

SCHOOL ROUTES ANALYSIS

LOCKMAR ELEMENTARY SCHOOL

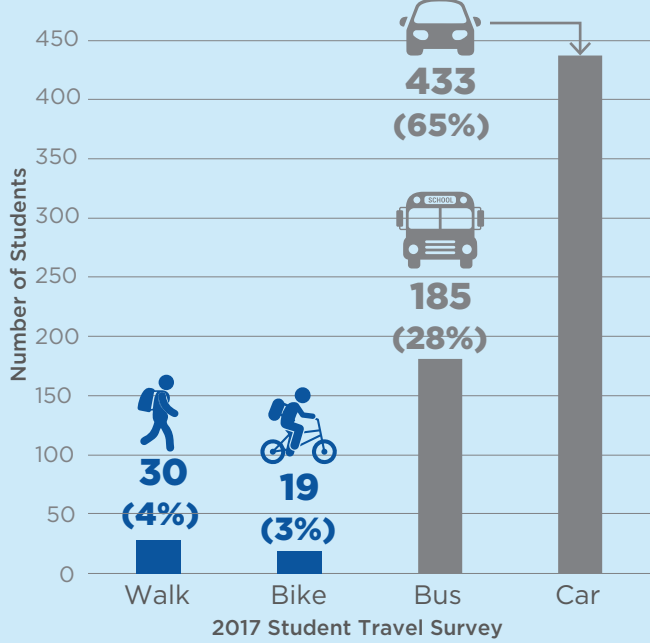


GRAPHICAL SUMMARY REPORT

JULY 2020



Student Travel Modes (2012)



Total Bicycle & Pedestrian Crashes within Study Area



School Aged Bicycle & Pedestrian Crashes within Study Area



2014 to 2018 Crashes from University of Florida's Signal Four Analytics Database

Signals and Crossings within Study Area

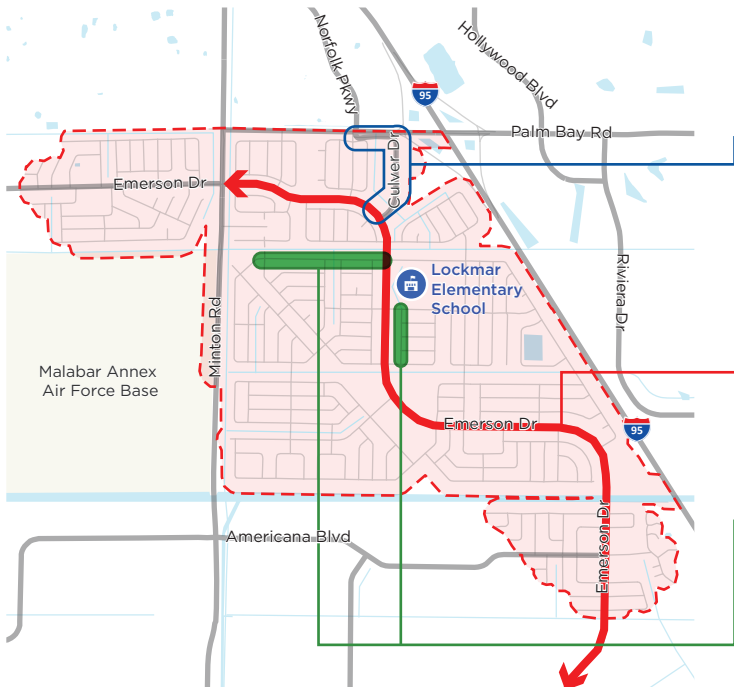
9 Signalized Intersections



1 Unsignalized Marked Crosswalk Across Major Streets



2 Crossing Guards at Emerson Dr. & Pepper St. Peach Ave. & Pepper St.



Previous & Ongoing Plans

Culver Drive Widening Project (Recently Completed)

- Widening the roadway from two lanes to four lanes.
- Add ADA compliant sidewalks.
- Improve drainage in the area.

Bicycle & Pedestrian Master Plan (Ongoing)

- Bicycle facilities prioritized along Emerson Drive.

City of Palm Bay Comprehensive Plan

- Add new sidewalks on Narragansett Street from Pelican Drive to Emerson Drive.
- Add new sidewalks on Peach Avenue from Hyder Street to Pepper Street.

