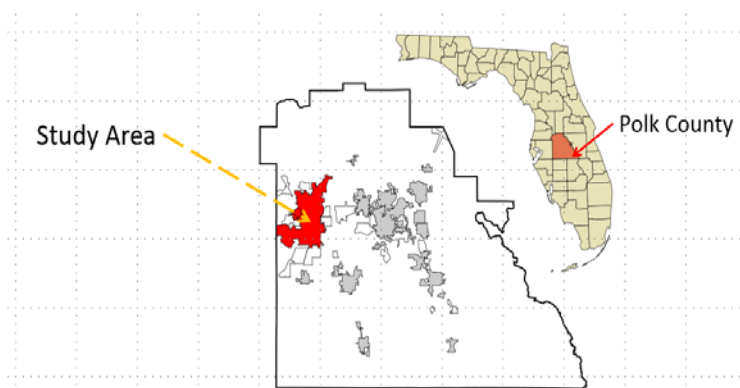


A presentation to:
The 10th University Transportation Centers Spotlight Conference:
Pedestrian and Bicycle Safety

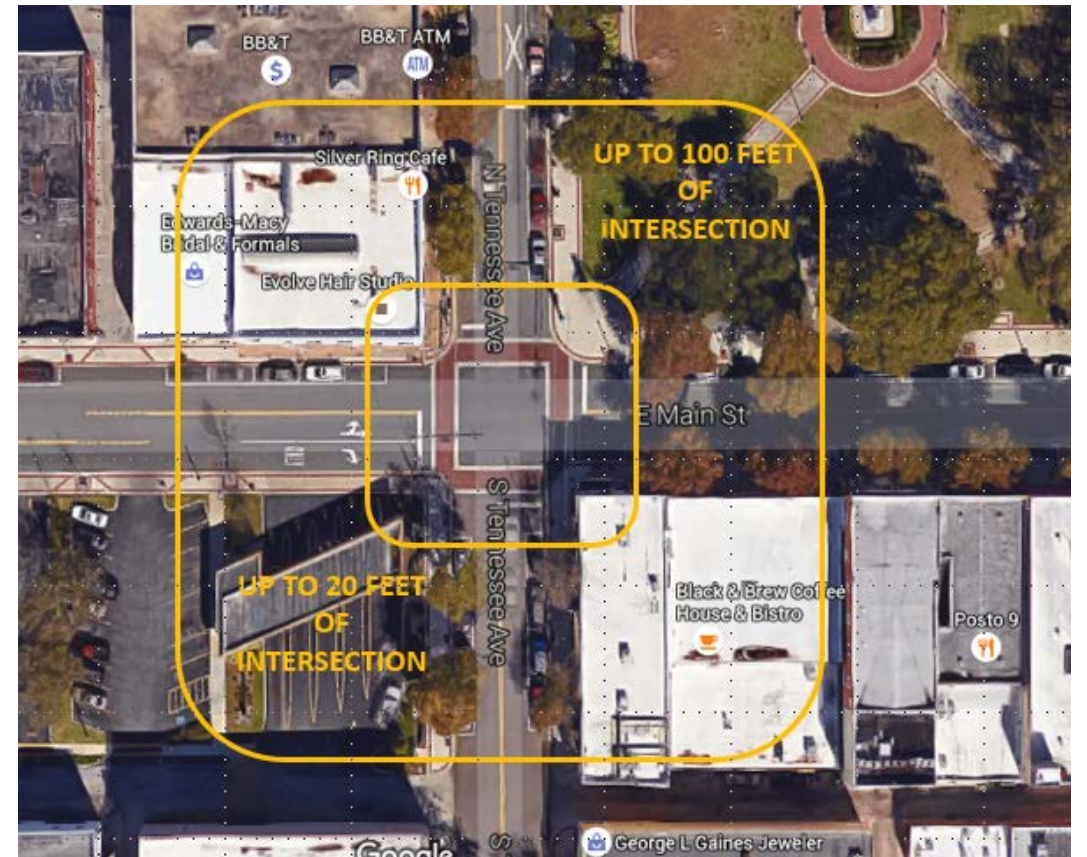
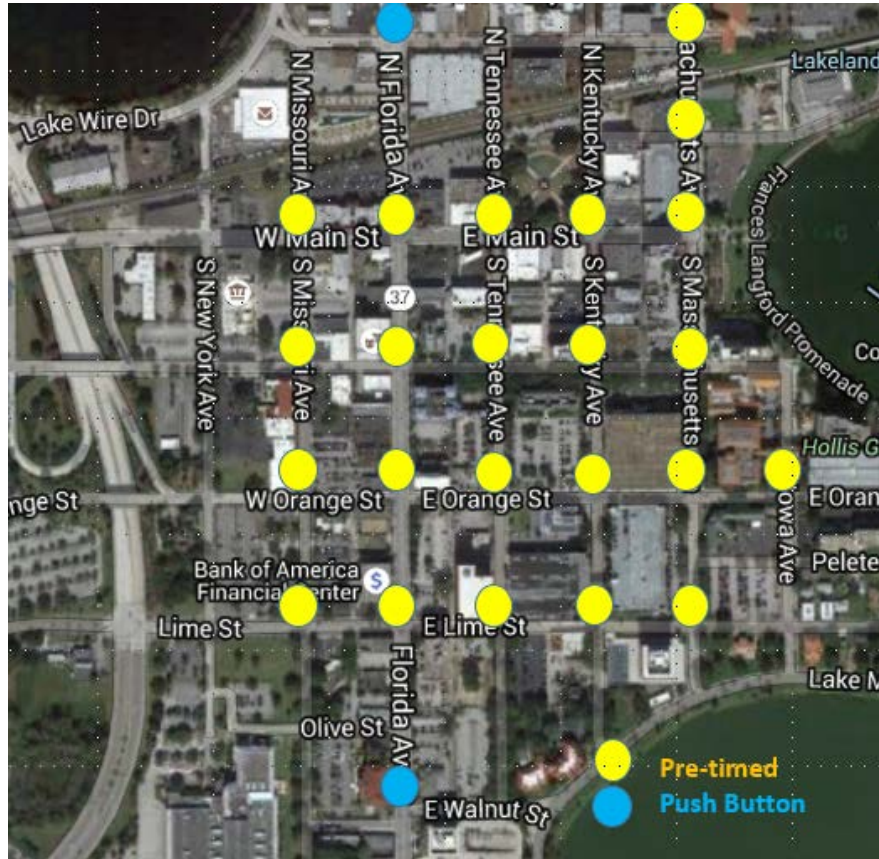
Leading Pedestrian Interval (LPI) – What are you doing with your 5 Seconds?

