



# Fort Lauderdale Red-Light Safety Camera Program

## Analysis of Red-Light Safety Camera Program and Site Selection Results

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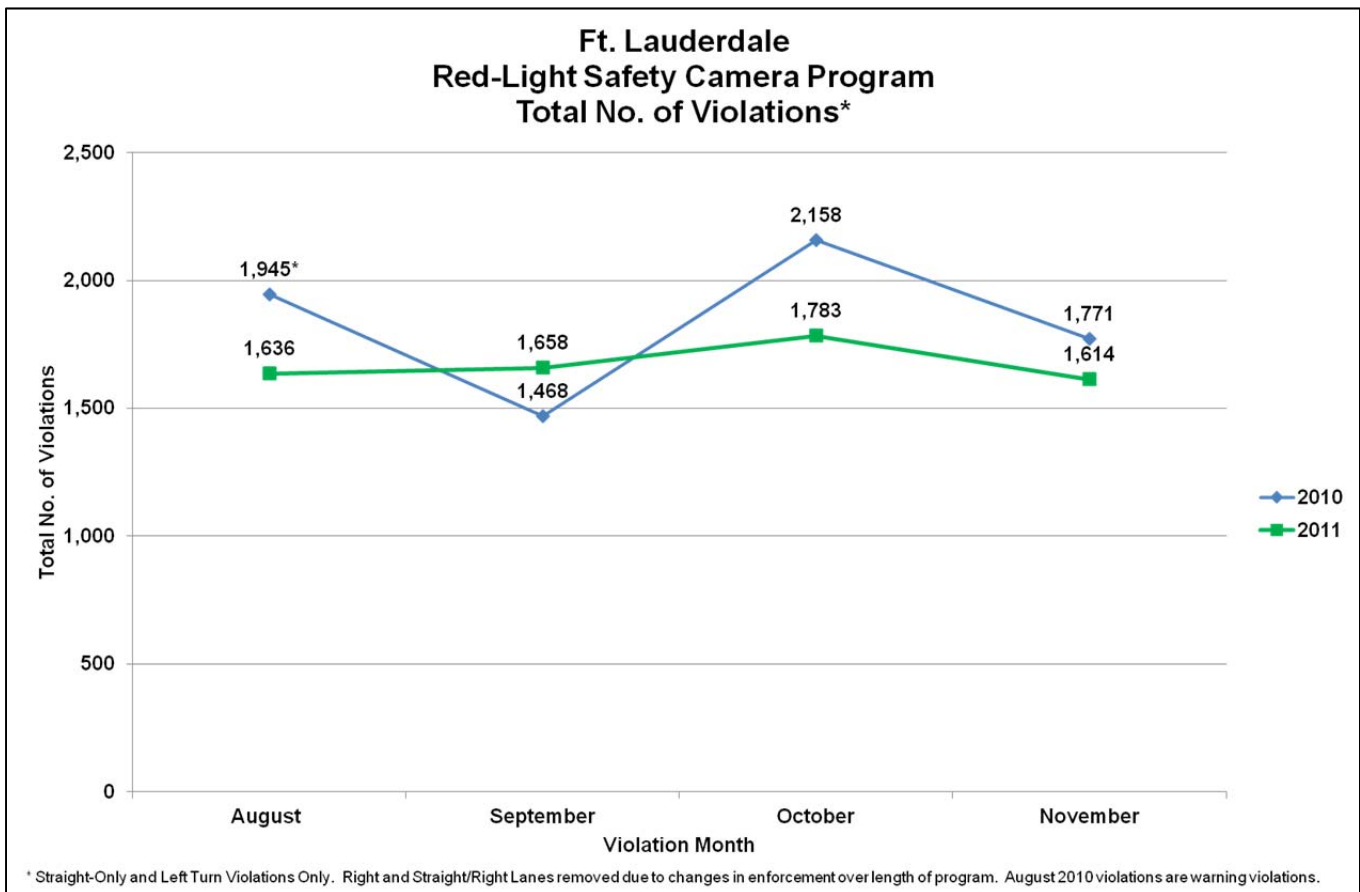


## 1. VIOLATIONS OVERVIEW

### 1.1 TOTAL VIOLATIONS

Comparing the period from August through November 2010 to the same period in 2011, red-light violations have decreased by 8.9% at straight-only and left-turn lanes. Right-turn and straight/right lanes were excluded, as Fort Lauderdale changed their enforcement procedure of right turns in 2011.

