



# REZONING APPLICATION

City of New Port Richey  
Planning and Development Department  
City Hall, 5919 Main Street, 1<sup>st</sup> Floor  
New Port Richey, FL 34652  
Phone (727) 853-1044 \* Fax (727) 853-1052

Case #: \_\_\_\_\_  
 Send copy to Pasco County, if w/in 1 mile  
 Send to Pasco Schools, if residential

DRC Date: \_\_\_\_\_  
LDRB Date: \_\_\_\_\_  
Date Received: \_\_\_\_\_

- Submit one original signed and notarized application
- Submit original signed and sealed survey
- Submit 1 digital version of application
- Submit application fees: \$850 for rezoning; \$2,500 for rezoning -PDD  
(Checks made payable to the *City of New Port Richey*)

## Property Owner and Representative Information:

Current Property Owner(s): JAE Property Holdings, LLC 07-26-16-0090-00300-0020 Hudson Bay Developers, LLC 07-26-16-0090-00100-0020		Phone:
Owner Address: 6232 Pasadena Point Boulevard S, Gulfport, Florida 33707 31 Gotthardt Street, Newwark, NJ 07105 (Hudson Bay)		
Owner Email Address:		
Owner's Representative(s): Barbara L. Wilhite	Relationship to Owner: Agent of Record	
Representative Mailing Address: 6327 Grand Boulevard, New Port Richey, Florida 34652		
Representative Email Address: <a href="mailto:Barbara@wilhitelaw.net">Barbara@wilhitelaw.net</a>	Phone: 727-942-0733	
Primary contact: <i>(This is the <u>one</u> person to whom the City will send all communication regarding this application)</i> Barbara L. Wilhite, Agent of Record		

## Property Information:

Street Address: None		
General Location: Sea Forest Drive, west of Elisabethan Lane		
Size of Site:	Square Feet:	Acres: 3.95 acres (north); 14.95 acres (south)
Legal Description of Subject Property: (*An electronic copy of the legal description, in Word format, is required as part of this application submittal)  See attached		
Parcel Number(s): 07-26-16-0090-00300-0020 and 07-26-16-0090-00100-0020		

Zoning District: <b>MF-2 (County)</b>	Proposed Zoning District: RPD (City)
Future Land Use Category: <b>RES-24 (County)</b>	Proposed Future Land Use Category: HDR-24 (City)
Existing Use: <i>(Include # of residential unit and/or square footage of non-residential uses):</i>  Vacant	Proposed Use: <i>(Include # of residential units and/or square footage of non-residential uses):</i>  32 Townhomes (south parcel); 50 Apartments (north parcel)

How is proposal consistent with the goals, objectives and policies of the Comprehensive Plan?

See attached narrative.

**Submittal Information:**

*(Please address the following information on a separate sheet and attach to this application)*

**Guidelines for Granting a Rezoning. LDC § 5.01.11.**

The development department, development review committee, and land development review board shall consider all of the following guidelines when making a recommendation to the city council on a rezoning application, and the city council shall consider all these guidelines in determining whether to adopt an ordinance granting such rezoning:

1. Whether the proposed zoning district is one (1) of the zoning districts intended to implement or be consistent with the future land use map designation of the property;
2. If more than one (1) zoning district implements or is consistent with the future land use map designation of the property, whether the proposed zoning district is the most suitable zoning district;
3. Whether there are substantial reasons why the property cannot be used in accordance with its present zoning district, or the existing zoning district is otherwise unsuitable;
4. Whether the proposed zoning district is consistent with the character of the existing land use pattern;
5. Whether the proposed zoning district abuts a property with a zoning district similar in intensity to the proposed zoning district, or serves as a suitable transition zoning district between two (2) or more different abutting zoning districts;
6. Whether there are substantial changed or changing conditions in the character of the area where the property is located so that the proposed zoning district is now suitable;
7. Whether based upon the property's size, shape, or characteristics the proposed zoning district is out-of-scale with the surrounding area;
8. Whether the proposed zoning district is premature, based upon the existing conditions in the surrounding area;
9. Whether there is a substantial public need or purpose for the proposed zoning district consistent with the public health, safety and general welfare;
10. Any other factors that may be relevant to the rezoning, such as its location within an enclave, recent annexation into the city, or to conserve the value of buildings and natural resources;
11. The totality of the circumstances; and
12. Any competent substantial evidence presented at the public hearings.

**Consistency with Concurrency:** The following calculations shall be used to **determine the projected demand** of the proposed project on the applicable public facility/service. The calculations are listed by facility/service type. (Please fill in blanks.)

<p><b>POTABLE WATER</b> - Adopted level of service (LOS) = 152 gal/day/capita (nonresidential uses are included in the adopted LOS).</p> <p><b>Residential:</b></p> <p><u>Single-family:</u> 152 gal × 2.12 persons/household ×  <u>32</u> units = <u>10,311.68</u> gal/day/capita (demand)</p> <p><u>Multi-family:</u> 152 gal × 1.90 persons/household ×  <u>50</u> units = <u>14,440</u> gal/day/capita (demand)</p>	<p><b>WASTEWATER</b> - Adopted level of service (LOS) = 114 gal/day/capita (nonresidential uses are included in the adopted LOS).</p> <p><b>Residential:</b></p> <p><u>Single-family:</u> 114 gal × 2.12 persons/household ×  <u>32</u> units = <u>7,733.76</u> gal/day/capita (demand)</p> <p><u>Multi-family:</u> 114 gal × 1.90 persons/household ×  <u>50</u> units = <u>10,830</u> gal/day/capita (demand)</p>
<p><b>Commercial:</b> See <u>Table I</u> below from the Land Development Code for estimated water/sewage flows.</p>	<p><b>Commercial:</b> See <u>Table I</u> below from the Land Development Code for estimated water/sewage flows.</p>

<p><b>SOLID WASTE</b> - Adopted level of service (LOS) = 6.3 lbs/day/capita (nonresidential uses are included in the adopted LOS).</p> <p><b>Residential:</b></p> <p><u>Single-family:</u> 6.3 lbs × 2.12 persons/household ×  <u>32</u> units = <u>427.39</u> lbs/day/capita (demand)</p> <p><u>Multi-family:</u> 6.3 lbs × 1.90 persons/household ×  <u>50</u> units = <u>598.50</u> lbs/day/capita (demand)</p> <p><b>Commercial:</b> See <u>Table I</u> below from the Land Development Code for estimated water/sewage flows.</p>	<p><b>RECREATION/OPEN SPACE</b> - Refer to the New Port Richey Comprehensive Plan for adopted level of service standards.</p> <p>Single-family: <u>32</u> units × 2.12 persons/household = <u>67.84</u> (population projection)</p> <p>Multi-family: <u>50</u> units × 1.90 persons/household = <u>95</u> (population projection)</p> <p>Sites over five acres in area and zoned MF-30 District shall provide five percent of the total net acreage of the development for recreational purposes. Refer to Section 7.06.07 of the Land Development Code.</p>
--	--

**Stormwater Management.** Refer to the Stormwater Management and Erosion Control Policy and Procedures Manual for standards necessary to comply: LOS = 25-year, 24-hour storm event.

**Transportation.** Refer to the New Port Richey Comprehensive Plan for the adopted Level of Service Standards. Refer to the Land Development Code for the **requirements of a Transportation Study.**

1. Determine the number of trips generated by the proposed project during the **PM PEAK** hour using the most recent edition of the ITE "Trip Generation" report with no adjustments for internal capture or passerby trips. **Include your calculation(s) here:** See attached transportation impact study.
2. If the total number of trips is equal to or greater than 50 trips, then a transportation study shall be prepared. The report shall be signed and/or sealed by either a registered professional engineer or a member of the American Institute of Certified Planners.
  - a. If no study is required, the applicant is required to provide only the existing directional **PM PEAK** hour traffic volumes and level of service for the roadways link to which project driveways connect. This information shall include project traffic. **Provide this information here:** See attached transportation impact study.
  - b. The data shall be in conformance with Notes 3a and 3b of "Existing Conditions" contained in the Land Development Code.
3.
  - a. Existing directional **PM PEAK** hour traffic volumes and LOS on all existing collectors/arterials in study area. **Provide information here:** See attached transportation impact study.
  - b. Existing turning movement volumes at the impacted intersection(s) and intersection LOS.

**Process:**

A pre-application meeting will be held with City Staff to ensure the application is complete. Applications must be submitted on Friday by 10:00 am. Once deemed complete, the application will be scheduled for review by the Development Review Committee (DRC). The DRC will review the application for compliance with codes and regulations. Changes may be suggested and additional reviews by the DRC may be necessary. Following the DRC, the case will be scheduled for review by the Land Development Review Board (LDRB) and City Council.

The hearing process to review this application is considered quasi-judicial and operates much like a court of law. The LDRB and City Council members act in a similar capacity as a judge and must govern themselves in accordance with the basics of due process in making decisions. Contact with any of these members about my application should be avoided. These members have been instructed to avoid all such conversations with applicants or people in opposition to or support of any Land Use Plan Amendment. Decisions will be made based on evidence and testimony that is presented at scheduled public hearings and not on information gathered outside of these hearings.

**Attendance at meetings:**

The applicant or applicant's representative needs to be present at all meetings including DRC, LDRB and/or City Council. Call Development Department Staff at 727-853-1039 to find out when this case will be scheduled for these meetings.

**Submittal Information Authorization to visit the property:**

Site visits to the property by City representatives are essential to process this application. The Owner/Applicant, as notarized below, hereby authorizes the City representatives to visit, photograph and post a notice on the property described in this application.

**AUTHORIZATION FOR OWNER'S REPRESENTATIVE(S):**

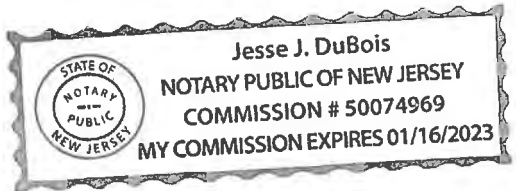
I Kimberly Gramm, the owner, and authorized representative of Hudson Bay Developers, LLC, hereby authorize Barbara L. Wilhite to act as my representative(s) in all matters pertaining to the processing and approval of this application, including modifying the project for parcel identification numbers 07-26-16-0090-00100-0020. I agree to be bound by all representations and agreements made by the designated representative.

Signature of Current Property Owner(s): Kimberly Gramm

Date: 11/30/21

STATE OF New Jersey  
COUNTY OF Monmouth

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 30 day of NOV, 2021 by Kimberly Gramm as MM of Hudson Bay Developers, LLC, on behalf of the corporation. He/she is personally known to me or has produced Drivers license as identification.



Jesse J. DuBois  
Signature of Notary  
Jesse J. DuBois  
Printed Name of Notary  
My Commission Expires 01/16/2023

**APPLICANT'S AFFIDAVIT:**

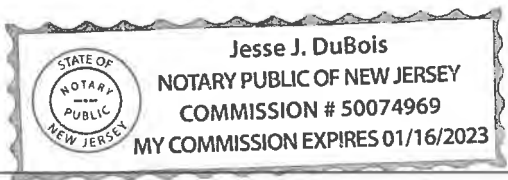
I Kimberly Gramm, the owner or authorized representative of Hudson Bay Developers, LLC have read and understand the contents of this application. The information contained in this application, attached exhibits and other information submitted is complete and in all aspects true and correct, to the best of my knowledge. It is also acknowledged that the filing of this application does not constitute automatic approval of the request and, further, if the request is approved, I will obtain all necessary permits to comply with all applicable orders, codes, conditions and rules and regulations pertaining to the use of the subject property. (Applications which are filed by corporations must bear the seal of the corporation over the signature of an officer authorized to act on behalf of corporation.

