CFN 20190170098
OR BK 30604 PG 1650
RECORDED 05/10/2019 15:03:48
Palm Beach County, Florida
AMT 275,000.00
DEED DOC 1,925.00
Sharon R. Bock
CLERK & COMPTROLLER
Pgs 1650-1651; (2Pgs)

THIS INSTRUMENT PREPARED BY
AND RETURN TO:

Pegasus Title Services, LLC
631 Lucerne Avenue, Suite 210
Lake Worth, FL 33460

Parcel ID: 38-43-44-20-01-033-0060

Space Above This Line For Recording Data

WARRANTY DEED

THIS WARRANTY DEED, made as of the 10th day of May, 2019 by 3322 BOUTWELL RD LLC, a Florida limited liability company, hereinafter referred to as "Grantor," to CREATIVE FINANCING, LLC, a Florida limited liability company, whose post office address 1540 SW 4th Circle, Boca Raton, Florida, hereinafter referred to as "Grantee."

(Wherever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

W I T N E S S E T H: That the Grantor, for and in consideration of the sum of TEN AND 00/100'S ($10.00) Dollars and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the Grantee all that certain land situate in Palm Beach County, State of Florida, situated on the premises more particularly described as follows:

> That portion of Tract 33, Model Land Co. Subdivision of Section 20, Township 44 South, Range 43 East, according to the map or plat thereof as recorded in Plat Book 5, Page 79, Public Records of Palm Beach County, Florida, more particularly described as follows:
>
> From a point 15 feet South of the North line and 25 feet East of the West line of Tract 33, Model Land Co. Subdivision of Section 20, Township 44 South, Range 43 East, run South on a line parallel to the East line of said Tract 33, 240 feet to the Point of Beginning; thence continue South 150 feet to a point; thence run East on a line parallel to the North line of said Tract 33, 150 feet to a point; thence run North on a line parallel to the West line of Tract 33, 150 feet to a point; thence run West parallel to the North line of Tract 33, 150 feet to the Point of Beginning.

SUBJECT TO taxes for the year of 2019 and subsequent years; comprehensive land use plans, zoning, and other land use restrictions, prohibitions and requirements imposed by governmental authority; restrictions and matters appearing on the Plat or otherwise common to the subdivision; outstanding oil, gas and mineral rights of record without right of entry; unplatted public utility easements of record (located contiguous to real property lines and not more than 10 feet in width as to rear or front lines and 7 1/2 feet in width as to side lines) (it not being the intent hereof to reimpose any of the foregoing).

TOGETHER, with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

AND, the Grantor hereby covenants with said Grantee that the Grantor is lawfully seized of said land in fee simple; that the Grantor has good right and lawful authority to sell and convey said land, and hereby warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the said Grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in the presence of:
(As to all Grantors)

Witness #1 Signature

Witness #1 Printed Name

Witness #2 Signature

CLAY GALO
Witness #2 Printed Name

3322 BOUTWELL RD LLC,
a Florida limited liability company

By: _____
Deborah J. Winters
Its: Manager / Member

By: _____
Stephen Sanguinetti
Its: Manager / Member

By: _____
Joshua Farber
Its: Manager / Member

By: Sharon Farber
Sharon Farber
Its: Manager / Member

STATE OF FLORIDA
COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this 1st day of May, 2019 by Deborah J. Winters; Stephen Sanguinetti; Joshua Farber; and Sharon Farber as the Managers / Members of 3322 BOUTWELL RD LLC, a Florida limited liability company, on behalf of the company, who [ ] are personally known to me or [✓] have produced Florida Driver License as identification.

SEAL

Notary Public – State of Florida

Notary Public State of Florida
Catherine Steward
My Commission GG 285552
Expires 02/24/2023

ANTONIAZZI
ARCHITECTURE

April 26, 2020 Revised 01/18/2021 Revised 04/13/2021
Revised 01/03/2022

City of Lake Worth Beach
Community Sustainability Department
1900 2nd Avenue North
Lake Worth Beach, FL 33460

RE: 3322 Boutwell Road – Sustainable Bonus Application – Sec. 23.2-33. - City of Lake Worth Sustainable Bonus Incentive Program.

Onsite Features Improvements:

(d) Higher quality or additional open space beyond the requirements of the code.

- 3322 Boutwell road features a central courtyard which allows a safe gathering/recreational area for residents of the community within a private setting. The courtyard provides a higher quality open area & more than the minimum requirements of the underlying zoning (MU-West).

Project Open Area Calculation:

Total Lot Area: 22,500 sf
Maximum Building Coverage: 50% - 11,250 sf
Provided Building Coverage: 32% – 7,395 sf
Total Open Area: 67% - 15,105 sf

(e) Higher quality or additional landscaping beyond the requirements of the code.

Project Landscape Calculation:

Trees Required: 48
Trees Provided: 56

Shrubs & Ground Cover Required: 459
Shrubs & Ground Cover Provided: 1204

Total Native Planting Required: 75%
Total Native Planting Provided: 75%

Antoniazzi Architecture Inc.
117 NE 1st Ave
Miami Fl, 33132
Giorgio@Antoniazziarch.com
786-496-2979

(h) Other project components open to the public, or offering a direct community benefit meeting the intent of the comprehensive plan, which are similar to those listed as part of the USGBC's LEED for neighborhood development program, or which include elements of sustainable design such as:

viii. Urban Form:

- Building's Courtyard Shape & span along the property frontages improves & sets the ROW edge & Building line.

~~xxiii. Lighting mitigation (night sky).~~

- ~~Site lighting shall be equipped with motion & time monitoring systems to reduce excess lighting; reducing light pollution.~~

SUSTAINABLE BONUS - COMMUNITY BENEFIT COST TABLE	
CATEGORY	**APPROX COST**
(d) Higher quality or additional open space beyond the requirements of the code.	$ 1,800.00
Site Furniture & Decorative	*$ 1,800.00*
(e) Higher quality or additional landscaping beyond the requirements of the code.	$ 9,000.00
(8) Additional Native Trees)	*$ 6,000.00*
(745) Additional Shrubs	*$ 3,960.00*
Fee in lieu	$ 10,800.00
SUSTAINABLE BONUS - TOTAL	**$ 21,600.00**

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ARCHITECTURE

April 26, 2020 Revised 01/18/2021 Revised 04/12/2021 Revised 06/11/2021

City of Lake Worth Beach
Community Sustainability Department
1900 2nd Avenue North
Lake Worth Beach, FL 33460

RE: **3322 Boutwell Road – Planned Development Application - Project Narrative**

Design Description: A courtyard style 2-story multifamily development with on-site surface parking & internal pedestrian circulation network. The building is designed on a square shaped .5 acre lot & will contain 18 dwelling units with a varying mix of studio, 1-bedroom, 2-bedroom apartments; a onsite office space for property management is also included in the building's program. The proposed total density of the project is 32Du/Acre.

The courtyard style building's footprint on the property cover only 32% of the lot allowing ample open area for landscape & required perimeter buffers. Neighboring properties comprise of a mid-rise hotel on the North & East frontages & a single family residence on the South frontage of the property.

Project Statistics:

Lot Size:	22,500 sf
Underlying Zoning:	MU-W Mixed Use West
Proposed Use:	Mixed Use – Residential & Office
Proposed Density:	32 Du/Acre
Building Coverage:	7,395 sf 32%
Building Gross Area:	14,596 sf

Setbacks:

Front (West):	16'-5"
Side (North):	10'-0"
Side (South):	66'-10"
Rear (East):	15'-0"

Building Height:	21'-8" Median Roof Height.
Parking Provided:	23 Space (1 ADA Parking Space Provided)
Proposed Dwelling Units:	18 Units
Proposed Office Space:	416 sf

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Comprehensive Plan Compliance:

Located within Special area of interest "Sub-5" the project follows design guidelines set forth by the comprehensive plan's *Section 5: Guidelines for Sub Areas pg.68*. The referenced guidelines encourage landscape buffers & the creation of safe pedestrian connections throughout the perimeter and interior of properties. Within the subject development, a center courtyard acts as a central node for pedestrian movement inside the property, units facing the rear & primary frontage of the site are provided with private entrances within the perimeter landscape buffers. These private entrances create an "active" façade facing Boutwell Road which both encourages & creates a safe pedestrian access within the perimeter and interior of the development. In addition, native street trees are placed 25' O.C. along the primary frontage as required by the guidelines. Although parallel parking is not being provided in this project, surface parking is being provided justified to the south side the site to limit visibility from the Boutwell Road.

Construction Schedule:

Estimated Commencement:	3rd Quarter 2021
Estimated Completion:	3rd Quarter 2022
Public Dedication:	Not Applicable

Package & Mail Delivery:

- Mail delivery shall be made to (2) exterior shared mail- boxes which shall include small/medium package compartments. Large packages shall be delivered directly to unit doorsteps.

Derogation Request:

Setback Reduction:	A setback reduction on the Front (west) & Side (North Only) is being requested within this application. The front setback is to be reduced from 20ft MU-W requirement to 15ft & the Side setback reduced from 15ft to 10ft. Both reductions will further allow the project better meet the requirements set forth by the City's comprehensive plan, increasing quality of pedestrian travel through the site & allowing for larger landscape buffers for parking.
Parking Reduction:	The project's total required parking according to underlying zoning regulation is 24 parking spaces (avg 720 sf), with the application of Mixed-Use parking Reduction. The current submission provides 22 parking spaces + 1 ADA parking space. Due to the small dwelling unit sizes & market the project is designed for a 23 total parking spaces is adequate for the project.
Impermeable Area Increase:	Increase allowable impermeable area from Base Zoning Allowable 65% Maximum to 69.8%. Increased area is to assure pedestrian connectivity throughout the site, pedestrian paved areas will be of permeable concrete pavers to decrease runoff and improve rate of absorption on site. Increased hardscape area allow for better pedestrian connectivity throughout the site which is essential to the building's character & contribution to the city's "viii. Urban Form"

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ANTONIAZZI
ARCHITECTURE

Conditional Use Narrative:

The proposed use of "Casa Nueva" consists of long-term rental apartments, providing 2-Bedroom, 1-Bedroom, & Studio units. An office/business component is also incorporated into the project to allow professional use office to be part of the uses of the building.

Currently the vacant property neighbors a 4-story Hotel & a single family residence home to the south. The proposed buildings acts as a buffer between intense commercial use on 10th Avenue & existing single family homes.

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Multi-Family Submarket Report

Greenacres

Palm Beach - FL

PREPARED BY

CoStar™

MULTI-FAMILY SUBMARKET REPORT

Overview

Greenacres Multi-Family

12 Mo. Delivered Units	12 Mo. Absorption Units	Vacancy Rate	12 Mo. Asking Rent Growth
0	(59)	5.5%	2.0%

The city of Greenacres has a population of close to 30,000 and sits in the center of Palm Beach County. The Greenacres submarket spans from Jog Road to the west, South Military Trail and Interstate 95 to the east, Belvedere Road to the north, and Joe Delong Boulevard to the south. With a stock of 5,100 apartments, this is one of the metro's smaller submarkets.

Vacancies are below the metro average, as the submarket has seen limited deliveries and steady demand for this cycle. Rents are well below the metro average, but rent growth is close to the metro average. Prices have appreciated at a rate close to the metro average since 2010.

KEY INDICATORS

Current Quarter	Units	Vacancy Rate	Asking Rent	Effective Rent	Absorption Units	Delivered Units	Under Constr Units
4 & 5 Star	824	4.8%	$1,563	$1,559	0	0	0
3 Star	2,025	4.8%	$1,185	$1,179	(1)	0	0
1 & 2 Star	2,224	6.5%	$1,057	$1,044	(4)	0	0
Submarket	**5,073**	**5.5%**	**$1,217**	**$1,210**	**(5)**	**0**	**0**

Annual Trends	12 Month	Historical Average	Forecast Average	Peak	When	Trough	When
Vacancy Change (YOY)	1.1%	8.3%	6.4%	13.3%	2009 Q3	4.3%	2018 Q1
Absorption Units	(59)	48	(13)	258	2013 Q4	(139)	2007 Q3
Delivered Units	0	44	2	284	2004 Q3	0	2020 Q1
Demolished Units	0	0	1	6	2018 Q1	0	2020 Q1
Asking Rent Growth (YOY)	2.0%	2.7%	1.2%	8.4%	2015 Q4	-5.1%	2008 Q3
Effective Rent Growth (YOY)	2.1%	2.7%	1.3%	8.4%	2015 Q4	-5.1%	2008 Q3
Sales Volume	$113 M	$35.6M	N/A	$119.9M	2018 Q3	$200K	2009 Q3

Vacancy

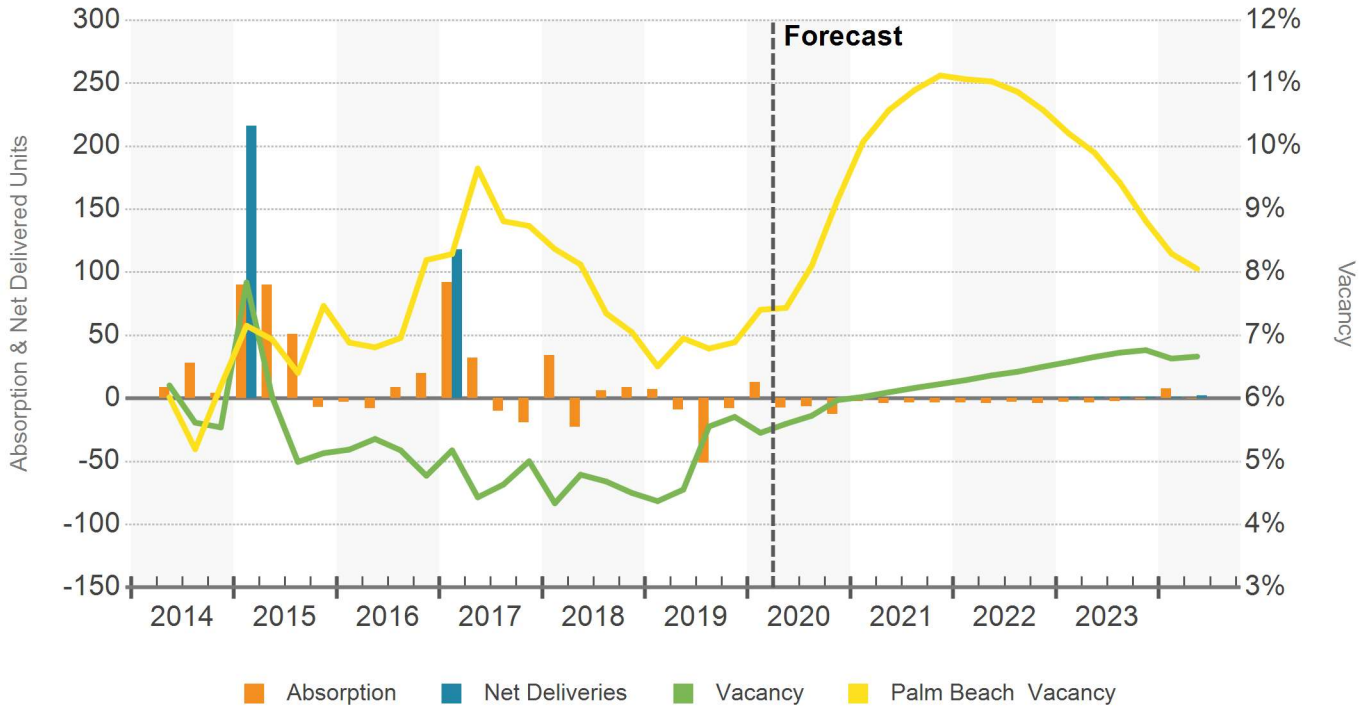
Vacancies have been flat and below the metro average over the past few years, as demand kept stable and limited new deliveries came to market in the most recent years.

