TRAFFIC IMPACT STATEMENT

For

Santa Barbara Blvd & Golden Gate Pkwy Commercial Sub-District

(Collier County, Florida)

February 21, 2018
Revised March 5, 2019

Prepared by:

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CERTIFICATE OF AUTHORIZATION NO. 27830

(PROJECT NO. 180219)

James M. Banks

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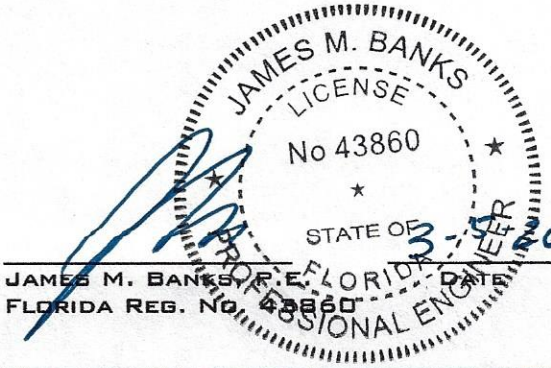


JAMES M. BANKS, P.E. — DATE 3-5-2019
FLORIDA REG. NO. 43860

TABLE OF CONTENTS

Conclusions

Based upon the findings of this report, it was determined that the proposed rezoning and future development of Santa Barbara Boulevard & Golden Gate Parkway Commercial Sub-District will not have a negative impact upon the surrounding road network. It was verified that all roads, within the project's area of influence, currently have a surplus of capacity and can accommodate the traffic associated with the proposed mixed-use commercial development that may consist of a gas-n-convenience store, fast food restaurants, and miscellaneous commercial retail land use. As determined, the road network will continue to operate at acceptable levels of service for 2021 project build-out conditions and will not create any off-site transportation deficiencies that need to be mitigated.

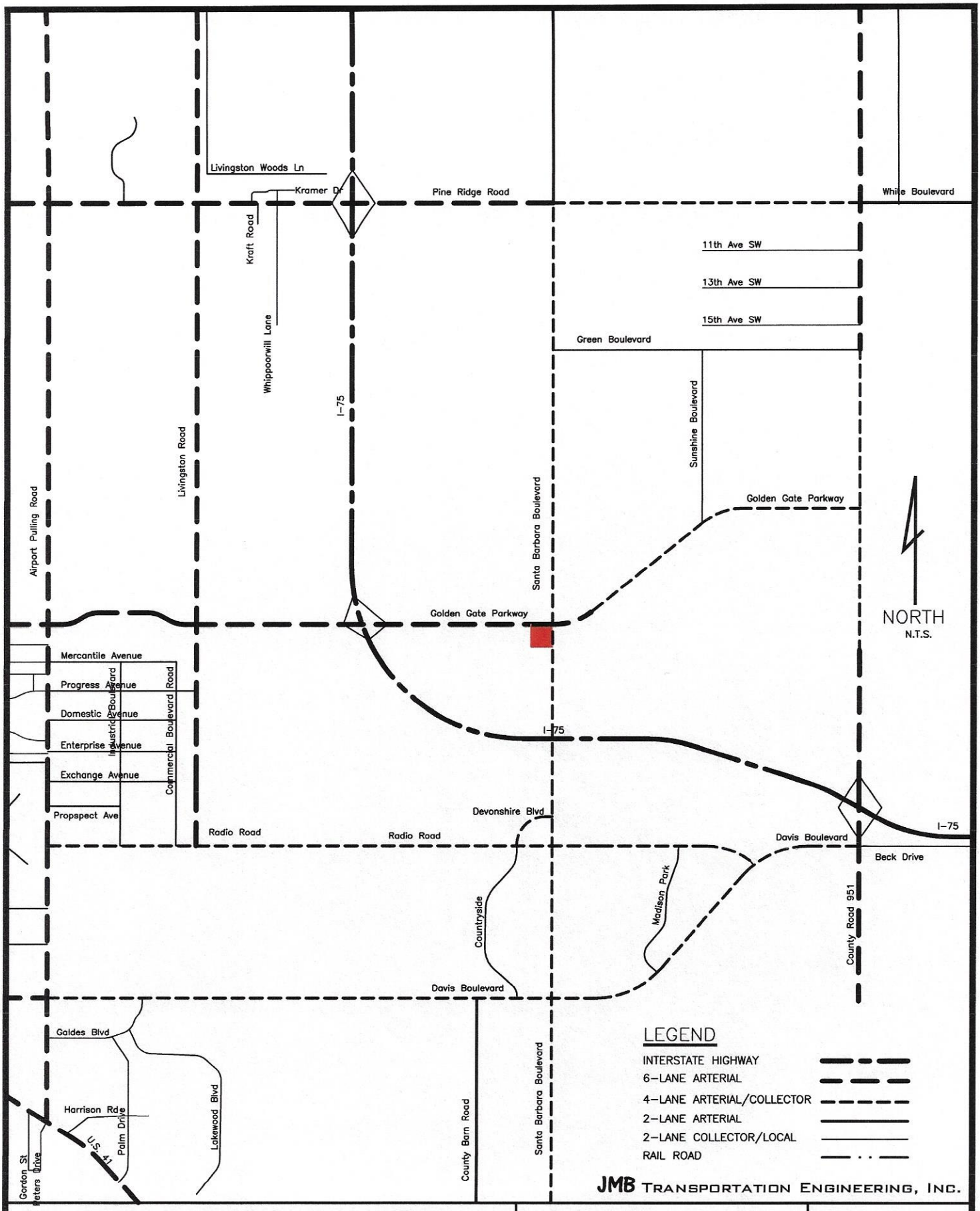
Note, site access conditions and off-site intersection impacts/mitigation will be evaluated at the time of acquiring SDP approval.

