



TRIP GENERATION ANALYSIS

Prepared By: Michelle Salberg PE# 70375
December 11, 2024

**TOWNLAKES COMMERCIAL PLANNED
DEVELOPEMNT ADD2024-00149 Arcland Development**
STRAP#s: 30-44-27-L2-1700A.0001
625 Williams Ave, Ft. Lehigh Acres, FL

The purpose of this analysis is to provide a comparative trip generation calculation showing that the proposed zoning amendment represents a reduction in trips from those originally considered for the Townlakes Commercial CPD.

PROJECT DESCRIPTION & ZONING BACKGROUND

The subject property is a 21.1 acre commercial tract located at the corner of Williams Ave Fountain Mist Blvd in Lehigh Acres. The site was governed by zoning resolution Z-99-022 which allowed up to:

20,000 SF Neighborhood retail,
48,000 sf professional office and
80,000 sf mini-warehouse

The CPD was amended under Z-24-044 which increased the approval by 140,000 sf mini-warehouse use to allow development of a self-storage facility on the north portion of Tract A. The traffic analysis provided with the CPDA showed that due to the development being built out and having excess retail and office square footage remaining, the increase in mini-warehouse use would not increase the overall traffic expected.

Under ADD2024-00149 the uses Hybrid Warehouse and Public Warehouse are added. The increased square footage remains at 140,000 sf.

Tract A is the only remaining undeveloped lot in the The Townlakes Commercial CPD and has an approved development order. The cumulative development table for the CPD is attached.

Prior to the 140,000 sf addition, the remaining square footage allowable in the CPD is:

13,663 sf neighborhood retail
10,397 sf professional office
12,975 sf mini-warehouse



TRIP COMPARISON – MINI-WAREHOUSE / HYBRID WAREHOUSE

Table 1A, below, outlines the anticipated weekday P.M. peak hour trip generation of the proposed 140,000 self-storage or hybrid warehouse use requested, based on *Institute of Transportation Engineers Trip Generation, 11th Edition*.

Table 2A shows the retail square footage that would generate the equivalent PM Peak hour trips.

<i>TOWNLAKES COMMERCIAL CPDA</i>			
TABLE 1A: TRIP GENERATION – PROPOSED MINI-WAREHOUSE / SELF-STORAGE			
Land Use	P.M. Peak Hour*		
	In	Out	Total
Mini-Warehouse/Self-Storage (140,000 sf) ITE - 151	10	11	21

<i>TOWNLAKES COMMERCIAL CPDA</i>			
TABLE 2A: TRIP GENERATION – EQUIVALENT RETAIL			
Land Use	P.M. Peak Hour*		
	In	Out	Total
Retail (1,700 sf) ITE – 822	11	11	22



TRIP COMPARISON – PUBLIC WAREHOUSE

Table 1B, below, outlines the anticipated weekday P.M. peak hour trip generation of the proposed 140,000 public warehouse requested, based on *Institute of Transportation Engineers Trip Generation, 11th Edition*.

Table 2B shows the retail square footage that would generate the equivalent PM Peak hour trips.

<i>TOWNLAKES COMMERCIAL CPDA</i>			
TABLE 1B: TRIP GENERATION – PROPOSED PUBLIC WAREHOUSE			
Land Use	P.M. Peak Hour*		
	In	Out	Total
Warehouse (140,000 sf) ITE - 150	12	31	43

<i>TOWNLAKES COMMERCIAL CPDA</i>			
TABLE 2B: TRIP GENERATION – EQUIVALENT RETAIL			
Land Use	P.M. Peak Hour*		
	In	Out	Total
Retail (4,500 sf) ITE – 822	22	22	44



CONCLUSION

As indicated by the tables above:

140,000 sf mini-warehouse or hybrid warehouse equates to 1,700 sf or retail use

140,000 sf public warehouse equates to 4,500 sf retail use

As the CPD is substantially built out, and there is 13,663 sf of excess retail sf in the CPD, the proposed amendment to allow the 140,000 sf of mini-warehouse, hybrid warehouse or public warehouse represents a decrease in overall trips from what was anticipated in the original Townlakes CPD analysis.

