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ARCLAND SELF STORAGE

TRAFFIC IMPACT STATEMENT

February 2024
Revised: September 2024

Prepared By:
Michelle Salberg, P.E.
FL. REG #70375



Michelle A
Salberg
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QAI Project # 230802





ARCLAND SELF STORAGE

STRAP#: 30-44-27-17-0000A.0000

619 & 622 Williams Ave, Lehigh Acres, FL

The purpose of the TIS is to analyze the potential traffic impacts and identify any improvements required to secure a Lee County Development Order.

EXISTING CONDITIONS

OVERVIEW

The subject property is located approximately 0.6 miles north of Lee Blvd along Williams Ave. The development site is within the 21 Acre commercial tract of the Townlakes CPD. The parcel was previously cleared as part of the master development order and has remained vacant since.

The parcel is the subject of a lot split (LDO 2023-00384) which proposes to split the 9 acre Tract A into two lots. This TIS relates to development on the north 4.49 Ac. Development of a church has been approved on the south lot under DOS2021-00079.

ROADWAY INFORMATION

The property is adjacent to and accessed from Williams Ave, a two-lane, two-direction county maintained major collector with a speed limit of 35 mph. The proposed access drive will serve only the self storage facility.

The property is bordered to the north by Fountain Mist Blvd which is a privately owned and maintained local road with a speed limit of 25 MPH. There is no proposed access to the site from Fountain Mist Blvd.

This nearest arterial roadway is Lee Blvd, a county-maintained roadway with a speed limit of 45 MPH.

EXISTING DEVELOPMENT

The parcel is part of the Townlake Commercial CPD which is completely built out other than the subject property which is known as Tract A. A cumulative development table is included in the appendix. There will be no vehicular interconnection between the subject parcel and the remainder of the CPD.

PROPOSED DEVELOPMENT

The proposed project will consist of 103,720 SF of mini warehouse.

LUC 151 – Mini Warehouse

103,720 sf 103.72 (per 1,000 sf)

All trips for the proposed development are expected to enter/exit from the driveway on Williams Ave.

TRIP GENERATION

The trip generation for the proposed development was determined using OTISS software which references the Institute of Transportation Engineer's (ITE) report, titled *Trip Generation*, 11th Edition.

The table below outlines the anticipated weekday A.M. and P.M. peak hour trip generation for the proposed use as well as weekday analysis, calculated by OTISS.

**Table 1: Arcland Self Storage New Trip Generation**

Land Use	Peak AM		Peak PM		Weekday	
	Entry	Exit	Entry	Exit	Entry	Exit
151- Mini Warehouse	6	4	7	8	75	75

TRIP DISTRIBUTION

The total external trips shown above were assigned to the proposed site access points and adjacent roadways. All trips generated by the proposed self storage will be using the Williams Ave access point. The access point allows for right and left turning movements with the traffic distributed 70% south toward Lee Blvd and 30% north on Williams Ave.

Trip Distribution Exhibit T-01 shows the projected distribution on Williams Ave used for the level of service, Exhibit T-02 demonstrates the new AM and PM peak hour traffic used for turn lane analysis.

LEVEL OF SERVICE

Williams Ave, a Lee County maintained collector is analyzed for Level of Service based on the new trips generated by the self storage project in the peak hour. The 2023 Lee County Concurrency Report shows the Level of Service (LOS) D for Williams Ave, with a 100th highest hour volume of 707. The Table below, demonstrates the LOS analysis and the peak hour trips for the project added to the background traffic.

100TH HIGHEST HOUR LEVEL OF SERVICE (LOS) CALCULATION			
Williams Ave			
PROJECT NAME:	Arcland Self Storage		
ENGINEER:	QUATTRONE & ASSOCIATES, INC.		
DATE:	September 23, 2024		
PROJECT LOCATION:	Williams Ave, Lee County, FL		
100th HOUR VEHICLES PER HOUR (V.P.H.) Year Rate:	2022	707	
LOS EXISTING =			D
100th HOUR V.P.H. FOR PROJECT =			15
NEW TRIP DISTRIBUTION % =	70%	NEW TRIPS =	10.5
100th HOUR V.P.H. ADJUSTED + NEW TRIPS =	707	+ 11	718
LOS WITH PROJECT =			D
LOS TRIP THRESHOLD =	Williams Ave	E	860



SIGNIFICANT IMPACTS ANALYSIS

Per Lee County Administrative Code AC13-16, the approved Development Order (D.O) will include a determination of potential significant impacts from the cumulative development.