Scope of Project

Santa Barbara Boulevard & Golden Gate Parkway Commercial Sub-District is a proposed multi-use project that will consist of no more than 21,500 square feet of commercial land uses. It is proposed that the site may consist of a gas-n-convenience store (5,500 s.f. store & 20 fueling positions), fast food restaurants w/ drive thru (no more than 6,750 s.f.), and/or 21,500 s.f. of retail/office. The site is located on the southwest corner of Santa Barbara Boulevard & Golden Gate Parkway, within Collier County, Florida. It is proposed to have one (1) right-in/out access on Santa Barbara Boulevard and one (1) directional left-in median opening on Golden Gate Parkway, and if approved as part of the zoning application, a secondary right-in/out access on Golden Gate Parkway.

Table A
Proposed Land Uses

Proposed Land Uses	Number of Units or Size
Retail/Office	up to 21,500 s.f.
Fast Food w/ Drive-Thru	No more than 6,750 s.f.
Gas n Convenience Store	No more than 5,500 s.f. & 20 Fuel Positions
Total	**Maximum 21,500 s.f.**



Santa Barbara & Golden Gate Commercial Sub-District
August 15, 2018

Project Location & Roadway Classification

FIGURE 1

Project Generated Traffic

Traffic that can be expected to be generated by the project was 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 determined that land use codes Variety Store" (LUC 814) (*SIC Code varies*), "Fast Food w/ Drive-Thru" (LUC 934) (*SIC Code 5812*), and "Super Convenience/Gas Station" (LUC 960) (*SIC Code 5411 & 5541*) are most representative of the most intense land uses that could be developed.

Table 1 provides a detail of the total estimated trips. As determined, the project could generate up to 4,335 new daily trips and 436 vph and 387 vph new trips during the AM and PM peak hours, respectively.

Table B
New Site-Generated Trips
(Summation of Table 1)

Daily New Weekday Trips Generated (ADT)	New AM Peak Hour Trips Generated (vph)	New PM Peak Hour Trips Generated (vph)
4,335	436	387

TABLE 1

(Page 1 of 2)

TRIP GENERATION COMPUTATIONS

Santa Barbara Boulevard & Golden Gate Parkway Commerical Sub-District

Land Use Code	Land Use Description	Existing Land Use
814	**Variety Store**	9,250 s.f.
934	**Fast Food Restaurant w/ Drive Thru Window**	6,750 s.f.
960	*Super Convenience/Gas Station*	*5,500 s.f.*
960	**Super Convenience/Gas Station**	20 Fuel Positions