REFERENCES:

Trip Generation by OTISS Online Traffic Impact Study Software (ITE Trip Generation 11th Edition)

Cumulative Development Table (as approved under DOS2021-00079)

Scenario - 1

Scenario Name: Arcland Zoning

User Group:

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry	Exit	Total
					Rate/Equation	Split%	Split%	
150 - Warehousing	General	1000 Sq. Ft. GFA	140	Weekday, Peak Hour of	Best Fit (LIN)	12	31	43
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	$T = 0.12(X) + 26.48$	28%	72%	
151(2) - Mini-Warehouse	General	1000 Sq. Ft. GFA	140	Weekday, Peak Hour of	Average	10	11	21
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	0.15	47%	53%	
822 - Strip Retail Plaza (<40k)	General	1000 Sq. Ft. GLA	4.5	Weekday, Peak Hour of	Best Fit (LOG)	22	22	44
Data Source: Trip Generation Manual, 11th Ed	Urban/Suburban			Adjacent Street Traffic,	$\ln(T) = 0.71\ln(X) + 2.72$	50%	50%	

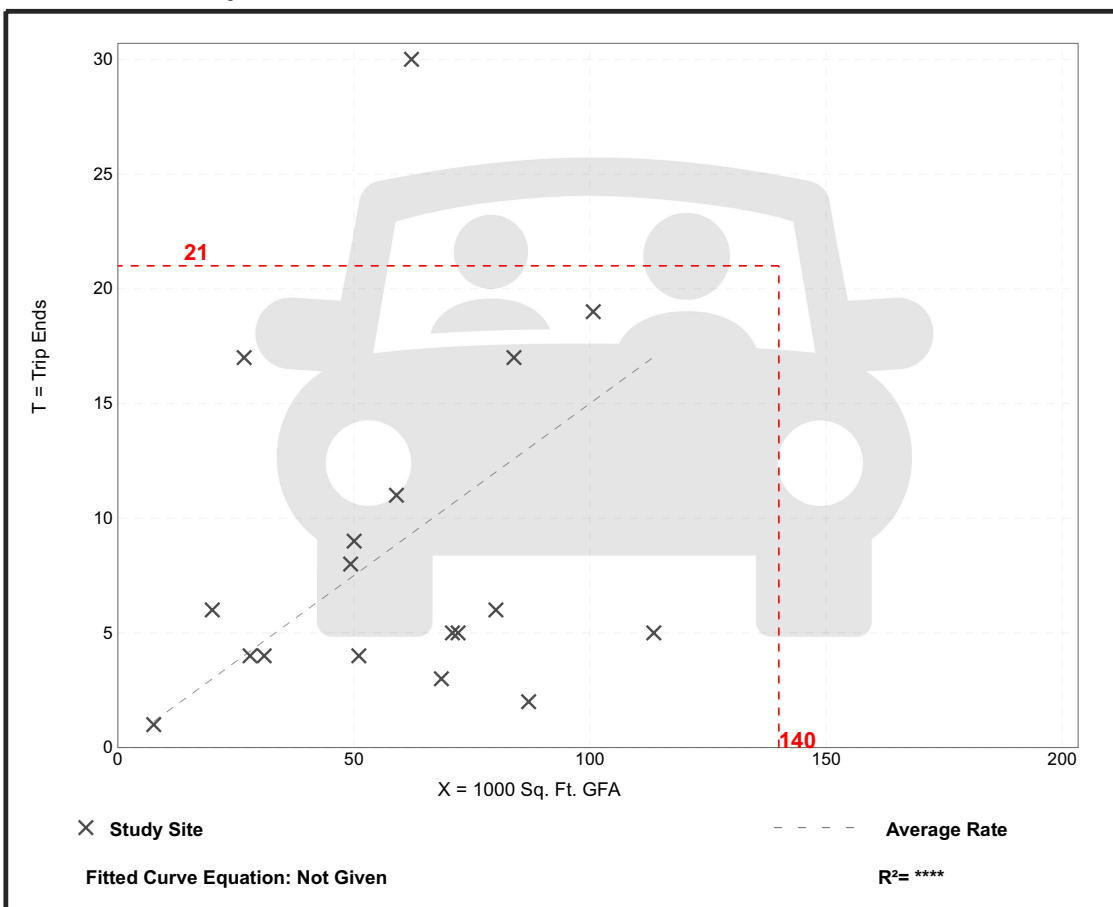
Mini-Warehouse (151)