Close to 540 apartments delivered in this submarket over the current economic expansion cycle, increasing its inventory by about 10%. The most recent major delivery in the Greenacres Submarket was The Village at Lake Osborne, a 118-unit property located in Lake Worth. It delivered in January 2017 and stabilized within six months.

The average household income in this area is close to $53,000, about 40% below the Palm Beach metro average. Close to 85% of the area's stock is 3 Star and below, and Greenacres has some of the most affordable rents across the metro. The area enjoys solid demographics and its population has risen by close to 10% over the past five years, very close to the Palm Beach County average. The gains have been consistent across all population brackets, but more pronounced in the over-40 buckets.

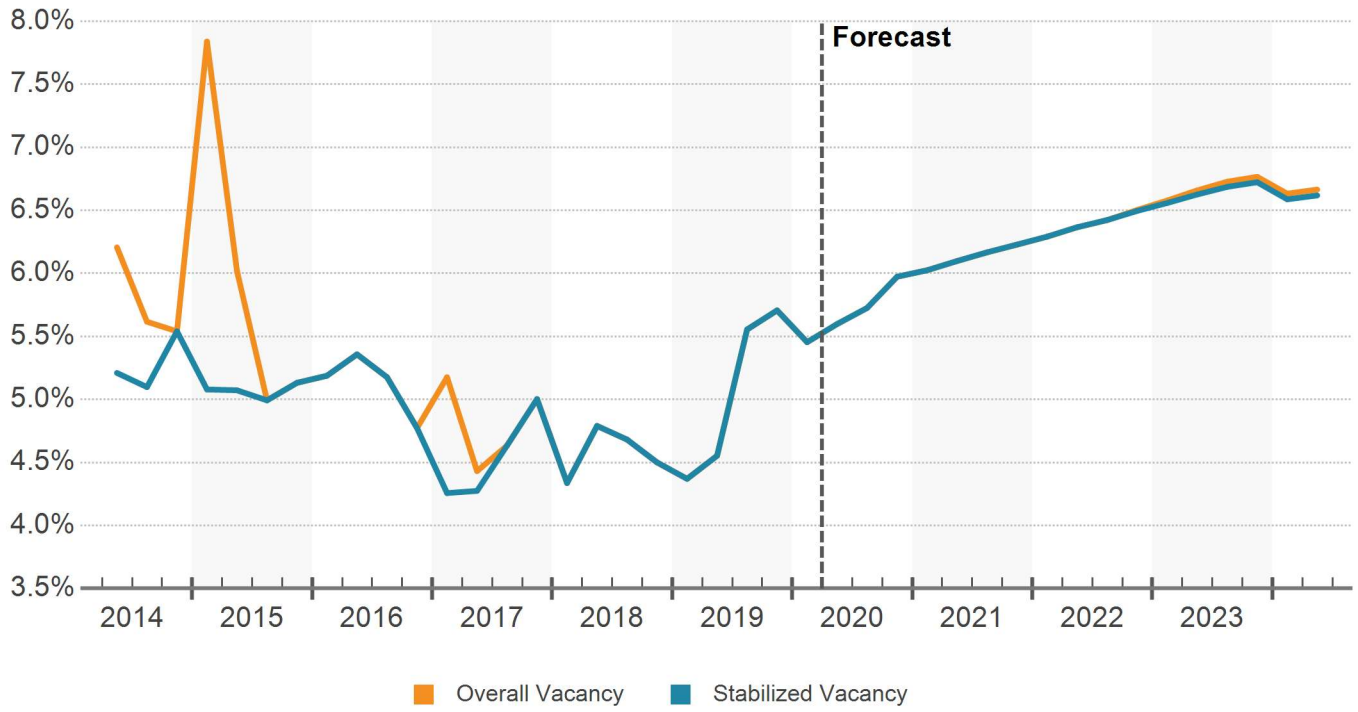
On the back of stable demand and no expected deliveries, the forecast is calling for vacancies to remain relatively unchanged over the next year.

