

Marquesa Residential Traffic Impact Study (Revised)

City of Margate, Florida



Prepared for
ALLIANCE COMPANIES

Prepared by
THOMAS A. HALL, INC.

February 21, 2019

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Introduction

Alliance Companies proposes to modify the existing development known as Coconut Creek Center in the City of Margate, Florida. The existing shopping center houses a mix of retail, office and school land uses. It is proposed that the Marquesa, a 220-unit, multi-family apartment complex will replace the existing retail and office uses on the eastern half of the property. The proposed project is expected to be built out in 2019. This report is an update to an earlier report that was completed on May 18, 2018. Since that time, the project site plan has undergone significant modifications and comments were received from City staff that are addressed in this revised report.

Based on City of Margate study requirements, a study area for the traffic impact analysis was determined to be the major roadways within one mile of the project site.

Access to the proposed Marquesa apartments is to be by means of a full-access driveway connection to Banks Road on the east side of the development and a right-in/right-out driveway on the south side of the project site that connects to Coconut Creek Parkway. The western half of the project site will continue to rely upon two existing driveway connections to Coconut Creek Parkway. The eastern driveway connection is a right-in-only driveway while the western driveway connection permits full access. There is a third driveway that makes a western connection to the adjacent property. That east-west driveway has access to another north-south driveway connecting to Coconut Creek Parkway immediately west of the western property line for Coconut Creek Center.

The purpose of this study is to analyze the impacts of trips generated by the proposed change in development on the adjacent roadway network.

Figure 1 – Site Location, shows the location of the proposed development.



Figure 1 – Site Location
Marquesas Residential
Margate, Florida

Data Collection

Peak-hour traffic data was obtained from the Broward County Metropolitan Planning Organization (MPO) for the roadways within the study area. Copies of the traffic counts may be found in **Appendix A – Traffic Counts**.

Figure 2 – Study Area Roadway Links shows the roadway segments that are approximately one mile from the project site.

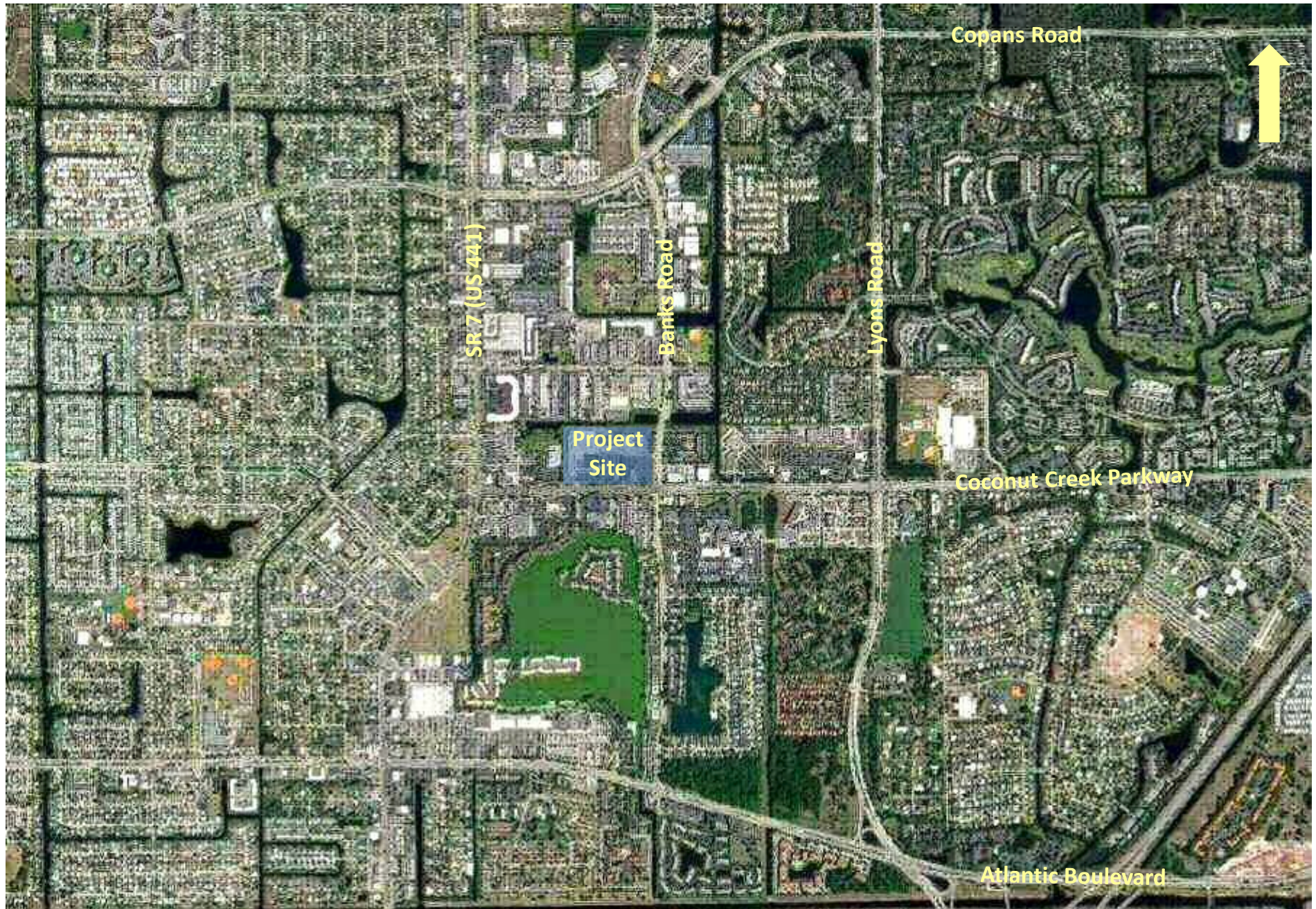


Figure 2 – Study Area Roadway Links
Marquesas Residential
Margate, Florida

Project Traffic

Existing Trip Generation

Table 1 – Trip Generation per Approved Plat Note is provided for informational purposes only. The Plat Note for the project site (Central Park of Commerce Plat, Parcel A) calls for a maximum of 179,500 square feet of Shopping Center land use. As Table 1 shows, this results in a maximum of 5,906 daily trips.

Table 2 – Existing Coconut Creek Center Daily Trip Generation shows the current daily trip generation for the project site. Comparing these trips to those shown in Table 1 reveals that the current development program generates substantially more trips (6,539) than those anticipated by the plat note.

