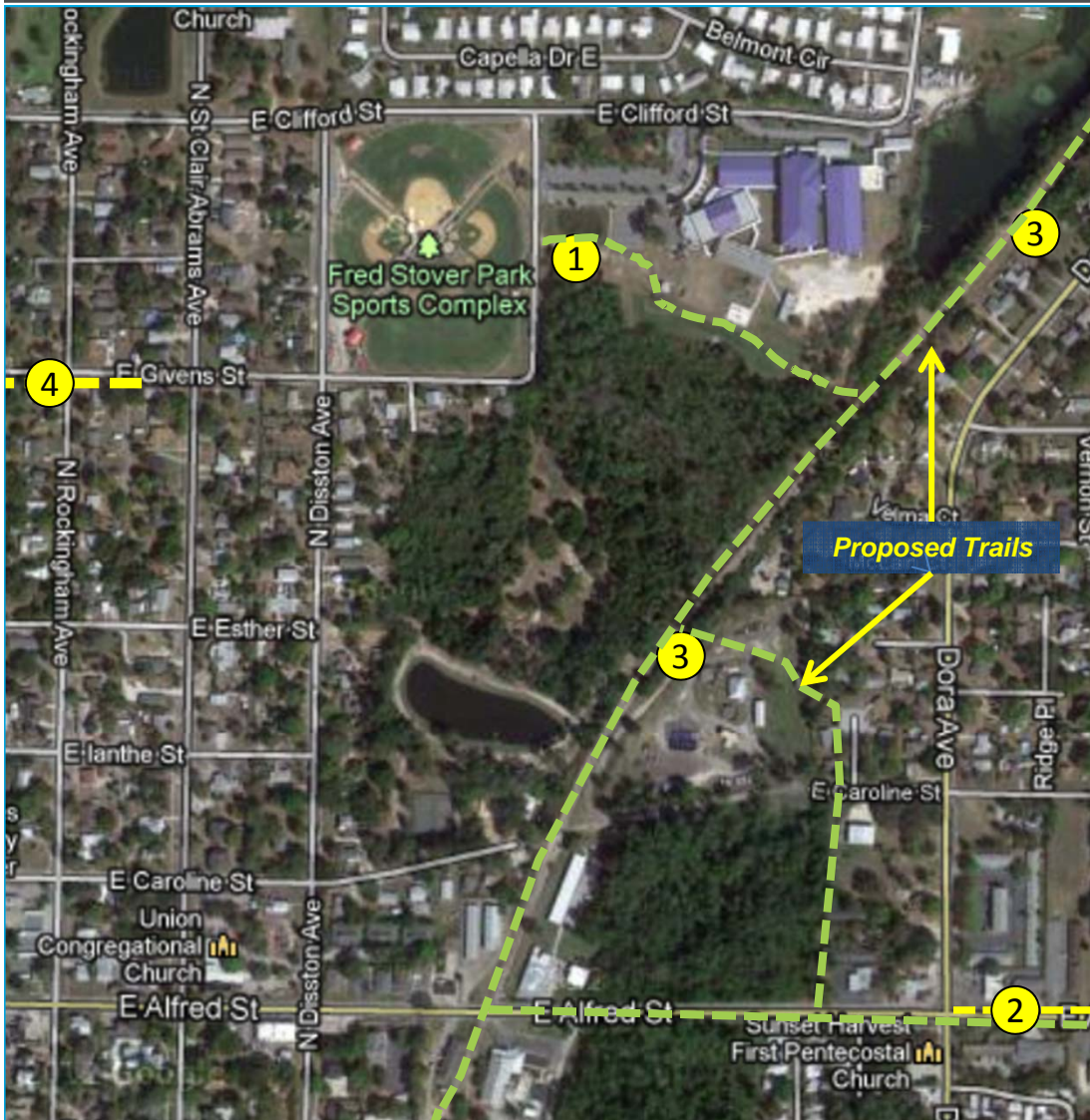
Roadway	From/To	Project
Parent Parking Lot		Pave parking lot
Alfred St	Dora Ave to David Walker Dr	Add sidewalk on north side
Proposed Trail	At school	Add connections from school to proposed trail alignment
Givens St	New Hampshire Ave to West of St Clair Abrams	Add sidewalk and crosswalks on south side





