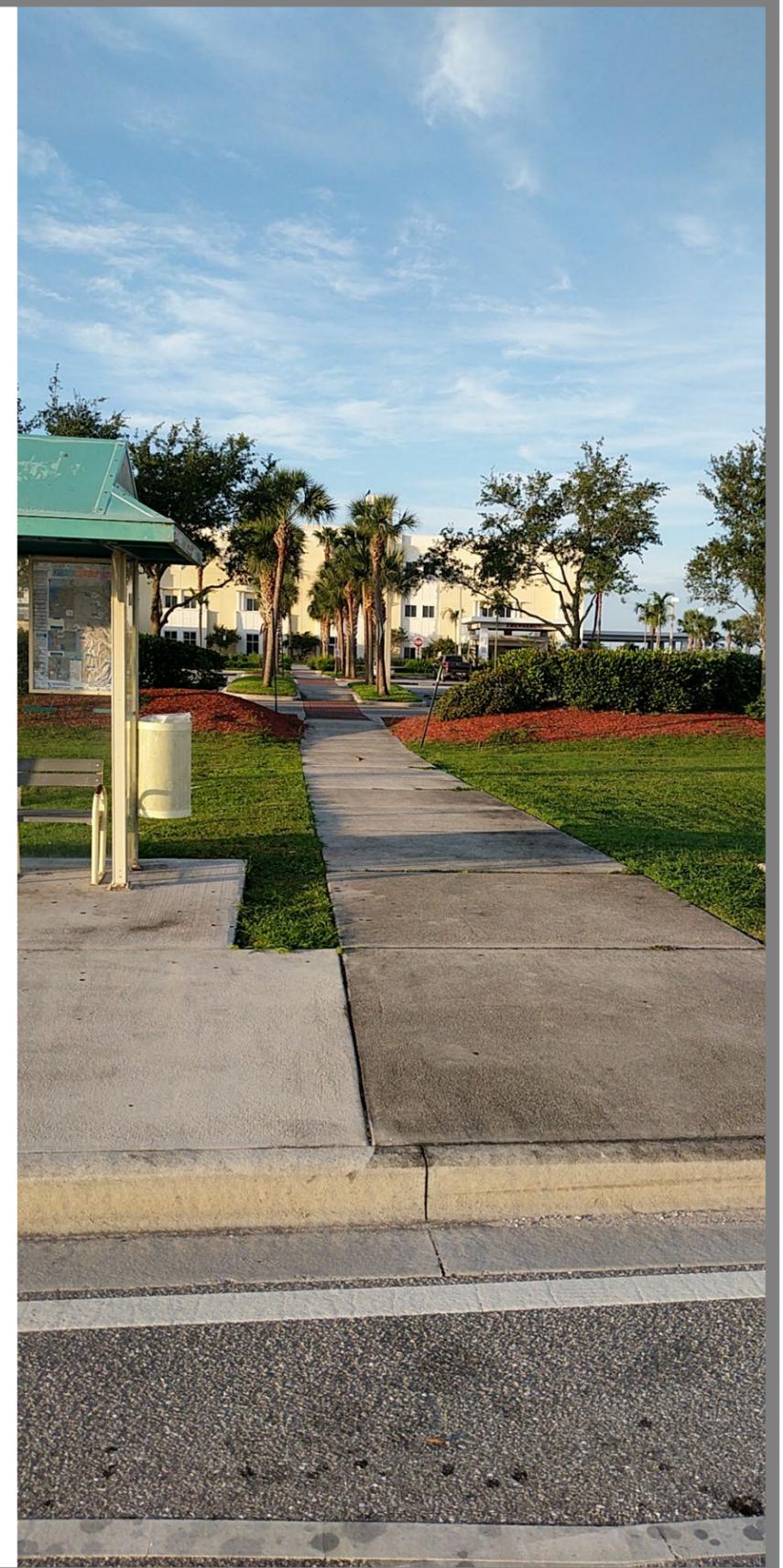




PALM BEACH
Transportation
Planning Agency

Transit Access Plan

SR-15 at Hooker Highway
Belle Glade, FL
2019



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Location Overview

SR-15 at Hooker Highway was selected by the Palm Beach Transportation Planning Agency (TPA) to conduct a transit access evaluation due to the high ridership Palm Tran bus stop located at the West County Jail, with a monthly average of 12,985 riders. The evaluation included a field visit with key stakeholders, including representatives from Palm Tran, Palm Beach County, Florida Department of Transportation and the City of Belle Glade that identified safety and transit accessibility concerns and potential countermeasures. In order to create a safe, efficient and connected transportation system, we must provide safe access to transit for users of all ages and abilities.

The follow pages include key findings with recommendations and cost estimates, including street planviews. Next steps will be to meet with key stakeholders and Right-of-Way (ROW) owners to discuss implementation of the proposed recommendations.

Overall Recommendations:

1. ADA compliant curb ramps
2. Pedestrian- level lighting
3. Signage along the route to indicate bicycle lanes and routes
4. Bringing bus stops to ADA compliance (level with landing pad of 5'X 8' or greater)
5. Making intersection crosswalks high emphasis with countdowns

Priorities on SR-15:

1. Add a buffered bicycle lane with bright green paint at conflict points to accommodate the local residents that rely on public transit, but need bicycle access to the stops
2. Add a signalized midblock crosswalk to allow those Palm Tran users to safely and conveniently get to the bus stops
3. Add bus bays to allow traffic to continue to move while boarding and alighting.
4. Add a 10-foot shared use path adjacent to northbound SR-15 to allow riders to safely walk to the bus stop as well as allow wheelchair users to access the stops.
5. Add bus shelters to offer shade where shade is lacking as well as protection from the elements.

Location:
 SR-80 at Hooker Highway
 Belle Glade, Florida
 Palm Tran Stop: 3253

Legend:

-  Top Ridership Stop
-  Existing Bicycle Facilities
-  No Bicycle Facilities
-  Existing Sidewalks
-  No Sidewalks
-  Study Area

Background:

Roadway Owner(s): *FDOT*

Municipality: *Palm Beach County*

Speed Limit: *SR-75 - 35 MPH*

SR-80/ Hooker Hwy - 45 MPH

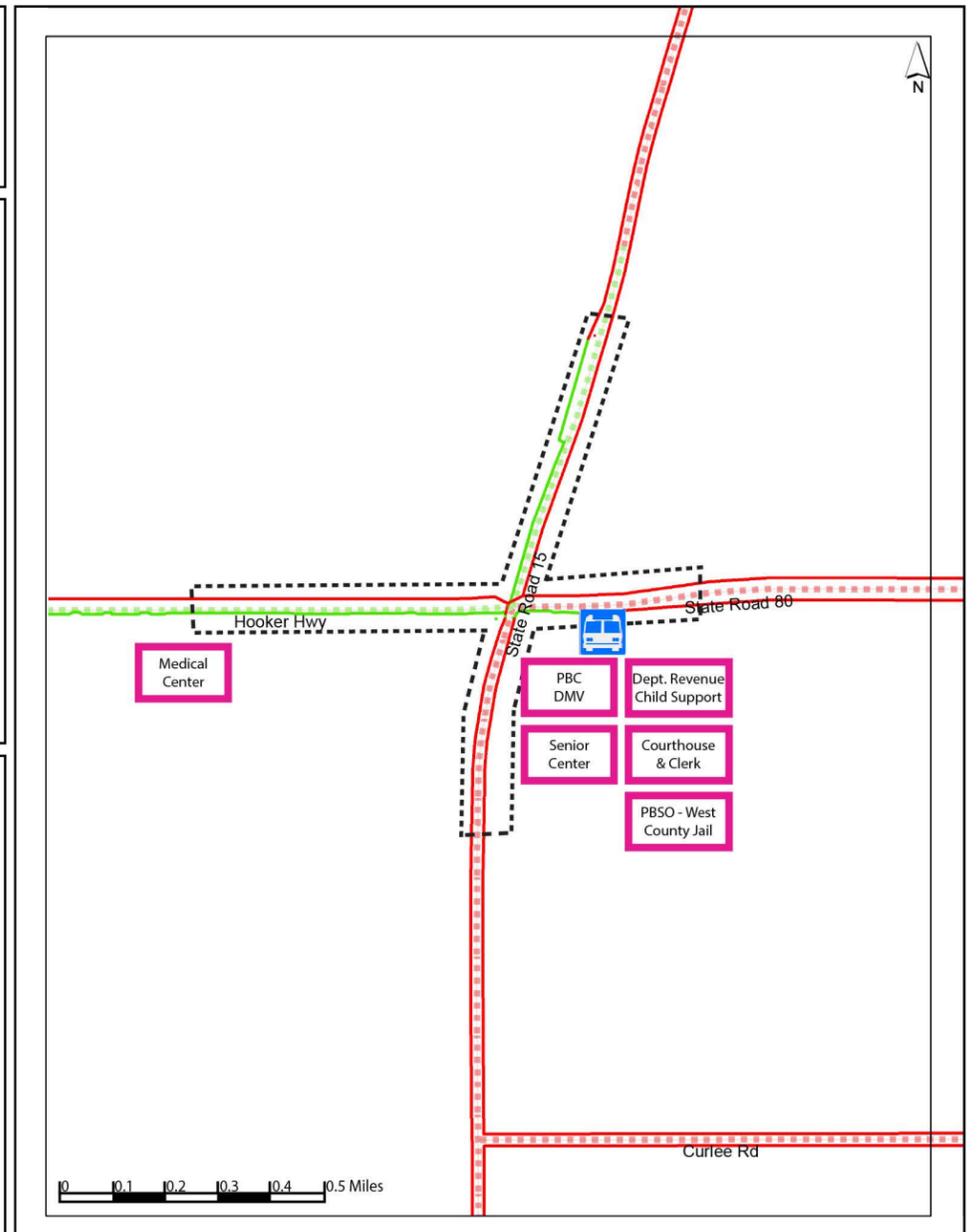
ROW Width: *220 ft*

TPA Design Guidelines: *Rural*

FDOT Context: *C3C - Suburban Commercial*

2040 Peak Traffic Volume: *13,165 vphpd*

Bus Route(s): *47*

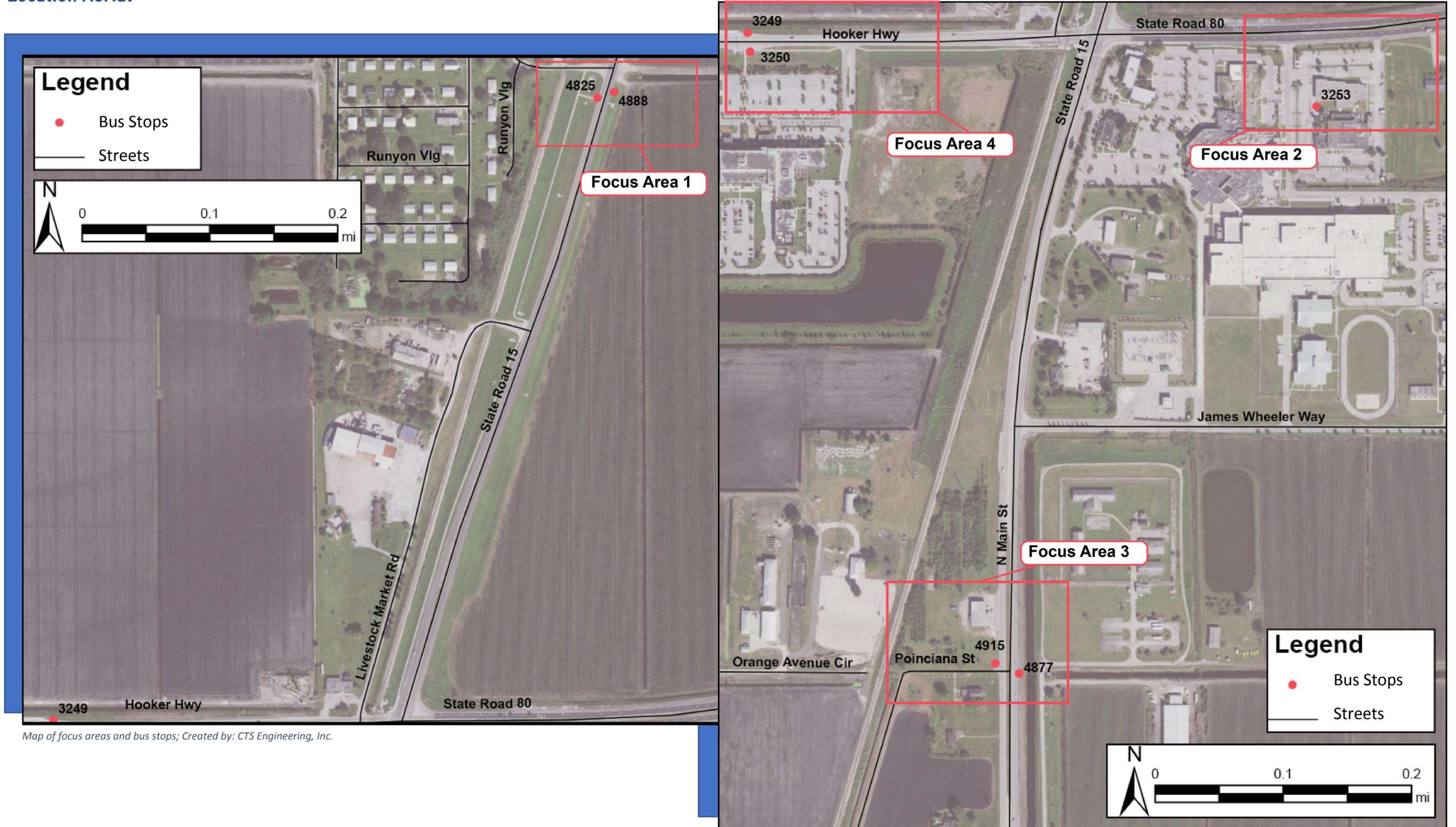


Road conditions along the Belle Glade corridor; Photo by: CTS Engineering, Inc.