ABSORPTION, NET DELIVERIES & VACANCY

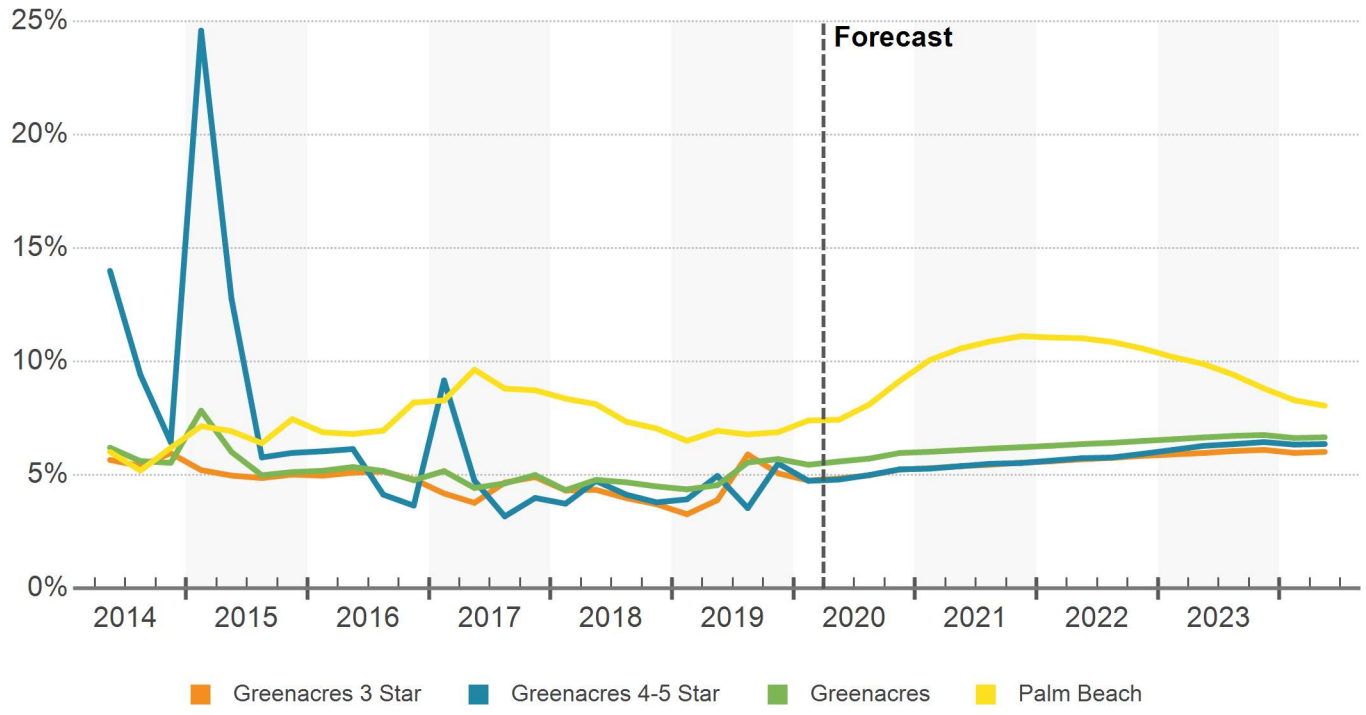


Vacancy

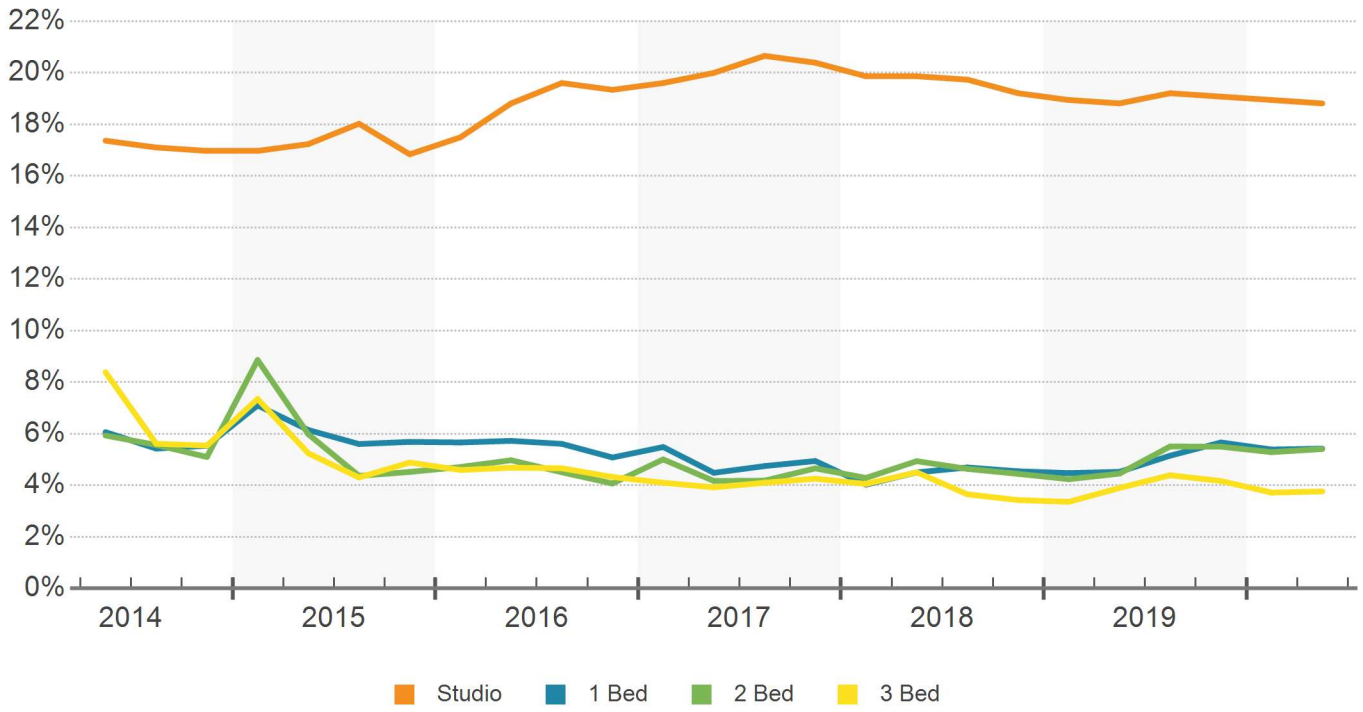
OVERALL & STABILIZED VACANCY



VACANCY RATE

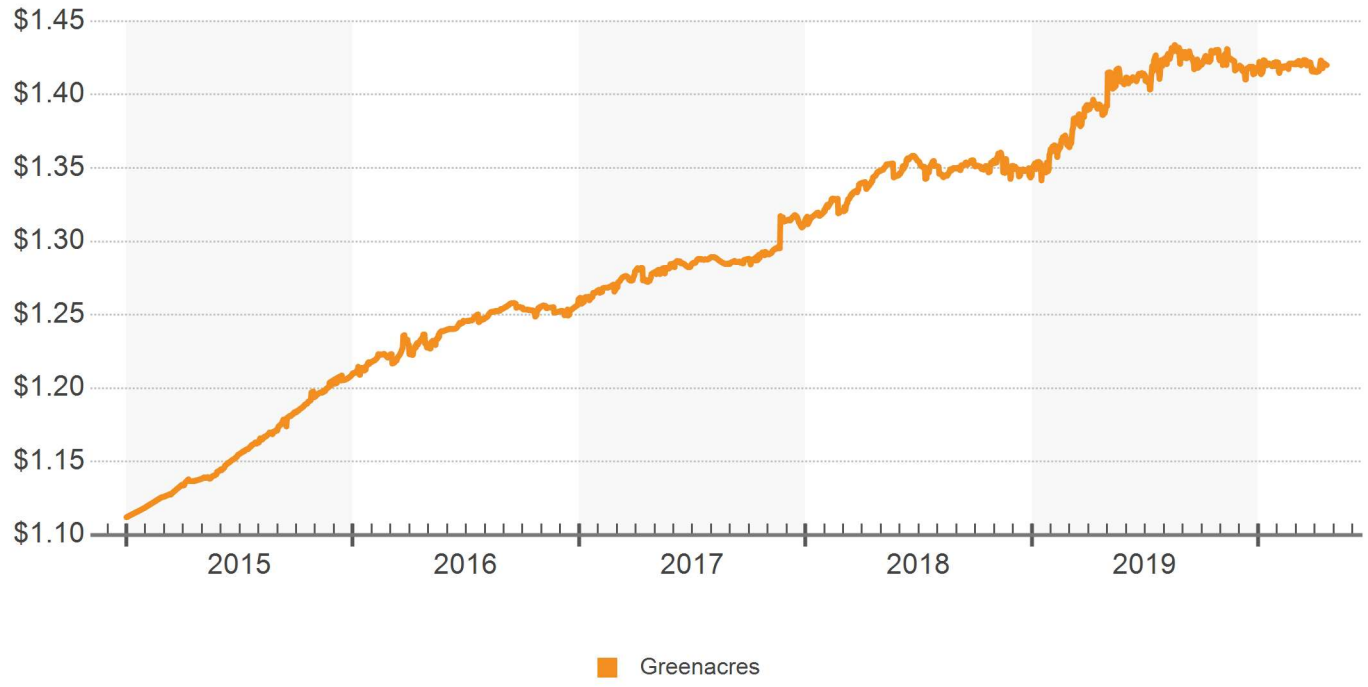


VACANCY BY BEDROOM

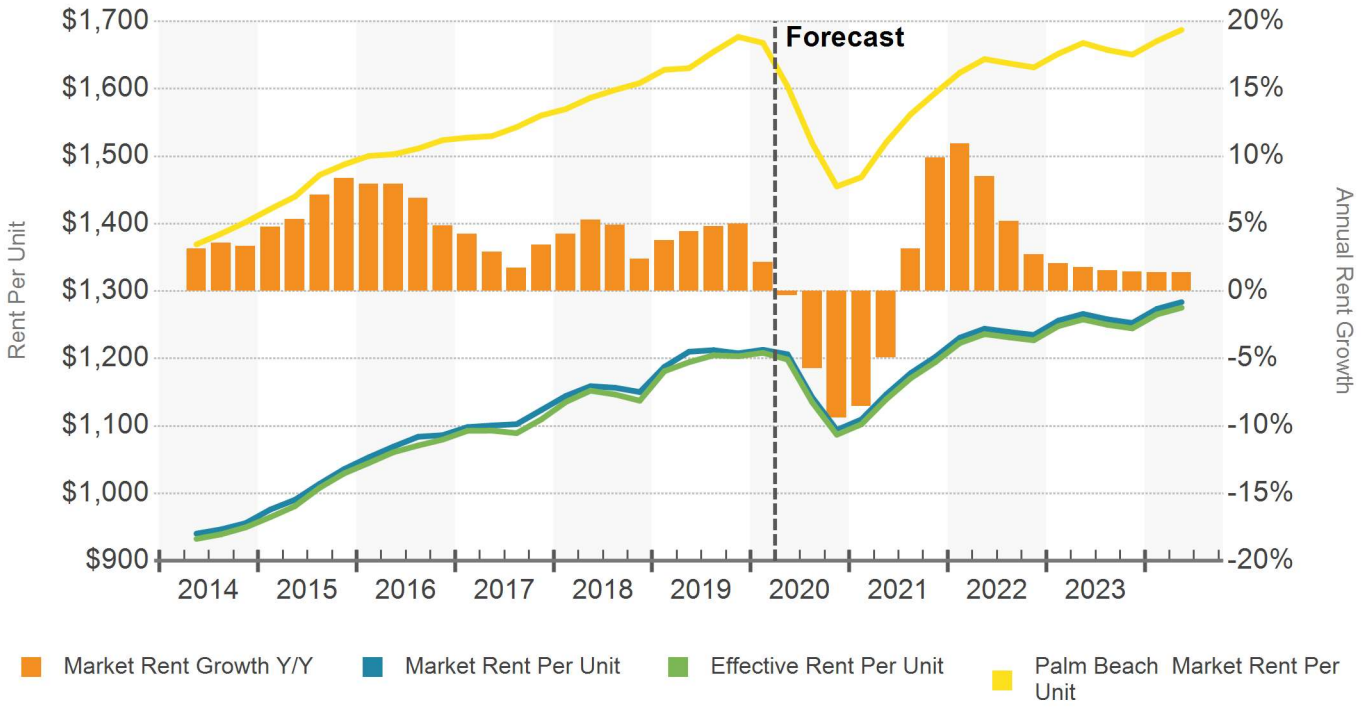


At roughly $1,220/month, this submarket has some of the lowest rents in the metro. Annual rent growth currently stands at 2.0%, close to the Palm Beach metro average. Less than 15% of the submarket's stock is comprised of 4 & 5 Star buildings, which register rent growth that is double the submarket average. Properties rated 1 & 2 Star register growth significantly below the submarket average. On the back of stable demand, the forecast is calling for rent growth to remain relatively unchanged over the next year.

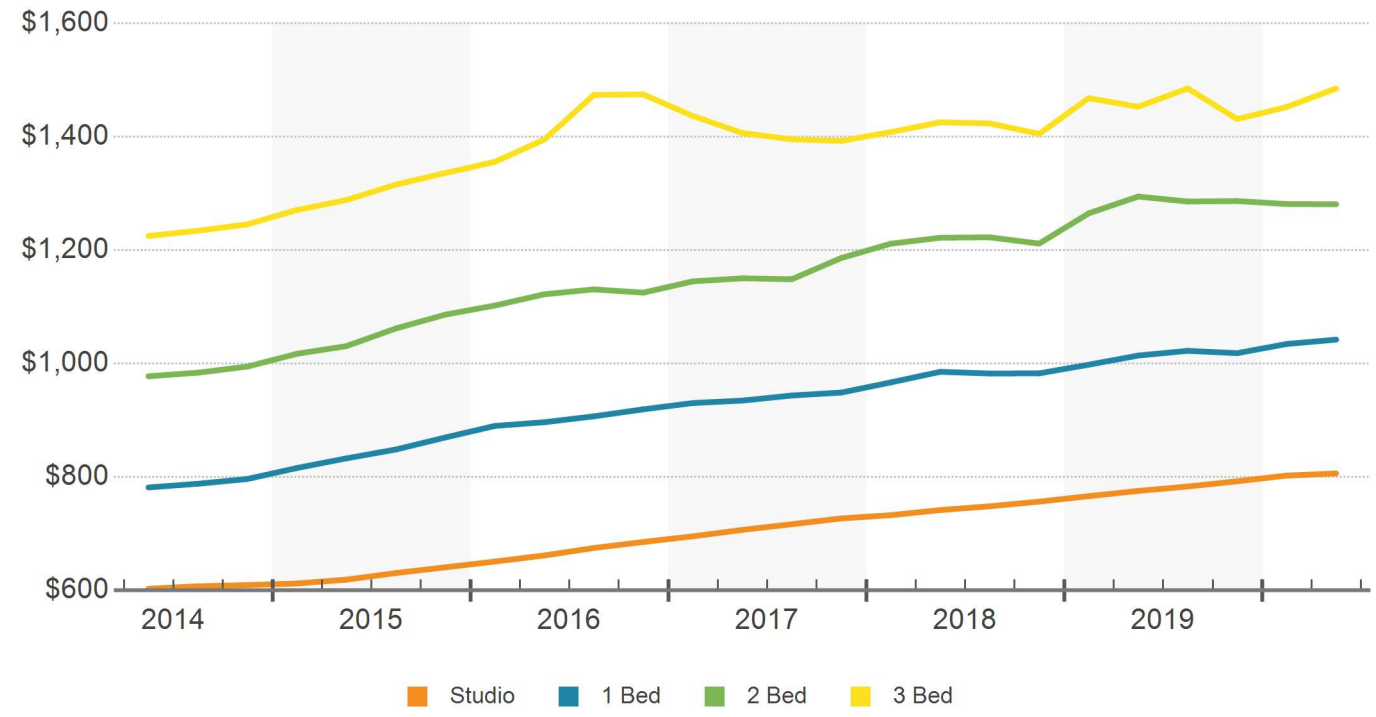
DAILY ASKING RENT PER SF



MARKET RENT PER UNIT & RENT GROWTH

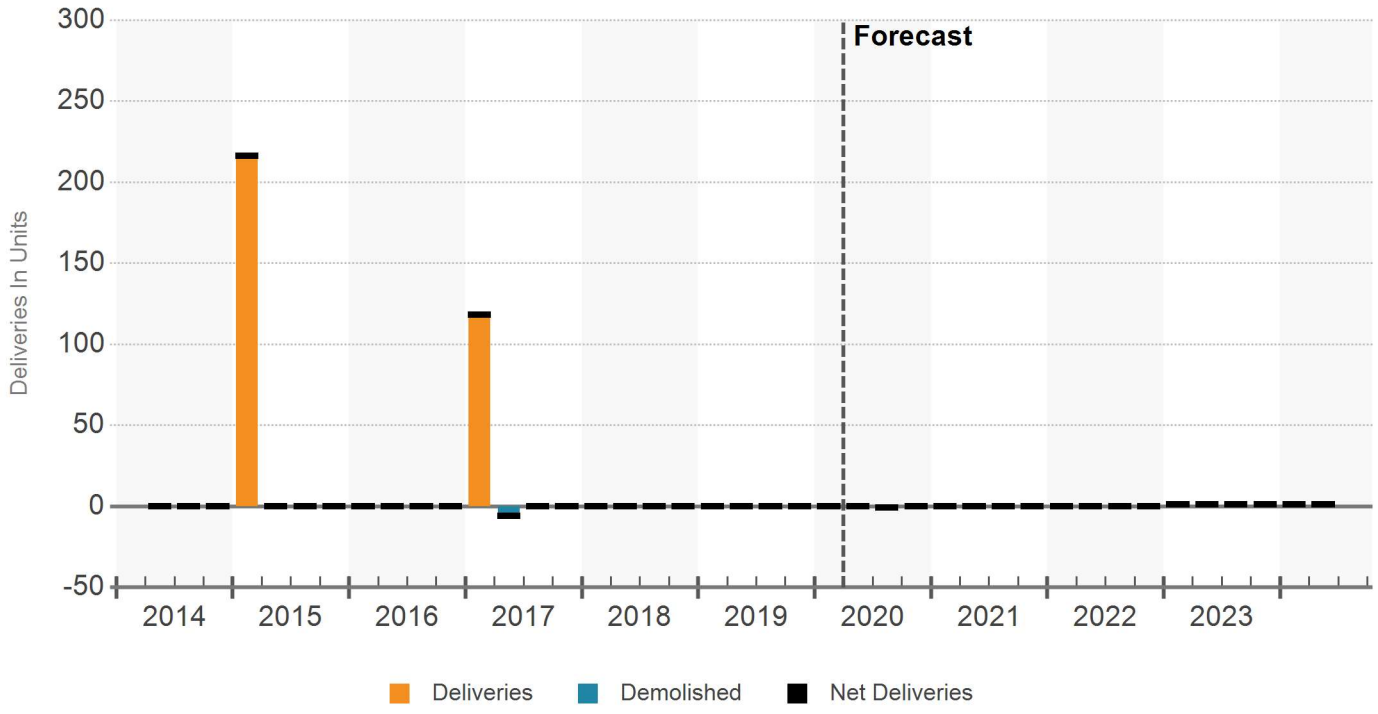


MARKET RENT PER UNIT BY BEDROOM



The Greenacres Submarket has seen limited deliveries this cycle, and there is currently no considerable construction underway.

DELIVERIES & DEMOLITIONS

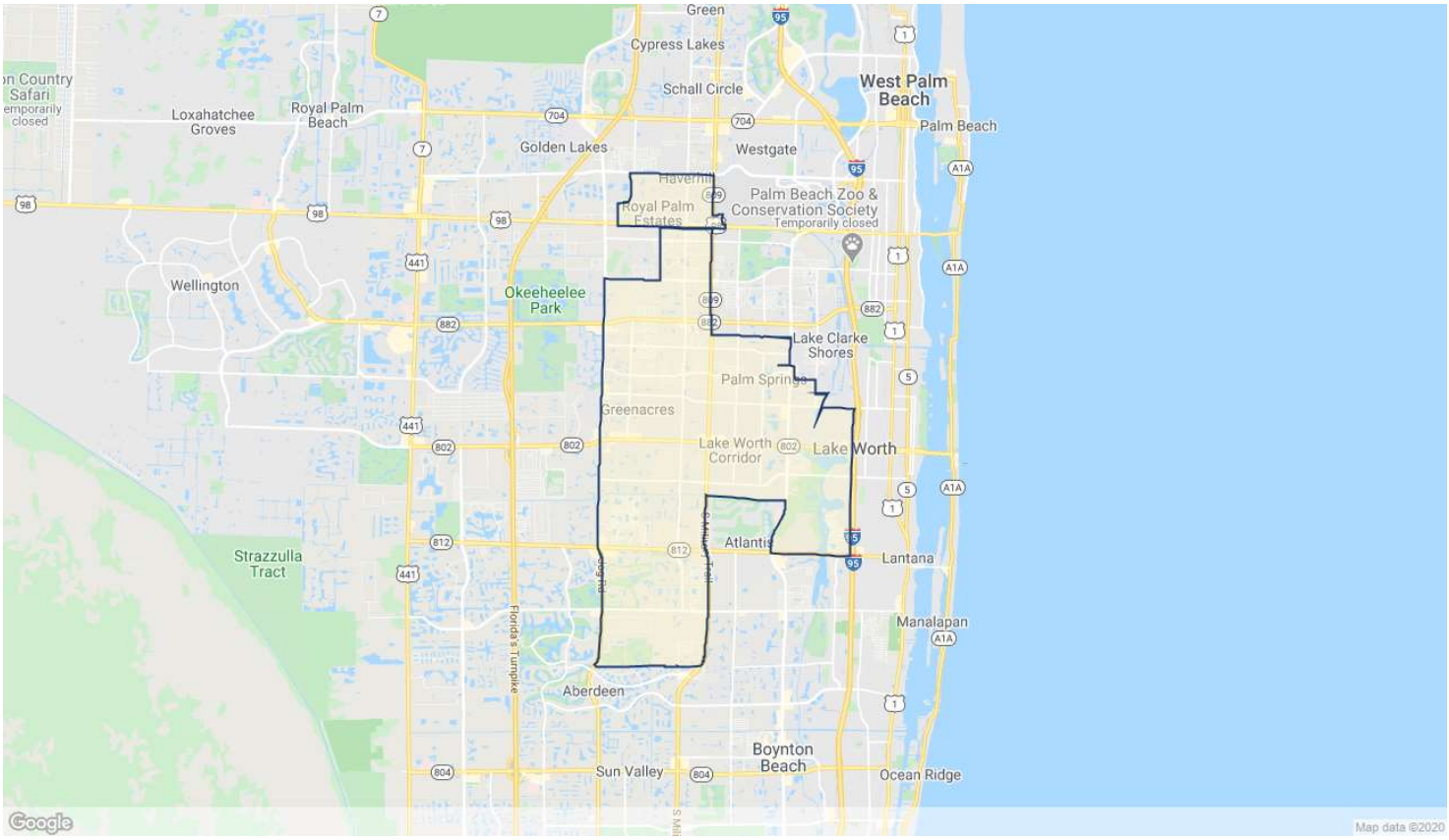


Construction

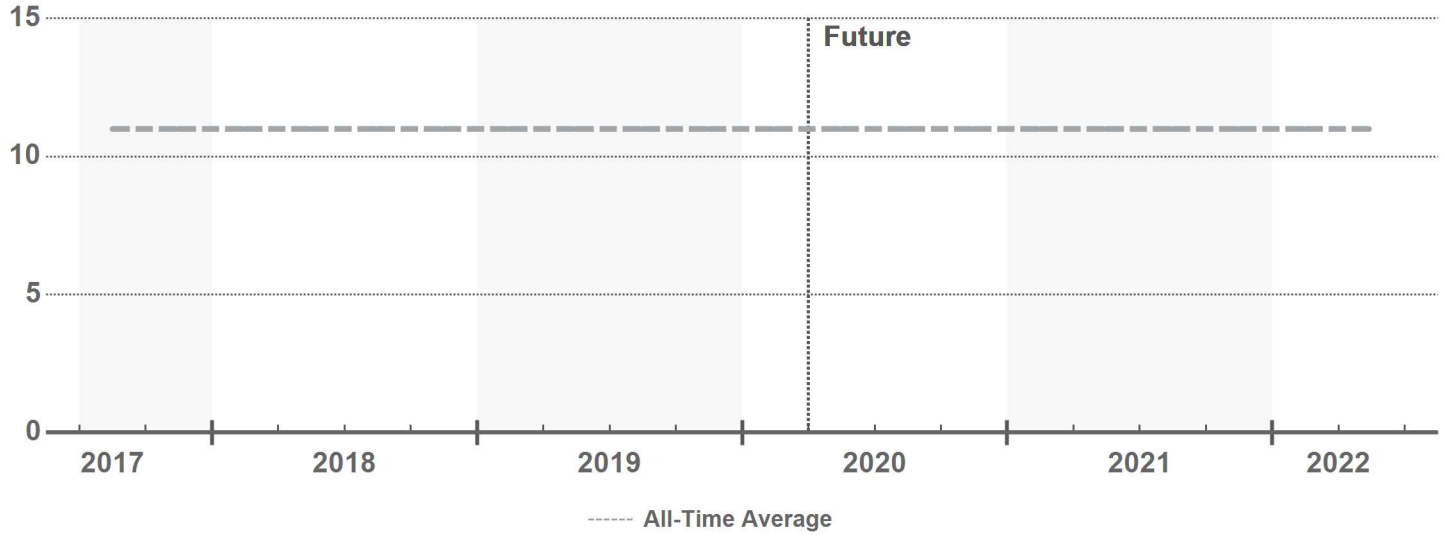
Greenacres Multi-Family

All-Time Annual Avg. Units	Delivered Units Past 8 Qtrs	Delivered Units Next 8 Qtrs	Proposed Units Next 8 Qtrs
44	0	0	0

