

Traffic Counts and Level of Service Report Fall 2014

Roadway Name	Location	AADT	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
				Volume	LOS	V/C	Volume	LOS	V/C
SHINN RD	OKEECHOBEE RD to ORANGE AVE	824	1,030	57	B	0.150	66	B	0.174
SNEED RD	OKEECHOBEE RD to ORANGE AVE	1,592	500	116	B	0.725	111	B	0.694
SOUTHBEND BLVD	BECKER RD to FLORESTA DR	12,000	710	726	E	0.955	651	D	0.917
SR A1A NORTH	US 1 to OLD DIXIE HWY	5,607	920	378	C	0.434	379	C	0.436
SR A1A NORTH	OLD DIXIE HWY to N HWY A1A	6,400	0	355	C	0.408	333	C	0.383
SR A1A NORTH	SHOREWINDS DR to INDIAN RIVER C.L.	6,876	920	370	C	0.425	406	C	0.467
SR A1A SOUTH	NETTLES ISLAND to FPL PLANT	7,055	920	432	C	0.497	387	C	0.445
SR A1A SOUTH	FPL PLANT to BLUE HERON BLVD	3,413	660	408	C	0.658	327	C	0.527
SR A1A SOUTH	BLUE HERON BLVD to SEAWAY DR	6,926	560	374	D	0.668	447	D	0.798
SR A1A SOUTH	OCEAN DR to BINNEY DR	11,338	560	564	E	0.940	590	E	0.983
SR A1A SOUTH	BINNEY DR to S CAUSEWAY PARK	11,338	790	564	D	0.714	590	D	0.747
SR A1A SOUTH	S CAUSEWAY PARK to INDIAN RIVER DR	9,799	1,550	539	C	0.781	487	C	0.706
SR A1A SOUTH	INDIAN RIVER DR to US 1	9,799	1,710	539	C	0.700	487	C	0.632
ST JAMES DR	AIROSO BLVD to ST JAMES BLVD	17,000	1,890	1,254	C	0.697	1,216	C	0.676
ST JAMES DR	ST JAMES BLVD to PEACHTREE BLVD	19,000	1,890	1,518	C	0.843	1,208	C	0.671
ST JAMES DR	PEACHTREE BLVD to TELFORD AVE	17,000	1,800	1,254	C	0.729	1,216	C	0.707
ST JAMES DR	TELFORD AVE to MIDWAY RD	21,000	1,890	1,163	C	0.646	1,414	C	0.786
ST JAMES BLVD	SELVITZ RD to ST JAMES DR	4,300	680	318	C	0.964	243	C	0.736
ST LUCIE BLVD	KINGS HWY to KEEN RD	4,821	750	384	C	0.541	364	C	0.513
ST LUCIE BLVD	KEEN RD to 25TH ST	4,821	750	384	C	0.541	364	C	0.513
ST LUCIE BLVD	25TH ST to SENECA AVE	3,784	710	194	C	0.554	197	C	0.563
ST LUCIE BLVD	SENECA AVE to US 1	3,784	790	194	C	0.497	197	C	0.505
ST LUCIE WEST BLVD	COMMERCE CENTER DR to W OF I-95	10,500	590	492	C	0.879	506	C	0.904
ST LUCIE WEST BLVD	I-95 to CALIFORNIA BLVD	35,000	1,890	1,679	C	0.933	1,542	C	0.857
ST LUCIE WEST BLVD	CALIFORNIA BLVD to COUNTRY CLUB DR	35,000	1,890	1,679	C	0.933	1,542	C	0.857
ST LUCIE WEST BLVD	COUNTRY CLUB DR to CASHMERE BLVD	35,000	1,890	1,679	C	0.933	1,542	C	0.857
ST LUCIE WEST BLVD	CASHMERE BLVD to BAYSHORE BLVD	44,000	2,850	2,285	C	0.822	2,125	C	0.764
SUNRISE BLVD	MIDWAY RD to BELL AVE	3,709	510	283	D	0.555	237	C	0.948
SUNRISE BLVD	BELL AVE to EDWARDS RD	4,016	640	254	C	0.794	265	C	0.828