Signature of Owner or Authorized Representative: Kimberly Gramm

Date: 11/30/2021

STATE OF New Jersey  
COUNTY OF Monmouth

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 30 day of NOV, 2021 by Kimberly Gramm as MM of Hudson Bay Developers, LLC, on behalf of the corporation. He/she is personally known to me or has produced Drivers license as identification.



Jesse J. DuBois  
Signature of Notary  
Jesse J. DuBois  
Printed Name of Notary  
My Commission Expires 01/16/2023

**Table I: Estimated Sewage/Water Flows for Commercial Development:**

Type of Establishment		Gallons Per Day (GPD)
Airports	Per Passenger	5
	Add Per Employee (per 8 hour shift)	20
Barber and Beauty Shops	Per Chair	100
	Toilet Wastes Only per Lane	100
Bowling Alleys	Per Resident	100
	Per Member	25
	Per Employee (per 8 hour shift)	20
Dentist Office	Per Wet Chair	200
	Per Non-Wet Chair	50
Doctor's Office	All Types	250
	No Showers Provided	20
Factories - exclusive of industrial wastes (gallons per employee per 8 hour shift)	Showers Provided	35
	Food Service Operations	
	Ordinary Restaurant (per seat)	50
	24-hour Restaurant (per seat)	75
	Single Service Articles Only (per seat)	25
	Bar and Cocktail Lounge (per seat)	30
	Drive-In Restaurant (per car space)	50
	Carry-Out Only	
	Per 100 Square Feet of Floor Space	50
	Add Per Employee (per 8 hour shift)	20
Hotels and Motels	Regular (per room)	
	Result Hotels, Camps, Cottages (per person)	75
	Add For Self-Service Laundry Facilities (per machine)	400
Office Building	Per Employee, Per 8 Hour Shift	20
	Service Station	
	Per Water Closet and Urinal	250
Shopping Center - Without Food or Laundry	Per Square Foot of Floor Space	.1
	Stadium, Race Track, Ball Parks	
	Per Seat	5
Stores	Per Square Foot of Floor Space	.1
	Swimming and Bathing Facilities - Public	
	Per Person	10
Theaters	Indoor, Auditoriums (per seat)	5
	Outdoor, Drive-Ins (per space)	10
Trailer or Mobile Home Park	Per Trailer Space	200
	Travel Trailer or Recreational Vehicle Park	
	Overnight w/o water and sewer hook-up (per trailer space)	75
	Overnight with water and sewer hook-up (per trailer space)	100

**Table II: Estimated Sewage/Water Flows for Institutional Development:**

Type of Establishment		Gallons Per Day (GPD)
Churches	Per Seat	3
	Hospitals (does not include kitchen wastewater flows)	
	Per Bed	200
Nursing Homes/Rest Homes (does not include kitchen wastewater flow)	Per Bed	100
	Parks - Public Picnic	
	With Toilets Only (per person)	5
	With Bathhouses, Showers and Toilets (per person)	10
Schools (per person)	Day-Type	15
	Add For Showers	5
	Add For Cafeteria	5
	Add For Day School Workers	15
	Boarding Type	75
Work or Construction Camps - Semi Permanent	Per Worker	50





AQUA RESERVE  
RPD REZONING NARRATIVE

1. Overview

This is a request for a rezoning amendment from MF-2 (County) to RPD (City) to allow for the development of a maximum of 32 Townhomes (South Parcel) and 50 Apartments (North Parcel) on approximately 18.9 acres located on the north and south sides of Sea Forest Drive, west of Elisabethan Lane. An annexation petition and a Comprehensive Plan land use amendment from RES-24 (County) to HDR-24 (City) are being simultaneously submitted.

2. Comprehensive Plan Review

The property is well suited for the proposed development of 32 townhomes and 50 apartments since it already has a County land use designation of RES-24 and a zoning district of MF-2 which allow for high density residential development. The proposed RPD zoning for 32 townhomes and 50 apartments is 10.86 units per developable acre (4.34 units per gross acre) which is well below the maximum density under the HDR-24 land use designation. Currently, the property can be developed within the County as a matter of right, provided all applicable land development code requirements are met, at a maximum density of 18 dwelling units per acre. The property is located on Sea Forest Drive, an existing County collector roadway, and in proximity to two existing bus stops. Central water and sewer are available from FGUA. The schools that this property are zoned for are all under capacity.

3. Guidelines for Granting a Rezoning. LDC section 5.01.11

The development department, development review committee, and land development review board shall consider all of the following guidelines when making a recommendation to the city council on a rezoning application, and the city council shall consider all these guidelines in determining whether to adopt an ordinance granting such rezoning:

1. Whether the proposed zoning district is one (1) of the zoning districts intended to implement or be consistent with the future land use map designation of the property. *The RDP zoning district is consistent with the proposed HDR-24 land use designation.*
2. If more than one (1) zoning district implements or is consistent with the future land use map designation of the property, whether the proposed zoning district is the most suitable zoning district. *The proposed zoning district is the most suitable zoning district since it sets the maximum density and allows for the development of specific dimensional standards.*

3. Whether there are substantial reasons why the property cannot be used in accordance with its present zoning district, or the existing zoning district is otherwise unsuitable. *The existing zoning district is a County zoning district.*
4. Whether the proposed zoning district is consistent with the character of the existing land use pattern. *The property is surrounded by RES-24 land use designations and MF-2 zoning districts that allow for a maximum of 18 units per acre.*
5. Whether the proposed zoning district abuts a property with a zoning district similar in intensity to the proposed zoning district, or serves as a suitable transition zoning district between two (2) or more different abutting zoning districts. *The property is surrounded by RES-24 land use designations and MF-2 zoning districts that allow for a maximum of 18 units per acre.*
6. Whether there are substantial changed or changing conditions in the character of the area where the property is located so that the proposed zoning district is now suitable. *The City and Property Owner desire for the property to be annexed which requires a rezoning to a City zoning district.*
7. Whether, based upon the property's size, shape, or characteristics, the proposed zoning district is out-of-scale with the surrounding area. *The property is surrounded by RES-24 land use designations and MF-2 zoning districts that allow for a maximum of 18 units per acre.*
8. Whether the proposed zoning district is premature, based upon the existing conditions in the surrounding area. *The proposed development is infill development in a location where there is an existing collector roadway system, transit, central water and sewer and under-capacity schools.*
9. Whether there is a substantial public need or purpose for the proposed zoning district consistent with the public health, safety and general welfare. *There is a substantial public need or purpose since the proposed development is infill development in a location where there is an existing collector roadway system, transit, central water and sewer and under-capacity schools. Substantial public investments in infrastructure have already been made in this location.*
10. Any other factors that may be relevant to the rezoning, such as its location within an enclave, recent annexation into the city, or to conserve the value of buildings and natural resources. *The property is contiguous to and being annexed into the City.*
11. The totality of the circumstances. *The totality of the circumstances as set forth above support the rezoning of the property to the City's RPD District.*
12. Any competent substantial evidence presented at the public hearings.

27.00 rec.  
2,450.00 doc.

(3)



Rept: 1735898 Rec: 27.00  
DS: 2450.00 IT: 0.00  
12/22/2015 C. F., Dpty Clerk

PAULA S. O'NEIL, Ph.D. PASCO CLERK & COMPTROLLER  
12/22/2015 11:39am 1 of 3  
OR BK 9302 PG 605

R  
e

This Instrument Prepared By:  
Malcolm J. Pitchford, Esquire  
Shumaker, Loop & Kendrick, LLP  
P.O. Box 49948  
Sarasota, FL 34230-6948

**SPECIAL WARRANTY DEED**

This Special Warranty Deed is made by EAGLE FL I SPE LLC, a North Carolina limited liability company, hereinafter referred to as "Grantor," to JAE PROPERTY HOLDINGS, L.L.C., a Florida limited liability company, whose post office address is 6232 Pasadena Point Blvd., Gulfport, 33707, hereinafter referred to as "Grantee."

Grantor, in consideration of the sum of Ten and No/100 (\$10.00) Dollars and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, hereby conveys to Grantee the following described real property in Pasco County, Florida:

**See Exhibit "A" attached hereto.**

The Property Appraiser's Parcel Identification Numbers for the above described property are: 07-26-16-0090-00100-0020 and 07-26-16-0090-00300-0020.

Subject to valid easements, reservations and restrictions of record, governmental regulations and real property taxes for 2016 and subsequent years.

Grantor hereby covenants with Grantee that the property is free of all encumbrances made by Grantor and that Grantor does hereby warrant and defend the title to the property against the lawful claims of all persons claiming by, through or under Grantor, but not otherwise.

Executed on the 17<sup>th</sup> day of December, 2015.

RETURN TO: SHUMAKER, LOOP & KENDRICK, LLP  
B1 3/16-169/63

WITNESSES:

EAGLE FL I SPE LLC, a North Carolina limited liability company

Aisha Nasir  
Print Name: AISHA NASIR

By: Charles S. Giel V.P.  
Charles S. Giel, as its Vice President

Victoria Costa  
Print Name: VICTORIA COSTA

Address: 6905 N. Wickham Rd., Suite 200  
Melbourne, FL 32940

STATE OF FLORIDA  
COUNTY OF BREVARD

The foregoing instrument was acknowledged before me this 16 day of December, 2015, by Charles S. Giel, as the Vice President of EAGLE FL I SPE LLC, a North Carolina limited liability company, on behalf of the company.

Victoria Costa  
Notary Public  
Print Name: VICTORIA COSTA  
My Commission Expires: 2-1-2018

Personally Known  (OR) Produced Identification \_\_\_\_\_  
Type of identification produced \_\_\_\_\_



(MJP/dh-B22217-169163)

**EXHIBIT "A****GULF HARBORS, TRACT 40-A:**

A parcel of land lying in Section 7, Township 26 South, Range 16 East, Pasco County, Florida, and being more particularly described as follows:

Commence at the Northeast corner of Section 7, Township 26 South, Range 16 East, Pasco County, Florida, and run North 89°37'05" West, 1232.50 feet along the Northerly boundary of said Section to the Point of Beginning; thence run South 30°23'49" West, 134.39 feet; thence South 09°57'44" West, 254.34 feet; thence South 35°26'28" East, 172.45 feet; thence South 36°20'00" West, 83.03 feet to a point on the Easterly right-of-way line of Sea Forest Drive (a 70 foot right-of-way), according to the Plat of Gulf Harbors Sea Forest Drive Phase 2, recorded in Plat Book 22, Page 67, of the Public Records of Pasco County, Florida; thence along said Easterly right-of-way line, North 52°04'30" West, 304.42 feet to a point on the Easterly right-of-way line of Sea Forest Drive (a 70 foot right-of-way), according to the plat of Gulf Harbors Sea Forest Unit 1-A, as recorded in Plat Book 21, Pages 86 through 89, inclusive; thence along said Easterly right-of-way line by a curve to the right, having a radius of 640.00 feet, a central angle of 41°45'48", a chord bearing North 31°11'36" West, 456.24 feet, an arc distance of 466.50 feet to a point on the Northerly boundary of said Section 7; thence along said Northerly boundary South 89°37'05" East, 537.64 feet to the Point of Beginning.

