

TABLE 1

Generalized **Annual Average Daily** Volumes for Florida's Urbanized Areas

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>					
<b>Class I (40 mph or higher posted speed limit)</b>						<b>Core Urbanized</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	16,800	17,700	**	4	47,600	66,400	83,200	87,300	
4	Divided	*	37,900	39,800	**	6	70,100	97,800	123,600	131,200	
6	Divided	*	58,400	59,900	**	8	92,200	128,900	164,200	174,700	
8	Divided	*	78,800	80,100	**	10	115,300	158,900	203,600	218,600	
						12	136,500	192,400	246,200	272,900	
<b>Class II (35 mph or slower posted speed limit)</b>						<b>Urbanized</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	7,300	14,800	15,600	4	45,900	62,700	75,600	85,400	
4	Divided	*	14,500	32,400	33,800	6	68,900	93,900	113,600	128,100	
6	Divided	*	23,300	50,000	50,900	8	91,900	125,200	151,300	170,900	
8	Divided	*	32,000	67,300	68,100	10	115,000	156,800	189,300	213,600	
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.)						<b>Freeway Adjustments</b>					
Non-State Signalized Roadways - 10%						Auxiliary Lanes Present in Both Directions + 20,000					
						Ramp Metering + 5%					
<b>Median &amp; Turn Lane Adjustments</b>						<b>UNINTERRUPTED FLOW HIGHWAYS</b>					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Lanes	Median	B	C	D	E
2	Divided	Yes	No	+5%		2	Undivided	11,700	18,000	24,200	32,600
2	Undivided	No	No	-20%		4	Divided	36,300	52,600	66,200	75,300
Multi	Undivided	Yes	No	-5%		6	Divided	54,600	78,800	99,400	113,100
Multi	Undivided	No	No	-25%		<b>Uninterrupted Flow Highway Adjustments</b>					
-	-	-	Yes	+ 5%		Lanes	Median	Exclusive left lanes		Adjustment factors	
<b>One-Way Facility Adjustment</b> Multiply the corresponding two-directional volumes in this table by 0.6						2	Divided	Yes		+5%	
						Multi	Undivided	Yes		-5%	
						Multi	Undivided	No		-25%	
<b>BICYCLE MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						<sup>1</sup> Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
Paved Shoulder/Bicycle Lane Coverage						<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
		B	C	D	E	<sup>3</sup> Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
0-49%		*	2,900	7,600	19,700	* Cannot be achieved using table input value defaults.					
50-84%		2,100	6,700	19,700	>19,700	** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
85-100%		9,300	19,700	>19,700	**	<i>Source:</i> Florida Department of Transportation Systems Implementation Office <a href="https://www.fdot.gov/planning/systems/">https://www.fdot.gov/planning/systems/</a>					
<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage											
		B	C	D	E						
0-49%		*	*	2,800	9,500						
50-84%		*	1,600	8,700	15,800						
85-100%		3,800	10,700	17,400	>19,700						
<b>BUS MODE (Scheduled Fixed Route)<sup>3</sup></b> (Buses in peak hour in peak direction)											
Sidewalk Coverage											
		B	C	D	E						
0-84%		> 5	≥ 4	≥ 3	≥ 2						
85-100%		> 4	≥ 3	≥ 2	≥ 1						

**TABLE 1**  
(continued)

Generalized **Annual Average Daily** Volumes for Florida's  
Urbanized Areas

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities				Interrupted Flow Facilities					
	State Arterials			Class I			Class I			
	Freeways	Core Freeways	Highways	Class I	Class II	Bicycle	Pedestrian			
<b>ROADWAY CHARACTERISTICS</b>										
Area type (urban, rural)	urban	urban								
Number of through lanes (both dir.)	4-10	4-12	2	4-6	2	4-8	2	4-8	4	4
Posted speed (mph)	70	65	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	70	55	55	50	55	35	35	50	50
Auxiliary Lanes (n,y)	n	n								
Median (d, twlt, n, nr, r)				d	n	r	n	r	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l	l
% no passing zone			80							
Exclusive left turn lane impact (n, y)			[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)					n	n	n	n	n	n
Facility length (mi)	3	3	5	5	2	2	1.9	1.8	2	2
<b>TRAFFIC CHARACTERISTICS</b>										
Planning analysis hour factor (K)	0.090	0.085	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.550	0.560	0.565	0.560	0.565	0.565
Peak hour factor (PHF)	0.95	0.95	0.95	0.95	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	4.0	4.0	2.0	2.0	1.0	1.0	1.0	1.0	2.5	2.0
Speed Adjustment Factor (SAF)	0.975	0.975		0.975						
Capacity Adjustment Factor (CAF)	0.968	0.968		0.968						
% left turns					12	12	12	12	12	12
% right turns					12	12	12	12	12	12
<b>CONTROL CHARACTERISTICS</b>										
Number of signals					4	4	10	10	4	6
Arrival type (1-6)					3	3	4	4	4	4
Signal type (a, c, p)					c	c	c	c	c	c
Cycle length (C)					120	150	120	120	120	120
Effective green ratio (g/C)					0.44	0.45	0.44	0.44	0.44	0.44
<b>MULTIMODAL CHARACTERISTICS</b>										
Paved shoulder/bicycle lane (n, y)									n, 50%, y	n
Outside lane width (n, t, w)									t	t
Pavement condition (d, t, u)									t	
On-street parking (n, y)										
Sidewalk (n, y)										n, 50%, y
Sidewalk/roadway separation(a, t, w)										t
Sidewalk protective barrier (n, y)										n
<b>LEVEL OF SERVICE THRESHOLDS</b>										
Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus		
	Density	Two-Lane	Multilane	Class I	Class II	Score	Score	Buses/hr.		
		%ffs	Density						ats	ats
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6		
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4		
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3		
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2		

% ffs = Percent free flow speed ats = Average travel speed

TABLE 2

Generalized **Annual Average Daily** Volumes for Florida's  
 Transitioning Areas and  
 Areas Over 5,000 Not In Urbanized Areas<sup>1</sup>