## Tavares Elementary School

# Other Projects



### Recommendations:

1. Parent Parking Lot
2. Add sidewalk on north side of Alfred St from Dora Ave to David Walker Dr
3. Add connections from neighborhoods east of school to proposed trail alignment
4. Add sidewalk and crosswalks on south side of Givens St from New Hampshire Ave to west of St Clair Abrams



### Recommendations:

- ✓ Pave parking lot
  - ✓ Approximately 24 spaces
- ✓ Install signage and pavement markings to establish traffic flow pattern
- ✓ Construct sidewalk on north and east ends of the parking lot
- ✓ Relocate / provide access gate on east side of parking lot
  - ✓ Driveway curb required in sidewalk to allow access through gate







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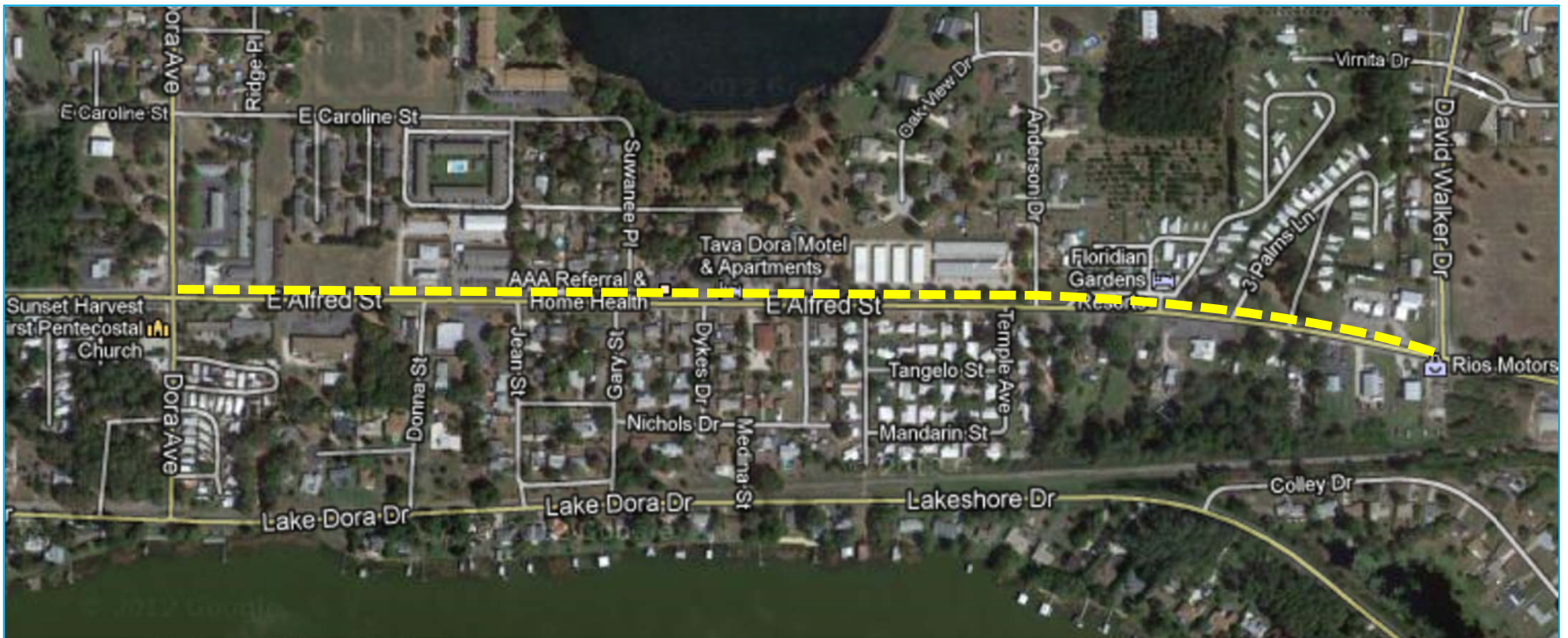
Tavares Elementary School

# Other Improvement

## Alfred Street Sidewalk

### Recommendations:

- ✓ Construct sidewalk on north side of Alfred St from Dora Ave to David Walker Dr

