THE CORRADINO GROUP, INC.

CORRADINO	ENGINEERS • PLAN	NNERS · PROGRAM MANAGERS · ENVIRONMENTAL SCIENTISTS
- 1	date:	June 4, 2018
	to:	Kathryn Lyon, Planning Director
	from:	Gregory A. Prytyka, P.E., Chief Engineer
	project #:	3896*76
	subject:	Cutler Gate Traffic Impact Study
		MEMORANDUM

The Corradino Group, Inc (Corradino) has reviewed the responses to our March 9, 2018 comments for the "Cutler Gate" development submitted by Richard Garcia & Associates (RGA), dated March 16, 2018. The following outlines our final disposition regarding the responses:

The 2017 Historical AADT Report from the Florida Traffic Online website lists an AADT of 17,700 vehicles per day (vpd), with a K factor of 9%. Performing the proper calculations on these data indicate that the approximate peak hour traffic on Old Cutler Road should be near 1,593 vph.

Regardless of the historical traffic counts reported by FDOT, if we accept the applicant's turning movement counts at face value, the AM peak hour traffic on Old Cutler Road would be 1,094 times the seasonal factor of 1.01, yielding 1,105 vehicles per hour (vph). The PM peak hour traffic would be 1,248 times the seasonal factor of 1.01, yielding 1,261 vph. According to the 2018 FDOT Quality/Level of Service Handbook (Q/LOS), Table 4, the capacity of a two-lane non-state signalized arterial exceeds Level of Service (LOS) "C" above 324 vph (360-10%), exceeds LOS "D" above 1,125 vph (1,250-10%), and exceeds LOS "E" above 1,521 vph (1,690-10%). Therefore, based on the applicant's traffic counts, Old Cutler Road is currently operating at LOS E during the PM peak hour.

We agree that the proposed retail is out of scale in comparison to data points used to develop both the fitted curve equation as well as the average rate. However, the average rate always originates at the point 0, 0 on the graph, meaning that the smaller the proposed retail is, the closer it comes to generating no trips at all. One possible solution is to calculate an average rate based on data points for shopping centers closer to the size of the proposed development. Another possible solution is to use Land Use Code 814 – Variety Store, which

represents retail uses more in line with the proposed size. Our recommendation is to follow the Miami-Dade County standard methodology.

Miami-Dade County's standard for trip generation is to use the fitted curve equation given in the Trip Generation Manual when the R² value is 0.75 or above. This suggests that the fitted curve equation should be used for LUC 220 in the AM peak (R²=0.90) and PM Peak (R²=0.86), the average rate should be used for LUC 820 in the AM peak (R²=0.50), and the fitted curve equation should be used during the PM peak (R²=0.82). Allowing for multi-modal trips, internal capture, and pass-by trips, we have calculated 19 AM peak hour trips (6 in, 13 out) and 47 PM peak hour trips (25 in, 22 out). **Table 1** and **Table 2** (attached) present the calculations for trip generation.

Trip assignments and LOS calculations should be revised in accordance with the foregoing.

If you have any questions or comments, please feel free to contact me.

TABLE 1 - WEEKDAY AM PEAK HOUR TRIP GENERATION

ITE TRIP GENERAT		DIRECTIONAL GROSS DISTRIBUTION VOLUMES		MULTIMODAL REDUCTION		SUBTOTAL EXTERNAL TRIPS			INTERNAL CAPTURE FROM NCHRP 684					SUBTOTAL EXTERNAL TRIPS			PASS-BY TRIPS		NET EXTERNAL TRIP		RIPS							
Land Lisa		0.51	Unito	Pata	Calc	Per	cent	AM Peak MM In Out	t Total		Trips	0+ %	Trips	Total	In	0+	Total	Dorcont	Total	In	0+	Total						
Land Ose	LUC	Qiy	Units	, Rale	Calc	In	Out	In	Out	Total	Percent	Trips	m	Out		111 /0	In	Out /	Out	Trips		Out	TOLAI	Fercen	Trips		Out	Total
Multifamily Housing (Mid-Rise)	220	36	DU	0.66167	23.82	26%	74%	L.,	1	3 1	3 10%	2	4	12	16	0.00%	0	0.00%	0	0	4	12	16	0%	0	4	12	16
Shopping Center (LUC 820)	820	4,186	sq ft	0.00687	28.7397	62%	38%	2		1	4 10%	0	2	1	4	0.00%	0	0.00%	0	0	2	1	4	33%	1	1	1	. 2
TOTALS								7	1	5 2	2	2	6	13	20	0.00%	0	0.00%	0	0	6	13	20	7%	1	6	13	19

Source: Institute of Transportation Engineers' Trip Generation Manual, 10th Edition; Institute of Transportation Engineers' Trip Generation Manual, 3rd Edition; National Cooperative Highway Research Program, Report 684.

