



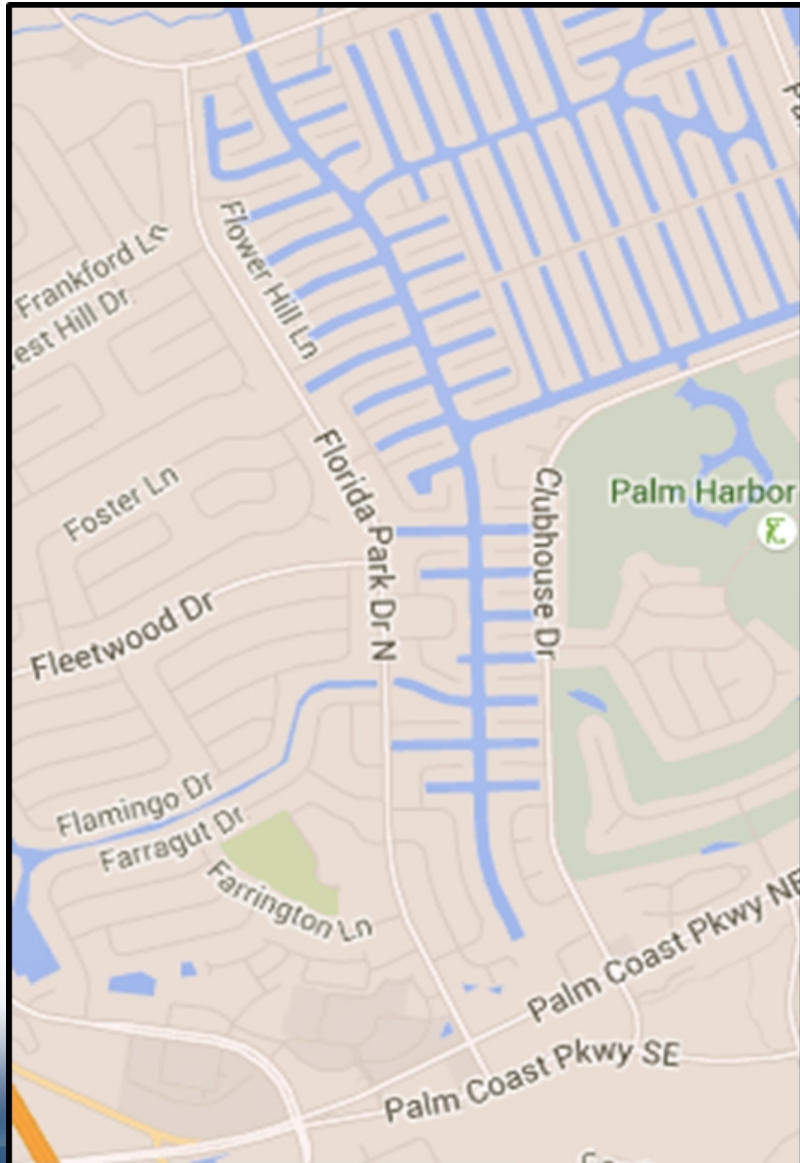
Florida Park Drive

**City Council Workshop
February 12, 2019**

Strategic Action Plan – Council Priority

- Measurement 5.2.2.14.a
 - Engage an external consultant to identify options through a traffic engineering study to address traffic concerns on Florida Park Drive.

Florida Park Drive – Existing Conditions



- 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.