**GULF HARBORS, TRACT 40-B:**

A parcel of land lying in Section 7, Township 26 South, Range 16 East, Pasco County, Florida, and being more particularly described as follows:

Commence at the Northeast corner of Section 7, Township 26 South, Range 16 East, Pasco County, Florida, and run N 89°37'05" West, 1331.08 feet along the Northerly boundary of said Section; thence South 00°22'21" West, 630.89 feet, parallel to the Easterly boundary of Section 7, to a point on the Southerly right-of-way of Sea Forest Drive (a 70 foot right-of-way) according to the recorded plat of Gulf Harbors Sea forest Drive Phase 2 for a Point of Beginning; thence South 36°20'00" West, 686.48 feet; thence South 62°45'00" West, 294.94 feet; thence South 77°45'00" West, 310.00 feet; thence South 82°38'17" West, 90.00 feet; thence North 07°21'43" West, 256.00 feet; thence North 16°30'00" East, 247.00 feet; thence North 53°00'00" East, 77.00 feet; thence North 21°30'00" West, 78.00 feet; thence North 41°00'00" East, 117.00 feet; thence South 73°30'00" East, 295.00 feet; thence North 23°38'00" East, 195.21 feet; thence by a curve to the left having a radius of 150.00 feet, a central angle of 40°08'00", a chord bearing North 03°34'00" East, 102.93 feet, an arc distance of 105.07 feet; thence North 16°30'00" West, 117.00 feet; thence North 05°00'00" West, 70.16 feet; thence by a curve to the left having a radius of 97.14 feet, a central angle of 40°00'00", a chord bearing North 25°00'00" West, 66.45 feet; an arc distance of 67.82 feet; thence by a curve to the right having a radius of 70.00 feet, a central angle of 116°00'00", a chord bearing North 13°00'00" East, 118.73 feet; an arc distance of 141.72 feet; thence North 71°00'00" East, 51.98 feet; thence North 56°45'00" East, 64.54 feet to a point on the Westerly right-of-way line of Sea Forest Drive (a 70 foot right-of-way) according to the plat of Gulf Harbors Sea Forest Unit 1-A, as recorded in Plat Book 21, Pages 86 through 89, inclusive, of the Public Records of Pasco County, Florida; thence along said Westerly right-of-way line by a non-tangent curve to the left having a radius of 710.00 feet, a central angle of 35°03'46", a chord bearing South 34°32'37" East, 427.74 feet, an arc distance of 434.49 feet; thence South 52°04'30" East, 306.37 feet to the Point of Beginning





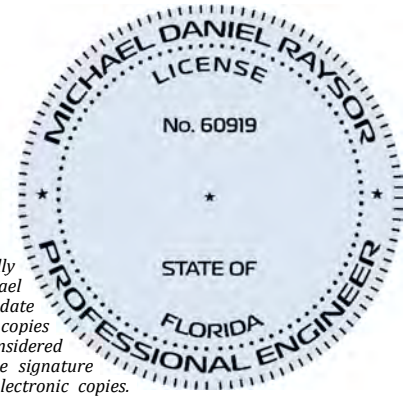
**TECHNICAL MEMORANDUM**

**TO:** HUDSON BAY DEVELOPERS, LLC  
 1153 HONOR DRIVE  
 HOLIDAY, FLORIDA 34690

**FROM:** MICHAEL D. RAYSOR, P.E.  
 RAYSOR TRANSPORTATION CONSULTING, LLC

**SUBJECT:** AQUA RESERVE  
 TRAFFIC IMPACT STUDY

**DATE:** MAY 25, 2021



*This item has been digitally signed and sealed by Michael Daniel Raysor P.E., on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.*

**1.0 | INTRODUCTION**

This technical memorandum documents a TRAFFIC IMPACT STUDY undertaken in association with development permitting for the “AQUA RESERVE” project site, located in Pasco County, Florida and proposed for annexation into the City of New Port Richey. The subject site is located on the east & west sides of Sea Forest Drive between Main Street and Cross Bayou Boulevard; as shown in **FIGURE 1.0**. The subject site is proposed for development consisting of 50 apartment units on the east side of Sea Forest Drive and 32 townhome units on the west side of Sea Forest Drive. Access to the subject site is planned to be provided via a full access driveway connection to Sea Forest Drive, which is a County collector roadway; as shown in **FIGURE 2.0**.

**2.0 | PROJECT SITE TRIP GENERATION**

The daily and peak hour trip generation for the project site was estimated using trip characteristic data, as identified in the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10<sup>th</sup> edition); as summarized in **TABLE 1.0**. The distribution of project generated traffic was estimated manually in consideration of current traffic patterns, area development patterns, and the adjacent roadway network; as shown in **FIGURE 3.0**.

**TABLE 1.0 | PROJECT SITE TRIP GENERATION ESTIMATE**

Area	ITE LUC	Land Use Description	Size	Weekday		AM Peak Hour				PM Peak Hour			
				Formula	Trips	Formula	Trips	Enter	Exit	Formula	Trips	Enter	Exit
West	220	Multifamily (Low-Rise)	32 units	$T=7.56(X) - 40.86$	202	$\ln(T)=0.95* \ln(X)-0.51$	16	4	12	$\ln(T)=0.89* \ln(X)-0.02$	21	13	8
East	221	Multifamily (Mid-Rise)	50 units	$T=5.45(X) - 1.75$	272	$\ln(T)=0.98* \ln(X)-0.98$	17	4	13	$\ln(T)=0.96* \ln(X)-0.63$	23	14	9
<b>TOTAL</b>			<b>82 units</b>	--	<b>474</b>	--	<b>33</b>	<b>8</b>	<b>25</b>	--	<b>44</b>	<b>27</b>	<b>17</b>



FIGURE 1.0 | PROJECT SITE LOCATION

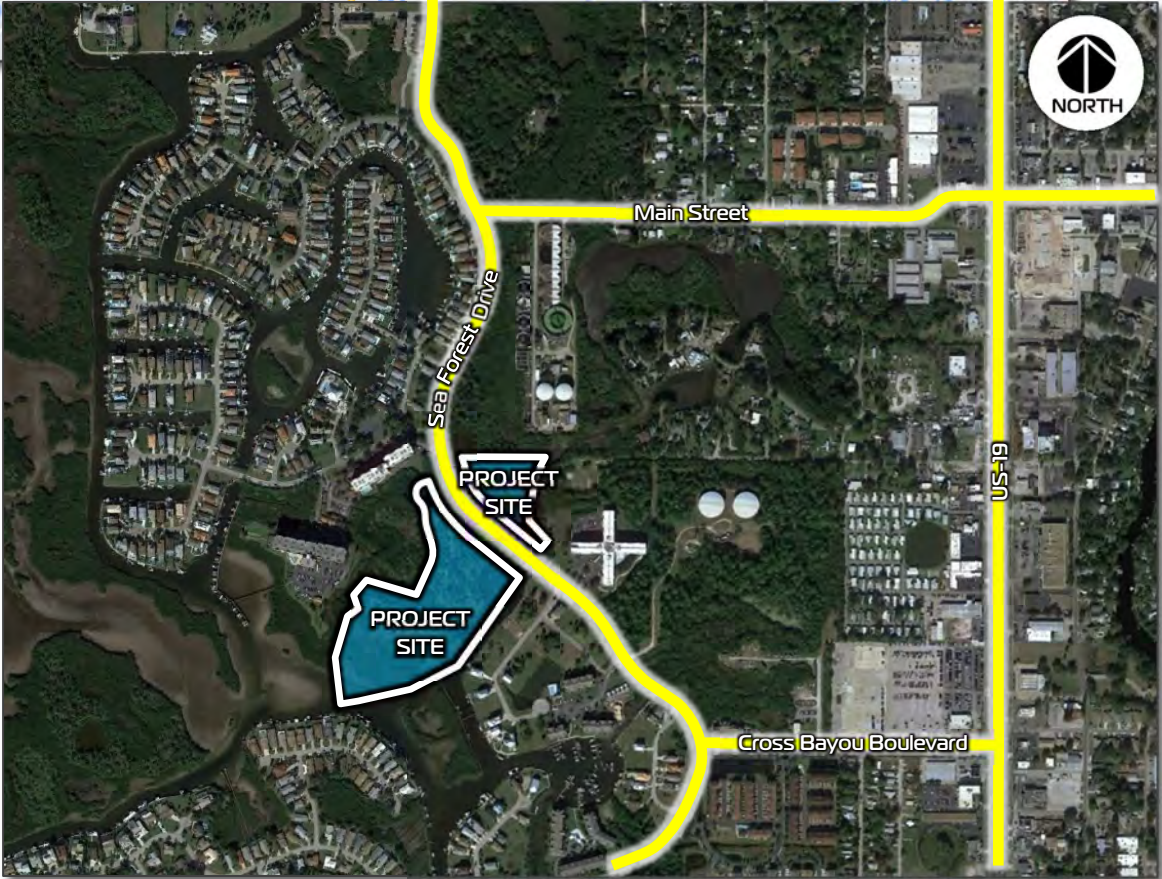
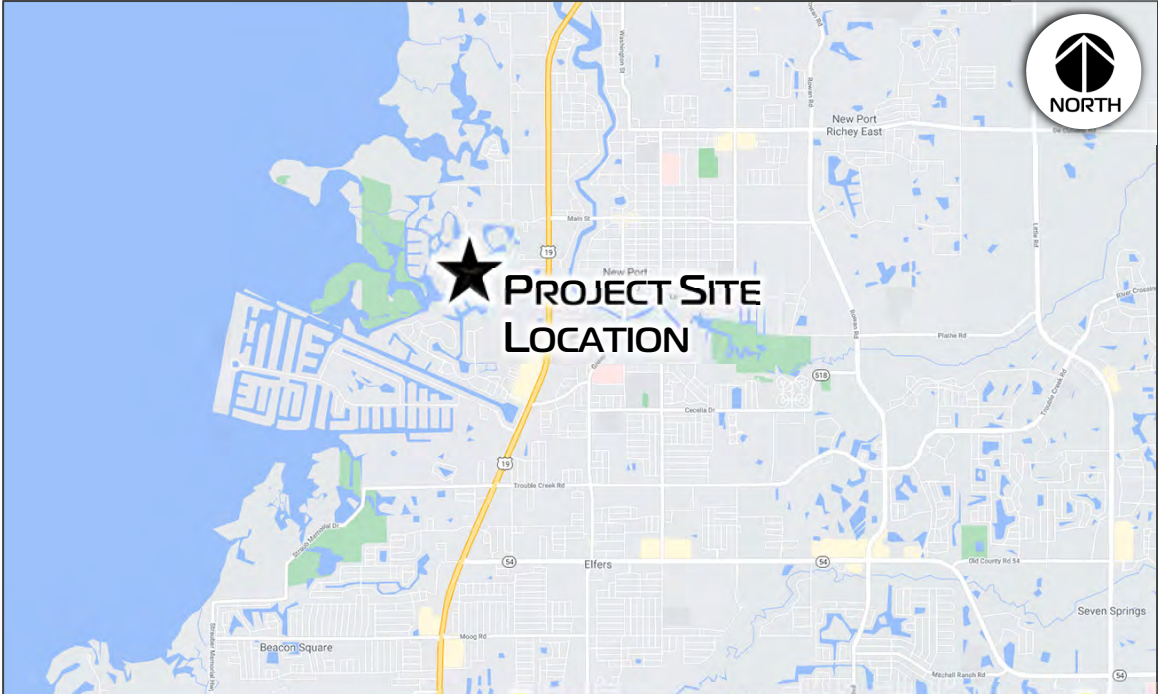




