JMB TRANSPORTATION ENGINEERING, INC.
TRAFFIC/TRANSPORTATION ENGINEERING & PLANNING SERVICES

TRAFFIC STATEMENT

For

Fiddler's Creek DRI - NOPC

(Collier County, Florida)

January 12, 2017
Revised January 9, 2018

Prepared by:
JMB TRANSPORTATION ENGINEERING, INC.
4711 7TH AVENUE SW
NAPLES, FLORIDA 34119
(239) 227-2355
CERTIFICATE OF AUTHORIZATION NO. 27830

(PROJECT NO. 130813)

James M. Banks
Digitally signed by James M. Banks
Date: 2018.01.24 07:58:40 -05'00'

JAMES M. BANKS LICENSE No 43860 STATE OF FLORIDA PROFESSIONAL ENGINEER

1-9-2018

JAMES M. BANKS, P.E. DATE
FLORIDA REG. NO. 43860

TABLE OF CONTENTS

Conclusions

A Notice of Proposed Change (NOPC) has been submitted for the intended purpose of relocating previously approved commercial/retail land uses within the ongoing development of Fiddler's Creek DRI.

Based upon the findings of this report, it was determined that the proposed relocation of previously approved commercial/retail land uses (not constructed to date) within the Fiddler's Creek DRI will not result in any additional site-generated trips or additional impacts to the adjacent road network. More specifically, it is proposed to construct a portion of the project's approved 325,000 square feet of commercial/retail land uses, which were previously planned along Collier Boulevard and U.S. 41 (Tamiami Trail East), at two alternate sites that are contiguous to U.S. 41. The two (2) commercial tracts adjacent to Collier Boulevard will remain, but substantially less commercial will be developed than previously envisioned on those parcels.

The net result of relocating a portion of the commercial land uses will be no additional site-generated trips, but previously estimated turning movements at the project's access points on Collier Boulevard and U.S. 41 will be different than originally forecasted. It is the report's findings that the project's accesses on Collier Boulevard will have notable less ingress/egress traffic movements than previously expected, as will be the case for the project's access that will be aligned with the intersection of Naples Reserve Boulevard & U.S. 41. The project's primary full access on U.S. 41 (Sandpiper Drive), which will be used by both the DRI's residential and commercial land uses, will have an increase in the volume of ingress/egress movements and most likely will warrant a traffic signal as Fiddler's Creek nears build-out. In addition, there is a proposed right-in/out access to the southeast of Sandpiper/U.S. 41 intersection which will also provide access to the newly planned commercial tract. Also proposed is a full access further to the southeast that will serve residents in the southeastern most areas of Fiddler's Creek.

It should be noted that redistribution of a portion of the project's commercial trips from the more heavily traveled Collier Boulevard (south of Tamiami Trail) to the less traveled Tamiami Trail (recently widened to six-lanes) will relieve some pressure on the more critical segment of Collier Boulevard. The relocation of commercial land uses will also better serve other existing and planned residential communities to the immediate north and to the east that currently travel to the more commercially developed areas to the west. Therefore, the effect of relocating a portion of the approved commercial land uses will be a benefit to the public in both convenience and reducing traffic demands on more heavily traveled roadways.

Site Access/Intersection Separation

As part of the DRI's NOPC, the Florida Department of Transportation requested that the distance between the project's points of access and nearest intersecting street/access be summarized and compared to their intersection separation criteria along U.S. 41. Figure 1 depicts the site access/intersection spacing which has been summarized below.

Site Access & U.S. 41 (Class 3)	Closest Intersection	Required Spacing	Existing Spacing
Approved - Access No. 1 (Full Access/Naples Reserve)	Manatee Road (west) (Full - Signal)	2,640'	2,430' +/-
	Imperial Wilderness (east) (Full Access)	2,640'	1,200' +/-
Site Access & U.S. 41 (Class 4)			
Approved - Access No. 2 (Full Access - Sandpiper/Greenway)	First Baptist Church (west) (Directional Left)	660'	1,910' +/-
	Joseph Lane (west) (Full Access)	660'	2,540' +/-
	Proposed Access No. 3 (east) (right-in/out)	660'	1,200' +/-
Proposed - Access No. 3 (Commercial Right-In/Out Access)	Sandpiper/Greenway (west) (Full Access)	660'	1,200 +/-
	Proposed Access No. 4 (east) (Full Access)	660'	2,165' +/-
Proposed - Access No. 4 (Residential Full Access)	Proposed Access No. 3 (west) (Full Access)	660'	2,165' +/-
	Auto Village Rd (east) (Full Access)	660'	2,345' +/-

Site Access Improvements - U.S. 41

As part of the DRI's NOPC, the Florida Department of Transportation (FDOT) requested that a reevaluation of needed site-related improvements be performed for those points of access to U.S. 41 based upon the anticipated increase in traffic demands at those locations. The report performed the analysis based upon 2023 project build-out traffic conditions and U.S. 41 having a posted speed limit of 60 MPH. Per FDOT Index No. 301, the required turn lane length (taper + deceleration) is 405'. The vehicle storage determinations were based upon the use of the Highway Capacity Manual's software and the results are summarized below.

Site Access & U.S. 41	Required Improvements	Required Storage	Existing Improvements
Approved - Access No. 1 (Commercial Access/Naples Reserve)	EB Right Ingress Turn Lane (free-flow condition)(405' req'd)	None	None
	WB Left Ingress Turn Lane (455' req'd)	50'	625'
	Two (2) NB outbound lanes (separate left & thru/right)	50' each	None
	Traffic Signal *(if warranted)*		
Approved - Access No. 2 (Sandpiper/Greenway)	Traffic Signal *(if warranted)*		None
	EB Right Ingress Turn Lane (455' req'd)	50'	380' in length
	WB Left Ingress Turn Lane (455' req'd)	50'	405' in length
	Two (2) NB outbound lanes (separate left & thru/right)	50' each	3 Outbound Lanes (left, thru & right)
Proposed - Access No. 3 (Commercial Right-In/Out Access)	EB Right Ingress Turn Lane (free-flow condition) (405' req'd)	None	405' in length
	One (1) NB outbound lane (Right-out)	50'	None
Proposed - Access No. 4 (Residential Full Access)	EB Right Ingress Turn Lane (free-flow condition) (405' req'd)	None	None
	Two (2) NB outbound lanes (separate left & right)	50' each	None
	WB Left Ingress Turn Lane (405' req'd)	50'	None

Site Access Improvements - S.R. 951

As part of the DRI's NOPC, the Florida Department of Transportation (FDOT) requested that a summation of the "required" vs. "completed" site-related improvements be provided for those points of access on S.R. 951, which has been provided below.

Site Access & S.R. 951	Required Improvements	Existing Improvements
Championship Road	NB Right Ingress Turn Lane	Completed
	SB Left Ingress Turn Lane	Completed
Commercial Tract Access	NB Right Ingress Turn Lane	Completed
	SB Left Ingress Turn Lane	Completed
Fiddler's Creek Pkwy	NB Right Ingress Turn Lane	Completed
	SB Left Ingress Turn Lane	Completed
	Two (2) outbound lanes (separate left & right)	Completed
	Traffic Signal	Completed

Scope of Project

Fiddler's Creek is an approved/vested DRI that is located south of U.S. 41 and east of Collier Boulevard within Collier County, Florida. The project is currently approved for the development of 3,000 single-family dwelling units, 3,000 multi-family units, 90-hole golf course, various types of residential amenities/recreation areas, and 325,000 square feet of commercial/retail land uses (includes up to a 150-room hotel at a equivalency rate of 1 room/215.4 s.f. of commercial/retail land use). A portion of all the land uses have been constructed, but none are built-out.

It is being proposed to relocate/construct 67,000 +/- square feet of commercial/retail land use on the southeast corner of the project's approved access that will be aligned with the existing intersection of Naples Reserve Boulevard & Tamiami Trail. This access will only provide ingress/egress for the proposed commercial land uses. The residents of Fiddler's Creek will be provided access to this commercial site via an internal interconnection. Therefore, residents of Fiddler's Creek will not need to travel on the adjacent arterials in order to access this commercial site.

It is being proposed to relocate/construct 198,000 +/- square feet of commercial/retail land use on the southeast corner of the project's existing full access (i.e., Sandpiper Drive & Tamiami Trail). Sandpiper Drive is aligned with Greenway Road which intersects Tamiami Trail from the north. Sandpiper Drive currently provides ingress/egress to the residents and will also provide full access to the proposed adjacent commercial uses. In addition, a right-in/out access for the commercial site will be constructed to the southeast of Sandpiper Drive. The residents of Fiddler's Creek will be provided access to this commercial site via an internal interconnection. Therefore, residents of Fiddler's Creek will not need to travel on the adjacent arterials in order to access this commercial site.

There is 30,400 +/- square feet of commercial/retail that has been constructed along Collier Boulevard and the remaining balance of commercial/retail land use (i.e., 30,000 square feet) will also be developed along Collier Boulevard.