December 2, 2016
The Keck Center, Washington, DC

Angelo Rao, PE
Manager, Traffic Operations and Parking Services
City of Lakeland, FL

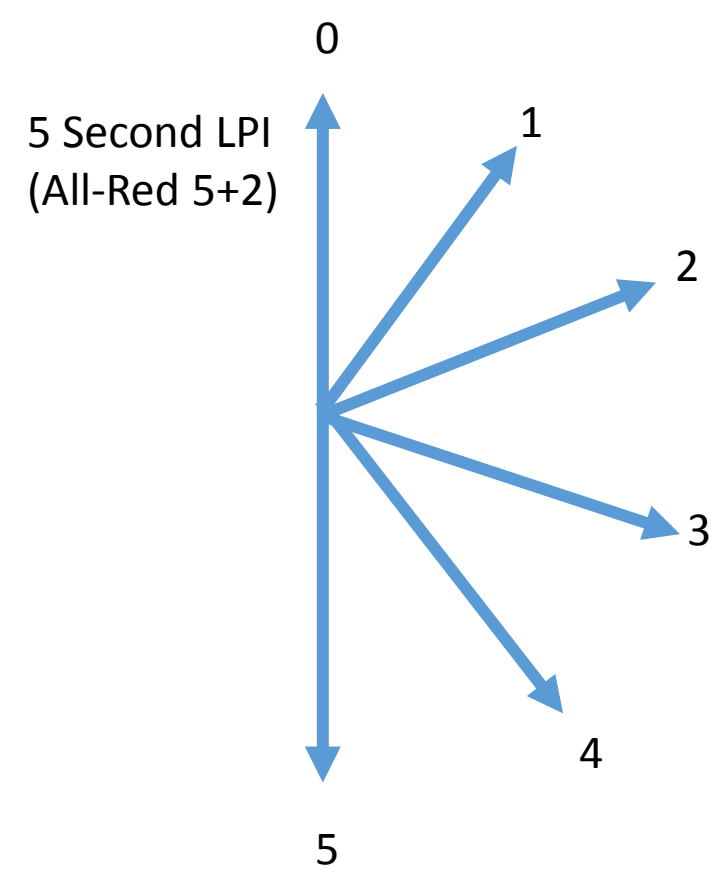


Study Area:
Downtown
Lakeland
Total Cost:
\$25.00

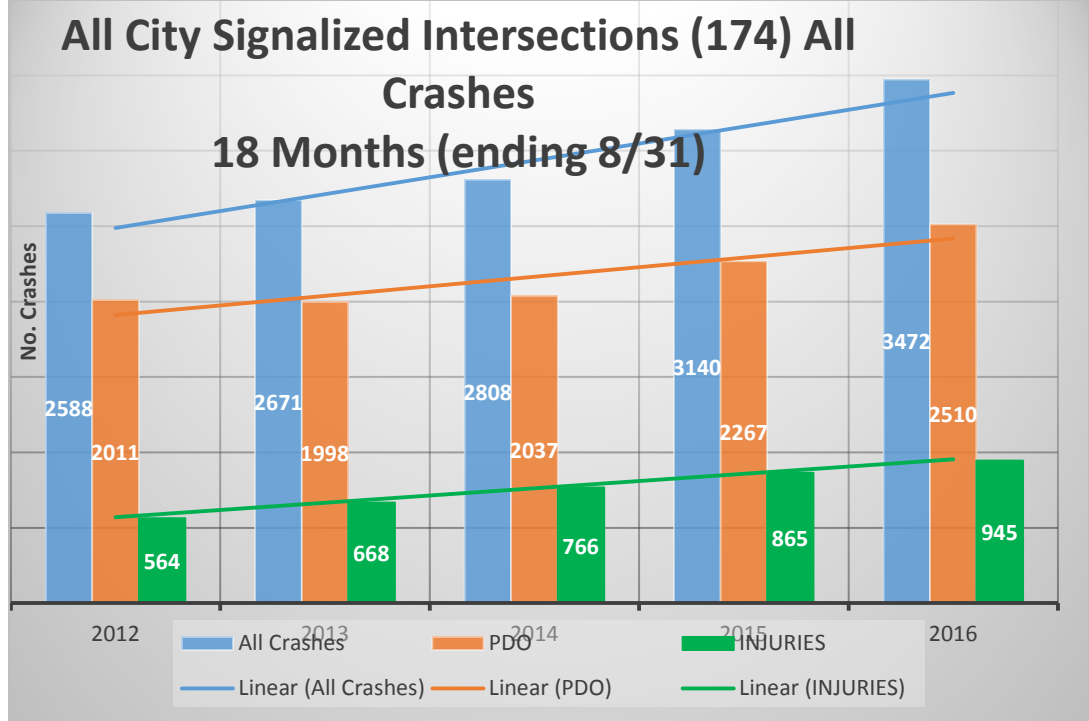
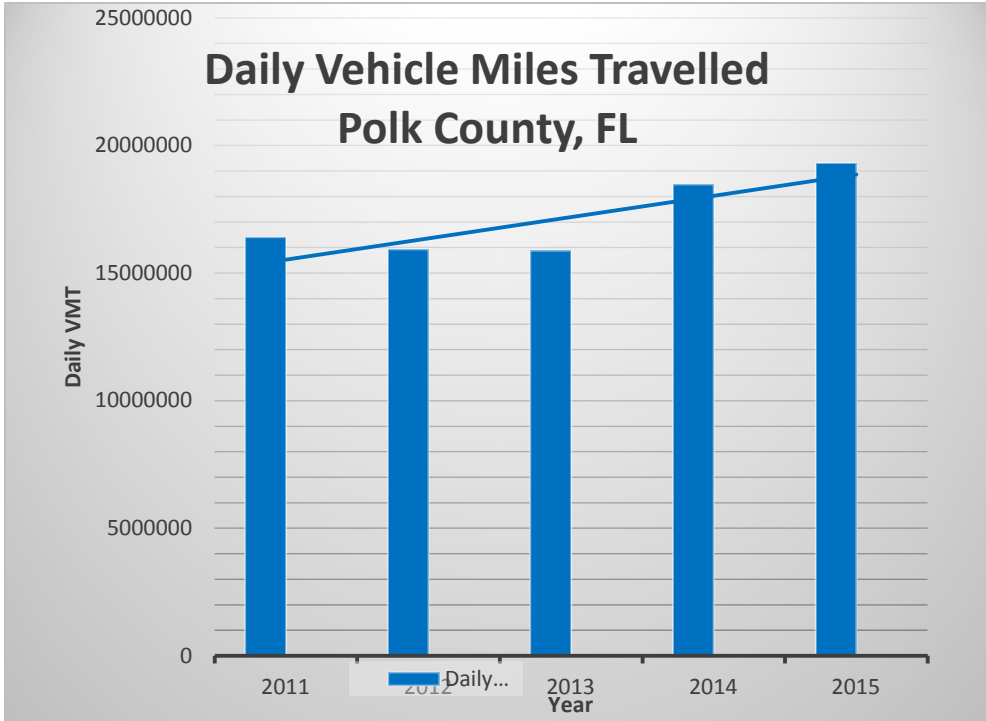