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

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Warehousing

(150)

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: 49

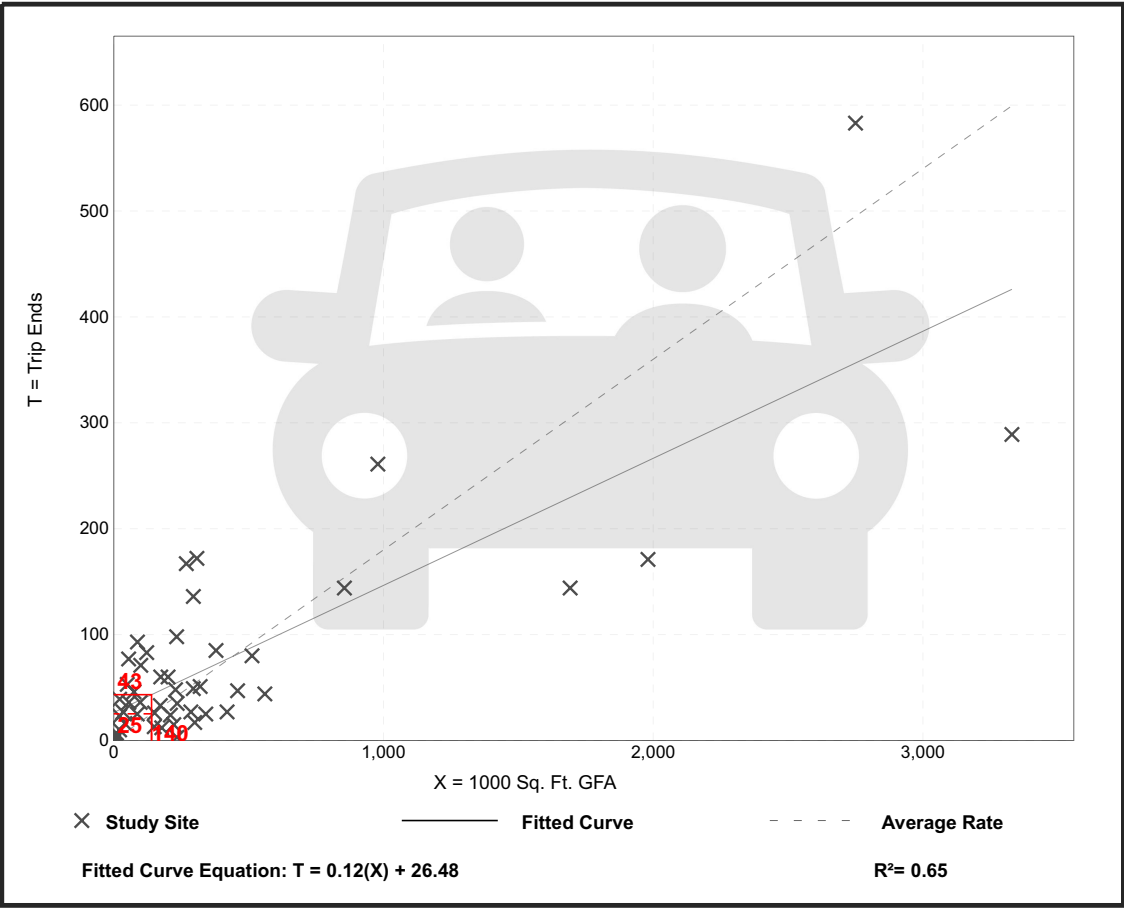
Avg. 1000 Sq. Ft. GFA: 400

Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