Past Actions

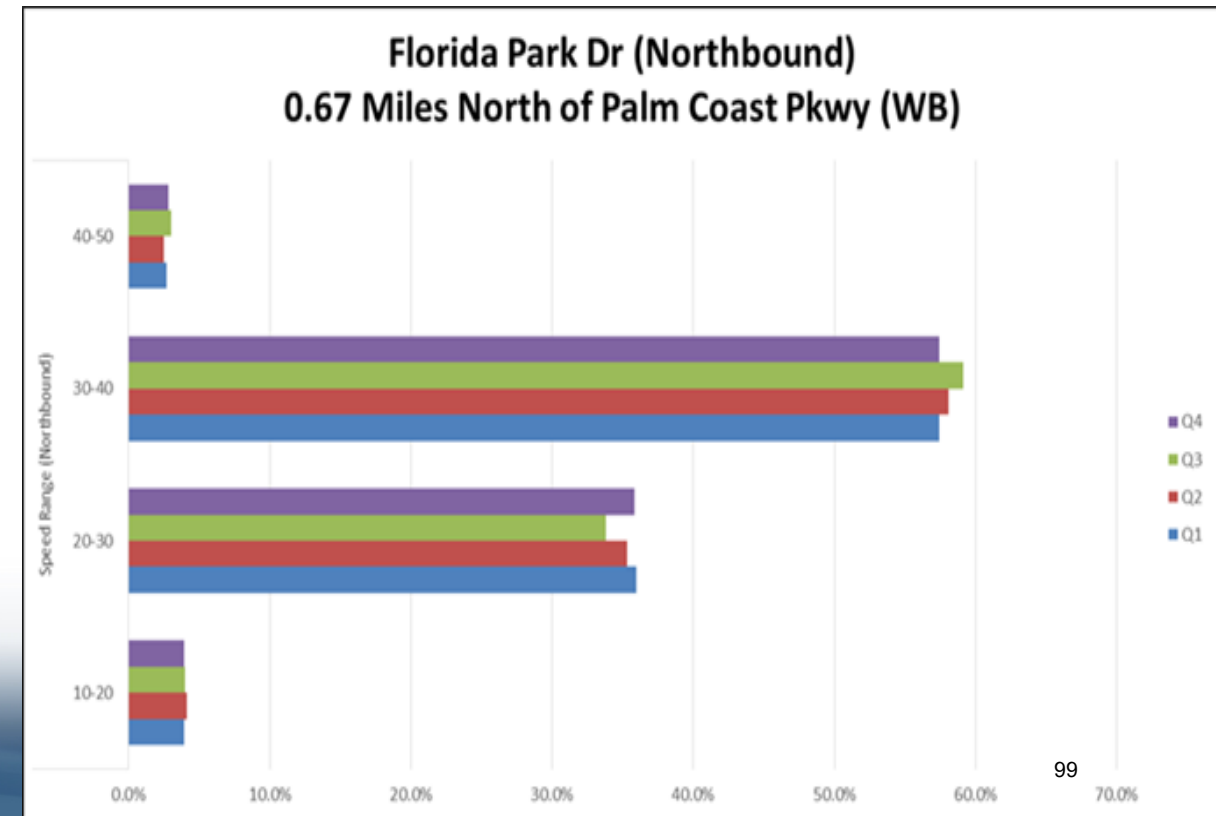
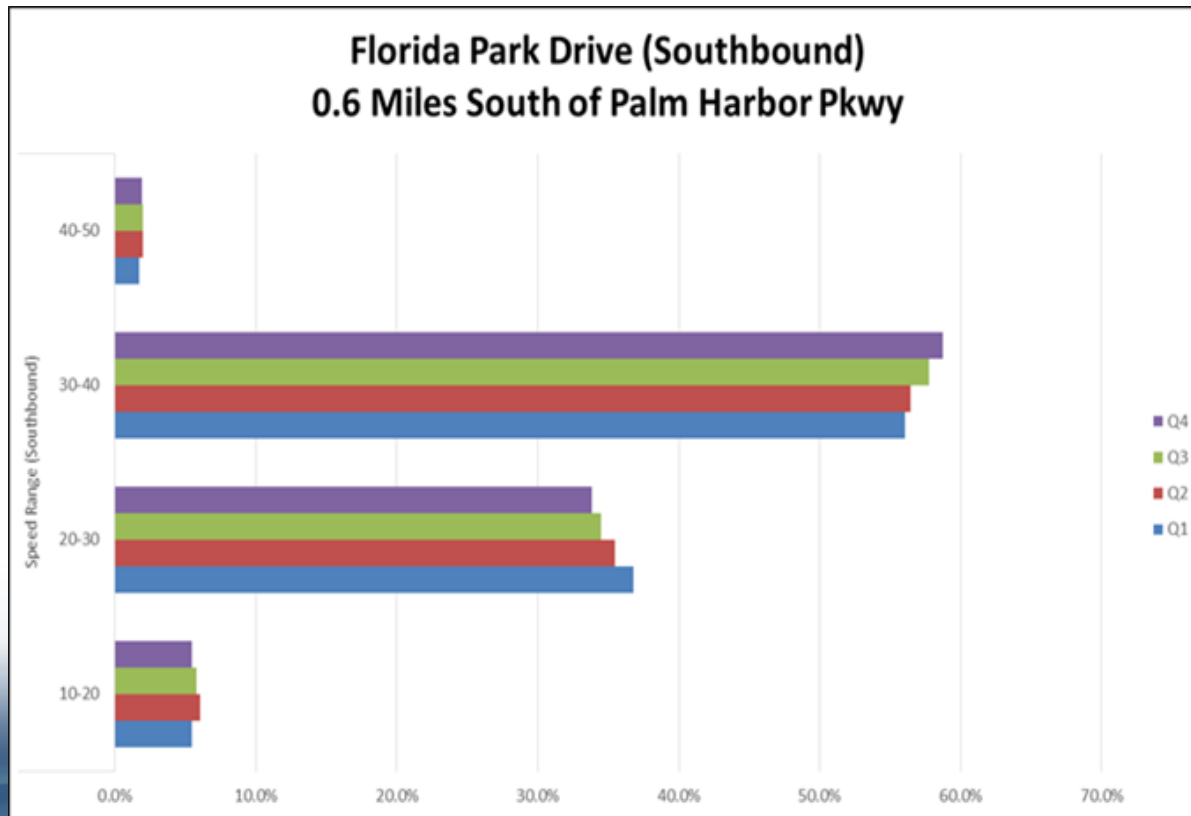
Summary – Past Actions