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES						
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>						
<b>Class I</b> (40 mph or higher posted speed limit)						Lanes	B	C	D	E		
Lanes	Median	B	C	D	E	4	45,100	59,000	70,300	72,600		
2	Undivided	*	14,400	16,200	**	6	65,300	86,600	104,100	108,900		
4	Divided	*	34,000	35,500	**	8	85,900	114,500	138,100	145,300		
6	Divided	*	52,100	53,500	**	10	101,600	135,600	161,900	181,800		
<b>Class II</b> (35 mph or slower posted speed limit)						<b>Freeway Adjustments</b>						
Lanes	Median	B	C	D	E	Auxiliary Lanes			Ramp			
2	Undivided	*	6,500	13,300	14,200	Present in Both Directions			Metering			
4	Divided	*	9,900	28,800	31,600	+ 20,000			+ 5%			
6	Divided	*	16,000	44,900	47,600							
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.)												
Non-State Signalized Roadways - 10%												
<b>Median &amp; Turn Lane Adjustments</b>												
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors								
2	Divided	Yes	No	+5%								
2	Undivided	No	No	-20%								
Multi	Undivided	Yes	No	-5%								
Multi	Undivided	No	No	-25%								
-	-	-	Yes	+ 5%								
<b>One-Way Facility Adjustment</b> Multiply the corresponding two-directional volumes in this table by 0.6												
<b>BICYCLE MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)												
Paved Shoulder/Bicycle Lane Coverage						B	C	D	E			
0-49%						*	2,600	6,100	19,500			
50-84%						1,900	5,500	18,400	>19,500			
85-100%						7,500	19,500	>19,500	**			
<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)												
Sidewalk Coverage						B	C	D	E			
0-49%						*	*	2,800	9,400			
50-84%						*	1,600	8,600	15,600			
85-100%						3,800	10,500	17,100	>19,500			
<b>BUS MODE (Scheduled Fixed Route)<sup>3</sup></b> (Buses in peak hour in peak direction)												
Sidewalk Coverage						B	C	D	E			
0-84%						> 5	≥ 4	≥ 3	≥ 2			
85-100%						> 4	≥ 3	≥ 2	≥ 1			
						<b>UNINTERRUPTED FLOW HIGHWAYS</b>						
						Lanes	Median	B	C	D	E	
						2	Undivided	11,300	17,300	23,400	31,600	
						4	Divided	34,600	49,900	63,000	71,700	
						6	Divided	51,700	74,800	94,600	107,400	
						<b>Uninterrupted Flow Highway Adjustments</b>						
						Lanes	Median	Exclusive left lanes	Adjustment factors			
						2	Divided	Yes	+5%			
						Multi	Undivided	Yes	-5%			
						Multi	Undivided	No	-25%			
						<sup>1</sup> Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.						
						<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.						
						<sup>3</sup> Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.						
						* Cannot be achieved using table input value defaults.						
						** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.						
						Source: Florida Department of Transportation Systems Implementation Office <a href="https://www.fdot.gov/planning/systems/">https://www.fdot.gov/planning/systems/</a>						

TABLE 2  
(continued)

Generalized **Annual Average Daily** Volumes for Florida's  
Transitioning Areas and  
Areas Over 5,000 Not In Urbanized Areas

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities					
	Freeways	Highways		State Arterials			Class I		
		Class I	Class II	Bicycle	Pedestrian				
<b>ROADWAY CHARACTERISTICS</b>									
Area type (urban, rural)	urban								
Number of through lanes (both dir.)	4-10	2	4-6	2	4-6	2	4-6	4	4
Posted speed (mph)	70	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	55	55	50	55	35	35	50	50
Auxiliary lanes (n,y)	n								
Median (d, n, nr, r)			d	n	y	n	y	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l
% no passing zone		60							
Exclusive left turn lane impact (n, y)		[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)				n	n	n	n	n	n
Facility length (mi)	6	5	5	1.8	2	2	2	2	2
<b>TRAFFIC CHARACTERISTICS</b>									
Planning analysis hour factor (K)	0.098	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.550	0.570	0.570	0.565	0.570	0.570
Peak hour factor (PHF)	0.92	0.92	0.92	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	9.0	4.0	4.0	2.0	3.0	2.0	3.0	3.0	3.0
Speed Adjustment Factor (SAF)	0.975		0.975						
Capacity Adjustment Factor (CAF)	0.968		0.968						
% left turns				12	12	12	12	12	12
% right turns				12	12	12	12	12	12
<b>CONTROL CHARACTERISTICS</b>									
Number of signals				5	4	10	10	4	6
Arrival type (1-6)				4	3	4	4	4	4
Signal type (a, c, p)				c	c	c	c	c	c
Cycle length (C)				120	150	120	150	120	120
Effective green ratio (g/C)				0.44	0.45	0.44	0.45	0.44	0.44
<b>MULTIMODAL CHARACTERISTICS</b>									
Paved shoulder/bicycle lane (n, y)								n, 50%, y	n
Outside lane width (n, t, w)								t	t
Pavement condition (d, t, u)								t	
On-street parking (n, y)								n	n
Sidewalk (n, y)									n, 50%, y
Sidewalk/roadway separation (a, t, w)									t
Sidewalk protective barrier (n, y)									n
<b>LEVEL OF SERVICE THRESHOLDS</b>									
Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus	
	Density	Two-Lane %ffs	Multilane Density	Class I ats	Class II ats	Score	Score	Buses/hr.	
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6	
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4	
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3	
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2	

% ffs = Percent free flow speed ats = Average travel speed

TABLE 3

Generalized **Annual Average Daily** Volumes for Florida's  
Rural Undeveloped Areas and  
Developed Areas Less Than 5,000 Population<sup>1</sup>

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	12,900	14,200	**	4	34,800	48,000	56,700	63,200	
4	Divided	*	29,300	30,400	**	6	48,900	69,000	82,600	94,800	
6	Divided	*	45,200	45,800	**	8	62,900	90,400	108,400	126,400	
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.) Non-State Signalized Roadways - 10%						<b>Freeway Adjustments</b> Auxiliary Lanes Present in Both Directions + 20,000					
<b>Median &amp; Turn Lane Adjustments</b>						<b>UNINTERRUPTED FLOW HIGHWAYS</b>					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		<b>Rural Undeveloped</b>					
2	Divided	Yes	No	+5%		Lanes	Median	B	C	D	E
2	Undivided	No	No	-20%		2	Undivided	4,600	8,600	14,000	28,500
Multi	Undivided	Yes	No	-5%		4	Divided	31,200	44,900	55,700	62,700
Multi	Undivided	No	No	-25%		6	Divided	46,800	67,600	83,500	94,200
-	-	-	Yes	+ 5%		<b>Developed Areas</b>					
<b>One-Way Facility Adjustment</b> Multiply the corresponding two-directional volumes in this table by 0.6						Lanes	Median	B	C	D	E
						2	Undivided	10,300	15,700	21,300	28,500
						4	Divided	29,300	42,300	54,000	61,600
						6	Divided	44,000	63,600	81,200	92,400
<b>BICYCLE MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						<b>Passing Lane Adjustments</b> Alter LOS B-D volumes in proportion to the passing lane length to the highway segment length					
<b>Rural Undeveloped</b>						<b>Uninterrupted Flow Highway Adjustments</b>					
Paved Shoulder/Bicycle Lane Coverage	B	C	D	E		Lanes	Median	Exclusive left lanes	Adjustment factors		
0-49%	*	1,300	2,000	3,200		2	Divided	Yes	+5%		
50-84%	1,000	2,100	3,200	10,600		Multi	Undivided	Yes	-5%		
85-100%	2,600	3,900	18,500	>18,500		Multi	Undivided	No	-25%		
<b>Developed Areas</b>						<sup>1</sup> Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
Paved Shoulder/Bicycle Lane Coverage	B	C	D	E		<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
0-49%	*	2,300	4,900	15,600		* Cannot be achieved using table input value defaults.					
50-84%	1,700	4,500	13,300	18,500		** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
85-100%	5,900	18,500	>18,500	**		<i>Source:</i> Florida Department of Transportation Systems Implementation Office <a href="https://www.fdot.gov/planning/systems/">https://www.fdot.gov/planning/systems/</a>					
<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage	B	C	D	E							
0-49%	*	*	2,700	9,200							
50-84%	*	1,500	8,400	14,900							
85-100%	3,600	10,200	16,700	>19,200							