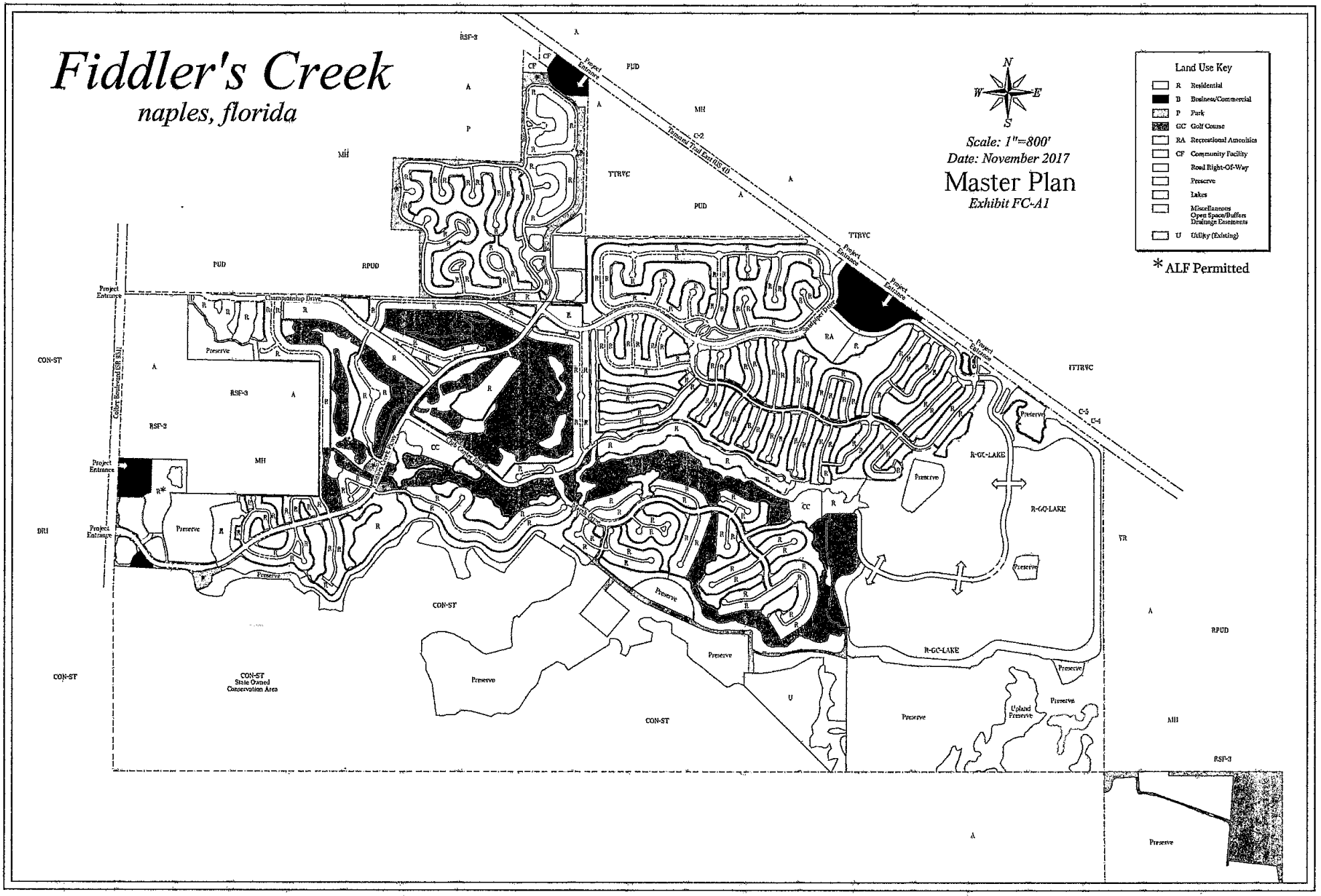
It is also being proposed to construct a full access further to the southeast of Sandpiper Drive that will serve the community's residents in the southeast most areas of Fiddler's Creek.

The project's previously approved points of access to Collier Boulevard, which serve both residential and commercial land uses, will remain intact.

Table A
Approved/Vested Land Uses

Land Use	Number of Units or Gross Square Feet
Single-Family	3,000 d.u.'s
Multi-Family	3,000 d.u.'s
** Commercial/Retail *(includes up to 150 room hotel)*	325,000 s.f. *(hotel = 1 room/215.4 sf)*
Golf Course	90 Holes

** *Commercial/retail includes up to 150-room hotel at a equivalency rate of 1 room/215.4 sf of commercial/retail. Refer to table 2 in the appendix for trip generation equivalency computations.*


Fiddler's Creek
naples, florida
Scale: 1"=800'
Date: November 2017
Master Plan
Exhibit FC-A1
Land Use Key
R Residential
B Business/Commercial
P Park
GC Golf Course
RA Recreational Amenities
CF Community Facility
Road Right-Of-Way
Preserve
Lakes
Miscellaneous Open Space/Buffers Drainage Easements
U Utility (Existing)
*ALF Permitted
N
W
E
S
Project Entrance
Championship Drive
Golden Boulevard (SR 951)
Tamiami Trail East (US 41)
PUD
RPUD
RSF-3
MH
TTRVC
CON-ST
DRI
VR
RA
CC
R-GC-LAKE
Preserve
CON-ST State Owned Conservation Area
Upland Preserve

Vested Site-Generated Trips

Traffic that can be expected to be generated by the project was previously established by David Plummer & Associates (refer to page 6.1 - Exhibit 5) based upon the trip rates provided by ITE's Trip Generation Manual, 6th Edition. At that time, the internal capture and pass-by adjustments were also agreed to by the applicable governmental agencies and the results of those adjustments are depicted in Exhibit 5. (Refer to pages A13 thru A17 for computations performed in determining the project generated trips.) A summary of the vested new site-generated trips is provided in Table B.

Table B
Vested Site-Generated Trips
(Summation of Exhibit 5 - ITE 6th Edition)

PM New Peak Hour Two-Way Trips (vph)	PM New Peak Hour Entering Trips (vph)	PM New Peak Hour Exiting Trips (vph)
3,265 Enter/Exit	**1,985** Enter	**1,280** Exit

Hotel Land Use vs. Commercial/Retail Trips Equivalency

The DRI was approved for a 150-room hotel which is part of the total build-out of commercial land uses. If a hotel is constructed, then it will displace commercial/retail based upon a trips equivalent rate. More specifically, a trip generation equivalency factor shall be used to convert allowable commercial land uses for hotel. Table 1 reflects the equivalency factor of 1 room/215.4 s.f. of commercial land uses. As an example, if a 150 room hotel were to be constructed, then the total amount of approved commercial land uses will be reduced by 32,300 s.f., and if a 90-room hotel were to be constructed then the total amount of approved commercial land uses will be reduced by 19,385 s.f.

Table C
Trips Equivalency
(Summation of Table 1)

Hotel	Commercial Retail
1 Room	**215.4 s.f.**

EXHIBIT 5

FIDDLER'S CREEK [A]

TRIP GENERATION CALCULATION
(Current Development Parameters – 6,000 Dwelling Units – and New Trip Generation Calculations [1])

Land Use	Size		PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	24-Hour
Single-Family	3,000 d.u.	Total	1,472	828	2,300	23,691
		Internal [2]	353	199	552	5,686
		External	1,119	629	1,748	18,005
Multifamily	3,000 d.u.	Total	685	338	1,023	11,724
		Internal [2]	164	81	245	2,862
		External	521	257	778	8,862
Business/Commercial	325,000 s.f. [3]	Total	656	711	1,367	14,545
		Internal [2]	131	142	273	2,909
		External	525	569	1,094	11,636
		Pass-By [4]	202	202	404	3,025
		Net New	323	367	690	8,611
Golf	90 holes	Total	109	138	247	3,217
		Internal	87	111	198	2,574
		External	22	27	49	643
TOTAL		Total	2,922	2,015	4,937	53,177
		Internal	735	533	1,268	14,031
		External	2,187	1,482	3,669	39,146
		Pass-By	202	202	404	3,025
		Net New	1,985	1,280	3,265	36,121

Footnotes:

(A) Exhibit taken from the report titled Fiddler's Creek DRI Notice of Proposed Change Traffic Study and dated April 26, 2000.
(1) ITE, Trip Generation, Sixth Edition.
(2) Internal orientation based on prior NOPC Traffic Study.
(3) Considered as commercial.
(4) Pass-by derived from prior NOPC Traffic Study.

TABLE 1

TRIP GENERATION EQUIVALENCY COMPUTATIONS

Fiddler's Creek DRI - NOPC

Land Use Code	Land Use Description	Build Schedule
310	**Hotel**	150 Rooms
820	**Shopping Center**	325,000 s.f.

Land Use Code	Trip Period	Trip Generation Equation	Total Trips	Trips Enter/Exit	
LUC 310	PM Peak Hour (vph) =	T= 0.70(X) =	**105 vph**	51 / 54	vph
		49% Enter/ 51% Exit =			
**********					
LUC 820	PM Peak Hour (vph) =	Ln(T) = 0.67Ln(X)+3.31 =	1,320 vph	633 / 686	vph
		48% Enter/ 52% Exit =			
	Adjusted for Internal Capture =	20% Internal	**1,056 vph**	507 / 549	vph

****
****

Averaged Trip Rate

Hotel = 0.70 Trip/Room

Retail/Commercial = (1,056 trips/325 ksf) = 3.25 Trip/1 ksf

Equivalency Trip Rate

1 Hotel Room = 215.4 s.f. of Retail/Commercial

1st Example Computations - 150 Rooms @ 0.70 trips/room = 105 vph

& 32,300 s.f. of Retail/Commerical @ 3.25 Trip/ 1ksf = 105 vph

Therefore: 32,300 s.f. of Retail/Commercial/150 Rooms = 215.4 s.f./1 room

2nd Example Computations - 90 Rooms @ 0.70 trips/room = 63 vph

& 19,385 s.f. of Retail/Commerical @ 3.25 Trip/ 1ksf = 105 vph

Therefore: 19,385 s.f. of Retail/Commercial/90 Rooms = 215.4 s.f./1 room

****

For informational purposes, this report includes trips estimated for the DRI based upon the ITE's Trip Generation Manual, 9th Edition (See Table 2). The total estimated trips were adjusted for pass-by and internal capture using the same rates previously established for the DRI. The results are summarized below which reflect that the trips estimated based upon the 9th Edition are slightly fewer than the results based upon the 6th Edition. The more conservative values (6th Edition) will be used for the purpose of establishing needed site-related improvements.

