

SUSAN E. O'ROURKE, P.E., Inc.

Traffic Engineering, Transportation Planning

TRAFFIC ANALYSIS

FOR

Seaway Drive LUPA

Prepared for:

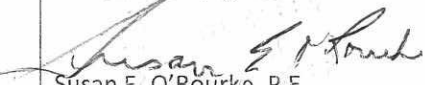
MMG Holdings LLC

C/O Dr. William P. Stoddard, Ph.D., P.E., LEED AP
Schulke, Bittle & Stoddard, LLC
1717 Indian River Boulevard, Suite 201
Vero Beach, Florida 32960

Prepared by

Susan E. O'Rourke, P.E., Inc.
969 SE Federal Highway, Suite 402
Stuart, Florida 34994
772-781-7918

MR14093.0

| | |
|---|---|
| Prepared by: Susan E. O'Rourke, P.E., Inc. Certificate of Authorization: #26869 969 SE Federal Highway, Suite 402 Stuart, Florida 34994 772-781-7918 | Professional Engineer  Susan E. O'Rourke, P.E. Date signed and sealed: 10/6/14 License #: 42684 |
|---|---|

428 SW Akron Avenue
Suite 1A
Stuart, Florida 34994

772.781.7918
772.781.9261 fax

SEORourke@comcast.net

SUSAN E. O'ROURKE, P.E., Inc.

Traffic Engineering, Transportation Planning

October 6, 2014

Dr. William P. Stoddard, Ph.D., P.E., LEED AP
Schulke, Bittle & Stoddard, LLC
1717 Indian River Boulevard, Suite 201
Vero Beach, Florida 32960


Re: Seaway Drive LUPA

Dear Dr. Stoddard:

Susan E. O'Rourke, P.E., Inc. has completed the analysis of the proposed land use plan amendment from GC to HIR. The land use amendment affects 7 lots with a total of 2.56 acres north of Seaway Drive in Fort Pierce, Florida. The steps in the analysis and the ensuing results are presented herein.

It has been a pleasure working with you. If you have any questions or comments, please give me a call.

Respectfully submitted,
Susan E. O'Rourke, P.E.


Registered Civil Engineer - Traffic

428 SW Akron Avenue
Suite 1A
Stuart, Florida 34994

772.781.7918
772.781.9261 fax

SEORourke@comcast.net

TABLE OF CONTENTS

| | |
|-----------------------|---|
| INTRODUCTION | 1 |
| PROJECT DESCRIPTION | 1 |
| TRIP GENERATION | 3 |
| LANE GEOMETRICS | 3 |
| PROJECT ASSIGNMENT | 3 |
| FUTURE TRAFFIC - 2019 | 7 |
| FUTURE TRAFFIC - 2035 | 7 |
| CONCLUSION | 7 |

TABLES

| | |
|---|---|
| TABLE 1: Trip Generation- Existing Future Land Use | 4 |
| TABLE 2: Trip Generation – Proposed Future Land Use | 5 |
| TABLE 3: Net Trips | 5 |
| TABLE 4: Link Analysis 2019 | 8 |
| TABLE 5: Link Analysis 2035 | 8 |

FIGURES

| | |
|--------------------------------------|---|
| FIGURE 1: Project Location | 2 |
| FIGURE 2: Project Percent Assignment | 6 |

APPENDIX

| | |
|---|--|
| APPENDIX A: 2013 Traffic Counts and Level of Service Report, Fall 2013, 2007 | |
| APPENDIX B 2035 Traffic Volumes and Roadway Network Data | |

INTRODUCTION

Susan E. O'Rourke, P.E., Inc. was retained to prepare a traffic analysis for the proposed land use amendment of 2.56 acres of land with a land use category of GC (general commercial with tourism on the island) allowing 111,513 square feet of non-residential development and 7 multi family dwelling units. The proposal is to change the land use to HIR which is Hutchinson Island residential allowing up to 8 units per acre plus for a total of 23 dwelling units and up to 9,000 square feet of office development. The purpose of this report is to determine the impact on the surrounding roadway system associated with the change in land use. The following analytical steps were taken:

- ◆summary of the project description; existing land use and proposed land use,
- ◆summary of existing lane geometrics,
- ◆assessment of the change in trip generation
- ◆summary of 2019 traffic volumes
- ◆summary of 2035 traffic volumes

A demonstration of De Minimis will be presented since the proposed action results in a significant decrease in traffic generation on the network.