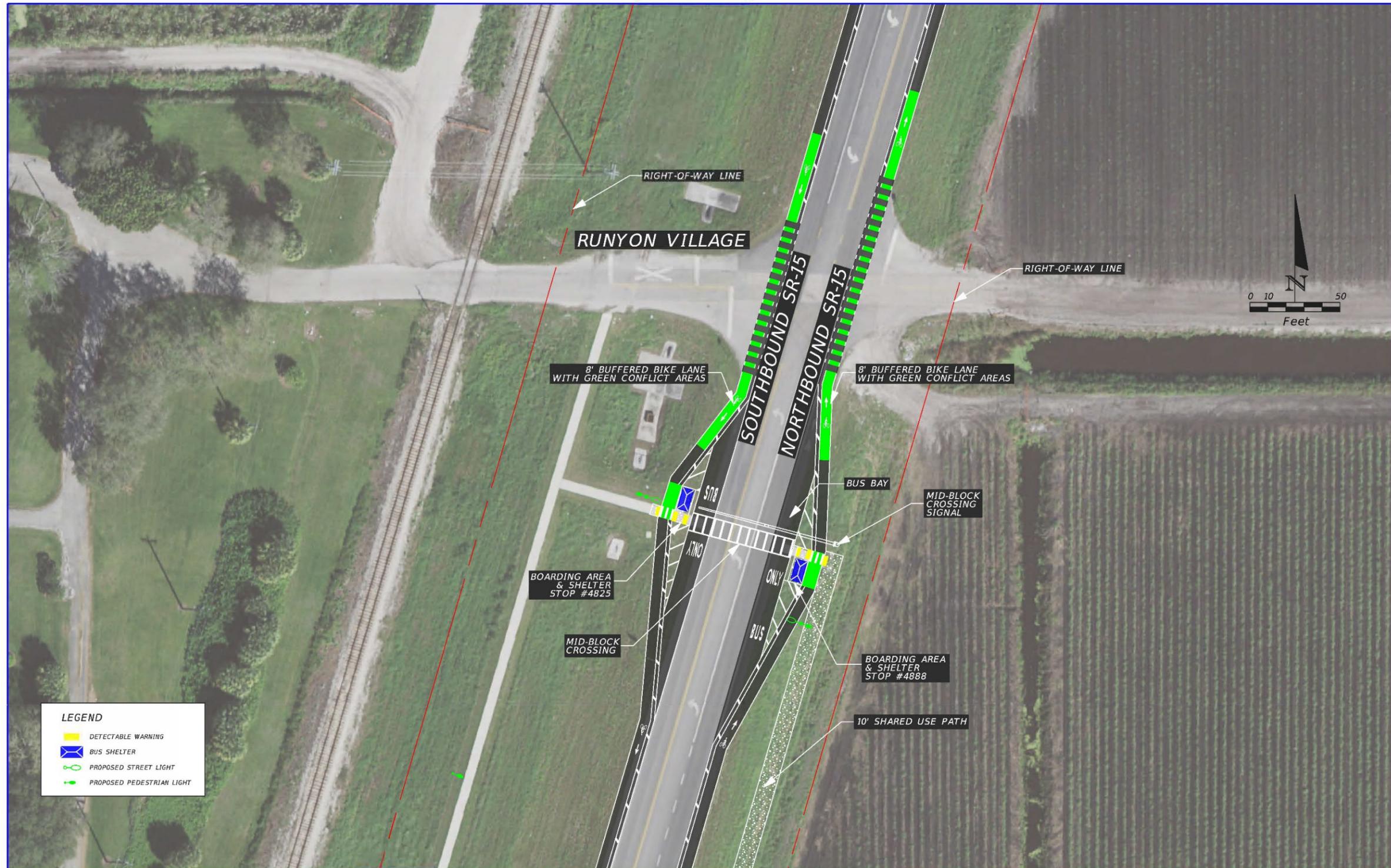
Road conditions along the Belle Glade corridor; Photo by: CTS Engineering, Inc.

Location Aerial



Map of focus areas and bus stops; Created by: CTS Engineering, Inc.

Map of focus areas and bus stops; Created by: CTS Engineering, Inc.



Belle Glade: Focus Area 1

High Emphasis & signalized midblock crosswalk addition, shared-use path, bus stop improvements, buffered bike lanes with green paint at conflict zones (diverted behind bus stop to avoid conflict), pedestrian lighting

Figure 4: Location 3, Focus Area 1; Map Creator: CTS Engineering, Inc



Belle Glade: Focus Area 2

Bus stop improvements to include landing pad and bus shelters; adding pedestrian crossings and sidewalk, adding pedestrian lighting