PAST 8 QUARTERS DELIVERIES, UNDER CONSTRUCTION, & PROPOSED



PAST & FUTURE DELIVERIES IN UNITS

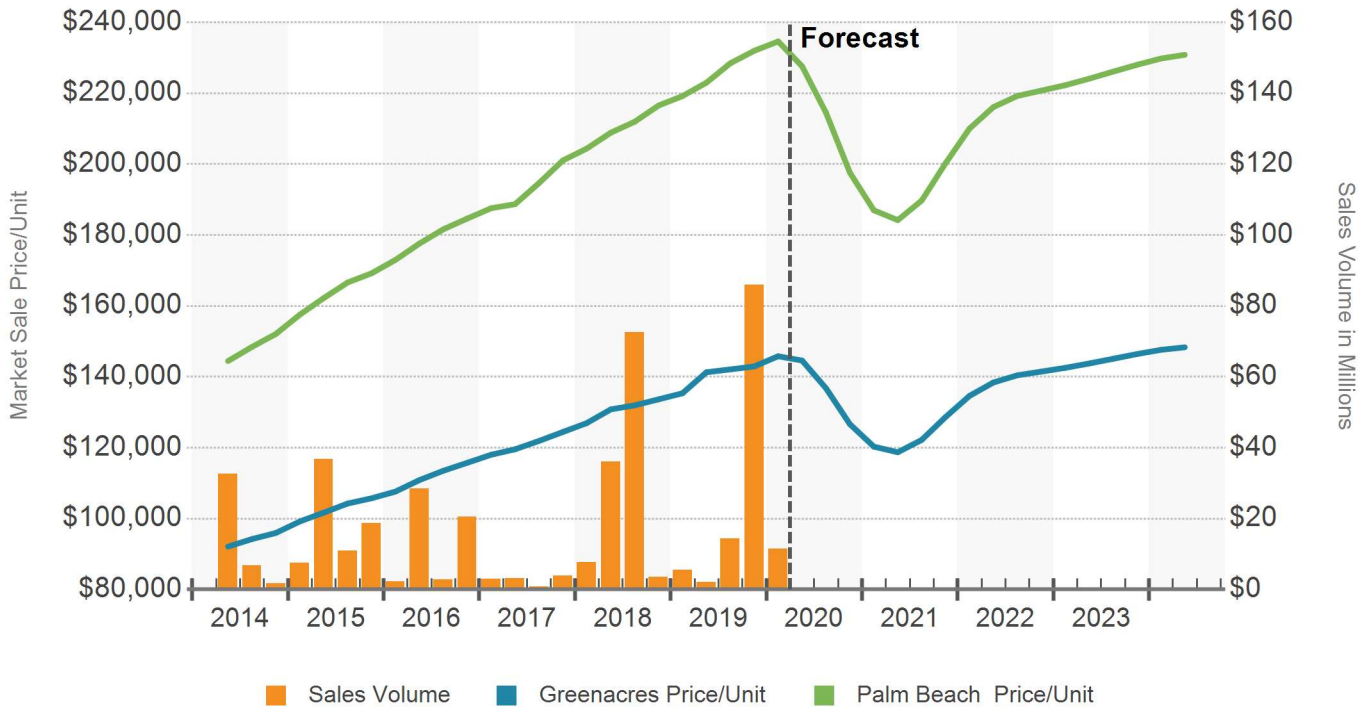


Sales activity over the past few quarters was moderate. Prices have risen by close to 160% since 2010, close to the metro average.

The most significant recent transaction was a portfolio sale involving three properties in the Greenacres Submarket. The sale occurred in October 2019, when ResProp Management sold three apartment communities totaling 683 units to Federal Capital Partners for $86 million, or approximately $125,000/unit. The portfolio included Costa Del Lago Apartments, sold for $31 million; 2508 10th Ave. North, sold for $35 million; and 550 Kirk Road, sold for $20 million. The portfolio was 95% occupied at the time of sale.

On the back of favorable economic conditions stable apartment rental demand, the forecast calls for prices to continue rising over the next year.

SALES VOLUME & MARKET SALE PRICE PER UNIT

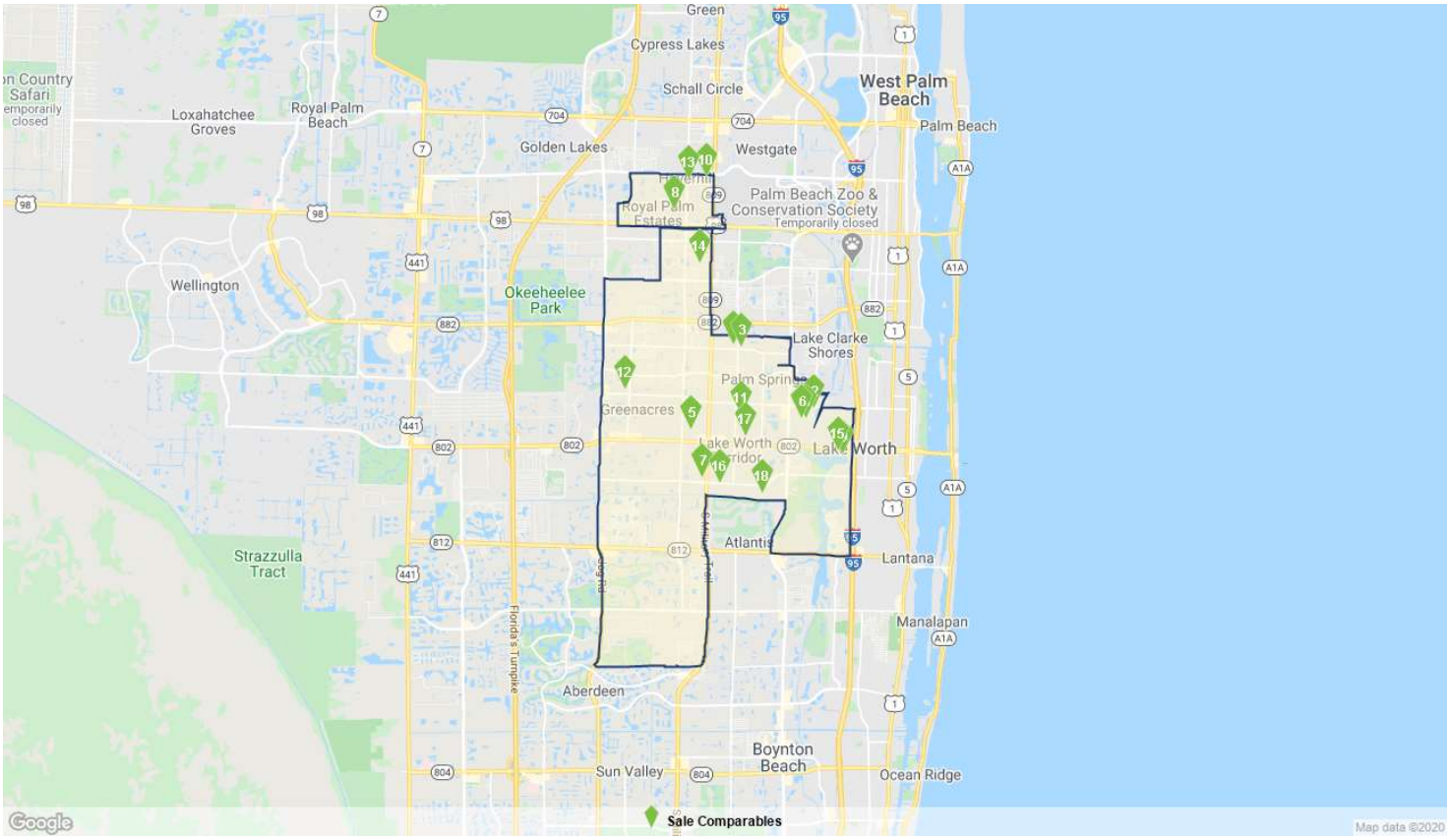


Sales Past 12 Months

Greenacres Multi-Family

Sale Comparables	Avg. Price/Unit (thous.)	Average Price (mil.)	Average Vacancy at Sale
18	$125	$6.6	8.6%

SALE COMPARABLE LOCATIONS



SALE COMPARABLES SUMMARY STATISTICS

Sales Attributes	Low	Average	Median	High
Sale Price	$230,000	$6,643,455	$1,900,000	$35,000,000
Price Per Unit	$29,090	$125,486	$130,794	$148,750
Cap Rate	6.5%	7.7%	7.9%	8.7%
Vacancy Rate at Sale	0%	8.6%	0%	93.3%
Time Since Sale in Months	0.7	6.7	7.1	11.5
Property Attributes	**Low**	**Average**	**Median**	**High**
Property Size in Units	5	50	13	314
Number of Floors	1	1	1	3
Average Unit SF	387	841	840	1,713
Year Built	1945	1971	1974	2006
Star Rating	★★☆☆☆	★★☆☆☆ 2.2	★★☆☆☆	★★★☆☆

Sales Past 12 Months

RECENT SIGNIFICANT SALES

	Property Name/Address	Property Information				Sale Information			
		Rating	Yr Built	Units	Vacancy	Sale Date	Price	Price/Unit	Price/SF
1	Coronado Springs 550 Kirk Rd	★★☆☆☆	1971	314	8.3%	10/29/2019	$35,000,000	$111,464	$146
2	Costa Del Lago Apartments 2508 10th Ave N	★★★☆☆	1972	218	5.1%	10/29/2019	$30,750,000	$141,055	$156
3	Coronado Springs East 2500 Springdale Blvd	★★★☆☆	1985	151	13.3%	10/29/2019	$19,750,000	$130,794	$138
4	The Watershed Residence-R… 3431 Helena Dr	★★☆☆☆	1977	40	5.0%	3/31/2020	$5,588,235	$139,705	$149
5	Mil Race Apartments 3750-3785 Mil Race Ct	★★☆☆☆	1984	30	0%	7/16/2019	$4,462,500	$148,750	$148
6	The Watershed Residence-R… 3440 Rudolph Rd	★★☆☆☆	1979	28	3.6%	3/31/2020	$3,911,765	$139,705	$149
7	Wellman Trails Apartments 4655 Wellman Trl	★★☆☆☆	1980	24	0%	9/16/2019	$3,475,000	$144,791	$179
8	Park On Wallis Apartment Ho… 5201 Wallis Rd	★★☆☆☆	1991	23	4.4%	7/2/2019	$3,131,250	$136,141	$136
9	Loch Haven 410 Lake Osborne Dr	★★☆☆☆	1953	15	93.3%	3/23/2020	$1,900,000	$126,666	$317
10	4631-4645 Grove Street, Pal… 4631-4645 Grove St	★★☆☆☆	1969	8	0%	9/19/2019	$1,100,000	$137,500	$161
11	3874 7th Ave N	★★☆☆☆	1959	6	0%	7/24/2019	$820,000	$136,666	$164
12	6063 10th Ave N	★★☆☆☆	1985	6	0%	7/18/2019	$700,000	$116,666	$96
13	Haverhill Homes 920 Haverhill Rd N	★★☆☆☆	1945	8	0%	6/14/2019	$640,000	$80,000	$169
14	4700 Gardenette St	★★★☆☆	1978	5	0%	7/2/2019	$600,000	$120,000	$131
15	Lake Osbourne Apts 17 S Detroit St	★★☆☆☆	1948	8	0%	5/7/2019	$560,000	$70,000	$124
16	4219 Mee Ct	★★☆☆☆	1958	11	9.1%	12/26/2019	$320,000	$29,090	$75
17	3861 Gulfstream Rd	★★☆☆☆	1945	5	0%	6/28/2019	$230,000	$46,000	$58
18	4885 Serafica Dr	★★★☆☆	2006	5	0%	12/11/2019	-	-	-

OVERALL SUPPLY & DEMAND

	Inventory			Absorption		
Year	Units	Growth	% Growth	Units	% of Inv	Construction Ratio
2024	5,079	5	0.1%	3	0.1%	1.8
2023	5,074	3	0.1%	(10)	-0.2%	-
2022	5,071	0	0%	(14)	-0.3%	0
2021	5,071	0	0%	(13)	-0.3%	0
2020	5,071	(2)	0%	(14)	-0.3%	0.1
YTD	5,073	0	0%	7	0.1%	0
2019	5,073	0	0%	(61)	-1.2%	0
2018	5,073	0	0%	26	0.5%	0
2017	5,073	112	2.3%	95	1.9%	1.2
2016	4,961	0	0%	17	0.3%	0
2015	4,961	216	4.6%	224	4.5%	1.0
2014	4,745	0	0%	32	0.7%	0
2013	4,745	206	4.5%	258	5.4%	0.8
2012	4,539	0	0%	88	1.9%	0
2011	4,539	0	0%	85	1.9%	0
2010	4,539	0	0%	63	1.4%	0
2009	4,539	0	0%	(31)	-0.7%	0
2008	4,539	16	0.4%	46	1.0%	0.3

4 & 5 STAR SUPPLY & DEMAND

	Inventory			Absorption		
Year	Units	Growth	% Growth	Units	% of Inv	Construction Ratio
2024	833	5	0.6%	4	0.5%	1.2
2023	828	4	0.5%	0	-0.1%	-
2022	824	0	0%	(3)	-0.3%	0
2021	824	0	0%	(2)	-0.3%	0
2020	824	0	0%	2	0.2%	0
YTD	824	0	0%	6	0.7%	0
2019	824	0	0%	(14)	-1.7%	0
2018	824	0	0%	2	0.2%	0
2017	824	118	16.7%	110	13.3%	1.1
2016	706	0	0%	15	2.1%	0
2015	706	216	44.1%	205	29.0%	1.1
2014	490	0	0%	24	4.9%	0
2013	490	206	72.5%	164	33.5%	1.3
2012	284	0	0%	3	1.1%	0
2011	284	0	0%	0	0%	-
2010	284	0	0%	20	7.0%	0
2009	284	0	0%	2	0.7%	0
2008	284	0	0%	(1)	-0.4%	0