Code	Trip Period	Trip Generation Equation	Total Trips	Trips Enter/Exit
LUC 814	Daily Traffic (ADT) =	T= 63.47(X) =	587 ADT	
	AM Peak Hour (vph) =	T= 3.18(X) =	29 vph	
		57% Enter/ 43% Exit =		
	PM Peak Hour (vph) =	T= 6.84(X) =	63 vph	
		52% Enter/ 48% Exit =		
Pass-by Trips per Collier County= 25%			**25% Pass-by Rate**	
	New Daily Traffic (ADT) =	(ADT) x (% of New Trips)	**440 ADT**	
	New AM Peak Hour (vph) =	(AM) x (% of New Trips)	**19 vph**	11 / 8 vph
		57% Enter/ 43% Exit =		
	New PM Peak Hour (vph) =	(PM) x (% of New Trips)	**47 vph**	24 / 23 vph
		52% Enter/ 48% Exit =		
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LUC 934	Daily Traffic (ADT) =	T= 470.95(X) =	3,179 ADT	
	AM Peak Hour (vph) =	T= 40.19(X) =	271 vph	
		51% Enter/ 49% Exit =		
	PM Peak Hour (vph) =	T= 32.67(X) =	221 vph	
		52% Enter/ 48% Exit =		
Pass-by Trips per ITE= 50%			**50% Pass-by Rate**	
	New Daily Traffic (ADT) =	(ADT) x (% of New Trips)	**1,589 ADT**	
	New AM Peak Hour (vph) =	(AM) x (% of New Trips)	**136 vph**	69 / 67 vph
		51% Enter/ 49% Exit =		
	New PM Peak Hour (vph) =	(PM) x (% of New Trips)	**110 vph**	57 / 53 vph
		52% Enter/ 48% Exit =		

TABLE 1

(Page 2 of 2)

TRIP GENERATION COMPUTATIONS

Santa Barbara Boulevard & Golden Gate Parkway Commerical Sub-District

Land Use Code	Trip Period	Trip Generation Equation (Based upon Square Feet)	Total Trips	Trips Enter/Exit
LUC 960	*Daily Traffic (ADT) =*	*T=837.58(X) =*	*4,607 ADT*	
	AM Peak Hour (vph) =	*T=137.38(X) - 264.53 =*	*491 vph*	
		50% Enter/ 50% Exit =		
	PM Peak Hour (vph) =	*T=69.28(X) =*	*381 vph*	
		50% Enter/ 50% Exit =		
Pass-by Trips per Colier County = 50%			*50% Pass-by Rate*	
	New Daily Traffic (ADT) =		*2,303 ADT*	
	New AM Peak Hour (vph) =	*(ADT) x (% of New Trips)*	*246 vph*	*123 / 123 vph*
		(AM) x (% of New Trips)		
	New PM Peak Hour (vph) =	*50% Enter/ 50% Exit =*	*191 vph*	*95 / 95 vph*
		(PM) x (% of New Trips)		
		50% Enter/ 50% Exit =		

Land Use Code	Trip Period	Trip Generation Equation (Based upon Fuel Positions)	Total Trips	Trips Enter/Exit
LUC 960	Daily Traffic (ADT) =	T=230.52(X) =	4,610 ADT	
	AM Peak Hour (vph) =	T=28.08(X) =	562 vph	
		50% Enter/ 50% Exit =		
	PM Peak Hour (vph) =	T=22.96(X) =	459 vph	
		50% Enter/ 50% Exit =		
Pass-by Trips per Colier County = 50%			50% Pass-by Rate	
	New Daily Traffic (ADT) =		**2,305 ADT**	
	New AM Peak Hour (vph) =	(ADT) x (% of New Trips)	**281 vph**	140 / 140 vph
		(AM) x (% of New Trips)		
	New PM Peak Hour (vph) =	50% Enter/ 50% Exit =	**230 vph**	115 / 115 vph
		(PM) x (% of New Trips)		
		50% Enter/ 50% Exit =		

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Total Trips	Daily Traffic (ADT) =	8,376 ADT	
	AM Peak Hour (vph) =	862 vph	
	PM Peak Hour (vph) =	743 vph	
Total New Trips	New Daily Traffic (ADT) =	**4,335 ADT**	
	New AM Peak Hour (vph) =	**436 vph**	220 / 216 vph
	New PM Peak Hour (vph) =	**387 vph**	196 / 191 vph
Total Pass-by Trips	Pass-by Daily Traffic (ADT) =	4,041 ADT	
	Pass-by AM Peak Hour (vph) =	426 vph	213 / 213 vph
	Pass-by PM Peak Hour (vph) =	356 vph	178 / 178 vph