**TABLE 3**  
(continued)

**Generalized Annual Average Daily Volumes for Florida's  
Rural Undeveloped Areas and  
Developed Areas Less Than 5,000 Population**

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities					Interrupted Flow Facilities				
	Freeways	Highways				Arterials	Bicycle	Pedestrian		
		Undeveloped	Developed	Undeveloped	Developed					
<b>ROADWAY CHARACTERISTICS</b>										
Area type (urban, rural)	rural									
Number of through lanes (both dir.)	4-8	2	4-6	2	4-6	2	4-6	4	4	2
Posted speed (mph)	70	55	55	50	50	45	45	55	45	45
Free flow speed (mph)	75	60	60	55	55	50	50	60	50	50
Auxiliary lanes (n,y)	n									
Median (d, n, nr, r)			d		d	n	r	r	r	n
Terrain (l,r)	1	1	1	1	1	1	1	1	1	1
% no passing zone		20		60						
Exclusive left turn lanes (n, y)		[n]	y	[n]	y	y	y	y	y	y
Exclusive right turn lanes (n, y)						n	n	n	n	n
Facility length (mi)	18	10	10	5	5	1.9	2.2	4	2	2
<b>TRAFFIC CHARACTERISTICS</b>										
Planning analysis hour factor (K)	0.105	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.55	0.550	0.550	0.570	0.570	0.550
Peak hour factor (PHF)	0.88	0.88	0.88	0.88	0.88	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	1,700	2,200	1,700	2,200	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	12.0	5.0	12.0	5.0	8.0	3.0	3.0	6.0	3.5	3.0
Speed Adjustment Factor (SAF)	0.975		0.975		0.975					
Capacity Adjustment Factor (CAF)	0.968		0.968		0.968					
% left turns						12	12		12	12
% right turns						12	12		12	12
<b>CONTROL CHARACTERISTICS</b>										
Number of signals						5	6	2	4	4
Arrival type (1-6)						3	3	3	3	3
Signal type (a, c, p)						c	c	a	a	a
Cycle length (C)						90	90	60	90	90
Effective green ratio (g/C)						0.44	0.44	0.37	0.44	0.44
<b>MULTIMODAL CHARACTERISTICS</b>										
Paved shoulder/bicycle lane (n, y)								n,50%,y	n,50%,y	n
Outside lane width (n, t, w)								t	t	t
Pavement condition (d, t, u)								t	t	
Sidewalk (n, y)										n,50%,y
Sidewalk/roadway separation(a, t,w)										t
Sidewalk protective barrier (n, y)										n
<b>LEVEL OF SERVICE THRESHOLDS</b>										
Level of Service	Freeways	Highways								
		Two-Lane ru		Two-Lane rd	Multilane ru	Multilane rd				
	Density	%tsf	ats	%ffs	Density	Density				
B	≤ 14	≤ 50	≤ 55	> 83.3	≤ 14	≤ 14				
C	≤ 22	≤ 65	≤ 50	> 75.0	≤ 22	≤ 22				
D	≤ 29	≤ 80	≤ 45	> 66.7	≤ 29	≤ 29				
E	≤ 36	> 80	≤ 40	> 58.3	≤ 34	≤ 34				
Level of Service	Arterials		Bicycle		Pedestrian					
	Major City/Co.(ats)		Score		Score					
B	> 31 mph		≤ 2.75		≤ 2.75					
C	> 23 mph		≤ 3.50		≤ 3.50					
D	> 18 mph		≤ 4.25		≤ 4.25					
E	> 15 mph		≤ 5.00		≤ 5.00					

%tsf = Percent time spent following %ffs = Percent of free flow speed ats = Average travel speed ru = Rural undeveloped rd = Rural developed

TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's Urbanized Areas<sup>1</sup>

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>					
<b>Class I (40 mph or higher posted speed limit)</b>						<b>Core Urbanized</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	1,510	1,600	**	4	4,050	5,640	6,800	7,420	
4	Divided	*	3,420	3,580	**	6	5,960	8,310	10,220	11,150	
6	Divided	*	5,250	5,390	**	8	7,840	10,960	13,620	14,850	
8	Divided	*	7,090	7,210	**	10	9,800	13,510	17,040	18,580	
						12	11,600	16,350	20,930	23,200	
<b>Class II (35 mph or slower posted speed limit)</b>						<b>Urbanized</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	660	1,330	1,410	4	4,130	5,640	7,070	7,690	
4	Divided	*	1,310	2,920	3,040	6	6,200	8,450	10,510	11,530	
6	Divided	*	2,090	4,500	4,590	8	8,270	11,270	13,960	15,380	
8	Divided	*	2,880	6,060	6,130	10	10,350	14,110	17,310	19,220	
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.) Non-State Signalized Roadways - 10%						<b>Freeway Adjustments</b> Auxiliary Lanes Present in Both Directions + 1,800 Ramp Metering + 5%					
<b>Median &amp; Turn Lane Adjustments</b>						<b>UNINTERRUPTED FLOW HIGHWAYS</b>					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Lanes	Median	B	C	D	E
2	Divided	Yes	No	+5%		2	Undivided	1,050	1,620	2,180	2,930
2	Undivided	No	No	-20%		4	Divided	3,270	4,730	5,960	6,780
Multi	Undivided	Yes	No	-5%		6	Divided	4,910	7,090	8,950	10,180
Multi	Undivided	No	No	-25%		<b>Uninterrupted Flow Highway Adjustments</b>					
-	-	-	Yes	+ 5%		Lanes	Median	Exclusive left lanes	Adjustment factors		
<b>One-Way Facility Adjustment</b> Multiply the corresponding two-directional volumes in this table by 0.6						2	Divided	Yes	+5%		
<b>BICYCLE MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						Multi	Undivided	Yes	-5%		
Paved						Multi	Undivided	No	-25%		
Shoulder/Bicycle						<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					
Lane Coverage	B	C	D	E		Sidewalk Coverage	B	C	D	E	
0-49%	*	260	680	1,770		0-49%	*	*	250	850	
50-84%	190	600	1,770	>1,770		50-84%	*	150	780	1,420	
85-100%	830	1,700	>1,770	**		85-100%	340	960	1,560	>1,770	
<b>BUS MODE (Scheduled Fixed Route)<sup>3</sup></b> (Buses in peak hour in peak direction)						<b>Source:</b> Florida Department of Transportation Systems Implementation Office <a href="https://www.fdot.gov/planning/systems/">https://www.fdot.gov/planning/systems/</a>					
Sidewalk Coverage	B	C	D	E		<sup>1</sup> Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
0-84%	> 5	≥ 4	≥ 3	≥ 2		<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
85-100%	> 4	≥ 3	≥ 2	≥ 1		<sup>3</sup> Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					