3 STAR SUPPLY & DEMAND

	Inventory			Absorption		
Year	Units	Growth	% Growth	Units	% of Inv	Construction Ratio
2024	2,025	0	0%	(1)	-0.1%	0
2023	2,025	0	0%	(5)	-0.3%	0
2022	2,025	0	0%	(6)	-0.3%	0
2021	2,025	0	0%	(6)	-0.3%	0
2020	2,025	0	0%	(4)	-0.2%	0
YTD	2,025	0	0%	5	0.2%	0
2019	2,025	0	0%	(28)	-1.4%	0
2018	2,025	0	0%	24	1.2%	0
2017	2,025	(6)	-0.3%	(7)	-0.3%	0.9
2016	2,031	0	0%	4	0.2%	0
2015	2,031	0	0%	19	0.9%	0
2014	2,031	0	0%	7	0.3%	0
2013	2,031	0	0%	56	2.8%	0
2012	2,031	0	0%	46	2.3%	0
2011	2,031	0	0%	12	0.6%	0
2010	2,031	0	0%	16	0.8%	0
2009	2,031	0	0%	9	0.4%	0
2008	2,031	16	0.8%	14	0.7%	1.1

1 & 2 STAR SUPPLY & DEMAND

	Inventory			Absorption		
Year	Units	Growth	% Growth	Units	% of Inv	Construction Ratio
2024	2,221	0	0%	0	0%	0
2023	2,221	(1)	0%	(4)	-0.2%	0.2
2022	2,222	0	0%	(5)	-0.2%	0
2021	2,222	0	0%	(5)	-0.2%	0
2020	2,222	(2)	-0.1%	(13)	-0.6%	0.2
YTD	2,224	0	0%	(4)	-0.2%	0
2019	2,224	0	0%	(19)	-0.9%	0
2018	2,224	0	0%	0	0%	-
2017	2,224	0	0%	(8)	-0.4%	0
2016	2,224	0	0%	(2)	-0.1%	0
2015	2,224	0	0%	0	0%	-
2014	2,224	0	0%	1	0%	0
2013	2,224	0	0%	38	1.7%	0
2012	2,224	0	0%	39	1.8%	0
2011	2,224	0	0%	73	3.3%	0
2010	2,224	0	0%	27	1.2%	0
2009	2,224	0	0%	(42)	-1.9%	0
2008	2,224	0	0%	33	1.5%	0

OVERALL VACANCY & RENT

	Vacancy			Market Rent				Effective Rent	
Year	Units	Percent	Ppts Chg	Per Unit	Per SF	% Growth	Ppts Chg	Per Unit	Per SF
2024	346	6.8%	0	$1,270	$1.48	1.4%	(0.1)	$1,262	$1.47
2023	344	6.8%	0.3	$1,253	$1.46	1.4%	(1.3)	$1,245	$1.45
2022	330	6.5%	0.3	$1,235	$1.44	2.7%	(7.2)	$1,227	$1.43
2021	316	6.2%	0.3	$1,202	$1.40	9.9%	19.3	$1,195	$1.40
2020	303	6.0%	0.3	$1,094	$1.28	-9.4%	(14.4)	$1,087	$1.27
YTD	281	5.5%	(0.2)	$1,217	$1.42	0.8%	(4.2)	$1,210	$1.41
2019	290	5.7%	1.2	$1,208	$1.41	5.0%	2.6	$1,203	$1.41
2018	228	4.5%	(0.5)	$1,150	$1.34	2.4%	(1.0)	$1,138	$1.33
2017	254	5.0%	0.2	$1,124	$1.31	3.4%	(1.4)	$1,110	$1.29
2016	237	4.8%	(0.4)	$1,086	$1.27	4.8%	(3.5)	$1,080	$1.26
2015	255	5.1%	(0.4)	$1,036	$1.21	8.4%	5.1	$1,030	$1.20
2014	263	5.5%	(0.7)	$956	$1.11	3.3%	0.4	$950	$1.10
2013	296	6.2%	(1.4)	$925	$1.08	2.9%	(0.2)	$918	$1.07
2012	347	7.6%	(1.9)	$900	$1.05	3.1%	1.2	$880	$1.02
2011	435	9.6%	(1.8)	$873	$1.01	1.9%	0.7	$866	$1.01
2010	518	11.4%	(1.4)	$857	$0.99	1.2%	4.1	$850	$0.99
2009	580	12.8%	0.7	$847	$0.98	-2.9%	0.4	$839	$0.97
2008	550	12.1%	(0.7)	$872	$1.01	-3.3%	-	$864	$1.00

4 & 5 STAR VACANCY & RENT

	Vacancy			Market Rent				Effective Rent	
Year	Units	Percent	Ppts Chg	Per Unit	Per SF	% Growth	Ppts Chg	Per Unit	Per SF
2024	55	6.6%	0.1	$1,639	$1.63	1.3%	(0.1)	$1,635	$1.63
2023	54	6.5%	0.5	$1,617	$1.61	1.4%	(1.3)	$1,613	$1.61
2022	49	5.9%	0.4	$1,594	$1.59	2.8%	(7.2)	$1,590	$1.59
2021	46	5.5%	0.3	$1,552	$1.55	9.9%	16.4	$1,548	$1.54
2020	43	5.3%	(0.3)	$1,411	$1.41	-6.4%	(15.2)	$1,408	$1.40
YTD	39	4.8%	(0.7)	$1,563	$1.56	3.6%	(5.2)	$1,559	$1.56
2019	45	5.5%	1.7	$1,508	$1.50	8.8%	10.7	$1,501	$1.50
2018	31	3.8%	(0.2)	$1,386	$1.38	-1.8%	(6.0)	$1,379	$1.38
2017	33	4.0%	0.3	$1,412	$1.41	4.1%	2.8	$1,404	$1.40
2016	26	3.7%	(2.3)	$1,356	$1.35	1.3%	(12.0)	$1,350	$1.35
2015	42	6.0%	(0.5)	$1,338	$1.33	13.3%	12.3	$1,328	$1.32
2014	32	6.4%	(4.9)	$1,181	$1.18	1.0%	(1.6)	$1,173	$1.17
2013	55	11.3%	6.7	$1,169	$1.17	2.6%	0	$1,154	$1.15
2012	13	4.6%	(1.1)	$1,140	$1.14	2.6%	(0.5)	$1,123	$1.12
2011	16	5.7%	0.3	$1,111	$1.11	3.1%	(0.2)	$1,104	$1.10
2010	16	5.5%	(6.8)	$1,078	$1.08	3.3%	9.4	$1,070	$1.07
2009	35	12.3%	(0.6)	$1,044	$1.04	-6.1%	(1.1)	$1,035	$1.03
2008	37	12.9%	0.4	$1,112	$1.11	-5.0%	-	$1,103	$1.10

3 STAR VACANCY & RENT

	Vacancy			Market Rent				Effective Rent	
Year	Units	Percent	Ppts Chg	Per Unit	Per SF	% Growth	Ppts Chg	Per Unit	Per SF
2024	125	6.2%	0.1	$1,237	$1.46	1.4%	(0.1)	$1,230	$1.45
2023	124	6.1%	0.3	$1,219	$1.44	1.5%	(1.3)	$1,213	$1.43
2022	118	5.8%	0.3	$1,201	$1.41	2.8%	(7.2)	$1,195	$1.41
2021	112	5.5%	0.3	$1,169	$1.38	9.9%	20.2	$1,163	$1.37
2020	106	5.2%	0.2	$1,064	$1.25	-10.3%	(14.6)	$1,058	$1.25
YTD	97	4.8%	(0.3)	$1,185	$1.40	0%	(4.3)	$1,179	$1.39
2019	103	5.1%	1.4	$1,185	$1.40	4.3%	2.1	$1,181	$1.39
2018	75	3.7%	(1.2)	$1,136	$1.34	2.2%	(2.7)	$1,116	$1.31
2017	100	4.9%	0.1	$1,112	$1.31	4.9%	(1.8)	$1,099	$1.29
2016	98	4.8%	(0.2)	$1,061	$1.25	6.7%	(0.2)	$1,053	$1.24
2015	102	5.0%	(0.9)	$994	$1.17	6.9%	3.3	$988	$1.16
2014	121	6.0%	(0.4)	$930	$1.09	3.6%	0.2	$923	$1.08
2013	128	6.3%	(2.7)	$897	$1.05	3.4%	(1.0)	$892	$1.05
2012	184	9.0%	(2.2)	$868	$1.02	4.4%	2.3	$846	$0.99
2011	229	11.3%	(0.6)	$831	$0.98	2.1%	(1.3)	$824	$0.97
2010	240	11.8%	(0.8)	$814	$0.96	3.4%	4.7	$807	$0.95
2009	256	12.6%	(0.5)	$787	$0.92	-1.3%	0.7	$780	$0.92
2008	266	13.1%	0	$798	$0.94	-2.0%	-	$791	$0.93

1 & 2 STAR VACANCY & RENT

	Vacancy			Market Rent				Effective Rent	
Year	Units	Percent	Ppts Chg	Per Unit	Per SF	% Growth	Ppts Chg	Per Unit	Per SF
2024	166	7.5%	0	$1,097	$1.40	1.3%	(0.1)	$1,084	$1.38
2023	166	7.5%	0.2	$1,083	$1.38	1.4%	(1.3)	$1,070	$1.37
2022	163	7.3%	0.2	$1,069	$1.37	2.6%	(7.2)	$1,056	$1.35
2021	158	7.1%	0.2	$1,041	$1.33	9.8%	20.4	$1,029	$1.31
2020	154	6.9%	0.6	$949	$1.21	-10.6%	(13.6)	$937	$1.20
YTD	145	6.5%	0.2	$1,057	$1.35	-0.4%	(3.4)	$1,044	$1.33
2019	141	6.4%	0.9	$1,061	$1.36	3.0%	(3.4)	$1,058	$1.35
2018	122	5.5%	0	$1,030	$1.32	6.4%	5.7	$1,024	$1.31
2017	121	5.5%	0.4	$969	$1.23	0.7%	(4.5)	$951	$1.21
2016	113	5.1%	0.1	$962	$1.22	5.2%	(1.3)	$957	$1.22
2015	110	5.0%	0	$915	$1.16	6.5%	1.7	$910	$1.16
2014	110	5.0%	(0.1)	$859	$1.09	4.8%	2.5	$854	$1.08
2013	112	5.0%	(1.7)	$820	$1.03	2.3%	0.8	$815	$1.03
2012	150	6.8%	(1.8)	$801	$1.01	1.5%	0.9	$783	$0.99
2011	190	8.5%	(3.3)	$789	$1.00	0.6%	3.9	$783	$0.99
2010	263	11.8%	(1.2)	$785	$0.99	-3.3%	(1.0)	$778	$0.98
2009	290	13.0%	1.9	$811	$1.03	-2.3%	1.2	$804	$1.02
2008	248	11.1%	(1.5)	$830	$1.06	-3.5%	-	$823	$1.05

OVERALL SALES

	Completed Transactions (1)						Market Pricing Trends (2)		
Year	Deals	Volume	Turnover	Avg Price	Avg Price/Unit	Avg Cap Rate	Price/Unit	Price Index	Cap Rate
2024	-	-	-	-	-	-	$148,855	240	5.9%
2023	-	-	-	-	-	-	$146,420	236	5.9%
2022	-	-	-	-	-	-	$141,472	228	5.9%
2021	-	-	-	-	-	-	$128,668	208	6.1%
2020	-	-	-	-	-	-	$126,631	204	6.1%
YTD	3	$11.4M	1.6%	$3,800,000	$137,349	-	$146,706	237	5.7%
2019	20	$107.6M	17.1%	$6,329,975	$123,831	7.7%	$142,930	231	5.8%
2018	22	$119.5M	14.8%	$6,636,146	$159,268	7.3%	$133,651	216	5.9%
2017	9	$10.6M	1.9%	$1,518,571	$111,895	8.4%	$124,437	201	6.0%
2016	11	$53.9M	11.2%	$4,899,490	$96,758	7.8%	$115,744	187	6.2%
2015	17	$73.7M	13.9%	$4,334,499	$107,102	7.4%	$105,742	171	6.4%
2014	10	$41.9M	14.0%	$4,653,122	$62,975	7.7%	$95,957	155	6.7%
2013	8	$17.8M	6.6%	$2,225,925	$57,259	13.5%	$88,049	142	7.0%
2012	9	$34.3M	14.8%	$3,807,328	$50,991	8.8%	$85,074	137	6.9%
2011	10	$28.3M	12.1%	$2,827,594	$51,317	7.7%	$82,662	133	6.9%
2010	3	$3.6M	2.2%	$1,212,250	$36,368	7.8%	$75,551	122	7.1%
2009	2	$1.2M	1.2%	$596,147	$22,080	-	$57,579	93	8.0%

(1) Completed transaction data is based on actual arms-length sales transactions and levels are dependent on the mix of what happened to sell in the period.
(2) Market price trends data is based on the estimated price movement of all properties in the market, informed by actual transactions that have occurred.