Table 3 – Existing Coconut Creek Center AM Peak Hour Trip Generation, and **Table 4 – Existing Coconut Creek Center PM Peak Hour Trip Generation,** summarize the existing morning and afternoon peak-hour trip generation. As Tables 3 and 4 show, the current peak-hour trip generation is 1,197 morning peak-hour trips and 471 afternoon peak-hour trips.

Project Trip Generation

Table 5 – Proposed Coconut Creek Center Daily Trip Generation shows the daily trip generation expected as a result of the proposed modifications to the current site development. With the proposed change in land use, the daily trip generation is expected to decrease from the current 6,539 daily trips to 6,051 daily trips.

Table 6 – Proposed Coconut Creek Center AM Peak Hour Trip Generation, and **Table 7 – Proposed Coconut Creek Center PM Peak Hour Trip Generation,** show the expected future trip generation for the project site on a morning peak hour and afternoon peak hour basis. As the tables show, the morning peak-hour trip generation is expected to be 1,186 trips and the afternoon peak-hour trip generation is expected to be 420 trips.

A comparison of existing and proposed trip generation tables reveals that the project trips will actually decrease on a daily, a.m. and p.m. peak hour basis. The future morning peak-hour trips are provided for informational purposes only. The actual peak hour of the day, that is, the highest volume hour of the day on the adjacent roadway network is the PM peak hour. The Broward County MPO's roadway capacity analyses are based on the PM peak hour, as is the City of Margate's Comprehensive Plan Transportation Element roadway capacity requirements. The capacity analysis in this report is similarly focused on that hour of the day.

Table 1
Trip Generation per Approved Plat Note
Marquesas Residential

Land Use	ITE Code	Intensity	Trip Generation Rate ⁽¹⁾	Total Trips			Internal Trips			%	Adjusted Trips			Pass-by Trips		New Trips		
				In	Out	Total	In	Out	Total		In	Out	Total	In	Out	In	Out	Total
Shopping Center (Daily)	820	179,500 s.f.	$\text{Ln}(T)=0.68\text{Ln}(X)+5.57$ (50/50)	4,475	4,474	8,949	0	0	0	0.00%	4,475	4,474	8,949	3,043	34.00%	2,953	2,953	5,906

⁽¹⁾ Source: Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 2
Existing Coconut Creek Center Daily Trip Generation
Marquesas Residential

Land Use	ITE Code	Intensity	Trip Generation Rate ⁽¹⁾	Total Trips			Internal Trips			%	Adjusted Trips			Pass-by Trips		New Trips		
				In	Out	Total	In	Out	Total		In	Out	Total	In	Out	In	Out	Total
Private School (K-8)	534	910 students	$T=4.11(X)$ (50/50)	1,870	1,870	3,740	0	0	0	0.00%	1,870	1,870	3,740	0	0.00%	1,870	1,870	3,740
Private School (K-12)	536	350 students	$T=2.48(X)$ (50/50)	434	434	868	0	0	0	0.00%	434	434	868	0	0.00%	434	434	868
General Office	710	20,157 s.f.	$\text{Ln}(T)=0.97\text{Ln}(X)+2.50$ (50/50)	112	112	224	0	0	0	0.00%	112	112	224	0	0.00%	112	112	224
Medical Office	720	1,589 s.f.	$T=34.80(X)$ (50/50)	28	27	55	0	0	0	0.00%	28	27	55	0	0.00%	28	27	55
Shopping Center	820	51,770 s.f.	$\text{Ln}(T)=0.68\text{Ln}(X)+5.57$ (50/50)	1,921	1,921	3,842	192	192	384	10.00%	1,729	1,729	3,458	1,806	47.00%	826	826	1,652
Total				4,365	4,364	8,729	192	192	384		4,173	4,172	8,345	1,806	47.00%	3,270	3,269	6,539

⁽¹⁾ Source: Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 3
Existing Coconut Creek Center AM Peak Hour Trip Generation
Marquesas Residential

Land Use	ITE Code	Intensity	Trip Generation Rate ⁽¹⁾	Total Trips			Internal Trips			%	Adjusted Trips			Pass-by Trips		New Trips		
				In	Out	Total	In	Out	Total		In	Out	Total	In	Out	In	Out	Total
Private School (K-8)	534	910 students	$T=0.85(X)+22.27$ (55/45)	438	358	796	0	0	0	0.00%	438	358	796	0	0.00%	438	358	796
Private School (K-12)	536	350 students	$T=0.80(X)-3.57$ (61/39)	169	107	276	0	0	0	0.00%	169	107	276	0	0.00%	169	107	276
General Office	710	20,157 s.f.	$T=0.94(X)+26.49$ (86/14)	39	6	45	0	0	0	0.00%	39	6	45	0	0.00%	39	6	45
Medical Office	720	1,589 s.f.	$T=2.78(X)$ (78/22)	3	1	4	0	0	0	0.00%	3	1	4	0	0.00%	3	1	4
Shopping Center	820	51,770 s.f.	$T=0.50(X)+151.78$ (62/38)	110	68	178	11	7	18	10.00%	100	60	160	84	47.00%	47	29	76
Total				759	540	1,299	11	7	18		749	532	1,281	84	47.00%	696	501	1,197

⁽¹⁾ Source: Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 4
Existing Coconut Creek Center PM Peak Hour Trip Generation
Marquesas Residential

Land Use	ITE Code	Intensity	Trip Generation Rate ⁽¹⁾	Total Trips			Internal Trips			%	Adjusted Trips			Pass-by Trips		New Trips		
				In	Out	Total	In	Out	Total		In	Out	Total	In	Out	In	Out	Total
Private School (K-8)	534	910 students	$T=0.26(X)$ (46/54)	109	128	237	0	0	0	0.00%	109	128	237	0	0.00%	109	128	237
Private School (K-12)	536	350 students	$T=0.17(X)$ (43/57)	26	34	60	0	0	0	0.00%	26	34	60	0	0.00%	26	34	60
General Office	710	20,157 s.f.	$\text{Ln}(T)=0.95\text{Ln}(X)+0.36$ (16/84)	4	21	25	0	0	0	0.00%	4	21	25	0	0.00%	4	21	25
Medical Office	720	1,589 s.f.	$T=3.46(X)$ (28/72)	2	3	5	0	0	0	0.00%	2	3	5	0	0.00%	2	3	5
Shopping Center	820	51,770 s.f.	$\text{Ln}(T)=0.74\text{Ln}(X)+2.89$ (48/52)	160	174	334	16	17	33	10.00%	144	157	301	157	47.00%	69	75	144
Total				301	360	661	16	17	33		285	343	628	157	47.00%	210	261	471