TABLE 4  
(continued)

Generalized **Peak Hour Two-Way** Volumes for Florida's  
Urbanized Areas

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities						
	Freeways	Core Freeways	Highways	State Arterials				Class I		
				Class I	Class II	Bicycle	Pedestrian			
<b>ROADWAY CHARACTERISTICS</b>										
Area type (urban, rural)	urban	urban								
Number of through lanes (both dir.)	4-10	4-12	2	4-6	2	4-8	2	4-8	4	4
Posted speed (mph)	70	65	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	70	55	55	50	55	35	35	50	50
Auxiliary Lanes (n,y)	n	n								
Median (d, twlt, n, nr, r)				d	n	r	n	r	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l	l
% no passing zone			80							
Exclusive left turn lane impact (n, y)			[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)					n	n	n	n	n	n
Facility length (mi)	3	3	5	5	2	2	1.9	1.8	2	2
<b>TRAFFIC CHARACTERISTICS</b>										
Planning analysis hour factor (K)	0.090	0.085	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.550	0.560	0.565	0.560	0.565	0.565
Peak hour factor (PHF)	0.95	0.95	0.95	0.95	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	4.0	4.0	2.0	2.0	1.0	1.0	1.0	1.0	2.5	2.0
Speed Adjustment Factor (SAF)	0.975	0.975		0.975						
Capacity Adjustment Factor (CAF)	0.968	0.968		0.968						
% left turns					12	12	12	12	12	12
% right turns					12	12	12	12	12	12
<b>CONTROL CHARACTERISTICS</b>										
Number of signals					4	4	10	10	4	6
Arrival type (1-6)					3	3	4	4	4	4
Signal type (a, c, p)					c	c	c	c	c	c
Cycle length (C)					120	150	120	120	120	120
Effective green ratio (g/C)					0.44	0.45	0.44	0.44	0.44	0.44
<b>MULTIMODAL CHARACTERISTICS</b>										
Paved shoulder/bicycle lane (n, y)									n, 50%, y	n
Outside lane width (n, t, w)									t	t
Pavement condition (d, t, u)									t	
On-street parking (n, y)										
Sidewalk (n, y)										n, 50%, y
Sidewalk/roadway separation(a, t, w)										t
Sidewalk protective barrier (n, y)										n
<b>LEVEL OF SERVICE THRESHOLDS</b>										
Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus		
	Density	Two-Lane	Multilane	Class I	Class II	Score	Score	Buses/hr.		
		%ffs	Density						ats	ats
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6		
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4		
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3		
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2		

% ffs = Percent free flow speed ats = Average travel speed

TABLE 5

Generalized **Peak Hour Two-Way** Volumes for Florida's  
 Transitioning Areas and  
 Areas Over 5,000 Not In Urbanized Areas<sup>1</sup>

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES						
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>						
<b>Class I</b> (40 mph or higher posted speed limit)						Lanes	B	C	D	E		
Lanes	Median	B	C	D	E	4	4,420	5,780	6,890	7,110		
2	Undivided	*	1,300	1,460	**	6	6,400	8,490	10,200	10,670		
4	Divided	*	3,060	3,200	**	8	8,420	11,220	13,530	14,240		
6	Divided	*	4,690	4,820	**	10	9,960	13,290	15,870	17,820		
<b>Class II</b> (35 mph or slower posted speed limit)						<b>Freeway Adjustments</b>						
Lanes	Median	B	C	D	E	Auxiliary Lanes			Ramp			
2	Undivided	*	580	1,200	1,280	Present in Both Directions			Metering			
4	Divided	*	890	2,590	2,850	+ 1,800			+ 5%			
6	Divided	*	1,440	4,040	4,280							
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.)												
Non-State Signalized Roadways - 10%												
<b>Median &amp; Turn Lane Adjustments</b>												
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors								
2	Divided	Yes	No	+5%								
2	Undivided	No	No	-20%								
Multi	Undivided	Yes	No	-5%								
Multi	Undivided	No	No	-25%								
-	-	-	Yes	+ 5%								
<b>One-Way Facility Adjustment</b> Multiply the corresponding two-directional volumes in this table by 0.6												
<b>BICYCLE MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)												
Paved Shoulder/Bicycle Lane Coverage						B	C	D	E			
0-49%						*	140	550	1,760			
50-84%						170	500	1,650	>1,760			
85-100%						670	1,760	>1,760	**			
<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)												
Sidewalk Coverage						B	C	D	E			
0-49%						*	*	250	850			
50-84%						*	150	780	1,410			
85-100%						340	950	1,540	>1,760			
<b>BUS MODE (Scheduled Fixed Route)<sup>3</sup></b> (Buses in peak hour in peak direction)												
Sidewalk Coverage						B	C	D	E			
0-84%						> 5	≥ 4	≥ 3	≥ 2			
85-100%						> 4	≥ 3	≥ 2	≥ 1			
						<b>UNINTERRUPTED FLOW HIGHWAYS</b>						
						Lanes	Median	B	C	D	E	
						2	Undivided	1,020	1,560	2,110	2,840	
						4	Divided	3,110	4,490	5,670	6,450	
						6	Divided	4,650	6,730	8,510	9,670	
						<b>Uninterrupted Flow Highway Adjustments</b>						
						Lanes	Median	Exclusive left lanes	Adjustment factors			
						2	Divided	Yes	+5%			
						Multi	Undivided	Yes	-5%			
						Multi	Undivided	No	-25%			
						<sup>1</sup> Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.						
						<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.						
						<sup>3</sup> Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.						
						* Cannot be achieved using table input value defaults.						
						** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.						
						Source: Florida Department of Transportation Systems Implementation Office <a href="https://www.fdot.gov/planning/systems/">https://www.fdot.gov/planning/systems/</a>						

