














































I-85/I-385 Interchange Improvements  
2035 No-Build PM

1: Woodruff Road & Roper Mountain Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	458	515	77	202	889	633	58	755	177	726	755	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0	6.0	6.0	6.0	6.0	5.0	6.0	6.0
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Flt Protected	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3371		1719	3438	1538	1719	3438	1538	3335	3438	1538
Satd. Flow (perm)	226	3371		542	3438	1538	608	3438	1538	3335	3438	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	509	572	86	224	988	703	64	839	197	807	839	117
RTOR Reduction (vph)	0	10	0	0	0	292	0	0	110	0	0	64
Lane Group Flow (vph)	509	648	0	224	988	411	64	839	87	807	839	53
Turn Type	pm+pt			pm+pt		Perm	Perm		Perm	Prot		Perm
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		8	2		2			6
Actuated Green, G (s)	54.0	35.1		42.9	28.0	28.0	26.0	26.0	26.0	23.0	54.0	54.0
Effective Green, g (s)	54.0	35.1		42.9	28.0	28.0	26.0	26.0	26.0	23.0	54.0	54.0
Actuated g/C Ratio	0.45	0.29		0.36	0.23	0.23	0.22	0.22	0.22	0.19	0.45	0.45
Clearance Time (s)	4.0	6.0		4.0	6.0	6.0	6.0	6.0	6.0	5.0	6.0	6.0
Vehicle Extension (s)	4.3	5.5		4.3	5.5	5.5	4.9	4.9	4.9	4.3	4.9	4.9
Lane Grp Cap (vph)	375	986		340	802	359	132	745	333	639	1547	692
v/s Ratio Prot	c0.25	0.19		0.08	0.29			c0.24		c0.24	0.24	
v/s Ratio Perm	c0.36			0.15		0.27	0.11		0.06			0.03
v/c Ratio	1.36	0.66		0.66	1.23	1.14	0.48	1.13	0.26	1.26	0.54	0.08
Uniform Delay, d1	36.3	37.2		28.8	46.0	46.0	41.1	47.0	39.0	48.5	24.0	18.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	177.3	2.3		5.3	115.2	92.9	5.6	73.4	0.9	130.6	0.7	0.1
Delay (s)	213.6	39.5		34.1	161.2	138.9	46.7	120.4	39.9	179.1	24.7	18.9
Level of Service	F	D		C	F	F	D	F	D	F	C	B
Approach Delay (s)		115.5			138.1			101.7			95.0	
Approach LOS		F			F			F			F	
<b>Intersection Summary</b>												
HCM Average Control Delay		114.1			HCM Level of Service			F				
HCM Volume to Capacity ratio		1.24										
Actuated Cycle Length (s)		120.0			Sum of lost time (s)			15.0				
Intersection Capacity Utilization		109.0%			ICU Level of Service			H				
Analysis Period (min)		15										
c Critical Lane Group												

I-85/I-385 Interchange Improvements  
2035 No-Build PM

2: Woodruff Road & Costco Driveway





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	21	1239	137	305	1811	65	151	6	324	59	4	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5		6.5	6.5	6.5	6.5	6.5		6.5	6.5	6.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1719	3387		1719	3438	1538	1719	1543		1719	1810	1538
Flt Permitted	0.05	1.00		0.16	1.00	1.00	0.76	1.00		0.28	1.00	1.00
Satd. Flow (perm)	94	3387		297	3438	1538	1366	1543		499	1810	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	23	1377	152	339	2012	72	168	7	360	66	4	53
RTOR Reduction (vph)	0	5	0	0	0	11	0	106	0	0	0	22
Lane Group Flow (vph)	23	1524	0	339	2012	61	168	261	0	66	4	31
Turn Type	pm+pt			Perm		Perm	Perm			Perm		pm+ov
Protected Phases	5	2			6			8			4	5
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	123.8	123.8		110.9	110.9	110.9	14.5	14.5		14.5	14.5	20.9
Effective Green, g (s)	123.8	123.8		110.9	110.9	110.9	14.5	14.5		14.5	14.5	20.9
Actuated g/C Ratio	0.82	0.82		0.73	0.73	0.73	0.10	0.10		0.10	0.10	0.14
Clearance Time (s)	6.5	6.5		6.5	6.5	6.5	6.5	6.5		6.5	6.5	6.5
Vehicle Extension (s)	4.3	5.5		5.5	5.5	5.5	5.5	5.5		5.5	5.5	4.3
Lane Grp Cap (vph)	146	2771		218	2520	1127	131	148		48	173	279
v/s Ratio Prot	0.01	c0.45			0.59			c0.17			0.00	0.00
v/s Ratio Perm	0.12			c1.14		0.04	0.12			0.13		0.02
v/c Ratio	0.16	0.55		1.56	0.80	0.05	1.28	1.76		1.38	0.02	0.11
Uniform Delay, d1	15.1	4.5		20.2	13.0	5.6	68.4	68.4		68.4	62.0	57.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.8	0.8		271.1	2.7	0.1	172.9	370.3		258.5	0.1	0.3
Delay (s)	15.9	5.3		291.3	15.7	5.7	241.3	438.7		326.9	62.1	57.4
Level of Service	B	A		F	B	A	F	F		F	E	E
Approach Delay (s)		5.5			54.0			376.7			202.2	
Approach LOS		A			D			F			F	

Intersection Summary

HCM Average Control Delay	79.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.55		
Actuated Cycle Length (s)	151.3	Sum of lost time (s)	19.5
Intersection Capacity Utilization	112.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