FIGURE 2.0 | PROJECT SITE CONCEPT PLAN

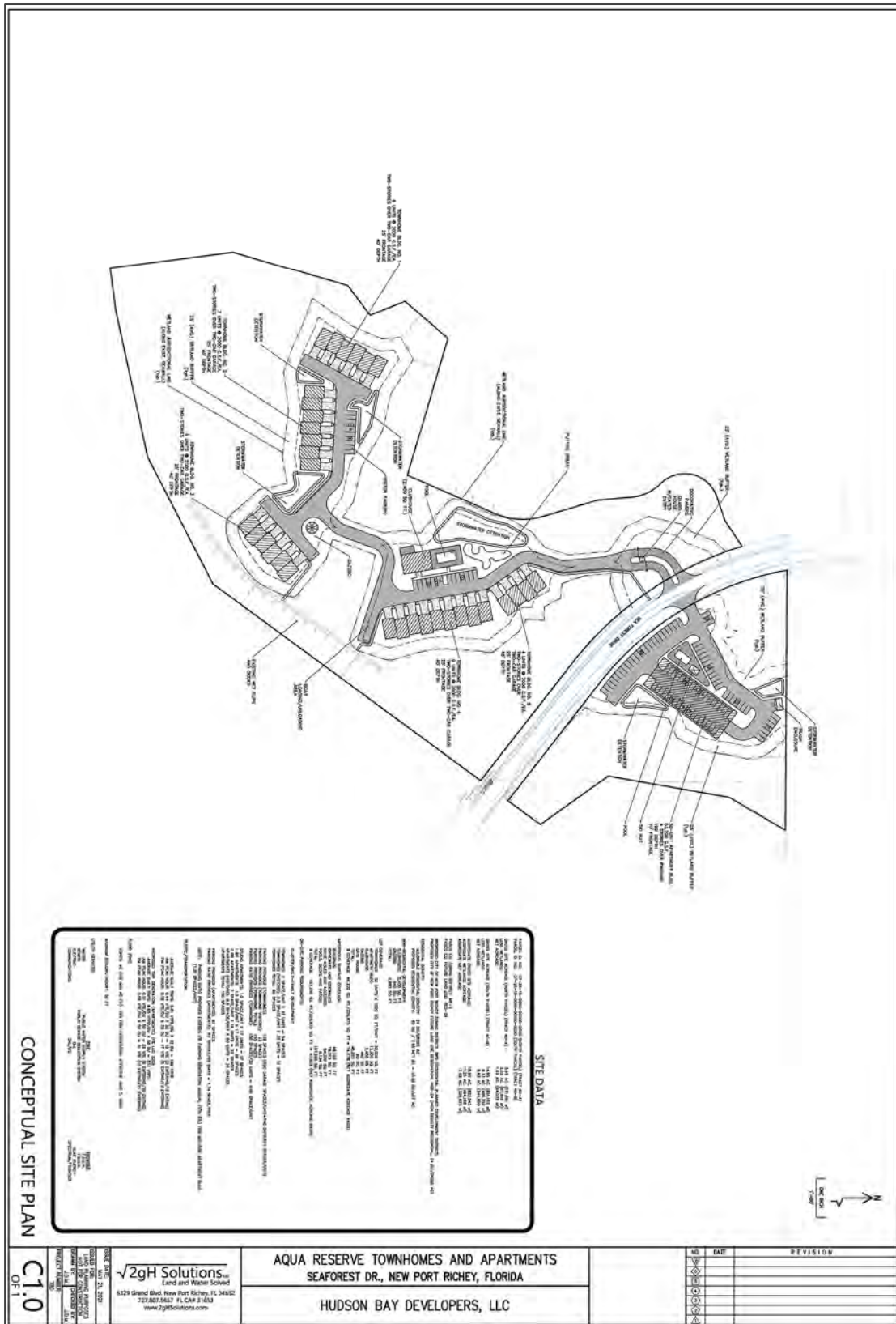
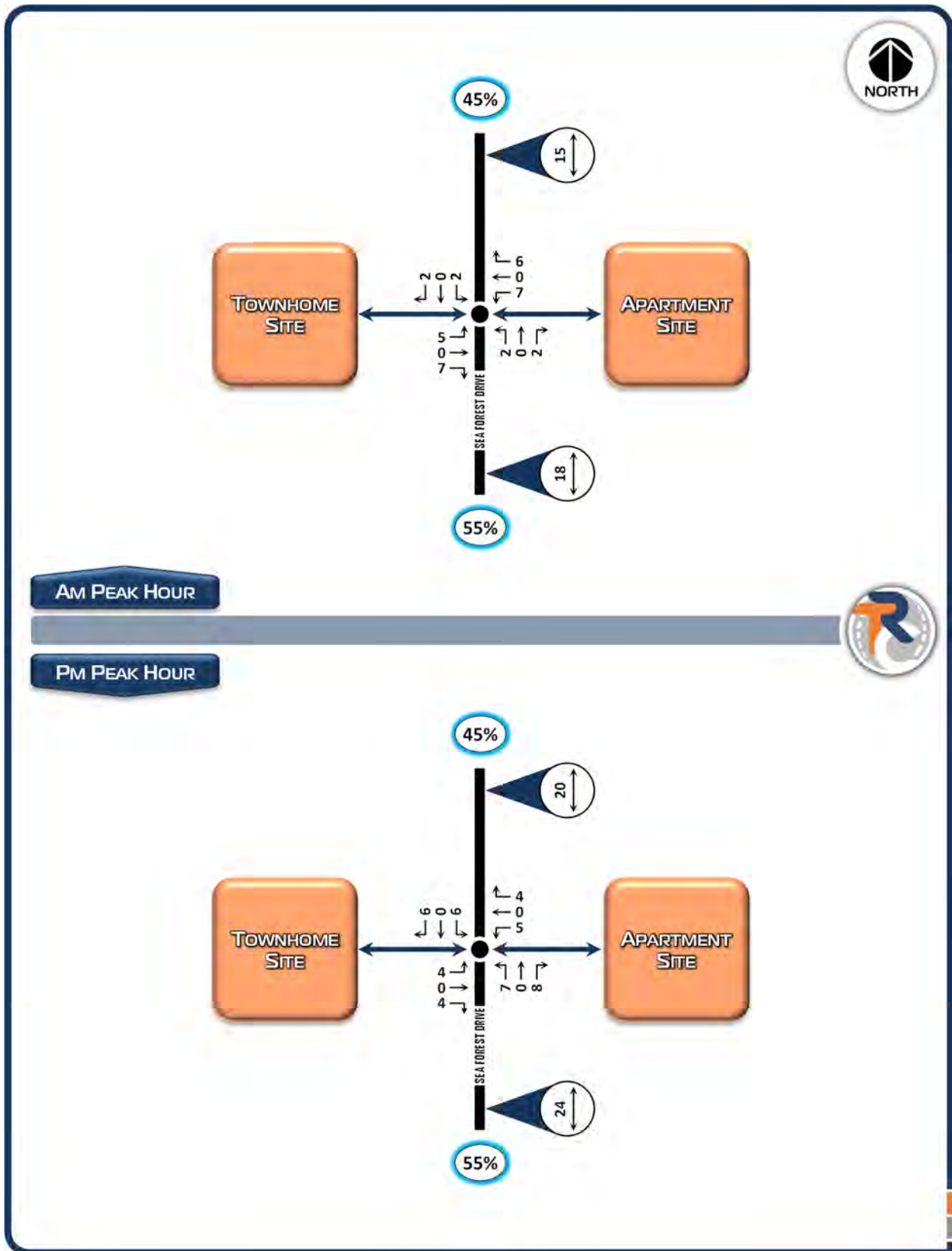




FIGURE 3.0 | PROJECT GENERATED PEAK HOUR TRAFFIC VOLUMES





### 3.0 | STUDY AREA & ANALYSIS SCENARIOS

The purpose of this traffic study is to satisfy the requirements of the City of New Port Richey Land Development Code & Comprehensive Plan and the Pasco County Land Development Code (as Sea Forest Drive is a Pasco County roadway). Therefore, the study area was identified to consist of (a) the adjacent segment of Sea Forest Drive, and (b) the project site access driveway connection to Sea Forest Drive. The project site is anticipated to be developed within three years or less, therefore 2024 was used as the analysis horizon for this study.

### 4.0 | TRAFFIC VOLUMES

Current traffic volumes were obtained from traffic counts conducted proximate to the project site during AM peak period (7 am to 9 am) and PM peak period (4 pm to 6 pm) conditions; subsequently adjusted to reflect current & typical peak season conditions. The adjustment factors included FDOT peak season factors and factors calculated from FDOT data to correct for potentially atypical traffic volumes due to the ongoing Public Health Emergency as a result of COVID-19. The traffic count data and adjustment factors are documented in **ATTACHMENT A**. Future year background traffic volumes were calculated by adding a 1.0% per year annual growth rate to the current peak season traffic volumes through the 2024 analysis-horizon, where this nominal growth rate was used in consideration of the slightly negative traffic volume growth rate calculated from area roadways; as documented in **ATTACHMENT B**. Post-development traffic volumes were calculated by adding the traffic estimated to be generated by the project site to the background traffic volumes. **FIGURES 4.0, 5.0, and 6.0** show the traffic volumes used in this study.

### 5.0 | ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS

A generalized level of service analysis was conducted for the adjacent segment of Sea Forest Drive for AM and PM peak hour background and post-development traffic conditions, in consideration of FDOT generalized service volumes; as documented in **ATTACHMENT C**. The level of service analysis is summarized in **TABLE 2.0**, which indicates that the adjacent segment of Sea Forest Drive is anticipated to operate acceptably for future 2024 peak hour traffic conditions; at level-of-service “C” both with and without development of the subject project.

**TABLE 2.0 | ROADWAY SEGMENT LEVEL OF SERVICE ANALYSIS**

Roadway Segment	Peak Hour	LOS Std	Service Volume	Background Traffic			Total Traffic		
				Volume	LOS	V/C	Volume	LOS	V/C
Sea Forest Drive North of Project Site	AM	D	931	153	C	0.16	173	C	0.19
	PM	D	931	264	C	0.28	292	C	0.31
Sea Forest Drive South of Project Site	AM	D	931	153	C	0.16	176	C	0.19
	PM	D	931	264	C	0.28	296	C	0.32