* Volumes shown were adjusted using FDOT Seasonal Factors

* AADT = Annual Average Daily Traffic



Traffic Counts and Level of Service Report Fall 2012

Roadway Name	Location	AADT	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
				Volume	LOS	V/C	Volume	LOS	V/C
RANGE LINE RD	MARTIN COUNTY LINE to BECKER RD	1,503	740	123	B	0.166	126	B	0.170
RANGE LINE RD	BECKER RD to GATLIN BLVD	1,503	740	123	B	0.166	126	B	0.170
RANGE LINE RD	GATLIN BLVD to GLADES CUT-OFF RD	1,503	740	123	B	0.166	126	B	0.170
RIO MAR DR	PRIMA VISTA BLVD to BEACH AVE	5,627	790	340	B	0.430	377	B	0.477
RIO MAR DR	BEACH AVE to US 1	5,627	600	340	D	0.567	377	D	0.628
SAVONA BLVD	BECKER RD to PAAR DR	5,157	830	519	C	0.625	452	B	0.545
SAVONA BLVD	PAAR DR to GATLIN BLVD	5,157	790	519	C	0.657	452	B	0.572
SAVONA BLVD	GATLIN BLVD to CALIFORNIA	11,500	830	602	C	0.725	622	C	0.749
SAVAGE BLVD	GATLIN BLVD to SW IMPORT DR	3,592	830	215	B	0.259	235	B	0.283
SAVANNAH RD	US 1 to INDIAN RIVER DR	2,323	630	169	B	0.268	160	B	0.254
SELVITZ RD	MIDWAY RD to GLADES CUT-OFF RD	6,900	630	501	C	0.795	445	C	0.706
SELVITZ RD	GLADES CUT-OFF RD to EDWARDS RD	10,000	830	620	C	0.747	516	C	0.622
SHINN RD	MIDWAY RD to OKEECHOBEE RD	600	580	50	B	0.086	48	B	0.083
SHINN RD	OKEECHOBEE RD to ORANGE AVE	870	740	60	B	0.081	69	B	0.093
SNEED RD	OKEECHOBEE RD to ORANGE AVE	1,493	740	108	B	0.146	104	B	0.141
SR A1A NORTH	US 1 to OLD DIXIE HWY	4,710	660	318	D	0.482	318	D	0.482
SR A1A NORTH	OLD DIXIE HWY to SHOREWINDS DR	7,200	540	399	B	0.739	374	B	0.693
SR A1A NORTH	SHOREWINDS DR to INDIAN RIVER COUNTY LINE	6,803	920	366	B	0.398	401	B	0.436
SR A1A SOUTH	NETTLES ISLAND to FPL PLANT	5,977	920	366	B	0.398	328	B	0.357
SR A1A SOUTH	FPL PLANT to BLUE HERON BLVD	3,530	700	422	C	0.603	338	B	0.483
SR A1A SOUTH	SEAWAY DR to BLUE HERON BLVD	7,363	700	398	B	0.569	476	C	0.680
SR A1A SOUTH	BINNEY DR to SEAWAY DR	11,698	700	582	C	0.831	609	C	0.870
SR A1A SOUTH	SOUTH CAUSEWAY PARK to BINNEY DR	11,698	920	582	C	0.633	609	C	0.662
SR A1A SOUTH	INDIAN RIVER DR to SOUTH CAUSEWAY PARK	11,994	1,860	660	B	0.355	597	B	0.321
SR A1A SOUTH	INDIAN RIVER DR to US 1	11,994	660	660	D	1.000	597	D	0.905
ST JAMES DR	AIROSO BLVD to ST JAMES BLVD	18,563	2,060	1,387	B	0.673	1,288	B	0.625
ST JAMES DR	ST JAMES BLVD to PEACHTREE BLVD	17,810	1,860	1,276	C	0.686	1,227	C	0.660
ST JAMES DR	PEACHTREE BLVD to TELFORD AVE	18,563	1,960	1,387	B	0.708	1,288	B	0.657
ST JAMES DR	TELFORD AVE to MIDWAY RD	22,482	2,060	1,451	B	0.704	1,414	B	0.686

