

TRAFFIC IMPACT STATEMENT

For

Watermark
at
I75 Alligator Alley CPUD
(Collier County, Florida)

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CERTIFICATE OF AUTHORIZATION NO. 27830

(PROJECT NO. 180220)

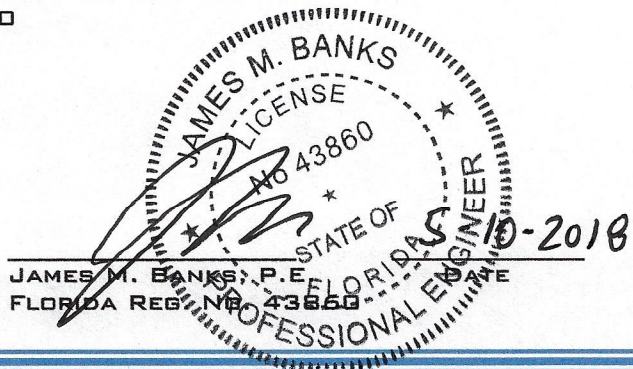


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Conclusions

It was determined that the proposed land use amendment to the I-75 Alligator Alley CPUD will not result in any additional "net new" trips than previously approved by the Collier County Planning Commission and Board of County Commissioners. If the proposed amendment is approved, the project's total site-generated trips will not exceed what was previously approved of 948 new two-way PM peak hour trips. Because the project's net new trips will remain the same, it has been concluded that the CPUD's off-site impacts will remain the same. However, prior to acquiring final development approval, an assessment of the project's off-site impacts will need to be performed in order to ensure that any transportation-related deficiencies caused by the project are mitigated.

The proposed amendment will generate more AM peak hour trips than what would be generated by the existing land uses. However, the total site-generated AM trips will be less than half of the PM peak hour trips. Collier County has set forth that the critical hours of the road network's peak demands vs. available capacity is between the hours of 4:00 to 6:00 PM. Therefore, the determination that the proposed land use will generate more AM trips is irrelevant, because it does not occur during the more critical peak demand period. More specifically, the project's off-site impacts and compliance with the County's adopted Transportation Concurrency Management Policy are evaluated based upon the network's peak demand period (4-6 PM), which affirms that concurrency and mitigation needs are also satisfied for the AM peak period.

It should also be noted that the proposed amendment, which will add multi-family residential as a land use, will result in a lower traffic demand placed upon the project's accesses on Davis Boulevard, if the multi-family is developed. The volume of turning movements will be less because the proposed 425 multi-family dwelling units will displace a portion of the project's approved retail land uses that will otherwise capture a high volume of pass-by trips, as well as generate new trips.

Scope of Project

I-75 Alligator Alley CPUD is an approved mixed-use commercial development, which is located on the southwest corner of the Collier Boulevard & I-75 Interchange within Collier County, Florida. The site is 40.8 +/- acres in size that allows for 29.4 +/- acres of commercial development and the balance of the property is preserve, roads, etc. It is being proposed to amend the CPUD to allow up to 425 multi-family dwelling units to be developed on the CPUD's parent tract that is 19.1 +/- acres in size. If developed, the multi-family land use will displace the potential development of a significant portion of the approved commercial land uses. The current PUD does not have a trip cap. The proposed amendment will include a trip cap based upon the original PUD approval. The proposal to add multi-family to the PUD will be limited to the previously approved maximum trips of 948 two-way new PM peak hour trips.

Table A
Project Land Allocation & Land Uses

Land Use	Approved	Proposed	Net Change
Preserve, Roads. etc.	11.4 +/- acres	11.4 +/- acres	None
Multi-Family	0 acres	19.1 +/- acres	19.1 +/- acres (65% reallocation)
Office/Retail (265,000 s.f.) & Hotel (107 rooms)	29.4 +/- acres	10.3 +/- acres	19.1 +/- acres (65% less)
Total	40.8 +/- acres	40.8 +/- acres	None

To date, three (3) lots have been developed with two (2) fast food restaurants and one (1) hotel (107 rooms). To be traffic neutral, the development of 425 multi-family dwelling units will require that 82,000 s.f. of commercial/retail land uses be displaced by the residential use.