Figure 5: Location 3, Focus Area 2; Map Creator: CTS Engineering, Inc

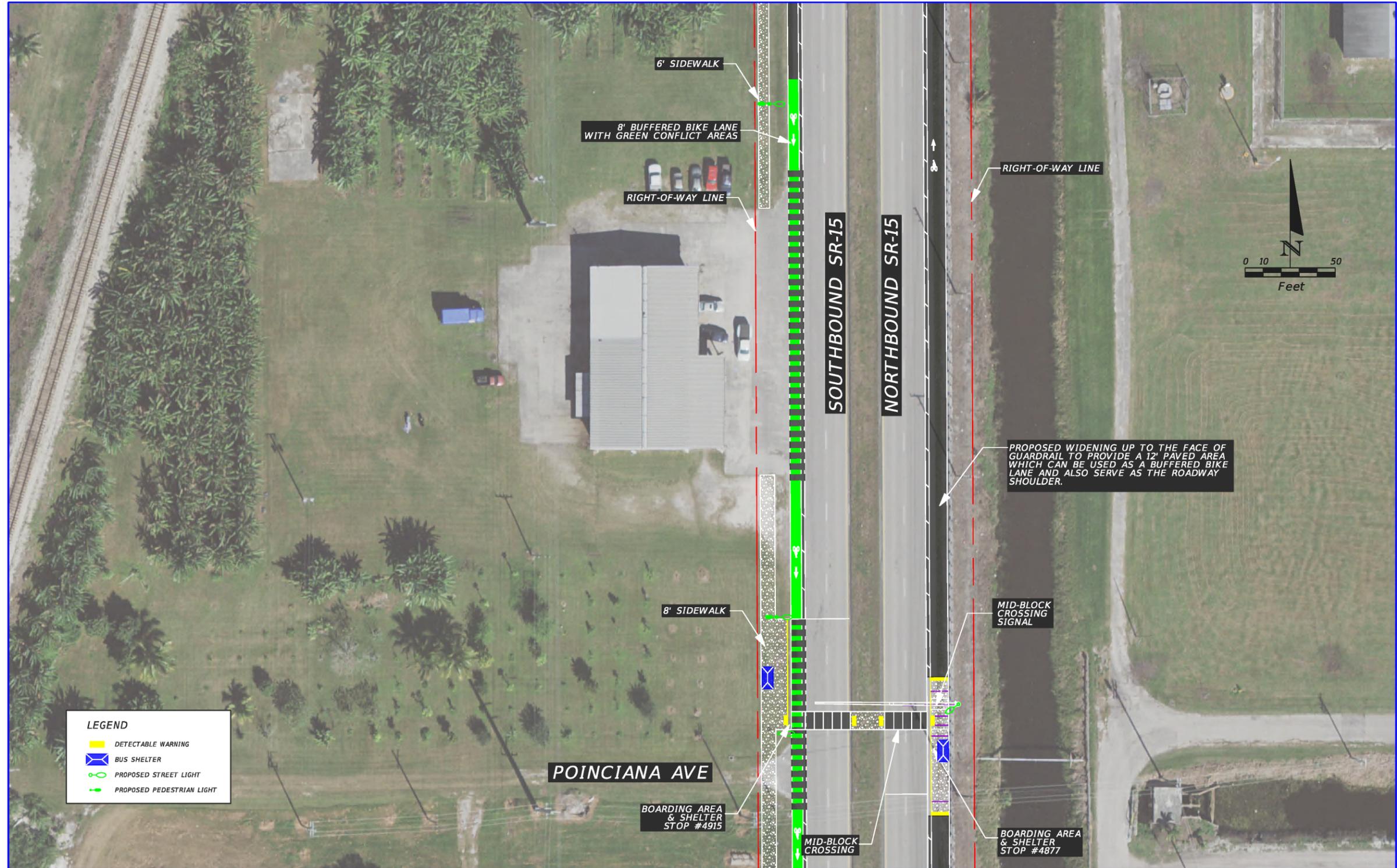
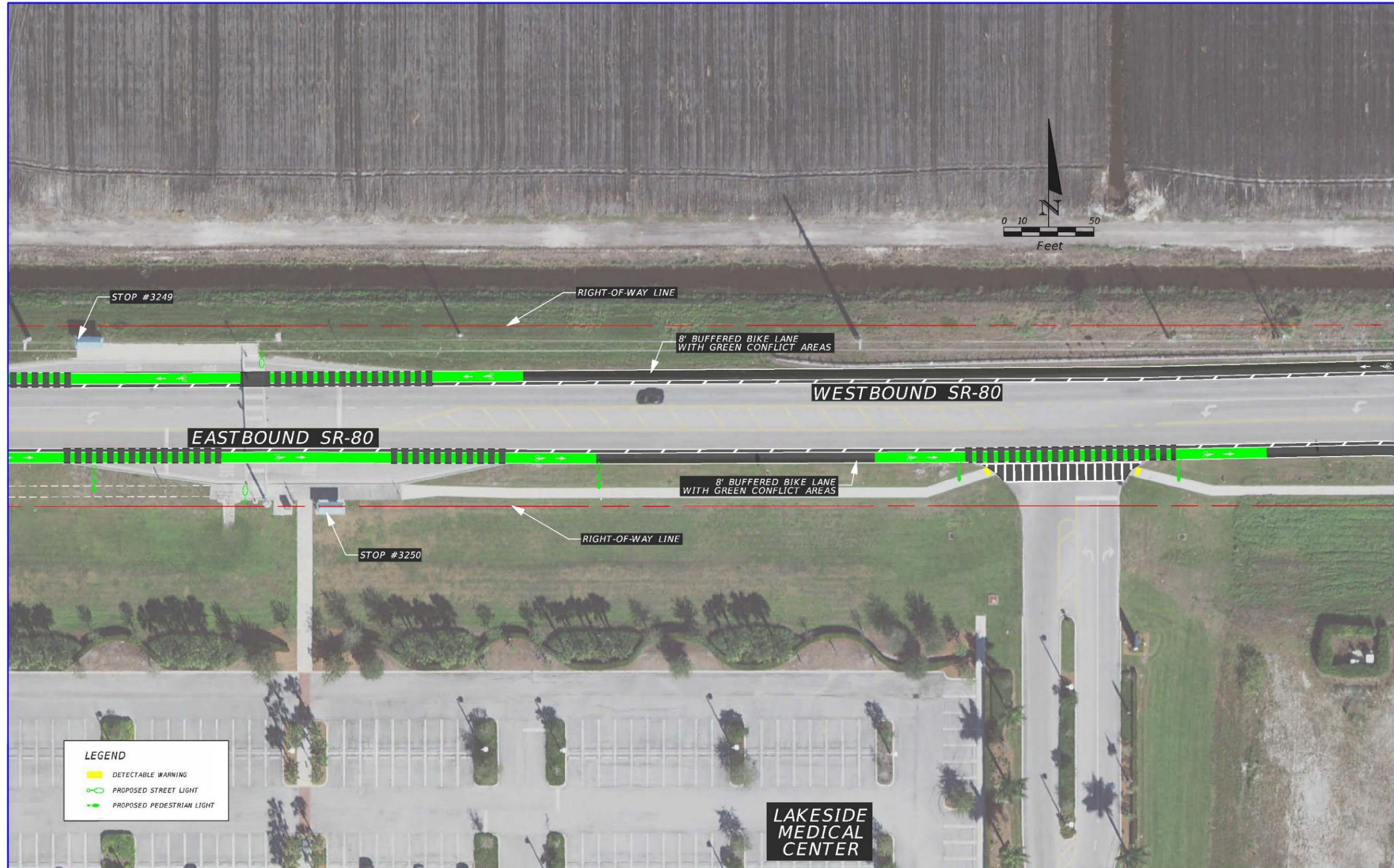


Figure 6: Location 3, Focus Area 3; Map Creator: CTS Engineering, Inc

Belle Glade: Focus Area 3

High Emphasis & signalized midblock crosswalk addition, sidewalk addition, bus stop improvements, buffered bike lanes with green paint at conflict zones, shoulder widening, pedestrian lighting



Belle Glade: Focus Area 4
Buffered bike facility with bright green at conflict zones, pedestrian lighting