⁽¹⁾ Source: Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 5
Proposed Coconut Creek Center Daily Trip Generation
Marquesas Residential

Land Use	ITE Code	Intensity	Trip Generation Rate ⁽¹⁾	Total Trips			Internal Trips				Adjusted Trips			Pass-by Trips		New Trips			
				In	Out	Total	In	Out	Total	%	In	Out	Total	In	Out	In	Out	Total	
Multi-Family Housing (Mid Rise)	221	220	d.u.	T=5.45(X)-1.75 (50/50)	599	598	1,197	6	6	12	1.00%	593	592	1,185	0	0.00%	593	592	1,185
Private School (K-8)	534	910	students	T=4.11(X) (50/50)	1,870	1,870	3,740	0	0	0	0.00%	1,870	1,870	3,740	0	0.00%	1,870	1,870	3,740
Private School (K-12)	536	350	students	T=2.48(X) (50/50)	434	434	868	0	0	0	0.00%	434	434	868	0	0.00%	434	434	868
Church	560	8,100	s.f.	T=6.95(X) (50/50)	28	28	56	0	0	0	0.00%	28	28	56	0	0.00%	28	28	56
General Office	710	20,157	s.f.	Ln(T)=0.97Ln(X)+2.50 (50/50)	112	112	224	11	11	22	10.00%	101	101	202	0	0.00%	101	101	202
Total					3,043	3,042	6,085	17	17	34		3,026	3,025	6,051	0	0.00%	3,026	3,025	6,051

⁽¹⁾ Source: Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 6
Proposed Coconut Creek Center AM Peak Hour Trip Generation
Marquesas Residential

Land Use	ITE Code	Intensity	Trip Generation Rate ⁽¹⁾	Total Trips			Internal Trips			%	Adjusted Trips			Pass-by Trips		New Trips			
				In	Out	Total	In	Out	Total		In	Out	Total	In	Out	In	Out	Total	
Multi-Family Housing (Mid Rise)	220	220	d.u.	$\ln(T)=0.98\ln(X)-0.98$ (26/74)	19	55	74	1	2	3	4.00%	18	53	71	0	0.00%	18	53	71
Private School (K-8)	534	910	students	$T=0.85(X)+22.27$ (55/45)	438	358	796	0	0	0	0.00%	438	358	796	0	0.00%	438	358	796
Private School (K-12)	536	350	students	$T=0.80(X)-3.57$ (61/39)	169	107	276	0	0	0	0.00%	169	107	276	0	0.00%	169	107	276
Church	560	8,100	s.f.	$T=0.33(X)$ (60/40)	2	1	3	0	0	0	0.00%	2	1	3	0	0.00%	2	1	3
General Office	710	20,157	s.f.	$T=0.94(X)+26.49$ (86/14)	39	6	45	4	1	5	10.00%	35	5	40	0	0.00%	35	5	40
Total					667	527	1,194	5	3	8		662	524	1,186	0	0.00%	662	524	1,186

⁽¹⁾ Source: Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Table 7
Proposed Coconut Creek Center PM Peak Hour Trip Generation
Marquesas Residential

Land Use	ITE Code	Intensity	Trip Generation Rate ⁽¹⁾	Total Trips			In	Internal Trips			%	Adjusted Trips			Pass-by Trips		New Trips		
				In	Out	Total		Out	Total	In		Out	Total	In	Out	Total	In	Out	Total
Multi-Family Housing (Mid Rise)	220	220	d.u.	Ln(T)=0.96Ln(X)-0.63 (61/39)	61	39	100	4	3	7	7.00%	57	36	93	0	0.00%	57	36	93
Private School (K-8)	534	910	students	T=0.26(X) (46/54)	109	128	237	0	0	0	0.00%	109	128	237	0	0.00%	109	128	237
Private School (K-12)	536	350	students	T=0.17(X) (43/57)	26	34	60	0	0	0	0.00%	26	34	60	0	0.00%	26	34	60
Church	560	8,100	s.f.	T=0.37(X)+3.90 (45/55)	3	4	7	0	0	0	0.00%	3	4	7	0	0.00%	3	4	7
General Office	710	20,157	s.f.	Ln(T)=0.95Ln(X)+0.36 (16/84)	4	21	25	0	2	2	10.00%	4	19	23	0	0.00%	4	19	23
Total					203	226	429	4	5	9		199	221	420	0	0.00%	199	221	420

⁽¹⁾ Source: Institute of Transportation Engineers' *Trip Generation* manual, 10th Edition.

Traffic Distribution and Assignment

Cardinal distribution information was determined by a review of existing traffic volumes and knowledge of the local roadway network. **Figure 3 – Project Trip Distribution** shows the traffic distribution on study area roadways.

Figure 4 – Project Trip Assignment shows the PM peak-hour project trips assigned to the study area roadway network in accordance with the project traffic distribution. Because the proposed project results in a decrease in project-related trips, the project trips on each study link are negative numbers. Note that both a.m. and p.m. peak-hour volumes are shown, but, in both cases, the traffic volumes are negative numbers because the proposed project is expected to result in a reduction in existing traffic volumes during both peak hours of the day.

