

Florida Park Drive Existing Conditions & Proposed Traffic Study

City Council - Workshop June 9, 2015

Find Your Florida

City Council directed City staff to evaluate Florida Park Drive and determine ways to reduce pass through traffic.

City staff developed a phased approach to evaluate existing conditions and evaluate alternatives, if warranted.



Phase One – Evaluate Existing Conditions

- Work performed by City Staff
- Collect traffic data
 - Volume/Classification Counts
 - Turning Movement Counts (TMC)
 - Speed Data
- Perform Intersection Level of Service Analysis
- Report Crash Data
- Prepare a report summarizing the results of the analysis



Phase Two – Alternatives Evaluation

- Work performed by Traffic Engineering Consultant
- Conduct Neighborhood meetings to obtain local input
- Perform Travel Demand Modeling
 - Collect Origin and Destination Data
 - Create a base model
 - Run three (3) alternatives for Florida Park Drive
- Perform roadway Level of Service analysis
- Prepare a report summarizing the results of the analysis
- Present the finding of study to City Council



Existing Condition - Background

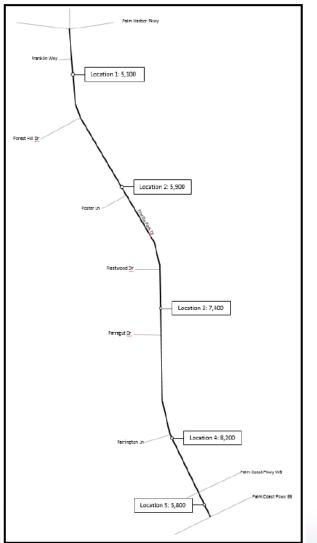
- Approximately 2 miles in length
- 60 foot Right of Way with two 12 foot lanes
- Swale drainage with sidewalks on the west side of the road
- High Intensity Commercial Land Use between Palm Coast Pkwy (EB) and Farraday Lane
- Single Family Residential Land use from Farraday Lane to Palm Harbor Pkwy





Existing Conditions - Traffic Data Collection

- 24-hour Classification Counts Five (5) Locations. Data Collected include:
 - Raw Traffic Counts
 - Annual Average Daily Traffic
 - Peak to Daily Ratio (K)
 - Directional Distribution (D)
 - Truck factors (T_{peak} & T_{daily})
 - Vehicle Speeds
- 5-hour Turning Movement Counts Nine
 (9) Locations
 - All located on the west side of the roadway
 - Data collected from 8:00 to 10: 00 AM & 3:00 to 6:00 PM





Existing Conditions - Traffic Data Collection

- 24-hour Classification Counts Five (5) Locations.
 - Location 1: Florida Park Drive Palm Harbor Pkwy to Forest Hill Drive
 - Location 2: Florida Park Drive Forest Hill Drive to Fleetwood Drive
 - Location 3: Florida Park Drive Fleetwood Drive to Farragut Drive
 - Location 4: Florida Park Drive Farragut Drive to Palm Coast Pkwy (WB)
 - o Location 5: Florida Park Drive Palm Coast Pkwy (WB) to Palm Coast Pkwy (EB)

Traffic Characteristics								
	Location 1	Location 2	Location 3	Location 4	Location 5			
Raw Traffic Count	5,263	6,102	7,640	8,460	5,977			
Annual Average Daily Traffic (AADT)	5,100	5,900	7,400	8,200	5,800			
K (Peak to Daily Ratio)	8.8%	9.0%	8.9%	8.8%	9.4%			
D (Measured)	56.3%	58.8%	62.7%	57.4%	69.9%			
T _{peak} (Measured)	0.22%	0.18%	0.29%	2.02%	0.53%			
(Measured) راندهه(Measured)	0.95%	0.72%	0.76%	1.97%	1.29%			



Existing Conditions - Speed Data

• Speed data collected from the 24-hour Classification Counts

	Location 1	Location 2	Location 3	Location 4	Location 5					
Average Speed (MPH)	31.6	32.9	32.2	33.2	20.2					
Speed Distribution										
5 – 20 MPH	0.9%	0.5%	0.1%	0.5%	43.9%					
20 – 25 MPH	4.2%	2.0%	1.3%	1.5%	43.6%					
25 – 30 MPH	27.1%	15.5%	16.6%	16.9%	10.9%					
30 – 35 MPH	50.5%	54.9%	63.5%	51.8%	1.3%					
35 – 40 MPH	15.1%	24.0%	16.4%	23.5%	0.2%					
40 and over	2.3%	3.1%	1.7%	5.9%	0.0%					



Existing Conditions - Intersection Analysis

Analysis was performed at the intersections listed in the table.