As shown on the Cumulative Impact Table, Tract A, the subject parcel, is the last remaining lot for development in the 21.11 Acre Townlake Commercial CPD. All other commercial development in the CPD has been constructed and certified and traffic from the existing development would be captured in the latest traffic counts and Lee County Concurrency Report. Therefore, the Significant Impact Analysis is based only on the traffic from the two projects on Tract A. Providence Church (DOS2021-00079) on the south portion of Tract A and the subject Arcland Self Storage on the North portion of the lot. The calculation below showing Williams Ave does not meet the definition of a significant impact.

Table 2: Total New Trips from Arcland Self Storage & Providence Church

Land Use	Peak AM		Peak PM		Weekday	
	Entry	Exit	Entry	Exit	Entry	Exit
151- Mini Warehouse	6	4	7	8	75	75
560 – Church (DOS2021-00079)	6	4	6	8	93	93
Total	12	8	13	16	168	168

Williams Ave (Lee Blvd to W. 6th Street):

$$\text{Service Volume Utilization} = \frac{\text{Cumulative Project Traffic}}{\text{Max. LOS of Williams Ave}} = \frac{16}{860} \times 100\% = 1.86\%$$



TURN LANE ANALYSIS

Turn lane analysis considers trips utilizing the access point shown on Exhibit T-02. The tables below evaluate turn lane requirements per Lee County Turn Lane Policy AC-11-4, for the proposed access abutting the collector street for the peak hour of adjacent traffic.

TURN LANE ANALYSIS FOR COLLECTOR RD					
WILLIAMS AVE		WITH A		ROADWAY SPEED OF 35 MPH	
DECELERATION & LEFT TURN ANALYSIS			DECELERATION & RIGHT TURN ANALYSIS		
	Met	Not Met		Met	Not Met
Warrant #1 - Speed limit equal to or more than 35 mph & Left Turn more than 20 trips		X	Warrant #1 - Speed limit equal to or more than 35 mph	X	
Warrant #2 (b)Two-way peak season is equal or greater than 500 vehicles	X		Warrant #2 - Right turns area equal to or greater than 45 vehicles at AM of PM peak		X
Warrant #3 - Available Sight Distance		X	Warrant #3 - Available Sight Distance		X
Warrant #4 - Traffic Control		X	Warrant #4 - Traffic Control		X
<u>Therefore, Turn Lane is Not Required</u>			<u>Therefore, Turn Lane is Not Required</u>		
SEPARATE LEFT TURN LANE ANALYSIS			SEPARATE RIGHT TURN LANE ANALYSIS		
	Met	Not Met		Met	Not Met
Warrant #1 - Speed limit of intersecting street or access point equal to or more than 35 mph	X		Warrant #1 - Speed limit of intersecting street or access point equal to or more than 35 mph	X	
Warrant #2 - Left turns are equal to or greater than 60 vehicles at AM of PM peak		X	Warrant #2 - Right turns are equal to or greater than 90 vehicles at AM or PM peak		X
Warrant #3 - Traffic Control		X	Warrant #3 - Traffic Control		X
<u>Therefore, Turn Lane is Not Required</u>			<u>Therefore, Turn Lane is Not Required</u>		

The above table indicates there are no turn lanes warranted at the new Williams Ave access point.

Note a shared left turn lane already exists on Williams Ave adjacent to the project.

CONCLUSION

The surrounding roadway network can accommodate the traffic generated by the project. Williams Avenue functions at an acceptable level of service both with and without the proposed buildout. There are no turn lane improvements warranted as a result of the project.

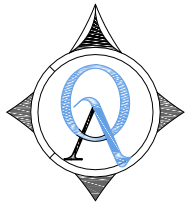
REFERENCES

- Trip Generation by OTISS Online Traffic Impact Study Software
- Institute of Transportation Engineers Trip Generation, 11th Edition
- Lee County Concurrency Report 2023 (LCDOT)
- Lee County Turn Lane Policy AC-11-4 (Adopted: 10/19/88)



TRIP DISTRIBUTION EXHIBITS

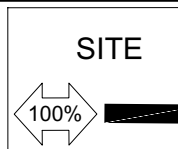




NTS

FOUNTAIN MIST BLVD

ACCESS
(STORAGE ONLY)



30%

70%

EXISTING
ACCESS

WILLIAMS AVE

VILLAGE LAKES BLVD

LEE BLVD



Quattrone & Associates, Inc.