I-85/I-385 Interchange Improvements  
2035 No-Build PM





















3: Green Heron Road & Woodruff Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	35	2	97	20	4	135	113	2125	18	4	1656	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0	5.0	6.3	6.3		6.3	6.3	6.3
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95		1.00	0.95	1.00
Frt		0.90			1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected		0.99			0.96	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1611			1736	1538	1719	3434		1719	3438	1538
Flt Permitted		0.90			0.46	1.00	0.09	1.00		0.06	1.00	1.00
Satd. Flow (perm)		1473			835	1538	171	3434		102	3438	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	2	108	22	4	150	126	2361	20	4	1840	4
RTOR Reduction (vph)	0	16	0	0	0	43	0	1	0	0	0	1
Lane Group Flow (vph)	0	133	0	0	26	107	126	2380	0	4	1840	3
Turn Type	Perm			Perm			Perm	Perm		Perm		Perm
Protected Phases		8			4			2			6	
Permitted Phases	8			4		4	2			6		6
Actuated Green, G (s)		8.0			8.0	8.0	70.7	70.7		70.7	70.7	70.7
Effective Green, g (s)		8.0			8.0	8.0	70.7	70.7		70.7	70.7	70.7
Actuated g/C Ratio		0.09			0.09	0.09	0.79	0.79		0.79	0.79	0.79
Clearance Time (s)		5.0			5.0	5.0	6.3	6.3		6.3	6.3	6.3
Vehicle Extension (s)		4.3			4.3	4.3	5.5	5.5		5.5	5.5	5.5
Lane Grp Cap (vph)		131			74	137	134	2698		80	2701	1208
v/s Ratio Prot								0.69			0.54	
v/s Ratio Perm		c0.09			0.03	0.07	c0.74			0.04		0.00
v/c Ratio		1.01			0.35	0.78	0.94	0.88		0.05	0.68	0.00
Uniform Delay, d1		41.0			38.6	40.1	7.9	6.7		2.2	4.5	2.1
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		81.9			4.5	26.6	63.1	4.6		1.2	1.4	0.0
Delay (s)		122.9			43.1	66.7	71.1	11.3		3.3	5.9	2.1
Level of Service		F			D	E	E	B		A	A	A
Approach Delay (s)		122.9			63.2			14.3			5.8	
Approach LOS		F			E			B			A	
<b>Intersection Summary</b>												
HCM Average Control Delay			16.3				HCM Level of Service			B		
HCM Volume to Capacity ratio			0.95									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)			11.3		
Intersection Capacity Utilization			113.7%				ICU Level of Service			H		
Analysis Period (min)			15									
c Critical Lane Group												

# I-85/I-385 Interchange Improvements


















## 2035 No-Build PM

4: Woodruff Industrial Lane & Woodruff Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	232	52	427	313	47	45	85	2037	120	346	1387	374
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.87		1.00	0.93		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	1568		1719	1676		1719	3409		1719	3328	
Flt Permitted	0.46	1.00		0.23	1.00		0.06	1.00		0.05	1.00	
Satd. Flow (perm)	837	1568		421	1676		106	3409		98	3328	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	258	58	474	348	52	50	94	2263	133	384	1541	416
RTOR Reduction (vph)	0	94	0	0	24	0	0	3	0	0	17	0
Lane Group Flow (vph)	258	438	0	348	78	0	94	2393	0	384	1940	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	3	8		7	4		5	2		1	6	
Permitted Phases	8			4			2			6		
Actuated Green, G (s)	44.0	25.0		30.2	17.2		73.0	68.0		89.0	78.0	
Effective Green, g (s)	44.0	25.0		30.2	17.2		73.0	68.0		89.0	78.0	
Actuated g/C Ratio	0.30	0.17		0.21	0.12		0.50	0.47		0.61	0.54	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	4.3	4.3		4.3	4.3		4.3	5.5		4.3	5.5	
Lane Grp Cap (vph)	381	270		204	199		109	1599		228	1790	
v/s Ratio Prot	0.10	c0.28		c0.15	0.05		0.03	0.70		c0.17	0.58	
v/s Ratio Perm	0.11			0.20			0.40			c0.86		
v/c Ratio	0.68	1.62		1.71	0.39		0.86	1.50		1.68	1.08	
Uniform Delay, d1	41.6	60.0		54.1	59.1		33.8	38.5		50.7	33.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.4	297.2		337.7	2.0		47.9	226.7		326.2	48.0	
Delay (s)	47.0	357.2		391.8	61.1		81.7	265.2		376.9	81.5	
Level of Service	D	F		F	E		F	F		F	F	
Approach Delay (s)		255.9			316.8			258.3			130.0	
Approach LOS		F			F			F			F	
<b>Intersection Summary</b>												
HCM Average Control Delay			212.8			HCM Level of Service				F		
HCM Volume to Capacity ratio			1.63									
Actuated Cycle Length (s)			145.0			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			145.7%			ICU Level of Service				H		
Analysis Period (min)			15									
c Critical Lane Group												












I-85/I-385 Interchange Improvements  
2035 No-Build PM

5: I-85 SB Ramps & Woodruff Road

											
Movement	WBL2	WBL	WBR	SEL	SET	SER	NWL	NWT	NWR	NEL	NER
Lane Configurations											
Volume (vph)	541	0	340	0	2366	411	1007	1767	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		6.3	6.3	6.5	6.1			
Lane Util. Factor	0.97		0.88		0.95	1.00	1.00	0.95			
Frt	1.00		0.85		1.00	0.85	1.00	1.00			
Flt Protected	0.95		1.00		1.00	1.00	0.95	1.00			
Satd. Flow (prot)	3335		2707		3438	1538	1719	3438			
Flt Permitted	0.95		1.00		1.00	1.00	0.05	1.00			
Satd. Flow (perm)	3335		2707		3438	1538	96	3438			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	601	0	378	0	2629	457	1119	1963	0	0	0
RTOR Reduction (vph)	0	0	71	0	0	87	0	0	0	0	0
Lane Group Flow (vph)	601	0	307	0	2629	370	1119	1963	0	0	0
Turn Type	custom		custom		Perm		pm+pt				
Protected Phases					2		1		6		
Permitted Phases	4		4		2		6				
Actuated Green, G (s)	15.0		15.0		68.7		68.7		123.9		123.9
Effective Green, g (s)	15.0		15.0		68.7		68.7		123.9		123.9
Actuated g/C Ratio	0.10		0.10		0.46		0.46		0.83		0.83
Clearance Time (s)	5.0		5.0		6.3		6.3		6.5		6.1
Vehicle Extension (s)	4.3		4.3		4.3		4.3		4.3		4.3
Lane Grp Cap (vph)	334		271		1575		704		604		2840
v/s Ratio Prot					0.76		c0.60		0.57		
v/s Ratio Perm	c0.18		0.11				0.24		c0.93		
v/c Ratio	1.80		1.13		1.67		0.53		1.85		0.69
Uniform Delay, d1	67.5		67.5		40.6		29.0		46.6		5.3
Progression Factor	1.00		1.00		1.00		1.00		1.00		1.00
Incremental Delay, d2	371.5		95.2		304.0		2.8		390.1		1.4
Delay (s)	439.0		162.7		344.6		31.8		436.6		6.7
Level of Service	F		F		F		C		F		A
Approach Delay (s)	332.3				298.3				162.8		0.0
Approach LOS	F				F				F		A
Intersection Summary											
HCM Average Control Delay			244.5		HCM Level of Service			F			
HCM Volume to Capacity ratio			1.80								
Actuated Cycle Length (s)			150.0		Sum of lost time (s)			11.5			
Intersection Capacity Utilization			150.3%		ICU Level of Service			H			
Analysis Period (min)			15								
c Critical Lane Group											