TABLE 5  
(continued)

Generalized **Peak Hour Two-Way** Volumes for Florida's  
Transitioning Areas and  
Areas Over 5,000 Not In Urbanized Areas

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities					
	Freeways	Highways		State Arterials			Class I		
				Class I	Class II		Bicycle	Pedestrian	
<b>ROADWAY CHARACTERISTICS</b>									
Area type (urban, rural)	urban								
Number of through lanes (both dir.)	4-10	2	4-6	2	4-6	2	4-6	4	4
Posted speed (mph)	70	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	55	55	50	55	35	35	50	50
Auxiliary lanes (n,y)	n								
Median (d, n, nr, r)			d	n	y	n	y	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l
% no passing zone		60							
Exclusive left turn lane impact (n, y)		[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)				n	n	n	n	n	n
Facility length (mi)	6	5	5	1.8	2	2	2	2	2
<b>TRAFFIC CHARACTERISTICS</b>									
Planning analysis hour factor (K)	0.098	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.550	0.570	0.570	0.565	0.570	0.570
Peak hour factor (PHF)	0.92	0.92	0.92	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	9.0	4.0	4.0	2.0	3.0	2.0	3.0	3.0	3.0
Speed Adjustment Factor (SAF)	0.975		0.975						
Capacity Adjustment Factor (CAF)	0.968		0.968						
% left turns				12	12	12	12	12	12
% right turns				12	12	12	12	12	12
<b>CONTROL CHARACTERISTICS</b>									
Number of signals				5	4	10	10	4	6
Arrival type (1-6)				4	3	4	4	4	4
Signal type (a, c, p)				c	c	c	c	c	c
Cycle length (C)				120	150	120	150	120	120
Effective green ratio (g/C)				0.44	0.45	0.44	0.45	0.44	0.44
<b>MULTIMODAL CHARACTERISTICS</b>									
Paved shoulder/bicycle lane (n, y)								n, 50%, y	n
Outside lane width (n, t, w)								t	t
Pavement condition (d, t, u)								t	
On-street parking (n, y)								n	n
Sidewalk (n, y)									n, 50%, y
Sidewalk/roadway separation (a, t, w)									t
Sidewalk protective barrier (n, y)									n
<b>LEVEL OF SERVICE THRESHOLDS</b>									
Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus	
	Density	Two-Lane %ffs	Multilane Density	Class I ats	Class II ats	Score	Score	Buses/hr.	
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6	
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4	
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3	
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2	

% ffs = Percent free flow speed ats = Average travel speed

TABLE 6

Generalized **Peak Hour Two-Way** Volumes for Florida's  
Rural Undeveloped Areas and  
Developed Areas Less Than 5,000 Population<sup>1</sup>

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	1,220	1,350	**	4	3,650	5,040	5,950	6,640	
4	Divided	*	2,790	2,890	**	6	5,130	7,250	8,670	9,950	
6	Divided	*	4,300	4,350	**	8	6,600	9,490	11,380	13,270	
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.) Non-State Signalized Roadways - 10%						<b>Freeway Adjustments</b> Auxiliary Lanes Present in Both Directions + 1,800					
<b>Median &amp; Turn Lane Adjustments</b>						<b>UNINTERRUPTED FLOW HIGHWAYS</b>					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		<b>Rural Undeveloped</b>					
2	Divided	Yes	No	+5%		Lanes	Median	B	C	D	E
2	Undivided	No	No	-20%		2	Undivided	440	820	1,330	2,710
Multi	Undivided	Yes	No	-5%		4	Divided	2,960	4,270	5,290	5,960
Multi	Undivided	No	No	-25%		6	Divided	4,450	6,420	7,930	8,950
-	-	-	Yes	+5%		<b>Developed Areas</b>					
<b>One-Way Facility Adjustment</b> Multiply the corresponding two-directional volumes in this table by 0.6						Lanes	Median	B	C	D	E
						2	Undivided	980	1,490	2,020	2,710
						4	Divided	2,780	4,020	5,130	5,850
						6	Divided	4,180	6,040	7,710	8,780
<b>BICYCLE MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						<b>Passing Lane Adjustments</b> Alter LOS B-D volumes in proportion to the passing lane length to the highway segment length					
<b>Rural Undeveloped</b>						<b>Uninterrupted Flow Highway Adjustments</b>					
Paved Shoulder/Bicycle Lane Coverage						Lanes	Median	Exclusive left lanes	Adjustment factors		
						2	Divided	Yes	+5%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
						<sup>1</sup> Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
						<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
						* Cannot be achieved using table input value defaults.					
						** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
						Source: Florida Department of Transportation Systems Implementation Office <a href="https://www.fdot.gov/planning/systems/">https://www.fdot.gov/planning/systems/</a>					
<b>Developed Areas</b>						<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					
Paved Shoulder/Bicycle Lane Coverage						B	C	D	E		
						*	220	460	1,480		
						170	430	1,270	>1,760		
						560	1,760	>1,760	**		
						B	C	D	E		
						*	*	220	840		
						*	120	780	1,390		
						320	940	1,560	>1,820		

TABLE 6  
(continued)

Generalized **Peak Hour Two-Way** Volumes for Florida's  
Rural Undeveloped Areas **and**  
Developed Areas Less Than 5,000 Population