Data Plot and Equation



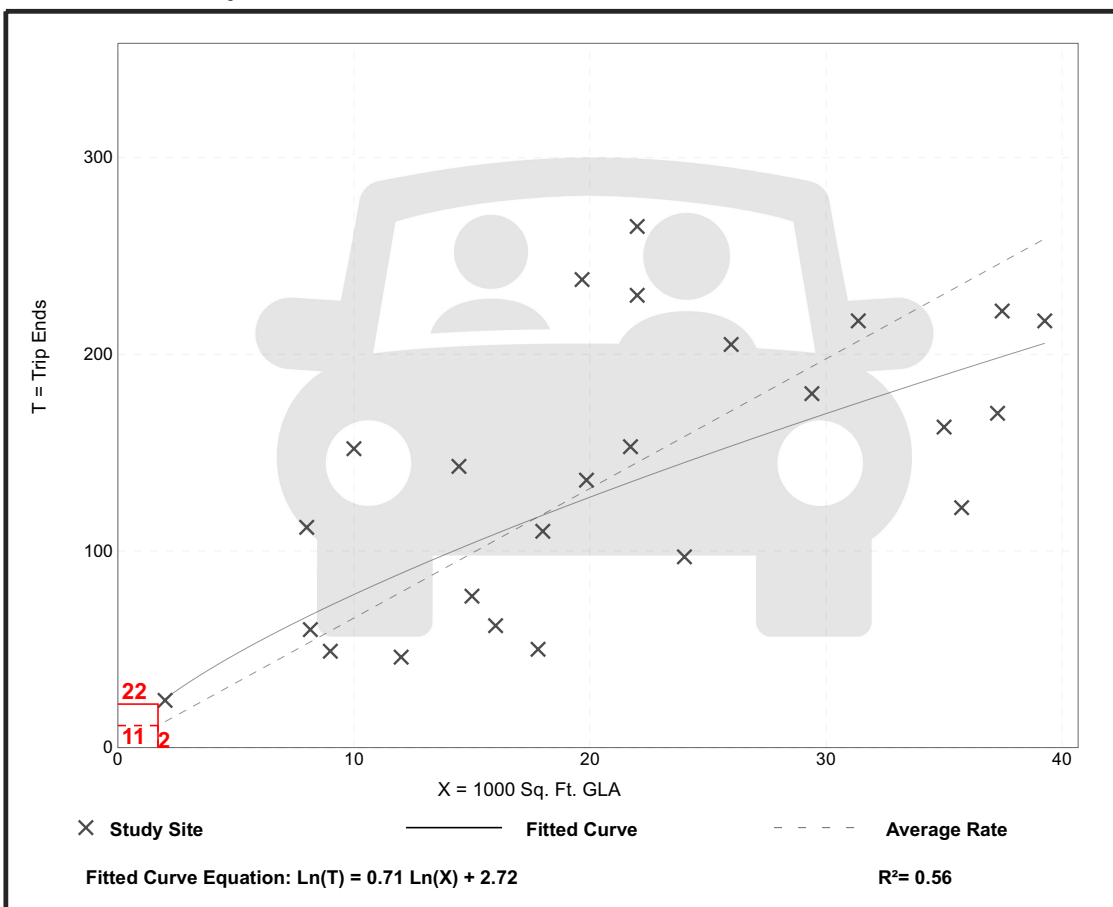
Strip Retail Plaza (<40k) (822)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
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: 25
Avg. 1000 Sq. Ft. GLA: 21
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