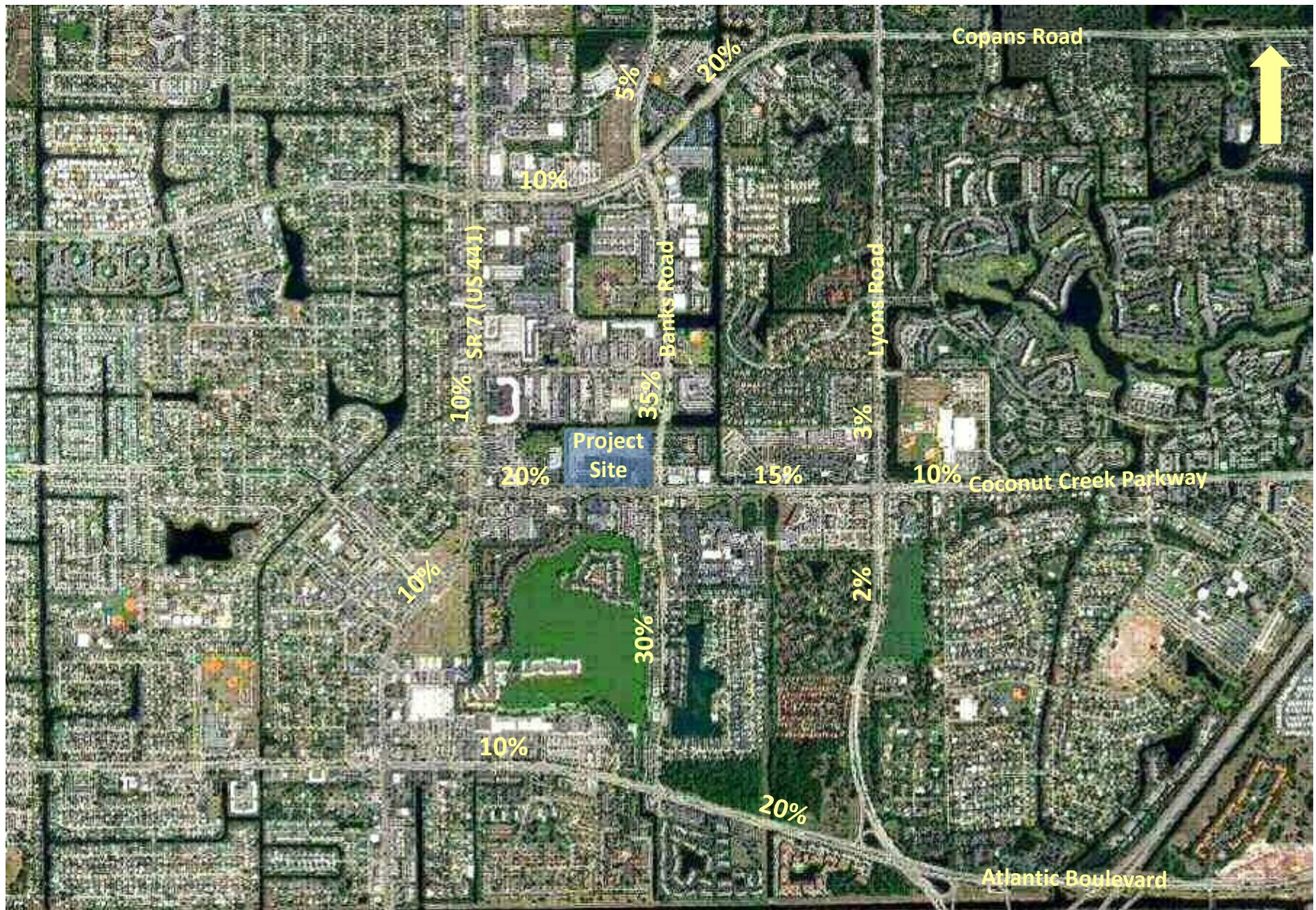


Figure 3 – Project Trip Distribution
 Marquesas Residential
 Margate, Florida

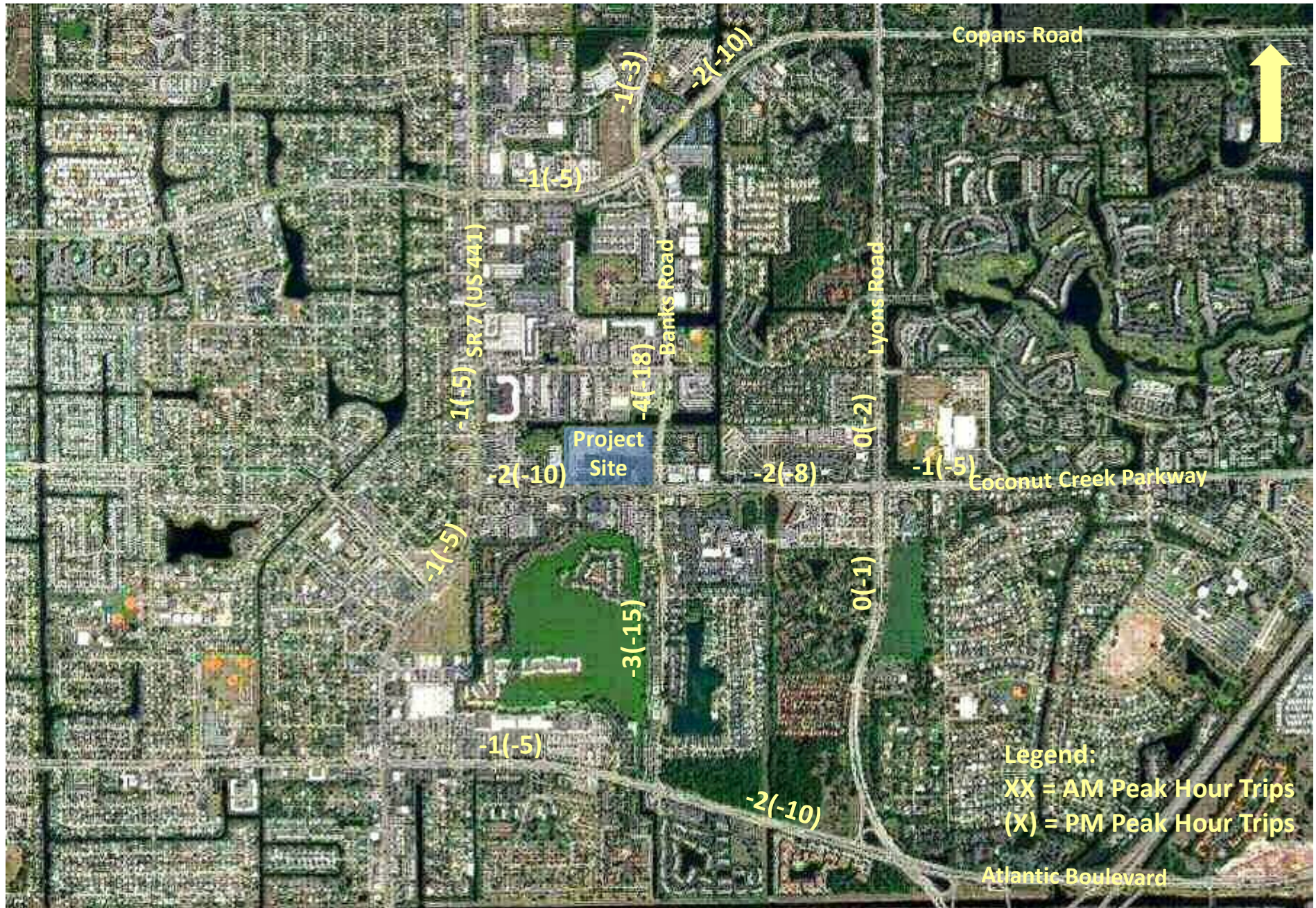


Figure 4 – Project Trip Assignment
 Marquesas Residential
 Margate, Florida

Capacity Analysis

Existing traffic volume data for the study area roadway network were obtained from the Broward County MPO's *Capacity Report 2017-2040*. **Table 8 – Roadway Link Capacity Analysis** shows the existing 2017 traffic volumes on the studied roadway links as well as the expected traffic volumes in the build-out year of 2019. The 2019 traffic volumes were extrapolated from the 2017 and 2040 traffic volumes provided in the MPO's report. In addition to the traffic volumes, the roadway link capacity and the existing and future roadway levels of service are also provided. As the table shows, all roadway links are expected to continue to operate at an acceptable Level of Service D or better through the project build-out year with the exception of SR 7.