FIGURE 4.0 | CURRENT PEAK HOUR TRAFFIC VOLUMES

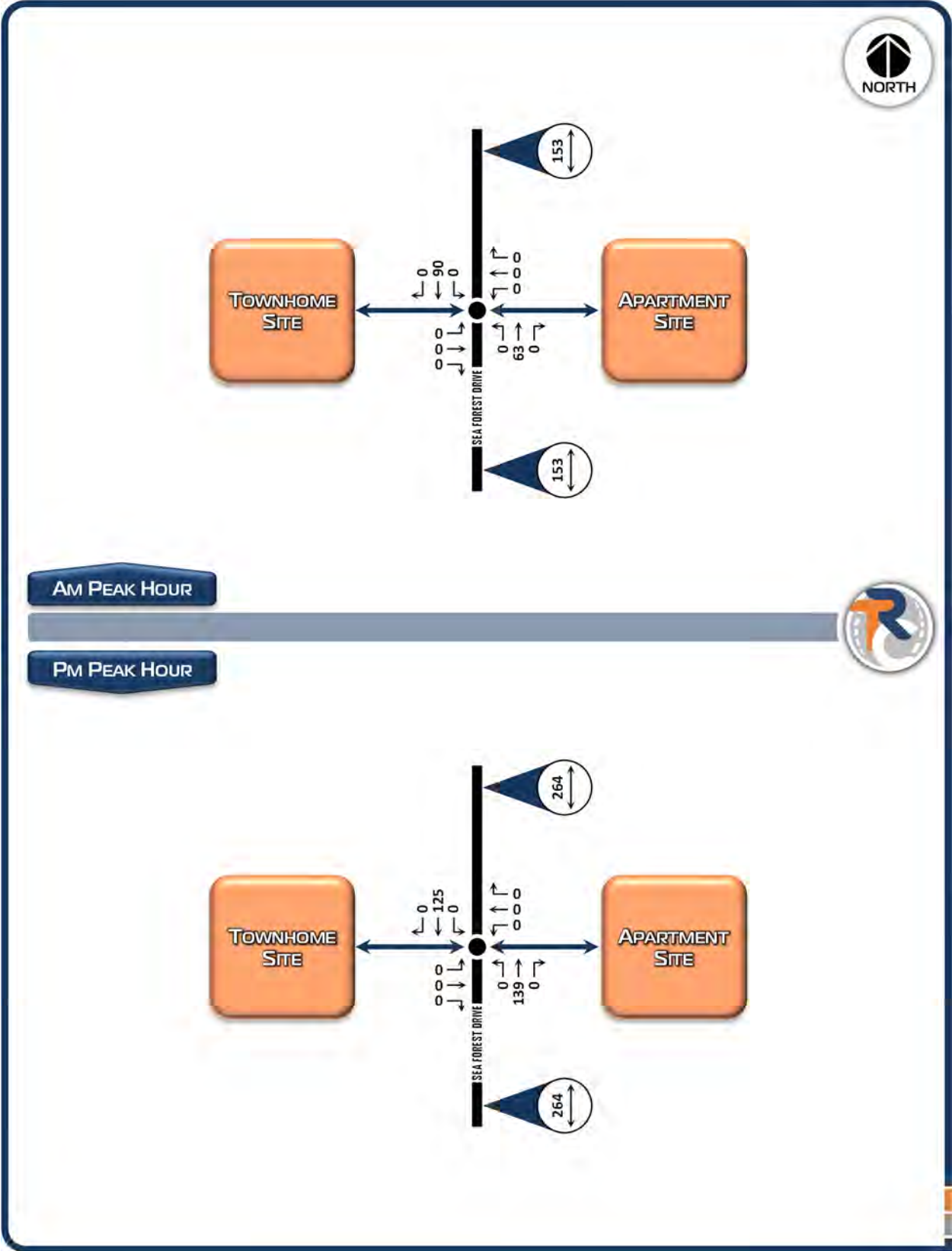




FIGURE 5.0 | BACKGROUND PEAK HOUR TRAFFIC VOLUMES

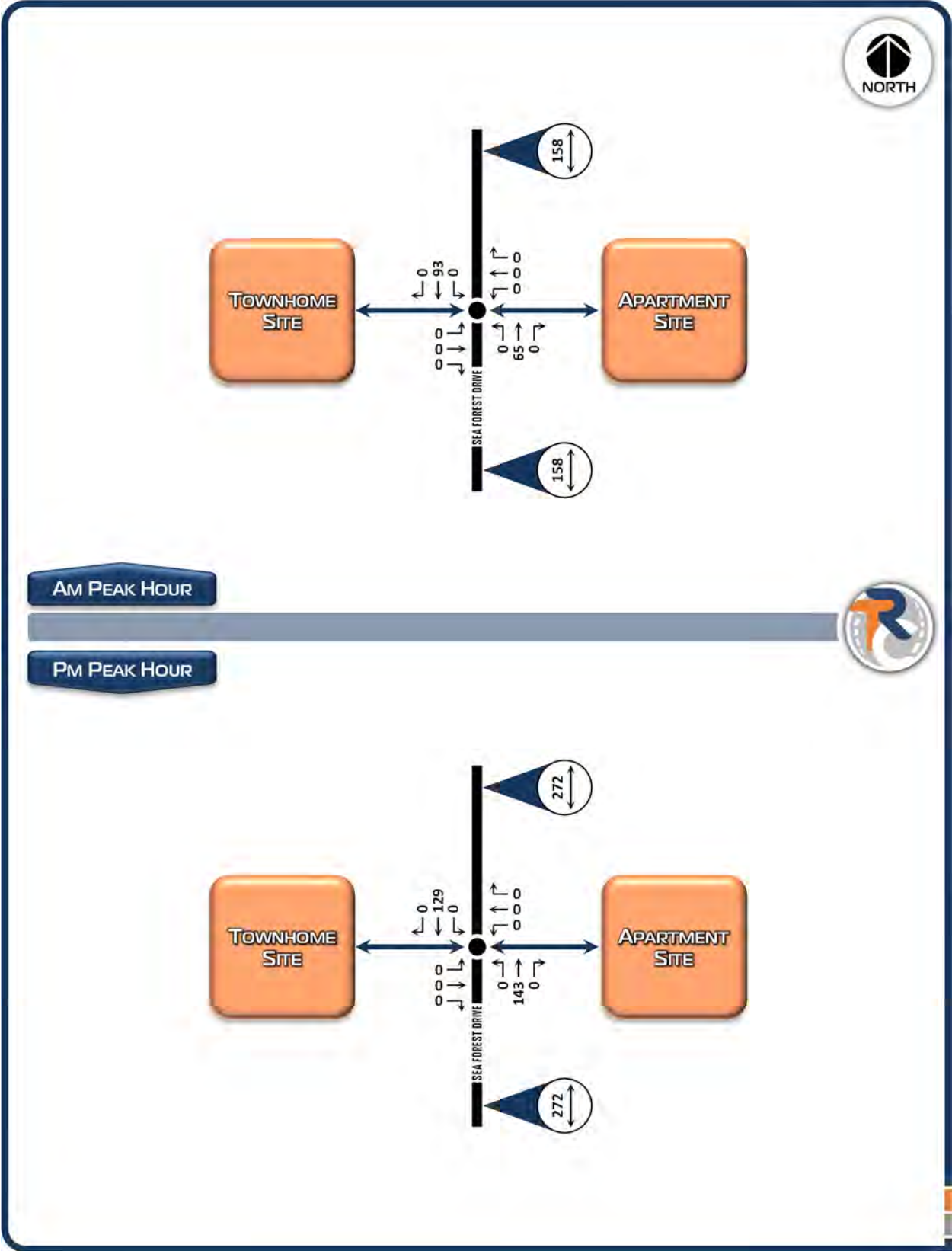
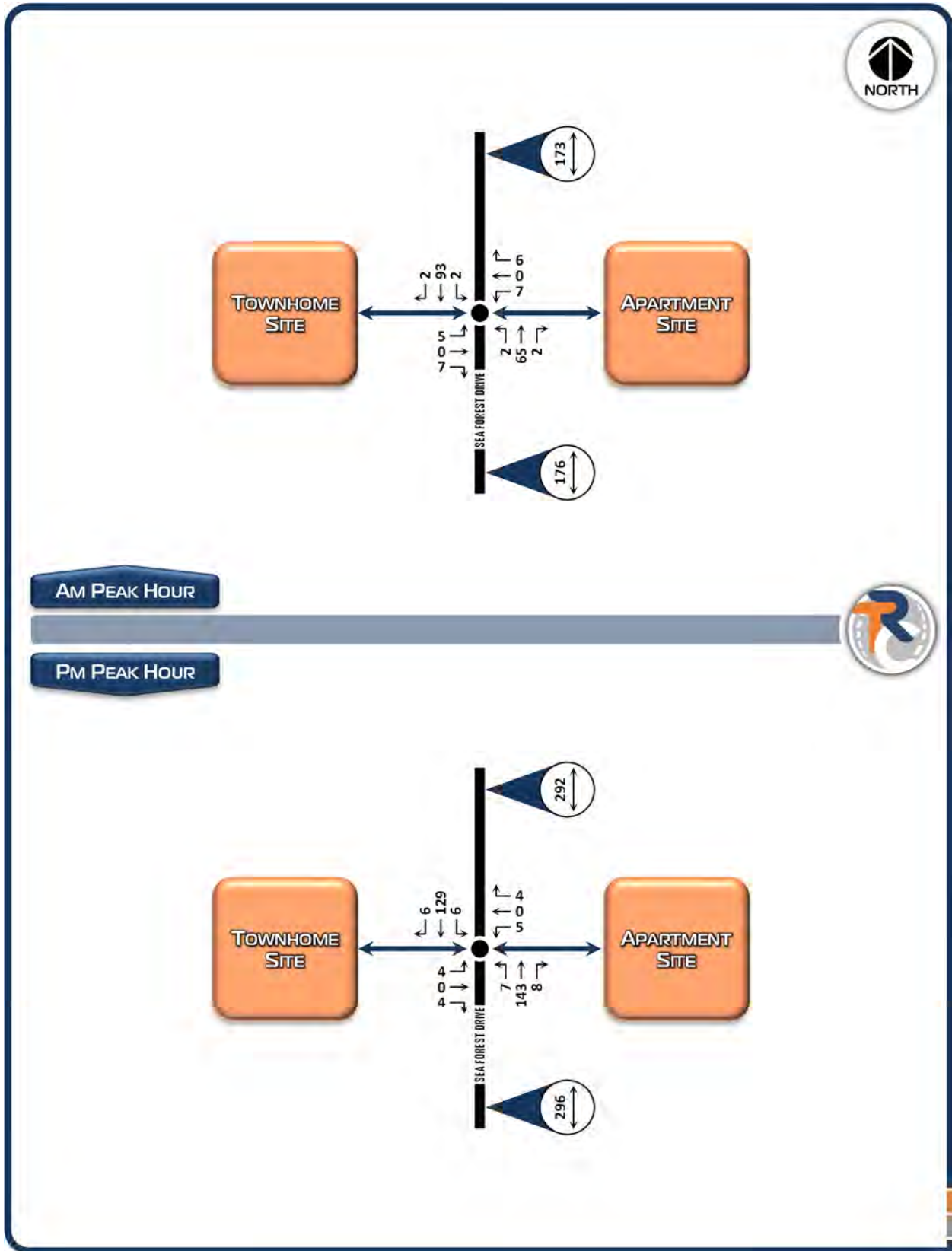




FIGURE 6.0 | POST-DEVELOPMENT PEAK HOUR TRAFFIC VOLUMES





**6.0 | SITE ACCESS OPERATIONAL ANALYSIS**

An operational analysis of the site access intersection was conducted. The analysis was performed for typical AM and PM peak traffic periods for post-development traffic conditions using *Highway Capacity Manual* methodologies calculated by the *Synchro* software program; as summarized in **TABLE 3.0** and further documented in **ATTACHMENT D**. The results of the analysis indicate that acceptable traffic operating conditions can be anticipated for the study intersections, at levels-of-service “A” & “B” for post-development peak hour traffic conditions.

**TABLE 3.0 | POST-DEVELOPMENT SITE ACCESS INTERSECTION OPERATIONAL ANALYSIS SUMMARY**

Location	Peak Hour	Metric	Eastbound			Westbound			Northbound			Southbound			Overall
			L	T	R	L	T	R	L	T	R	L	T	R	
Sea Forest Drive & Project Site Driveway	AM	LOS	[2]	A	[2]	[2]	A	[2]	[2]	A	[2]	[2]	A	[2]	[1]
		Delay	[2]	9.3	[2]	[2]	9.3	[2]	[2]	0.2	[2]	[2]	0.1	[2]	[1]
		V/C	[2]	0.02	[2]	[2]	0.02	[2]	[2]	0.05	[2]	[2]	0.07	[2]	[1]
	PM	LOS	[2]	B	[2]	[2]	B	[2]	[2]	A	[2]	[2]	A	[2]	[1]
		Delay	[2]	10.0	[2]	[2]	10.2	[2]	[2]	0.4	[2]	[2]	0.4	[2]	[1]
		V/C	[2]	0.01	[2]	[2]	0.01	[2]	[2]	0.12	[2]	[2]	0.11	[2]	[1]

[1] NOT APPLICABLE [2] SHARED LANE

**7.0 | SITE ACCESS TURN LANE WARRANT EVALUATION**

A turn lane warrant evaluation was conducted to determine if new site access turn lanes are warranted on Sea Forest Drive at the project site access driveway connection, as documented in **ATTACHMENT E**. The turn lane warrant evaluation was performed based on the turn lane warrant criteria pursuant to the Pasco County Land Development Code (LDC), which was derived from the *National Cooperative Highway Research Program, Report No. 279*; as Sea Forest Drive is a Pasco County roadway. The results of the analysis found that new site access turn lanes are not warranted on Sea Forest Drive at the project site driveway connection.