- ✓ **FY15: Collected Speed Data (entire year)**
- ✓ **6/9/2015: Existing Condition Traffic Study Presentation City Council**
- ✓ **6/15/2015: Traffic Study to Reduce Pass-Thru Traffic Not Approved by City Council**
- ✓ **8/25/2015: Air Quality Presentation to City Council**

Speed Study & Speeding Violations

October 2014 – September 2015:

- 60 Speeding Violations Issued
- 30-35 MPH is the Average Speed



Existing Condition Traffic Study

FY 2015: Work performed by City Staff

- Collected traffic data
 - Volume/Classification Counts
 - Turning Movement Counts (TMC)
 - Speed Data
- Performed Intersection Level of Service Analysis
- Reported Crash Data
- Prepared a report summarizing the results of the analysis
 - 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 previous 3.5 years

Alternative Evaluation Traffic Study

FY2015: Traffic Engineering Consultant Proposal

- 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
- City Traffic Engineer Conclusion:
 - The results of Existing Conditions Analysis illustrates Florida Park Drive operates at an acceptable level of service and indicated that this Study is not required at this time.
 - City Council did Not Move Forward with Consultant Proposal.

Air Quality & Traffic

FY2015: Presentation

- What is Air Quality
- Florida's Air Quality & Health Concerns
- FDOT Guidelines for Air Quality
- Measuring CO Releases in Palm Coast
- Analysis for Palm Coast:
 - Air Quality Technical Memorandum for Palm Coast Parkway 6-Laning Project
 - Cypress Point Parkway/Boulder Rock intersection used as worst-case scenario
 - Both the opening year and design year (2031) traffic predictions analyzed
 - CO levels not predicted to meet or exceed National Ambient Air Quality Standard

Possible Actions

Traffic - Scope of Work Options

Traffic Study - Lassiter

- Phase One – Update Existing Condition Traffic Study
- Phase Two – Alternatives Evaluation
 - Neighborhood Meetings
 - Travel Demand Modeling (includes study of 3 alternatives)
 - Quality / Level of Service Analysis
- Phase Three – Report with Options and Recommendations

Proposed Fee: \$66,485.00

Air Quality – Scope of Work Options

Air Quality – Montrose Air Quality Services

- Phase One – Base Line Monitoring Study (See next slides for monitoring options)
 - 3 Roadway Sampling Points for 1 week at each location (CO, PM_{2.5} and PM₁₀)
- Phase Two (Optional) – Modeling Study (\$15,000 - \$30,000)
 - Develop mobile emissions using EPA recommended MOVES model
 - Emissions from the MOVES model will be used as input to EPA's AERMOD dispersion modeling system
 - Receptors will be placed in the modeling software near the roadway
 - AERMOD model will predict ambient pollutant concentrations of CO, PM₁₀, and PM_{2.5} at the receptors