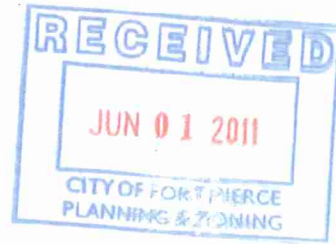
* Volumes shown were adjusted using FDOT Seasonal Factors

* AADT = Annual Average Daily Traffic

Spring 2008 Traffic Count Analysis

Roadway Name	Location	Roadway Classification	No Ln	Count Date	2008 ADT	2008 ADT LOS ¹	AM Pk Time	AM Pkhr Vol	2008 AM Pkhr LOS ²	PM Peak Time	PM Pkhr Vol	2008 PM Pkhr LOS ²
Orange Ave	E. of Jenkins Rd	State Two-Way Arterial - Interrupted Flow Class I	4	6/24/2008	12,039	B	730-830	960	B	1630-1730	1014	B
Orange Ave	E. of I-95	State Two-Way Arterial - Interrupted Flow Class I	4	6/24/2008	13,997	B	715-815	1132	B	1630-1730	1203	B
Orange Ave	W. of I-95	State Two-Way Arterial - Interrupted Flow Class I	4	6/24/2008	24,749	B	730-830	1821	B	1630-1730	1858	B
Orange Ave	E. of Angle Rd	State Two-Way Arterial - Interrupted Flow Class I	4	6/24/2008	17,186	B	1145-1245	1219	B	1630-1730	1470	B
Orange Ave	W. of 7th St	State Two-Way Arterial - Interrupted Flow Class II	2	6/24/2008	10,033	C	1145-1245	778	C	1615-1715	876	C
Parr Dr	W. of Darwin Ave	State Two-Way Arterial - Interrupted Flow Class I	2	5/14/2008	2,088	B	630-730	176	B	1730-1830	182	B
Port St Lucie Blvd	W. of US 1 South	State Two-Way Arterial - Interrupted Flow Class I	6	6/25/2008	43,955	B	730-830	2981	B	1630-1730	3745	B
Port St Lucie Blvd	E. of Florida's Turnpike	State Two-Way Arterial - Interrupted Flow Class I	6	6/25/2008	43,317	B	730-830	2927	B	1630-1730	3686	B
Port St Lucie Blvd	W. of Florida's Turnpike	State Two-Way Arterial - Interrupted Flow Class I	6	5/14/2008	52,200	D	730-830	3878	B	1700-1800	4282	C
Port St Lucie Blvd	E. of Midport Rd	State Two-Way Arterial - Interrupted Flow Class I	6	6/25/2008	33,254	B	730-831	2144	B	1700-1801	2504	B
Port St Lucie Blvd	E. of Floresta Dr	State Two-Way Arterial - Interrupted Flow Class I	6	8/12/2008	57,146	F	1145-1245	4134	B	1430-1530	4404	C
Port St Lucie Blvd	W. of Floresta Dr	State Two-Way Arterial - Interrupted Flow Class I	6	8/6/2008	48,790	C	730-830	3200	B	1700-1800	4113	B
Prima Vista Blvd	US 1 South	State Two-Way Arterial - Interrupted Flow Class I	4	5/7/2008	31,023	C	730-830	2454	B	1630-1730	2843	C
Prima Vista Blvd	W. of Rio Mar Dr	State Two-Way Arterial - Interrupted Flow Class I	4	4/30/2008	32,638	C	730-830	2756	B	1700-1800	2813	C
Prima Vista Blvd	W. of Floresta Dr	State Two-Way Arterial - Interrupted Flow Class I	4	4/23/2008	23,601	B	730-830	1739	B	1715-1815	1886	B
Prima Vista Blvd	W. of Airoso Blvd	State Two-Way Arterial - Interrupted Flow Class I	4	4/23/2008	25,612	B	730-830	1790	B	1730-1830	1964	B
Rangeline Rd	N. of Martin County Line	State Two-Way Arterial - Interrupted Flow Class I	2	3/19/2008	1,730	B	645-745	185	B	1530-1630	165	B
Rio Mar Dr	N. of Prima Vista Blvd	State Two-Way Arterial - Interrupted Flow Class I	2	4/30/2008	5,296	C	730-830	429	C	1630-1730	473	C