4 & 5 STAR SALES

	Completed Transactions (1)						Market Pricing Trends (2)		
Year	Deals	Volume	Turnover	Avg Price	Avg Price/Unit	Avg Cap Rate	Price/Unit	Price Index	Cap Rate
2024	-	-	-	-	-	-	$231,616	248	5.2%
2023	-	-	-	-	-	-	$227,892	244	5.2%
2022	-	-	-	-	-	-	$220,087	236	5.2%
2021	-	-	-	-	-	-	$199,470	214	5.4%
2020	-	-	-	-	-	-	$196,164	210	5.4%
YTD	-	-	-	-	-	-	$225,778	242	5.0%
2019	-	-	-	-	-	-	$221,076	237	5.0%
2018	1	$44.4M	25.0%	$44,400,000	$215,534	4.9%	$203,306	218	5.1%
2017	-	-	-	-	-	-	$185,997	199	5.3%
2016	-	-	-	-	-	-	$171,989	184	5.5%
2015	1	$35M	29.2%	$35,000,000	$169,903	5.6%	$156,225	168	5.7%
2014	-	-	-	-	-	-	$144,974	155	5.8%
2013	-	-	-	-	-	-	$131,620	141	6.1%
2012	-	-	-	-	-	-	$129,424	139	6.1%
2011	-	-	-	-	-	-	$123,011	132	6.1%
2010	-	-	-	-	-	-	$114,379	123	6.3%
2009	-	-	-	-	-	-	$87,459	94	7.0%

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3 STAR SALES

	Completed Transactions (1)						Market Pricing Trends (2)		
Year	Deals	Volume	Turnover	Avg Price	Avg Price/Unit	Avg Cap Rate	Price/Unit	Price Index	Cap Rate
2024	-	-	-	-	-	-	$122,349	231	5.5%
2023	-	-	-	-	-	-	$120,286	227	5.5%
2022	-	-	-	-	-	-	$116,151	220	5.5%
2021	-	-	-	-	-	-	$105,471	199	5.7%
2020	-	-	-	-	-	-	$103,745	196	5.7%
YTD	-	-	-	-	-	-	$121,026	229	5.3%
2019	4	$51.1M	18.5%	$17,033,333	$136,631	7.9%	$118,357	224	5.4%
2018	6	$61.4M	20.1%	$10,226,583	$150,391	6.1%	$108,641	205	5.5%
2017	2	$4.3M	1.8%	$2,170,000	$120,556	6.8%	$102,594	194	5.6%
2016	3	$40.3M	20.9%	$13,447,333	$94,922	5.5%	$97,158	184	5.7%
2015	5	$22.2M	13.0%	$4,439,295	$84,078	7.6%	$90,201	170	5.8%
2014	3	$14M	9.1%	$4,670,000	$76,141	9.0%	$81,449	154	6.1%
2013	1	$13.2M	10.7%	$13,250,000	$60,780	-	$76,091	144	6.3%
2012	2	$1M	1.1%	$510,000	$44,348	10.4%	$71,568	135	6.4%
2011	2	$17.1M	18.6%	$8,550,000	$45,238	9.5%	$68,470	129	6.4%
2010	1	$635K	0.8%	$635,000	$39,688	9.0%	$62,938	119	6.6%
2009	-	-	-	-	-	-	$48,829	92	7.3%

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1 & 2 STAR SALES

	Completed Transactions (1)						Market Pricing Trends (2)		
Year	Deals	Volume	Turnover	Avg Price	Avg Price/Unit	Avg Cap Rate	Price/Unit	Price Index	Cap Rate
2024	-	-	-	-	-	-	$142,327	243	6.5%
2023	-	-	-	-	-	-	$140,030	239	6.5%
2022	-	-	-	-	-	-	$135,401	231	6.5%
2021	-	-	-	-	-	-	$123,556	211	6.7%
2020	-	-	-	-	-	-	$121,707	207	6.7%
YTD	3	$11.4M	3.7%	$3,800,000	$137,349	-	$140,792	240	6.3%
2019	16	$56.5M	22.3%	$4,036,398	$114,161	7.6%	$136,351	232	6.5%
2018	15	$13.7M	6.1%	$1,244,649	$100,670	8.6%	$130,615	223	6.5%
2017	7	$6.3M	2.7%	$1,258,000	$106,610	9.1%	$121,517	207	6.7%
2016	8	$13.6M	5.9%	$1,694,049	$102,670	8.7%	$111,827	191	6.9%
2015	11	$16.5M	9.8%	$1,499,091	$75,642	7.6%	$101,190	172	7.2%
2014	7	$27.9M	21.6%	$4,644,683	$57,938	7.0%	$91,007	155	7.5%
2013	7	$4.6M	4.2%	$651,058	$49,004	13.5%	$82,793	141	7.9%
2012	7	$33.2M	29.2%	$4,749,421	$51,226	8.4%	$80,941	138	7.8%
2011	8	$11.2M	7.8%	$1,396,992	$64,601	6.6%	$80,635	137	7.7%
2010	2	$3M	3.8%	$1,500,875	$35,735	6.6%	$72,648	124	8.0%
2009	2	$1.2M	2.4%	$596,147	$22,080	-	$54,476	93	9.0%

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DELIVERIES & UNDER CONSTRUCTION

	Inventory			Deliveries		Net Deliveries		Under Construction	
Year	Bldgs	Units	Vacancy	Bldgs	Units	Bldgs	Units	Bldgs	Units
2024	-	5,081	6.8%	-	5	-	5	-	-
2023	-	5,076	6.8%	-	4	-	4	-	-
2022	-	5,072	6.5%	-	0	-	0	-	-
2021	-	5,072	6.2%	-	0	-	0	-	-
2020	-	5,072	6.0%	-	0	-	(1)	-	-
YTD	143	5,073	5.5%	0	0	0	0	0	0
2019	143	5,073	5.7%	0	0	0	0	0	0
2018	143	5,073	4.5%	0	0	0	0	0	0
2017	143	5,073	5.0%	1	118	0	112	0	0
2016	143	4,961	4.8%	0	0	0	0	1	118
2015	143	4,961	5.1%	1	216	1	216	1	118
2014	142	4,745	5.5%	0	0	0	0	1	216
2013	142	4,745	6.2%	1	206	1	206	1	216
2012	141	4,539	7.6%	0	0	0	0	1	206
2011	141	4,539	9.6%	0	0	0	0	0	0
2010	141	4,539	11.4%	0	0	0	0	0	0
2009	141	4,539	12.8%	0	0	0	0	0	0
2008	141	4,539	12.1%	1	16	1	16	0	0

Consulting
Engineering LLC

Drainage Report

3322 Boutwell Rd.
Lake Worth, FL 33461

April 9, 2021

Project Number 20-002

Prepared By:

Alexander Rojas, P.E.
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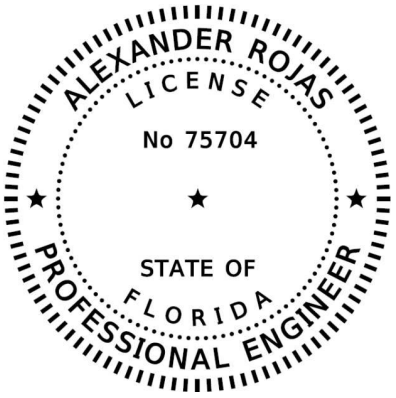

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INTRODUCTION

This report details the drainage design concept proposed for the construction of a new residential building on a 0.3616-acre lot located at 3322 Boutwell Rd. in the City of Lake Worth, Florida. The Parcel Control Number (PCN) for the subject lot is 38-43-44-20-01-033-0060.

SITE DATA

The proposed covered porch is located on the west side of the existing dwelling. Project 3322 Boutwell is a proposed Multifamily use building located from a point 15 feet south of the north line and 25 feet east of the west line of tract 33, model land company's subdivision of section 20, township 44 south, range 43 east, run south on a line parallel to the east line of said tract, 240 feet to the point of beginning; thence continue south 150 feet to a point; thence run east on a line parallel to the north line of said tract, 150 feet to a point; thence run north on a line parallel to the west line of tract, 150 feet to a point; thence run west parallel to the north line of tract, 150 feet to the point of beginning; said lands lying, being and situated in Palm Beach, Florida.

PERMITING REQUIREMENTS

The site is situated in South Florida Water Management District's (SFWMD) C-51 Drainage Basin and within Northern Palm Beach County Improvement District's (NPBCID) service area. A new Environmental Resource Permit through SFWMD and a Drainage Permit through NPBCID will be required.

DRAINAGE FACILITIES

The proposed drainage system will be designed in accordance with Palm Beach County's ULDC as well as SFWMD requirements. The system will consist of a (1) catch basins and (2) underground exfiltration trench pipes which will collect and stored the storm water. Water quality treatment will be provided for the On-site retention of the runoff from the 3-year, 1-hour rainfall event or 2.6 inches over the percent of impervious area.

Respectfully,

T.Y.G. Consulting Engineering, LLC

Alexander Rojas, P.E
Sr. Engineer / Project Manager

PERVIOUS HARDSCAPE MAINTENANCE & OPERATIONS GUIDE

CASA BELLA

3322 BOUTWELL ROAD

LAKE WORTH BEACH FL 33461

NRMCA Pervious Concrete Pavement Maintenance and Operations Guide

Pervious concrete pavement is a Portland cement-based, rigid permeable pavement that serves not only as the surface layer of a stormwater management system, but also as a vital part of a water filtration system. Beneath the pervious concrete is the second layer of the stormwater system, the base rock, which is an open-graded, stone layer that is used for temporary stormwater detention. When rain falls, the pervious concrete allows on-site infiltration of stormwater. It also filters sediments and pollution from stormwater deposited on the pavement surface.

Because this permeable surface is a filter, like any filter it must be cleaned periodically. Cleaning is performed by vacuuming to remove sediments that have accumulated. The frequency of the vacuuming is directly related to the amount of sediment that the surface receives over time.

The following chart can serve as a *minimal recommendation* for scheduled maintenance:

ACTIVITY	SCHEDULE
Avoid sealing or repaving with impervious materials. In particular, never use asphalt or other tar-type sealers on pervious concrete.	N/A
Visually inspect pervious pavement area to ensure that it: • is clean of debris • de-waters between storms • is clean of sediments	Monthly
• Maintain upland and adjacent grassy areas. • Seed upland and adjacent bare areas. • Keep the pervious pavement surface free of sediment by blowing, sweeping or vacuuming. • Excessive water flow carrying debris toward the pavement should be diverted.	As needed
Inspect the pervious pavement surface for deterioration or spalling.	Annually

Pervious Concrete Maintenance: Plan and Practice

Maintenance of the pervious concrete pavement is the responsibility of the property owner/manager. The Maintenance Plan should be developed to assure proper maintenance procedures are followed. After the first year of operation, the plan should be reviewed and, if necessary, revised to reflect the actual results of that first period of service. When ownership of the property is transferred, the maintenance plan must be transferred as well.

In general, maintenance of pervious concrete pavement consists of monitoring the surface for sediment buildup, and removing that buildup as needed, to maintain the pavement's permeability. Owners/property managers should follow good housekeeping practices to prevent accumulation of trash, sediment or other debris on the pervious surface. Drainage of all unpaved areas should be directed away from the pervious concrete pavement. If areas are allowed to drain onto the pavement, suspended materials may wash into the void structure of the pervious pavement and reduce the porosity and compromise its service life. Adjacent areas that do drain to the pavement should be kept seeded and maintained to minimize sediment deposition which may increase the frequency of cleaning of the pervious surface. Landscape contractors should be advised of the special precautions required to avoid debris buildup on the pavement surface. Additionally, it is recommended that informational signage be posted to identify the pervious pavement as being part of a stormwater management system and that particular care should be taken to maintain its peak performance.

The first step in creating a maintenance plan is to develop a baseline infiltration rate for your pervious concrete system. ASTM C1701: Standard Test Method for Infiltration Rate of In-Place Pervious Concrete, is the procedure used to determine the infiltration rate of pervious concrete. Performing an initial ASTM C1701 test for a baseline is best done the day that the plastic curing is removed. The pavement has not been in service yet, so this initial baseline measurement will document the optimal performance of the pavement, as constructed, for stormwater management. ASTM C1701 requires three test procedures to be performed for every 25,000 square feet and an average taken of the three tests. This will be the baseline for comparison of all future tests. The original testing locations should be marked or noted in the maintenance log so that future tests can be run at the same locations. A change in the infiltration rate with service will determine the appropriate frequency of maintenance.

There are three levels of pervious concrete pavement maintenance:

1. **Routine Maintenance:** Should include visual inspection of the pervious pavement to ensure that it is clean of debris and sediments, and that it will dewater between storms. Routine maintenance cleaning procedures would include blowing (with leaf blower or similar equipment), truck-sweeping and/or dry vacuuming. Routine maintenance may help prevent more stubborn clogging by keeping sediment from becoming ground deep into the pavement's void structure. This routine maintenance should be performed as needed (at least monthly) to keep the entire pervious concrete area clean. Visually inspect the pavement periodically during or immediately following a rain event. Ponding or puddles are signs that it is time to clean the pavement. In some areas, moss growth can be an issue. Moss can be controlled by sprinkling baking soda on the surface, followed by a dry vacuuming within a few weeks. Additionally, moss growth can be retarded/eliminated with lime water applications. Since this pavement is designed to infiltrate water, any surface treatment must be evaluated for environmental impacts to ground water.
2. **Periodic Maintenance:** In areas that see freezing temperatures, it is a good practice to perform periodic maintenance just before winter to insure that the pervious concrete voids are clean and free of non-compressible materials that may inhibit draining and, therefore, could contribute to freeze-thaw damage. Additionally, periodic maintenance may be required following winter to remove any anti-skid materials that may have been used. Proper cleaning procedures would include pressure washing and/or vacuuming the area with either a dry vacuum or a regenerative vacuum sweeper. Care should be taken to avoid extremely high pressures with a pressure washer, as this can degrade the bonding cement paste and increase raveling. Cleaning equipment should allow for the debris to be bagged and removed from the unit so it can be weighed.

A maintenance log should be completed that records the following:

- Date of service
- Name of individual/company performing service
- Type of maintenance performed
- Amount (lbs.) and type(s) of sediment/debris/other material removed as result of cleaning
- General observations and record of pavement condition
- Name/signature of individual completing the inspection
- Additionally, if ASTM C1701 is performed, the test results and locations should be included in the report. (A sample Maintenance Log is included on page 7 of this guide).

Additionally, if ASTM C1701 was performed, the test results and locations should be included in the report. (A sample Maintenance Log is included on page 7 of this guide).

Routine and periodic maintenance is essential with the goal of avoiding renovation/rehabilitation.

3. **Deep Cleaning/Unclogging:** Over time, deep cleaning/unclogging of pervious concrete pavement may become necessary, particularly if routine and periodic maintenance is not performed. If a pervious concrete pavement system is not periodically cleaned, the void structure system will become clogged with debris over time. Typically, an average infiltration rate decrease of 25% from the initial value, or an infiltration rate less than 100 inches per hour, triggers the need for deep cleaning/unclogging. Neglected projects that had never been cleaned and are completely clogged should be restored to a drainage rate of 100-200 inches per hour, per ASTM C1701, by using specialized cleaning equipment.

ASTM C1701: Standard Test Method for Infiltration Rate of In-Place Pervious Concrete

Cleaning pervious concrete can maintain and/or restore its original permeability

Deep cleaning/unclogging is best accomplished by simultaneous pressure washing and vacuuming. Several equipment manufacturers have developed pressure washing/vacuum systems that have proven to rehabilitate the pore structure of pervious pavement. For best results, follow the equipment manufacturer's recommendations. As with the periodic maintenance procedures, when cleaning/unclogging is performed, a maintenance log should be completed and filed with the owner/property manager.

Use of Chemicals to clean pervious concrete should be done with extreme caution to prevent damage to the aquifer, the biological organisms within the pervious system, or the pervious concrete pavement itself.