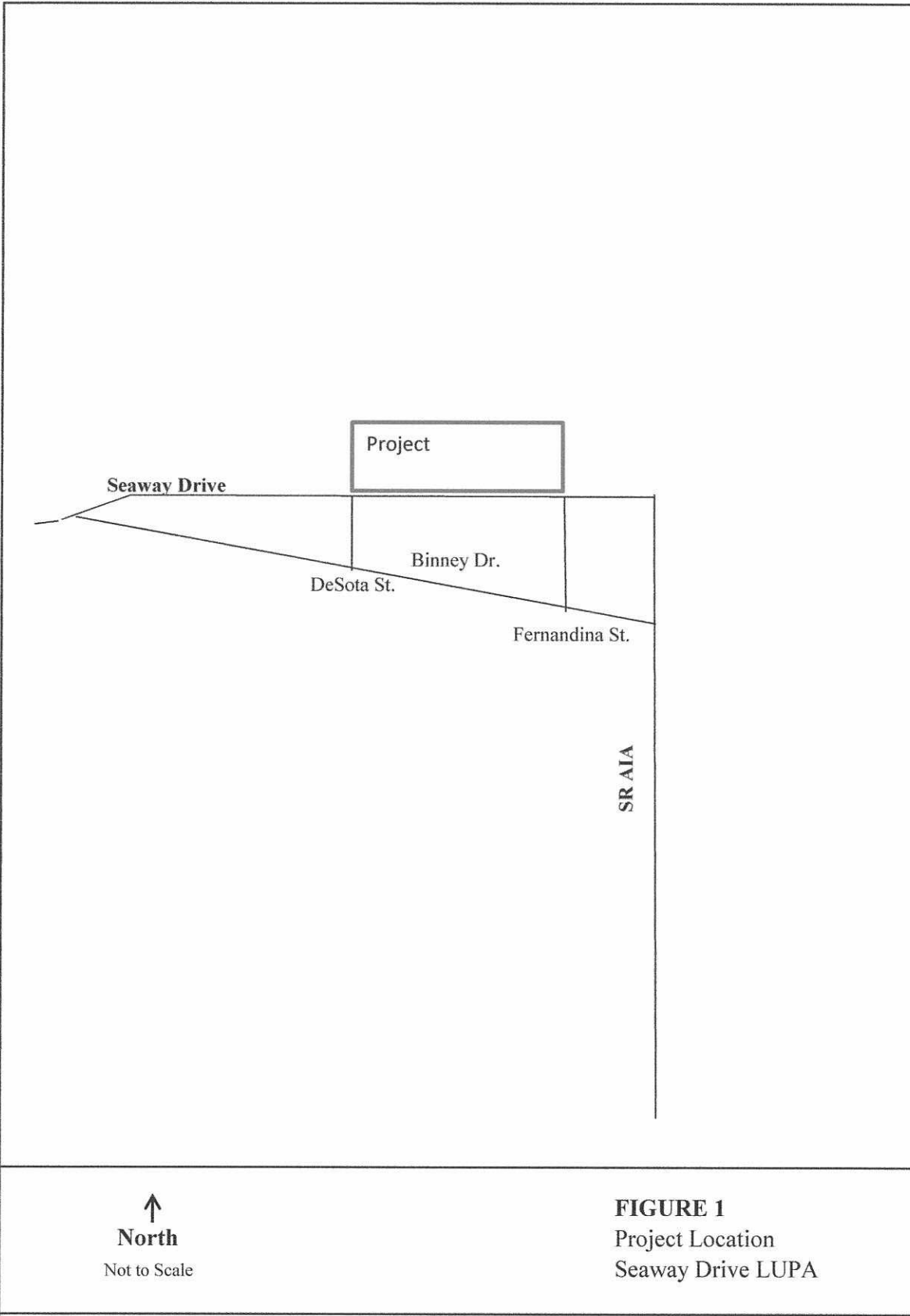
Each of these steps is outlined herein.

PROJECT DESCRIPTION

The proposed land use amendment involves a parcel of land located north of Seaway Drive. **Figure 1** shows the project's location.

The existing land use designation for the site is GC allowing up to 111,513 square feet of non-residential development and 7 multi family dwelling units. The site has access off Seaway Drive. The proposal is to change the land use to HIR allowing up to 23 dwelling units and up to 9,000 square feet of office use.

The analysis of the project impacts in the five year period and the long range scenario, 2035 are discussed herein.



↑
North
 Not to Scale

FIGURE 1
 Project Location
 Seaway Drive LUPA

TRIP GENERATION

To estimate the trips generated by the existing future land use the land use the existing zoning of Tourist Commercial was considered as well as the fact that the building would need to be multiple stories to accommodate the square footage. With those facts in mind, 27,878, square feet were assumed to be high turnover restaurant and 83,635 square feet were assumed to be office. In addition, 7 multifamily units could be allowed. The trip generation for the land use under the existing future land use category is shown in **Table 1**.

For the proposed future land use, 23 multi-family units were assumed with 9,000 square feet of office also possible on the site. **Table 2** summarizes the trip generation associated with the proposed future land use.

The change in land use is the subject of the land use plan amendment. As shown in **Table 3**, there will be a decrease of 4,315 daily trips, 300 AM peak hour trips and 245 PM peak hour trips. Therefore, there is no impact from the proposed land use plan amendment.

Since there is a decrease in trips in all scenarios, to demonstrate de minimis impact, the total traffic must be less than 110% and since Seaway Drive is a hurricane evacuation route, the level of service must remain LOS D or better.

LANE GEOMETRICS

The study area was reviewed to determine the existing number and type of lanes along the roadway. Each roadway is described below.

Seaway Drive (SR AIA) is a two lane state arterial with an east/west alignment. It is a four lane roadway west of the project to US 1.

PROJECT ASSIGNMENT

The project traffic was distributed by general geographic direction and then assigned to the roadway network. This general distribution led to an assignment of trips based on the anticipated ultimate destinations and the roadway paths used to reach those destinations. The project percent assignment is shown in **Figure 2**.