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities					Interrupted Flow Facilities				
	Freeways	Highways				Arterials	Bicycle	Pedestrian		
		Undeveloped	Developed							
<b>ROADWAY CHARACTERISTICS</b>										
Area type (urban, rural)	rural									
Number of through lanes (both dir.)	4-8	2	4-6	2	4-6	2	4-6	4	4	2
Posted speed (mph)	70	55	55	50	50	45	45	55	45	45
Free flow speed (mph)	75	60	60	55	55	50	50	60	50	50
Auxiliary lanes (n,y)	n									
Median (d, n, nr, r)			d		d	n	r	r	r	n
Terrain (l,r)	l	l	l	l	l	l	l	l	l	l
% no passing zone		20		60						
Exclusive left turn lanes (n, y)		[n]	y	[n]	y	y	y	y	y	y
Exclusive right turn lanes (n, y)						n	n	n	n	n
Facility length (mi)	18	10	10	5	5	1.9	2.2	4	2	2
<b>TRAFFIC CHARACTERISTICS</b>										
Planning analysis hour factor (K)	0.105	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.55	0.550	0.550	0.570	0.570	0.550
Peak hour factor (PHF)	0.88	0.88	0.88	0.88	0.88	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	1,700	2,200	1,700	2,200	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	12.0	5.0	12.0	5.0	8.0	3.0	3.0	6.0	3.5	3.0
Speed Adjustment Factor (SAF)	0.975		0.975		0.975					
Capacity Adjustment Factor (CAF)	0.968		0.968		0.968					
% left turns						12	12		12	12
% right turns						12	12		12	12
<b>CONTROL CHARACTERISTICS</b>										
Number of signals						5	6	2	4	4
Arrival type (1-6)						3	3	3	3	3
Signal type (a, c, p)						c	c	a	a	a
Cycle length (C)						90	90	60	90	90
Effective green ratio (g/C)						0.44	0.44	0.37	0.44	0.44
<b>MULTIMODAL CHARACTERISTICS</b>										
Paved shoulder/bicycle lane (n, y)								n,50%,y	n,50%,y	n
Outside lane width (n, t, w)								t	t	t
Pavement condition (d, t, u)								t	t	
Sidewalk (n, y)										n,50%,y
Sidewalk/roadway separation(a, t,w)										t
Sidewalk protective barrier (n, y)										n
<b>LEVEL OF SERVICE THRESHOLDS</b>										
Level of Service	Freeways	Highways								
		Two-Lane ru		Two-Lane rd	Multilane ru	Multilane rd				
		Density	%tsf	ats	%ffs	Density	Density			
B	≤ 14	≤ 50	≤ 55	> 83.3	≤ 14	≤ 14				
C	≤ 22	≤ 65	≤ 50	> 75.0	≤ 22	≤ 22				
D	≤ 29	≤ 80	≤ 45	> 66.7	≤ 29	≤ 29				
E	≤ 36	> 80	≤ 40	> 58.3	≤ 34	≤ 34				
Level of Service	Arterials		Bicycle		Pedestrian					
	Major City/Co.(ats)		Score		Score					
	B	> 31 mph	≤ 2.75		≤ 2.75					
C	> 23 mph	≤ 3.50		≤ 3.50						
D	> 18 mph	≤ 4.25		≤ 4.25						
E	> 15 mph	≤ 5.00		≤ 5.00						

%tsf = Percent time spent following %ffs = Percent of free flow speed ats = Average travel speed ru = Rural undeveloped rd = Rural developed

TABLE 7

Generalized **Peak Hour Directional** Volumes for Florida's  
Urbanized Areas

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>					
<b>Class I (40 mph or higher posted speed limit)</b>						<b>Core Urbanized</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
1	Undivided	*	830	880	**	2	2,230	3,100	3,740	4,080	
2	Divided	*	1,910	2,000	**	3	3,280	4,570	5,620	6,130	
3	Divided	*	2,940	3,020	**	4	4,310	6,030	7,490	8,170	
4	Divided	*	3,970	4,040	**	5	5,390	7,430	9,370	10,220	
						6	6,380	8,990	11,510	12,760	
<b>Class II (35 mph or slower posted speed limit)</b>						<b>Urbanized</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
1	Undivided	*	370	750	800	2	2,270	3,100	3,890	4,230	
2	Divided	*	730	1,630	1,700	3	3,410	4,650	5,780	6,340	
3	Divided	*	1,170	2,520	2,560	4	4,550	6,200	7,680	8,460	
4	Divided	*	1,610	3,390	3,420	5	5,690	7,760	9,520	10,570	
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.)						<b>Freeway Adjustments</b>					
Non-State Signalized Roadways - 10%						Auxiliary Lane + 1,000 Ramp Metering + 5%					
<b>Median &amp; Turn Lane Adjustments</b>						<b>UNINTERRUPTED FLOW HIGHWAYS</b>					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		Lanes	Median	B	C	D	E
1	Divided	Yes	No	+5%		1	Undivided	580	890	1,200	1,610
1	Undivided	No	No	-20%		2	Divided	1,800	2,600	3,280	3,730
Multi	Undivided	Yes	No	-5%		3	Divided	2,700	3,900	4,920	5,600
Multi	Undivided	No	No	-25%		<b>Uninterrupted Flow Highway Adjustments</b>					
-	-	-	Yes	+ 5%		Lanes	Median	Exclusive left lanes	Adjustment factors		
<b>One-Way Facility Adjustment</b> Multiply the corresponding directional volumes in this table by 1.2						1	Divided	Yes	+5%		
<b>BICYCLE MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						Multi	Undivided	Yes	-5%		
Paved						Multi	Undivided	No	-25%		
Shoulder/Bicycle						<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					
Lane Coverage	B	C	D	E		Sidewalk Coverage	B	C	D	E	
0-49%	*	150	390	1,000		0-49%	*	*	140	480	
50-84%	110	340	1,000	>1,000		50-84%	*	80	440	800	
85-100%	470	1,000	>1,000	**		85-100%	200	540	880	>1,000	
<b>BUS MODE (Scheduled Fixed Route)<sup>3</sup></b> (Buses in peak hour in peak direction)						<b>Source:</b> Florida Department of Transportation Systems Implementation Office <a href="https://www.fdot.gov/planning/systems/">https://www.fdot.gov/planning/systems/</a>					
Sidewalk Coverage	B	C	D	E		<sup>1</sup> Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.					
0-84%	> 5	≥ 4	≥ 3	≥ 2		<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.					
85-100%	> 4	≥ 3	≥ 2	≥ 1		<sup>3</sup> Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					

**TABLE 7**  
(continued)

**Generalized Peak Hour Directional Volumes for Florida's Urbanized Areas**

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities				Interrupted Flow Facilities					
	Freeways	Core Freeways	Highways		State Arterials				Class I	
					Class I		Class II		Bicycle	Pedestrian
<b>ROADWAY CHARACTERISTICS</b>										
Area type (urban, rural)	urban	urban								
Number of through lanes (both dir.)	4-10	4-12	2	4-6	2	4-8	2	4-8	4	4
Posted speed (mph)	70	65	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	70	55	55	50	55	35	35	50	50
Auxiliary Lanes (n,y)	n	n								
Median (d, twlt, n, nr, r)				d	n	r	n	r	r	r
Terrain (l,r)	1	1	1	1	1	1	1	1	1	1
% no passing zone			80							
Exclusive left turn lane impact (n, y)			[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)					n	n	n	n	n	n
Facility length (mi)	3	3	5	5	2	2	1.9	1.8	2	2
<b>TRAFFIC CHARACTERISTICS</b>										
Planning analysis hour factor (K)	0.090	0.085	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.550	0.560	0.565	0.560	0.565	0.565
Peak hour factor (PHF)	0.95	0.95	0.95	0.95	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	4.0	4.0	2.0	2.0	1.0	1.0	1.0	1.0	2.5	2.0
Speed Adjustment Factor (SAF)	0.975	0.975		0.975						
Capacity Adjustment Factor (CAF)	0.968	0.968		0.968						
% left turns					12	12	12	12	12	12
% right turns					12	12	12	12	12	12
<b>CONTROL CHARACTERISTICS</b>										
Number of signals					4	4	10	10	4	6
Arrival type (1-6)					3	3	4	4	4	4
Signal type (a, c, p)					c	c	c	c	c	c
Cycle length (C)					120	150	120	120	120	120
Effective green ratio (g/C)					0.44	0.45	0.44	0.44	0.44	0.44
<b>MULTIMODAL CHARACTERISTICS</b>										
Paved shoulder/bicycle lane (n, y)									n, 50%, y	n
Outside lane width (n, t, w)									t	t
Pavement condition (d, t, u)									t	
On-street parking (n, y)										
Sidewalk (n, y)										n, 50%, y
Sidewalk/roadway separation(a, t, w)										t
Sidewalk protective barrier (n, y)										n
<b>LEVEL OF SERVICE THRESHOLDS</b>										
Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus		
	Density	Two-Lane %ffs	Multilane Density	Class I ats	Class II ats	Score	Score	Buses/hr.		
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6		
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4		
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3		
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2		