Pervious Concrete Maintenance Log

Site Name and Location: _____

Initial ASTM C1701 Test Results: _____ **Inches / Hour**

Date of Inspection	Observations/ Pavement Condition	ASTM C1701 Performed?	ASTM C1701 Results	Type of Maintenance Performed	Type and Amount of Debris/Sediment Removed	Maintenance Performed By:	Name/Signature of Inspector
		Yes ☐ No ☐	Before Maintenance ☐ IN/HR After Maintenance ☐ IN/HR				
		Yes ☐ No ☐	Before Maintenance ☐ IN/HR After Maintenance ☐ IN/HR				
		Yes ☐ No ☐	Before Maintenance ☐ IN/HR After Maintenance ☐ IN/HR				
		Yes ☐ No ☐	Before Maintenance ☐ IN/HR After Maintenance ☐ IN/HR				

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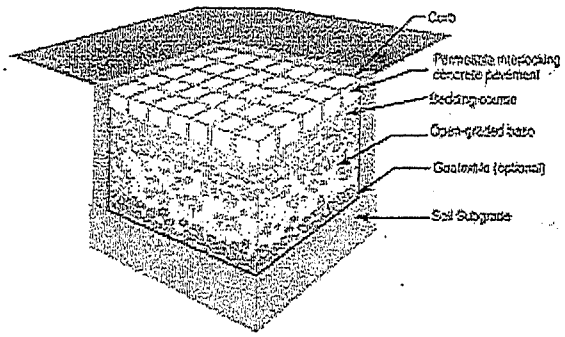
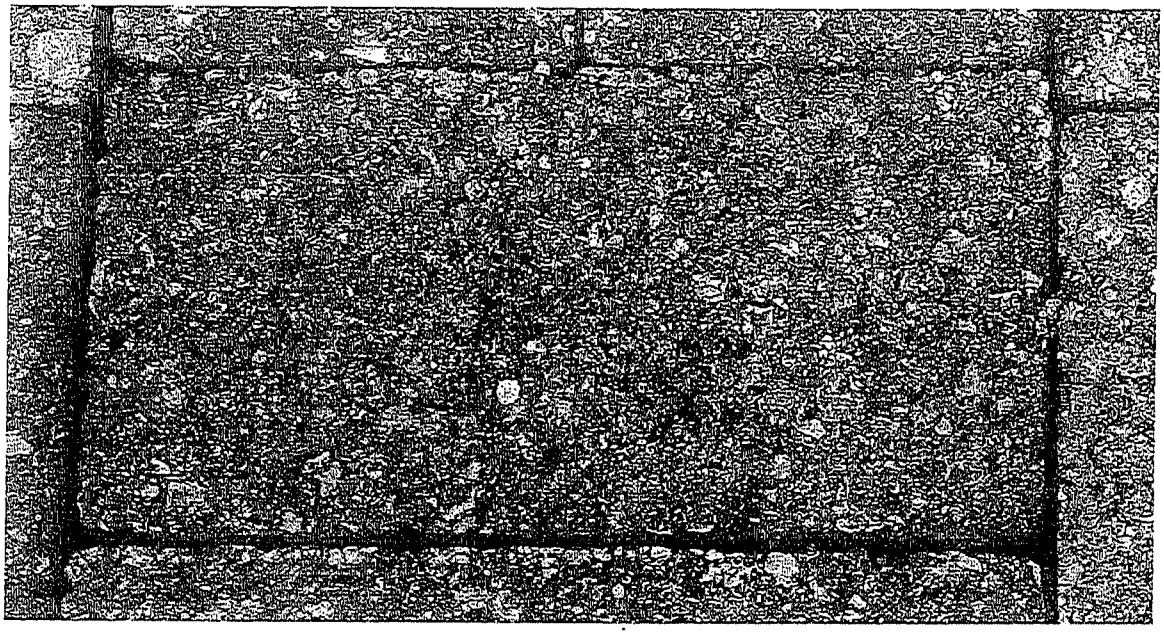


Pervious Pavers



The porous appearance of these units allows rainfall to directly enter and pass though because concrete has no fines. Like other pavers, the units are fitted together over bedding, pea gravel is recommended. Sanding the joints is not recommended as this could clog the pavers. Porous units do not meet the requirements of ASTM C 936; however, these units have strength of 4,000+ psi with a permeability of over 40 inches per hour.

The best use is for pedestrian areas, bicycle paths, and residential applications. We offer pervious pavers in our 4x8, Old Towne, 6x9, and 6x6 profiles and in all of our standard blends.

Some of the benefits;

- Reduction of runoff by as much as 100% from frequent, low-intensity and short duration storms.
- Increased recharge of ground water.
- Eliminates flooding and puddling in parking lots
- Reduction or elimination of retention ponds
- Conservation of space on site and reduction of impervious cover

More info is available at ICPI website; http://www.icpi.org/design/permeable_pavers.cfm

Tremron Group, Arcadia (863) 491-0990 www.tremrongroup.com

QORE
PROPERTY SCIENCES

Plant:	Tremron – Arcadia, Florida	**Job No:**	27772
Client:	Tremron	**Report No:**	347424
		Report Date:	7/24/07
Unit ID:	Echo Stone Pervious Pavers, 7/9/07	**Received Date:**	7/12/07

TESTING OF SOLID CONCRETE PAVING UNITS

Compressive Strength – test date 7/23/07 at 14 days of age

Unit No.	4A	4B	4C	Average
Received weight, lbs	9.17	9.29	9.53	9.33
Width, inches	6.26	6.32	6.32	6.30
Height, inches	2.40	2.37	2.40	2.39
Length, inches	9.42	9.42	9.43	9.42
Saw-cut length, inches	4.71	4.77	4.70	4.73
Net Area, in^2	29.48	30.15	29.70	29.78
Load, lbs	139,380	132,760	137,850	136,660
Compressive Strength, psi	4,730	4,400	4,640	4,590

Compression tests were performed in accordance with ASTM C140.

Unit No.	Permeability
4D	44.4 inches/hour (3.1×10^{-2} cm/s)

Respectfully submitted,

QORE, Inc.

Russell Scribner
Materials Laboratory Manager

Report Distribution:
Tremron / Mr. Mike Somers

11420 Johns Creek Parkway Duluth, Georgia 30097 (770) 476-3555 fax (770) 476-0213

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RESIDENTIAL

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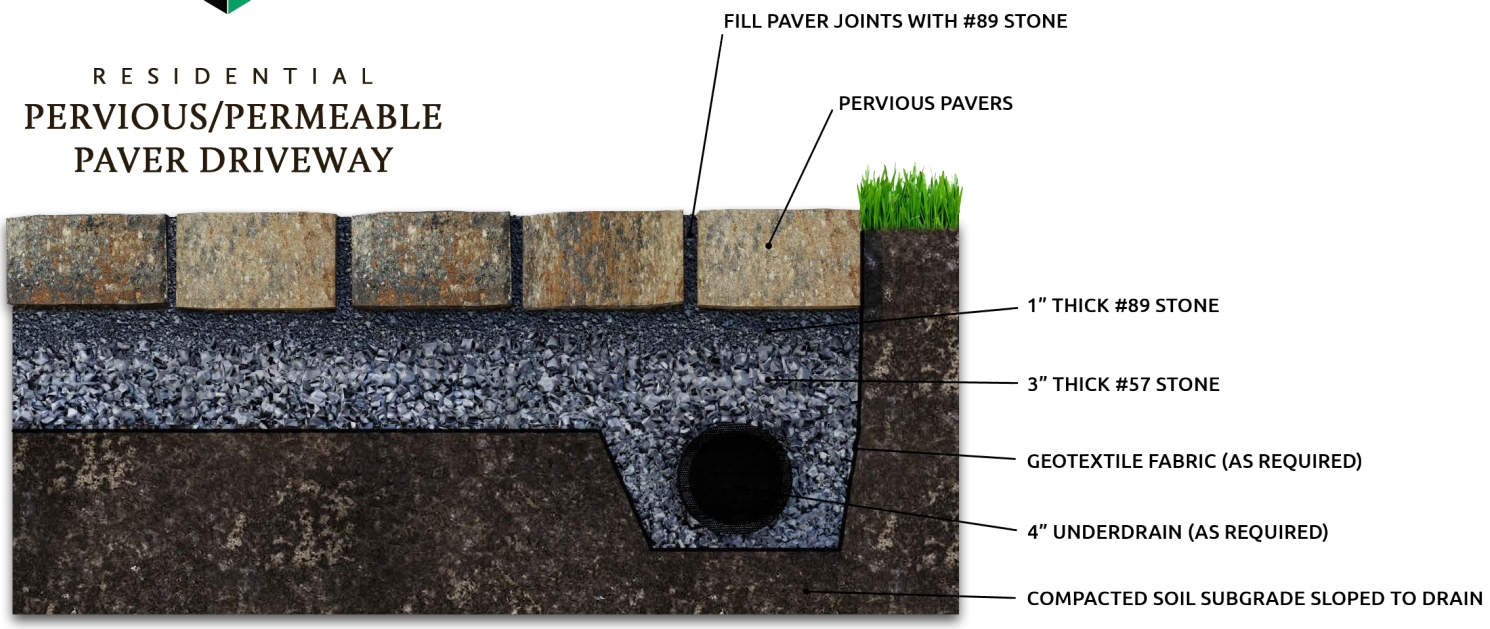

2014

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Arcadia, FL 34266
863.491.0990
Fax 863.491.8990

1030 Airport Road
Lakeland, FL 33811
863.603.0995
Fax 863.616.9485

TYG CONSULTING ENGINEERING, LLC
C.A. #32294
3921 NEW VALENCIA
GREENACRES, FL 33467
Tel:(561) 891-5124

DATE:	9/22/2020	
PROJECT:	**3322 Boutwell Rd**	# 20-002
DESCRIPTION:	Onsite Drainage Calculations	

Pos-Development

Average Water Table Elevation	+ 4.77' NAVD	+ 3.25' NGVD
Average Finished Site Grade (Pervious Areas)	+ 13.30' NAVD	+ 14.82' NGVD

STORAGE REQUIRED:

3 Year 24 Hours storm event (SCS Type III) (6 inch rainfall event with 1.5 safety factor)
Rainfall Amount (P): **9.00 in.**

Total Storage : (9 in* 1 ft/12in) x (22502sf) = **16876.60 cf**

PROPOSED LAND-USE SUMMARY

Impervious Area (sf)		**Pervious Area (sf)**	
Building	7417.91	Green Area	4859.390
Paved Area	7108.43		
Roads, Driveway	3116.40		
Impervious Area	**17,643 sf.**	**Pervious Area**	**4,859 sf.**
		(AREA#2) Total Area = Impervious + Pervious =	**22,502 sf.**

CALCULATING STORAGE REQUIRED

Depth to Water Table	Compacted Water Storage (Inches)
1 ft.	0.45
2 ft.	1.88
3 ft.	4.95
4 ft.	8.18

Ref. SFWMD Soil Storage Table

Accumulated Direct Runoff (Q) = (P-0.2S)^2/(P+0.8S)

P= 9.00 in.
S= (Total Pervious Area/Total Site Area)*(Compacted Water Storage)

Total Pervious Area	4859.39 sf
Total Site Area (**A**)	22502.13 sf

Average Water Table Elevation: 4.77 FT NAVD
Average finished site grade from pervious areas : + 13.30' NAVD

Depth to Water table = 13.30- 4.77	**8.53 ft**
Compacted Water Storage:	**8.18 in.**

(Interpolation using a Depth to Water Table)

S[in] = (4859.39/ 22502) * 8.18 = **1.77**

Accumulated Direct Runoff (Q) = (9- 0.2 *1.77^2) /(9+ 0.8 * 1.77)= **7.180 in.**

(The pervious area is taking 1.77 inches from the precipitation; it is equivalent to 3,513 cf)

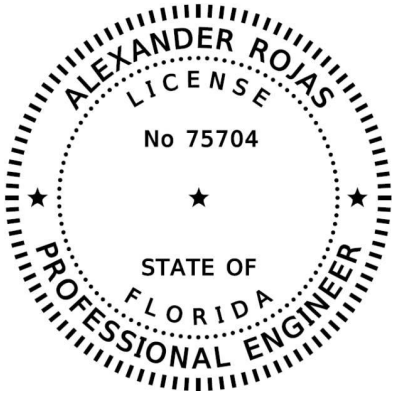
Volume of Runoff (V)

The Volume of Runoff (V) generated during a 10 year 24 hours storm must be contained within the property boundaries.

V=A*Q/12

Volume of Runoff (V) = 22502.13 SF * [7.180 IN. / (12 FT/IN)] = **13,464 cf.**

Soil Storage : 16876.60cf - 13,464cf **3,413 cf.**



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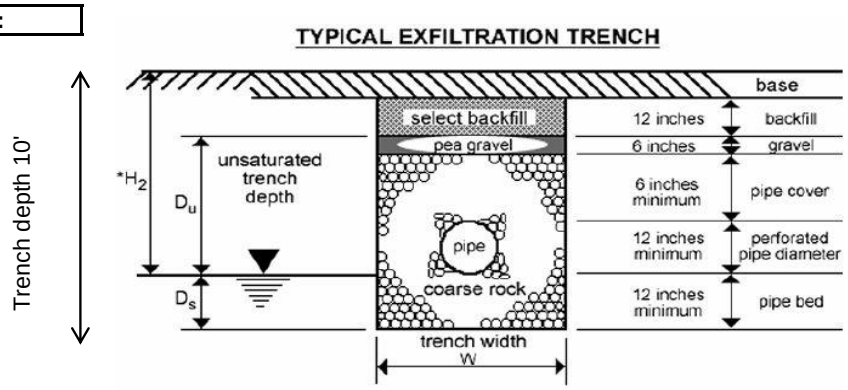
Storm Event	3 Year
Rainfall Intensity:	6.00 INCHES / HOUR
Water Table Elevation:	4.77' NAVD
Average Finished Site grade:	13.30' NAVD

** minimum lf of french drain (fd) is 25ft
Safety Factor =1.5

Exfiltration Trench Calculations :

Average Finished Site grade. 13.30' NGVD

Depth to Water Table. 4.77' NGVD



Required minimum L.F. of French Drain:

$$L = \frac{V}{K*(H2*W+2*H2*Du-Du2+2H2*Ds)+(1.39*10^{-4})*W*Du}$$

V:	Volume of water to contain:	13,464 cf.	3.709 ac-in
Rainfall=	Inches of Rain	6	in. / hr.
	(SFWMD 10 -yr/24-hr 7-inch rainfall (1.25 safety factor)		
K=	Avg. Hydraulic Conductivity	7.29E-04	cfs/ft^2-ft.head
H_2=	Depth to Water Table	8.53	ft
W=	Trench width	3.5	ft
D_u=	Non-saturated trench depth	7.53	ft
D_s=	Saturated trench depth	1.47	ft

Length of trench Required

Exf: when Ds.>Du — CFS/LF = $K*(H_2*W+2*H_2*Du-Du^2+2H_2*Ds)+(1.39*10^{-4})*W*Du$:
CF 0.07426

Exf: when Ds.≤ Du — CFS/LF = $K*(H_2*W+2*H_2*Du-Du^2+2H_2*Ds)+(1.39*10^{-4})*W*Du$:
CF 0.09602

Will use an Ext of **0.0960**

Summary of Drainage Calculations:

Required Retention Volune in (ac-in)	EXF. RATE (CFS/LF)	LENGTH OF FD REQUIRED V/Exf.	LENGTH OF FD PROVIDED SF=1.5
3.709	0.0960	39	58

Jaffer Well Drilling, a Division
of A.C. Schultes of Florida, Inc.
1451 SE 9th Court
Hialeah, Fl 33010
Dade: 305/576-7363
Broward: 954/523-6669

9/17/2020

To: TYG Consulting Group
Ms. Galia Rodriguez PM
3921 New Valencia
Greenacres Fl 33467
Office: 561 827 4073
Mobile 305 301 6137

RE: Project Las Vegas Beach Corporation Anticipated specific drainage well capacity for property located at 6970 Collins Av. Miami Beach FL.