In the latest MPO capacity analysis, they elected to change the portion of SR 7 north of Atlantic Boulevard from a Class 1 arterial highway to a Class 2 arterial highway. This had the effect of lowering the maximum service volume at Level of Service D on this roadway segment from 5,390 vehicles per hour to 4,500 vehicles per hour. As a result of this new designation, SR 7 is now considered to be overcapacity. However, the net effect of this project is to decrease the traffic on area roadways rather than increase them. Therefore, this project will improve the overcapacity condition on SR 7.

Table 8
Roadway Link Capacity Analysis
Marquesas Residential

Roadway	Link	2017				2019					
		Volume	LOS D Capacity	LOS	V/C	Volume	Project Trips	Adjusted Volume	LOS D Capacity	LOS	V/C
Coconut Creek Parkway	SR 7 to Banks Road	2,565	2,920	D	0.88	2,620	-10	2,610	2,920	D	0.89
	Banks Road to Lyons Road	2,565	2,920	D	0.88	2,620	-8	2,612	2,920	D	0.89
	East of Lyons Road	2,518	2,920	D	0.86	2,552	-5	2,547	2,920	D	0.87
Copans Road	SR 7 to Banks Road	3,183	3,401	C	0.94	3,239	-5	3,234	3,401	C	0.95
	Banks Road to Lyons Road	3,183	3,401	C	0.94	3,239	-10	3,229	3,401	C	0.95
SR 7 (US 441)	Royal Palm Boulevard to Coconut Creek Parkway	4,988	4,500	F	1.11	5,187	-5	5,182	4,500	F	1.15
	Coconut Creek Parkway to Margate Boulevard	4,988	4,500	F	1.11	5,187	-5	5,182	4,500	F	1.15
Banks Road	Atlantic Boulevard to Coconut Creek Parkway	1,454	2,628	D	0.55	1,499	-15	1,484	2,628	D	0.56
	Coconut Creek Parkway to Copans Road	1,454	2,628	D	0.55	1,499	-18	1,481	2,628	D	0.56
	North of Copans Road	561	2,628	C	0.21	683	-3	680	2,628	C	0.26
Lyons Road	NW 6th Manor to Coconut Creek Parkway	2,945	3,222	C	0.91	3,007	-1	3,006	3,222	D	0.93
	Coconut Creek Parkway to Copans Road	3,040	3,222	C	0.94	3,073	-2	3,071	3,222	D	0.95

⁽¹⁾ 2019 traffic volume obtained by linear interpolation between 2017 and 2040 volumes.

Vehicular and Pedestrian Access

The Coconut Creek Center's vehicular and pedestrian access will remain as is for the portion of the development that won't be modified (the western portion of the site). However, the eastern portion of the site, which is the proposed location of the Marquesa residential apartments, will have changes to both the existing vehicular and pedestrian access.

Based on the site plan, which may be found in **Appendix B – Site Plan**, one existing driveway connection to Coconut Creek Parkway is to be closed as a part of the new development. In its place, a new right-in/right-out driveway connection to Coconut Creek Parkway will be constructed further to the west on the project site. The second access point is a single full-access driveway connection to Banks Road. So, where three driveways currently exist on the eastern portion of the project site, two driveways, located at the northeast corner of the property along Banks Road and at the west end of the property along Coconut Creek Parkway, will exist after the proposed re-development of the site.

Sidewalks are proposed for construction serving each of the four proposed apartment buildings. The existing sidewalk along Coconut Creek Parkway is to be widened to 12 feet. Another sidewalk is to be constructed next to the entrance driveway that connects to the sidewalk that borders Banks Road.

Conclusions

Based on the results of this analysis, it is concluded that the proposed re-development of the eastern portion of the existing Coconut Creek Center to include the Marquesa residential apartments will not have a significant impact on the adjacent roadway network. Project trips are expected to decrease on a daily, morning and afternoon peak-hour basis which will result in a decrease in traffic on adjacent roadways at project build out in 2019.

Appendix A – Traffic Counts

APPENDIX B: East / West Roadways Capacity and Level of Service Analysis 2017 & 2040