Table D
Site-Generated Trips
(ITE 9th Edition - see Table 1)

PM New Peak Hour Two-Way Trips (vph)	*PM New Peak Hour Entering Trips (vph)*	*PM New Peak Hour Exiting Trips (vph)*
3,152 Enter/Exit	*1,908 Enter*	*1,244 Exit*

TABLE 2

TRIP GENERATION COMPUTATIONS

Fiddler's Creek DRI - NOPC

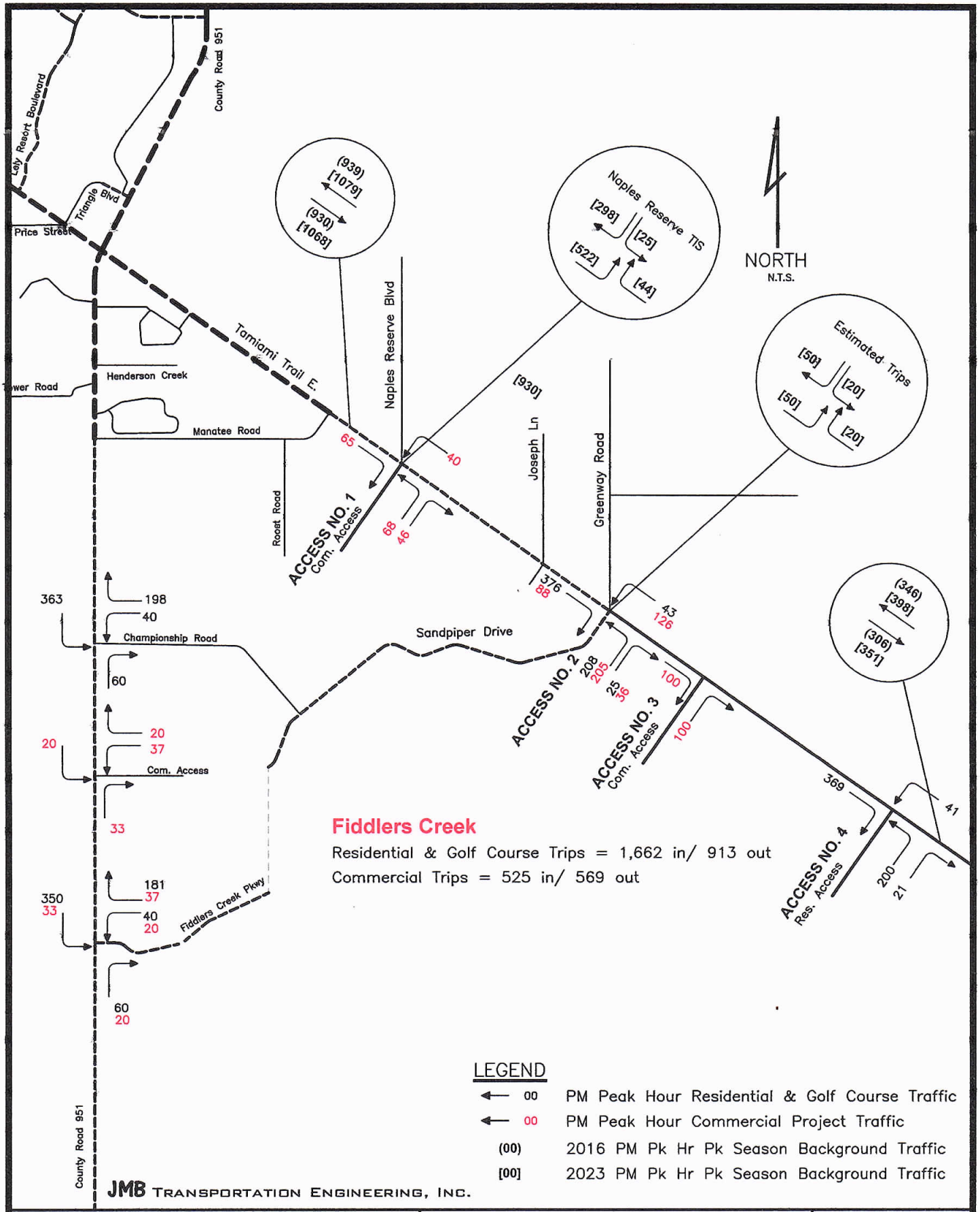
Land Use Code	Land Use Description	Build Schedule
210	**Single-Family Detached Housing**	3,000 Units
230	**Residential Condo/Townhouse**	3,000 Units
820	**Shopping Center**	325,000 s.f.
	Golf Course	90 Holes

Land Use Code	Trip Period	Trip Generation Equation	Total Trips	Trips Enter/Exit
LUC 210	PM Peak Hour (vph) =	Ln(T) = 0.90Ln(X)+0.51 = 63% Enter/ 37% Exit =	2,243 vph	1413 / 830 vph
	Adjusted for Internal Capture =	24% Internal	**1,705 vph**	1,074 / 631 vph
**********				
LUC 230	PM Peak Hour (vph) =	Ln(T) = 0.82Ln(X)+0.32 = 67% Enter/ 33% Exit =	978 vph	655 / 323 vph
	Adjusted for Internal Capture =	24% Internal	**743 vph**	498 / 245 vph
**********				
LUC 820	PM Peak Hour (vph) =	Ln(T) = 0.67Ln(X)+3.31 = 48% Enter/ 52% Exit =	1,320 vph	633 / 686 vph
	Adjusted for Internal Capture =	20% Internal	**1,056 vph**	507 / 549 vph
	Adjusted for Pass-by =	38% Internal	**655 vph**	314 / 340 vph
**********				
Golf	PM Peak Hour (vph) =		247 vph	109 / 138 vph
	Adjusted for Internal Capture =	80% Internal	**49 vph**	22 / 28 vph
**********				
**********				
	Total External Trips	PM Peak Hour (vph) =	**3,553 vph**	**2,101 / 1,453** vph
	Total New External Trips	PM Peak Hour (vph) =	**3,152 vph**	**1,908 / 1,244** vph

Reassignment of Project Traffic

As previously mentioned, there will be no change in the type, number or size of the previously approved/vested land uses within Fiddlers Creek DRI. Therefore, there will be no increase in site-generated trips and no increase in off-site transportation impacts. However, the relocation of a portion of the commercial land uses from the Collier Boulevard corridor over to Tamiami Trail will result in a change in the previously estimated ingress/egress movements at the project's accesses on both of the adjacent arterials. Figure 1 provides a detail of the expected site access turning movement volumes at build-out of Fiddler's Creek as a result of relocating a portion of the commercial land uses and the proposed access modifications.

It should be noted that redistribution of a portion of the project's commercial trips from the more heavily traveled Collier Boulevard (south of Tamiami Trail) to the less traveled Tamiami Trail (recently widened to six lanes) will relieve some pressure on the more critical segment of Collier Boulevard. The relocation of commercial land uses will also better serve other existing and planned residential communities to the immediate north and to the east that currently travel to the more commercially developed areas to the west. Therefore, the net effect of relocating a portion of the approved commercial land uses will be a benefit to the public in both convenience and reducing traffic demands on more heavily traveled roadways.



Fiddler's Creek

Sept 27, 2017

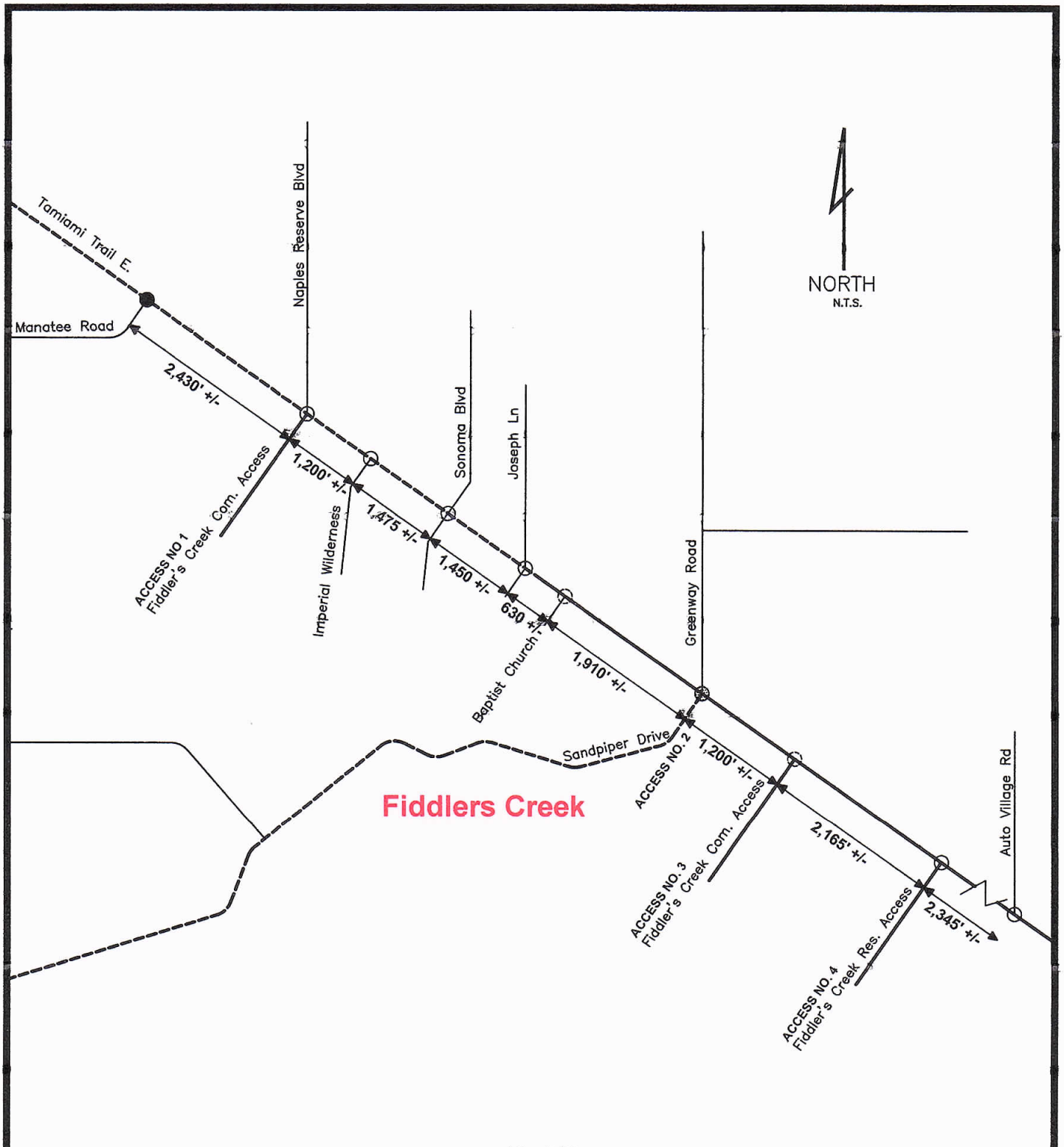
Project Traffic Assignment & 2023 Background Traffic Volumes