Ms. Rodriguez

A survey of existing drainage wells nearby the subject property was conducted by Jaffer Well Drilling. Two nearby projects located directly south, and north were found.

Publix Supermarket 6876 Collins Ave
&
6901 Collins Ave L'Atelier Condo

Several stormwater drainage wells were drilled at these sites that exhibited capacities that exhibited Specific Capacities of 470GPM/FT of available head (see attached well logs for confirmation).

We feel that a good conservative estimate for well capacity at 6970 Collins Ave would be 400GPM/FT of available head.

Thank you if you have any questions please call me at 305 5767363.

Sincerely

Najib B "Duke" Halwani
President

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

WELL COMPLETION REPORT

Publix Supermarkets Inc

OWNER: Chamberlain Jeffrey
Last Name First Name Initial

3300 Publix Corporate Parkway
Number Street

Lakeland FL
City State

863 688 7407 33810
Area Code Phone Number Zip Code

TYPE OF WORK: [x] New Construction [ ] Repair [ ] Deepening [ ] Plugging [ ] Other:

PERMIT NUMBER: 030755-001-UC
9/20/4

WELL NUMBER: W-12

TYPE OF WELL: [ ] Water Well [ ] Test Well [N] Recharge [x] Drainage [ ] Waste Disposal [ ] Observation [ ] Other

USE: [ ] Domestic [ ] Irrigation [ ] Industrial [ ] Livestock [ ] Public Supply [x] Other: area storm drainage

WELL LOCATION: ¼ ¼ ¼ of Section
(N-S) (E-W)
Township Range
Latitude 28 deg 51 min 14 sec N
Longitude 82 deg 01 min 14 sec W
Locate in Section

SKETCH LOCATION OF WELL in relation to local landmarks, giving distance and direction from nearest town, road, or other reference point.

North

As per plan

Publix Store # 1382
Number Street/Road

6876 Collins Ave
Lot No. Subdivision

Miami Beach Dade
City County

OWNER WELL NUMBER OR NAME: W-12

DRILL METHOD: [x] Rotary [ ] Cable Tool [ ] Jet [ ] Auger [x] Other: casing drivers

GEOPHYSICAL LOGS: Type: By:

SURFACE CASING, CASING, AND LINER MATERIAL:

Steel Dia. (In.) Black	Galv.	S. Steel	Steel Wt. (lb /ft.)	Dia. (In.) PVC	Other†	From (Ft.)	To (Ft.)	Schedule No.	Joints*
24			95			0	71	steel	e

† Describe Material:
* TC = Threaded and Coupled, TCW = Threaded, Coupled, and Welded, W = Welded, B = Bonded (PVC), O = Other:

GROUT: [x] None [ ] Neat Cement [ ] Other:

Type and Percent of Additives and Grout Volume or Number of 94 lb. Sacks	From (Ft.)	To (Ft.)

FINISH: [x] Open Hole [ ] Perforated or Slotted Casing [ ] Gravel Pack [ ] Sandpoint or Screen Attached to Well Casing [ ] Sandpoint or Screen Telescoped with Packer Inside Casing (Packer Material:)

Sandpoint/Screen Material	Dia. (In.)	Slot Size (in.)	From (Ft.)	To (Ft.)

[ ] Other Finish:

WELL LOG

Bore Hole (In.)	Casing Size (In.)	Depth (Ft.) From	To	Examine cuttings at 20 ft. or smaller intervals and at changes. Give color, grain-size and type of material. Note any cavities. Indicate producing zones. Attach additional sheets if necessary.
		0	2	Fill
		2	25	sand
		25	50	limestone & sand
		50	65	sandstone & sand
		65	98	limestone & sandstone

QUALITY TEST: [ ] None [ ] Bacteria Date [x] Chemical 12/12/ Date
By: [ ] Health Dept. [ ] USGS [ ] Other Pace
[x] Clear [ ] Colored [ ] Sulphur [x] Salty [ ] Iron [ ] Other
Conductance (Micromhos) 38400 Chloride
TDS ppm ppm
Hardness ppm as calcium carbonate pH Temp °F
Well Disinfected: [x] No [ ] Yes (Date)

WELL TEST, by: [ ] Natural Flow G.P.M. [ ] Airlift [ ] Bailer [ ] Permanent Pump [x] Test Pump [ ] None
Discharge Measured By: [ ] Bailer [ ] Estimated [ ] Current Meter [ ] Orifice [ ] Trajectory [ ] Venturi [x] Volumetric [ ] Other

Measured Static Water Level + [x] - 15 Ft.
Measured Pumping Water Level + [x] - 16 Ft.
After 24 Hours At 1470 G.P.M.
Specific Capacity 1470 G.P.M./Ft. of Drawdown
Measuring Pt. (Describe): Temp top casing
Which is 10 Ft. [x] Above [ ] Below Land Surface
Elevation of Measuring Pt. = 16 Ft. [x] Above [ ] Below MSL

Total Depth 98 Ft. Producing Zone Material: [ ] Sand [ ] Shell [ ] Broken Shell [x] Limestone [x] Other: & sandstone
Top of Producing Zone 30 Ft. Bottom of Producing Zone 98 Ft.
[ ] Drill Cuttings Sent to Bureau of Geology

WELL EQUIPMENT: [ ] Open [x] Capped [ ] Valved [ ] Permanent Pump [ ] Temporary Pump
Type Pump: [ ] Centrifugal [ ] Cylinder [ ] Jet [ ] Submersible [ ] Turbine [ ] Other:
Power: [ ] Diesel [ ] Electric [ ] Gasoline [ ] Other:
Horsepower Capacity G.P.M.
Intake/Injection Depth Ft.

9737
License No:
Contractor Signature Position
10 27 11
Completion Date
Driller Signature

DER Form PERM 13-10 (Oct 77)

STATE OF FLORIDA WELL COMPLETION REPORT

Southwest
Northwest
St. Johns River
South Florida
Suwannee River
✓ DEP
Delegated Authority (If Applicable) _____

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

Date Stamp

Official Use Only

1.*Permit Number 0345835-002-UC *CUP/WUP Number _____ *DID Number _____ 62-524 Delineation No. _____

2.*Number of permitted wells constructed, repaired, or abandoned 1 *Number of permitted wells not constructed, repaired, or abandoned 0

3.*Owner's Name SMGW Golden Sands, LLC 4.*Completion Date 09/26/16 5. Florida Unique ID _____

6. 3100 NW 72nd Avenue, Suite 113 W-3
*Well Location - Address, Road Name or Number, City, ZIP

7.*County Miami-Dade *Section _____ Land Grant _____ *Township _____ *Range _____

8. Latitude 25° 51' 15.66 " N Longitude 80° 07' 11.48" W

9. Data Obtained From: ☐ GPS ☐ Map ☐ Survey Permits Datum: ____ NAD 27 ____ NAD 83 ____ WGS 84

10.*Type of Work: ☑ Construction ☐ Repair ☐ Modification ☐ Abandonment

11.*Specify Intended Use(s) of Well(s)

- ☐ Domestic
- ☐ Bottled Water Supply
- ☐ Public Water Supply (Limited Use/DOH)
- ☐ Public Water Supply (Community or Non-Community/DEP)
- ☐ Class I Injection
- ☐ Landscape Irrigation
- ☐ Recreation Area Irrigation
- ☐ Agricultural Irrigation
- ☐ Livestock
- ☐ Nursery Irrigation
- ☐ Commercial/Industrial
- ☐ Golf Course Irrigation
- ☐ Site Investigations
- ☐ Monitoring
- ☐ Test
- ☐ Earth-Coupled Geothermal
- ☐ HVAC Supply
- ☐ HVAC Return

Class V Injection: ☐ Recharge ☐ Commercial/Industrial Disposal ☐ Aquifer Storage and Recovery ☑ Drainage

Remediation: ☐ Recovery ☐ Air Sparge ☐ Other (Describe) _____

☐ Other (Describe) _____

12. *Drill Method: ☐ Auger ☐ Cable Tool ☐ Rotary ☑ Combination (Two or More Methods) ☐ Jetted ☐ Sonic ☐ Horizontal Drilling ☐ Hydraulic Point (Direct Push) ☑ Other Driven

13.*Measured Static Water Level 5 ft. Measured Pumping Water Level 6 ft. After .2 Hours at 475 GPM

14.*Measuring Point (Describe) Top casing at grade +3' Which is 0 ft. X Above ____ Below Land Surface *Flowing: ☐ Yes ☑ No

15.*Casing Material: ☑ Black Steel ☐ Galvanized ☐ PVC ☐ Stainless Steel ☐ Not Cased ☐ Other _____

16.*Total Well Depth 96 ft. Cased Depth 76 ft. *Open Hole: From 76 To 96 ft. *Screen: From ____ To ____ ft. Slot Size NA

17.*Abandonment: ☐ Other (Explain) _____

From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite Other _____

18.*Surface Casing Diameter and Depth:

Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____

19.*Primary Casing Diameter and Depth:

Dia 24 in. From 0 ft. To 76 ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other Driven
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____

20.*Liner Casing Diameter and Depth:

Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____

21.*Telescope Casing Diameter and Depth:

Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ☐ Neat Cement ☐ Bentonite ☐ Other ____

22. Pump Type (If Known):
☐ Centrifugal ☐ Jet ☐ Submersible ☐ Turbine
Horsepower ____ Pump Capacity (GPM) ____
Pump Depth ____ ft. Intake Depth ____ ft.

23. Chemical Analysis (When Required): TDS
Iron ____ ppm Sulfate ____ ppm ~~Chloride~~ 36,700 ppm
☑ Laboratory Test ☐ Field Test Kit

24. Water Well Contractor:

*Contractor Name Najib B.Halwani *License Number 11138 E-mail Address duke@jafferwells.com

*Contractor's Signature _____ *Driller's Name (Print or Type) Alan Morin
(I certify that the information provided in this report is accurate and true.)

*Permit No. 0345835-003-UC (DW-3)

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE: (352) 796-7211 or (800) 423-1476
WWW.SWFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1429
PHONE: (386) 329-4500
WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
WWW.NWFWMD.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

***DRILL CUTTINGS LOG** (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, M=Medium, and C=Coarse)

From (ft.)	To (ft.)	Color	Grain Size (F, M, C)	Material
0	25			sand and shell
25	35			sand and sandstone
35	65			sandstone and limestone and sand
65	75			hard limestone, sandstone and coquina
75	96			limestone and sandstone

Comments:

***Detailed Site Map of Well Location**

N

TL Engineering Design, Inc.
C.A. #: 29235

01/22/2021

City of Lake Worth Beach
Community Sustainability Department
1900 2nd Avenue North
Lake Worth Beach, FL 33460

RE: 3322 Boutwell Road – Planned Development Application – Water Service Letter

The following calculation is being provided to serve as confirmation that the existing 2" water service available at the subject property is found to be adequate for the proposed planned development. Should there be any questions or need for clarification do not hesitate to contact Antoniazzi Architecture Inc.

WATER SUPPLY FIXTURE UNIT CALCULATION TABLE

FIXTURE	OCCUPANCY	TYPE OF SUPPLYCONTROL	LOAD VALUES, IN WATER SUPPLY FIXTURE UNITS (wsfu)			QTY.	Extension
			Cold	Hot	Total		
Bathroom group	Private	Flush tank	2.7	1.5	3.6		0.00
Bathroom group	Private	Flushometer valve	6	3	8		0.00
Bathtub	Private	Faucet	1	1	1.4		0.00
Bathtub	Public	Faucet	3	3	4		0.00
Bidet	Private	Faucet	1.5	1.5	2		0.00
Combination fixture	Private	Faucet	2.25	2.25	3		0.00
Dishwashing machine	Private	Automatic	—	1.4	1.4	18.00	25.20
Drinking fountain	Offices, etc.	3/8" valve	0.25	—	0.25		0.00
Kitchen sink	Private	Faucet	1	1	1.4	18.00	25.20
Kitchen sink	Hotel, restaurant	Faucet	3	3	4		0.00
Laundry trays (1 to 3)	Private	Faucet	1	1	1.4		0.00
Lavatory	Private	Faucet	0.5	0.5	0.7	18.00	12.60
Lavatory	Public	Faucet	1.5	1.5	2	1.00	2.00
Service sink	Offices, etc.	Faucet	2.25	2.25	3	1.00	3.00
Shower head	Public	Mixing valve	3	3	4		0.00
Shower head	Private	Mixing valve	1	1	1.4	18.00	25.20
Urinal	Public	1" flushometer valve	10	—	10		0.00
Urinal	Public	3/4" flushometer valve	5	—	5		0.00
Urinal	Public	Flush tank	3	—	3		0.00
Washing machine (8 lb)	Private	Automatic	1	1	1.4	18.00	25.20
Washing machine (8 lb)	Public	Automatic	2.25	2.25	3		0.00
Washing machine (15 lb)	Public	Automatic	3	3	4		0.00
Water closet	Private	Flushometer valve	6	—	6		0.00
Water closet	Private	Flush tank	2.2	—	2.2	18.00	39.60
Water closet	Public	Flushometer valve	10	—	10		0.00
Water closet	Public	Flush tank	5	—	5	1.00	5.00
Water closet	Public or private	Flushometer tank	2	—	2		0.00
Extra Service Load (GPM)							
TOTAL FIXTURE LOAD							163.00
FBC PLB TABLE E103.3(3) FOR ESTIMATING DEMAND (GPM)							**58**
Fluid Velocity to Type L Cooper at 70 F Water						**6.01 ft/s**	**2"**

Antonio Rodriguez
PE #70746
Cel 786-344-6712
Email: TLengineering@yahoo.com

TL Engineering Design Inc
5890 SW 76 Ave
Davie. Fl 33328

TRAFFIC IMPACT GROUP, LLC

Mr. Quazi Bari, P.E.
Palm Beach County Traffic Division
2300 North Jog Road, 3rd Floor
West Palm Beach FL 33411

27 May 2020

RE: **Traffic Impact Study**
Multifamily Development
3322 Boutwell Road

Dear Mr. Bari,

Traffic Impact Group, LLC has been retained to investigate the traffic generating characteristics for the proposed development at 3322 Boutwell Road in Lake Worth. The 0.5-acre parcel contains a single-family house. This project proposes develop an 18-unit multifamily development. The site has access to Boutwell Road. Build out would occur in 2021.

The Property Control Number is 02-32-11-002-08-20.

This analysis uses Palm Beach County Trip Generation Rates for the land use 220 "Apartment", and is summarized in the table below:

Table 1 - ITE Trip Generation

Average Weekday Driveway Volumes				AM Peak Hour		PM Peak Hour	
Land Use	ITE Code	Size		Enter	Exit	Enter	Exit
Apartment	220	18	Dwelling Units	3	10	7	4

The estimated number of new trips is 13 in the AM peak hour and 11 trips in the PM peak hour. This is fewer than 20 trips in the peak hour, so a full traffic impact study is not required.

5/27/2020