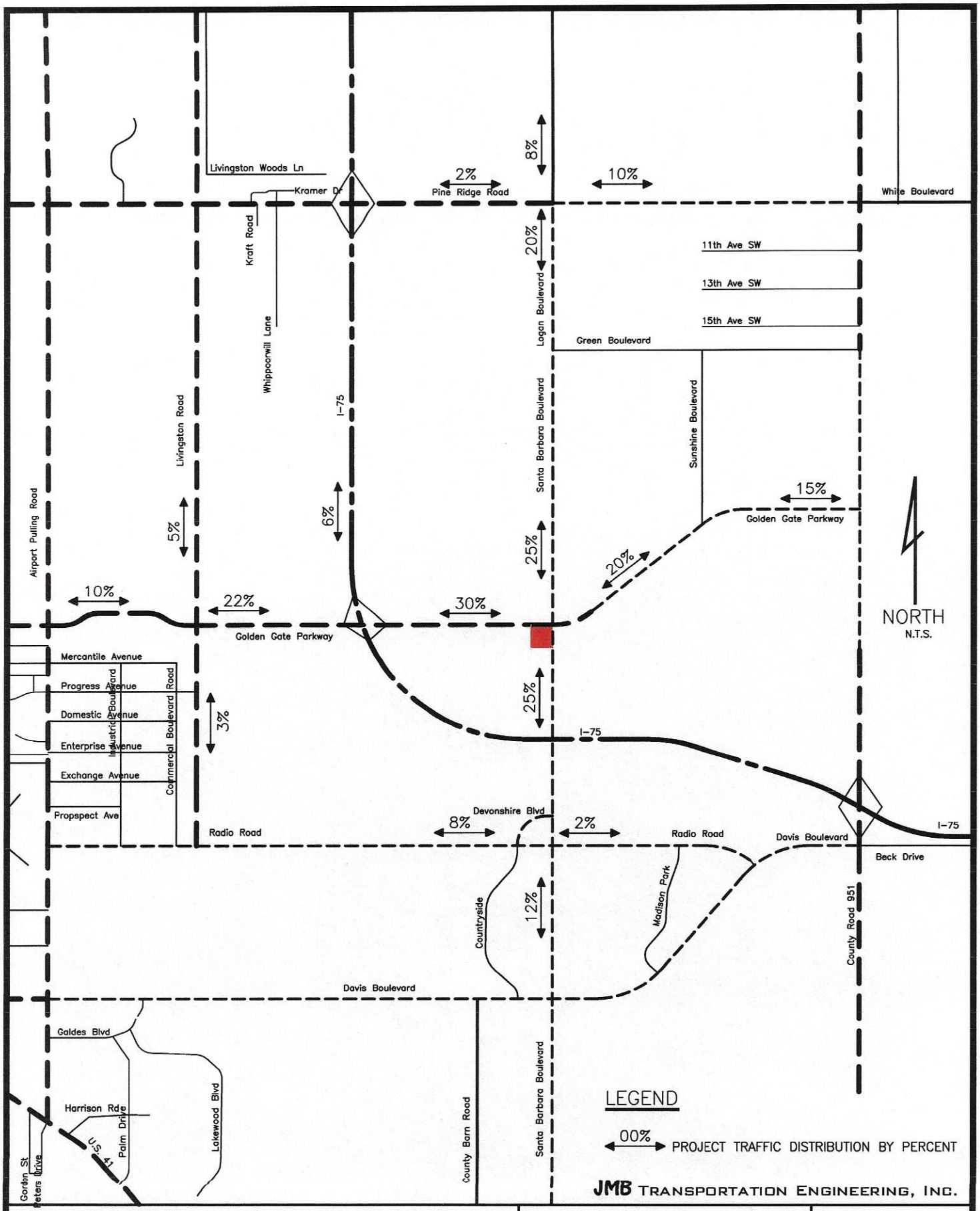
Existing + Committed Road Network
Figure 1 and Table 2A provide a detail of the surrounding E + C road network. Table 2A also shows the roads' respective minimum level of service performance standards and capacity. As shown, there are no significant 5-year committed roadway improvements within the project's area of impact.

Santa Barbra Boulevard varies from a four-lane to a six-lane major arterial that has a north/south orientation between its southern terminus at its intersection with Rattlesnake Hammock Road and its northern terminus at its intersection with Green Boulevard where the roadway continues north to Immokalee Road and is known as Logan Boulevard. Between Green Boulevard and Golden Gate Parkway, Santa Barbara Boulevard is classified as a four-lane divided arterial having a maximum service capacity of 2,100 vphpd. Between Golden Gate Boulevard and Rattlesnake Hammock Road, Santa Barbara Boulevard is classified as a six-lane divided arterial having a maximum service capacity of 3,100 vphpd. Within proximity of the site, the posted speed limit of Santa Barbara Boulevard is 45 MPH.

Golden Gate Parkway varies from a four-lane to a six-lane major arterial that has an east/west orientation between its western terminus at its intersection with U.S. 41 and its eastern terminus at its intersection with Collier Boulevard. Golden Gate Parkway (west of Santa Barbara Boulevard), is classified as a six-lane divided arterial having a maximum service capacity of 3,300 vphpd. Golden Gate Parkway (east of Santa Barbara Boulevard) is classified as a four-lane divided arterial having a maximum service capacity of 1,800 vphpd. Within proximity of the site, the posted speed limit of Golden Gate Parkway is 45 MPH.