Table 1: Trip Generation- Existing Future Land Use

DAILY

| Description | Land Use Code | Quantity | Daily Equation | Daily Trips | Pass-by % | Net Trips |
|--------------|---------------|----------|----------------------------|-------------|-----------|-----------|
| Restaurant | 932 | 27,878 | $T = 127.15(x)$ | 3545 | 43 | 2020 |
| Office | 710 | 83,635 | $T = 32.2(x)$ | 2701 | 0 | 2701 |
| Condo Units | 230 | 7 | $Ln(t) = 0.87Ln(x) + 2.46$ | 64 | 0 | 64 |
| Total | | 111513 | | 6310 | | 4785 |

AM

| Description | Land Use Code | Quantity | AM Equation | AM Trips | % In | % Out | AM In | AM Out | Pass-by % | Net Trips | Net in | Net out |
|--------------|---------------|----------|-----------------------|----------|------|-------|-------|--------|-----------|-----------|--------|---------|
| Restaurant | 932 | 27,878 | $T = 10.81(x)$ | 301 | 72 | 25 | 217 | 84 | 43 | 172 | 124 | 48 |
| Office | 710 | 83,635 | $Ln(t) = 0.80 + 1.57$ | 166 | 88 | 12 | 146 | 20 | 0 | 166 | 146 | 20 |
| Condo Units | 230 | 7 | $Ln(t) = 0.80 + 0.26$ | 6 | 17 | 83 | 1 | 5 | 0 | 6 | 1 | 5 |
| Total | | 111513 | | 473 | | | 364 | 109 | | 344 | 271 | 73 |

PM

| Description | Land Use Code | Quantity | PM Equation | PM Trips | % In | % Out | PM In | PM Out | Pass-by % | Net Trips | Net in | Net out |
|--------------|---------------|----------|----------------------------|----------|------|-------|-------|--------|-----------|-----------|--------|---------|
| Restaurant | 932 | 27,878 | $T = 9.85$ | 301 | 72 | 25 | 217 | 84 | 43 | 172 | 124 | 48 |
| Office | 710 | 83,635 | $T = 1.12(x) + 78.45$ | 172 | 17 | 83 | 29 | 143 | 0 | 172 | 29 | 143 |
| Condo Units | 230 | 7 | $Ln(t) = 0.82Ln(x) + 0.32$ | 7 | 67 | 33 | 5 | 2 | 0 | 7 | 5 | 2 |
| Total | | 111513 | | 480 | | | 251 | 229 | | 351 | 158 | 193 |

Source: Trip Generation, 9th Edition

Table 2: Trip Generation- Proposed Future Land Use

DAILY

| Description | Land Use Code | Quantity | Daily Equation | Daily Trips | Pass-by % | Net Trips |
|--------------|---------------|----------|----------------------------|-------------|-----------|-----------|
| Restaurant | 932 | 0 | $T = 127.15(x)$ | 0 | 43 | 0 |
| Office | 710 | 9,000 | $T = 32.2(x)$ | 291 | 0 | 291 |
| Condo Units | 230 | 23 | $Ln(t) = 0.87Ln(x) + 2.46$ | 179 | 0 | 179 |
| Total | | 9000 | | 470 | | 470 |

AM

| Description | Land Use Code | Quantity | AM Equation | AM Trips | % In | % Out | AM In | AM Out | Pass-by % | Net Trips | Net in | Net out |
|--------------|---------------|----------|-----------------------|----------|------|-------|-------|--------|-----------|-----------|--------|---------|
| Restaurant | 932 | 0 | $T = 10.81(x)$ | 0 | 72 | 25 | 0 | 0 | 43 | 0 | 0 | 0 |
| Office | 710 | 9,000 | $Ln(t) = 0.80 + 1.57$ | 28 | 88 | 12 | 25 | 3 | 0 | 28 | 25 | 3 |
| Condo Units | 230 | 23 | $Ln(t) = 0.80 + 0.26$ | 16 | 17 | 83 | 3 | 13 | 0 | 16 | 3 | 13 |
| Total | | 9000 | | 44 | | | 27 | 17 | | 44 | 28 | 16 |