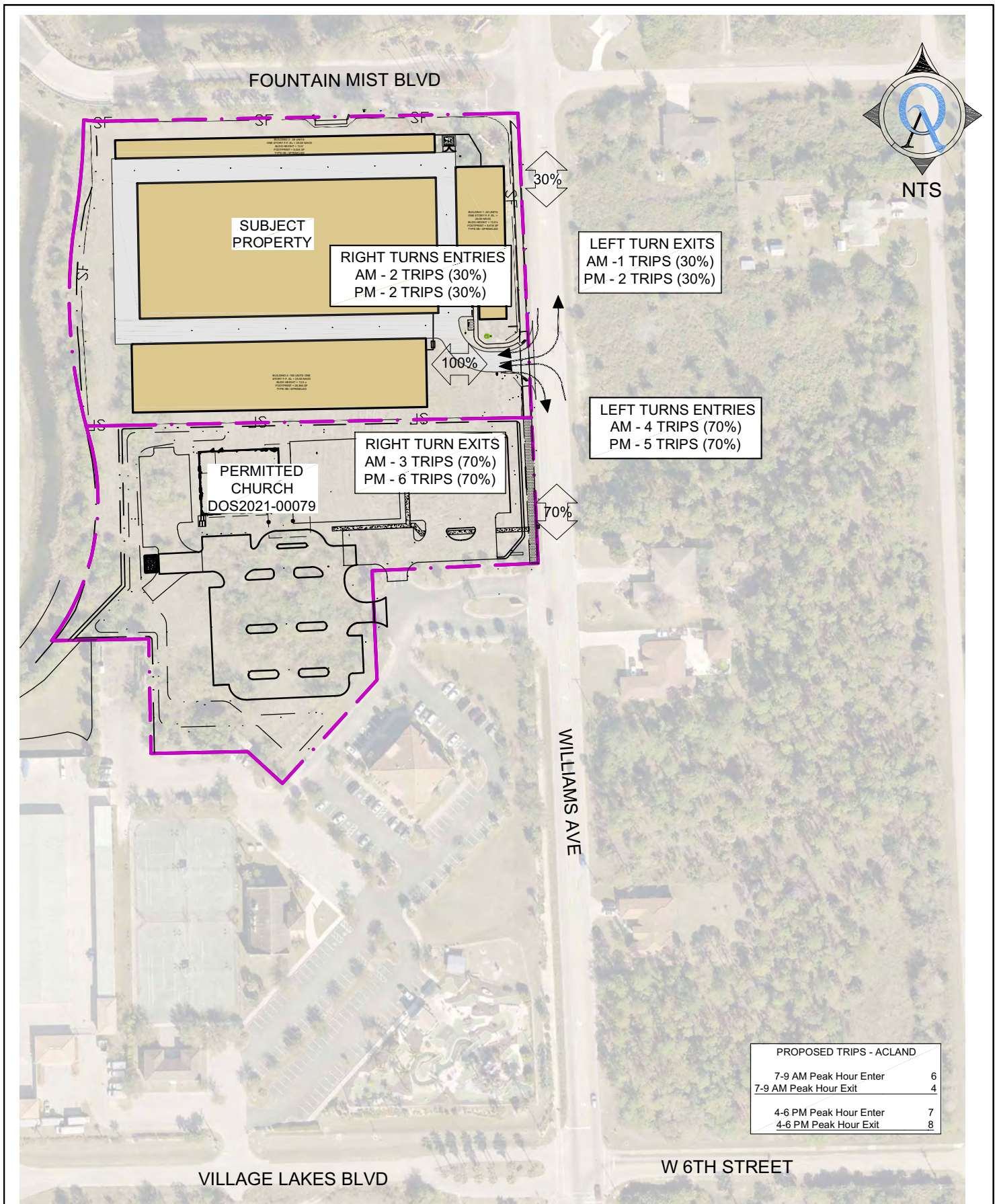
Engineers, Planners, & Development Consultants
4301 Veronica Shoemaker Blvd - Fort Myers, Florida 33916 - 239-936-5222

Certificate of Authorization Number: 9465

**ARCLAND SELF STORAGE
TIS DISTRIBUTION EXHIBIT**

WILLIAMS AVE
LEE COUNTY, FLORIDA

SHEET
T-01
01 OF 02



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4301 Veronica Shoemaker Blvd - Fort Myers, Florida 33916 - 239-936-5222

Certificate of Authorization Number: 9465

ARCLAND STORAGE
TIS TURN LANE EXHIBIT
WILLIAMS AVE
LEE COUNTY, FLORIDA

SHEET
T-02
02 OF 02



TRIP GENERATION ANALYSIS



Scenario - 1

Scenario Name: New Scenario

User Group:

Dev. phase: 1

No. of Years to Project 0

Traffic :

Analyst Note:

Warning: The time periods among the land uses do not appear to match.