Figure 1: Background Information

School Routes Analysis
Lockmar Elementary School

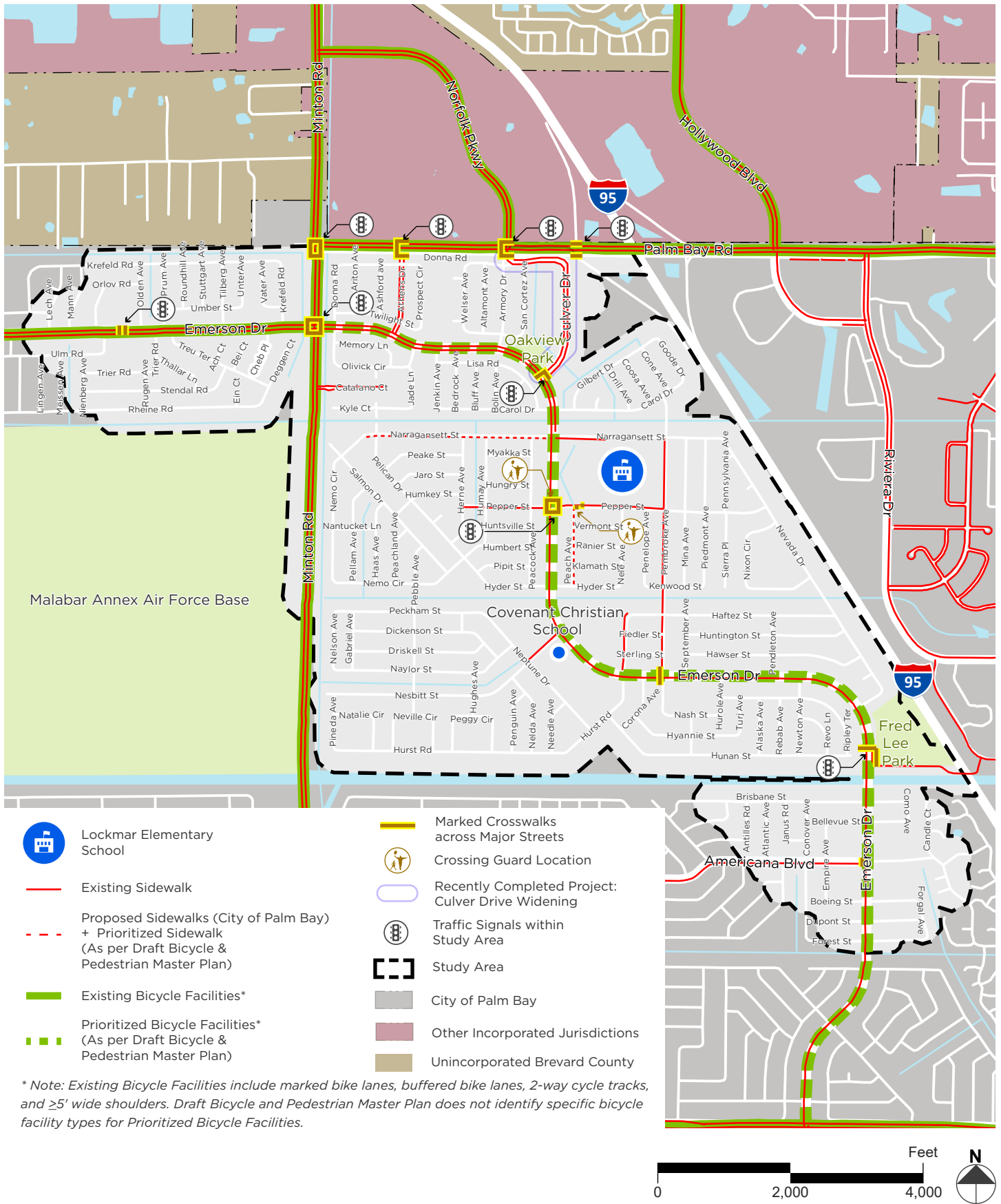
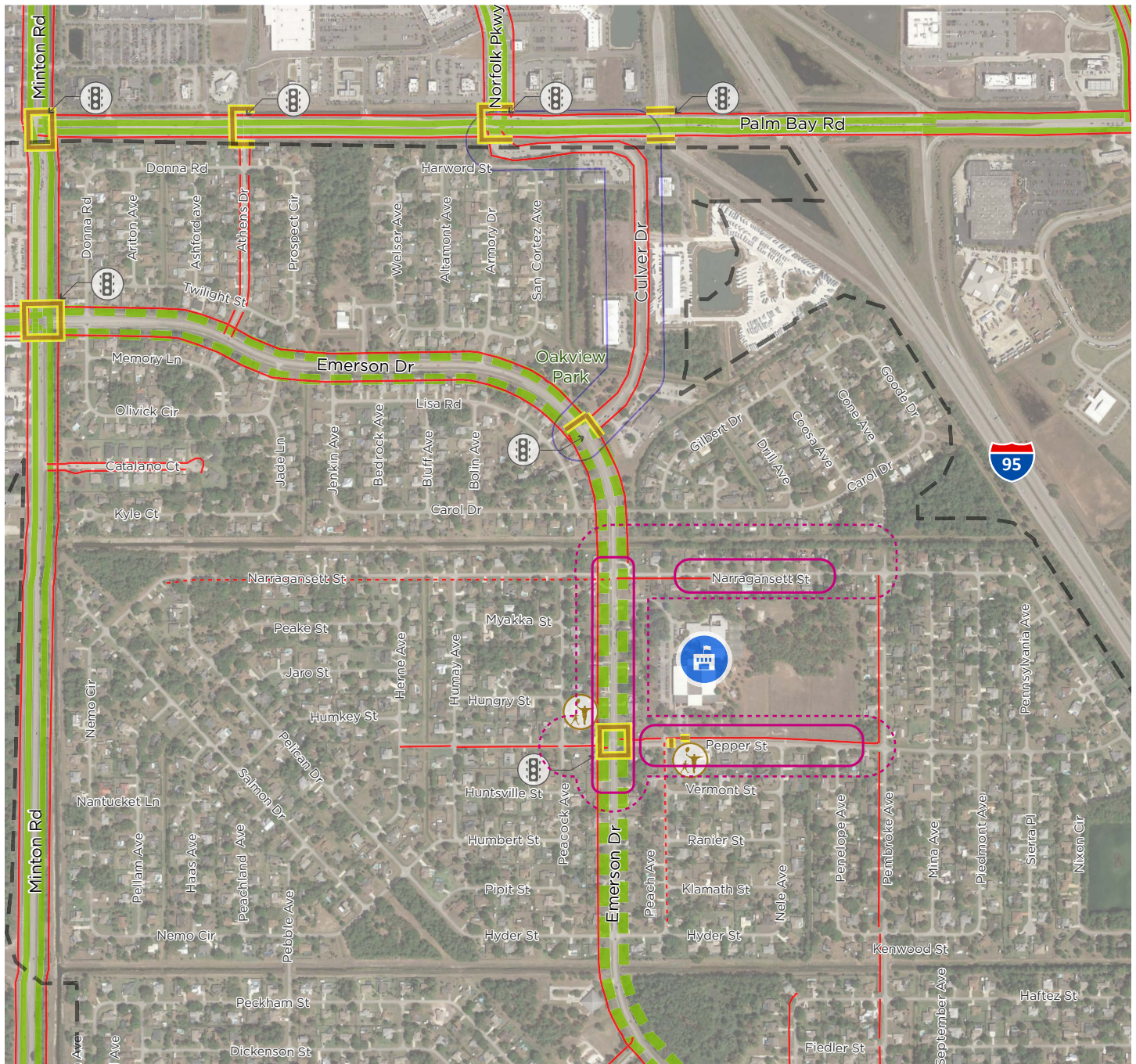