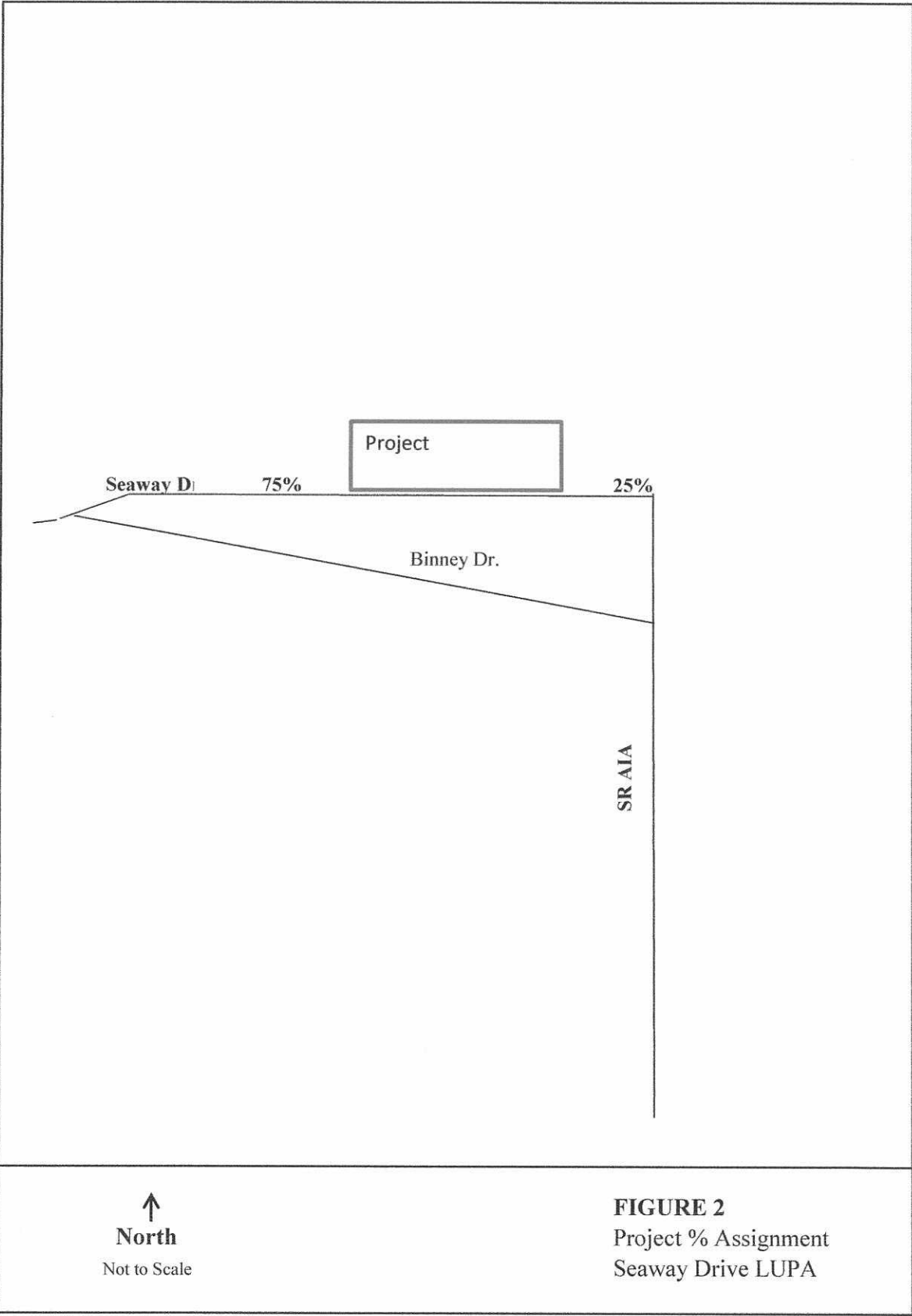
PM

| Description | Land Use Code | Quantity | PM Equation | PM Trips | % In | % Out | PM In | PM Out | Pass-by % | Net Trips | Net in | Net out |
|--------------|---------------|----------|----------------------------|----------|------|-------|-------|--------|-----------|-----------|--------|---------|
| Restaurant | 932 | 0 | $T = 9.85$ | 0 | 72 | 25 | 0 | 0 | 43 | 0 | 0 | 0 |
| Office | 710 | 9,000 | $T = 1.42(x) + 78.45$ | 88 | 17 | 83 | 15 | 73 | 0 | 88 | 15 | 73 |
| Condo Units | 230 | 23 | $Ln(t) = 0.82Ln(x) + 0.32$ | 18 | 67 | 33 | 12 | 6 | 0 | 18 | 12 | 6 |
| Total | | 9000 | | 106 | | | 27 | 79 | | 106 | 27 | 79 |

Source: Trip Generation, 9th Edition

Table 3: Net Trips

| | Existing FLU | Proposed FLU | Difference |
|--------------------|--------------|--------------|------------|
| Daily | 4785 | 470 | -4315 |
| AM Peak Hour Trips | 344 | 44 | -300 |
| PM Peak Hour Trips | 351 | 106 | -245 |



↑
North
 Not to Scale

FIGURE 2
 Project % Assignment
 Seaway Drive LUPA

FUTURE TRAFFIC VOLUMES – 2019

Only the adjacent link needs to be addressed to demonstrate de minimis impacts. Future traffic estimates were developed for those links. The 2013 traffic volumes were taken from the TPO Traffic Counts and Level of Service Report Fall 2013 and grown to reflect the 2019 volumes before the project traffic was added. The growth rate is negative with 14,687 daily trips on Seaway Drive in 2007 and 11,375 in 2013. However, a 1% per year rate was used to project to 2019. The project traffic was then added to that volume to create the 2019 total traffic volumes. **Table 4** shows the link analysis for the total traffic conditions with the proposed land use plan amendment in place. **Appendix A** provides the TPO Traffic Counts and Level of Service Report and the 2007 report.

As shown, Seaway Drive would operate at LOS C.

FUTURE TRAFFIC – 2035 LINK ANALYSIS

The proposals to amend the comprehensive plan must demonstrate that the impacts created by the new project can be accommodated on the long range circulation plan that has been adopted for the existing future land use.