Savage Blvd	N. of Gatlin Blvd	State Two-Way Arterial - Interrupted Flow Class I	2	5/14/2008	3,192	B	745-845	289	B	1800-1900	345	B
Savannah Rd	W. of Indian River Dr	Major City/County Road	2	3/24/2008	1,608	C	730-830	158	C	1700-1800	180	C
Savannah Rd	E. of US 1 South	Major City/County Road	2	3/26/2008	2,120	C	715-815	206	C	1645-1745	224	C
Savona Rd	S. of Becker Rd	State Two-Way Arterial - Interrupted Flow Class I	2	5/14/2008	4,810	C	630-730	389	B	1645-1745	558	C
Shinn Rd	S. of Orange Ave	Major City/County Road	2	2/25/2008	1,413	C	700-800	150	C	1530-1630	142	C
Sneed Rd	N. of Okeechobee Rd	Major City/County Road	2	2/27/2008	731	C	645-745	85	C	1530-1630	94.1	C
Southbend Blvd	N. of Becker Rd	State Two-Way Arterial - Interrupted Flow Class I	2	4/23/2008	5,637	C	730-830	522	C	1700-1800	587	C
Southbend Blvd	S. of Floresta Dr	Major City/County Road	2	5/7/2008	10,071	D	715-815	841	C	1715-1815	950	D
SR A1A North	S. of Regal Rd	State Two-Way Arterial - Uninterrupted Flow	2	6/24/2008	4,272	B	730-830	361	B	1500-1600	382	B
SR A1A North	E. of US 1 North	State Two-Way Arterial - Interrupted Flow Class I	2	6/24/2008	8,025	C	1130-1230	664	C	1530-1630	716	C
SR A1A South	S. of Seaway Dr	State Two-Way Arterial - Interrupted Flow Class I	2	6/24/2008	6,423	C	1145-1245	420	C	1615-1715	617	C
SR A1A South	E. of South Bridge	State Two-Way Arterial - Interrupted Flow Class I	2	7/8/2008	12,491	C	1145-1245	874	C	1645-1745	1035	C
SR A1A South	E. of US 1 North	State Two-Way Arterial - Interrupted Flow Class I	4	7/8/2008	14,800	B	1130-1230	1049	B	1645-1745	1174	B
SR A1A South	S. of FPL Plant	State Two-Way Arterial - Uninterrupted Flow	2	8/5/2008	3,757	B	0600-700	527	B	1615-1715	444	B
St Lucie Blvd	W. of 25th St North	State Two-Way Arterial - Interrupted Flow Class I	2	6/24/2008	5,661	C	1130-1230	411	C	1615-1715	567	C
St Lucie Blvd	E. of Keen Rd	State Two-Way Arterial - Interrupted Flow Class I	2	2/21/2008	6,260	C	730-830	534	C	1630-1730	631	C
St Lucie Blvd	W. of US 1 North	State Two-Way Arterial - Interrupted Flow Class I	2	6/17/2008	4,692	C	1130-1230	368	B	1615-1715	423	C
St Lucie West Blvd	W. of I-95	State Two-Way Arterial - Interrupted Flow Class I	2	4/28/2008	10,737	C	1100-1200	814	C	1500-1600	899	C
St Lucie West Blvd	W. of Florida's Turnpike	State Two-Way Arterial - Interrupted Flow Class I	4	4/30/2008	38,330	F	1145-1245	2942	C	1700-1800	3481	F
St Lucie West Blvd	E. of I-95	State Two-Way Arterial - Interrupted Flow Class I	4	4/30/2008	38,294	F	730-830	3431	F	1630-1730	3138	C
St. James Dr	S. of Peachtree Blvd	State Two-Way Arterial - Interrupted Flow Class I	4	5/14/2008	18,393	B	730-830	1935	B	1645-1745	1868	B
St. James Dr	N. of Airoso Blvd	State Two-Way Arterial - Interrupted Flow Class I	4	5/12/2008	9,321	B	730-830	1937	B	1645-1745	1821	B