I-85/I-385 Interchange Improvements  
2035 No-Build PM

6: I-85 NB Ramps & Woodruff Road

						
Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	753	823	1359	1548	0	2021
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.6	5.6	6.5	6.5		6.5
Lane Util. Factor	0.97	0.88	0.95	1.00		0.95
Frt	1.00	0.85	1.00	0.85		1.00
Flt Protected	0.95	1.00	1.00	1.00		1.00
Satd. Flow (prot)	3335	2707	3438	1538		3438
Flt Permitted	0.95	1.00	1.00	1.00		1.00
Satd. Flow (perm)	3335	2707	3438	1538		3438
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	837	914	1510	1720	0	2246
RTOR Reduction (vph)	0	251	0	462	0	0
Lane Group Flow (vph)	837	663	1510	1258	0	2246
Turn Type		Prot		Perm		
Protected Phases	3	3	2			2 4
Permitted Phases				2		
Actuated Green, G (s)	30.4	30.4	86.5	86.5		107.5
Effective Green, g (s)	30.4	30.4	86.5	86.5		100.5
Actuated g/C Ratio	0.20	0.20	0.58	0.58		0.67
Clearance Time (s)	5.6	5.6	6.5	6.5		
Vehicle Extension (s)	4.3	4.3	4.3	4.3		
Lane Grp Cap (vph)	676	549	1983	887		2303
v/s Ratio Prot	c0.25	0.24	0.44			c0.65
v/s Ratio Perm				c0.82		
v/c Ratio	1.24	1.21	0.76	1.42		0.98
Uniform Delay, d1	59.8	59.8	24.0	31.8		23.6
Progression Factor	1.00	1.00	1.00	1.00		0.91
Incremental Delay, d2	119.6	109.6	2.8	194.9		2.2
Delay (s)	179.4	169.4	26.8	226.7		23.8
Level of Service	F	F	C	F		C
Approach Delay (s)	174.2		133.2			23.8
Approach LOS	F		F			C
<b>Intersection Summary</b>						
HCM Average Control Delay			109.1		HCM Level of Service	F
HCM Volume to Capacity ratio			1.32			
Actuated Cycle Length (s)			150.0		Sum of lost time (s)	18.6
Intersection Capacity Utilization			101.3%		ICU Level of Service	G
Analysis Period (min)			15			
c Critical Lane Group						

I-85/I-385 Interchange Improvements  
2035 No-Build PM

























7: Carolina Point Pkwy & Woodruff Road



Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations	↰↰	↰	↰↰	↰	↰	↰↰
Volume (vph)	324	119	2035	147	30	3362
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0	6.5	6.5	6.5	6.5
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3335	1538	3438	1538	1719	3438
Flt Permitted	0.95	1.00	1.00	1.00	0.05	1.00
Satd. Flow (perm)	3335	1538	3438	1538	90	3438
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	360	132	2261	163	33	3736
RTOR Reduction (vph)	0	24	0	29	0	0
Lane Group Flow (vph)	360	108	2261	134	33	3736
Turn Type	Perm		Perm		Perm	
Protected Phases	4		2 3 6			2 3 6
Permitted Phases	4	4		2 3 6	2 3 6	
Actuated Green, G (s)	14.0	14.0	123.4	123.4	123.4	123.4
Effective Green, g (s)	14.0	14.0	123.4	123.4	123.4	123.4
Actuated g/C Ratio	0.09	0.09	0.82	0.82	0.82	0.82
Clearance Time (s)	7.0	7.0				
Vehicle Extension (s)	4.3	4.3				
Lane Grp Cap (vph)	311	144	2828	1265	74	2828
v/s Ratio Prot	c0.11		0.66			c1.09
v/s Ratio Perm		0.07		0.09	0.36	
v/c Ratio	1.16	0.75	0.80	0.11	0.45	1.32
Uniform Delay, d1	68.0	66.3	6.9	2.6	3.7	13.3
Progression Factor	1.00	1.00	0.50	0.44	1.00	1.00
Incremental Delay, d2	100.8	21.5	0.7	0.0	6.6	147.1
Delay (s)	168.8	87.8	4.2	1.2	10.4	160.4
Level of Service	F	F	A	A	B	F
Approach Delay (s)	147.1		4.0			159.0
Approach LOS	F		A			F
<b>Intersection Summary</b>						
HCM Average Control Delay			101.9		HCM Level of Service	F
HCM Volume to Capacity ratio			1.31			
Actuated Cycle Length (s)			150.0		Sum of lost time (s)	13.5
Intersection Capacity Utilization			113.4%		ICU Level of Service	H
Analysis Period (min)			15			
c Critical Lane Group						