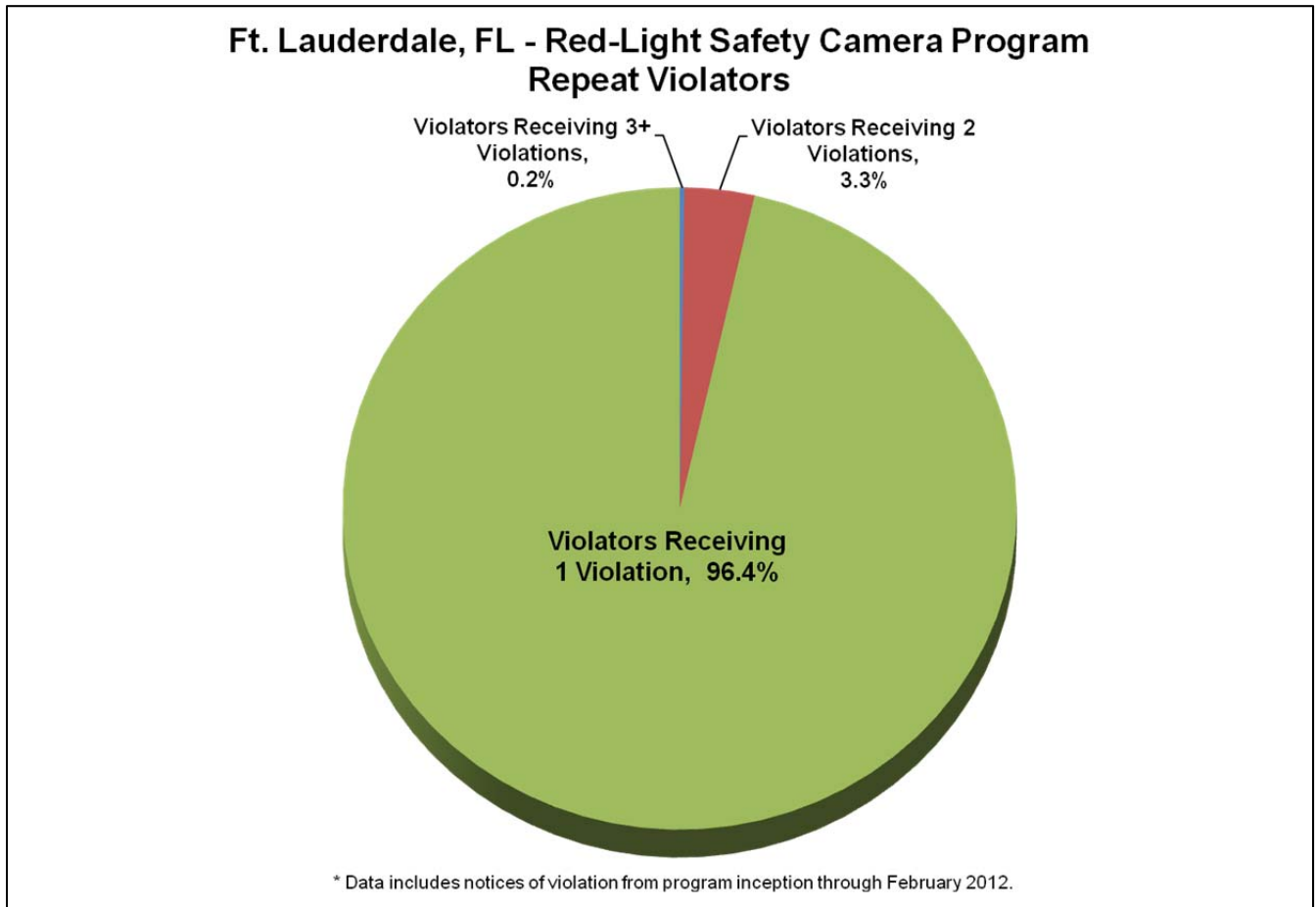
A reduction in the number of red-light violations decreases the likelihood of a red-light related crash.