What is Leading Pedestrian Interval (LPI)?





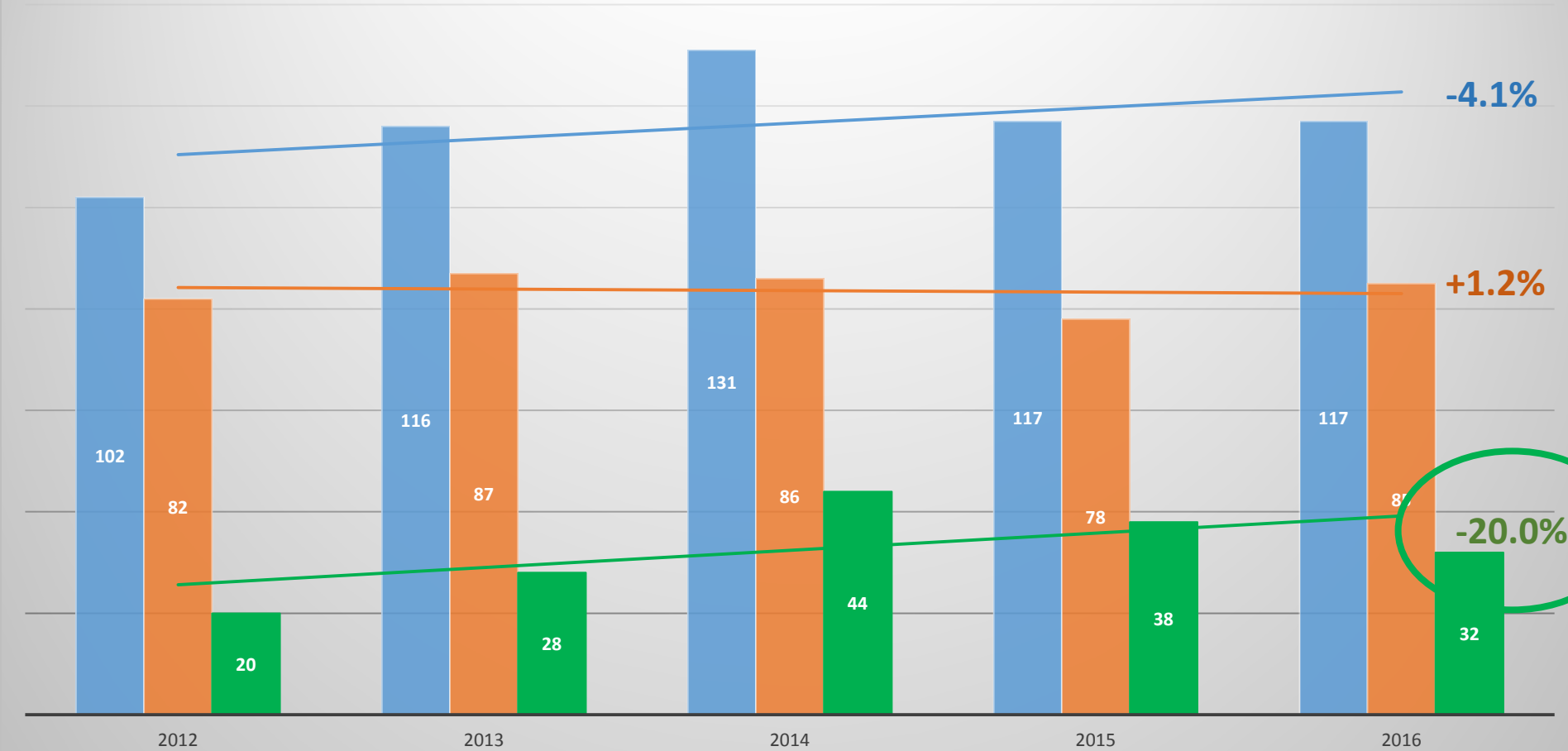




Total Vehicle Miles up 4.5%