I-85/I-385 Interchange Improvements  
2035 No-Build PM
























8: Woodruff Road & Market Point Drive

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (vph)	742	1260	152	109	2612	233	239	42	107	336	42	541	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	6.1	6.1	5.8	6.1	6.1	6.1	5.8	5.8	6.1	5.8	5.8	5.8	
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	0.95	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	3335	3438	1538	1719	3438	1538	1719	1810	1538	3335	3438	1538	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	3335	3438	1538	1719	3438	1538	1719	1810	1538	3335	3438	1538	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	824	1400	169	121	2902	259	266	47	119	373	47	601	
RTOR Reduction (vph)	0	0	50	0	0	45	0	0	22	0	0	199	
Lane Group Flow (vph)	824	1400	119	121	2902	214	266	47	97	373	47	402	
Turn Type	Prot	pm+ov		Prot	Perm		Prot	pm+ov		Prot	Perm		
Protected Phases	5	2	3	1	6	3		8	1	7	4		
Permitted Phases	2			6						8			4
Actuated Green, G (s)	20.9	77.2	91.4	18.6	74.9	74.9	14.2	10.4	29.0	20.0	16.2	16.2	
Effective Green, g (s)	20.9	77.2	91.4	18.6	74.9	74.9	14.2	10.4	29.0	20.0	16.2	16.2	
Actuated g/C Ratio	0.14	0.51	0.61	0.12	0.50	0.50	0.09	0.07	0.19	0.13	0.11	0.11	
Clearance Time (s)	6.1	6.1	5.8	6.1	6.1	6.1	5.8	5.8	6.1	5.8	5.8	5.8	
Vehicle Extension (s)	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	
Lane Grp Cap (vph)	465	1769	937	213	1717	768	163	125	297	445	371	166	
v/s Ratio Prot	c0.25	0.41	0.01	0.07	c0.84	c0.15		0.03	0.04	0.11	0.01		
v/s Ratio Perm	0.07			0.14				0.02			c0.26		
v/c Ratio	1.77	0.79	0.13	0.57	1.69	0.28	1.63	0.38	0.33	0.84	0.13	2.42	
Uniform Delay, d1	64.5	29.8	12.4	61.9	37.5	21.8	67.9	66.7	52.1	63.4	60.5	66.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	356.1	3.7	0.1	4.6	313.1	0.9	310.5	3.0	1.0	13.8	0.2	658.0	
Delay (s)	420.6	33.5	12.5	66.5	350.7	22.8	378.4	69.7	53.1	77.2	60.7	724.9	
Level of Service	F	C	B	E	F	C	F	E	D	E	E	F	
Approach Delay (s)	165.3		314.3			255.2			457.7				
Approach LOS	F		F			F			F				
Intersection Summary													
HCM Average Control Delay			281.3		HCM Level of Service			F					
HCM Volume to Capacity ratio			1.79										
Actuated Cycle Length (s)			150.0		Sum of lost time (s)			23.8					
Intersection Capacity Utilization			133.7%		ICU Level of Service			H					
Analysis Period (min)			15										
c Critical Lane Group													



I-85/I-385 Interchange Improvements  
2035 No-Build PM

9: Woodruff Road & Garlington Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	259	1184	260	238	2315	234	379	214	169	478	395	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.2	6.1	6.1	5.2	6.1	6.1	5.2	5.2		5.2	5.2	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00		0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3335	3438	1538	1719	3438	1538	3335	1690		3335	1810	1538
Flt Permitted	0.95	1.00	1.00	0.07	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3335	3438	1538	130	3438	1538	3335	1690		3335	1810	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	288	1316	289	264	2572	260	421	238	188	531	439	289
RTOR Reduction (vph)	0	0	112	0	0	51	0	19	0	0	0	0
Lane Group Flow (vph)	288	1316	177	264	2572	209	421	407	0	531	439	289
Turn Type	Prot		Perm	pm+pt		Perm	Prot			Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6						Free
Actuated Green, G (s)	9.8	69.9	69.9	93.9	78.9	78.9	12.8	23.8		15.8	26.8	150.0
Effective Green, g (s)	9.8	69.9	69.9	93.9	78.9	78.9	12.8	23.8		15.8	26.8	150.0
Actuated g/C Ratio	0.07	0.47	0.47	0.63	0.53	0.53	0.09	0.16		0.11	0.18	1.00
Clearance Time (s)	5.2	6.1	6.1	5.2	6.1	6.1	5.2	5.2		5.2	5.2	
Vehicle Extension (s)	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3		4.3	4.3	
Lane Grp Cap (vph)	218	1602	717	281	1808	809	285	268		351	323	1538
v/s Ratio Prot	c0.09	0.38		0.12	c0.75		0.13	c0.24		c0.16	c0.24	
v/s Ratio Perm			0.12	0.47		0.14						0.19
v/c Ratio	1.32	0.82	0.25	0.94	1.42	0.26	1.48	1.52		1.51	1.36	0.19
Uniform Delay, d1	70.1	34.7	24.2	45.7	35.5	19.5	68.6	63.1		67.1	61.6	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	172.9	4.9	0.8	37.9	193.4	0.8	232.8	251.1		245.0	180.5	0.3
Delay (s)	243.0	39.5	25.0	83.5	229.0	20.3	301.4	314.2		312.1	242.1	0.3
Level of Service	F	D	C	F	F	C	F	F		F	F	A
Approach Delay (s)		68.3			199.1			307.8			216.1	
Approach LOS		E			F			F			F	
<b>Intersection Summary</b>												
HCM Average Control Delay			180.2			HCM Level of Service			F			
HCM Volume to Capacity ratio			1.51									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			26.9			
Intersection Capacity Utilization			124.7%			ICU Level of Service			H			
Analysis Period (min)			15									
c Critical Lane Group												



