**1.2 REPEAT VIOLATORS**

From September 8, 2010 through February 2012, there were 25,403 total violators who had been issued a Notice of Violation. Only 908 of these violators had received more than one violation. This demonstrates that violators alter their behavior and do not run red lights after receiving a first violation.

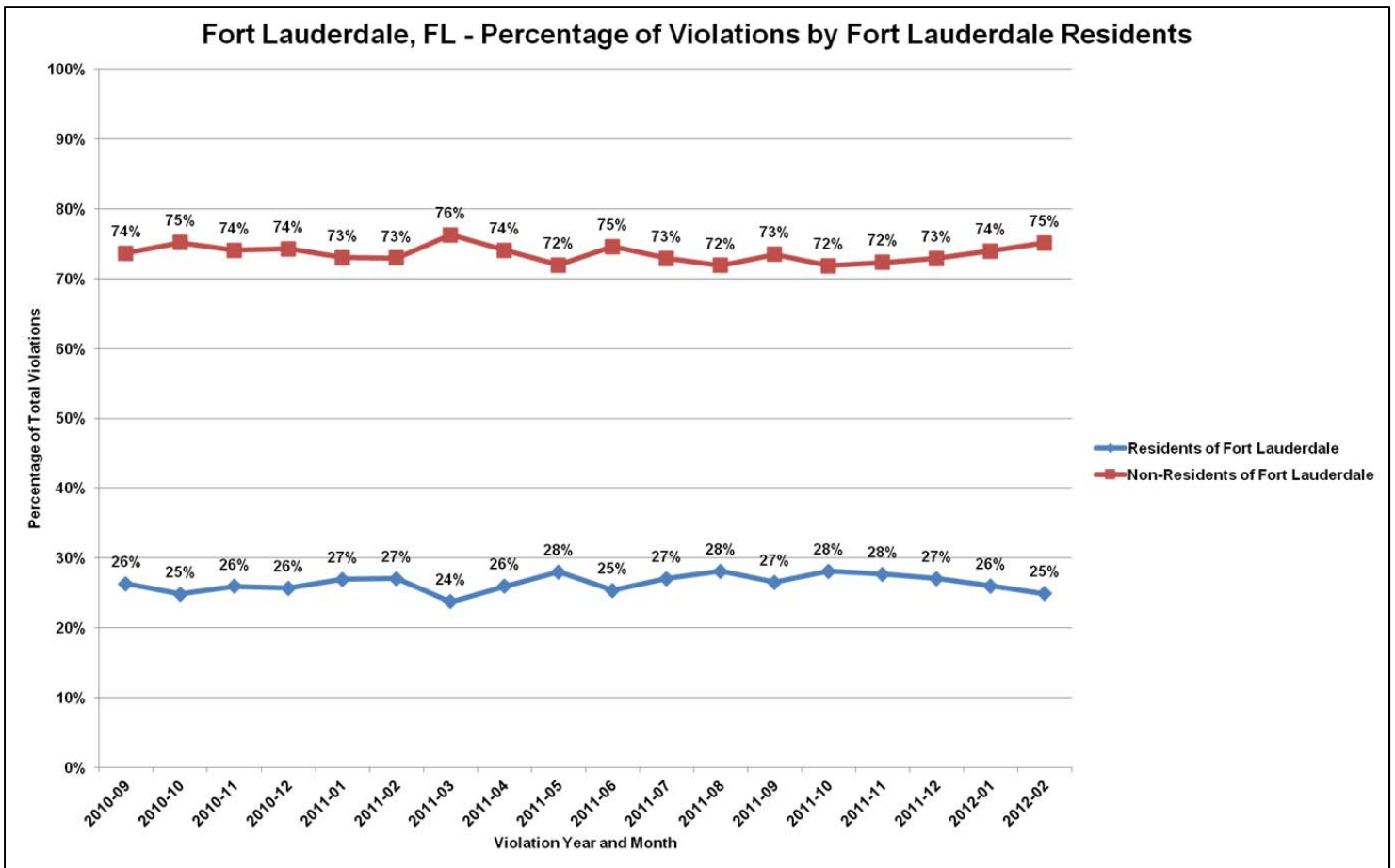


	Number of Violators	Percentage of Total Violators
Violators Receiving 1 Violation	24,495	96.4%
Violators Receiving 2 Violations	850	3.3%
Violators Receiving 3+ Violations	58	0.2%



### 1.3 VIOLATIONS BY RESIDENTS OF FORT LAUDERDALE

Since program activation in September 2010, only 26% of violations in the City of Fort Lauderdale have been caused by residents of Fort Lauderdale. This shows that the program is primarily funded by drivers in the surrounding area who disobey traffic laws in the city.