FIGURE 1

Site Access/Intersection Separation

As part of the DRI's NOPC, the Florida Department of Transportation requested that the distance between the project's points of access and nearest intersecting street/access be summarized and compared to their intersection separation criteria along U.S. 41. Figure 2 depicts the site access spacing which has been summarized below.

Site Access & U.S. 41 (Class 3)	Closest Intersection	Required Spacing	Existing Spacing
Approved - Access No. 1 (Full Access/Naples Reserve)	Manatee Road (west) (Full - Signal)	2,640'	2,430' +/-
	Imperial Wilderness (east) (Full Access)	2,640'	1,200' +/-
Site Access & U.S. 41 (Class 4)			
Approved - Access No. 2 (Full Access - Sandpiper/Greenway)	First Baptist Church (west) (Directional Left)	660'	1,910' +/-
	Joseph Lane (west) (Full Access)	660'	2,540' +/-
	Proposed Access No. 3 (east) (right-in/out)	660'	1,200' +/-
Proposed - Access No. 3 (Commercial Right-In/Out Access)	Sandpiper/Greenway (west) (Full Access)	660'	1,200 +/-
	Proposed Access No. 4 (east) (Full Access)	660'	2,165' +/-
Proposed - Access No. 4 (Residential Full Access)	Proposed Access No. 3 (west) (right-in/out)	660'	2,165' +/-
	Auto Village Rd (east) (Full Access)	660'	2,345' +/-



JMB TRANSPORTATION ENGINEERING, INC.

Fiddler's Creek Sept 27, 2017	**U.S. 41 - Access Spacing**	**FIGURE 2**

Site Access Improvements - U.S. 41

As part of the DRI's NOPC, the Florida Department of Transportation (FDOT) requested that a reevaluation of needed site-related improvements be performed for those points of access on U.S. 41 based upon the anticipated increase in traffic demands at those locations. The report performed the analysis based upon 2023 project build-out traffic conditions. The 2023 background traffic were estimated based upon traffic counts obtained within proximity of the site and adjusted for peak season conditions. An annual growth rate of 2% was used to forecast future traffic demands.

U.S. 41 has a posted speed limit of 60 MPH and pursuant to FDOT Index No. 301, the required turn lane length (taper + deceleration) is 405'. The vehicle storage determinations for each of the access points were based upon the use of the Highway Capacity Manual's software (refer to pages A1 thru A3 in the appendix) and the results are summarized below.

Site Access & U.S. 41	Required Improvements	Required Storage	Existing Improvements
Approved - Access No. 1 (Commercial Access/Naples Reserve)	EB Right Ingress Turn Lane (free-flow condition)(405' req'd)	None	None
	WB Left Ingress Turn Lane (455' req'd)	50'	625'
	Two (2) NB outbound lanes (separate left & thru/right)	50' each	None
	Traffic Signal *(if warranted)*		
Approved - Access No. 2 (Sandpiper/Greenway)	Traffic Signal *(if warranted)*		None
	EB Right Ingress Turn Lane (455' req'd)	50'	380' in length
	WB Left Ingress Turn Lane (455' req'd)	50'	405' in length
	Two (2) NB outbound lanes (separate left & thru/right)	50' each	3 Outbound Lanes (left, thru & right)
Proposed - Access No. 3 (Commercial Right-In/Out Access)	EB Right Ingress Turn Lane (free-flow condition) (405' req'd)	None	405' in length
	One (1) NB outbound lane (Right-out)	50'	None
Proposed - Access No. 4 (Residential Full Access)	EB Right Ingress Turn Lane (free-flow condition) (405' req'd)	None	None
	Two (2) NB outbound lanes (separate left & right)	50' each	None
	WB Left Ingress Turn Lane (405' req'd)	50'	None

Site Access Improvements - S.R. 951

As part of the DRI's NOPC, the Florida Department of Transportation (FDOT) requested that a summation of the "required" vs. "completed" site-related improvements be provided for those points of access on S.R. 951, which has been provided below.

Site Access & S.R. 951	Required Improvements	Existing Improvements
Championship Road	NB Right Ingress Turn Lane	Completed
	SB Left Ingress Turn Lane	Completed
Commercial Tract Access	NB Right Ingress Turn Lane	Completed
	SB Left Ingress Turn Lane	Completed
Fiddler's Creek Pkwy	NB Right Ingress Turn Lane	Completed
	SB Left Ingress Turn Lane	Completed
	Two (2) outbound lanes (separate left & right)	Completed
	Traffic Signal	Completed

APPENDIX

Support Documents

APPENDIX

Support Documents

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JMB Transportation*	Intersection	*Access No. 1*
Agency/Co.		Jurisdiction	
Date Performed	*10/11/2017*	Analysis Year	*2023 Project Build-Out*
Analysis Time Period	*PM Peak hour*		

Project Description

East/West Street: *U.S. 41*	North/South Street: *Site Access/Naples Reserve*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*522*	*850*	*65*	*40*	*900*	*44*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*549*	*894*	*68*	*42*	*947*	*46*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*1*	*2*	*1*	*1*	*2*	*1*
Configuration	*L*	*T*	*R*	*L*	*T*	*R*
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*68*	*1*	*46*	*25*	*1*	*44*
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*71*	*1*	*48*	*26*	*1*	*46*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*1*	*0*	*1*	*1*	*0*
Configuration	*L*		*TR*	*L*		*TR*

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*L*	*L*	*L*		*TR*	*L*		*TR*
v (veh/h)	*549*	*42*	*71*		*49*	*26*		*47*
C (m) (veh/h)	*704*	*724*			*0*			*0*
v/c	*0.78*	*0.06*						
95% queue length	*7.63*	*0.18*						
Control Delay (s/veh)	*25.8*	*10.3*						
LOS	*D*	*B*			*F*			*F*
Approach Delay (s/veh)	--	--						
Approach LOS	--	--						

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	JMB Transportation	Intersection	Access No. 2
Agency/Co.		Jurisdiction	
Date Performed	10/11/2017	Analysis Year	2023 Project Build-Out
Analysis Time Period	PM Peak hour		

Project Description

East/West Street: U.S. 41	North/South Street: Sandpiper/Greenway
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	50	510	457	167	650	20
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	52	536	481	175	684	21
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Raised curb					
RT Channelized			0			0
Lanes	1	2	1	1	2	1
Configuration	L	T	R	L	T	R
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	405	5	57	20		50
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	426	5	60	21	1	52
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	1	0	1	1	0
Configuration	L		TR	L		TR

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	L		TR	L		TR
v (veh/h)	52	175	426		65	21		53
C (m) (veh/h)	902	690	166		572	140		606
v/c	0.06	0.25	2.57		0.11	0.15		0.09
95% queue length	0.18	1.00	36.84		0.38	0.51		0.29
Control Delay (s/veh)	9.2	12.0	765.4		12.1	35.2		11.5
LOS	A	B	F		B	E		B
Approach Delay (s/veh)	--	--	665.7			18.2		
Approach LOS	--	--	F			C		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*JMB Transportation*	Intersection	*Access No. 4*
Agency/Co.		Jurisdiction	
Date Performed	*10/11/2017*	Analysis Year	*2023 Project Build-Out*
Analysis Time Period	*PM Peak hour*		

Project Description

East/West Street: *U.S. 41*	North/South Street: *Site Access No. 4*
Intersection Orientation: *East-West*	Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*351*	*369*	*41*	*398*	
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*369*	*388*	*43*	*418*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Raised curb*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*1*	*1*	*1*	*0*
Configuration		*T*	*R*	*L*	*T*	
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*200*		*46*			
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*210*	*0*	*48*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*1*	*0*	*1*	*0*	*0*	*0*
Configuration	*L*		*R*			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*L*	*L*		*R*			
v (veh/h)		*43*	*210*		*48*			
C (m) (veh/h)		*863*	*428*		*681*			
v/c		*0.05*	*0.49*		*0.07*			
95% queue length		*0.16*	*2.64*		*0.23*			
Control Delay (s/veh)		*9.4*	*21.2*		*10.7*			
LOS		*A*	*C*		*B*			
Approach Delay (s/veh)	--	--	*19.3*					
Approach LOS	--	--	*C*					