Figure 7: Location 3, Focus Area 4; Map Creator: CTS Engineering, Inc

Cost Estimates

Location	Roadway Owner	Recommendation	Description	Cost Estimate	ROW Needed?
Bus Stops 4825 & 4888 at Runyon Village	State	1	Install bus bays for both north and southbound and midblock crossing with signal since sidewalks and residences are only located on the west side of SR-15.	\$345,000	No
Bus Stop 3235 (Fl. Dept. of Children & Families)		2	Install sidewalks along SR-80 and make connections through the adjacent parking lot to provide an accessible route to bus stop 3253	\$22,000	
		3	Reconstruct bus landing pad (Coordinate with County)	\$25,000	
Bus stop upgrades. All within study limits.		4	Install boarding and alighting pads, bus shelter pads, bus shelters, benches, route maps, bicycle racks and trash receptacles at all stops located along Palm Beach Lakes. Connect all bus stops to existing sidewalks and crosswalks.	\$155,000	
Throughout study limits at bus stop locations and along all existing and proposed sidewalk connections		5	Due to lack of lighting along roadway, install pedestrian level lights at bus stop locations and along all existing and proposed sidewalks.	\$535,000	
SR-15 from north of Runyon Village to SR-80		6	Widen shoulders to accommodate 8' buffered bicycle lanes. Route bicycle lanes around the back of bus stops to avoid bicycle/bus conflict area.	\$290,000	
SR-15 from SR-80 to south of Poinciana Avenue		7	Widen shoulders to install buffered bicycle lanes. Widen northbound shoulder all the way to face of existing guardrail.	\$440,000	
SR-15 from Runyon Village to south of Poinciana Avenue		8	Add 6' to 8' sidewalk on west side of SR 15 south of SR-80 to Poinciana. Add 10' shared use path on east side of SR-15 between SR-80 and Runyon Village	\$220,000	
SR-80 from SR-15 to Lakeside Medical Center		9	Widen shoulders to install 8' buffered bicycle lanes.	\$280,000	
*Cost estimate does not include drainage				Total Cost: \$ 2,312,000	

Appendices

Appendix A: Field Observations

Road Users Observed during Visit	
Very few road users were seen. There were, however, many cars seen during the timeframe of 9 am to 11:30 am. The only individuals outside of vehicles were waiting for the bus at designated bus stops	The main mode of transport appears to be the vehicle as seen from this audit (no pedestrians or cyclists seen)
Observations of Things that Worked	
The Palm Tran routes that are present appear to be working well, and residents of the area heavily utilize the public transit system	Between two of the bus stops (located in front of the Lakeside Medical Center), there was a pedestrian crossing with a light bar requiring traffic to stop to allow pedestrians to cross. Being a great concept, another location was identified that could benefit from such infrastructure

Observed Deficiencies				
Sidewalks & Crosswalks	ADA	Bicycle Facilities	Lighting	Bus Stops
The most basic improvements that can be made are the addition of connected sidewalks and bicycle lanes	Those with disabilities are unable to utilize the bus stops in certain areas (north of Hooker Highway, on N. Main Street (FL-15) and to the west of N. Main Street on Hooker Highway) due to missing ADA landing pads and proper sidewalks	The most basic improvements that can be made are the addition of connected sidewalks and bicycle lanes		
North of Hooker Highway, on N. Main Street (FL-15) and to the west of N. Main Street on Hooker Highway, sidewalks are present; however, the two other directions have none and yet have bus stops. These signs are, thus, simply signs in the grass, lacking a concrete pad or landing area. These are priority improvements due to the low incomes in the area given that walking and public transit are often requirements for low-income households. In addition, those with disabilities are unable to utilize the bus stops in these areas due to a missing ADA landing pad and proper sidewalks		A designated bicycle lane currently goes on and off throughout the corridor studied. With traffic speeds of upwards of 45 mph, the bicycle lane should be wider than 4 ft and should include a buffer		

Potential Pedestrian Perils	Potential Bicyclist Perils
Lack of sidewalks in general and leading to bus stops	The bicycle lanes existing are disjointed (not consistent on much of SR-15)
Bus stops lack the proper concrete landing pad (merely signs in the grass). Pedestrians must wait in the grass while awaiting the bus and must walk to the stops via the grass	The bicycle lane that exists is unbuffered; with high speeds and heavy traffic, this can be dangerous and feel unsafe
Some areas have a wider shoulder than others to allow making the grass feel like the safer option. However, grass surface was often bumpy, uneven, and unkempt making it feel very unsafe while walking adjacent to 45 mph, heavy semi-truck traffic	
No lighting at bus stops	

Top Priorities Recommended from Site Visit by PB TPA	Easy Fixes by Location	Difficult Fixes by Location
Currently pedestrian lighting is lacking and many of the residents using the bus must start their commutes early and end late due to working on the eastern part of the county. Added lighting will increase the safety and comfort of these users	Pedestrian scale lighting added along the corridor	Adding continuous buffered biking lanes along the corridor (if possible)
The addition of sidewalks is prioritized to allow bus users to get to bus stops and pedestrians to destinations safely	Crosswalks installed along SR-15	Connecting the sidewalk to create safe walking conditions for pedestrians. SR-15 southbound is in major need of a sidewalk for pedestrian access to bus stops
The current bicycle lanes should be connected to allow for a safe route for bicyclists along these high-traffic, fast moving corridors		
Landing pads are needed that are within ADA compliance to allow for safe waiting and the ability for wheelchair users to board the bus safely and comfortably		

Other Observations
Constructing quality pedestrian and bicyclist facilities may be possible by utilizing the excess right-of-way property
Slowing traffic speeds along SR-15 is encouraged to make a bicycle lane more feasible