To determine the impact created by the change in land use, the traffic volumes from the 2035 Long Range Transportation Plan were used. **Table 5** summarizes the 2035 volumes with the project traffic added. The total traffic volumes were compared to the capacity of the roadway under the 2035 conditions.

Seaway Drive will function at Level of Service C with the amendment in place. **Appendix B** contains the 2035 volumes and network data.

The links in the study area would show a decrease in traffic with the proposed land use amendment. The project traffic is de minimis and levels of service are maintained.

CONCLUSION

The proposed land use will result in a decrease in trips of 4,315 daily trips, 300 AM peak hour trips and 245 PM peak hour trips.

On the links within the study area, there would be a significant decrease in traffic associated with the land use plan amendment. The project has demonstrated de minimis impacts with LOS D on Seaway Drive and additional analysis is not required.

Table 4 - PM LINK ANALYSIS-2019

| Count Station | Segment | From | To | Lanes (both directions) | Type | Count Date | 1% or Greater | 2013 | Years Grown | 2019 PM Peak Hour + Growth | Existing FULLA Trips | 2019 PM Growth + Committed Peak Direction | LOS D Daily Capacity(FDOT Quality LOS 2012) | Project Volume | 2019 Total Traffic | % Project of Capacity-Peak Hour | Does Project Meet Concurrency? | Project Percent Assignment | LOS |
|---------------|-----------------------|-----------------|--------------|-------------------------|------|------------|---------------|-------|-------------|----------------------------|----------------------|---|---|----------------|--------------------|---------------------------------|--------------------------------|----------------------------|-----|
| 0115 | SR AIA (Seaway Drive) | Causeway Bridge | Binney Drive | 2 | A | Fall 2013 | NO | 11375 | 6 | 12075 | 3589 | 15664 | 17700 | -3236 | 12427 | -18.28% | YES | 75% | C |

St. Lucie County TPO 2013 ADT

Net Existing
two-way -4315 4785
Growth Factor: 1.01

A = State Two-Way Arterial Interrupted Flow Class I

Table 4 - PM LINK ANALYSIS-2019

| Count Station | Segment | From | To | Lanes (both directions) | Type | Count Date | 1% or Greater | 2013 | Years Grown | 2035 4ADT | Existing FULLA Trips | 2019 PM Growth + Committed Peak Direction | LOS D Daily Capacity(FDOT Quality LOS 2012) | Project Volume | 2035 Total Traffic | % Project of Capacity-Peak Hour | Does Project Meet Concurrency? | Project Percent Assignment | LOS |
|---------------|-----------------------|-----------------|--------------|-------------------------|------|------------|---------------|------|-------------|-----------|----------------------|---|---|----------------|--------------------|---------------------------------|--------------------------------|----------------------------|-----|
| 0115 | SR AIA (Seaway Drive) | Causeway Bridge | Binney Drive | 2 | A | Fall 2013 | NO | 5606 | 0 | 18605 | 3589 | 18605 | 17700 | -3236 | 15369 | -18.28% | YES | 75% | C |

2035 Traffic Volumes

Note: The Future Volumes assume EFLU volumes are included.