Figure 2: Existing and Planned Bicycle and Pedestrian Facilities
















-  Lockmar Elementary School
 -  Existing Sidewalk
 -  Proposed Sidewalks (City of Palm Bay) + Prioritized Sidewalk (As per Draft Bicycle & Pedestrian Master Plan)
 -  Marked Crosswalks across Major Streets
 -  Traffic Signals within Study Area
 -  Existing Bicycle Facilities*
 -  Prioritized Bicycle Facilities* (As per Draft Bicycle & Pedestrian Master Plan)
 -  Crossing Guard Location
 -  Recently Completed Project: Culver Drive Widening
 -  School Advance Warning Area
 -  School Zone
 -  Study Area
- * Note: Existing Bicycle Facilities include marked bike lanes, buffered bike lanes, 2-way cycle tracks, and $\geq 5'$ wide shoulders. Draft Bicycle and Pedestrian Master Plan does not identify specific bicycle facility types for Prioritized Bicycle Facilities.
- 0 1,000 2,000 Feet 

Figure 3: Existing Conditions School Context Aerial Map

School Routes Analysis
Lockmar Elementary School

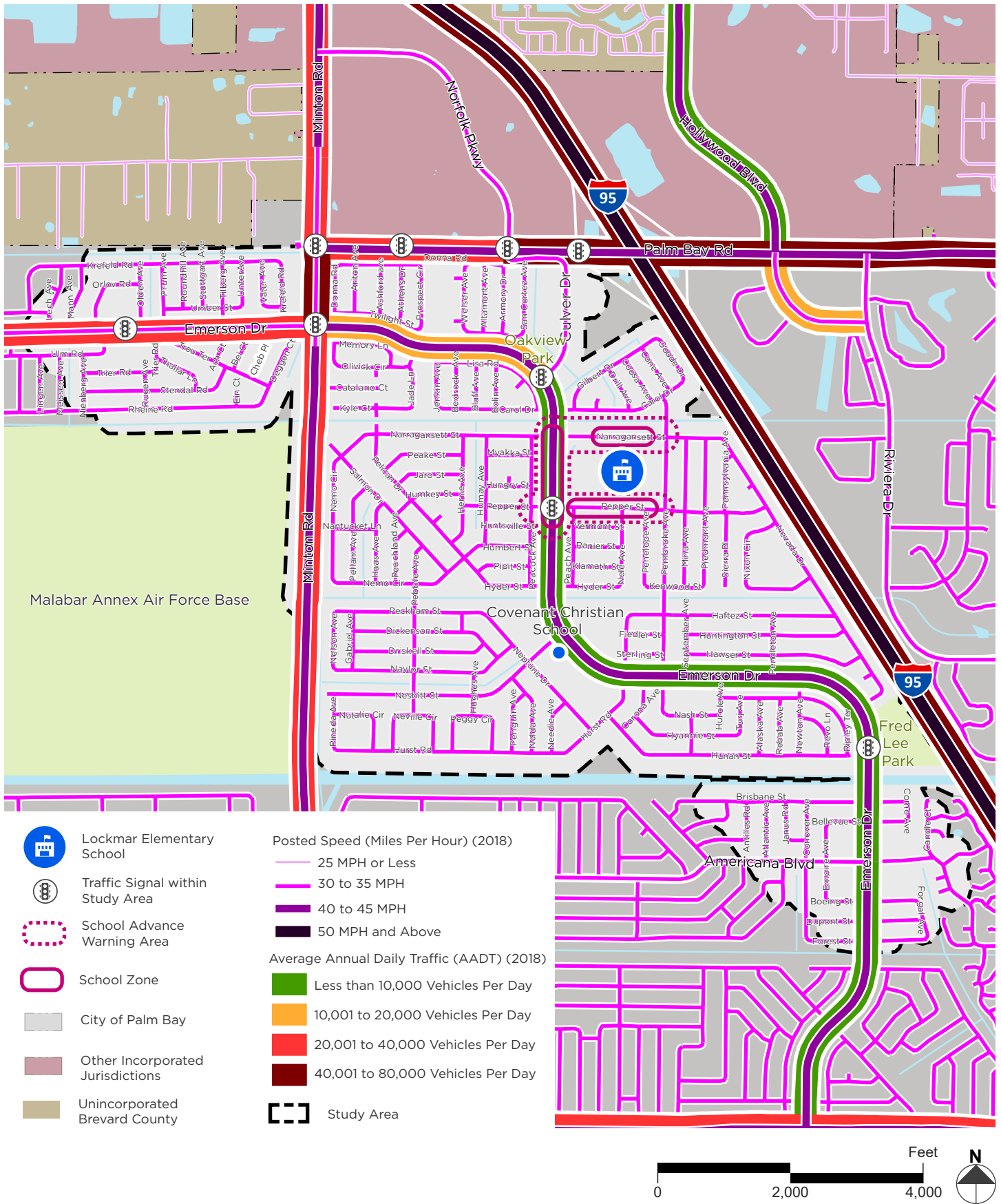
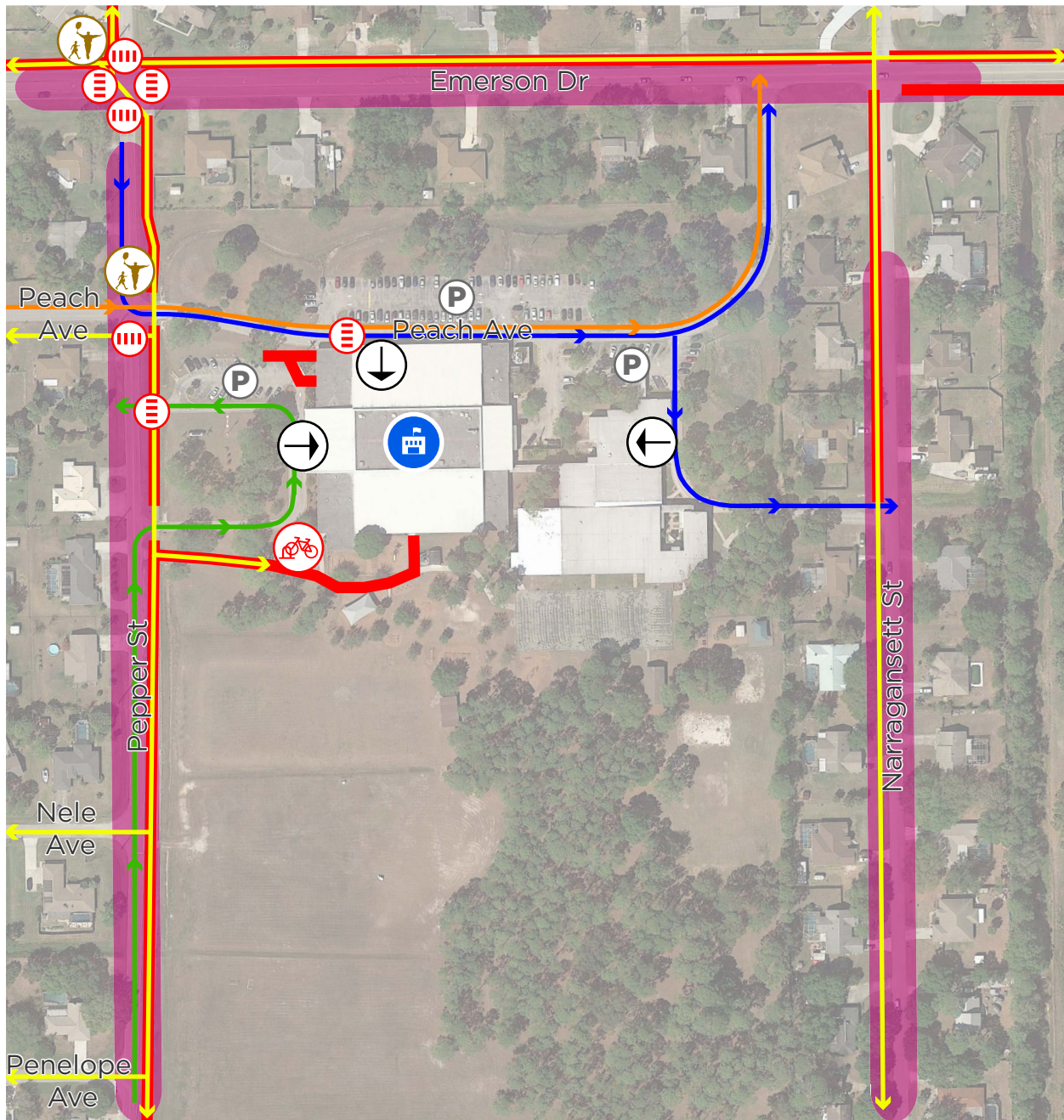














Figure 4: Existing Conditions Traffic Data
 School Routes Analysis
Lockmar Elementary School



-  Lockmar Elementary School
-  Marked Crosswalks
-  School Building Entrance
-  Crossing Guard Location