% ffs = Percent free flow speed ats = Average travel speed

TABLE 8

Generalized **Peak Hour Directional** Volumes for Florida's  
 Transitioning Areas and  
 Areas Over 5,000 Not In Urbanized Areas<sup>1</sup>

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES						
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>						
<b>Class I</b> (40 mph or higher posted speed limit)						Lanes	B	C	D	E		
Lanes	Median	B	C	D	E	2	2,430	3,180	3,790	3,910		
1	Undivided	*	710	800	**	3	3,520	4,670	5,610	5,870		
2	Divided	*	1,740	1,820	**	4	4,630	6,170	7,440	7,830		
3	Divided	*	2,670	2,740	**	5	5,480	7,310	8,730	9,800		
<b>Class II</b> (35 mph or slower posted speed limit)						<b>Freeway Adjustments</b>						
Lanes	Median	B	C	D	E	Auxiliary Lane	Ramp Metering					
1	Undivided	*	330	680	720	+ 1,000	+ 5%					
2	Divided	*	500	1,460	1,600							
3	Divided	*	810	2,280	2,420							
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.)												
Non-State Signalized Roadways - 10%												
<b>Median &amp; Turn Lane Adjustments</b>												
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors								
1	Divided	Yes	No	+5%								
1	Undivided	No	No	-20%								
Multi	Undivided	Yes	No	-5%								
Multi	Undivided	No	No	-25%								
-	-	-	Yes	+ 5%								
<b>One-Way Facility Adjustment</b> Multiply the corresponding directional volumes in this table by 1.2												
<b>BICYCLE MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)												
Paved Shoulder/Bicycle Lane Coverage						B	C	D	E			
0-49%						*	140	320	1,000			
50-84%						100	280	940	>1,000			
85-100%						380	1,000	>1,000	**			
<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)												
Sidewalk Coverage						B	C	D	E			
0-49%						*	*	140	480			
50-84%						*	80	440	800			
85-100%						200	540	880	>1,000			
<b>BUS MODE (Scheduled Fixed Route)<sup>3</sup></b> (Buses in peak hour in peak direction)												
Sidewalk Coverage						B	C	D	E			
0-84%						> 5	≥ 4	≥ 3	≥ 2			
85-100%						> 4	≥ 3	≥ 2	≥ 1			
						<b>UNINTERRUPTED FLOW HIGHWAYS</b>						
						Lanes	Median	B	C	D	E	
						1	Undivided	560	860	1,160	1,560	
						2	Divided	1,710	2,470	3,120	3,550	
						3	Divided	2,560	3,700	4,680	5,320	
						<b>Uninterrupted Flow Highway Adjustments</b>						
						Lanes	Median	Exclusive left lanes	Adjustment factors			
						1	Divided	Yes	+5%			
						Multi	Undivided	Yes	-5%			
						Multi	Undivided	No	-25%			
						<sup>1</sup> Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.						
						<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.						
						<sup>3</sup> Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.						
						* Cannot be achieved using table input value defaults.						
						** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.						
						Source: Florida Department of Transportation Systems Implementation Office <a href="https://www.fdot.gov/planning/systems/">https://www.fdot.gov/planning/systems/</a>						

**TABLE 8**  
(continued)

**Generalized Peak Hour Directional Volumes for Florida's  
Transitioning Areas and  
Areas Over 5,000 Not In Urbanized Areas**

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities			Interrupted Flow Facilities					
	Freeways	Highways		State Arterials		Class I		Bicycle	Pedestrian
				Class I	Class II				
<b>ROADWAY CHARACTERISTICS</b>									
Area type (urban, rural)	urban								
Number of through lanes (both dir.)	4-10	2	4-6	2	4-6	2	4-6	4	4
Posted speed (mph)	70	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	55	55	50	55	35	35	50	50
Auxiliary lanes (n,y)	n								
Median (d, n, nr, r)			d	n	y	n	y	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l
% no passing zone		60							
Exclusive left turn lane impact (n, y)		[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)				n	n	n	n	n	n
Facility length (mi)	6	5	5	1.8	2	2	2	2	2
<b>TRAFFIC CHARACTERISTICS</b>									
Planning analysis hour factor (K)	0.098	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.550	0.570	0.570	0.565	0.570	0.570
Peak hour factor (PHF)	0.92	0.92	0.92	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	9.0	4.0	4.0	2.0	3.0	2.0	3.0	3.0	3.0
Speed Adjustment Factor (SAF)	0.975		0.975						
Capacity Adjustment Factor (CAF)	0.968		0.968						
% left turns				12	12	12	12	12	12
% right turns				12	12	12	12	12	12
<b>CONTROL CHARACTERISTICS</b>									
Number of signals				5	4	10	10	4	6
Arrival type (1-6)				4	3	4	4	4	4
Signal type (a, c, p)				c	c	c	c	c	c
Cycle length (C)				120	150	120	150	120	120
Effective green ratio (g/C)				0.44	0.45	0.44	0.45	0.44	0.44
<b>MULTIMODAL CHARACTERISTICS</b>									
Paved shoulder/bicycle lane (n, y)								n, 50%, y	n
Outside lane width (n, t, w)								t	t
Pavement condition (d, t, u)								t	
On-street parking (n, y)								n	n
Sidewalk (n, y)									n, 50%, y
Sidewalk/roadway separation (a, t, w)									t
Sidewalk protective barrier (n, y)									n
<b>LEVEL OF SERVICE THRESHOLDS</b>									
Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus	
	Density	Two-Lane %ffs	Multilane Density	Class I ats	Class II ats	Score	Score	Buses/hr.	
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6	
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4	
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3	
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2	