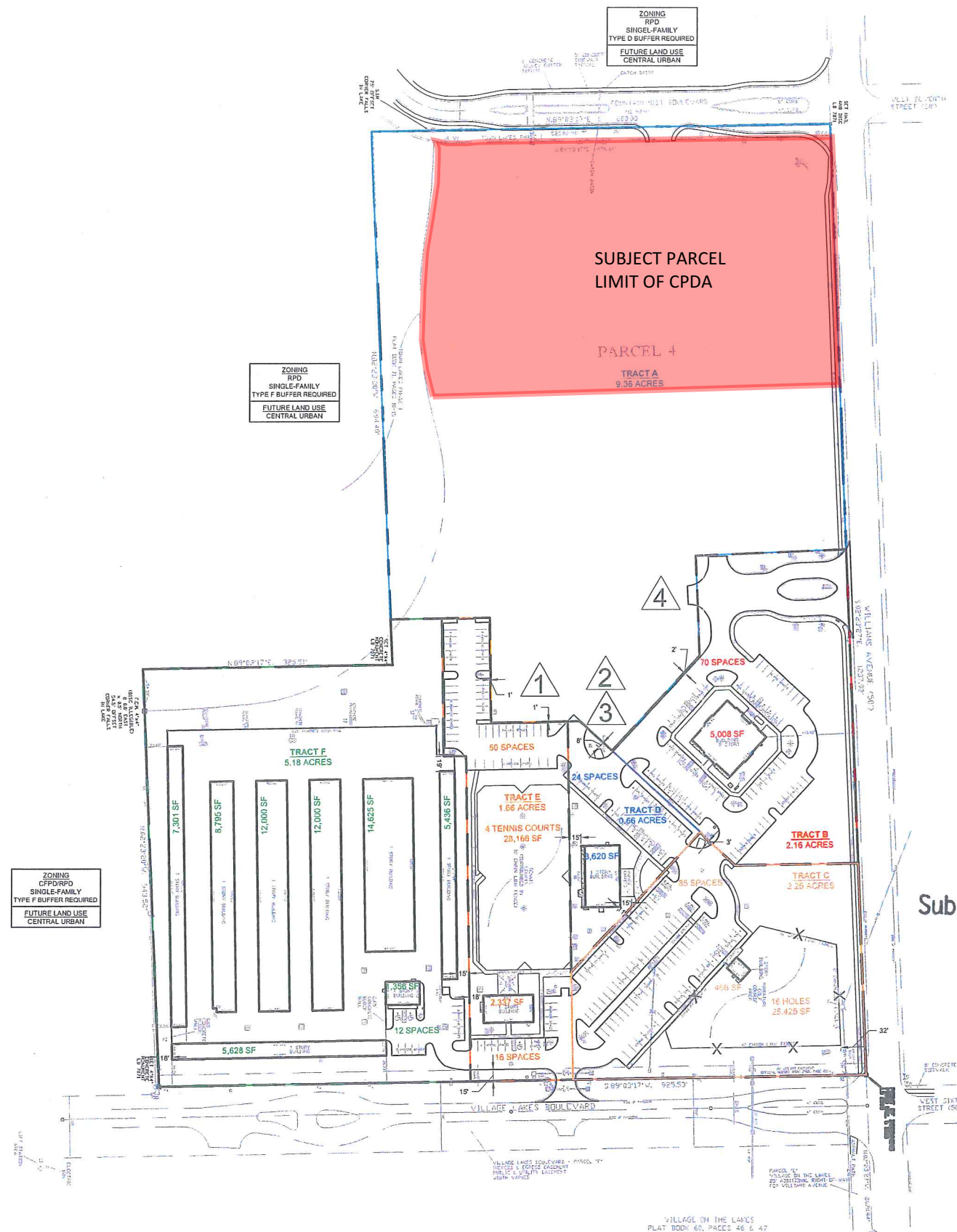
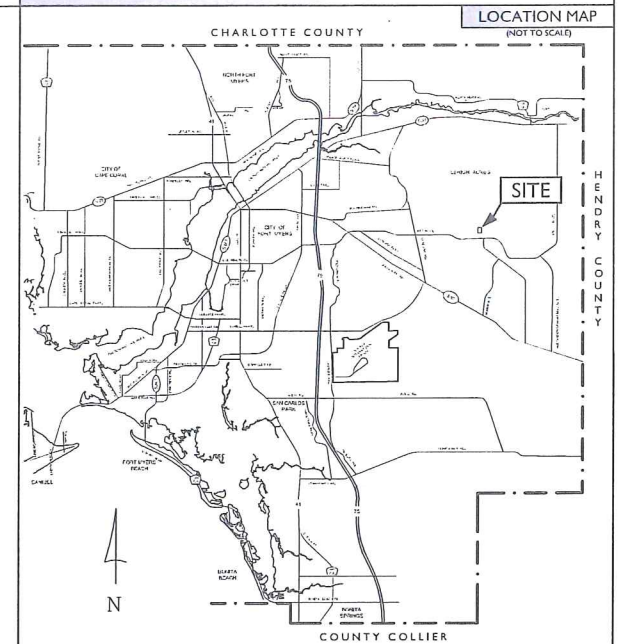
Trip Gen Manual, 11th Edition