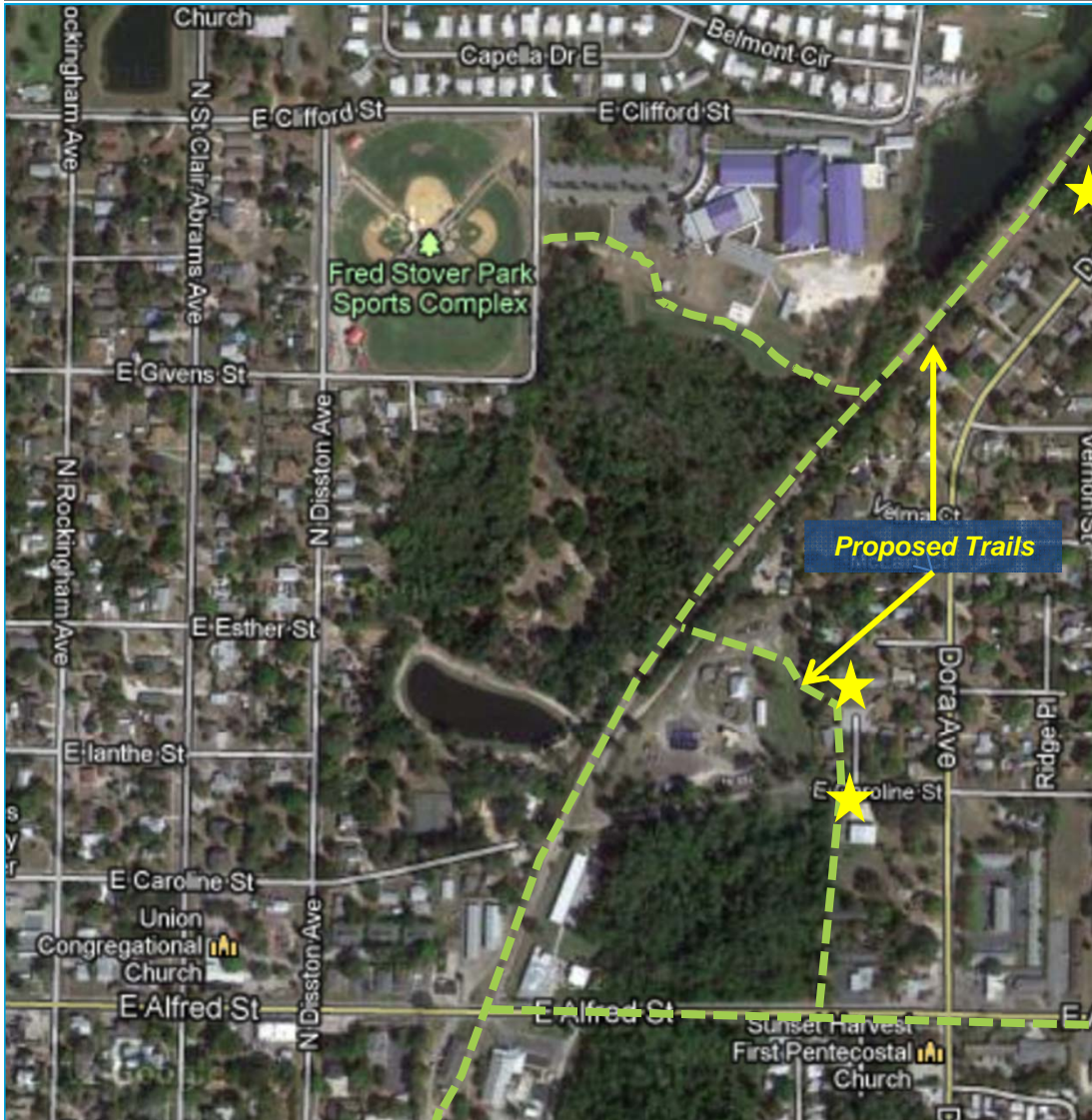




## Tavares Elementary School

# Other Improvement

## Connections to proposed trail



### Recommendations:

- ✓ When proposed trail is built along existing rail line, connections to the school / Fred Stover Park Sports Complex should be included as proposed
- ✓ Neighborhoods east of the proposed trail should also have connections to allow students in these areas to walk / bike to the school via the trail