## 2. CRASH ANALYSIS

### 2.1 CRASH SUMMARY

Comparing the post-Red-Light Safety Camera activation period from September 8, 2010 through July 1, 2011 to the same time period the year prior, total crashes at the enforced sites increased by 3 total crashes. This is not a statistically significant change at the 90% confidence interval. Due to the relatively small numbers of crashes at the sites, it cannot be determined whether the program has had a positive or negative effect on crashes at this point. Section 2.2 shows the data elements necessary to assess a Red-Light Safety Camera program.

Ft. Lauderdale - Total Crashes at Red-Light Safety Camera Approaches			
Intersection	Pre- Camera Activation	Post -Camera Activation	Change In Total Crashes
E/B - W. COMMERCIAL BLVD / POWERLINE RD (NW 9 AVE)	7	6	-1
E/B - W. SUNRISE BLVD / NW 15 AVE	7	4	-3
N/B - N. FEDERAL HWY / NE 8 ST	0	3	3
N/B - S. FEDERAL HWY / SR 84	4	8	4
W/B - SR 84 / SW 9TH AVE	2	0	-2
W/B - W. COMMERCIAL BLVD / NW 21 AVE	1	3	2
<b>Total Crashes</b>	<b>21</b>	<b>24</b>	<b>3</b>



Ft. Lauderdale Total Crashes at Red-Light Safety Camera Approaches by Type				
Intersection	Crash Type	Pre Camera Activation	Post Camera Activation	Change in Crashes Pre vs. Post
E/B - W. COMMERCIAL BLVD / POWERLINE RD (NW 9 AVE)	Angle	1	2	1
	Bicycle	0	1	1
	Pedestrian	1	1	0
	Rear End	2	2	0
	Sideswipe	3	0	-3
E/B - W. SUNRISE BLVD / NW 15 AVE	Angle	1	2	1
	Rear End	6	2	-4
N/B - N. FEDERAL HWY / NE 8 ST	Angle	0	2	2
	Sideswipe	0	1	1
N/B - S. FEDERAL HWY / SR 84	Angle	1	2	1
	Light Pole	0	1	1
	Rear End	3	4	1
	Sideswipe	0	1	1
W/B - SR 84 / SW 9TH AVE	Rear End	2	0	-2
W/B - W. COMMERCIAL BLVD / NW 21 AVE	Rear End	1	2	1
	Angle	0	1	1



## 2.2 ADDITIONAL DATA NECESSARY FOR A STATISTICALLY VALID CRASH ANALYSIS

To create the most complete and statistically valid assessment of a Road Safety Camera program, it is important to collect the following data associated with the monitored approaches. The following data components of a study are listed in descending order of importance:

1. **Crash Reports** (preferred) or a coded database with crashes occurring at the approach intersection or location and for comparison sites
  - a. A minimum of 3 years of crash data prior to program implementation is preferred in order to establish a trend.
  - b. Crash data following program implementation. A minimum of 3 years of crash data is preferred in order to establish a trend; however, a preliminary assessment can be done at the one and two-year marks.
2. **Violation Data** at the monitored approaches (ATS)
3. **Traffic Volume Data** (AADT) – Not mandatory but extremely valuable
4. Any **additional factors** which may have affected the program or the crash rate
  - a. Significant weather impacts
  - b. Public education/media exposure
  - c. Construction at or near the monitored approaches
  - d. Change in the crash-reporting threshold

To create the most robust study, **enforcement sites should be compared to comparison sites.** Comparison sites are similar to the enforcement sites in terms of geometric features and operation and should be unaffected by the Road Safety Camera program. The same data should be collected for these sites as is collected at the enforced sites.