**8.0 | CONCLUSION**

Based on the data, analyses and findings presented within this TRAFFIC IMPACT STUDY prepared in association with development permitting for the “AQUA RESERVE” project site, the following is concluded.

- ❖ THE ADJACENT SEGMENT OF SEA FOREST DRIVE IS ANTICIPATED TO OPERATE ACCEPTABLY AT LEVEL-OF-SERVICE “C” BOTH WITH AND WITHOUT DEVELOPMENT OF THE SUBJECT PROJECT.
- ❖ THE PROJECT SITE ACCESS DRIVEWAY CONNECTION TO SEA FOREST DRIVE IS ANTICIPATED TO OPERATE ACCEPTABLY AT LEVELS-OF-SERVICE “A” & “B” FOR POST-DEVELOPMENT PEAK HOUR TRAFFIC CONDITIONS.
- ❖ NEW SITE ACCESS TURN LANES WERE FOUND TO NOT BE WARRANTED ON SEA FOREST DRIVE AT THE PROJECT SITE ACCESS DRIVEWAY CONNECTION.

# AQUA RESERVE

## TRAFFIC IMPACT STUDY

# ATTACHMENT A

TRAFFIC COUNT DATA & ADJUSTMENT FACTORS

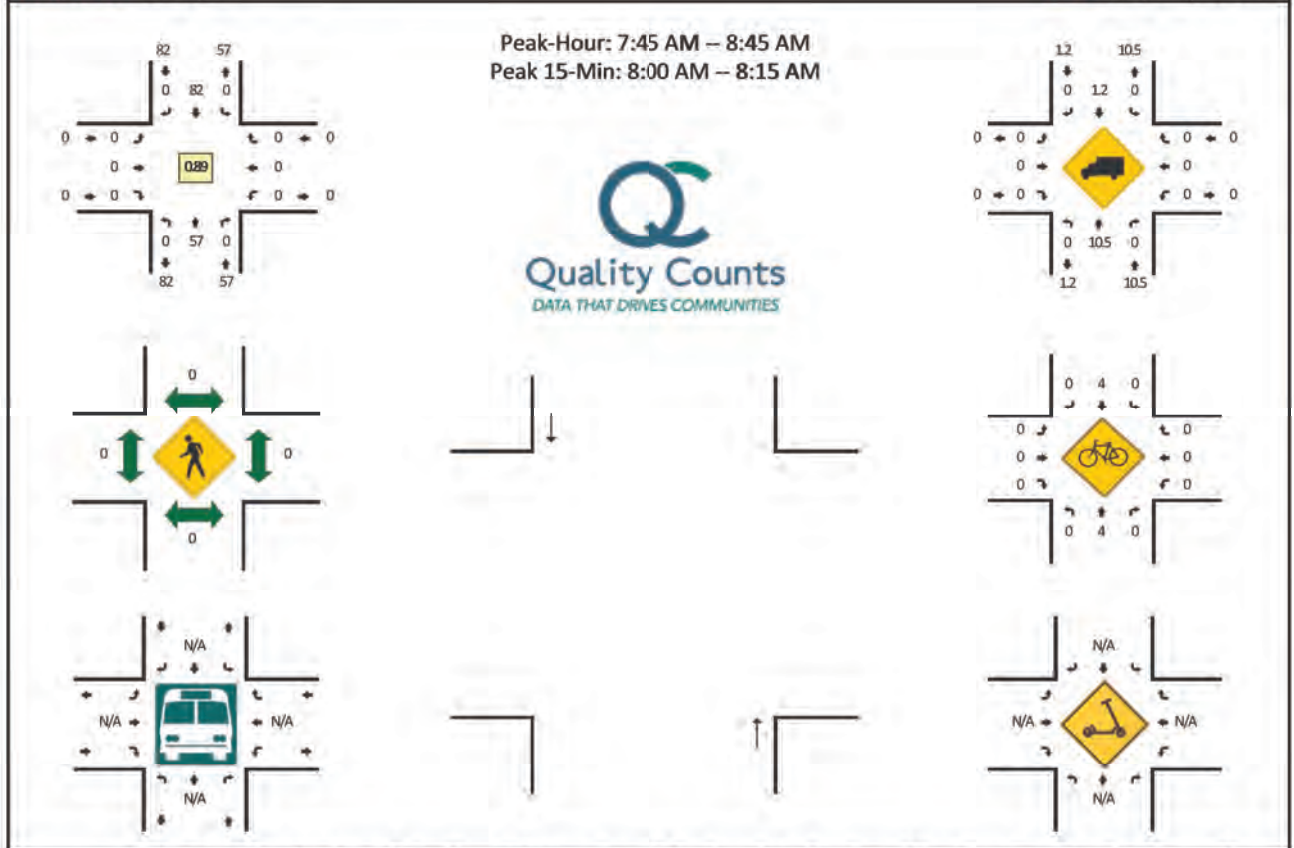


Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

**LOCATION:** Sea Forest Dr midway btwn Elisabethan Ln and Seagull Dr -- Sea Forest Dr midway btwn Elisabethan Ln and Seagull Dr  
**CITY/STATE:** Pasco, FL

**QC JOB #:** 15440301  
**DATE:** Tue, May 11 2021



15-Min Count Period Beginning At	Sea Forest Dr midway btwn Elisabethan Ln and Seagull Dr (Northbound)				Sea Forest Dr midway btwn Elisabethan Ln and Seagull Dr (Southbound)				Sea Forest Dr midway btwn Elisabethan Ln and Seagull Dr (Eastbound)				Sea Forest Dr midway btwn Elisabethan Ln and Seagull Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	7	0	0	0	17	0	0	0	0	0	0	0	0	0	0	24	
7:15 AM	0	8	0	0	0	13	0	0	0	0	0	0	0	0	0	0	21	
7:30 AM	0	9	0	0	0	16	0	0	0	0	0	0	0	0	0	0	25	
7:45 AM	0	8	0	0	0	29	0	0	0	0	0	0	0	0	0	0	37	107
8:00 AM	0	23	0	0	0	16	0	0	0	0	0	0	0	0	0	0	39	122
8:15 AM	0	15	0	0	0	16	0	0	0	0	0	0	0	0	0	0	31	132
8:30 AM	0	11	0	0	0	21	0	0	0	0	0	0	0	0	0	0	32	139
8:45 AM	0	19	0	0	0	15	0	0	0	0	0	0	0	0	0	0	34	136
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	92	0	0	0	64	0	0	0	0	0	0	0	0	0	0	156	
Heavy Trucks	0	8	0	0	0	4	0	0	0	0	0	0	0	0	0	0	12	
Buses																	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	16	
Scoters																		

Comments:

Report generated on 5/17/2021 11:21 AM

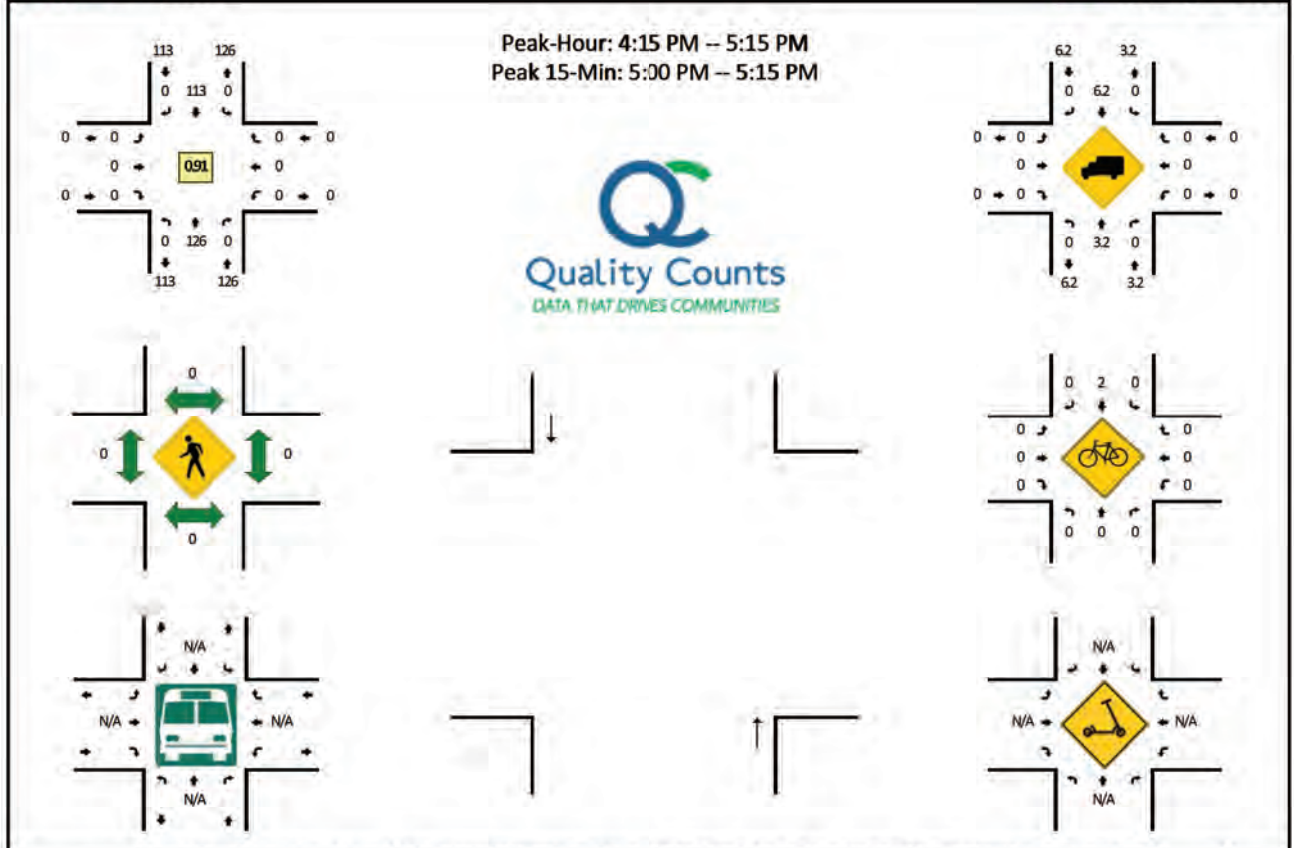
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

**LOCATION:** Sea Forest Dr midway btwn Elisabethan Ln and Seagull Dr -- Sea Forest Dr midway  
btwn Elisabethan Ln and Seagull Dr  
**CITY/STATE:** Pasco, FL

**QC JOB #:** 15440302  
**DATE:** Tue, May 11 2021



15-Min Count Period Beginning At	Sea Forest Dr midway btwn Elisabethan Ln and Seagull Dr (Northbound)				Sea Forest Dr midway btwn Elisabethan Ln and Seagull Dr (Southbound)				Sea Forest Dr midway btwn Elisabethan Ln and Seagull Dr (Eastbound)				Sea Forest Dr midway btwn Elisabethan Ln and Seagull Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	40	0	0	0	19	0	0	0	0	0	0	0	0	0	0	59	
4:15 PM	0	26	0	0	0	29	0	0	0	0	0	0	0	0	0	0	55	
4:30 PM	0	27	0	0	0	30	0	0	0	0	0	0	0	0	0	0	57	
4:45 PM	0	35	0	0	0	26	0	0	0	0	0	0	0	0	0	0	61	232
5:00 PM	0	38	0	0	0	28	0	0	0	0	0	0	0	0	0	0	66	239
5:15 PM	0	28	0	0	0	16	0	0	0	0	0	0	0	0	0	0	44	228
5:30 PM	0	34	0	0	0	21	0	0	0	0	0	0	0	0	0	0	55	226
5:45 PM	0	26	0	0	0	19	0	0	0	0	0	0	0	0	0	0	45	210
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	152	0	0	0	112	0	0	0	0	0	0	0	0	0	0	264	
Heavy Trucks	0	4	0	0	0	12	0	0	0	0	0	0	0	0	0	0	16	
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scooters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