TABLE 2 - WEEKDAY PM PEAK HOUR TRIP GENERATION

ITE TRIP GENERAT		DIRECT	TIONAL BUTION	GROSS VOLUMES		MULTIMODAL REDUCTION		SUBTOTAL EXTERNAL TRIPS			INTERNAL CAPTURE FROM NCHRP 684					SUBTOTAL EXTERNAL TRIPS			PASS-BY CAPTURE		NET EXTERNAL TRIP		RIPS					
Land Lise		Otv	Unite	Pata	Calc	Per	cent		AM Pea	(Porcont	MM	In Out Total	In %	Trips	Out %	Trips	Total	In	Out	Total	Dorcont	Total	n	Out	Total		
Lanu Ose	LUC	Qiy	Units	nale	Calc	In	Out	In	Out Total	reiteitt	Trips		Out	TOtal	111 70	In	Out /	Out	Trips		Out	Total	Fercent	Trips		Out	TOLAT	
Multifamily Housing (Mid-Rise)	221	36	DU	0.66167	23.82	61%	39%	15	9	24	10%	2	13	8	21	8.41%	1	8.41%	1	2	12	8	19	0%	0	12	8	19
Shopping Center (LUC 820)	820	4,186	sq ft	1.13874	4766.77	48%	52%	25	27	52	10%	5	22	24	47	9.63%	2	9.63%	3	5	20	22	42	33%	17	13	15	28
TOTALS								39	36	76	10%	8	35	33	68	9.02%	4	9.02%	3	7	32	29	61	7%	17	25	22	47

Source: Institute of Transportation Engineers - Trip Generation Manual, 10th Edition; Institute of Transportation Engineers - Trip Generation Manual, 3rd Edition; National Cooperative Highway Research Program - Report 684.

Exhibit "C2" (Page 3 of 4)

Table 3 - Directional Distribution													
2010 GROSS Distribution Cardinal Direction Percentage of trips AM PEAK PM PEAK													
Cardinal Direction	Percentage of trips		AM PEAK			PM PEAK							
		IN	OUT	TOTAL	IN	OUT	TOTAL						
NNE	25.40%	1	3	5	6	6	12						
ENE	1.60%	0	0	0	0	0	1						
ESE	0.40%	0	0	0	0	0	0						
SSE	6.40%	0	1	1	2	1	3						
SSW	7.20%	0	1	1	2	2	3						
WSW	21.50%	1	3	4	5	5	10						
WNW	13.80%	1	2	3	3	3	7						
NNW	23.80%	1	3	4	6	5	11						
ALL DIRECTIONS	100.10%	6	13	19	25	22	47						
2019 GROSS DISTRIBUTION													
Cardinal Direction	Percentage of trips		AM PEAK			PM PEAK							
		IN	OUT	TOTAL	IN	OUT	TOTAL						
NNE	23.78%	1	3	4	6	5	11						
ENE	1.27%	0	0	0	0	0	1						
ESE	0.46%	0	0	0	0	0	0						
SSE	5.74%	0	1	1	1	1	3						
SSW	7.32%	0	1	1	2	2	3						
WSW	21.95%	1	3	4	6	5	10						
WNW	15.18%	1	2	3	4	3	7						
NNW	24.37%	1	3	5	6	5	12						
ALL DIRECTIONS	100.07%	6	13	19	25	22	47						
	2	040 GROSS	DISTRIBUTI	ON									
Cardinal Direction	Percentage of trips		AM PEAK		PM PEAK								
		IN	OUT	TOTAL	IN	OUT	TOTAL						
NNE	20.00%	1	3	4	5	4	9						
ENE	0.50%	0	0	0	0	0	0						
ESE	0.60%	0	0	0	0	0	0						
SSE	4.20%	0	1	1	1	1	2						
SSW	7.60%	0	1	1	2	2	4						
WSW	23.00%	1	3	4	6	5	11						
WNW	18.40%	1	2	3	5	4	9						
NNW	25.70%	1	3	5	6	6	12						
ALL DIRECTIONS	100.00%	6	13	19	25	22	47						