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
151(1) - Mini-Warehouse	General Urban/Suburban	1000 Sq. Ft. GFA	103.72	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average	6	4	10
Data Source: Trip Generation Manual, 11th Ed					0.09	59%	41%	
151(2) - Mini-Warehouse	General Urban/Suburban	1000 Sq. Ft. GFA	103.72	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average	7	8	15
Data Source: Trip Generation Manual, 11th Ed					0.15	47%	53%	
151(3) - Mini-Warehouse	General Urban/Suburban	1000 Sq. Ft. GFA	103.72	Weekday	Average	75	75	150
Data Source: Trip Generation Manual, 11th Ed					1.45	50%	50%	

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
151(1) - Mini-Warehouse	6	4	10
151(2) - Mini-Warehouse	7	8	15
151(3) - Mini-Warehouse	75	75	150



TRIP GENERATION GRAPHS



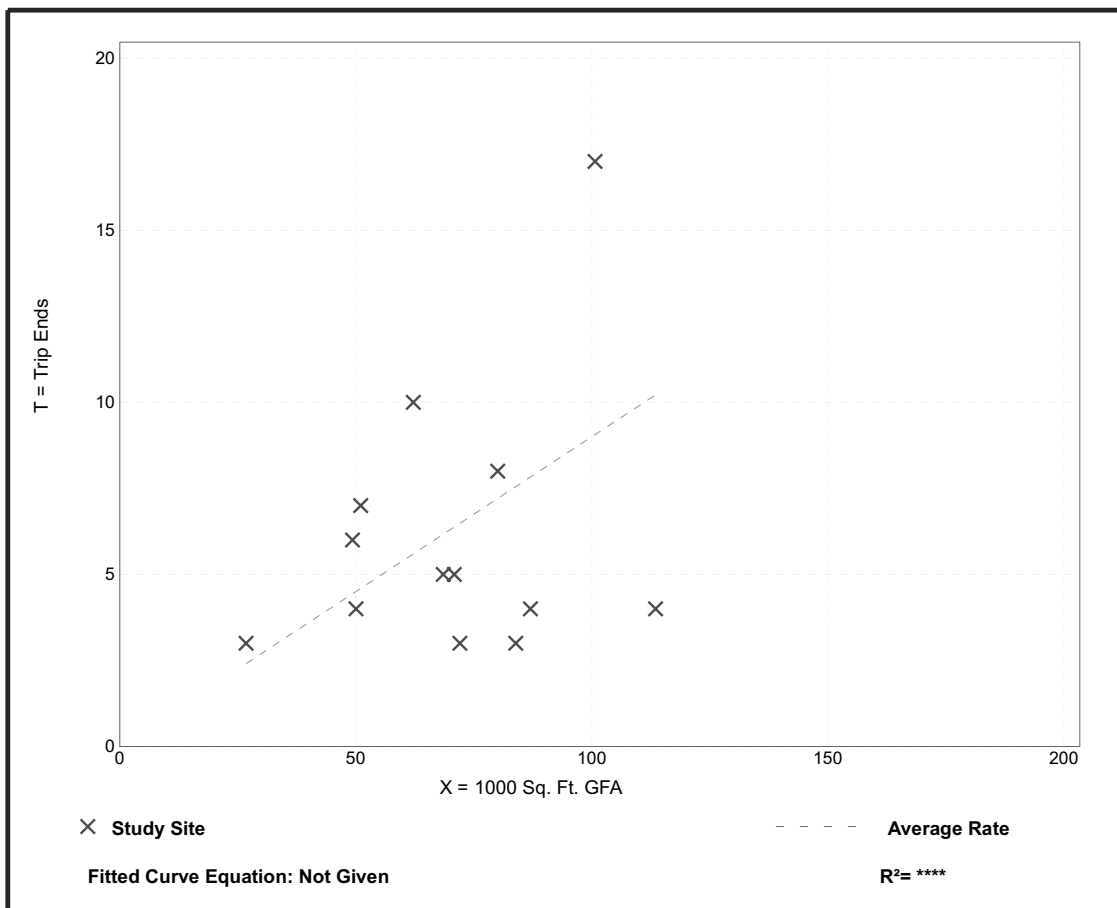
Mini-Warehouse (151)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 13
Avg. 1000 Sq. Ft. GFA: 70
Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.09	0.04 - 0.17	0.05