% ffs = Percent free flow speed ats = Average travel speed

TABLE 9

Generalized **Peak Hour Directional** Volumes for Florida's  
Rural Undeveloped Areas and  
Developed Areas Less Than 5,000 Population<sup>1</sup>

January 2020

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
1	Undivided	*	670	740	**	2	2,010	2,770	3,270	3,650	
2	Divided	*	1,530	1,580	**	3	2,820	3,990	4,770	5,470	
3	Divided	*	2,360	2,400	**	4	3,630	5,220	6,260	7,300	
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.) Non-State Signalized Roadways - 10%						<b>Freeway Adjustments</b> Auxiliary Lane + 1,000					
<b>Median &amp; Turn Lane Adjustments</b>						<b>UNINTERRUPTED FLOW HIGHWAYS</b>					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors		<b>Rural Undeveloped</b>					
1	Divided	Yes	No	+5%		Lanes	Median	B	C	D	E
1	Undivided	No	No	-20%		1	Undivided	240	450	730	1,490
Multi	Undivided	Yes	No	-5%		2	Divided	1,630	2,350	2,910	3,280
Multi	Undivided	No	No	-25%		3	Divided	2,450	3,530	4,360	4,920
-	-	-	Yes	+ 5%		<b>Developed Areas</b>					
<b>One-Way Facility Adjustment</b> Multiply the corresponding directional volumes in this table by 1.2						Lanes	Median	B	C	D	E
						1	Undivided	540	820	1,110	1,490
						2	Divided	1,530	2,210	2,820	3,220
						3	Divided	2,300	3,320	4,240	4,830
<b>BICYCLE MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						<b>Passing Lane Adjustments</b> Alter LOS B-D volumes in proportion to the passing lane length to the highway segment length					
<b>Rural Undeveloped</b>						<b>Uninterrupted Flow Highway Adjustments</b>					
Paved Shoulder/Bicycle Lane Coverage	B	C	D	E		Lanes	Median	Exclusive left lanes	Adjustment factors		
0-49%	*	70	110	170		1	Divided	Yes	+5%		
50-84%	60	120	180	580		Multi	Undivided	Yes	-5%		
85-100%	140	210	1,000	>1,000		Multi	Undivided	No	-25%		
<b>Developed Areas</b>						<b>Uninterrupted Flow Highway Adjustments</b>					
Paved Shoulder/Bicycle Lane Coverage	B	C	D	E							
0-49%	*	120	260	840							
50-84%	100	240	720	1,000							
85-100%	320	1,000	>1,000	**							
<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
Sidewalk Coverage	B	C	D	E							
0-49%	*	*	120	460							
50-84%	*	80	430	770							
85-100%	180	520	860	>1,000							

<sup>1</sup>Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

<sup>2</sup>Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

\* Cannot be achieved using table input value defaults.

\*\* Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:  
Florida Department of Transportation  
Systems Implementation Office  
<https://www.fdot.gov/planning/systems/>

TABLE 9  
(continued)

Generalized **Peak Hour Directional** Volumes for Florida's  
Rural Undeveloped Areas **and**  
Developed Areas Less Than 5,000 Population

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities					Interrupted Flow Facilities				
	Freeways	Highways				Arterials	Bicycle	Pedestrian		
		Undeveloped	Developed							
<b>ROADWAY CHARACTERISTICS</b>										
Area type (urban, rural)	rural									
Number of through lanes (both dir.)	4-8	2	4-6	2	4-6	2	4-6	4	4	2
Posted speed (mph)	70	55	55	50	50	45	45	55	45	45
Free flow speed (mph)	75	60	60	55	55	50	50	60	50	50
Auxiliary lanes (n,y)	n									
Median (d, n, nr, r)			d		d	n	r	r	r	n
Terrain (l,r)	l	l	l	l	l	l	l	l	l	l
% no passing zone		20		60						
Exclusive left turn lanes (n, y)		[n]	y	[n]	y	y	y	y	y	y
Exclusive right turn lanes (n, y)						n	n	n	n	n
Facility length (mi)	18	10	10	5	5	1.9	2.2	4	2	2
<b>TRAFFIC CHARACTERISTICS</b>										
Planning analysis hour factor (K)	0.105	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.55	0.550	0.550	0.570	0.570	0.550
Peak hour factor (PHF)	0.88	0.88	0.88	0.88	0.88	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	1,700	2,200	1,700	2,200	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	12.0	5.0	12.0	5.0	8.0	3.0	3.0	6.0	3.5	3.0
Speed Adjustment Factor (SAF)	0.975		0.975		0.975					
Capacity Adjustment Factor (CAF)	0.968		0.968		0.968					
% left turns						12	12		12	12
% right turns						12	12		12	12
<b>CONTROL CHARACTERISTICS</b>										
Number of signals						5	6	2	4	4
Arrival type (1-6)						3	3	3	3	3
Signal type (a, c, p)						c	c	a	a	a
Cycle length (C)						90	90	60	90	90
Effective green ratio (g/C)						0.44	0.44	0.37	0.44	0.44
<b>MULTIMODAL CHARACTERISTICS</b>										
Paved shoulder/bicycle lane (n, y)								n,50%,y	n,50%,y	n
Outside lane width (n, t, w)								t	t	t
Pavement condition (d, t, u)								t	t	
Sidewalk (n, y)										n,50%,y
Sidewalk/roadway separation(a, t,w)										t
Sidewalk protective barrier (n, y)										n
<b>LEVEL OF SERVICE THRESHOLDS</b>										
Level of Service	Freeways	Highways								
		Two-Lane ru		Two-Lane rd	Multilane ru	Multilane rd				
		Density	%tsf	ats	%ffs	Density	Density			
B	≤ 14	≤ 50	≤ 55	> 83.3	≤ 14	≤ 14				
C	≤ 22	≤ 65	≤ 50	> 75.0	≤ 22	≤ 22				
D	≤ 29	≤ 80	≤ 45	> 66.7	≤ 29	≤ 29				
E	≤ 36	> 80	≤ 40	> 58.3	≤ 34	≤ 34				
Level of Service	Arterials		Bicycle		Pedestrian					
	Major City/Co.(ats)		Score		Score					
	B	> 31 mph	≤ 2.75		≤ 2.75					
C	> 23 mph	≤ 3.50		≤ 3.50						
D	> 18 mph	≤ 4.25		≤ 4.25						
E	> 15 mph	≤ 5.00		≤ 5.00						

%tsf = Percent time spent following %ffs = Percent of free flow speed ats = Average travel speed ru = Rural undeveloped rd = Rural developed