### 3. FINANCIAL RESULTS

Since the beginning of the Red-Light Safety Camera Program through January 2012, Fort Lauderdale has collected \$608,972.26\* in revenue after subtracting ATS program costs and payment to the Department of Revenue.

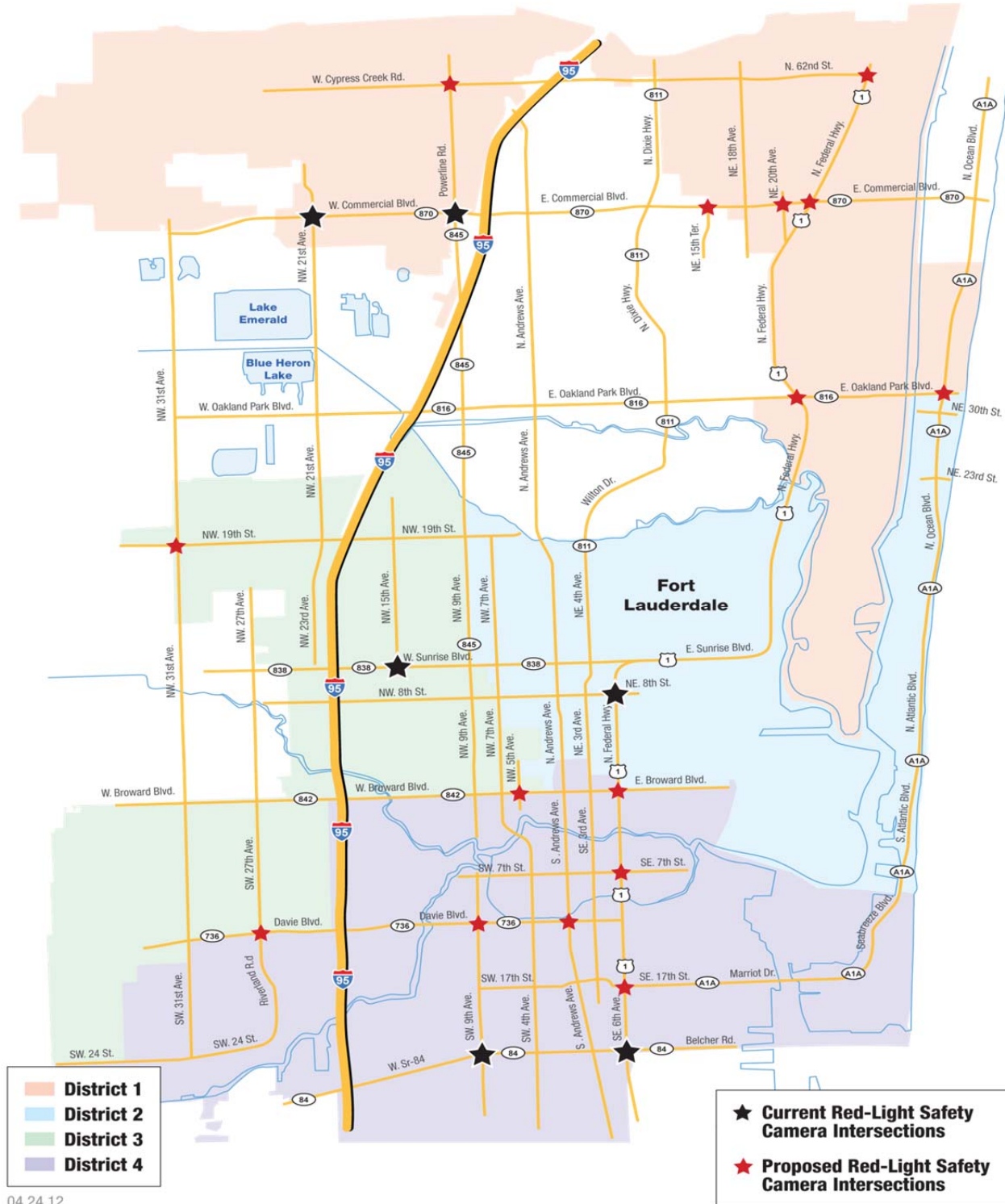
<b>Ft. Lauderdale - Financial Results for City's Red-Light Safety Camera Program</b>	
<b>Month</b>	<b>City's Share of Total Fines Collected (After Dept. of Revenue and ATS)</b>
10-Aug	(\$13,161.60)
10-Sep	(\$24,600.00)
10-Oct	\$39,241.00
10-Nov	\$90,548.61
10-Dec	\$83,568.00
11-Jan	\$18,457.21
11-Feb	\$8,271.00
11-Mar	\$150.00
11-Apr	\$5,633.22
11-May	\$15,646.68
11-Jun	\$43,062.62
11-Jul	\$44,445.68
11-Aug	\$50,157.03
11-Sep	\$47,041.10
11-Oct	\$53,481.02
11-Nov	\$34,841.81
11-Dec	\$58,639.24
12-Jan	\$53,549.64
<b>Total</b>	<b>\$608,972.26*</b>