E/W Roadway		Segment		2017				2017				2040				2040					
				Design Code	Daily Conditions				Peak Hour Conditions				Code	Daily Conditions				Peak Hour Conditions			
					AADT	Capacity	V/C	LOS	Volume	Capacity	V/C	LOS		Volume	Capacity	V/C	LOS	Volume	Capacity	V/C	LOS
Coconut Crk Pkwy	E of SR 7	432	27000 e	32400	0.83	D	2565	2920	0.88	D	432	33700	32400	1.04	E	3202	2920	1.10	F		
Coconut Crk Pkwy	E of Lyons Rd	432	26500	32400	0.82	D	2518	2920	0.86	D	432	30600	32400	0.94	D	2907	2920	1.00	D		
Hammondville Rd	E of NW 31 Ave--FTPK	432	12200	32400	0.38	C	1159	2920	0.40	C	432	48700	32400	1.50	F	4627	2920	1.58	F		
Hammondville Rd	E of Powerline Rd	432	23000	32400	0.71	D	2185	2920	0.75	D	432	41900	32400	1.29	F	3981	2920	1.36	F		
Hammondville Rd	E of I-95	432	32000	32400	0.99	D	3040	2920	1.04	E	432	24700	32400	0.76	D	2347	2920	0.80	D		
NE 10 St	E of NW 6 Ave	264	10200	13320	0.77	D	969	1197	0.81	D	264	10900	13320	0.82	D	1036	1197	0.86	D		
NE 10 St	E of US 1	264	4000	13320	0.30	C	380	1197	0.32	C	264	5900	13320	0.44	C	561	1197	0.47	C		
NW 15 St	E of Powerline Rd	264	11900	13320	0.89	D	1131	1197	0.94	D	264	13400	13320	1.01	E	1273	1197	1.06	F		
NE 14 St	E of US 1	432	18200	32400	0.56	D	1729	2920	0.59	D	432	24700	32400	0.76	D	2347	2920	0.80	D		
Royal Palm Blvd	E of NW 123 Ave	474	12800	35820	0.36	C	1216	3222	0.38	C	474	12400	35820	0.35	C	1178	3222	0.37	C		
Royal Palm Blvd	E of Coral Ridge Dr	422	18900	37810	0.50	C	1796	3401	0.53	C	422	12500	37810	0.33	C	1188	3401	0.35	C		
Royal Palm Blvd	E of Coral Sprqs Dr	422	32500	37810	0.86	C	3088	3401	0.91	C	422	27500	37810	0.73	C	2613	3401	0.77	C		
Royal Palm Blvd	E of University Dr	422	22300	37810	0.59	C	2119	3401	0.62	C	422	31100	37810	0.82	C	2955	3401	0.87	C		
Royal Palm Blvd	E of Riverside Dr	422	35500	37810	0.94	C	3373	3401	0.99	D	422	40300	37810	1.07	F	3829	3401	1.13	F		
Royal Palm Blvd	E of Rock Island Rd	422	36500	37810	0.97	D	3468	3401	1.02	F	422	38600	37810	1.02	F	3667	3401	1.08	F		
Copans Rd	E of SR 7	422	33500	37810	0.89	C	3183	3401	0.94	C	422	40300	37810	1.07	F	3829	3401	1.13	F		
Copans Rd	E of Lyons Rd	422	37000	37810	0.98	D	3515	3401	1.03	F	422	52900	37810	1.40	F	5026	3401	1.48	F		
Copans Rd	E of Blount Rd	622	37500	56905	0.66	C	3563	5121	0.70	C	622	54500	56905	0.96	C	5178	5121	1.01	F		
Copans Rd	E of Powerline Rd	622	48000	56905	0.84	C	4560	5121	0.89	C	622	68400	56905	1.20	F	6498	5121	1.27	F		
Copans Rd	E of Military Trail	622	56000	56905	0.98	D	5320	5121	1.04	F	622	79000	56905	1.39	F	7505	5121	1.47	F		
Copans Rd	E of I-95	622	44000	56905	0.77	C	4180	5121	0.82	C	622	50600	56905	0.89	C	4807	5121	0.94	C		
Copans Rd	E of Dixie Hwy	622	35500	56905	0.62	C	3373	5121	0.66	C	622	49500	56905	0.87	C	4703	5121	0.92	C		
NW 29 St	E of Coral Sprqs Dr	264	6900	13320	0.52	D	656	1197	0.55	D	264	6900	13320	0.52	D	656	1197	0.55	D		
NE 33 St (pomp)	E of NE 3 Ave	264	8900	13320	0.67	D	846	1197	0.71	D	264	14500	13320	1.09	F	1378	1197	1.15	F		
Sample Rd	E of Sawgrass Xway	622	25500	59900	0.43	C	2423	5390	0.45	C	622	19200	59900	0.32	C	1824	5390	0.34	C		

APPENDIX C: North / South Roadways Capacity and Level of Service Analysis 2017 & 2040