Report generated on 5/17/2021 11:21 AM

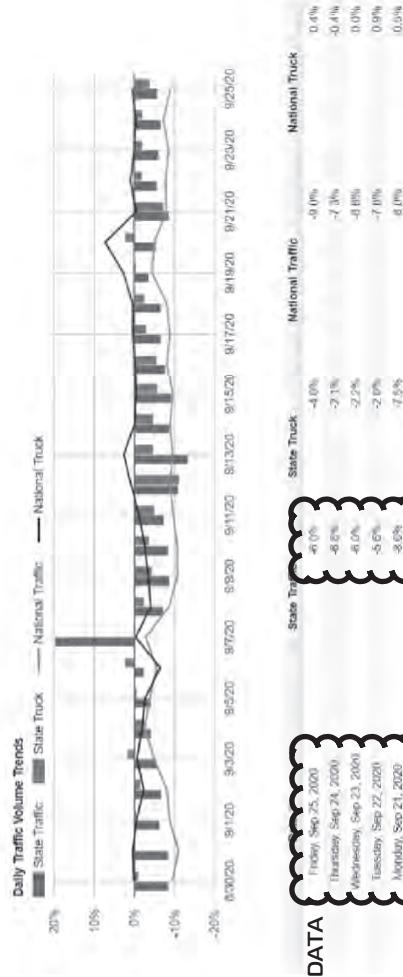
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 1400 PASCO COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.95 PSCF
1	01/01/2019 - 01/05/2019	0.98	1.03
2	01/06/2019 - 01/12/2019	1.00	1.05
3	01/13/2019 - 01/19/2019	1.03	1.08
4	01/20/2019 - 01/26/2019	1.01	1.06
5	01/27/2019 - 02/02/2019	1.00	1.05
* 6	02/03/2019 - 02/09/2019	0.98	1.03
* 7	02/10/2019 - 02/16/2019	0.97	1.02
* 8	02/17/2019 - 02/23/2019	0.96	1.01
* 9	02/24/2019 - 03/02/2019	0.95	1.00
*10	03/03/2019 - 03/09/2019	0.94	0.99
*11	03/10/2019 - 03/16/2019	0.93	0.98
*12	03/17/2019 - 03/23/2019	0.93	0.98
*13	03/24/2019 - 03/30/2019	0.94	0.99
*14	03/31/2019 - 04/06/2019	0.94	0.99
*15	04/07/2019 - 04/13/2019	0.95	1.00
*16	04/14/2019 - 04/20/2019	0.96	1.01
*17	04/21/2019 - 04/27/2019	0.97	1.02
*18	04/28/2019 - 05/04/2019	0.98	1.03
19	05/05/2019 - 05/11/2019	0.99	1.04
20	05/12/2019 - 05/18/2019	1.01	1.06
21	05/19/2019 - 05/25/2019	1.01	1.06
22	05/26/2019 - 06/01/2019	1.02	1.07
23	06/02/2019 - 06/08/2019	1.02	1.07
24	06/09/2019 - 06/15/2019	1.03	1.08
25	06/16/2019 - 06/22/2019	1.03	1.08
26	06/23/2019 - 06/29/2019	1.04	1.09
27	06/30/2019 - 07/06/2019	1.04	1.09
28	07/07/2019 - 07/13/2019	1.04	1.09
29	07/14/2019 - 07/20/2019	1.05	1.11
30	07/21/2019 - 07/27/2019	1.05	1.11
31	07/28/2019 - 08/03/2019	1.05	1.11
32	08/04/2019 - 08/10/2019	1.06	1.12
33	08/11/2019 - 08/17/2019	1.06	1.12
34	08/18/2019 - 08/24/2019	1.06	1.12
35	08/25/2019 - 08/31/2019	1.07	1.13
36	09/01/2019 - 09/07/2019	1.07	1.13
37	09/08/2019 - 09/14/2019	1.08	1.14
38	09/15/2019 - 09/21/2019	1.08	1.14
39	09/22/2019 - 09/28/2019	1.06	1.12
40	09/29/2019 - 10/05/2019	1.05	1.11
41	10/06/2019 - 10/12/2019	1.03	1.08
42	10/13/2019 - 10/19/2019	1.01	1.06
43	10/20/2019 - 10/26/2019	1.00	1.05
44	10/27/2019 - 11/02/2019	1.00	1.05
45	11/03/2019 - 11/09/2019	0.99	1.04
46	11/10/2019 - 11/16/2019	0.99	1.04
47	11/17/2019 - 11/23/2019	0.98	1.03
48	11/24/2019 - 11/30/2019	0.98	1.03
49	12/01/2019 - 12/07/2019	0.98	1.03
50	12/08/2019 - 12/14/2019	0.98	1.03
51	12/15/2019 - 12/21/2019	0.98	1.03
52	12/22/2019 - 12/28/2019	1.00	1.05
53	12/29/2019 - 12/31/2019	1.03	1.08

\* PEAK SEASON

## Florida



### LATEST AVAILABLE DATA

Friday, Sep 25, 2020  
 Thursday, Sep 24, 2020  
 Wednesday, Sep 23, 2020  
 Tuesday, Sep 22, 2020  
 Monday, Sep 21, 2020

State Truck: -6.0%, -8.6%, -6.0%, -5.6%, -3.0%  
 National Traffic: -4.0%, -7.1%, -2.2%, -2.0%, -7.5%  
 National Truck: -0.4%, -0.4%, 0.0%, 0.9%, 0.5%

+/- 5%



### COVID-19 ADJUSTMENT FACTOR CALCULATION

100% - 6% = 94%

1 / 94% = 1.06

# AQUA RESERVE

## TRAFFIC IMPACT STUDY

# ATTACHMENT B

HISTORICAL TRAFFIC VOLUME GROWTH RATE



# Aqua Reserve

## Growth Rate Calculations

Year	Location A	Location B	Location C	Location D	Total	Linear Trend
2019	57,500	--	--	--	57,500	57,400
2018	57,000	--	--	--	57,000	57,550
2017	58,500	--	--	--	58,500	57,700
2016	57,500	--	--	--	57,500	57,850
2015	--	--	--	--	--	--
2014	--	--	--	--	--	--
2013	--	--	--	--	--	--
2012	--	--	--	--	--	--
2011	--	--	--	--	--	--
2010	--	--	--	--	--	--
2009	--	--	--	--	--	--

**3 Year Annual Growth Rate >>> -0.3%**

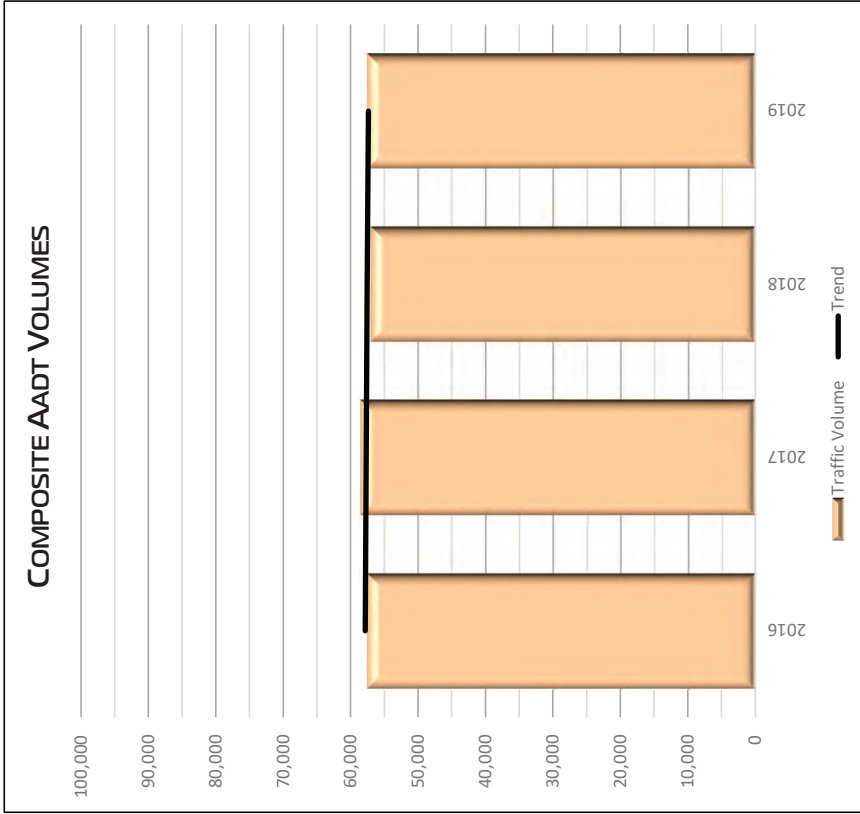
SOURCE

Location A: FDOT Count Station 14-5022 [US-19, south of Main Street]

Location B: N/A

Location C: N/A

Location D: N/A



FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2020 HISTORICAL AADT REPORT

COUNTY: 14 - PASCO

SITE: 5022 - SR 55/US 19, SOUTH OF MAIN ST

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2020	57500 C	N 28500	S 29000	9.00	55.40	4.50
2019	57000 C	N 28500	S 28500	9.00	56.20	3.70
2018	58500 C	N 29000	S 29500	9.00	57.10	3.90
2017	57500 F	N 28500	S 29000	9.00	57.30	4.70
2016	54500 C	N 27000	S 27500	9.00	57.90	4.70
2015	51500 C	N 26000	S 25500	9.00	57.90	3.00
2014	57000 C	N 28500	S 28500	9.00	56.10	3.00
2013	54000 C	N 27000	S 27000	9.00	60.00	3.50
2012	55000 C	N 27500	S 27500	9.00	59.00	3.10
2011	59000 C	N 29500	S 29500	9.00	58.20	2.90
2010	57000 C	N 28500	S 28500	9.07	58.18	3.30
2009	63000 C	N 31500	S 31500	9.17	58.07	3.50
2008	61500 C	N 31000	S 30500	9.52	56.97	3.20
2007	66500 C	N 33000	S 33500	9.26	52.68	3.20
2006	64500 C	N 32500	S 32000	9.38	56.87	6.60
2005	62000 C	N 30000	S 32000	9.40	55.20	3.00

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE  
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN  
 \*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

# AQUA RESERVE

## TRAFFIC IMPACT STUDY

# ATTACHMENT C

FDOT GENERALIZED CAPACITY VALUES



TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's Urbanized Areas<sup>1</sup>