Data Plot and Equation



Trip Gen Manual, 11th Edition

● Institute of Transportation Engineers

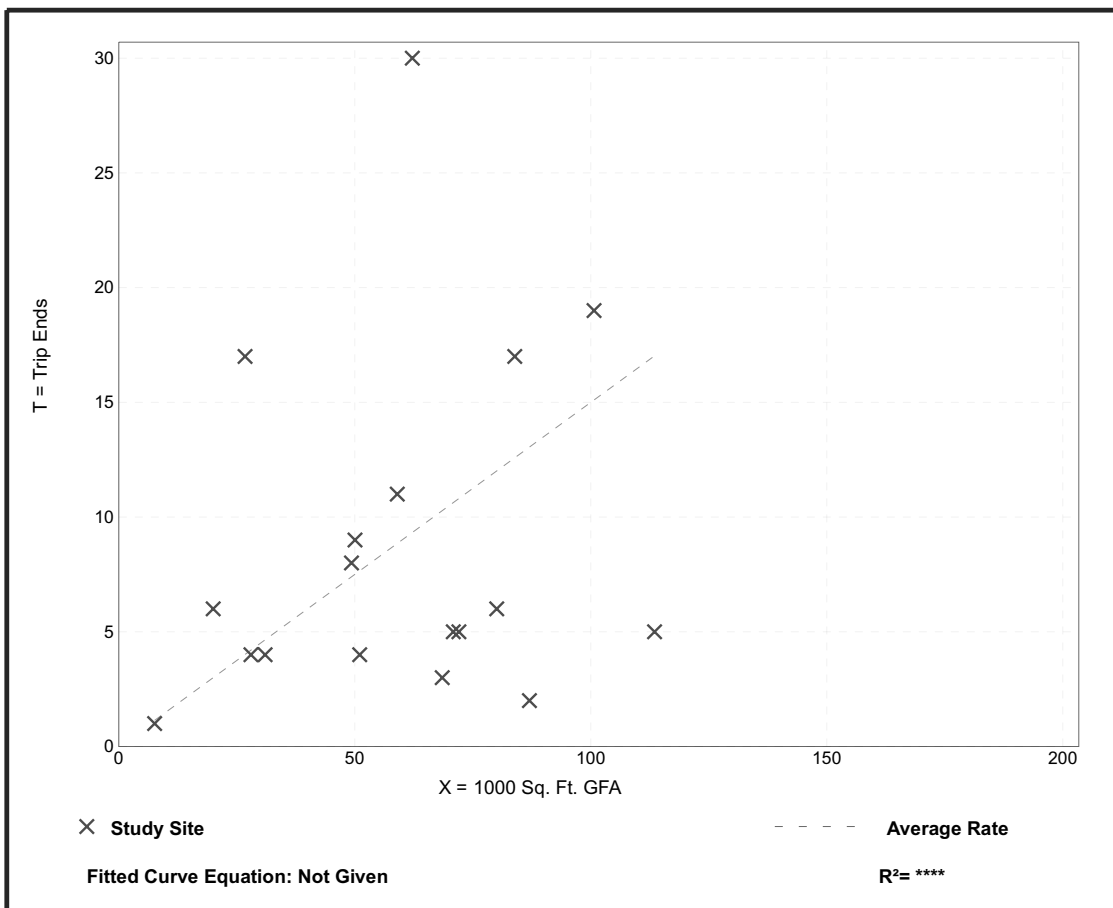
Mini-Warehouse (151)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 18
Avg. 1000 Sq. Ft. GFA: 59
Directional Distribution: 47% entering, 53% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.02 - 0.64	0.14

Data Plot and Equation



Trip Gen Manual, 11th Edition

● Institute of Transportation Engineers

Mini-Warehouse (151)