City-wide Crashes up 10.5%



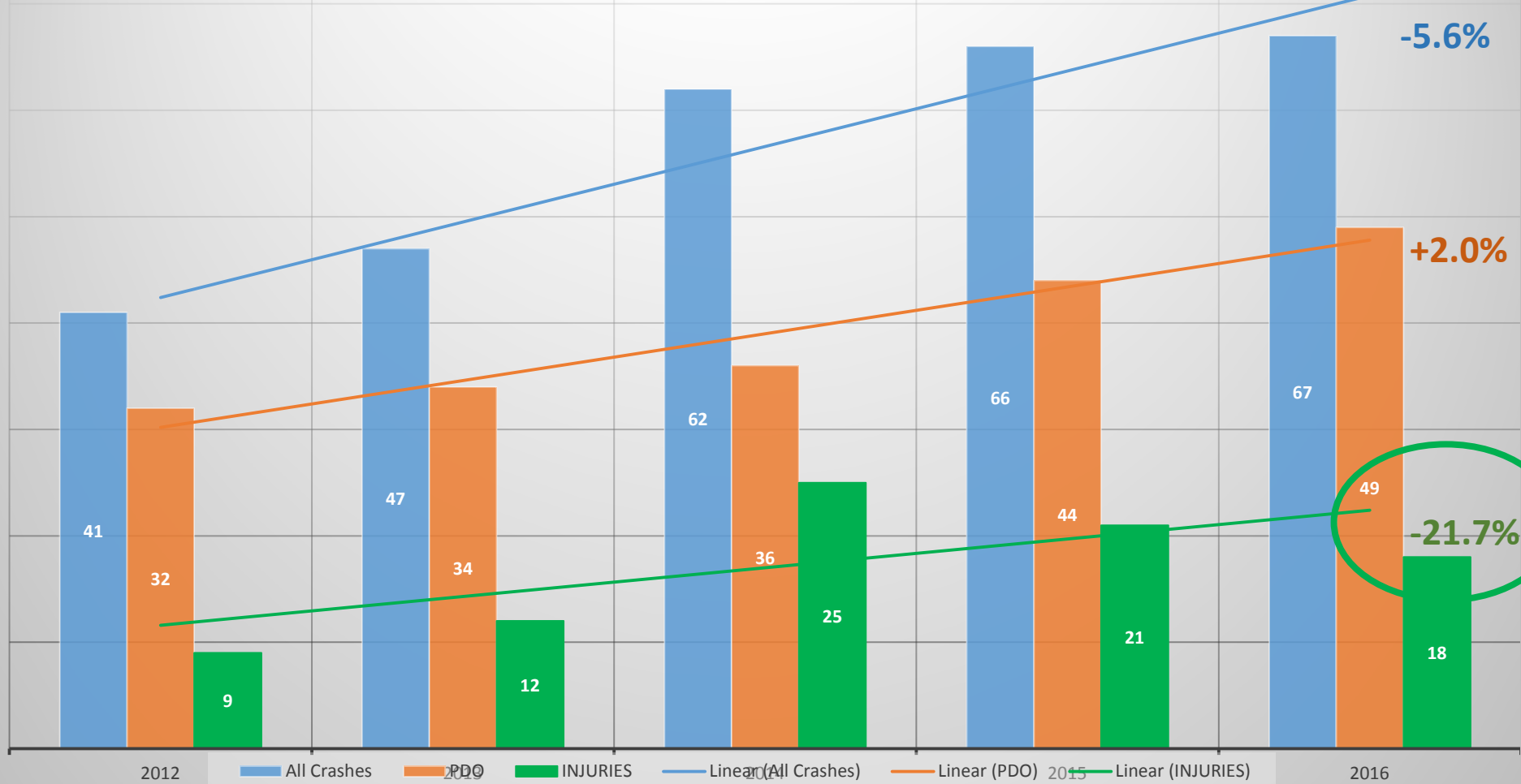
All LPI Intersections (w/o Push Buttons) 18 Months (ending 8/31)