Project Traffic Distribution
The project's traffic was distributed to the surrounding road network based upon logical means of ingress/egress, current and future traffic patterns in the area, and the location of surrounding residential areas as well as other schools was considered. Figure 2A and Table 2A provide a detail of the traffic distributions based on a percentage basis. Table 2A also depicts the traffic distributions by volume. Figure 2B depicts the trip assignments to the site access and nearby intersections.

Area of Significant Impact
The area of significant impact was determined based upon Collier County's 2%, 2% and 3% criteria (i.e., if the project's traffic is 2% or more of a roadway's adopted level of service capacity, then the project has a significant impact upon that link). Table 2A (AM) and Table 2A (PM) describe the project traffic distributions and the level of impact on the surrounding roadways for AM and PM peak hour conditions, respectively. Roads that were identified as being within the projects area impact are identified in Table 2A (AM and Table 2A (PM).



Santa Barbara & Golden Gate Commercial Sub-District

August 15, 2018

PROJECT-GENERATED TRAFFIC DISTRIBUTION

FIGURE 2A

TABLE 2A (AM)
PROJECT'S AREA OF IMPACT

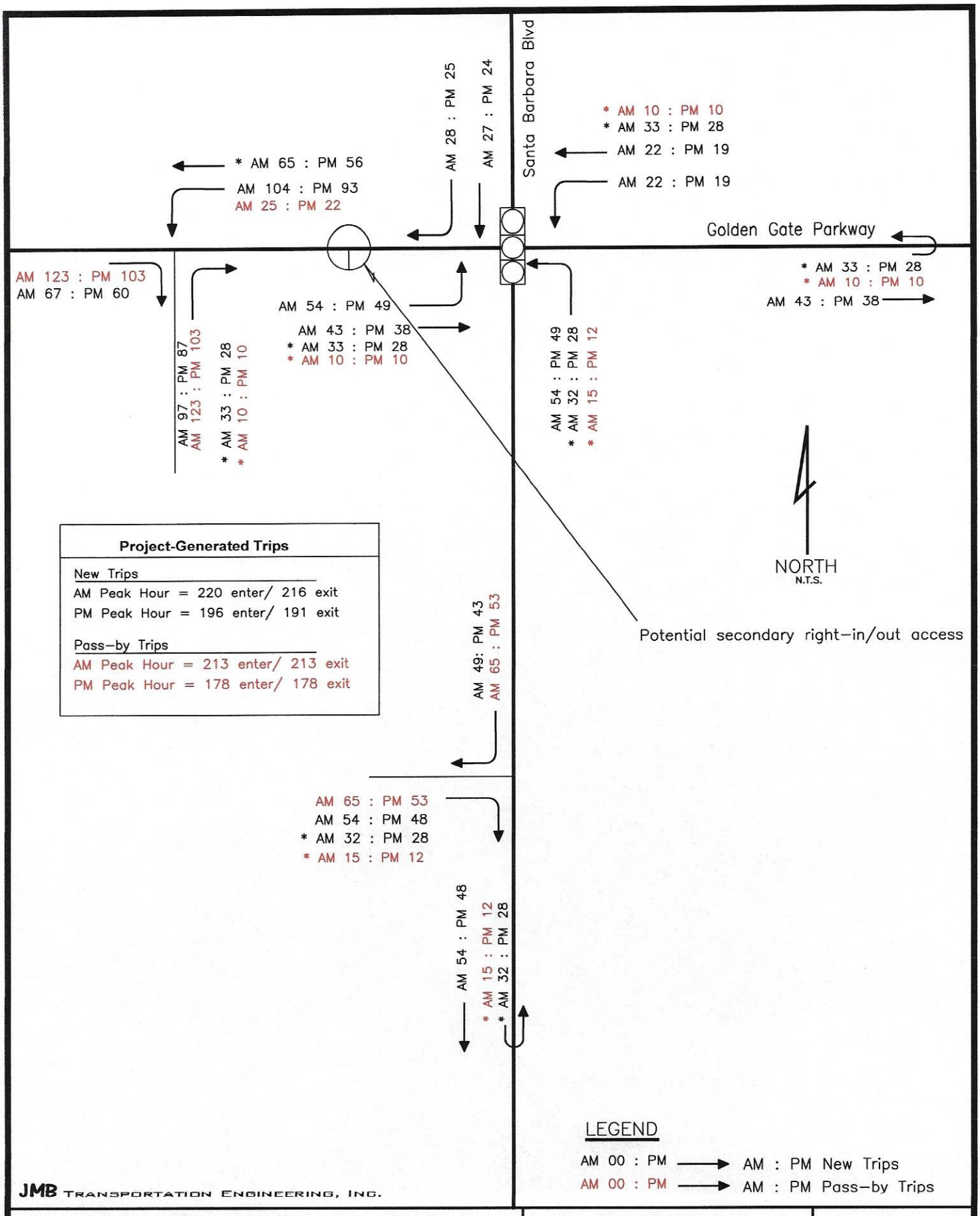
Project Traffic AM Peak Direction (vphpd) = **220** Entering
Project AM Traffic Non-Peak Direction (vph) = **216** Exiting