● Institute of Transportation Engineers

TOWNLAKES COMMERCIAL ADMINISTRATIVE AMENDMENT

LOCATED IN SECTION 30, TOWNSHIP 44-S, RANGE 27-E, LEE COUNTY, FLORIDA

D-7-M MASTER CONCEPT PLAN



TOWNLAKES COMMERCIAL ADD

PROJECT SUMMARY:

ZONING/REZONING:
Administrative Amendment to Townlakes RPD/CPD (Z-99-022)

STRAP #'s
30-44-27-00-00001.0300
30-44-27-00-00001.0360
30-44-27-00-00001.0370
30-44-27-00-00001.0380

TOTAL RPD/CPD ACREAGE
274.61 ACRES

PROJECT ACREAGE
21.1 ACRES

TRACT
A 400,706 SF
B 94,188 SF
C 97,941 SF
D 28,827 SF
E 72,110 SF
F 225,612 SF

DEVIATIONS



APPROVED
Amendment to
Master Concept Plan
Subject to Case # ADD 2011-00081
Date 1/20/2012

RECEIVED
OCT 25 2011

COMMUNITY DEVELOPMENT

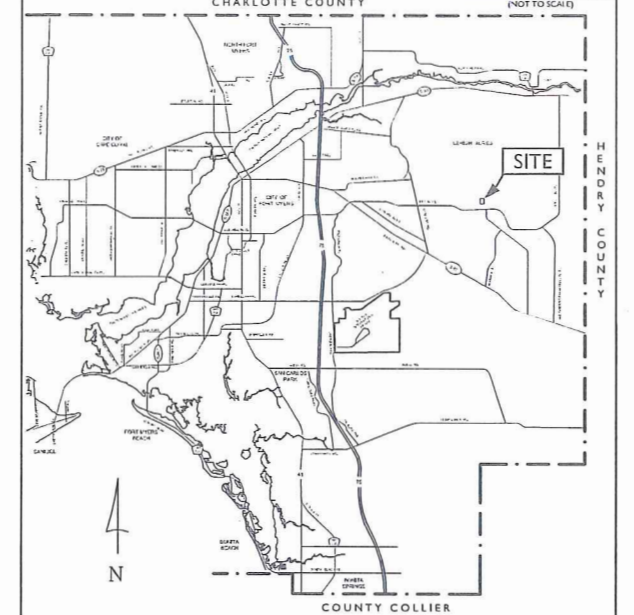
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TRACT EXHIBIT

