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December 16, 2020

Robert Cambó
Managing Partner
ALLIANCECOS
2601 S. Bayshore Drive, Suite 100
Coconut Grove, Florida 33133

RE: Marquesa Apartments Traffic Study
Project No. 201728.01

Dear Mr. Cambó:

This is in response to a recent comment received from the City of Margate's Development Review Committee (DRC) that pertains to the revised traffic impact study for this project, which is dated February 21, 2019. The DRC traffic comment, and our response, follows:

Comment C. TRAFFIC IMPACTS: The application is for a plat and site plan approval for an apartment development to consist of 220 apartment units. This proposed development will be separate and distinct from the existing development that includes the charter school and other occupancies. Those occupancies are existing and shall remain, so the traffic attributable to them will remain unchanged. Accordingly, we believe it is appropriate for the analysis to include a comparison of existing trips attributable to the portion of the development being demolished to the proposed trips attributable to the to the proposed Marquesa project.

Response: While to the layman, this may seem a reasonable concern, in fact, it is wrong. A brief review of the trip generation tables contained in the traffic impact study will show why this is so. Tables 2, 3 and 4 show the existing development on the project site. Note that the mix of land uses includes 51,770 square feet of shopping center. There is a small amount of internal capture between the various land uses resulting in a ten-percent reduction in overall traffic generated by the existing development on the local roadway network. Similarly, there is a 47-percent pass-by-trip reduction for the shopping center portion of the development. These reductions affect the existing development's overall trip generation on the local roadways.

Comparing the existing trip generation shown in Tables 2, 3 and 4 to the proposed development's trip generation shown in Tables 5, 6 and 7, we find that the entire shopping center component of the existing development is gone, and with it, the opportunity for the ten-percent internal trip capture between land uses and the 47 percent pass-by trip reduction. Instead, the replacement of the shopping center with 220

apartment units results in a different, 12-percent internal capture and no pass-by trip reduction of any kind. This results in a modification of the overall development's trip generation on the local roadway network. The appropriate way to evaluate these changes is to compare the entire existing development trip generation to the entire proposed development's trip generation.

Having explained why the previously completed analysis is correct, it is also possible to address the concern stated in Comment C in a simple, if less technically correct, manner. Because the proposed 220 apartment units are replacing the 51,770 square feet of shopping center land use, a simple comparison between the shopping center trip generation shown in Tables 2, 3 and 4 with the Multi-Family Housing (Mid Rise) trip generation shown in Tables 5, 6 and 7 demonstrates that the proposed apartments are expected to generate fewer vehicular trips than the existing shopping center. The shopping center generates 1,652 net new daily trips, 76 net new a.m. peak-hour trips, and 144 net new p.m. peak-hour trips. The proposed apartments are expected to generate 1,185 net new daily trips, 71 net new a.m. peak-hour trips, and 93 net new p.m. peak-hour trips.

Examining the change in conditions through either of the described methods still results in the proposed development generating fewer trips on the local roadway network. Copies of the referenced trip generation tables are enclosed.

There were no further comments on the traffic impact study. Should you have any questions or comments regarding the comments or our responses, please do not hesitate to contact this office.

Very truly yours,



Thomas A. Hall
President

TAH/kh

Enclosures

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.	$\ln(T)=0.68\ln(X)+5.57$ (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.	$\ln(T)=0.97\ln(X)+2.50$ (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.	$\ln(T)=0.68\ln(X)+5.57$ (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.	$\ln(T)=0.95\ln(X)+0.36$ (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.	$\ln(T)=0.74\ln(X)+2.89$ (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			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)	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			In	Internal Trips			%	Adjusted Trips			Pass-by Trips		New Trips		
				In	Out	Total		Out	Total	In		Out	Total	In	Out	In	Out	Total	
Multi-Family Housing (Mid Rise)	220	220	d.u.	Ln(T)=0.98Ln(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			
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.