I-85/I-385 Interchange Improvements  
2035 No-Build PM

10: Woodruff Road & I-385 SB Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑					↑↑		↑
Volume (vph)	0	1209	622	261	2060	0	0	0	0	1187	0	727
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.6		6.6	6.6					5.7		4.0
Lane Util. Factor		0.95		1.00	0.95					0.97		1.00
Flt		0.95		1.00	1.00					1.00		0.85
Flt Protected		1.00		0.95	1.00					0.95		1.00
Satd. Flow (prot)		3263		1719	3438					3335		1538
Flt Permitted		1.00		0.05	1.00					0.95		1.00
Satd. Flow (perm)		3263		92	3438					3335		1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1343	691	290	2289	0	0	0	0	1319	0	808
RTOR Reduction (vph)	0	43	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1991	0	290	2289	0	0	0	0	1319	0	808
Turn Type				pm+pt						Prot		Free
Protected Phases		2		1	6					4		
Permitted Phases				6								Free
Actuated Green, G (s)		72.4		94.4	94.4					43.3		150.0
Effective Green, g (s)		72.4		94.4	94.4					43.3		150.0
Actuated g/C Ratio		0.48		0.63	0.63					0.29		1.00
Clearance Time (s)		6.6		6.6	6.6					5.7		
Vehicle Extension (s)		4.3		4.3	4.3					4.3		
Lane Grp Cap (vph)		1575		225	2164					963		1538
v/s Ratio Prot		0.61		0.13	c0.67					c0.40		
v/s Ratio Perm				c0.68								0.53
v/c Ratio		1.26		1.29	1.06					1.37		0.53
Uniform Delay, d1		38.8		53.3	27.8					53.4		0.0
Progression Factor		1.00		1.00	1.00					1.00		1.00
Incremental Delay, d2		124.0		159.2	36.8					173.0		1.3
Delay (s)		162.8		212.5	64.6					226.4		1.3
Level of Service		F		F	E					F		A
Approach Delay (s)		162.8			81.2			0.0			140.9	
Approach LOS		F			F			A			F	
<b>Intersection Summary</b>												
HCM Average Control Delay			124.6			HCM Level of Service				F		
HCM Volume to Capacity ratio			1.28									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			12.3			
Intersection Capacity Utilization			192.2%			ICU Level of Service			H			
Analysis Period (min)			15									
c Critical Lane Group												









I-85/I-385 Interchange Improvements  
2035 No-Build PM

11: Woodruff Road & I-385 NB Ramps

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	686	1710	0	0	1559	963	762	0	361	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.1	6.1			6.1	6.1	5.0		5.0			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1719	3438			3438	1538	1719		1538			
Flt Permitted	0.08	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	139	3438			3438	1538	1719		1538			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	762	1900	0	0	1732	1070	847	0	401	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	383	0	0	14	0	0	0
Lane Group Flow (vph)	762	1900	0	0	1732	687	847	0	387	0	0	0
Turn Type	pm+pt					Perm	Prot		custom			
Protected Phases	5	2			6		8					
Permitted Phases	2					6			8			
Actuated Green, G (s)	76.9	76.9			45.9	45.9	32.0		32.0			
Effective Green, g (s)	76.9	76.9			45.9	45.9	32.0		32.0			
Actuated g/C Ratio	0.64	0.64			0.38	0.38	0.27		0.27			
Clearance Time (s)	6.1	6.1			6.1	6.1	5.0		5.0			
Vehicle Extension (s)	4.3	4.3			4.3	4.3	4.3		4.3			
Lane Grp Cap (vph)	417	2203			1315	588	458		410			
v/s Ratio Prot	c0.38	0.55			0.50		c0.49					
v/s Ratio Perm	c0.79					0.45			0.25			
v/c Ratio	1.83	0.86			1.32	1.17	1.85		0.94			
Uniform Delay, d1	39.2	17.3			37.1	37.1	44.0		43.1			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	381.6	4.8			148.2	93.2	390.6		30.8			
Delay (s)	420.8	22.1			185.2	130.2	434.6		73.9			
Level of Service	F	C			F	F	F		E			
Approach Delay (s)		136.2			164.2			318.7			0.0	
Approach LOS		F			F			F			A	
<b>Intersection Summary</b>												
HCM Average Control Delay		181.8			HCM Level of Service			F				
HCM Volume to Capacity ratio		1.78										
Actuated Cycle Length (s)		120.0			Sum of lost time (s)			11.1				
Intersection Capacity Utilization		192.2%			ICU Level of Service			H				
Analysis Period (min)		15										
c Critical Lane Group												













I-85/I-385 Interchange Improvements  
2035 No-Build PM

12: Woodruff Road & Commercial Drive

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	240	1767	64	15	2066	78	296	28	15	134	18	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.3	5.5		5.5	5.5		5.3	5.4		5.4	5.4	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.95		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3420		1719	3419		1719	1713		1719	1566	
Flt Permitted	0.05	1.00		0.05	1.00		0.21	1.00		0.73	1.00	
Satd. Flow (perm)	83	3420		89	3419		383	1713		1313	1566	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	267	1963	71	17	2296	87	329	31	17	149	20	178
RTOR Reduction (vph)	0	2	0	0	2	0	0	13	0	0	138	0
Lane Group Flow (vph)	267	2032	0	17	2381	0	329	35	0	149	60	0
Turn Type	pm+pt			Perm			pm+pt			Perm		
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	101.5	101.5		81.5	81.5		37.6	37.6		13.6	13.6	
Effective Green, g (s)	101.5	101.5		81.5	81.5		37.6	37.6		13.6	13.6	
Actuated g/C Ratio	0.68	0.68		0.54	0.54		0.25	0.25		0.09	0.09	
Clearance Time (s)	5.3	5.5		5.5	5.5		5.3	5.4		5.4	5.4	
Vehicle Extension (s)	4.3	4.3		4.3	4.3		4.3	4.3		4.3	4.3	
Lane Grp Cap (vph)	216	2314		48	1858		263	429		119	142	
v/s Ratio Prot	c0.12	0.59			c0.70		c0.16	0.02			0.04	
v/s Ratio Perm	0.71			0.19			c0.16			0.11		
v/c Ratio	1.24	0.88		0.35	1.28		1.25	0.08		1.25	0.42	
Uniform Delay, d1	54.7	19.3		19.4	34.2		51.6	43.0		68.2	64.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	139.5	5.1		19.3	131.0		140.4	0.1		165.1	3.2	
Delay (s)	194.2	24.5		38.7	165.2		192.0	43.1		233.3	67.6	
Level of Service	F	C		D	F		F	D		F	E	
Approach Delay (s)		44.2			164.3			173.0			138.8	
Approach LOS		D			F			F			F	
<b>Intersection Summary</b>												
HCM Average Control Delay			112.3			HCM Level of Service				F		
HCM Volume to Capacity ratio			1.25									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			16.1			
Intersection Capacity Utilization			118.0%			ICU Level of Service			H			
Analysis Period (min)			15									
c Critical Lane Group												




