Table B
Approved vs. Proposed/Anticipated Build-out Land Uses

Land Uses	Approved	Proposed/Anticipated	Net Change
Multi-Family	0 d.u.'s	425 d.u.'s	425 d.u.'s
Hotel	107 rooms	107 rooms	None
Office/Retail	265,000 s.f.	183,000 s.f.	Less 82,000 s.f.

Project Generated Traffic

Trips that can be expected to be generated by I-75 Alligator Alley CPUD's "approved" and "anticipated build-out" land uses were estimated based upon the guidelines established by the Institute of Transportation Engineers, Trip Generation Manual, 10th Edition. That is, historical traffic data collected at similar land uses was relied upon in estimating the project's traffic. It was concluded that land use codes "Multi-Family" (LUC 220), "Hotel" (LUC 310), and "Shopping Center" (LUC 820) were most appropriate in estimating the approved and anticipated land uses' trips. Trip generation computations for the "approved" land uses are shown in Table 1A, and for the "anticipated build-out" land uses are depicted in Table 1B. The results are summarized below in Table C.

Table C
Approved Development Trips vs. Proposed Development Trips

Land Use	AM Peak Hour (vph)	PM Peak Hour (vph)
Approved Land Uses (Hotel, Office/Retail)	276 (see Table 1A)	948 (see Table 1A)
Anticipated Build-Out Land Uses (Multi-Family, Hotel, Office/Retail)	431 (see Table 1B)	948 (see Table 1B)
Net Change	155 more	None

As determined, the proposed amendment will not result in any additional "net new" PM peak hour trips above what was previously approved by the Collier County Planning Commission and Board of County Commissioners. More specifically, if the proposed amendment is approved, the project's total site-generated trips will not exceed the previously approved trip cap of 948 two-way PM peak hour trips. Furthermore, it is concluded that the project's potential PM peak hour off-site impacts will remain the same. Therefore, no further analysis is needed at this time. However, at the time of acquiring final development approval, an assessment of the project's off-site impacts will need to be performed in order to ensure that any transportation-related deficiencies caused by the project are mitigated.

As shown above, the proposed amendment will generate more AM peak hour trips than what would be generated by the existing land uses. However, the total site-generated AM trips will be less than half of what the PM peak hour trips will be (AM is 431 vph and PM is 948 vph). Collier County has set forth that the critical hours of the road network's peak demands vs. available capacity is between the hours of 4:00 to 6:00 PM. Therefore, the determination that the proposed land use will generate more AM trips is irrelevant, because it does not occur during the more critical peak demand period. More specifically, the project's off-site impacts and compliance with the County's adopted

Transportation Concurrency Management Policy are evaluated based upon the network's peak demand period (4-6 PM), which affirms that concurrency/mitigation needs are also satisfied for the AM peak period.

TABLE 1A
TRIP GENERATION COMPUTATIONS
Watermark Apartments @ I-75 Alligator Alley CPUD

APPROVED LAND USES

Land Use

<u>Code</u>	<u>Land Use Description</u>	<u>Build Schedule</u>
310	Hotel	107 Rooms
820	Shopping Center	265,000 s.f.

Land Use

<u>Code</u>	<u>Trip Period</u>	<u>Trip Generation Equation</u>	<u>Total Trips</u>	<u>Trips Enter/Exit</u>
LUC 310	Daily Traffic (ADT) =	$T = 11.29(X) - 426.97 =$	781 ADT	
	AM Peak Hour (vph) =	$T = 0.50(X) - 5.34 =$	48 vph	28 / 20 vph
		59% Enter/ 41% Exit =		
	PM Peak Hour (vph) =	$T = 0.75(X) - 26.02 =$	54 vph	27 / 27 vph
		51% Enter/ 49% Exit =		