			Road Class	PK Dir. Serv. Vol. LOS	LOS Service PK Direction Volume (vphpd)	Project Traffic % Dist.	Project Pk Hr PK Dir (vphpd)	Project Pk Hr Pk Dir	Project Pk Hr Non-PK Dir (vph)	Project Non-Pk DiR	Impact Standard	Percent Impact	Significant Impact
19.0	**Golden Gate Pkwy**	Goodlette-Frank to Airport	6D	E	4350	5.0%	11	E	11	W	3%	0.25%	NO
20.1		Airport Road to Livingston	6D	E	3300	10.0%	22	E	22	W	3%	0.67%	NO
20.2		Livingston to I 75	6D	E	3300	22.0%	48	E	48	W	2%	1.47%	NO
21.0		I-75 to Santa Barbara	6D	E	3300	30.0%	66	E	65	W	2%	2.00%	YES
22.0		Santa Barbara to Collier Blvd	4D	D	1800	20.0%	44	W	43	E	2%	2.44%	YES
32.1	**County Road 951**	Green Blvd to Golden Gate Pkwy	4D	D	2300	10.0%	22	S	22	N	3%	0.96%	NO
	Green Boulevard	C.R. 951 to Santa Barbara	2U	D	900	2%	4	W	4	E	2%	0.49%	NO
48.0	**Logan Blvd**	Vanderbilt to Pine Rdige Rd	2U	D	1000	8%	18	S	17	N	3%	1.76%	NO
49.0		Pine Rdige Rd to Green Blvd	4D	D	1900	20%	44	S	43	N	3%	2.32%	NO
50.0		Immokalee Rd to Vanderbilt	2U	D	1000	3%	7	S	6	N	3%	0.66%	NO
68.0	**Pine Ridge Road**	I-75 to Logan Blvd	6D	E	2800	2%	4	E	4	E	3%	0.16%	NO
125.0		Logan Blvd to Collier Blvd	4D	D	2400	10%	22	E	22	E	3%	0.92%	NO
70.0	**Radio Road**	Livingston to Santa Barabara	4D	D	1800	8.0%	18	E	17	W	3%	0.98%	NO
71.0		Santa Barbara to Davis Blvd	4D	D	1800	2.0%	4	W	4	E	3%	0.24%	NO
76.0	**Santa Barbara Blvd**	Green to Golden Gate Pkwy	4D	D	2100	25%	55	S	54	N	2%	2.62%	YES
77.0		Golden Gate Pkwy to Radio Rd	6D	E	3100	25%	55	N	54	S	2%	1.77%	NO
78.0		Radio Rd to Davis Blvd	6D	E	3100	12.0%	26	N	26	S	2%	0.85%	NO
79.0		Davis to Rattlesnake	6D	E	3100	8.0%	18	N	17	S	2%	0.57%	NO

TABLE 2A (PM)
PROJECT'S AREA OF IMPACT

Project Traffic PM Peak Direction (vphpd) = **196** Entering
Project PM Traffic Non-Peak Direction (vph) = **191** Exiting