A = State Signalized Arterial Flow Class I

Net Existing
two-way -4315 4785

APPENDIX A

2013 Traffic Counts and Level of Service Report Fall 2013, 2007

Traffic Counts and Level of Service Report Fall 2013

| 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 |
| Q AVENUE | 17TH STREET to 13TH STREET | 2,900 | 460 | 198 | B | 0.733 | 224 | B | 0.830 |
| RANGE LINE RD | MARTIN COUNTY LINE to BECKER RD | 1,446 | 740 | 118 | B | 0.492 | 121 | B | 0.504 |
| RANGE LINE RD | BECKER RD to GATLIN BLVD | 1,446 | 740 | 118 | B | 0.492 | 121 | B | 0.504 |
| RANGE LINE RD | GATLIN BLVD to GLADES CUT-OFF RD | 1,446 | 740 | 118 | B | 0.492 | 121 | B | 0.504 |
| RIO MAR DR | PRIMA VISTA BLVD to BEACH AVE | 5,800 | 790 | 354 | B | 0.770 | 402 | B | 0.874 |
| RIO MAR DR | BEACH AVE to US 1 | 5,800 | 600 | 354 | D | 0.590 | 402 | D | 0.670 |
| SAVONA BLVD | BECKER RD to PAAR DR | 5,583 | 830 | 562 | C | 0.730 | 489 | C | 0.635 |
| SAVONA BLVD | PAAR DR to GATLIN BLVD | 5,583 | 790 | 562 | C | 0.759 | 489 | C | 0.661 |
| SAVONA BLVD | GATLIN BLVD to CALIFORNIA | 11,500 | 830 | 602 | C | 0.782 | 622 | C | 0.808 |
| SAVAGE BLVD | GATLIN BLVD to SW IMPORT DR | 3,748 | 830 | 224 | B | 0.467 | 245 | B | 0.510 |
| SAVANNAH RD | US 1 to INDIAN RIVER DR | 2,320 | 630 | 169 | B | 0.457 | 160 | B | 0.432 |
| SELVITZ RD | MIDWAY RD to GLADES CUT-OFF RD | 7,400 | 630 | 446 | C | 0.756 | 482 | C | 0.817 |
| SELVITZ RD | GLADES CUT-OFF RD to EDWARDS RD | 9,000 | 830 | 558 | C | 0.725 | 464 | B | 0.967 |
| SHINN RD | MIDWAY RD to OKEECHOBEE RD | 600 | 580 | 50 | B | 0.147 | 48 | B | 0.141 |
| SHINN RD | OKEECHOBEE RD to ORANGE AVE | 847 | 740 | 59 | B | 0.246 | 68 | B | 0.283 |
| SNEED RD | OKEECHOBEE RD to ORANGE AVE | 1,543 | 740 | 112 | B | 0.467 | 108 | B | 0.450 |
| SR A1A NORTH | US 1 to OLD DIXIE HWY | 4,532 | 660 | 306 | D | 0.464 | 306 | D | 0.464 |
| SR A1A NORTH | OLD DIXIE HWY to SHOREWINDS DR | 6,800 | 540 | 377 | B | 0.698 | 354 | B | 0.656 |
| SR A1A NORTH | SHOREWINDS DR to INDIAN RIVER COUNTY LINE | 6,531 | 920 | 351 | B | 0.650 | 385 | B | 0.713 |
| SR A1A SOUTH | NETTLES ISLAND to FPL PLANT | 6,212 | 920 | 380 | B | 0.704 | 341 | B | 0.631 |
| SR A1A SOUTH | FPL PLANT to BLUE HERON BLVD | 3,540 | 700 | 423 | C | 0.641 | 339 | B | 0.827 |
| SR A1A SOUTH | SEAWAY DR to BLUE HERON BLVD | 7,356 | 700 | 397 | B | 0.968 | 475 | C | 0.720 |
| SR A1A SOUTH | BINNEY DR to SEAWAY DR | 11,375 | 700 | 566 | C | 0.858 | 592 | C | 0.897 |
| SR A1A SOUTH | SOUTH CAUSEWAY PARK to BINNEY DR | 11,375 | 920 | 566 | C | 0.658 | 592 | C | 0.688 |
| SR A1A SOUTH | INDIAN RIVER DR to SOUTH CAUSEWAY PARK | 11,964 | 1,860 | 658 | B | 0.445 | 595 | B | 0.402 |
| SR A1A SOUTH | INDIAN RIVER DR to US 1 | 11,964 | 660 | 658 | D | 0.997 | 595 | D | 0.902 |
| ST JAMES DR | AIROSO BLVD to ST JAMES BLVD | 18,973 | 2,060 | 1,417 | B | 0.864 | 1,317 | B | 0.803 |
| ST JAMES DR | ST JAMES BLVD to PEACHTREE BLVD | 17,493 | 1,860 | 1,254 | C | 0.896 | 1,205 | C | 0.861 |
| ST JAMES DR | PEACHTREE BLVD to TELFORD AVE | 18,973 | 1,960 | 1,417 | B | 0.908 | 1,317 | B | 0.844 |

* Volumes shown were adjusted using FDOT Seasonal Factors
* AADT = Annual Average Daily Traffic