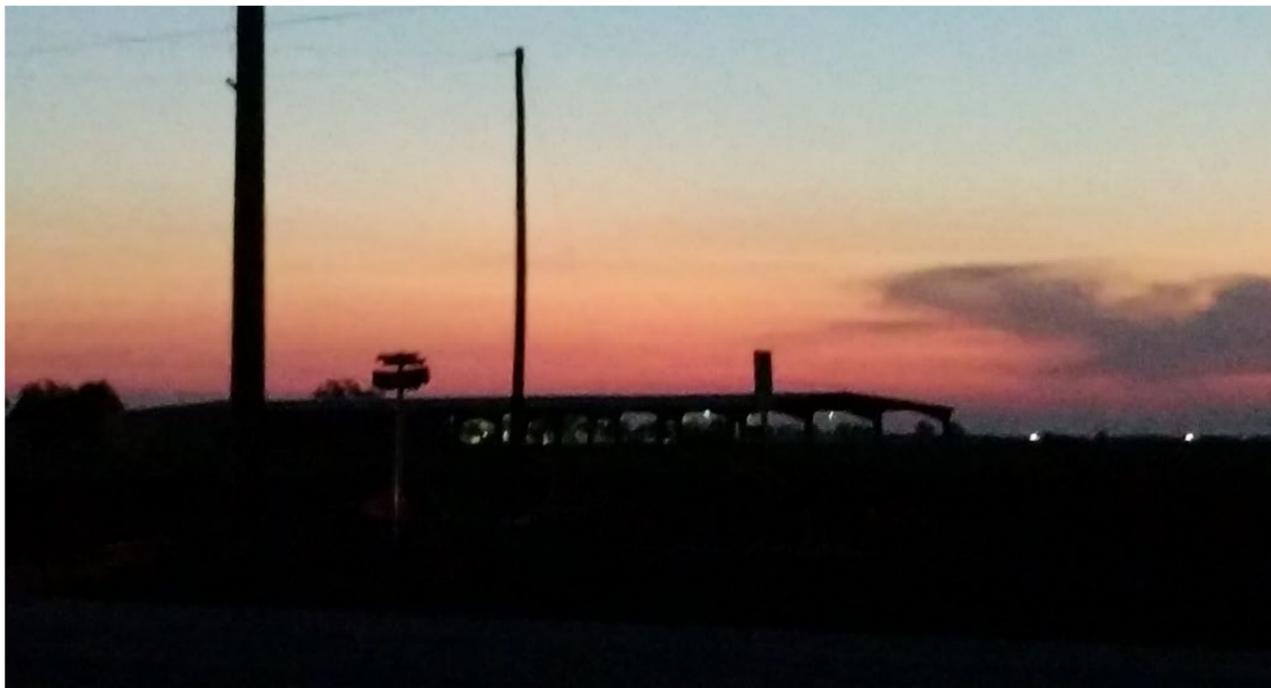
Site Visit: June 22, 2018



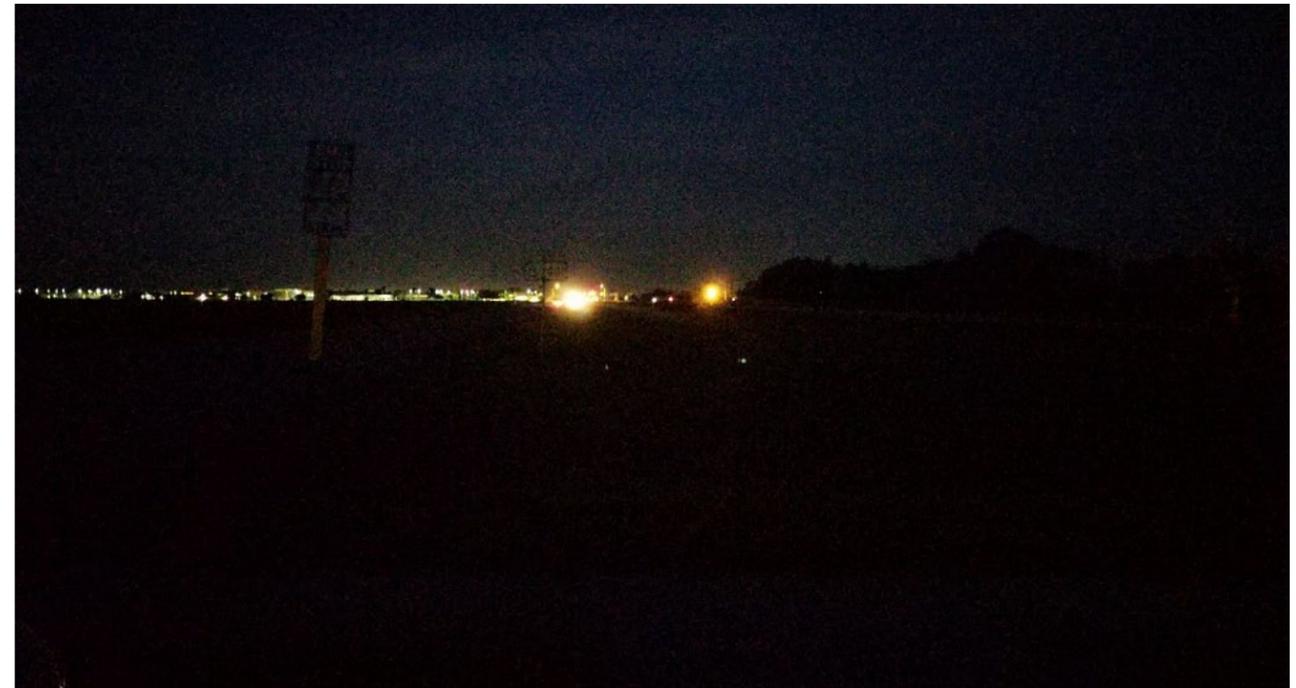
Dim lighting at stop 3249 on Hooker Highway; Photo by: CTS Engineering, Inc.



Buses at stop by jail (3253) (no lighting); Photo by: CTS Engineering, Inc.



No lighting at bus stop on southern end of N. Main St. of the study area; Photo by: CTS Engineering, Inc.



Bus stop along at north end of State Road 15 of studied area (no light); Photo by: CTS Engineering, Inc.

Sidewalk Conditions



Sidewalk begins after service center going west on State Road 80; Photo by: CTS Engineering, Inc.



Bus stop near jail with ADA access and shade; Photo by: CTS Engineering, Inc.



Sidewalk ends at Belle Glade Service Center on State Road 80 east of State Road 15; Photo by: CTS Engineering, Inc.



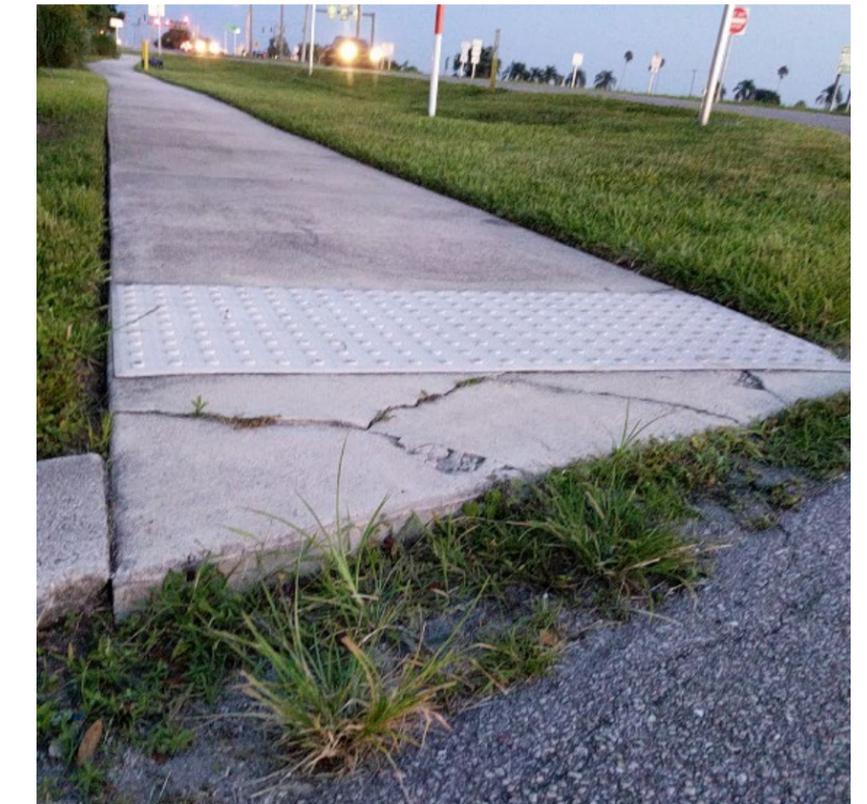
Sidewalk connection to bus stop at north end of State Road 15 of study area; Photo by: CTS Engineering, Inc.