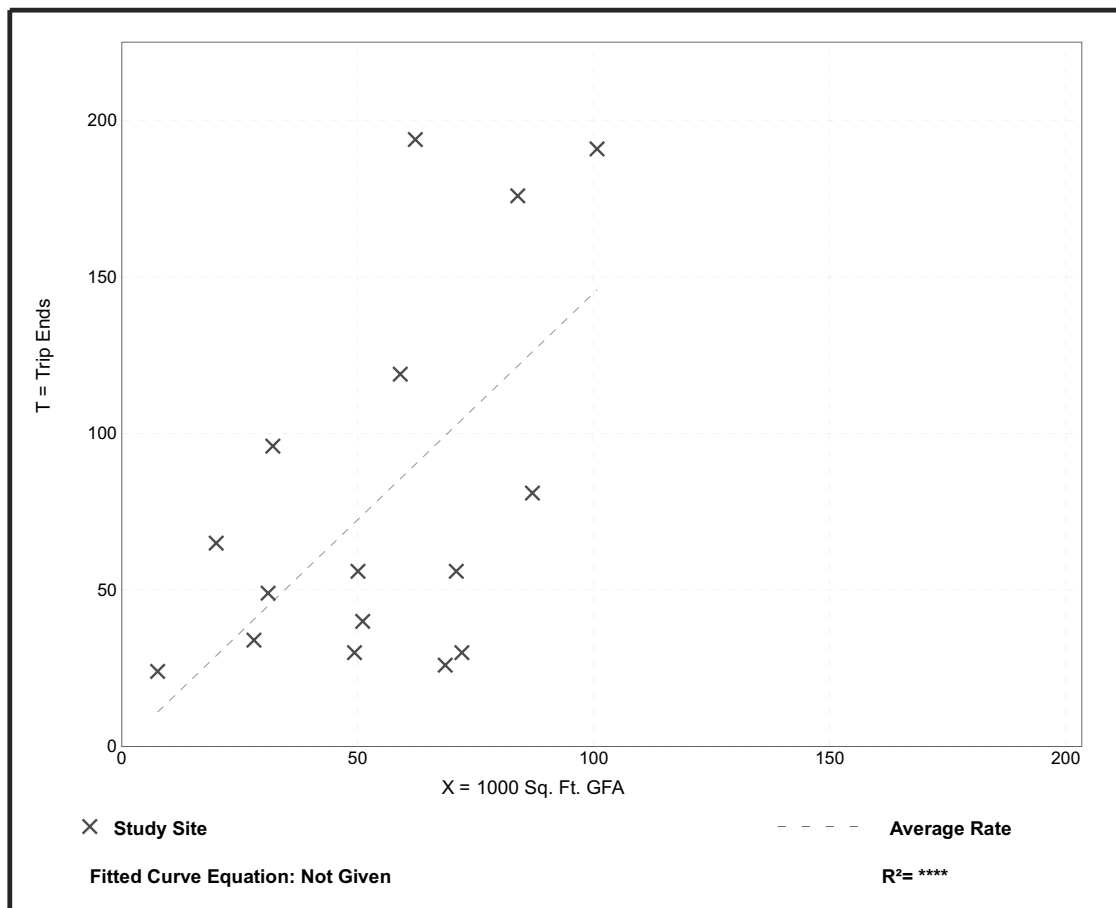
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 16
Avg. 1000 Sq. Ft. GFA: 55
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.45	0.38 - 3.25	0.92

Data Plot and Equation



Trip Gen Manual, 11th Edition

• Institute of Transportation Engineers



CONCURRENCY & TRAFFIC REPORT



LEE COUNTY ROAD LINK VOLUMES (County- and State-Maintained Roadways)