LOCATION MAP



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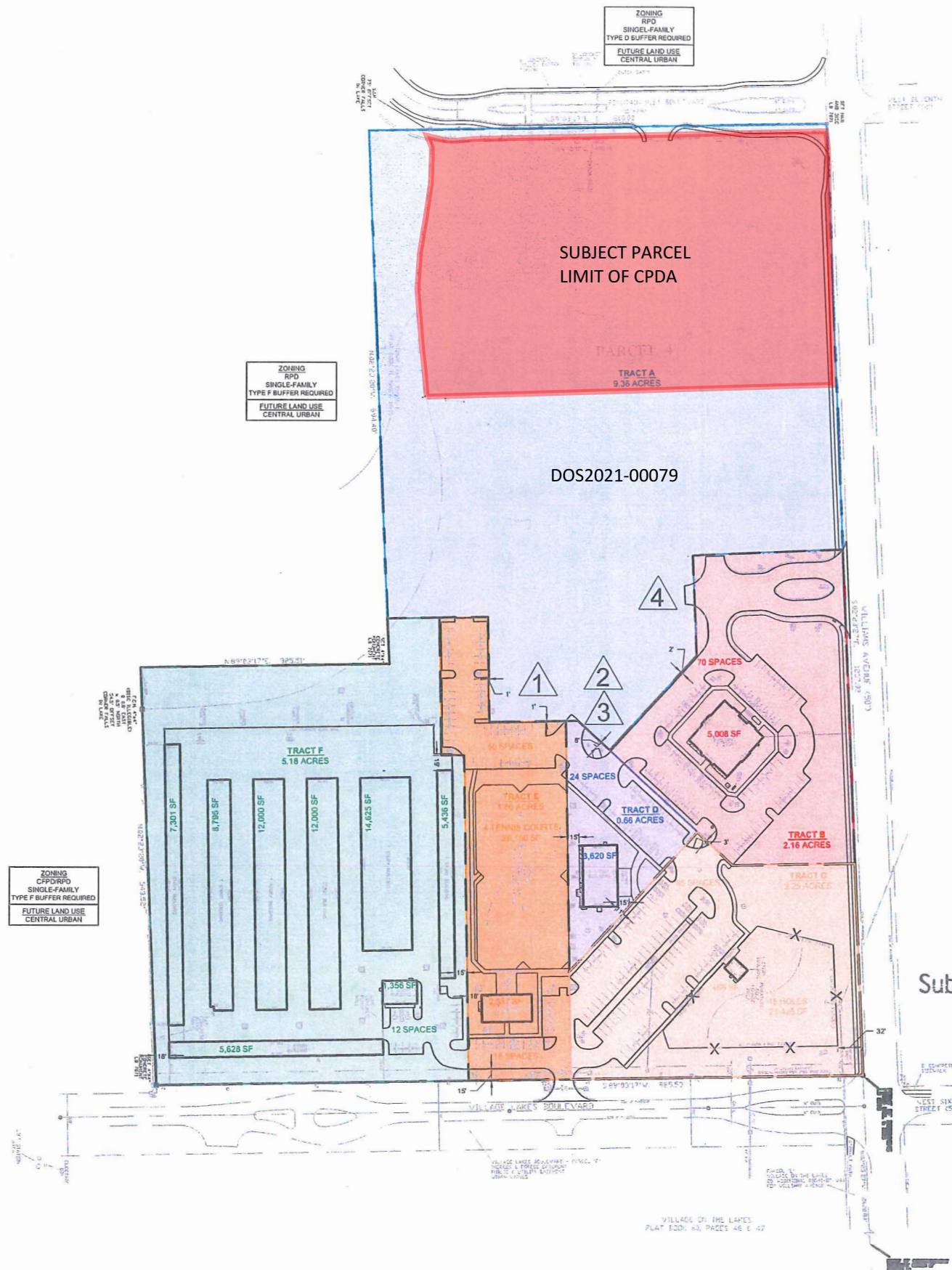


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COMMUNITY DEVELOPMENT

ADD 2011-00081

APPROVED
Amendment to
Master Concept Plan
Subject to Case # ADD2011-00081
Date 1/20/2012



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

LAST UPDATED : 02/08/2022

Tract	Strap #:	Project	Building	Type of Use	Land Use Code	Case #:	Status		Building Permit	Area
A	30-44-27-17-0000A.0000	Providence Church	27,625 SF	Church (Non Retail)	560: Church	DOS2021-00079	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 AMMENDED 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 1 COM2006-03750 2 COM2006-03752 3 COM2006-03754 4 COM2006-03755 5 COM2006-03756 6 COM2006-03757 7 COM2006-03758 TOTAL:	1,350 SF 5,400 SF 14,475 SF 11,950 SF 12,000 SF 8,950 SF 7,300 SF 5,600 SF 67,025 SF	
					Open Storage	LDO2014-00440 / ADD2014-00095				10,582 SF
Permitted Intensities										
			6,337 SF	Retail						
			37,603 SF	Non Retail						
			67,025 SF	Mini-Warehouse						
Approved Intensity Per Planned Development										
			20,000 SF	Retail						
			48,000 SF	Non Retail						
			80,000 SF	Mini-Warehouse						
Remaining Intensity										
			13,663 SF	Retail						
			10,397 SF	Non Retail						
			12,975 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