Sidewalk along corridor; Photo by: Palm Beach TPA



No sidewalk or handrail on N. Main St., south of Hooker Highway; Photo by: CTS Engineering, Inc.



Sidewalk drops off at service center, possible hazard; Photo by: CTS Engineering, Inc.

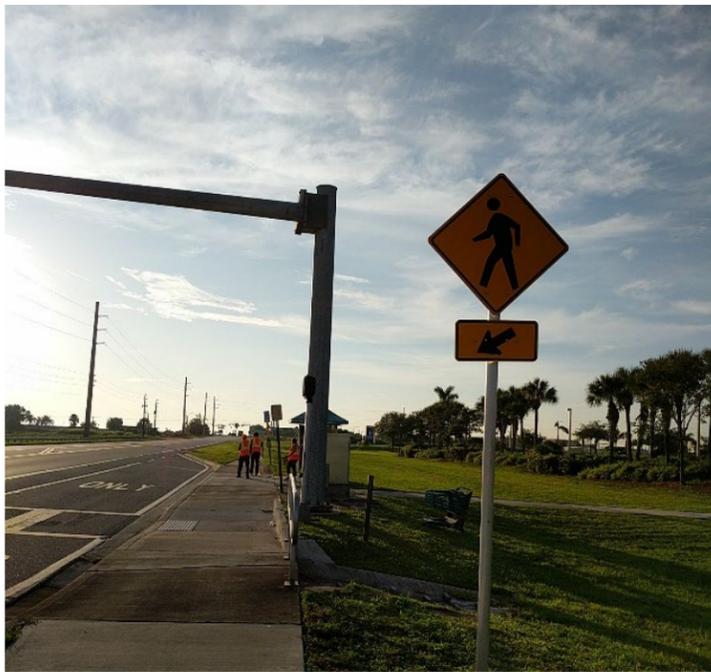
Crosswalks



Crosswalk with stop light across Hooker Highway between bus stops 3250 and 3249; Photo by: CTS Engineering, Inc.



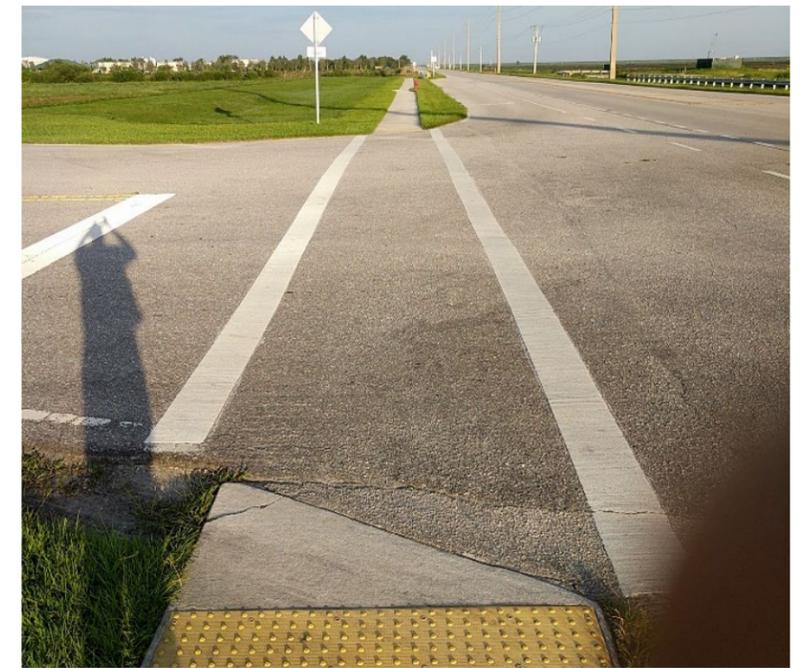
Countdown Crosswalk between stops 3250 and 3249 on Hooker Highway; Photo by: CTS Engineering, Inc.



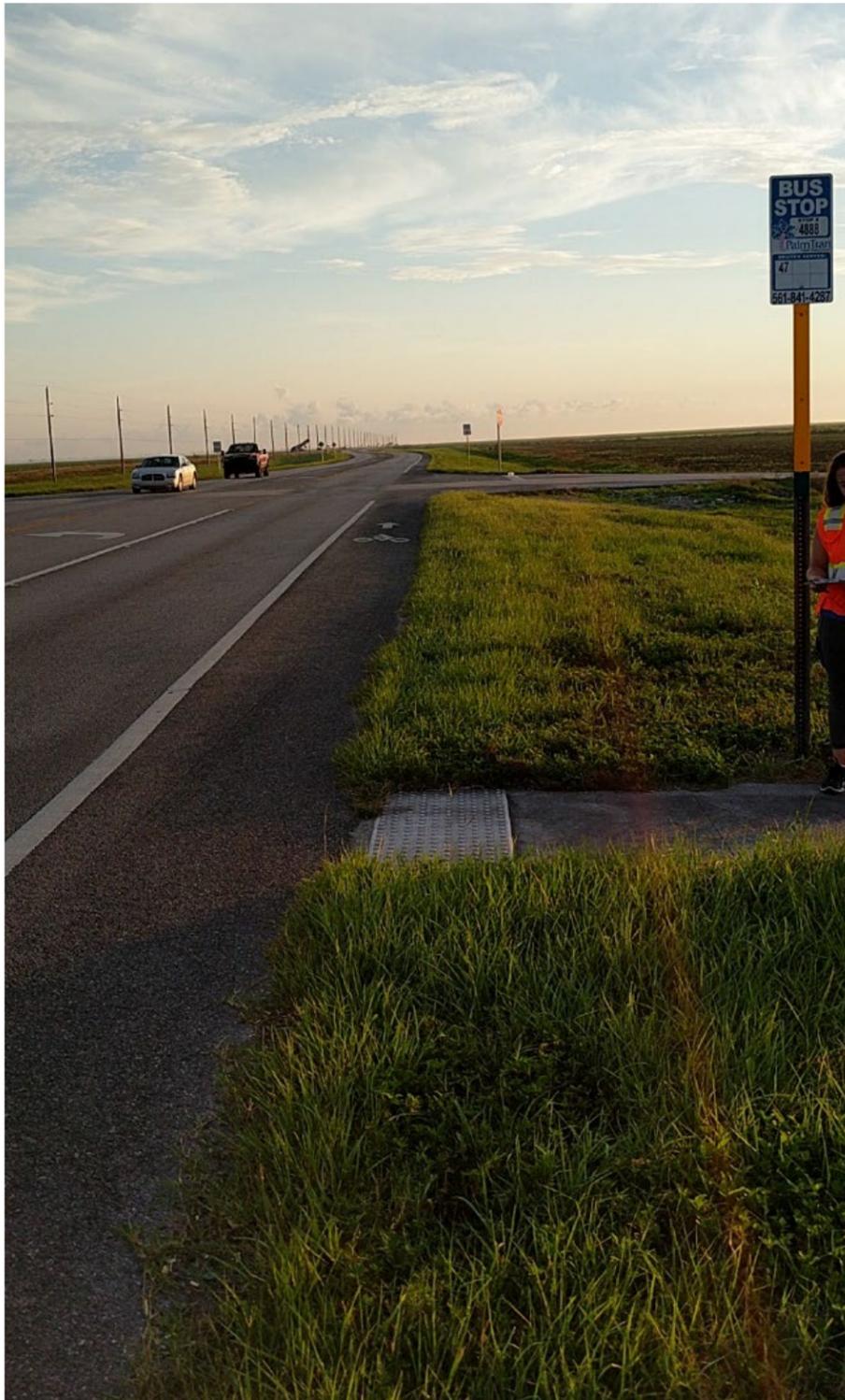
Sign indicating crosswalk on Hooker Highway between stops 3250 and 3249; Photo by: CTS Engineering, Inc.