-  Bike Parking
-  Car Parking
-  School Zone
-  Existing Sidewalk

- Circulation Patterns**
-  Walkers/Bikers
 -  School Bus Loop
 -  Parent Drop-Off/Pick-Up Loop (Grade 2 to Grade 6)
 -  Parent Drop-Off/Pick-Up Loop (Kindergarten to Grade 1)

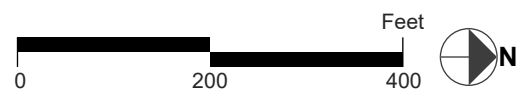


Figure 5: Existing School Circulation Map
 School Routes Analysis
Lockmar Elementary School

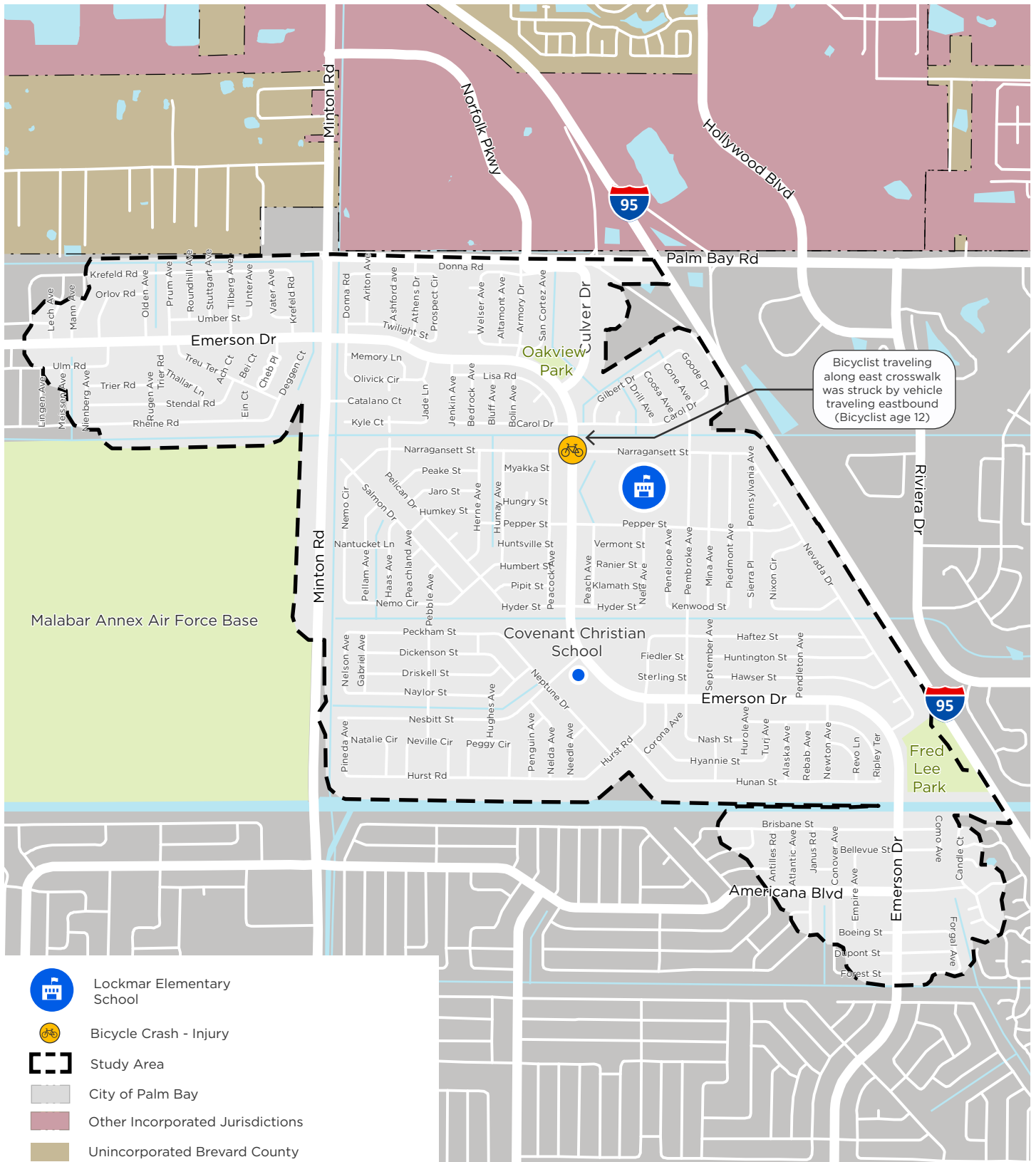


Figure 6: Bicycle and Pedestrian Crashes (2014 - 2018)

School Campus Recommendations

No.	Location	Recommendation	Type	Time-Frame	Cost Estimate
1	School Driveways	Install raised crosswalks or re-stripe high visibility crosswalk markings and upgrade pedestrian ramps to make them ADA compliant.	Crossing	Near-Term	\$10,000 to \$15,000
2	North School Driveway on Narragansett Street	Open the existing northern entrance gate for pedestrians and bicyclists to use. Add a bicycle rack at the gate entrance and staffing during AM and PM peak periods.	School Circulation	Near-Term	<\$10,000
3	Crosswalk on southwest corner of the school building connecting school building to western parking lot	Move the crosswalk to align with the school building entrance sidewalk and add ADA compliant pedestrian ramps.	Crossing	Near-Term	<\$10,000