INTERSECTION TURNING MOVEMENT COUNTS

Intersection: Manatee Road & U.S. 41
Date of Count: 2/9/2016 Tuesday

	Eastbound			Westbound			Northbound			Southbound			Total All
AM Period	L	T	R	L	T	R	L	T	R	L	T	R	Apprch's
7:00 - 7:15	0	82	18	18	95	0	19	0	14	0	0	0	246
7:15 - 7:30	0	105	27	31	112	0	26	0	18	0	0	0	319
7:30 - 7:45	0	148	32	40	162	0	18	0	12	0	0	0	412
7:45 - 8:00	0	155	47	40	187	0	27	0	11	0	0	0	467
8:00 -8:15	0	167	52	46	175	0	35	0	25	0	0	0	500
8:15 -8:30	0	143	44	39	191	0	34	0	17	0	0	0	468
8:30 - 8:45	0	162	36	23	218	0	21	0	11	0	0	0	471
8:45 - 9:00	0	142	28	28	209	0	27	0	21	0	0	0	455
AM Totals	0	1104	284	265	1349	0	207	0	129	0	0	0	3338
Approach %	0.0%	79.5%	20.5%	16.4%	83.6%	0.0%	61.6%	0.0%	38.4%				
% / Lane	0.0%	33.1%	8.5%	7.9%	40.4%	0.0%	6.2%	0.0%	3.9%				
% / Inter.		41.6%			48.4%			10.1%					

	Eastbound			Westbound			Northbound			Southbound			
PM Period	L	T	R	L	T	R	L	T	R	L	T	R	
4:00 - 4:15	0	133	19	13	198	0	12	0	12	0	0	0	387
4:15 - 4:30	0	179	21	11	222	0	15	0	19	0	0	0	467
4:30 - 4:45	0	196	17	14	219	0	23	0	21	0	0	0	490
4:45 - 5:00	0	206	14	14	213	0	22	0	22	0	0	0	491
5:00 - 5:15	0	209	12	12	208	0	19	0	14	0	0	0	474
5:15 -5:30	0	229	16	15	231	0	16	0	16	0	0	0	523
5:30 - 5:45	0	221	14	13	233	0	14	0	13	0	0	0	508
5:45 - 6:00	0	185	18	9	187	0	18	0	15	0	0	0	432
PM Totals	0	1558	131	101	1711	0	139	0	132	0	0	0	3772
Approach %	0.0%	92.2%	7.8%	5.6%	94.4%	0.0%	51.3%	0.0%	48.7%				
% / Lane	0.0%	41.3%	3.5%	2.7%	45.4%	0.0%	3.7%	0.0%	3.5%				
% / Inter.		44.8%			48.0%			7.2%					

PEAK HOUR TURNING MOVEMENT VOLUMES

	Eastbound			Westbound			Northbound			Southbound			
	L	T	R	L	T	R	L	T	R	L	T	R	
AM Period													
7:45- 8:45	0	613	175	165	715	0	114	0	65				1847
Approach %	0.0%	77.8%	22.2%	18.8%	81.3%	0.0%	63.7%	0.0%	36.3%				
PM Period													
4:45 - 5:45	0	865	56	54	885	0	71	0	65				1996
Approach %	0.0%	93.9%	6.1%	5.8%	94.2%	0.0%	52.2%	0.0%	47.8%				

AM Peak Hour Factor = 0.92
PM Peak Hour Factor = 0.95

Intersection: Manatee Road & U.S. 41
Date of Count: 2/9/2016

2016 PEAK HOUR TURNING MOVEMENT VOLUMES

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Period	0	613	175	165	715	0	114	0	65	0	0	0
PM Period	0	865	56	54	885	0	71	0	65	0	0	0

2016 PEAK SEASON PEAK HOUR TURNING MOVEMENTS

Seasonal Adj Seasonal Adjustment Factor = 1

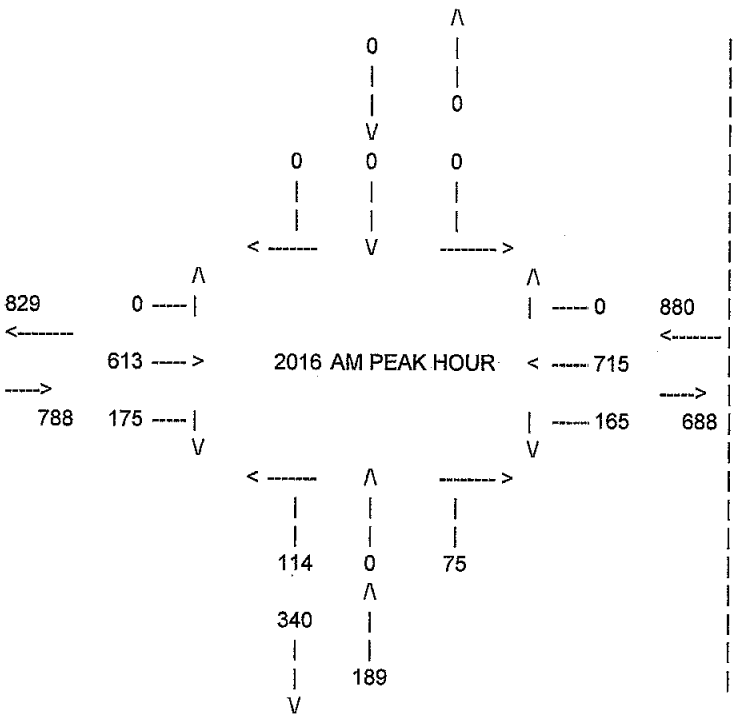
	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Period	0	613	175	165	715	0	114	0	65	0	0	0
PM Period	0	865	56	54	885	0	71	0	65	0	0	0

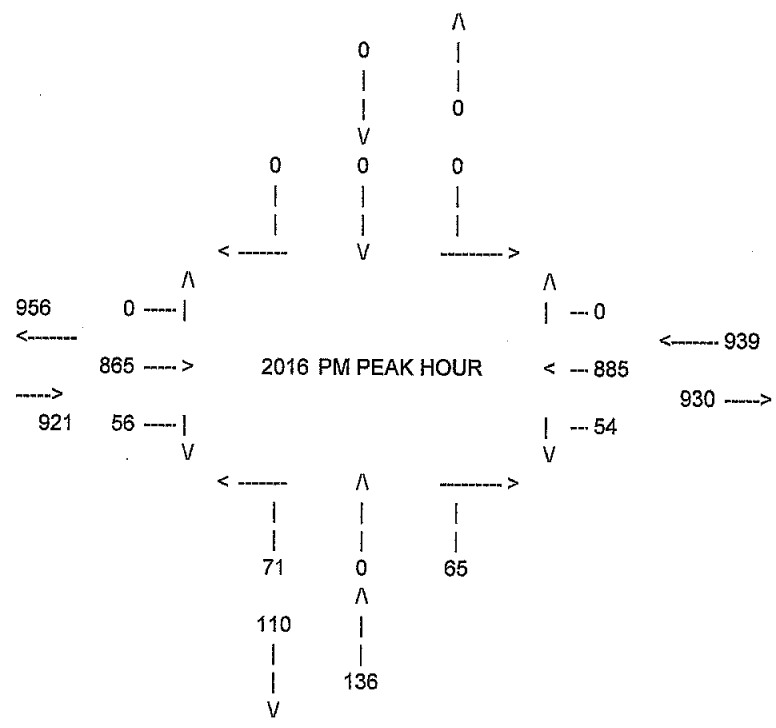
2023 PEAK SEASON PEAK HOUR TURNING MOVEMENTS