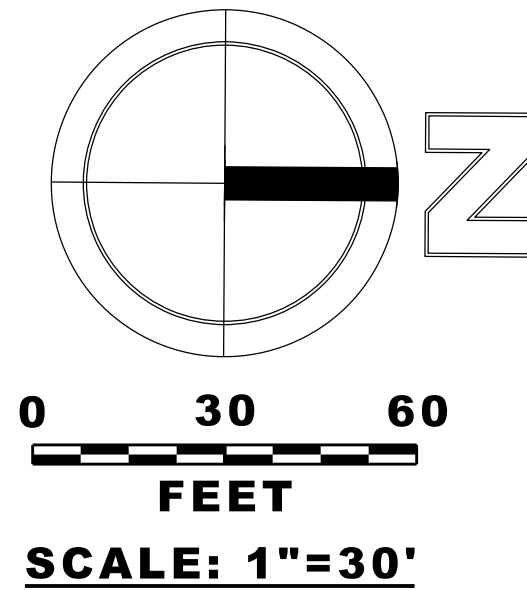
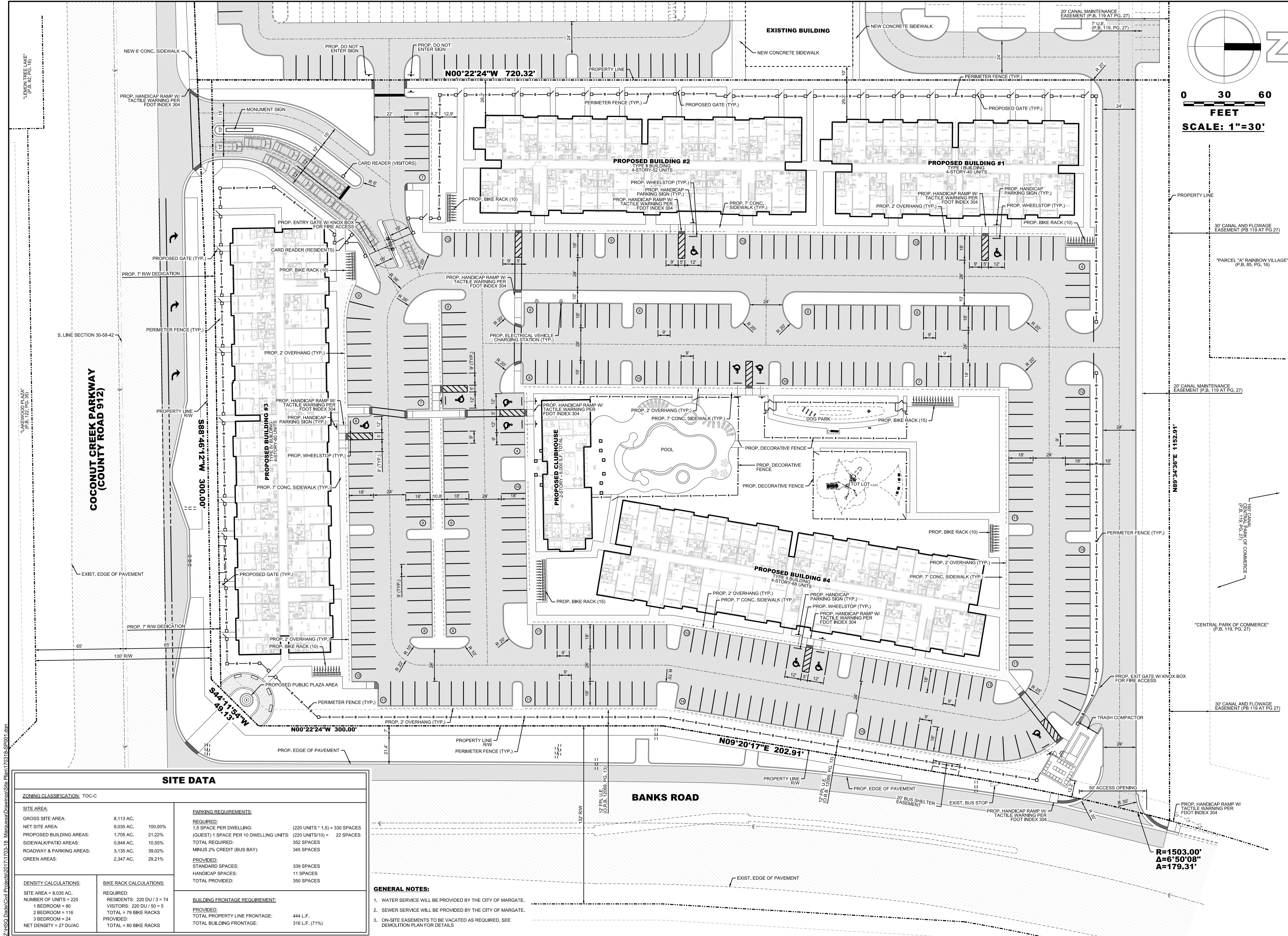
			2017				2017				2040					2040				
			Design Code	Daily Conditions				Peak Hour Conditions				Design Code	Daily Conditions				Peak Hour Conditions			
ID	N/S Roadway	Segment		AADT	Capacity	V/C	LOS	Volume	Capacity	V/C	LOS		Volume	Capacity	V/C	LOS	Volume	Capacity	V/C	LOS
525	SR 7	N of Atlantic Blvd	632	52500	50000	1.05	F	4988	4500	1.11	F	632	76600	50000	1.53	F	7277	4500	1.62	F
527	SR 7	N of Margate Blvd	622	51000	59900	0.85	C	4845	5390	0.90	C	622	69000	59900	1.15	F	6555	5390	1.22	F
529	SR 7	N of Royal Palm Blvd	622	52500	59900	0.88	C	4988	5390	0.93	C	622	56000	59900	0.93	C	5320	5390	0.99	D
531	SR 7	N of Sample Rd	622	53500	59900	0.89	C	5083	5390	0.94	C	622	48800	59900	0.81	C	4636	5390	0.86	C
533	SR 7	N of Wiles Rd	622	55500	59900	0.93	C	5273	5390	0.98	D	622	72100	59900	1.20	F	6850	5390	1.27	F
535	SR 7	N of Sawgrass Xway	622	63500	59900	1.06	F	6033	5390	1.12	F	622	79300	59900	1.32	F	7534	5390	1.40	F
537	SR 7	N of Holmberg Rd	622	63500	59900	1.06	F	6033	5390	1.12	F	622	71000	59900	1.19	F	6745	5390	1.25	F
539	SR 7	N of Hillsboro Blvd	622	47000	59900	0.78	C	4465	5390	0.83	C	622	71500	59900	1.19	F	6793	5390	1.26	F
541	Banks Rd	N of Atlantic Blvd	464	15300	29160	0.52	D	1454	2628	0.55	D	464	20800	29160	0.71	D	1976	2628	0.75	D
543	Banks Rd	N of Copans Rd	464	5900	29160	0.20	C	561	2628	0.21	C	464	20700	29160	0.71	D	1967	2628	0.75	D
1013	Banks Rd	N of Sample Rd	264	1000 e	13320	0.08	C	95	1197	0.08	C	464	37600	29160	1.29	F	3572	2628	1.36	F
1165	Banks Rd	N of NW 40 St	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	464	26200	29160	0.90	D	2489	2628	0.95	D
545	SW 56 Ave	N of Dade C L	264	8800	13320	0.66	D	836	1197	0.70	D	264	12100	13320	0.91	D	1150	1197	0.96	D
547	SW 56 Ave	N of Hndle Bch Blvd	264	14400	13320	1.08	F	1368	1197	1.14	F	264	7400	13320	0.56	D	703	1197	0.59	D
549	S 56 Ave	N of Pembroke Rd	264	14200	13320	1.07	F	1349	1197	1.13	F	264	8600	13320	0.65	D	817	1197	0.68	D
551	N 56 Ave	N of Hollywood Blvd	264	14000	13320	1.05	E	1330	1197	1.11	F	264	7600	13320	0.57	D	722	1197	0.60	D
553	N 56 Ave	N of Sheridan St	264	15500	13320	1.16	F	1473	1197	1.23	F	264	11800	13320	0.89	D	1121	1197	0.94	D
555	SW 40 Ave	N of Stirling Rd	264	6600	13320	0.50	D	627	1197	0.52	D	264	12800	13320	0.96	D	1216	1197	1.02	E
1125	SW 52 Ave	N of County Line Rd	264	6800	13320	0.51	D	646	1197	0.54	D	264	6700	13320	0.50	D	637	1197	0.53	D

APPENDIX C: North / South Roadways Capacity and Level of Service Analysis 2017 & 2040