**St. Lucie County
Fall 2007 Traffic Count Analysis**



| Sta# | Roadway Name | Location | Roadway Classification | No_ Ln | Count Date | 2007 ADT | 2007 LOS ¹ | 2007 AM Peak Time | 2007 AM Pkhr LOS ² | 2007 PM Peak Time | 2007 PM Pkhr LOS ² |
|------|--------------------|---------------------------|---|--------|------------|----------|-----------------------|-------------------|-------------------------------|-------------------|-------------------------------|
| 0703 | SR A1A North | S. of Regal Rd | State Two-Way Arterial - Uninterrupted Flow | 2 | 7/9/2007 | 5,506 | B | 1130-1230 | B | 1200-1300 | 454 |
| 0705 | SR A1A North | N. of Shorewinds Dr | State Two-Way Arterial - Uninterrupted Flow | 2 | 8/7/2007 | 8,316 | C | 1115-1215 | B | 1545-1645 | 707 |
| 0114 | SR A1A North | E. of North Bridge | State Two-Way Arterial - Uninterrupted Flow | 2 | 8/7/2007 | 9,232 | C | 1115-1215 | B | 1545-1645 | 776 |
| 0709 | SR A1A North | E. of US 1 North | State Two-Way Arterial - Interrupted Flow Class I | 2 | 8/7/2007 | 7,708 | C | 1115-1215 | C | 1545-1645 | 667 |
| 0711 | SR A1A South | E. of US 1 North | State Two-Way Arterial - Interrupted Flow Class I | 4 | 8/7/2007 | 13,396 | B | 1145-1245 | B | 1515-1615 | 1,006 |
| 0115 | SR A1A South | E. of South Bridge | State Two-Way Arterial - Interrupted Flow Class I | 2 | 8/7/2007 | 14,687 | D | 1145-1245 | C | 1515-1615 | 1,232 |
| 5016 | SR A1A South | S. of Seaway Dr | State Two-Way Arterial - Uninterrupted Flow Class I | 2 | 8/7/2007 | 7,516 | C | 1145-1245 | C | 1500-1600 | 701 |
| 0116 | SR A1A South | N. of Blue Heron Blvd | State Two-Way Arterial - Uninterrupted Flow | 2 | 8/7/2007 | 3,350 | B | 545-645 | B | 1500-1600 | 421 |
| 0719 | SR A1A South | S. of FPL Plant | State Two-Way Arterial - Uninterrupted Flow | 2 | 7/9/2007 | 4,306 | B | 600-700 | B | 1500-1600 | 504 |
| 168 | Savage Blvd | N. of Gatlin Blvd | State Two-Way Arterial - Interrupted Flow Class I | 2 | 11/13/2007 | 3,295 | B | 700-800 | B | 1730-1830 | 299 |
| 514 | Savannah Rd | E. of US 1 South | Major City/County Road | 2 | 9/25/2007 | 2,633 | C | 730-830 | C | 1630-1730 | 272 |
| 512 | Savannah Rd | W. of Indian River Dr | Major City/County Road | 2 | 9/25/2007 | 1,886 | C | 730-830 | C | 1630-1730 | 205 |
| 149 | Shinn Rd | S. of Orange Ave | Major City/County Road | 2 | 9/24/2007 | 1,028 | C | 630-730 | C | 1645-1745 | 96 |
| 151 | Sneed Rd | N. of Okeechobee Rd | Major City/County Road | 2 | 9/24/2007 | 568 | C | 630-730 | C | 1630-1730 | 68 |
| 230 | Southbend Blvd | N. of Becker Rd | State Two-Way Arterial - Interrupted Flow Class I | 2 | 10/29/2007 | 5,603 | C | 730-830 | C | 1700-1800 | 582 |
| 337 | Southbend Blvd | S. of Floresta Dr | Major City/County Road | 2 | 10/29/2007 | 9,740 | D | 730-830 | C | 1700-1800 | 870 |
| 0270 | St Lucie Blvd | W. of US 1 North | State Two-Way Arterial - Interrupted Flow Class I | 2 | 7/31/2007 | 5,342 | C | 1145-1245 | C | 1200-1300 | 463 |
| 154 | St Lucie Blvd | W. of 25th St North | State Two-Way Arterial - Interrupted Flow Class I | 2 | 8/21/2007 | 4,892 | C | 630-730 | B | 1615-1715 | 484 |
| 156 | St Lucie Blvd | E. of Keen Rd | State Two-Way Arterial - Interrupted Flow Class I | 2 | 8/21/2007 | 5,538 | C | 730-830 | C | 1630-1730 | 582 |
| 5077 | St Lucie West Blvd | E. of I-95 | State Two-Way Arterial - Interrupted Flow Class I | 4 | 8/27/2007 | 42,047 | F | 715-815 | F | 1630-1730 | 3,452 |
| 5078 | St Lucie Blvd | W. of I-95 | State Two-Way Arterial - Interrupted Flow Class I | 2 | 8/7/2007 | 9,189 | C | 815-915 | C | 1530-1630 | 715 |
| 509 | Sunrise Blvd | N. of Virginia Ave | Major City/County Road | 2 | 10/1/2007 | 4,637 | C | 730-830 | C | 1645-1745 | 493 |
| 511 | Sunrise Blvd | S. of Virginia Ave | Major City/County Road | 2 | 10/1/2007 | 6,450 | C | 730-830 | C | 1630-1730 | 673 |
| 153 | Sunrise Blvd | S. of Edwards Rd | Major City/County Road | 2 | 10/1/2007 | 5,078 | C | 715-815 | C | 1630-1730 | 478 |
| 513 | Sunrise Blvd | N. of Edwards Rd | Major City/County Road | 2 | 10/1/2007 | 5,522 | C | 730-830 | C | 1630-0730 | 576 |
| 155 | Sunrise Blvd | S. of Bell Ave | Major City/County Road | 2 | 10/1/2007 | 4,062 | C | 715-815 | C | 1645-1745 | 386 |
| 157 | Sunrise Blvd | N. of Midway Rd West | Major City/County Road | 2 | 10/1/2007 | 3,390 | C | 715-815 | C | 1645-1745 | 322 |
| 322 | Tiffany Ave | E. of US 1 South | Major City/County Road | 2 | 10/22/2007 | 9,472 | D | 745-845 | C | 1515-1615 | 761 |
| 320 | Tiffany Ave | W. of Lennard Rd | Major City/County Road | 2 | 10/22/2007 | 5,843 | C | 745-845 | C | 1515-1615 | 518 |
| 237 | East Torino Pkwy | S of Midway Rd | Major City/County Road | 2 | 11/13/2007 | 10,100 | D | 700-800 | D | 1700-1800 | 1,024 |
| 238 | West Torino Pkwy | S of Midway Rd/Hann Dr | Major City/County Road | 2 | 11/13/2007 | 2,359 | C | 715-815 | C | 1645-1745 | 216 |
| 0107 | US 1 North | S. of Indian River County | State Two-Way Arterial - Interrupted Flow Class I | 4 | 7/31/2007 | 25,462 | B | 730-830 | B | 1645-1745 | 2,016 |