I-85/I-385 Interchange Improvements  
2035 No-Build PM

13: Woodruff Road & Smith Hines Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	1812	89	86	1904	2	240	2	190	7	2	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3		6.0	6.0			5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.94			0.92	
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.99	
Satd. Flow (prot)	1719	3414		1719	3438			1656			1632	
Flt Permitted	0.06	1.00		0.06	1.00			0.81			0.90	
Satd. Flow (perm)	107	3414		106	3438			1383			1494	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	2013	99	96	2116	2	267	2	211	8	2	17
RTOR Reduction (vph)	0	4	0	0	0	0	0	15	0	0	13	0
Lane Group Flow (vph)	17	2108	0	96	2118	0	0	465	0	0	14	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases	2			6			8			4		
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	67.7	67.7		68.0	68.0			21.0			21.0	
Effective Green, g (s)	67.7	67.7		68.0	68.0			21.0			21.0	
Actuated g/C Ratio	0.68	0.68		0.68	0.68			0.21			0.21	
Clearance Time (s)	6.3	6.3		6.0	6.0			5.0			5.0	
Vehicle Extension (s)	4.3	4.3		4.3	4.3			4.3			4.3	
Lane Grp Cap (vph)	72	2311		72	2338			290			314	
v/s Ratio Prot	0.62			0.62								
v/s Ratio Perm	0.16			c0.90				c0.34			0.01	
v/c Ratio	0.24	0.91		1.33	0.91			1.60			0.05	
Uniform Delay, d1	6.2	13.6		16.0	13.3			39.5			31.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	7.6	6.9		218.6	6.4			287.1			0.1	
Delay (s)	13.8	20.5		234.6	19.8			326.6			31.6	
Level of Service	B	C		F	B			F			C	
Approach Delay (s)	20.5			29.1			326.6			31.6		
Approach LOS	C			C			F			C		
Intersection Summary												
HCM Average Control Delay	54.8			HCM Level of Service			D					
HCM Volume to Capacity ratio	1.40											
Actuated Cycle Length (s)	100.0			Sum of lost time (s)			11.0					
Intersection Capacity Utilization	112.3%			ICU Level of Service			H					
Analysis Period (min)	15											
c Critical Lane Group												






















I-85/I-385 Interchange Improvements  
2035 No-Build PM

14: Woodruff Road & Walmart Driveway

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	2216	195	32	3306	61	530	10	8	56	2	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3		6.3	6.3		5.0	5.0			5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00			1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.93			0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.98	
Satd. Flow (prot)	1719	3396		1719	3429		1719	1687			1651	
Flt Permitted	0.04	1.00		0.05	1.00		0.66	1.00			0.85	
Satd. Flow (perm)	79	3396		84	3429		1188	1687			1432	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	36	2462	217	36	3673	68	589	11	9	62	2	59
RTOR Reduction (vph)	0	4	0	0	1	0	0	4	0	0	22	0
Lane Group Flow (vph)	36	2675	0	36	3740	0	589	16	0	0	101	0
Turn Type	pm+pt			Perm			Perm			Perm		
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	97.0	97.0		85.9	85.9		43.0	43.0			43.0	
Effective Green, g (s)	97.0	97.0		85.9	85.9		43.0	43.0			43.0	
Actuated g/C Ratio	0.64	0.64		0.57	0.57		0.28	0.28			0.28	
Clearance Time (s)	6.3	6.3		6.3	6.3		5.0	5.0			5.0	
Vehicle Extension (s)	4.3	4.3		4.3	4.3		4.3	4.3			4.3	
Lane Grp Cap (vph)	103	2177		48	1947		338	479			407	
v/s Ratio Prot	0.01	c0.79			c1.09			0.01				
v/s Ratio Perm	0.22			0.43			c0.50				0.07	
v/c Ratio	0.35	1.23		0.75	1.92		1.74	0.03			0.25	
Uniform Delay, d1	36.2	27.2		24.6	32.7		54.2	39.1			41.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	3.2	107.1		69.5	416.4		346.2	0.0			0.5	
Delay (s)	39.4	134.3		94.1	449.1		400.4	39.2			42.2	
Level of Service	D	F		F	F		F	D			D	
Approach Delay (s)		133.0			445.7			388.5			42.2	
Approach LOS		F			F			F			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			316.5			HCM Level of Service				F		
HCM Volume to Capacity ratio			1.87									
Actuated Cycle Length (s)			151.3			Sum of lost time (s)			17.6			
Intersection Capacity Utilization			138.8%			ICU Level of Service			H			
Analysis Period (min)			15									
c Critical Lane Group												




