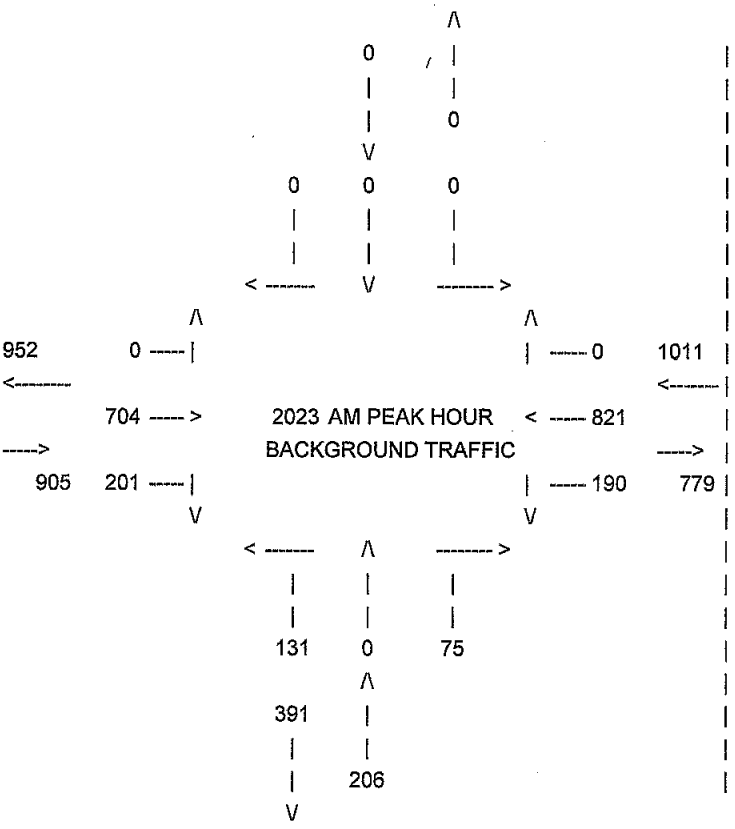
Annual Growth Rate = 2.0%

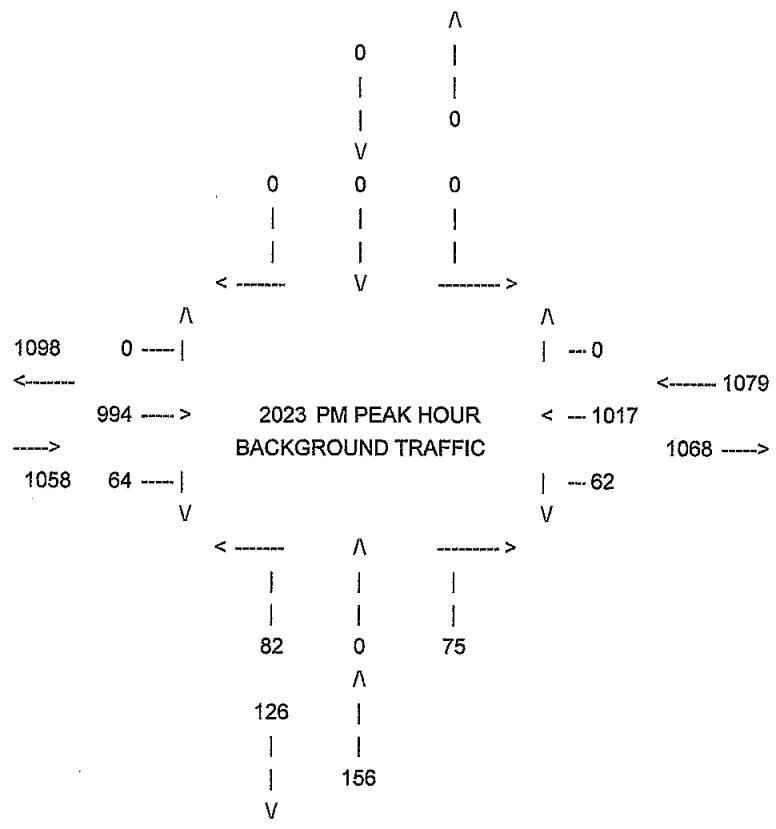
	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
AM Period	0	704	201	190	821	0	131	0	75	0	0	0
PM Period	0	994	64	62	1017	0	82	0	75	0	0	0

Intersection: **Manatee Road & U.S. 41**









Intersection: **Manatee Road & U.S. 41**

A6

INTERSECTION TURNING MOVEMENT COUNTS

Intersection: Riggs Road @ Tamiami Trail East
Date of Count: 05/13/2014 Tuesday

	Eastbound			Westbound			Northbound			Southbound			
PM Period	L	T	R	L	T	R	L	T	R	L	T	R	
4:00 - 4:15	3	33	0	0	60	0	0	0	0	0	0	3	99
4:15 - 4:30	2	35	0	0	57	1	0	0	0	1	0	2	98
4:30 - 4:45	4	49	0	0	61	2	0	0	0	0	0	2	118
4:45 - 5:00	3	55	0	0	66	1	0	0	0	0	0	0	125
5:00 - 5:15	3	54	0	0	60	0	0	0	0	1	0	3	121
5:15 -5:30	1	48	0	0	55	0	0	0	0	0	0	2	106
5:30 - 5:45	5	57	0	0	70	1	0	0	0	0	0	0	133
5:45 - 6:00	2	53	0	0	66	0	0	0	0	0	0	1	122
PM Totals	23	384	0	0	495	5	0	0	0	2	0	13	922
Approach %	5.7%	94.3%	0.0%	0.0%	99.0%	1.0%				13.3%	0.0%	86.7%	
% / Lane	2.5%	41.6%	0.0%	0.0%	53.7%	0.5%	0.0%	0.0%	0.0%	0.2%	0.0%	1.4%	
% / Inter.		44.1%			54.2%			0.0%			1.6%		

PEAK HOUR TURNING MOVEMENT VOLUMES

	Eastbound			Westbound			Northbound			Southbound			
	L	T	R	L	T	R	L	T	R	L	T	R	
PM Period													
4:45 - 5:45	12	214	0	0	251	2	0	0	0	1	0	5	485

PM Peak Hour Factor = 0.91

2014 PEAK SEASON PEAK HOUR TURNING MOVEMENTS

Seasonal Adjustment Factor = 1.3

	Eastbound			Westbound			Northbound			Southbound			
	L	T	R	L	T	R	L	T	R	L	T	R	
PM Period	16	278	0	0	326	3	0	0	0	1	0	7	

Intersection: Riggs Road @ Tamiami Trail East
Date of Count: 05/13/2014

2016 PEAK SEASON PEAK HOUR TURNING MOVEMENTS

Annual Growth Rate = 2.0%

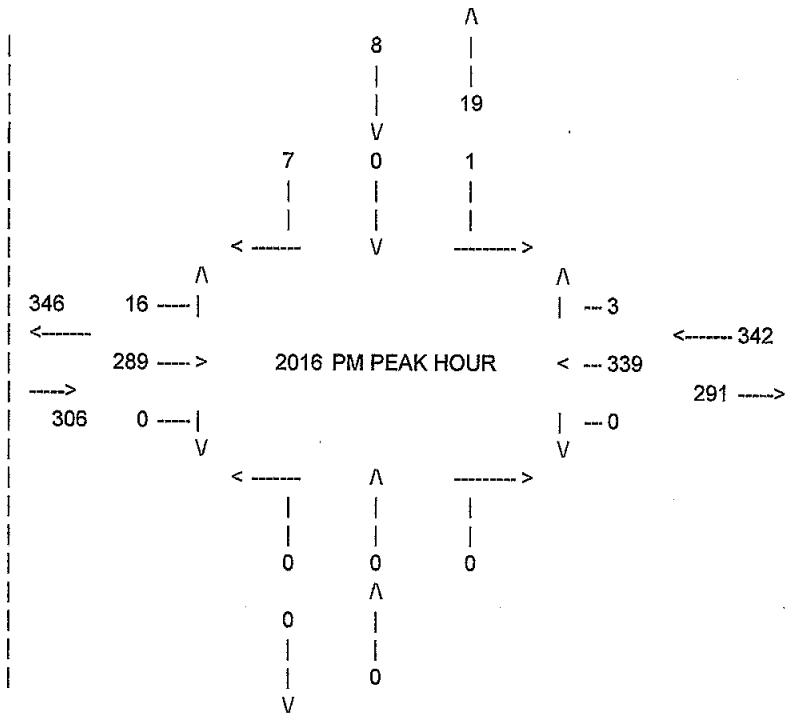
	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
PM Period	16	289	0	0	339	3	0	0	0	1	0	7

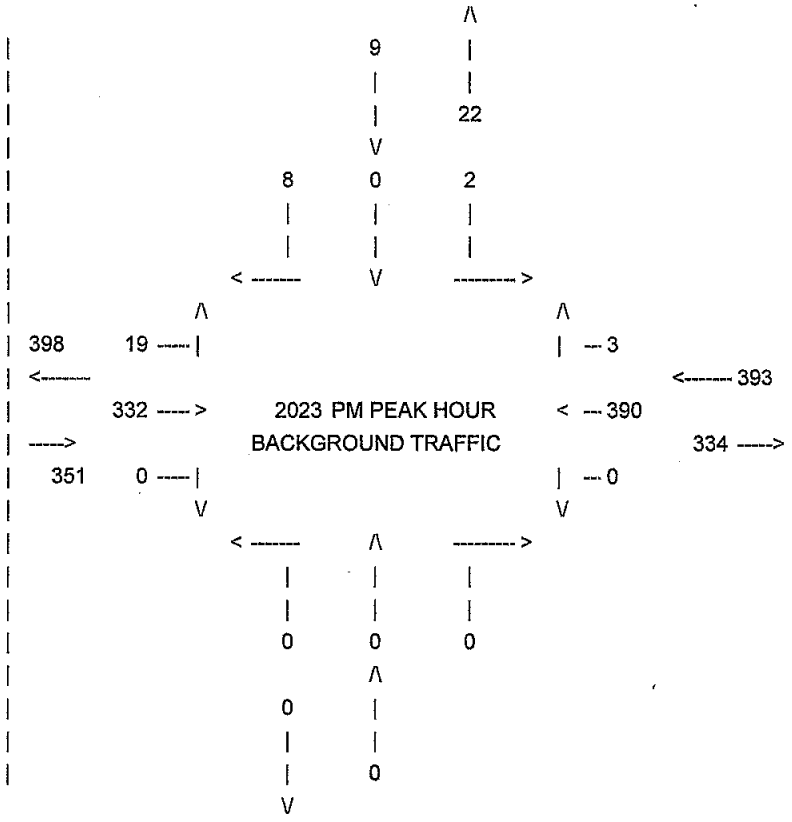
2023 PEAK SEASON PEAK HOUR TURNING MOVEMENTS

Annual Growth Rate = 2.0%

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
PM Period	19	332	0	0	390	3	0	0	0	2	0	8