High emphasis crosswalk across Hooker Highway at intersection; Photo by: CTS Engineering, Inc.



Crosswalk in front of Lakeside Medical Center on Hooker Highway; Photo by: CTS Engineering, Inc.



4 ft. bicycle lane on State Road 15 by stop 4888; Photo by: CTS Engineering, Inc.



Bicycle lane sign at intersection of Hooker Highway and State Road 15; Photo by: CTS Engineering, Inc



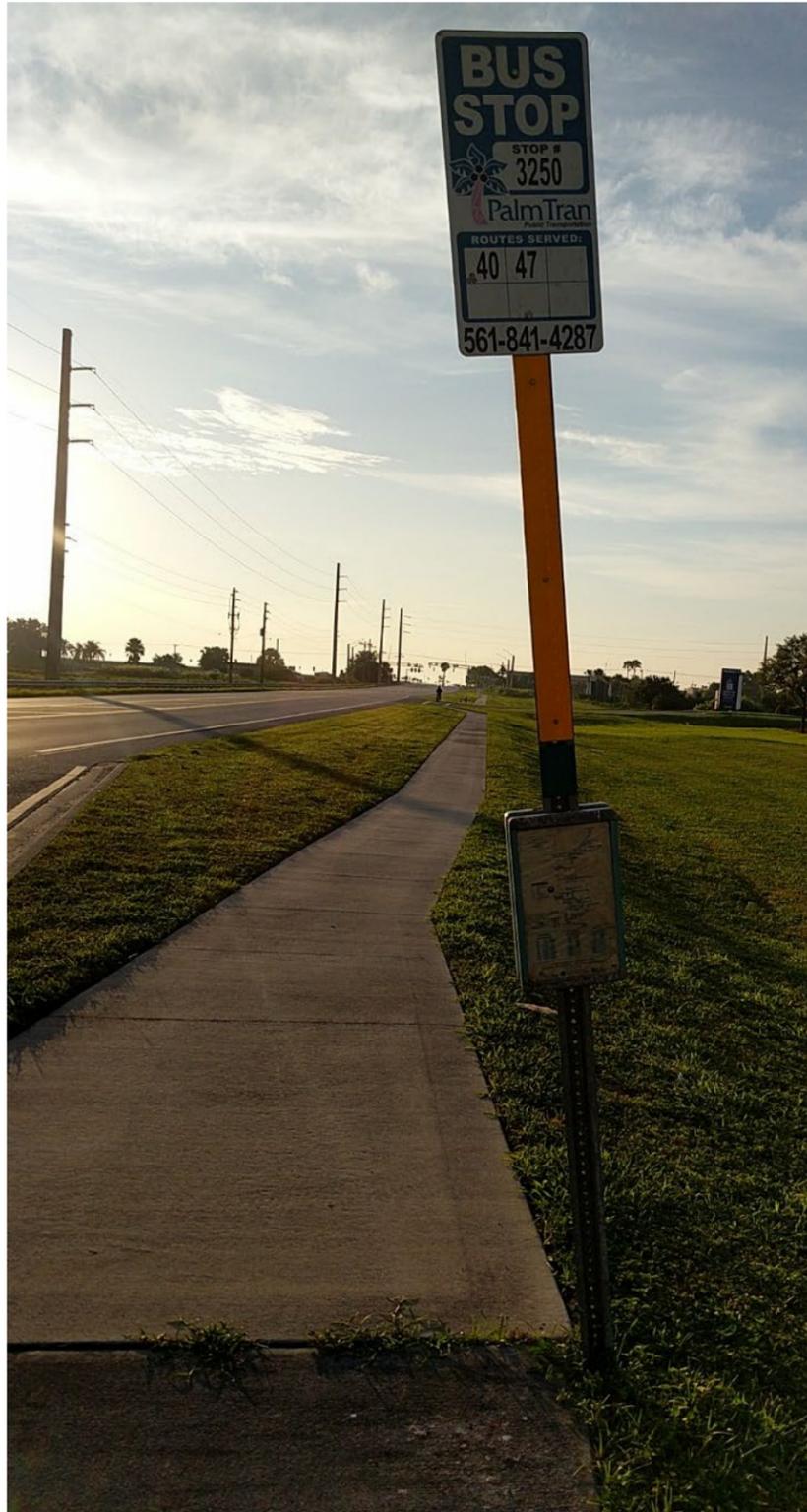
Bicycle lane sign on Hooker Highway; Photo by: CTS Engineering, Inc.



5 ft. bicycle lane on Hooker Highway near medical center; Photo by: CTS Engineering, Inc.



Bicycle lane markings west of intersection on Hooker Highway; Photo by: CTS Engineering, Inc.



Stop 3250 on Hooker Highway with map; Photo by: CTS Engineering, Inc.



Stop 3249 on Hooker Highway with level 8 ft landing pad; Photo by: CTS Engineering, Inc.



Stop 4877 containing only sign and no ADA access; Photo by: CTS Engineering, Inc.



Stop 4888 on north end of State Road 15 of study area; Photo by: CTS Engineering, Inc.