I-85/I-385 Interchange Improvements  
2035 No-Build PM

15: Woodruff Road & Verdin Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	144	2702	61	90	1748	105	363	292	179	77	311	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3		6.3	6.3		5.2	5.0	5.0	5.2	5.2	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	1.00	0.85	1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1719	3427		1719	3409		1719	1810	1538	1719	1692	
Flt Permitted	0.05	1.00		0.05	1.00		0.13	1.00	1.00	0.56	1.00	
Satd. Flow (perm)	85	3427		85	3409		240	1810	1538	1021	1692	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	160	3002	68	100	1942	117	403	324	199	86	346	266
RTOR Reduction (vph)	0	1	0	0	3	0	0	0	1	0	12	0
Lane Group Flow (vph)	160	3069	0	100	2056	0	403	324	198	86	600	0
Turn Type	Perm			Perm			pm+pt			Perm	Perm	
Protected Phases	2			6			3		8		4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	84.7	84.7		84.7	84.7		44.0	44.0	44.0	24.8	24.8	
Effective Green, g (s)	84.7	84.7		84.7	84.7		44.0	44.0	44.0	24.8	24.8	
Actuated g/C Ratio	0.61	0.61		0.61	0.61		0.31	0.31	0.31	0.18	0.18	
Clearance Time (s)	6.3	6.3		6.3	6.3		5.2	5.0	5.0	5.2	5.2	
Vehicle Extension (s)	4.3	4.3		4.3	4.3		4.3	4.3	4.3	4.3	4.3	
Lane Grp Cap (vph)	51	2073		51	2062		221	569	483	181	300	
v/s Ratio Prot	0.90			0.60			c0.18	0.18		0.35		
v/s Ratio Perm	c1.87			1.17			c0.39		0.13	0.08		
v/c Ratio	3.14	1.48		1.96	1.00		1.82	0.57	0.41	0.48	2.00	
Uniform Delay, d1	27.6	27.6		27.6	27.5		41.1	40.1	37.8	51.8	57.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1011.0	218.8		495.2	19.1		387.8	1.8	0.9	3.1	462.4	
Delay (s)	1038.7	246.5		522.9	46.7		428.9	41.8	38.7	54.8	520.0	
Level of Service	F	F		F	D		F	D	D	D	F	
Approach Delay (s)	285.7			68.7			209.6			462.7		
Approach LOS	F			E			F			F		
Intersection Summary												
HCM Average Control Delay			226.5	HCM Level of Service			F					
HCM Volume to Capacity ratio			2.64									
Actuated Cycle Length (s)			140.0	Sum of lost time (s)			11.5					
Intersection Capacity Utilization			171.7%	ICU Level of Service			H					
Analysis Period (min)			15									
c Critical Lane Group												

I-85/I-385 Interchange Improvements  
2035 No-Build PM







16: Woodruff Road & Butler Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	2394	167	528	1677	26	264	28	652	443	552	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3		6.3	6.3			5.0	6.3	5.0	5.0	
Lane Util. Factor		0.95		1.00	0.95			1.00	1.00	1.00	1.00	
Frt		0.99		1.00	1.00			1.00	0.85	1.00	0.97	
Flt Protected		1.00		0.95	1.00			0.96	1.00	0.95	1.00	
Satd. Flow (prot)		3403		1719	3430			1731	1538	1719	1753	
Flt Permitted		0.83		0.08	1.00			0.18	1.00	0.29	1.00	
Satd. Flow (perm)		2830		145	3430			328	1538	528	1753	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	32	2660	186	587	1863	29	293	31	724	492	613	160
RTOR Reduction (vph)	0	6	0	0	1	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	2872	0	587	1891	0	0	324	724	492	762	0
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)		43.7		57.7	57.7			21.0	28.7	21.0	21.0	
Effective Green, g (s)		43.7		57.7	57.7			21.0	28.7	21.0	21.0	
Actuated g/C Ratio		0.49		0.64	0.64			0.23	0.32	0.23	0.23	
Clearance Time (s)		6.3		6.3	6.3			5.0	6.3	5.0	5.0	
Vehicle Extension (s)		4.3		4.3	4.3			4.3	4.3	4.3	4.3	
Lane Grp Cap (vph)		1374		228	2199			77	490	123	409	
v/s Ratio Prot				c0.22	0.55				0.13		0.43	
v/s Ratio Perm		1.01		c1.44				c0.99	0.34	0.93		
v/c Ratio		2.09		2.57	0.86			4.21	1.48	4.00	1.86	
Uniform Delay, d1		23.1		27.7	12.9			34.5	30.6	34.5	34.5	
Progression Factor		1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		493.2		721.2	4.7			1473.5	225.7	1369.2	398.0	
Delay (s)		516.4		748.9	17.6			1508.0	256.4	1403.7	432.5	
Level of Service		F		F	B			F	F	F	F	
Approach Delay (s)		516.4			190.8			643.3			810.2	
Approach LOS		F			F			F			F	
Intersection Summary												
HCM Average Control Delay			476.9		HCM Level of Service				F			
HCM Volume to Capacity ratio			2.91									
Actuated Cycle Length (s)			90.0		Sum of lost time (s)				11.3			
Intersection Capacity Utilization			192.3%		ICU Level of Service				H			
Analysis Period (min)			15									
c Critical Lane Group												


























I-85/I-385 Interchange Improvements  
2035 No-Build PM

17: Woodruff Road & Bell Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	96	3418	156	53	2464	16	209	2	58	21	2	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2	6.2		6.2	6.2			5.4			5.4	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.97			0.89	
Flt Protected	0.95	1.00		0.95	1.00			0.96			0.99	
Satd. Flow (prot)	1719	3416		1719	3435			1691			1600	
Flt Permitted	0.04	1.00		0.04	1.00			0.61			0.95	
Satd. Flow (perm)	76	3416		76	3435			1064			1530	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	107	3798	173	59	2738	18	232	2	64	23	2	98
RTOR Reduction (vph)	0	2	0	0	0	0	0	1	0	0	5	0
Lane Group Flow (vph)	107	3969	0	59	2756	0	0	297	0	0	118	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases	2			6			8			4		
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	95.8	95.8		95.8	95.8			22.6			22.6	
Effective Green, g (s)	95.8	95.8		95.8	95.8			22.6			22.6	
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.17			0.17	
Clearance Time (s)	6.2	6.2		6.2	6.2			5.4			5.4	
Vehicle Extension (s)	4.3	4.3		4.3	4.3			4.3			4.3	
Lane Grp Cap (vph)	56	2517		56	2531			185			266	
v/s Ratio Prot	1.16			0.80								
v/s Ratio Perm	c1.42			0.78			c0.28			0.08		
v/c Ratio	1.91	1.58		1.05	1.09			1.61			0.44	
Uniform Delay, d1	17.1	17.1		17.1	17.1			53.7			48.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	468.8	261.5		136.1	47.3			296.6			1.9	
Delay (s)	485.9	278.6		153.2	64.4			350.3			49.9	
Level of Service	F	F		F	E			F			D	
Approach Delay (s)	284.0			66.3			350.3			49.9		
Approach LOS	F			E			F			D		
Intersection Summary												
HCM Average Control Delay			199.0		HCM Level of Service			F				
HCM Volume to Capacity ratio			1.85									
Actuated Cycle Length (s)			130.0		Sum of lost time (s)			11.6				
Intersection Capacity Utilization			131.0%		ICU Level of Service			H				
Analysis Period (min)			15									
c Critical Lane Group												
