Study Area Recommendations

No.	Location	Recommendation	Type	Time-Frame	Cost Estimate
4	Emerson Drive, from Narragansett Street to Forest Street	Build an 8 to 10 foot wide sidewalk/shared use path on the east/north side.	Sidewalk	Long-Term	\$1,150,000 to \$1,350,000
5	Canals	Conduct a feasibility study to add paved trails along the canal ROWs.	Feasibility Study (Trail)	Near-Term	Further study is required
6	Pembroke Avenue and Narragansett Street and Grogan Avenue	Build a pedestrian and bicycle bridge across the canal.	Sidewalk	Long-Term	Further study is required

Recommendations Table

School Routes Analysis Lockmar Elementary School



Study Area Recommendations

No.	Location	Recommendation	Type	Time-Frame	Cost Estimate
7	Pelican Drive and Narragansett Street; and Melody Avenue and Jade Lane	Build a pedestrian and bicycle bridge across the canal.	Sidewalk	Long-Term	Further study is required
8	Emerson Drive and Pepper Street Intersection	Install blank out signage for all intersection approaches. These signs would show no right-turn-on-red when the conflicting crosswalk pedestrian push button is activated, but otherwise will stay blank.	Sign/Signal	Near-Term	\$30,000 to \$40,000
9	Emerson Drive and Pepper Street Intersection	Re-stripe crosswalks as high visibility crosswalks and upgrade pedestrian ramps to make them ADA compliant.	Crossing	Near-Term	\$15,000 to \$20,000
10	Emerson Drive and Narragansett Street Intersection	Install high visibility crosswalks and upgrade pedestrian ramps across Narragansett Street to make them ADA compliant.	Crossing	Near-Term	\$10,000 to \$15,000
11	Armory Drive and Harwood Street and Culver Drive	Build an 8 to 10 foot wide sidewalk to connect Armory Drive and Harwood Drive intersection to Culver Drive.	Sidewalk	Near-Term	\$15,000 to \$20,000
12	Narragansett Street from School Bus Egress Driveway to Pembroke Avenue and Nevada Drive from Pembroke Avenue to Emerson Drive	Build a 5 to 6 foot wide sidewalk on the south and west side.	Sidewalk	Near-Term	\$420,000 to \$500,000

Recommendations Table (Continued)

School Routes Analysis Lockmar Elementary School



Study Area Recommendations

No.	Location	Recommendation	Type	Time-Frame	Cost Estimate
13	Narragansett Street from Pelican Drive to Emerson Drive	Build a 5 to 6 foot wide sidewalk on the south side.	Sidewalk	Near-Term	\$170,000 to \$200,000
14	Pelican Drive/ Hyder Street from Narragansett Street to Emerson Drive	Build a 5 to 6 foot wide sidewalk on the east/north side.	Sidewalk	Long-Term	\$250,000 to \$290,000
15	Pepper Street from Pembroke Avenue to Nevada Drive	Build a 5 to 6 foot wide sidewalk on north side.	Sidewalk	Near-Term	\$100,000 to \$120,000
16	Pebble Avenue from Nemo Circle to Nesbitt Street	Build a 5 to 6 foot wide sidewalk on east side.	Sidewalk	Long-Term	\$110,000 to \$125,000
17	Nemo Circle from Pebble Avenue to Pelican Drive	Build a 5 to 6 foot wide sidewalk on south side.	Sidewalk	Long-Term	\$60,000 to \$70,000
18	Nesbitt Street from Pineda Avenue to Neptune Drive	Build a 5 to 6 foot wide sidewalk on north side.	Sidewalk	Long-Term	\$200,000 to \$225,000
19	Emerson Drive and Pembroke Avenue Intersection	Install RRFB for the pedestrian crossing.	Crossing	Near-Term	\$25,000 to \$30,000
20	Emerson Drive, from Minton Road to Narragansett Street	Widen existing 6 foot sidewalk to an 8 to 10 foot shared use path.	Sidewalk	Long-Term	\$470,000 to \$550,000

Recommendations Table (Continued)