• As shown, all intersections and approaches operate an acceptable level of service

Intersection	Control	Time	NB	SB	EB	WB	Overall
intersection	Control	Time	LOS	LOS	LOS	LOS	LOS
Florida Park Drive at Palm Harbor Pkwy	Stop	AM	В	С	Α	Α	-
	Stop	PM	С	С	Α	Α	-
Florida Park Drive at Franklin Way	Stop	AM	Α	-	В	-	-
rionda Park Drive at Hankin way	Stop	PM	Α	-	В	-	-
Florida Park Drive at Forest Hil Dr	Stop	AM	Α	-	Α	-	-
Fiolida Park Drive at Forest Hil Di	Stop	PM	Α	-	В	-	-
Florida Park Drive at Foster Ln	Stop	AM	Α	-	В	-	-
FIOITUA Park Drive at Foster En	Stop	PM	Α	-	В	-	-
Florida Park Drive at Fleetwood Dr	Stop	AM	Α	-	В	-	-
Fiolida Park Drive at Fleetwood Dr		PM	Α	-	В	-	-
Elorido Dark Drivo at Earragut Dr	Stop	AM	Α	-	В	-	-
Florida Park Drive at Farragut Dr		PM	Α	-	В	-	-
Florida Dark Drive at Farrington I.n.	Stor	AM	Α	-	В	-	-
Florida Park Drive at Farrington Ln	Stop	PM	Α	-	- В -	-	
Florida Park Drive at Palm Coast Pkwy	Signalized	AM	С	С	-	Α	В
(WB)	Signalized	PM	С	С	1	Α	В
Florida Park Drive at Palm Coast Pkwy	Signalized	AM	-	В	Α	-	Α
(EB)		PM	-	В	Α	-	Α



Existing Conditions - Crash Data

Crash data was reported along the entire roadway from January 2012 to May 2015.

	Crash Types								
Year	Rear End	Angle	Sideswipe	Collision with Pedestrian	Collision with fixed object	Head On	Other	Total	
2012	3	1	0	1	0	0	0	5	
2013	4	4	1	1	2	0	1	13	
2014	5	3	1	3	0	1	0	13	
2015	3	0	0	1	0	0	0	4	
Total	15	8	2	6	2	1	1	35	



Existing Conditions - Summary

The existing conditions analysis found the following:

- The traffic volumes range in residential areas from 5,100 to 7,400 vehicles per day
- All intersections operate at an acceptable level of service C or better
- The average speeds along the corridor are between 30 and 35 MPH
- Thirty-five (35) crashes were reported in the past 3.5 years



Florida Park Drive – Phase Two

Florida Park Drive – Alternative Evaluation Study

- City Staff was directed to prepare a Request for Proposal (RFP) to traffic engineering firms on the City's continuing services contract
- City Staff prepared a scope of services with the following tasks:
 - Conduct neighborhood meetings to get local input
 - Utilize Travel Demand Modeling to model alternatives to reduce pass through trips along the corridor
 - Provide a Level of Service Analysis for Florida Park Drive and the surrounding roadways
 - Report to City Council the results of the study



Florida Park Drive – Phase Two

Florida Park Drive – Alternative Evaluation Study

- City staff reviewed the RFPs submitted by three consultants and ranked Lassiter Transportation Group, Inc. as the preferred firm to perform the study.
- Lassiter Transportation Group, Inc. prepared two fee estimates with only minor differences based on the cost of collecting origin and destination data.
 - Total Fee (including Bluetooth Data Collection): \$41,828
 - Total Fee (including License Plate Data Collection): \$42,260



Florida Park Drive – Conclusion

Conclusion

- The results of Existing Conditions Analysis illustrates Florida Park Drive operates at an acceptable level of service
- Additional Study from the consultant is not required at this time.



Florida Park Drive – Recommendations

Recommendations

- Continue to monitor traffic conditions through Citywide traffic counts.
- Defer further analysis until Florida Park Drive operates at an unacceptable level of service as determined by Citywide traffic counts.



Questions & Discussion