Intersection: **Riggs Road @ Tamiami Trail East**





FLORIDA DEPARTMENT OF TRANSPORTATION
2016 ANNUAL AVERAGE DAILY TRAFFIC REPORT - REPORT TYPE: ALL

COUNTY: 03 COLLIER

SITE	SITE TYPE	DESCRIPTION	DIRECTION 1		DIRECTION 2		AADT TWO-WAY	"K" FCTR	"D" FCTR	"T" FCTR
0001		SR 29, NORTH OF CR 890/LAKE TRAFFORD ROAD CC6	N	6200	S	6400	12600 C	9.0	58.2F	6.8A
0002		SR 29, SOUTHEAST OF CR 846/14TH STREET	N	3500E	S	3600E	7100 F	9.0	58.2F	18.3P
0003		SR 45/US 41, SOUTH OF CR 896/PINE RIDGE RD CC5	S	22000	N	23000	45000 C	9.0	56.8F	3.0A
0005		SR 90/US 41, NORTHWEST OF CR 92 CC5	E	3000E	W	3100E	6100 F	9.5	57.4F	9.1P
0006		SR 29, NORTHEAST OF SR 90/US 41 CC615	N	1000E	S	900E	1900 F	9.5	57.4F	14.5P
0011		US 41, 200 FT. EAST OF CR-94	E	1200E	W	1300E	2500 F	9.5	54.0F	14.3P
0012		SR 45/US 41 NORTH OF CR 896, PINE RIDGE RD CC5	S	22000	N	21000	43000 C	9.0	56.8F	3.2A
0014		SR 90/US 41, NORTHWEST OF SR 951 CC5	E	16000	W	16500	32500 C	9.0	56.8F	3.7A
0015		SR 90/US 41 SE OF CR 864/RATTLESNAKE HAMMOCK CC5	E	21000	W	21000	42000 C	9.0	56.8F	3.5A
0017		SR 45/US 41, SOUTH OF CR 862/VAN BEACH RD CC563	S	20500	N	20500	41000 C	9.0	56.8F	2.8P
0018		SR45/US41, N OF CR846/IMMOKALEE RD/111TH AV CC56	S	30000	N	31000	61000 C	9.0	56.8F	3.1P
0022		NORTH RD, FROM TERMINAL DRIVE TO CR 31 CC692 N	E	1100E	W	1100E	2200 F	9.0	57.4F	3.1P
0023		CR 31/AIRPORT ROAD, S OF CR 886/GGATE PKWY CC53	N	24500	S	24000	48500 C	9.0	57.4F	5.4A
0024		CR 31/AIRPORT RD, S OF CR 896/PINE RIDGE RD CC	N	20000	S	19500	39500 C	9.0	57.4F	3.2P
0029		SR 29, WEST OF CR 846/1ST STREET CC664	W	7700	E	8300	16000 C	9.0	58.2F	6.6A
0031		SR 29, SOUTH OF SR 93/I 75 COLLIER COUN	N	750	S	700	1450 C	9.5	57.4F	18.7A

A10

SITE TYPE : BLANK= PORTABLE; T= TELEMETERED
"K" FACTOR : DEPARTMENT ADOPTED STANDARD K FACTOR BEGINING WITH COUNT YEAR 2011
AADT FLAGS : C= COMPUTED; E= MANUAL EST; F= FIRST YEAR EST; S= SECOND YEAR EST; T= THIRD YEAR EST; R= FOURTH YEAR EST; V= FIFTH YEAR EST; 6= SIXTH YEAR EST; X= UNKNOWN
"D/T" FLAGS : A= ACTUAL; F= FACTOR CATG; D= DIST FUNCL; P= PRIOR YEAR; S= STATEWIDE DEFAULT; W= ONE-WAY ROAD; X= CROSS REF

FLORIDA DEPARTMENT OF TRANSPORTATION
2016 ANNUAL AVERAGE DAILY TRAFFIC REPORT - REPORT TYPE: ALL

COUNTY: 03 COLLIER

SITE	SITE TYPE	DESCRIPTION		DIRECTION 1		DIRECTION 2		AADT TWO-WAY		"K" FCTR	"D" FCTR	"T" FCTR
0182		SR 29, NORTH OF SR 93/I 75	COLLIER COUN	N	1600E	S	1600E	3200	F	9.5	58.2F	24.1P
0183		SR 82, EAST OF HENDRY/COLLIER COUNTY LINE	LC2	E	6100	W	5900	12000	C	9.5	58.2F	12.3A
0184		SR-29, N OF SR-82		N	2600E	S	2600E	5200	F	9.5	58.2F	22.8P
0189		N COLLIER BLVD, N OF SAN MARCO RD		N	10500	S	10500	21000	C	9.0	54.4F	2.2A
0190		SR 951, NORTH OF SR 84 & SOUTH OF I-75/SR93	CC5	N	26500	S	28500	55000	C	9.0	54.4F	6.4A
0191	T	SR-93/I-75,0.5 MI N OF CR-896,COLLIER CO.		N	39569	S	40884	80453	C	9.0	56.3A	7.9A
0192		SR 45/US 41, SOUTH OF 99TH AVENUE NORTH	CC5	S	26000	N	24000	50000	C	9.0	56.8F	2.9A
0193		SR 84/DAVIS BLVD, WEST OF SR/CR 951	CC601	E	11000	W	12500	23500	C	9.0	57.4F	5.5A
0194		SR 90/US 41, SOUTHEAST OF SR 951	CC6	E	7800	W	7400	15200	C	9.0	57.4F	8.5A
0195		SR 84, WEST OF SANTA BARBARA BOULEVARD	CC5	E	13500	W	13500	27000	C	9.0	57.4F	3.8A
0200		SR 82, WEST OF SR 29 CC661		E	6400	W	6400	12800	C	9.5	58.2F	12.7A
0205		SR 29, NORTH OF FARM WORKER'S VILLAGE	CC66	N	3000E	S	3000E	6000	F	9.0	58.2F	17.1P
0270	T	SR-90/US-41,0.7 MI W OF CR-94,COLLIER CO.		E	1465	W	1561	3026	C	9.5	55.1A	12.0A
0351	T	SR-93/I-75,W OF EVERGLADES BLVD,COLLIER CO.		E	12207	W	12390	24597	C	10.5	54.5A	10.9A
2000		SR 93/I 75, WEST OF CR 951		W	19500	E	20000	39500	C	9.0	56.1F	9.9P
2003		SR 93/I-75, SOUTH OF CR 896/PINE RIDGE ROAD		N	35500	S	37000	72500	C	9.0	56.1F	9.3A

SITE TYPE : BLANK= PORTABLE; T= TELEMETERED
"K" FACTOR : DEPARTMENT ADOPTED STANDARD K FACTOR BEGINING WITH COUNT YEAR 2011
AADT FLAGS : C= COMPUTED; E= MANUAL EST; F= FIRST YEAR EST; S= SECOND YEAR EST; T= THIRD YEAR EST; R= FOURTH YEAR EST; V= FIFTH YEAR EST; 6= SIXTH YEAR EST; X= UNKNOWN
"D/T" FLAGS : A= ACTUAL; F= FACTOR CATG; D= DIST FUNCL; P= PRIOR YEAR; S= STATEWIDE DEFAULT; W= ONE-WAY ROAD; X= CROSS REF

FLORIDA DEPARTMENT OF TRANSPORTATION
2016 ANNUAL AVERAGE DAILY TRAFFIC REPORT - REPORT TYPE: ALL

COUNTY: 03 COLLIER

SITE	SITE TYPE	DESCRIPTION	DIRECTION 1		DIRECTION 2		AADT TWO-WAY	"K" FCTR	"D" FCTR	"T" FCTR
0094	T	SR-90/US-41,.3 MI SE OF CR31/AIRPORT RD,COLLIER	E	20878	W	21408	42286 C	9.0	55.8A	2.9A
0104		SR 90/US 41, EAST OF SR 29 CC616	E	1900E	W	2000E	3900 F	9.5	54.0F	11.7P
0111		SR 90/US 41, WEST OF SR 29 CC617	E	2300E	W	2300E	4600 F	9.5	57.4F	9.8P
0123		SR90/US41 W OF CR851/GOODLETTE (W OF 12TH ST) NP	E	19000	W	19000	38000 C	9.0	56.8F	3.6P
0124		SR 90/US 41, SOUTHEAST OF CR 851/GOODLETTE RD NP	E	28000	W	29000	57000 C	9.0	56.8F	2.8A
0143	T	SR 29,0.4 MI S OF SR-82,IMMOKALEE,COLLIER CO.	N	8183	S	8267	16450 C	9.5	58.2A	10.3A
0157		SR 951, SOUTH OF SR 90/US 41 CC557	N	21000	S	20500	41500 C	9.0	54.4F	4.6A
0158		CR 851, GOODLETTE RD, S OF CR896,P RIDGE RD CC5	N	19000E	S	19000E	38000 F	9.0	57.4F	3.0P
0160		PINE RIDGE RD, E OF CR 31/AIRPORT RD CC526 N	E	28500E	W	29000E	57500 F	9.0	57.4F	3.8P
0170		SR 84, EAST OF SANTA BARBARA BLVD CC560	E	6500	W	6900	13400 C	9.0	57.4F	5.7A
0173		SR 93/I 75, EAST OF SR 29 COLLIER COUNTY	W	11000	E	11500	22500 C	10.5	55.2F	15.3A
0175		CR 31/AIRPORT ROAD, N OF SR 84/DAVIS BLVD CC55	N	24000E	S	22500E	46500 F	9.0	57.4F	4.3P
0176		SR 84, EAST OF CR 31/AIRPORT ROAD CC5	E	12500	W	12500	25000 C	9.0	57.4F	3.2A
0177		CR 31/AIRPORT ROAD, S OF SR 84/DAVIS BLVD CC55	N	16500E	S	15500E	32000 F	9.0	57.4F	4.5P
0178		SR 84, WEST OF CR 31/AIRPORT ROAD CC5	E	13000	W	13000	26000 C	9.0	57.4F	4.3A
0179		SR-45/US-41, N OF CR 887/OLD US 41	S	19000	N	19500	38500 C	9.0	56.8F	2.9P

A12

SITE TYPE : BLANK= PORTABLE; T= TELEMETERED
"K" FACTOR : DEPARTMENT ADOPTED STANDARD K FACTOR BEGINING WITH COUNT YEAR 2011
AADT FLAGS : C= COMPUTED; E= MANUAL EST; F= FIRST YEAR EST; S= SECOND YEAR EST; T= THIRD YEAR EST; R= FOURTH YEAR EST; V= FIFTH YEAR EST; 6= SIXTH YEAR EST; X= UNKNOWN
"D/T" FLAGS : A= ACTUAL; F= FACTOR CATG; D= DIST FUNCL; P= PRIOR YEAR; S= STATEWIDE DEFAULT; W= ONE-WAY ROAD; X= CROSS REF