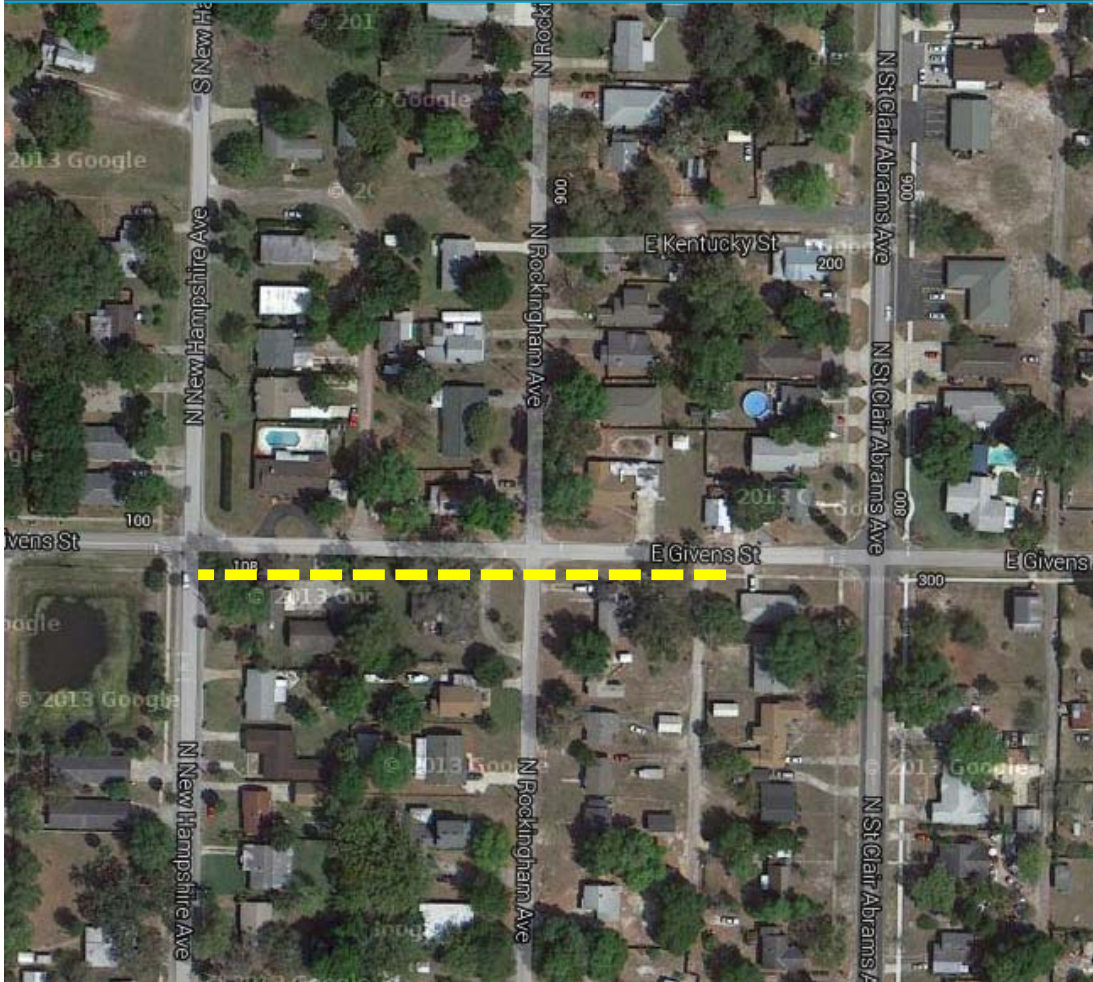


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## Tavares Elementary School

# Other Improvement

## Givens Street Sidewalk



### Recommendations:

- ✓ Construct sidewalk on south side of Givens St from New Hampshire Ave to the existing sidewalk west of St Clair Abrams
- ✓ Include crosswalks at New Hampshire Ave and Rockingham Ave





Tavares Elementary School

## Contact Information

This website represents an ongoing commitment to increase safe access to schools within the Lake~Sumter Metropolitan Planning Organization Planning Area.

Updates to data, and suggestions for programming and project ideas are welcome from all agencies and the general public.

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*Promoting Regional  
Transportation Partnerships*