ALL PDO INJURIES Linear (ALL) Linear (PDO) Linear (INJURIES)



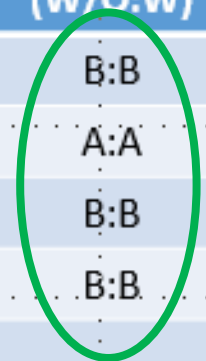
FDOT Study LPI Intersections (4) All Crashes (W/O Push Buttons) 18 Months (ending 8/31)



Florida Avenue
Intersection
with the:

Intersection	NB Delay w/o LPI (Sec.)	NB Delay w/LPI (Sec.)	SB Delay w/o LPI (Sec.)	SB Delay w/LPI (Sec.)	
Main Street	8.0	4.1	8.0	8.5	
Lemon Street	6.7	3.5	6.6	4.6	
Orange Street	10.2	7.7	10.3	6.8	
Lime Street	17.2	19.7	19.7	14.1	

Intersection	NB w/o LPI	NB w/LPI	SB w/o LPI	SB w/LPI	Overall LOS (W/O:W)
Main Street	A	A	A	A	B:B
Lemon Street	A	A	A	A	A:A
Orange Street	B	A	B	A	B:B
Lime Street	B	B	B	B	B:B



LPI Study Preliminary Conclusions

- LPI appears to have a positive impact on crash reductions – **18 month study period**
- Despite an upward City-wide trend in traffic volume (+4.5%) and crashes (+10.5%):
 - Overall LPI intersection crashes are **down** 4.1%
 - Overall *PDO* LPI intersection crashes are **up** 1.2%
 - Overall *Injury* LPI intersection crashes are **down** 20.0%
 - Rear-end crashes are **up** 7.1% (within 20 ft. **up** 35.0%)
 - Angled crashes are **down** 1.8%
 - Pedestrian crashes **reduced** from four to one
 - Bicycle crashes **had no change** - two
- Anecdotally, pedestrians have indicated a higher “comfort” level using the “LPI” crossings
- Appears to work best in a pre-timed condition
- There appears to be virtually no adverse impact on intersection delay or level of service
- ***Warrants further in-depth study***

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