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>					
<b>Class I (40 mph or higher posted speed limit)</b>						<b>Core Urbanized</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	1,510	1,600	**	4	4,050	5,640	6,800	7,420	
4	Divided	*	3,420	3,580	**	6	5,960	8,310	10,220	11,150	
6	Divided	*	5,250	5,390	**	8	7,840	10,960	13,620	14,850	
8	Divided	*	7,090	7,210	**	10	9,800	13,510	17,040	18,580	
						12	11,600	16,350	20,930	23,200	
<b>Class II (35 mph or slower posted speed limit)</b>						<b>Urbanized</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	660	1,330	1,410	4	4,130	5,640	7,070	7,690	
4	Divided	*	1,310	2,920	3,040	6	6,200	8,450	10,510	11,530	
6	Divided	*	2,090	4,500	4,590	8	8,270	11,270	13,960	15,380	
8	Divided	*	2,880	6,060	6,130	10	10,350	14,110	17,310	19,220	
<b>LOS D standard: 1,330 x (100% - 30%) = 931</b>						<b>Freeway Adjustments</b>					
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent)						Auxiliary Lanes Ramp Present in Both Directions Metering + 1,800 + 5%					
Non-State Signalized Roadways - 10%											
<b>Median &amp; Turn Lane Adjustments</b>						<b>UNINTERRUPTED FLOW HIGHWAYS</b>					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Lanes	Median	B	C	D	E
2	Divided	Yes	No	-5%		2	Undivided	1,050	1,620	2,180	2,930
2	Undivided	No	No	-20%		4	Divided	3,270	4,730	5,960	6,780
Multi	Undivided	Yes	No	-5%		6	Divided	4,910	7,090	8,950	10,180
Multi	Undivided	No	No	-25%		<b>Uninterrupted Flow Highway Adjustments</b>					
-	-	-	Yes	+ 5%		Lanes	Median	Exclusive left lanes	Adjustment factors		
<b>One-Way Facility Adjustment</b> Multiply the corresponding two-directional volumes in this table by 0.6						2	Divided	Yes	+5%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
<b>BICYCLE MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						<sup>1</sup> Values shown are presented as peak hour directional 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 HCM and the Transit Capacity and Quality of Service Manual.					
Paved Shoulder/Bicycle Lane Coverage						<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
		B	C	D	E	<sup>3</sup> Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
0-49%	*	260	680	1,770		* Cannot be achieved using table input value defaults.					
50-84%	190	600	1,770	>1,770		** 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%	830	1,700	>1,770	**		Source: Florida Department of Transportation Systems Implementation Office <a href="https://www.fdot.gov/planning/systems/">https://www.fdot.gov/planning/systems/</a>					
<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply 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%	*	*	250	850							
50-84%	*	150	780	1,420							
85-100%	340	960	1,560	>1,770							
<b>BUS MODE (Scheduled Fixed Route)<sup>3</sup></b> (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							

# AQUA RESERVE

## TRAFFIC IMPACT STUDY

















# ATTACHMENT D

INTERSECTION ANALYSIS



















HCM Unsignalized Intersection Capacity Analysis  
 100: Sea Forest Drive & Project Site Driveway

Aqua Reserve  
 AM Peak Hour Post-Development Traffic Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	7	7	0	6	2	65	2	2	93	2
Future Volume (Veh/h)	5	0	7	7	0	6	2	65	2	2	93	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	0	8	8	0	7	2	73	2	2	104	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type						None				None		
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	194	188	105	195	188	74	106			75		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	194	188	105	195	188	74	106			75		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	99	100	99	100			100		
cM capacity (veh/h)	758	705	949	756	705	988	1485			1524		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	14	15	77	108								
Volume Left	6	8	2	2								
Volume Right	8	7	2	2								
cSH	857	849	1485	1524								
Volume to Capacity	0.02	0.02	0.00	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	9.3	9.3	0.2	0.1								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.3	9.3	0.2	0.1								
Approach LOS	A	A										
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			15.9%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis  
100: Sea Forest Drive & Project Site Driveway

Aqua Reserve  
PM Peak Hour Post-Development Traffic Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	0	4	5	0	4	7	143	8	6	129	6
Future Volume (Veh/h)	4	0	4	5	0	4	7	143	8	6	129	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	4	0	4	5	0	4	8	157	9	7	142	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	341	342	146	341	340	162	149			166		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	341	342	146	341	340	162	149			166		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	100	99	100	100	99			100		
cM capacity (veh/h)	605	574	902	605	575	883	1432			1412		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	8	9	174	156								
Volume Left	4	5	8	7								
Volume Right	4	4	9	7								
cSH	724	704	1432	1412								
Volume to Capacity	0.01	0.01	0.01	0.00								
Queue Length 95th (ft)	1	1	0	0								
Control Delay (s)	10.0	10.2	0.4	0.4								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.0	10.2	0.4	0.4								
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.9									
Intersection Capacity Utilization			20.6%		ICU Level of Service				A			
Analysis Period (min)			15									

# AQUA RESERVE

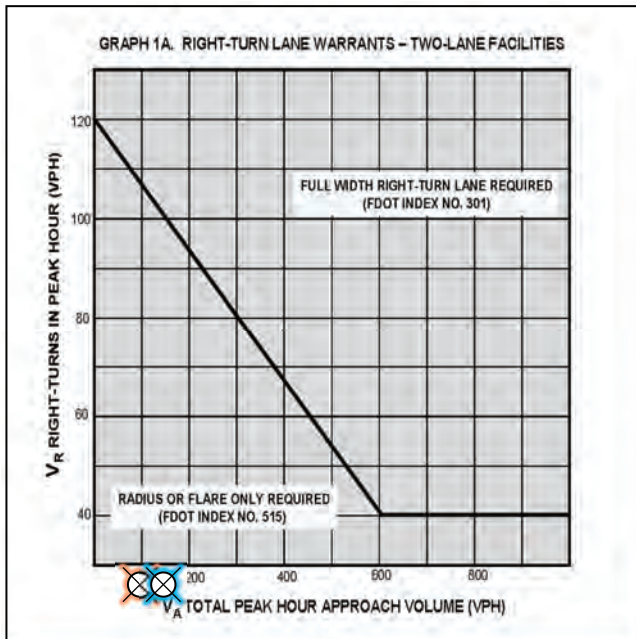
## TRAFFIC IMPACT STUDY

# ATTACHMENT E

SITE ACCESS TURN LANE WARRANT EVALUATION



# LOCATION: Sea Forest Drive & Townhome Project Site (West)



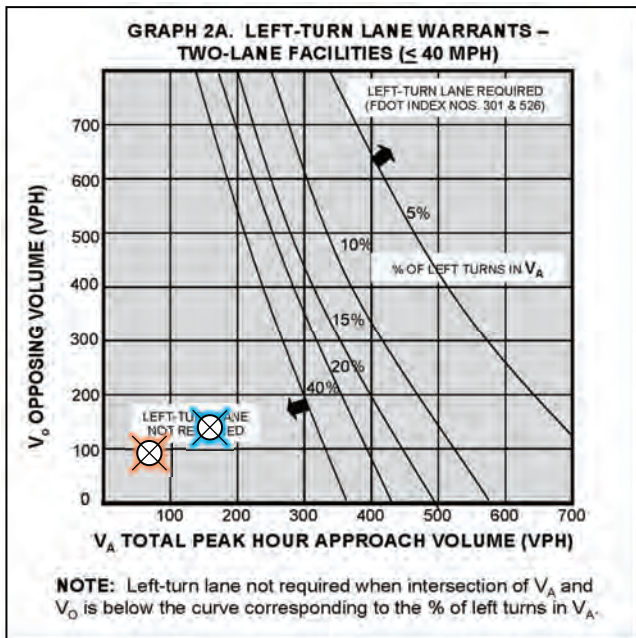
SOURCE: ADAPTED FROM NCHRP No. 279 (Pasco LDC 901.3)

## Right Turn Lane Warrant

**SOUTHBOUND RIGHT TURN LANE**

- AM PEAK HOUR**  
Approach Volume: 97 vph  
Right Turn Volume: 2 vph
- PM PEAK HOUR**  
Approach Volume: 141 vph  
Right Turn Volume: 6 vph

**RESULT: NOT WARRANTED**



SOURCE: ADAPTED FROM NCHRP No. 279 (Pasco LDC 901.3)

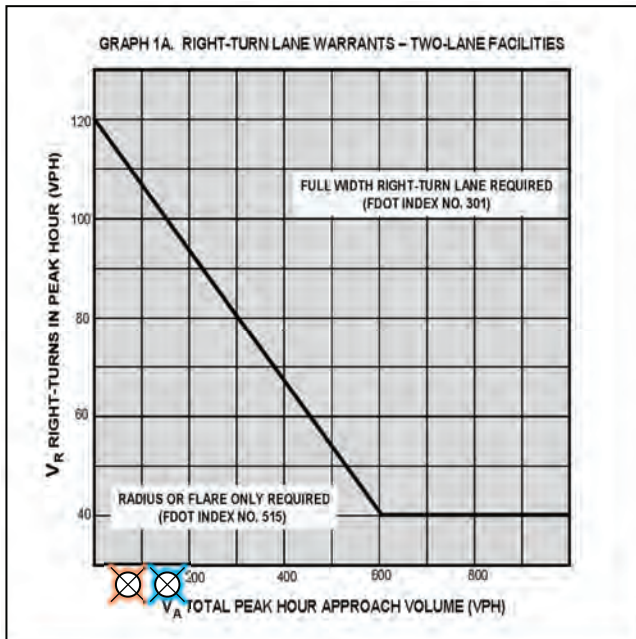
## Left Turn Lane Warrant

**NORTHBOUND LEFT TURN LANE**

- AM PEAK HOUR**  
Left Turn Volume: 2  
Approach Volume: 69  
Opposing Volume: 97
- PM PEAK HOUR**  
Left Turn Volume: 7  
Approach Volume: 158  
Opposing Volume: 141

**RESULT: NOT WARRANTED**

# LOCATION: Sea Forest Drive & Apartment Project Site (East)



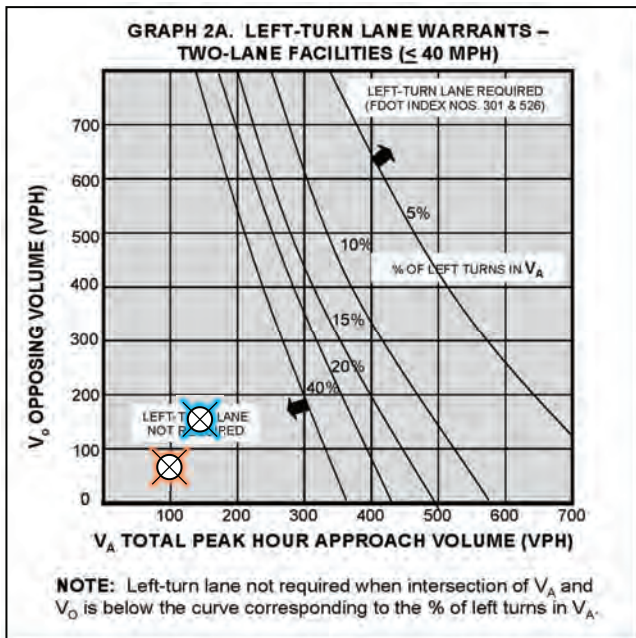
SOURCE: ADAPTED FROM NCHRP No. 279 (Pasco LDC 901.3)

## Right Turn Lane Warrant

### NORTHBOUND RIGHT TURN LANE

- **AM PEAK HOUR**  
 Approach Volume: 69 vph  
 Right Turn Volume: 2 vph
- **PM PEAK HOUR**  
 Approach Volume: 158 vph  
 Right Turn Volume: 8 vph

**RESULT: NOT WARRANTED**



SOURCE: ADAPTED FROM NCHRP No. 279 (Pasco LDC 901.3)

## Left Turn Lane Warrant

### SOUTHBOUND LEFT TURN LANE

- **AM PEAK HOUR**  
 Left Turn Volume: 2  
 Approach Volume: 97  
 Opposing Volume: 69
- **PM PEAK HOUR**  
 Left Turn Volume: 6  
 Approach Volume: 141  
 Opposing Volume: 158

**RESULT: NOT WARRANTED**