Proposed Fee: TBD after Scope of Work is Finalized

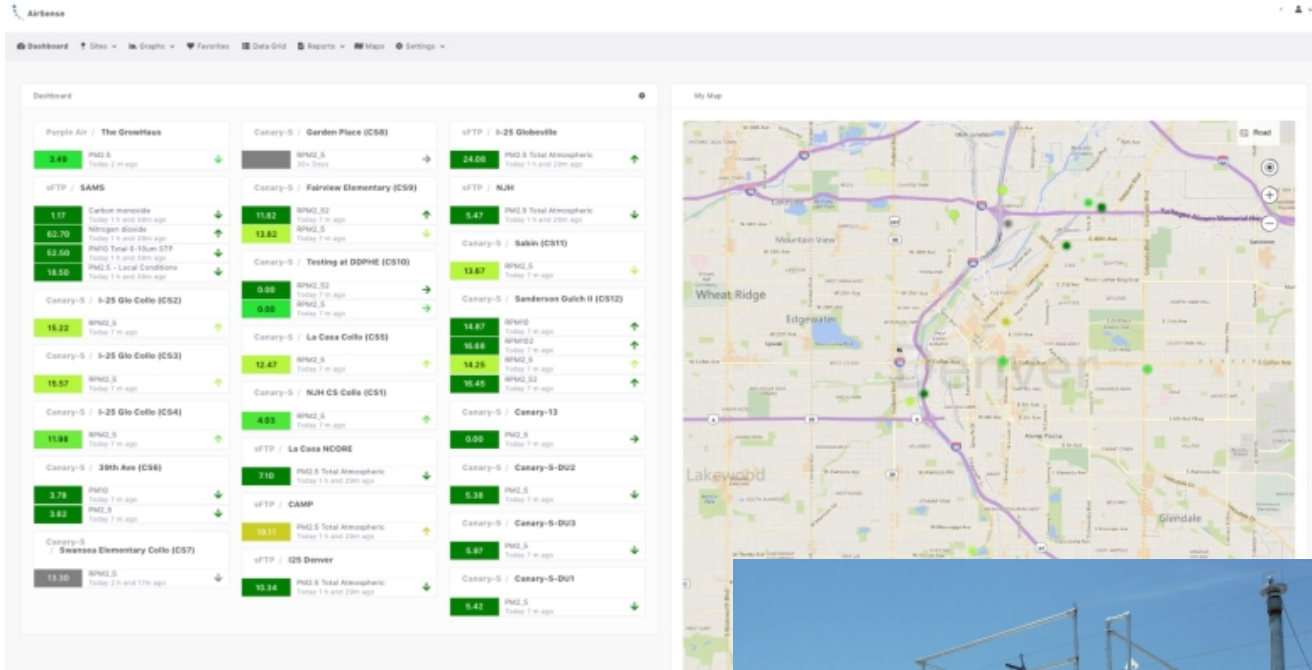
Air Quality Monitoring Options – CO, PM_{2.5}, PM₁₀

Option 1	Traditional EPA ambient monitoring station EPA Reference Methods (RM) and equipment housed in a 220V/110V powered climate controlled trailer. 1 week of monitoring at 3 locations (1 week/location) Requires re-location of trailer each week.	\$28,000
Option 2	Option 1 at a fixed site plus two low cost sensors at 2 additional sites Does not require re-location of RM trailer	\$31,500
Option 3	Lower cost sensors installed at 3 locations for 1 month Solar powered, cellular data transfer, various mounting options	\$14,500
Option 4	Includes the Option 3 sensors Plus an option for indefinite placement though life cycle of project Community facing dashboard to allow for data access Text/e-mail alerts for elevated pollution levels to allow remediation	\$11,500 - Month 1 \$3,300 – each additional month

Note: Additional costs for project support and reports may range up to \$7,000.



Air Quality Monitoring Options – CO, PM_{2.5}, PM₁₀



AirSense Data Platform Screenshot

Traditional EPA RM Monitoring Station (Mobile)



Lower Cost Sensor Deployment

Council Action

Council Direction

- Traffic Study
 - Update Existing Traffic Study with Current Data Collection?
 - Perform Alternative Evaluation (Analyze 3 Options)?
- Air Quality
 - Perform Air Quality Testing?
 - 3 Locations on Florida Park Drive
 - Add 1 Location in Palm Coast for Comparison?
 - Perform MOVES Modeling Study?
- Other Options
 - Narrow Scope: Investigate Traffic Calming Measures?
 - No Action until Level of Service Drops Below a 'C'.