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May 25, 2011

11-219

Mr. David Carlin
Interim Director
City of Fort Pierce
P.O. Box 1480
Fort Pierce, FL 34954-1480

Re: Traffic Generation Analysis
St Lucie Court
301 South Ocean Drive

Dear Mr. Carlin,

This traffic generation study shall serve as an approximation of the future traffic generated by a 3600 square foot specialty retail facility and a 4 unit Residential Condominium / Townhouse facility located at 301 South Ocean Drive. The current 7th Edition of the Institute of Transportation Engineers (ITE) Trip Generation manual was utilized to perform the trip generation. Land use codes 814 (Specialty Retail) and 230 (Residential Condominium / Townhouse) were utilized.

The following is an accounting of the trip generation for the facility and the minimal impact on the surrounding roadway network. Additionally the report will show that the additional traffic generated by this facility will allow the existing roadway to continue to operate at it's current level of service with no mitigation required for the project.

Existing Traffic and Level of Service

This section of State Road A-1-A is currently a two-way arterial, interrupted flow, Class I roadway. The St Lucie County TPO Spring 2008 reports the following information for State Road A-1-A between Seaway Drive and the Florida Power and Light Power Plant:

- Average Daily Trips 6,423 Trips, Operating at LOS C
- A.M. Peak Hour Volume 420 Trips, Operating at LOS C
- P.M. Peak Hour Volume 617 Trips, Operating at LOS C

Traffic Generation for Proposed 3,600 s.f. Specialty Retail & 4 Townhouse Units

The Average Daily Trips were calculated for the weekday, Saturday, and Sunday. The greater of the three (weekday) was utilized. Additionally, the Peak Hour Volumes were calculated for the weekday. There is no weekend Peak Hour Volume information listed in the ITE, therefore the weekday information was utilized. When the project did not fall on the provided fitted curve, the Average Rate was utilized for calculations.

The following are the calculations of the trip generation for the proposed retail facility:

- ADT - Weekday (per 1,000 square feet)
 - $T = 42.78(x) + 37.66 = 42.78(3.6) + 37.66 = \mathbf{192 \text{ Trips}}$
- A.M. Peak Hour Generator – Weekday (per 1,000 square feet)
 - $6.84 \times (3,600 / 1000) = \mathbf{25 \text{ Trips}}$ (average)
- P.M. Peak Hour Generator – Weekday (per 1,000 square feet)
 - $5.02 \times (3,600 / 1000) = \mathbf{19 \text{ Trips}}$ (average)

The following are the calculations of the trip generation for the proposed residential facility:

- ADT - Weekday (per dwelling unit)
 - $\text{Ln}(t) = 0.85 \text{ Ln}(x) + 2.55 = \mathbf{42 \text{ Trips}}$
- A.M. Peak Hour Generator – Weekday (per dwelling unit)
 - $4 \times 0.44 = \mathbf{2 \text{ Trips}}$ (average)
- P.M. Peak Hour Generator – Weekday (per dwelling unit)
 - $4 \times 0.52 = \mathbf{3 \text{ Trips}}$ (average)

The total trips summary for the proposed project is as follows:

- Max ADT is for the weekday totaling $(192 + 42) \mathbf{234 \text{ Trips}}$.
- Max A.M. Peak Hour Generator is for the weekday totaling $(25 + 2) \mathbf{27 \text{ Trips}}$.
- Max P.M. Peak Hour Generator is for the weekday totaling $(19 + 3) \mathbf{22 \text{ Trips}}$.

Summary

This analysis has shown that the addition of the trips generated from this project is insignificant to State Road A-1-A. The 234 daily trips are less than 2% of the current LOS C capacity and the roadway will continue to operate within the current level of service. Additionally the roadway improvements currently underway in this area, when complete, will make the impact of this project even more insignificant.

If you have any questions or comments, please give me a call to discuss.

Sincerely,

Daniel Retherford, P.E.
Project Manager

DPR/nls

cc: Rich Allen
project file #11-219