			Road Class	PK Dir. Serv. Vol. LOS	LOS Service PK Direction Volume (vphpd)	Project Traffic % Dist.	Project Pk Hr PK Dir (vphpd)	Project Pk Hr Pk Dir	Project Pk Hr Non-PK Dir (vph)	Project Non-Pk DiR	Impact Standard	Percent Impact	Significant Impact
19.0	**Golden Gate Pkwy**	Goodlette-Frank to Airport	6D	E	4350	5.0%	10	E	10	W	3%	0.23%	NO
20.1		Airport Road to Livingston	6D	E	3300	10.0%	20	E	19	W	3%	0.59%	NO
20.2		Livingston to I 75	6D	E	3300	22.0%	43	E	42	W	2%	1.31%	NO
21.0		I-75 to Santa Barbara	6D	E	3300	30.0%	59	E	57	W	2%	1.78%	NO
22.0		Santa Barbara to Collier Blvd	4D	D	1800	20.0%	39	W	38	E	2%	2.18%	YES
32.1	**County Road 951**	Green Blvd to Golden Gate Pkwy	4D	D	2300	10.0%	20	S	19	N	3%	0.85%	NO
	Green Boulevard	C.R. 951 to Santa Barbara	2U	D	900	2%	4	W	4	E	2%	0.44%	NO
48.0	**Logan Blvd**	Vanderbilt to Pine Rdige Rd	2U	D	1000	8%	16	S	15	N	3%	1.57%	NO
49.0		Pine Rdige Rd to Green Blvd	4D	D	1900	20%	39	S	38	N	3%	2.06%	NO
50.0		Immokalee Rd to Vanderbilt	2U	D	1000	3%	6	S	6	N	3%	0.59%	NO
68.0	**Pine Ridge Road**	I-75 to Logan Blvd	6D	E	2800	2%	4	E	4	E	3%	0.14%	NO
125.0		Logan Blvd to Collier Blvd	4D	D	2400	10%	20	E	19	E	3%	0.82%	NO
70.0	**Radio Road**	Livingston to Santa Barabara	4D	D	1800	8.0%	16	E	15	W	3%	0.87%	NO
71.0		Santa Barbara to Davis Blvd	4D	D	1800	2.0%	4	W	4	E	3%	0.22%	NO
76.0	**Santa Barbara Blvd**	Green to Golden Gate Pkwy	4D	D	2100	25%	49	S	48	N	2%	2.33%	YES
77.0		Golden Gate Pkwy to Radio Rd	6D	E	3100	25%	49	N	48	S	2%	1.58%	NO
78.0		Radio Rd to Davis Blvd	6D	E	3100	12.0%	24	N	23	S	2%	0.76%	NO
79.0		Davis to Rattlesnake	6D	E	3100	8.0%	16	N	15	S	2%	0.51%	NO



Santa Barbara & Golden Gate Commercial Sub-District

February 28, 2019

PROJECT-GENERATED TRAFFIC ASSIGNMENT

FIGURE 2B

2017 thru 2021 Project Build-out Traffic Conditions

In order to establish 2017 thru 2021 project build-out traffic conditions, two forecasting methods were used.

The first traffic forecasting method was the County's traffic count data was adjusted for peak season conditions, peak hour conditions, peak direction, and an annual growth rate was then applied. The peak season/peak hour/peak direction factor as shown on Table 2B was derived from the 2017 Collier County AUIR Reports. The annual growth rate was also obtained from the 2017 AUIR Report. Using the annual growth rate, the 2021 background traffic conditions were determined, which are depicted in Table 2B.

The second traffic forecasting method was to add the vested trips (trip bank) identified in the 2017 AUIR report to the adjusted peak season, peak hour and peak direction traffic counts. The 2021 vested trips "+" background traffic volumes are depicted in Table 2B.

The greater of the two values produced by the two forecasting procedures was then considered to reflect the 2021 background traffic. The net new project generated traffic was then added to the background traffic. Table 2C (AM) and Table 2C (PM) provide a summary of the 2017 thru 2021 traffic conditions and the roadways' level of service and remaining available capacity for AM and PM peak hour conditions, respectively. As shown, all project impacted roadways will continue to operate at the County's adopted minimum level of service thresholds at project build-out.

TABLE 2B
2017 & 2021 ROADWAY LINK VOLUMES

							Per Growth Rate Method		*Per Vested Trips Metho*
			2017 AUIR Traffic (vphpd)	AM AUIR Pk Dir	PM AUIR Pk Dir	Growth Rate per AUIR	2021 Peak Hour PK Direction Background (vphpd)	Trip Bank (vphpd)	2021 Peak Hour PK Direction Background Per Vested Trips (vphpd)
20.1	**Golden Gate Pkwy**	Airport Road to Livingston	2200	W	E	2.00%	**2381**	0	2200
20.2		Livingston to I 75	2770	W	E	2.00%	**2998**	1	2771
21.0		I-75 to Santa Barbara	1960	W	E	2.00%	**2122**	14	1974
22.0		Santa Barbara to Collier Blvd	1550	W	E	2.00%	**1678**	67	1617
48.0	**Logan Blvd**	Vanderbilt to Pine Rdige Rd	710	S	N	2.45%	**782**	35	745
49.0		Pine Rdige Rd to Green Blvd	1570	N	S	3.61%	**1809**	0	1570
50.0		Immokalee Rd to Vanderbilt	560	S	N	4.00%	**655**	30	590
76.0	**Santa Barbara Blvd**	Green to Golden Gate Pkwy	1270	S	N	2.00%	**1375**	0	1270
77.0		Golden Gate Pkwy to Radio Rd	1810	S	N	2.34%	**1985**	54	1864
78.0		Radio Rd to Davis Blvd	1350	S	N	3.98%	**1578**	213	1563
79.0		Davis to Rattlesnake	890	N	S	4.00%	**1041**	112	1002