Link No.	ROAD NAME	LOCATION		ROAD TYPE	PERFORMANCE STANDARD		2022 100TH HIGHEST HOUR			2027 FUTURE FORECAST			Notes
		FROM	TO		LOS ⁽¹⁾	CAPACITY ⁽²⁾	LOS ⁽¹⁾	VOLUME ⁽²⁾	V/C ⁽³⁾	LOS ⁽¹⁾	VOLUME ⁽²⁾	V/C ⁽³⁾	
31500	US 41 (N TAMiami TR)	BUS 41	DEL PRADO BLVD	4LD	D	1,900	D	1,692	0.89	D	1,778	0.94	
31600	US 41 (N TAMiami TR)	DEL PRADO BLVD	CHARLOTTE CO. LINE	4LD	D	2,910	B	1,087	0.37	B	1,382	0.47	Tara Woods Phase III B, D & E Expansion
27200	VETERANS MEM. PKWY	SR 78	CHIQUITA	4LD	D	2,040	A	1,011	0.50	A	1,063	0.52	partially located in City of Cape Coral
27300	VETERANS MEM. PKWY	CHIQUITA	SKYLINE	4LD	D	2,040	A	1,215	0.60	A	1,277	0.63	City of Cape Coral
27400	VETERANS MEM. PKWY	SKYLINE	SANTA BARBARA BLVD	6LD	D	3,080	A	2,138	0.69	E	2,247	0.73	⁽⁴⁾ ; City of Cape Coral
27500	VETERANS MEM. PKWY	SANTA BARBARA BLVD	COUNTRY CLUB BLVD	6LD	D	3,080	F	3,197	1.04	F	3,360	1.09	City of Cape Coral
27600	VETERANS MEM. PKWY	COUNTRY CLUB BLVD	MIDPOINT BRDG TOLL P	6LD	D	3,080	E	2,819	0.92	E	2,963	0.96	City of Cape Coral
27700	VETERANS MEM. PKWY	MIDPOINT BRDG TOLL P	McGREGOR BLVD	4LB	D	4,000	D	2,841	0.71	D	2,986	0.75	City of Fort Myers
29000	W 6TH ST	WILLIAMS AVE	JOEL BLVD	2LN	E	860	C	184	0.21	C	193	0.22	
29100	W 12TH ST	GUNNERY RD	SUNSHINE BLVD	2LN	E	860	C	277	0.32	C	291	0.34	⁽⁴⁾
29200	W 12TH ST	SUNSHINE BLVD	WILLIAMS AVE	2LN	E	860	C	91	0.11	C	105	0.12	old count projection (2010)
29300	W 12TH ST	WILLIAMS AVE	JOEL BLVD	2LN	E	860	C	110	0.13	C	116	0.13	old count projection (2010)
29400	W 14TH ST	SUNSHINE BLVD	RICHMOND AVE	2LN	E	860	C	57	0.07	C	60	0.07	old count projection (2010)
26400	SW 23RD ST	GUNNERY RD	SUNSHINE BLVD	2LN	E	860	E	711	0.83	F	904	1.05	Classic Hills (Copperhead) Golf Community
15200	WESTGATE BLVD	GUNNERY RD	LEE BLVD	2LN	E	860	C	490	0.57	E	630	0.73	
27900	WHISKEY CREEK DR	COLLEGE PKWY	SAUTERN DR	2LD	E	910	C	291	0.32	C	306	0.34	
28000	WHISKEY CREEK DR	SAUTERN DR	McGREGOR BLVD	2LD	E	910	C	291	0.32	C	306	0.34	
28200	WILLIAMS AVE	LEE BLVD	W. 6TH ST	2LN	E	860	D	707	0.82	D	752	0.87	Carlton Park
28300	WINKLER RD	STOCKBRIDGE DR	SUMMERLIN RD	2LN	E	860	C	465	0.54	C	489	0.57	
28400	WINKLER RD	SUMMERLIN RD	GLADIOLUS DR	4LD	E	1,520	C	294	0.19	C	309	0.20	
28500	WINKLER RD	GLADIOLUS DR	BRANDYWINE CIR	2LN	E	880	B	474	0.54	B	498	0.57	
28600	WINKLER RD	BRANDYWINE CIR	CYPRESS LAKE DR	2LN	E	880	B	474	0.54	B	498	0.57	
28700	WINKLER RD	CYPRESS LAKE DR	COLLEGE PKWY	4LD	E	1,780	E	776	0.44	E	816	0.46	
28800	WINKLER RD	COLLEGE PKWY	McGREGOR BLVD	2LN	E	800	B	389	0.49	B	408	0.51	
28900	WOODLAND BLVD	US 41	AUSTIN ST	2LN	E	860	C	272	0.32	C	286	0.33	

⁽¹⁾ level of service; ⁽²⁾ directional; vehicles/hour; ⁽³⁾ directional volume-to-capacity ratio; ⁽⁴⁾ previous years data; ⁽⁵⁾ EEPco Study

	County-Maintained Collector Roadway - Unincorporated Lee County
	County-Maintained Collector Roadway - Incorporated Lee County
	County-Maintained Arterial Roadway - Unincorporated Lee County
	County-Maintained Arterial Roadway - Incorporated Lee County

	County-Maintained Controlled Access Arterial Facility
	County-Maintained Expressway
	State-Maintained Arterial Roadway - Unincorporated Lee County

Revised: October 26, 2023



CUMULATIVE DEVELOPMENT



Planned Development Intensities Summary
for
Townlakes Commercial CPD (Z-99-022 / ADD2011-00081 & DCI2023-00044)