NOPC EXHIBIT "E"

FIDDLER'S CREEK DRI
NOTICE OF PROPOSED CHANGE
TRAFFIC STUDY

Project #00540

April 26, 2000

Prepared by:
DAVID PLUMMER & ASSOCIATES, INC.
1531 Hendry Street
Fort Myers, Florida 33901

dpa

SUMMARY OF TRIP GENERATION CALCULATION
FOR 3000 DWELLING UNITS OF SINGLE FAMILY DWELLINGS

	AVERAGE RATE	STANDARD DEVIATION	ADJUSTMENT FACTOR	DRIVE WAY VOLUME
AVG WKDY 2-WAY VOL	7.90	0.00	1.00	23691
7-9 AM PK HR ENTER	0.18	0.00	1.00	527
7-9 AM PK HR EXIT	0.53	0.00	1.00	1582
7-9 AM PK HR TOTAL	0.70	0.00	1.00	2109
4-6 PM PK HR ENTER	0.49	0.00	1.00	1472
4-6 PM PK HR EXIT	0.28	0.00	1.00	828
4-6 PM PK HR TOTAL	0.77	0.00	1.00	2300
SATURDAY 2-WAY VOL	8.91	0.00	1.00	26745
PK HR ENTER	0.48	0.00	1.00	1441
PK HR EXIT	0.41	0.00	1.00	1228
PK HR TOTAL	0.89	0.00	1.00	2669
SUNDAY 2-WAY VOL	8.83	0.00	1.00	26484
PK HR ENTER	0.40	0.00	1.00	1215
PK HR EXIT	0.36	0.00	1.00	1077
PK HR TOTAL	0.76	0.00	1.00	2292

Note: A zero rate indicates no rate data available
The above rates were calculated from these equations:

24-Hr. 2-Way Volume:	LN(T) = .92LN(X) + 2.707, R^2 = .96
7-9 AM Peak Hr. Total:	T = .7(X) + 9.477
	R^2 = .89 , .25 Enter, .75 Exit
4-6 PM Peak Hr. Total:	LN(T) = .901LN(X) + .527
	R^2 = .91 , .64 Enter, .36 Exit
AM Gen Pk Hr. Total:	T = .704(X) + 12.09
	R^2 = .89 , .25 Enter, .75 Exit
PM Gen Pk Hr. Total:	LN(T) = .887LN(X) + .605
	R^2 = .91 , .64 Enter, .36 Exit
Sat. 2-Way Volume:	LN(T) = .956LN(X) + 2.54, R^2 = .92
Sat. Pk Hr. Total:	T = .886(X) + 11.065
	R^2 = .9 , .54 Enter, .46 Exit
Sun. 2-Way Volume:	T = 8.832(X) + -11.604, R^2 = .94
Sun. Pk Hr. Total:	T = .756(X) + 23.815
	R^2 = .86 , .53 Enter, .47 Exit

Source: Institute of Transportation Engineers
Trip Generation, 6th Edition, 1997.

TRIP GENERATION BY MICROTRANS

SUMMARY OF TRIP GENERATION CALCULATION
FOR 3000 DWELLING UNITS OF RESIDENTIAL CONDOMINIUM

	AVERAGE RATE	STANDARD DEVIATION	ADJUSTMENT FACTOR	DRIVE WAY VOLUME
AVG WKDY 2-WAY VOL	3.91	0.00	1.00	11724
7-9 AM PK HR ENTER	0.04	0.00	1.00	128
7-9 AM PK HR EXIT	0.21	0.00	1.00	624
7-9 AM PK HR TOTAL	0.25	0.00	1.00	752
4-6 PM PK HR ENTER	0.23	0.00	1.00	685
4-6 PM PK HR EXIT	0.11	0.00	1.00	338
4-6 PM PK HR TOTAL	0.34	0.00	1.00	1023
SATURDAY 2-WAY VOL	3.76	0.00	1.00	11273
PK HR ENTER	0.16	0.00	1.00	486
PK HR EXIT	0.14	0.00	1.00	414
PK HR TOTAL	0.30	0.00	1.00	901
SUNDAY 2-WAY VOL	3.25	0.00	1.00	9753
PK HR ENTER	0.12	0.00	1.00	366
PK HR EXIT	0.13	0.00	1.00	380
PK HR TOTAL	0.25	0.00	1.00	746

Note: A zero rate indicates no rate data available
The above rates were calculated from these equations:

24-Hr. 2-Way Volume:	LN(T) = .85LN(X) + 2.564, R^2 = .83
7-9 AM Peak Hr. Total:	LN(T) = .79LN(X) + .298
	R^2 = .74 , .17 Enter, .83 Exit
4-6 PM Peak Hr. Total:	LN(T) = .827LN(X) + .309
	R^2 = .79 , .67 Enter, .33 Exit
AM Gen Pk Hr. Total:	LN(T) = .808LN(X) + .209
	R^2 = .78 , .18 Enter, .82 Exit
PM Gen Pk Hr. Total:	LN(T) = .777LN(X) + .59
	R^2 = .8 , .65 Enter, .35 Exit
Sat. 2-Way Volume:	T = 3.615(X) + 427.925, R^2 = .84
Sat. Pk Hr. Total:	T = .286(X) + 42.627
	R^2 = .84 , .54 Enter, .46 Exit
Sun. 2-Way Volume:	T = 3.132(X) + 357.258, R^2 = .88
Sun. Pk Hr. Total:	T = .232(X) + 50.009
	R^2 = .78 , .49 Enter, .51 Exit

Source: Institute of Transportation Engineers
Trip Generation, 6th Edition, 1997.

TRIP GENERATION BY MICROTRANS

SUMMARY OF TRIP GENERATION CALCULATION
FOR 325 T.G.L.A. OF SHOPPING CENTER

	AVERAGE RATE	STANDARD DEVIATION	ADJUSTMENT FACTOR	DR-WAY VOLUME
AVG WKDY 2-WAY VOL	44.75	0.00	1.00	14545
7-9 AM PK HR ENTER	0.61	0.00	1.00	197
7-9 AM PK HR EXIT	0.39	0.00	1.00	126
7-9 AM PK HR TOTAL	0.99	0.00	1.00	323
4-6 PM PK HR ENTER	2.02	0.00	1.00	656
4-6 PM PK HR EXIT	2.19	0.00	1.00	711
4-6 PM PK HR TOTAL	4.21	0.00	1.00	1367
SATURDAY 2-WAY VOL	58.99	0.00	1.00	19173
PK HR ENTER	3.01	0.00	1.00	977
PK HR EXIT	2.77	0.00	1.00	902
PK HR TOTAL	5.78	0.00	1.00	1879
SUNDAY 2-WAY VOL	28.60	0.00	1.00	9295
PK HR ENTER	1.53	0.00	1.00	497
PK HR EXIT	1.59	0.00	1.00	517
PK HR TOTAL	3.12	0.00	1.00	1014

Note: A zero rate indicates no rate data available
The above rates were calculated from these equations:

24-Hr. 2-Way Volume:	LN(T) = .643LN(X) + 5.866, R^2 = .78
7-9 AM Peak Hr. Total:	LN(T) = .596LN(X) + 2.329
	R^2 = .51 , .61 Enter, .39 Exit
4-6 PM Peak Hr. Total:	LN(T) = .66LN(X) + 3.403
	R^2 = .81 , .48 Enter, .52 Exit
AM Gen Pk Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit
PM Gen Pk Hr. Total:	0
	R^2 = 0 , 0 Enter, 0 Exit
Sat. 2-Way Volume:	LN(T) = .628LN(X) + 6.229, R^2 = .82
Sat. Pk Hr. Total:	LN(T) = .651LN(X) + 3.773
	R^2 = .84 , .52 Enter, .48 Exit
Sun. 2-Way Volume:	T = 15.632(X) + 4214.458, R^2 = .52
Sun. Pk Hr. Total:	T = 3.12(X) + 0
	R^2 = 0 , .49 Enter, .51 Exit

Source: Institute of Transportation Engineers
Trip Generation, 6th Edition, 1997.

TRIP GENERATION BY MICROTRANS

SUMMARY OF TRIP GENERATION CALCULATION
FOR 90 HOLES OF GOLF COURSE

	AVERAGE RATE	STANDARD DEVIATION	ADJUSTMENT FACTOR	DRIVE WAY VOLUME
AVG WKDY 2-WAY VOL	35.74	12.12	1.00	3217
7-9 AM PK HR ENTER	1.75	0.00	1.00	158
7-9 AM PK HR EXIT	0.47	0.00	1.00	42
7-9 AM PK HR TOTAL	2.22	1.82	1.00	200
4-6 PM PK HR ENTER	1.21	0.00	1.00	109
4-6 PM PK HR EXIT	1.53	0.00	1.00	138
4-6 PM PK HR TOTAL	2.74	1.79	1.00	247
SATURDAY 2-WAY VOL	40.63	17.12	1.00	3657
PK HR ENTER	2.25	0.00	1.00	202
PK HR EXIT	2.34	0.00	1.00	211
PK HR TOTAL	4.59	2.73	1.00	413
SUNDAY 2-WAY VOL	39.53	13.52	1.00	3558
PK HR ENTER	0.00	0.00	1.00	0
PK HR EXIT	0.00	0.00	1.00	0
PK HR TOTAL	4.43	2.44	1.00	399

Note: A zero rate indicates no rate data available
Source: Institute of Transportation Engineers
Trip Generation, 6th Edition, 1997.

TRIP GENERATION BY MICROTRANS