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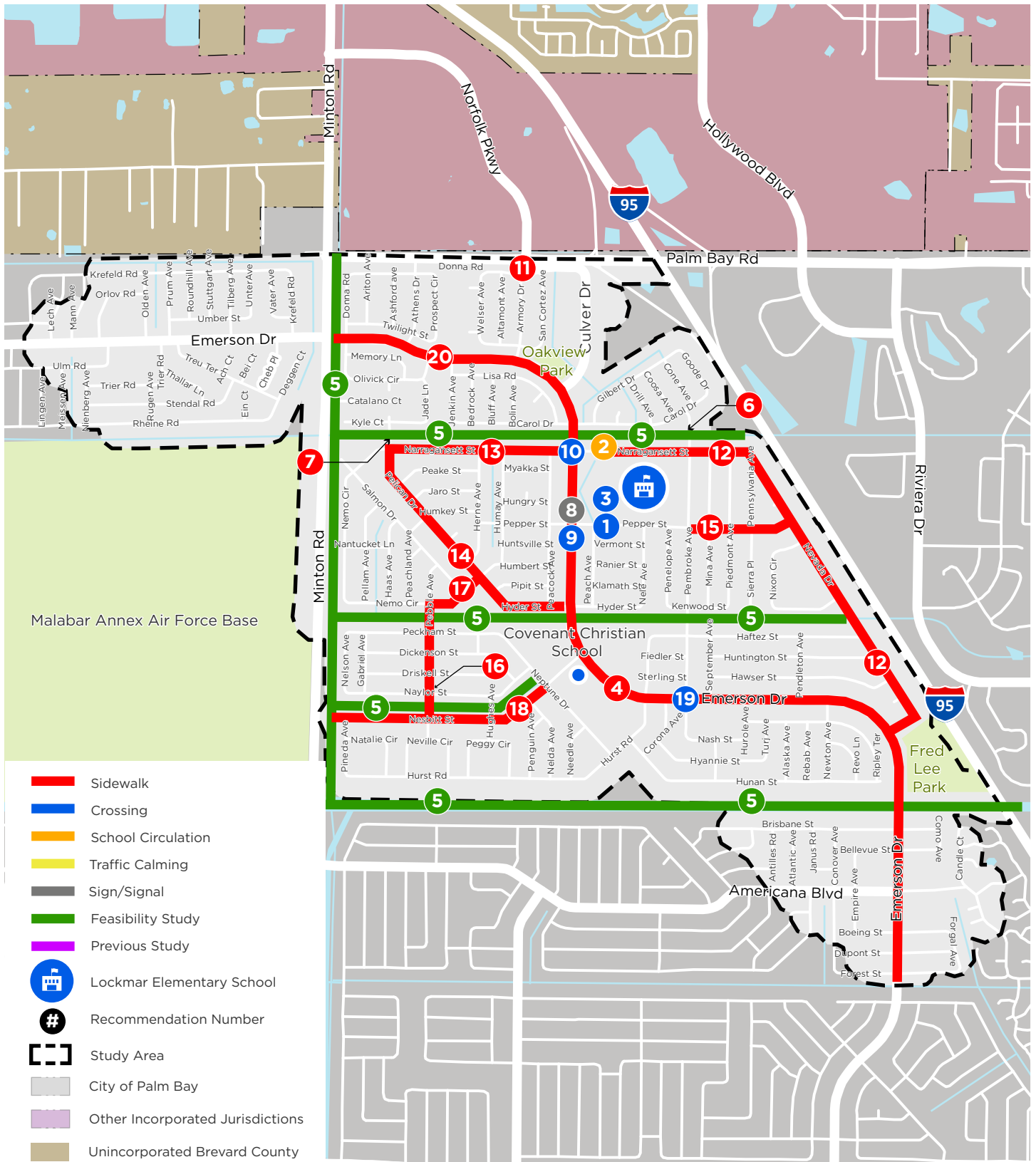


Figure 7: Recommendations

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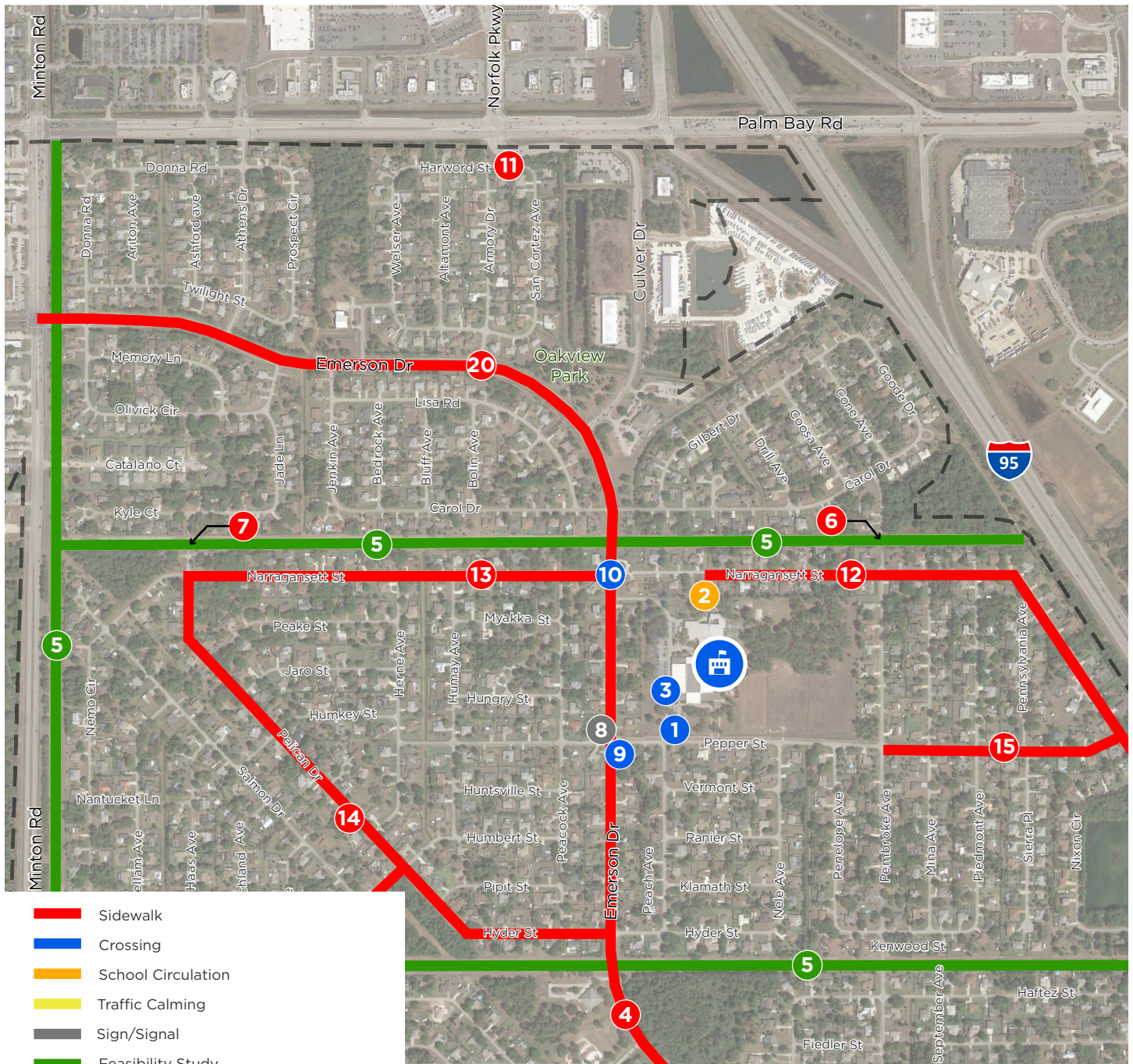