\* The revenue total shown does not reflect payments made directly to the City or UTC payments.



## 4. PROPOSED ADDITIONAL SITES

### 4.1 LOCATIONS OF 15 PROPOSED AND 6 EXISTING INTERSECTIONS



04.24.12



**4.2 RESULTS FROM SITE SELECTION TESTING**

Results from site selection testing that ATS performed show the expected total violations at each approach broken down by direction. The test results at the 15 intersections are shown below:

<b>Fort Lauderdale Proposed Red-Light Safety Camera Site Additions with Study Results</b>				
<b>Number of Approaches</b>	<b>Intersection</b>	<b>Left Turn Violations</b>	<b>Through Violations</b>	<b>Total Violations</b>
1	Davie Blvd / SR 736 at S Andrews Ave	4	4	8
2	Davie Blvd / SR 736 at SW 27th Ave	10	11	21
1	Davie Blvd / SR 736 at SW 9th Ave	5	6	11
1	E Commercial Blvd / SR 870 at NE 15th Ave	4	4	8
2	E Commercial Blvd / SR 870 at NE 20th Ave	12	12	24
3	E Oakland Park Blvd at FL A1A / N Ocean Blvd	13	14	27
3	N Federal Hwy at E Commercial Blvd	10	40	50
1	NW 19th St at NW 31st Ave	6	6	12
2	NW 5th Ave at W Broward Blvd / SR 842	9	10	19
2	S Federal Hwy / US 1 at SE 7th St	10	10	20
3	E Oakland Park Blvd at N Federal Hwy / US 1	30	56	86
3	W Cypress Creek Rd at Powerline Rd	30	39	69
2	S Federal Hwy / US 1 at W Broward Blvd / SR 842	6	9	15
1	S Federal Hwy / US 1 at SE 17th St	8	0	8
3	N Federal Hwy / US 1 at NE 62nd St / Cypress Creek Rd / Bayview Dr	15	16	31
<b>Total # of Intersections: 15</b>		<b>172</b>	<b>237</b>	<b>409</b>

\* Site Selection results are projections and do not guarantee specific violations or revenue results.



### 4.3 EXISTING SITES - TEST RESULTS VS. ACTUAL VIOLATION DATA

Results from Video testing that ATS performed show the expected total violations at each existing intersection. The Video test results are an estimated count of violations at each intersection before enforcement. The test results and actual violation numbers for existing intersections are compared below:

Fort Lauderdale – Existing Red-Light Safety Camera Sites - VIMS Results vs. Violations Issued							
Direction	Intersection	Video Testing Estimate*			Actual No. of Violations		
		Left Turn	Through	Total	Sep-10*	Oct-10	Nov-10
EB	SR 84 at SW 9th Ave	0	1,245	1,245	552	481	370
WB	W Commercial Blvd at NW 21st Ave	180	420	600	270	225	144
EB	W Sunrise Blvd at NW 15th Ave	300	300	600	445	1120	1066
NB	S Federal Hwy at SR 84	180	390	570	204	303	203
NB	N Federal Hwy at NE 8th St	90	900	990	128	145	66
EB	W Commercial Blvd at Powerline Rd	330	360	690	231	244	151

\*Sep-10 represents a partial month.

\* Video testing studies are an estimated count of violations at each intersection, before enforcement. Violations decrease over time as driver behavior is altered.