LUC 820	Daily Traffic (ADT) =	$\ln(T) = 0.68\ln(X) + 5.57 =$	11,663 ADT	
	AM Peak Hour (vph) =	$T = 0.5(X) + 151.78 =$	284 vph	176 / 108 vph
		62% Enter/ 38% Exit =		
	PM Peak Hour (vph) =	$\ln(T) = 0.74\ln(X) + 2.89 =$	1,118 vph	536 / 581 vph
		48% Enter/ 52% Exit =		
		48% Enter/ 52% Exit =		

Pass-by Trips per ITE = $\ln(T) = -0.29\ln(X) + 5.00 = 30\%$

20% Pass-by Rate

New Daily Traffic (ADT) =	(ADT) x (% of New Trips)	9,331 ADT	
New AM Peak Hour (vph) =	(AM) x (% of New Trips)	227 vph	141 / 86 vph
	62% Enter/ 38% Exit =		
New PM Peak Hour (vph) =	(PM) x (% of New Trips)	894 vph	429 / 465 vph
	48% Enter/ 52% Exit =		

Total Trips

Daily Traffic (ADT) =	10,112 ADT	
AM Peak Hour (vph) =	276 vph	169 / 106 vph
PM Peak Hour (vph) =	948 vph	456 / 492 vph

TABLE 1B
TRIP GENERATION COMPUTATIONS
Watermark Apartments @ I-75 Alligator Alley CPUD

PROPOSED LAND USES

Land Use

<u>Code</u>	<u>Land Use Description</u>	<u>Build Schedule</u>
220	Multi-Family (Low Rise)	425 Units
310	Hotel	107 Rooms
820	Shopping Center	183,000 s.f.

<u>Code</u>	<u>Trip Period</u>	<u>Trip Generation Equation</u>	<u>Total Trips</u>	<u>Trips Enter/Exit</u>
LUC 220	Daily Traffic (ADT) =	$T = 7.56(X) - 40.86 =$	3,172 ADT	
	AM Peak Hour (vph) =	$\ln(T) = 0.95\ln(X) - 0.51 =$ 23% Enter/ 77% Exit =	189 vph	43 / 145 vph
	PM Peak Hour (vph) =	$\ln(T) = 0.89\ln(X) - 0.02 =$ 63% Enter/ 37% Exit =	214 vph	135 / 79 vph

LUC 310	Daily Traffic (ADT) =	$T = 11.29(X) - 426.97 =$	781 ADT	
	AM Peak Hour (vph) =	$T = 0.50(X) - 5.34 =$ 59% Enter/ 41% Exit =	48 vph	28 / 20 vph
	PM Peak Hour (vph) =	$T = 0.75(X) - 26.02 =$ 51% Enter/ 49% Exit =	54 vph	27 / 27 vph

LUC 820	Daily Traffic (ADT) =	$\ln(T) = 0.68\ln(X) + 5.57 =$	9,067 ADT	
	AM Peak Hour (vph) =	$T = 0.5(X) + 151.78 =$ 62% Enter/ 38% Exit =	243 vph	151 / 92 vph
	PM Peak Hour (vph) =	$\ln(T) = 0.74\ln(X) + 2.89 =$ 48% Enter/ 52% Exit =	850 vph	408 / 442 vph

<i>Pass-by Trips per ITE =</i>		$\ln(T) = -0.29\ln(X) + 5.00 = 30\%$	20% Pass-by Rate	
	New Daily Traffic (ADT) =	(ADT) x (% of New Trips)	7,254 ADT	
	New AM Peak Hour (vph) =	(AM) x (% of New Trips)	195 vph	121 / 74 vph
		62% Enter/ 38% Exit =		
	New PM Peak Hour (vph) =	(PM) x (% of New Trips)	680 vph	326 / 354 vph
		48% Enter/ 52% Exit =		

Total Trips

Daily Traffic (ADT) =	11,207 ADT	
AM Peak Hour (vph) =	431 vph	192 / 239 vph
PM Peak Hour (vph) =	948 vph	488 / 460 vph