Figure 8: Recommendations School Context Aerial Map

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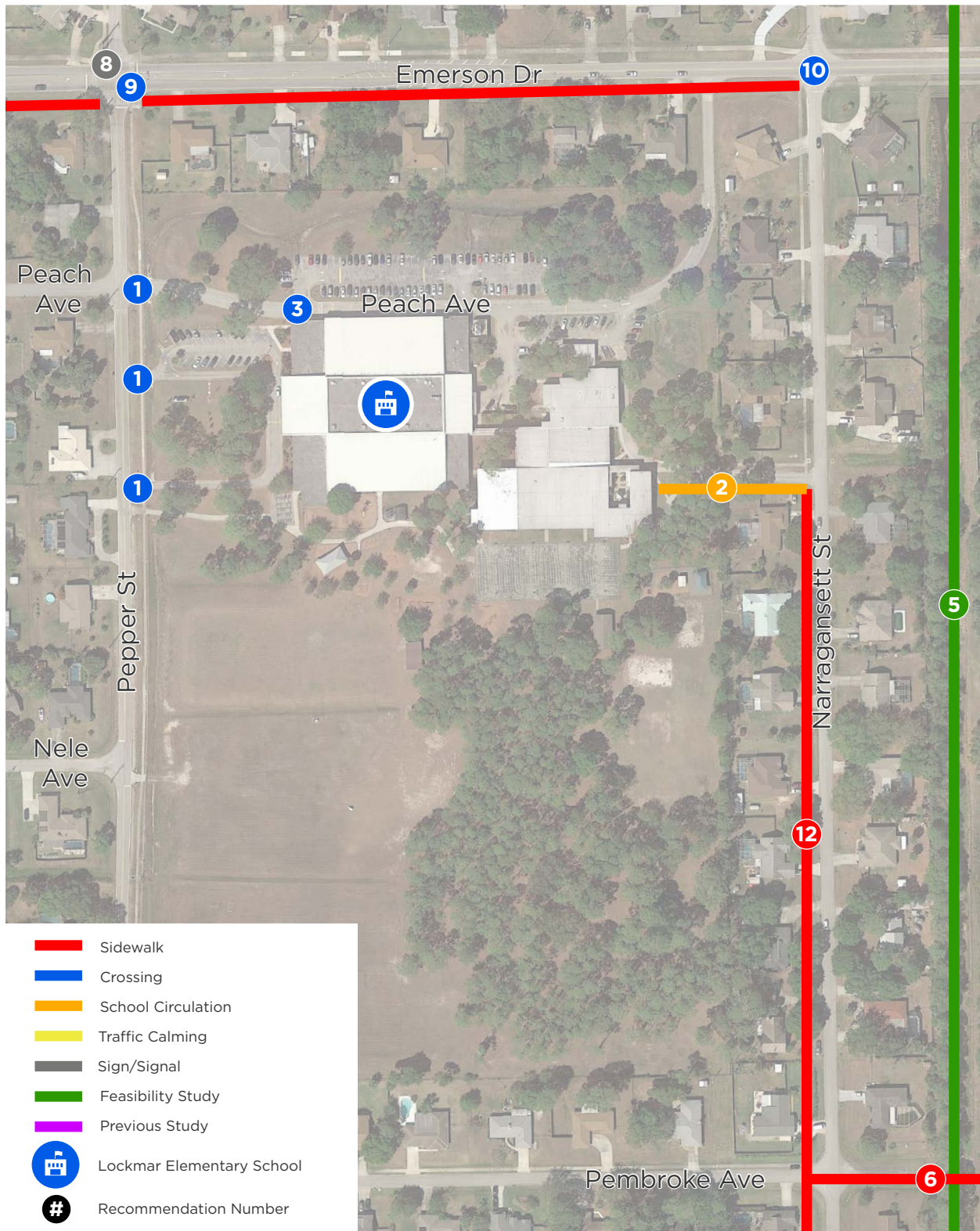


Figure 9: Recommendations School Campus Aerial Map

School Routes Analysis
Lockmar Elementary School

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