APPENDIX B
2035 Traffic Volumes and Roadway Network Data

**Generalized Annual Average Daily Volumes for Florida's
Urbanized Areas**

TABLE 1

12/18/12

| INTERRUPTED FLOW FACILITIES | | | | | | UNINTERRUPTED FLOW FACILITIES | | | | | |
|---|-----------|----------------------|-----------------------|--------------------|---------|---|-----------|----------------------|--------------------|---------|---------|
| STATE SIGNALIZED ARTERIALS | | | | | | FREEWAYS | | | | | |
| Class I (40 mph or higher posted speed limit) | | | | | | Core Urbanized | | | | | |
| Lanes | Median | B | C | D | E | Lanes | B | C | D | E | |
| 2 | Undivided | * | 16,800 | 17,700 | ** | 4 | 47,400 | 64,000 | 77,900 | 84,600 | |
| 4 | Divided | * | 37,900 | 39,800 | ** | 6 | 69,900 | 95,200 | 116,600 | 130,600 | |
| 6 | Divided | * | 58,400 | 59,900 | ** | 8 | 92,500 | 126,400 | 154,300 | 176,600 | |
| 8 | Divided | * | 78,800 | 80,100 | ** | 10 | 115,100 | 159,700 | 194,500 | 222,700 | |
| | | | | | | 12 | 162,400 | 216,700 | 256,600 | 268,900 | |
| Class II (35 mph or slower posted speed limit) | | | | | | Urbanized | | | | | |
| Lanes | Median | B | C | D | E | Lanes | B | C | D | E | |
| 2 | Undivided | * | 7,300 | 14,800 | 15,600 | 4 | 45,800 | 61,500 | 74,400 | 79,900 | |
| 4 | Divided | * | 14,500 | 32,400 | 33,800 | 6 | 68,100 | 93,000 | 111,800 | 123,300 | |
| 6 | Divided | * | 23,300 | 50,000 | 50,900 | 8 | 91,500 | 123,500 | 148,700 | 166,800 | |
| 8 | Divided | * | 32,000 | 67,300 | 68,100 | 10 | 114,800 | 156,000 | 187,100 | 210,300 | |
| Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.) | | | | | | Freeway Adjustments | | | | | |
| Non-State Signalized Roadways - 10% | | | | | | Auxiliary Lanes Present in Both Directions + 20,000 | | | | | |
| | | | | | | Ramp Metering + 5% | | | | | |
| Median & Turn Lane Adjustments | | | | | | UNINTERRUPTED FLOW HIGHWAYS | | | | | |
| Lanes | Median | Exclusive Left Lanes | Exclusive Right Lanes | Adjustment Factors | | Lanes | Median | B | C | D | E |
| 2 | Divided | Yes | No | +5% | | 2 | Undivided | 8,600 | 17,000 | 24,200 | 33,300 |
| 2 | Undivided | No | No | -20% | | 4 | Divided | 36,700 | 51,800 | 65,600 | 72,600 |
| Multi | Undivided | Yes | No | -5% | | 6 | Divided | 55,000 | 77,700 | 98,300 | 108,800 |
| Multi | Undivided | No | No | -25% | | Uninterrupted Flow Highway Adjustments | | | | | |
| - | - | - | Yes | + 5% | | Lanes | Median | Exclusive left lanes | Adjustment factors | | |
| One-Way Facility Adjustment Multiply the corresponding two-directional volumes in this table by 0.6 | | | | | | 2 | Divided | Yes | +5% | | |
| | | | | | | Multi | Undivided | Yes | -5% | | |
| | | | | | | Multi | Undivided | No | -25% | | |
| BICYCLE MODE² (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.) | | | | | | ¹ Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual. | | | | | |
| Paved Shoulder/Bicycle Lane Coverage | | | | | | ² Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility. | | | | | |
| | | B | C | D | E | ³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow. | | | | | |
| 0-49% | | * | 2,900 | 7,600 | 19,700 | * Cannot be achieved using table input value defaults. | | | | | |
| 50-84% | | 2,100 | 6,700 | 19,700 | >19,700 | ** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults. | | | | | |
| 85-100% | | 9,300 | 19,700 | >19,700 | ** | | | | | | |
| PEDESTRIAN MODE² (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.) | | | | | | | | | | | |
| Sidewalk Coverage | | | | | | | | | | | |
| | | B | C | D | E | | | | | | |
| 0-49% | | * | * | 2,800 | 9,500 | | | | | | |
| 50-84% | | * | 1,600 | 8,700 | 15,800 | | | | | | |
| 85-100% | | 3,800 | 10,700 | 17,400 | >19,700 | | | | | | |
| BUS MODE (Scheduled Fixed Route)³ (Buses in peak hour in peak direction) | | | | | | | | | | | |
| Sidewalk Coverage | | | | | | | | | | | |
| | | B | C | D | E | | | | | | |
| 0-84% | | > 5 | ≥ 4 | ≥ 3 | ≥ 2 | | | | | | |
| 85-100% | | > 4 | ≥ 3 | ≥ 2 | ≥ 1 | | | | | | |

Source:
Florida Department of Transportation
Systems Planning Office
www.dot.state.fl.us/planning/systems/sn/los/default.shtm