As Modified by DCI2023-

Tract	Strap #:	Project	Building	Type of Use	Land Use Code	Case #:	Status	Building Permit		Area
A - South	30-44-27-17-0000A.0000	Providence Church	27,625 SF	Church (Non Retail)	560: Church	DOS2021-00079	Permitted			
A-North		Arcland Self Storage	103,720 SF	Industrial (Mini/Public Warehouse)	151: Mini-Warehouse	DOS2024-00024	Pending			
B	30-44-27-17-0000B.0000	Town lakes Commercial Phase 1A	9,970 SF*	Office/Medical Office (Non Retail)	720: Medical/Dental Office	DOS2002-00110 LATEST AMMENDEED A13	Final/Constructed	COM2006-02897	9,978 SF	
C	30-44-27-17-0000C.0000		490 SF*	Mini Golf Shak (Retail)	431: Mini Golf Course		Final/Constructed	COM2003-01346	462 SF	
D	30-44-27-17-0000D.0000		3,600 SF	Restaurant (Retail)	925: Drinking Place		Final/Constructed	COM2003-01344	3,600 SF	
E	30-44-27-17-0000E.0000		2,275 SF	Tennis Court Pro Shop (Retail)	490: Tennis Courts		Final/Constructed	COM2003-01345	2,275 SF	
F	30-44-27-17-0000F.0000	Townlakes Mini Storage	67,175 SF*	Industrial (Mini-Warehouse)	151: Mini-Warehouse	DOS2002-00110/ LDO2014-00440	Final/Constructed	OFFICE	COM2006-03750	1,350 SF
					Open Storage			LDO2014-00440 / ADD2014-00095	1 COM2006-03751	5,400 SF
Permitted Intensities										
6,337 SF Retail										
37,603 SF Non Retail										
170,745 SF Mini-Warehouse										
Intensity per DCI 2023-00044										
20,000 SF Retail										
48,000 SF Non Retail										
220,000 SF Mini-Warehouse										
Remaining Intensity										
13,663 SF Retail										
10,397 SF Non Retail										
49,255 SF Mini-Warehouse										

* Where DO and BLDG permit areas are inconsistent, areas based on the Building permits (highlighted), Under Application Information Estimated Building SQFT are used



TIS EXCERPTS





TRIP GENERATION

The trip generation for the existing and proposed developments were determined using OTISS software which references the Institute of Transportation Engineer's (ITE) report, titled *Trip Generation*, 10th Edition.

The table below outlines the anticipated weekday A.M. and P.M. peak hour trip generation for the proposed use as well as weekday analysis, calculated by OTISS.

Land Use	Peak AM		Peak PM		Weekday		Sunday Peak Hour	
	Entry	Exit	Entry	Exit	Entry	Exit	Entry	Exit
151- Existing Mini Warehouse	5	3	6	7	59	59	6	7
490- Existing Tennis Courts	0*	0*	8	8	61	61	0*	0*
565 – Daycare (Existing Martial Arts School)	13	12	12	13	54	54	2	2
431 – Existing Miniature Golf Course	0*	0*	2	4	0*	0*	0*	0*
720 – Existing Medical/ Dental Office Building	22	6	10	26	148	148	2	2
925 – Existing Drinking Place	0*	0*	27	14	0*	0*	0*	0*
Total Existing Trips	40	21	65	72	322	322	10	11
560- Proposed Church	6	4	6	8	93	93	139	151
(Phase I Only)							(80)	(87)
Total Trips	46	25	71	80	415	415	149	162

0* = No data available within ITE Trip Generation 10th Edition

TRIP DISTRIBUTION

The total external trips shown above were assigned to the proposed site access points and adjacent roadways. All trips generated by the proposed church are assumed to be utilizing the Williams Ave access point. The access point allows for right and left turning movements with the traffic distributed 70% south toward Lee Blvd and 30% north on Williams Ave.

The majority of the trips (80%) from the existing buildout are assumed to utilize the Village Lakes Blvd entrance with a small portion (20%) using the access point onto Williams Ave.

Trip Distribution Exhibit T-01 shows the projected distribution to on Williams Ave used for the level of service, Exhibit T-02 demonstrates the AM and PM peak hour traffic generated by subject project and existing sites within the development, and T-03 demonstrates the Sunday peak hour traffic generated by the subject property. Please refer to the attached **Trip Distribution Exhibits**.