TABLE 2C (AM)
2021 ROADWAY LINK VOLUME/CAPACITY ANALYSIS

			2017 Peak Hour PK Direction (vphpd)	2021 Peak Hour PK Direction Background (vphpd)	Bkgd Pk Dir	Project Pk Hr PK Dir (vphpd)	Prjct Pk Dir	Project Pk Hr Non-PK Dir (vph)	Prjct Non-Pk Dir	2021 Build-Out Peak Hour PK Dir (vphpd)	Serv. Vol. Pk Hr PK Dir (vphpd)	2021 Build-Out Peak Hour PK Direction v/c Ratio
20.1	**Golden Gate Pkwy**	Airport Road to Livingston	2200	2381	W	22	E	22	W	2403	3300	0.73
20.2		Livingston to I 75	2770	2998	W	48	E	48	W	3046	3300	0.92
21.0		I-75 to Santa Barbara	1960	2122	W	66	E	65	W	2186	3300	0.66
22.0		Santa Barbara to Collier Blvd	1550	1678	W	44	W	43	E	1722	1800	0.96
48.0	**Logan Blvd**	Vanderbilt to Pine Rdige Rd	710	782	S	18	S	17	N	800	1000	0.80
49.0		Pine Rdige Rd to Green Blvd	1570	1809	N	44	S	43	N	1852	1900	0.97
50.0		Immokalee Rd to Vanderbilt	560	655	S	7	S	6	N	662	1000	0.66
76.0	**Santa Barbara Blvd**	Green to Golden Gate Pkwy	1270	1375	S	55	S	54	N	1430	2100	0.68
77.0		Golden Gate Pkwy to Radio R	1810	1985	S	55	N	54	S	2039	3100	0.66
78.0		Radio Rd to Davis Blvd	1350	1578	S	26	N	26	S	1604	3100	0.52
79.0		Davis to Rattlesnake	890	1041	N	18	N	17	S	1059	3100	0.34

TABLE 2C (PM)
2021 ROADWAY LINK VOLUME/CAPACITY ANALYSIS

			2017 Peak Hour PK Direction (vphpd)	2021 Peak Hour PK Direction Background (vphpd)	Bkgd Pk Dir	Project Pk Hr PK Dir (vphpd)	Prjct Pk Dir	Project Pk Hr Non-PK Dir (vph)	Prjct Non-Pk Dir	2021 Build-Out Peak Hour PK Dir (vphpd)	Serv. Vol. Pk Hr PK Dir (vphpd)	2021 Build-Out Peak Hour PK Direction v/c Ratio
20.1	**Golden Gate Pkwy**	Airport Road to Livingston	2200	2381	E	20	E	19	W	2401	3300	0.73
20.2		Livingston to I 75	2770	2998	E	43	E	42	W	3041	3300	0.92
21.0		I-75 to Santa Barbara	1960	2122	E	59	E	57	W	2180	3300	0.66
22.0		Santa Barbara to Collier Blvd	1550	1678	E	39	W	38	E	1716	1800	0.95
48.0	**Logan Blvd**	Vanderbilt to Pine Rdige Rd	710	782	N	16	S	15	N	797	1000	0.80
49.0		Pine Rdige Rd to Green Blvd	1570	1809	S	39	S	38	N	1848	1900	0.97
50.0		Immokalee Rd to Vanderbilt	560	655	N	6	S	6	N	661	1000	0.66
76.0	**Santa Barbara Blvd**	Green to Golden Gate Pkwy	1270	1375	N	49	S	48	N	1422	2100	0.68
77.0		Golden Gate Pkwy to Radio R	1810	1985	N	49	N	48	S	2034	3100	0.66
78.0		Radio Rd to Davis Blvd	1350	1578	N	24	N	23	S	1602	3100	0.52
79.0		Davis to Rattlesnake	890	1041	S	16	N	15	S	1056	3100	0.34