			2017				2017				2040				2040					
			Design Code	Daily Conditions				Peak Hour Conditions				Design Code	Daily Conditions				Peak Hour Conditions			
ID	N/S Roadway	Segment		ADT	Capacity	V/C	LOS	Volume	Capacity	V/C	LOS		Volume	Capacity	V/C	LOS	Volume	Capacity	V/C	LOS
599	Lyons Rd	N of Cypress Crk Rd	674	33500	53910	0.62	C	3183	4851	0.66	C	674	61600	53910	1.14	F	5852	4851	1.21	F
601	Lyons Rd	N of McNab Rd	474	34500	35820	0.96	D	3278	3222	1.02	F	474	50500	35820	1.41	F	4798	3222	1.49	F
1041	Lyons Rd	N of Atlantic Blvd	674	31000	53910	0.58	C	2945	4851	0.61	C	674	38500	53910	0.71	C	3658	4851	0.75	C
603	Lyons Rd	N of NW 6 Mr	474	31000	35820	0.87	C	2945	3222	0.91	C	474	38500	35820	1.07	F	3658	3222	1.14	F
605	Lyons Rd	N of Coconut Crk Pkwy	474	32000	35820	0.89	C	3040	3222	0.94	C	474	36000	35820	1.00	F	3420	3222	1.06	F
607	Lyons Rd	N of Copans Rd	474	37500	35820	1.05	F	3563	3222	1.11	F	474	46100	35820	1.29	F	4380	3222	1.36	F
609	Lyons Rd	N of Sample Rd	674	45000	53910	0.83	C	4275	4851	0.88	C	674	44400	53910	0.82	C	4218	4851	0.87	C
611	Lyons Rd	N of Wiles Rd	674	45000	53910	0.83	C	4275	4851	0.88	C	674	63400	53910	1.18	F	6023	4851	1.24	F
613	Lyons Rd	N of Sawgrass Xway	674	42500	53910	0.79	C	4038	4851	0.83	C	674	78800	53910	1.46	F	7486	4851	1.54	F
615	Lyons Rd	N of Hillsboro Blvd	674	32500	53910	0.60	C	3088	4851	0.64	C	674	70000	53910	1.30	F	6650	4851	1.37	F
617	Riverland Rd	E of SR 7	264	9600	13320	0.72	D	912	1197	0.76	D	264	21700	13320	1.63	F	2062	1197	1.72	F
619	SW 27 Ave	N of Davie Blvd	474	18400	35820	0.51	C	1748	3222	0.54	C	474	45800	35820	1.28	F	4351	3222	1.35	F
1087	NW 27 Ave	N of Sunrise Blvd	264	9900	13320	0.74	D	941	1197	0.79	D	264	13700	13320	1.03	E	1302	1197	1.09	F
621	SW 30 Ave	N of Griffin Rd	264	19000	13320	1.43	F	1805	1197	1.51	F	464	23000	29160	0.79	D	2185	2628	0.83	D
1043	SW 30 Ave	N of SW 42 St	464	13000	29160	0.45	C	1235	2628	0.47	D	464	39300	29160	1.35	F	3734	2628	1.42	F
623	SW 26 Terr	N of SW 32 St	264	6300	13320	0.47	C	599	1197	0.50	D	264	11600	13320	0.87	D	1102	1197	0.92	D
625	Ravenswood Rd	N of Stirling Rd	264	19200	13320	1.44	F	1824	1197	1.52	F	464	46100	29160	1.58	F	4380	2628	1.67	F
627	Ravenswood Rd	N of Griffin Rd	264	7300	13320	0.55	D	694	1197	0.58	D	464	18600	29160	0.64	D	1767	2628	0.67	D
1053	Ravenswood Rd	N of NW 36 ST	264	7300	13320	0.55	D	694	1197	0.58	D	264	8600	13320	0.65	D	817	1197	0.68	D

Appendix B – Site Plan

Z:\HSQ Data\Civil Projects\2017\1703-18 Marquesa Drawings\Site Plan\1703-18-SP001.dgn



SITE DATA

ZONING CLASSIFICATION: TOC-C

SITE AREA:

GROSS SITE AREA:	8.113 AC.	
NET SITE AREA:	8.035 AC.	100.00%
PROPOSED BUILDING AREAS:	1.705 AC.	21.22%
SIDEWALK/PATIO AREAS:	0.848 AC.	10.55%
ROADWAY & PARKING AREAS:	3.135 AC.	39.02%
GREEN AREAS:	2.347 AC.	29.21%

DENSITY CALCULATIONS:

SITE AREA = 8.035 AC.
NUMBER OF UNITS = 220
1 BEDROOM = 80
2 BEDROOM = 116
3 BEDROOM = 24
NET DENSITY = 27 DU/AC

BIKE RACK CALCULATIONS:

REQUIRED:
RESIDENTS: 220 DU / 3 = 74
VISITORS: 220 DU / 50 = 5
TOTAL = 79 BIKE RACKS
PROVIDED:
TOTAL = 80 BIKE RACKS

PARKING REQUIREMENTS:

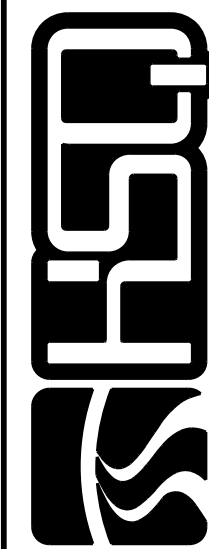
REQUIRED:	
1.5 SPACE PER DWELLING:	(220 UNITS * 1.5) = 330 SPACES
(GUEST) 1 SPACE PER 10 DWELLING UNITS:	(220 UNITS/10) = 22 SPACES
TOTAL REQUIRED:	352 SPACES
MINUS 2% CREDIT (BUS BAY):	345 SPACES
PROVIDED:	
STANDARD SPACES:	339 SPACES
HANDICAP SPACES:	11 SPACES
TOTAL PROVIDED:	350 SPACES

BUILDING FRONTAGE REQUIREMENT:

REQUIRED:	
TOTAL PROPERTY LINE FRONTAGE:	444 L.F.
PROVIDED:	
TOTAL BUILDING FRONTAGE:	316 L.F. (71%)

GENERAL NOTES:

- WATER SERVICE WILL BE PROVIDED BY THE CITY OF MARGATE.
- SEWER SERVICE WILL BE PROVIDED BY THE CITY OF MARGATE.
- ON-SITE EASEMENTS TO BE VACATED AS REQUIRED, SEE DEMOLITION PLAN FOR DETAILS

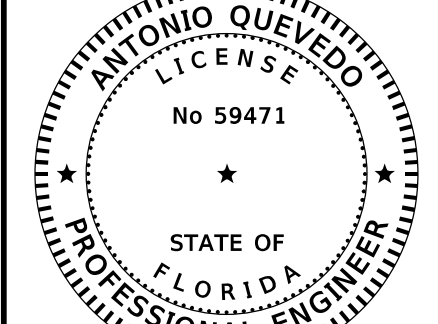


HSQ GROUP, INC.
Engineers - Planners - Surveyors
5951 Northwest 173rd Drive, Suite 4
Miami, Florida 33015 - 786.534.3821
C26258 - LB7924

MARQUESA

SITE PLAN

DATE: 4/17
DESIGNED BY: AQ
DRAWN BY: RW
CHECKED BY: AQ



DATE: 2/26/2019
ANTONIO QUEVEDO, P.E.
FLORIDA REGISTRATION NO. = 59471

PROJECT: 1703-18

SHEET: SP-1

REVISIONS

NO	DATE	BY	REVISIONS
1	10/20/17	RW	REVISED PER CITY OF MARGATE DRC COMMENTS
2	3/16/18	AQ	REVISED PER CITY OF MARGATE DRC COMMENTS
3	4/20/18	RW	REVISED PER CITY OF MARGATE DRC COMMENTS
4	7/30/18	RW	REVISED PER CITY OF MARGATE DRC COMMENTS
5	2/19/19	RW	REVISED PER CITY OF MARGATE DRC COMMENTS