I-85/I-385 Interchange Improvements  
2035 No-Build PM

18: Woodruff Road & SC 14

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	223	1837	517	142	1214	105	264	393	77	288	586	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.3	6.3	5.0	6.3	6.3		5.0	5.0	6.3	5.0	5.0	6.3
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3397		1719	1810	1538	1719	1810	1538
Flt Permitted	0.06	1.00	1.00	0.07	1.00		0.11	1.00	1.00	0.11	1.00	1.00
Satd. Flow (perm)	112	3438	1538	123	3397		196	1810	1538	196	1810	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	248	2041	574	158	1349	117	293	437	86	320	651	186
RTOR Reduction (vph)	0	0	20	0	4	0	0	0	9	0	0	15
Lane Group Flow (vph)	248	2041	554	158	1462	0	293	437	77	320	651	171
Turn Type	pm+pt		pm+ov	pm+pt			pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	5	2	3	1	6		3	8	1	7	4	5
Permitted Phases	2		2	6			8		8	4		4
Actuated Green, G (s)	79.4	64.7	81.7	67.4	58.7		54.0	37.0	45.7	54.0	37.0	51.7
Effective Green, g (s)	79.4	64.7	81.7	67.4	58.7		54.0	37.0	45.7	54.0	37.0	51.7
Actuated g/C Ratio	0.53	0.43	0.54	0.45	0.39		0.36	0.25	0.30	0.36	0.25	0.34
Clearance Time (s)	6.3	6.3	5.0	6.3	6.3		5.0	5.0	6.3	5.0	5.0	6.3
Vehicle Extension (s)	4.3	4.3	4.3	4.3	4.3		4.3	4.3	4.3	4.3	4.3	4.3
Lane Grp Cap (vph)	217	1483	838	148	1329		243	446	469	243	446	530
v/s Ratio Prot	c0.11	c0.59	0.08	0.06	0.43		0.14	0.24	0.01	c0.15	c0.36	0.03
v/s Ratio Perm	0.49		0.29	0.42			0.30		0.04	0.33		0.08
v/c Ratio	1.14	1.38	0.66	1.07	1.10		1.21	0.98	0.16	1.32	1.46	0.32
Uniform Delay, d1	49.9	42.6	24.3	41.6	45.6		45.3	56.1	38.2	45.2	56.5	36.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	104.9	173.6	2.3	93.1	56.8		124.8	37.1	0.3	168.6	218.9	0.6
Delay (s)	154.8	216.3	26.6	134.8	102.4		170.1	93.2	38.4	213.8	275.4	36.8
Level of Service	F	F	C	F	F		F	F	D	F	F	D
Approach Delay (s)		172.9			105.6			115.1			220.0	
Approach LOS		F			F			F			F	
<b>Intersection Summary</b>												
HCM Average Control Delay			157.1			HCM Level of Service			F			
HCM Volume to Capacity ratio			1.41									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			22.6			
Intersection Capacity Utilization			122.9%			ICU Level of Service			H			
Analysis Period (min)			15									
c Critical Lane Group												

I-85/I-385 Interchange Improvements  
2035 No-Build PM

19: E Parkins Mill Road & US 276

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	146	162	90	137	98	112	210	1553	266	115	1940	316
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0		4.0	6.0	6.0	4.0	7.0	7.0	4.0	7.0	7.0
Lane Util. Factor	1.00	0.95		0.97	1.00	1.00	1.00	0.91	1.00	0.97	0.91	1.00
Frt	1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3254		3335	1810	1538	1719	4940	1538	3335	4940	1538
Flt Permitted	0.69	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1243	3254		3335	1810	1538	1719	4940	1538	3335	4940	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	162	180	100	152	109	124	233	1726	296	128	2156	351
RTOR Reduction (vph)	0	76	0	0	0	114	0	0	127	0	0	111
Lane Group Flow (vph)	162	204	0	152	109	10	233	1726	169	128	2156	240
Turn Type	pm+pt			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases	8					4			6			2
Actuated Green, G (s)	14.0	8.0		6.0	8.0	8.0	15.6	57.2	57.2	7.8	49.4	49.4
Effective Green, g (s)	14.0	8.0		6.0	8.0	8.0	15.6	57.2	57.2	7.8	49.4	49.4
Actuated g/C Ratio	0.14	0.08		0.06	0.08	0.08	0.16	0.57	0.57	0.08	0.49	0.49
Clearance Time (s)	4.0	6.0		4.0	6.0	6.0	4.0	7.0	7.0	4.0	7.0	7.0
Vehicle Extension (s)	4.3	4.9		4.3	4.9	4.9	4.3	4.9	4.9	4.3	4.9	4.9
Lane Grp Cap (vph)	203	260		200	145	123	268	2826	880	260	2440	760
v/s Ratio Prot	c0.05	0.06		0.05	0.06		c0.14	0.35		0.04	c0.44	
v/s Ratio Perm	c0.06					0.01			0.11			0.16
v/c Ratio	0.80	0.78		0.76	0.75	0.08	0.87	0.61	0.19	0.49	0.88	0.32
Uniform Delay, d1	41.0	45.1		46.3	45.0	42.6	41.2	14.1	10.3	44.2	22.7	15.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.06	1.28	3.13	1.00	1.00	1.00
Incremental Delay, d2	20.8	16.2		16.9	22.6	0.6	13.1	0.4	0.2	2.3	5.1	1.1
Delay (s)	61.8	61.3		63.2	67.6	43.2	56.7	18.4	32.4	46.5	27.8	16.3
Level of Service	E	E		E	E	D	E	B	C	D	C	B
Approach Delay (s)		61.5			58.0			24.2			27.2	
Approach LOS		E			E			C			C	
<b>Intersection Summary</b>												
HCM Average Control Delay			30.7				HCM Level of Service			C		
HCM Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)			19.0		
Intersection Capacity Utilization			79.9%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

I-85/I-385 Interchange Improvements  
2035 No-Build PM
























20: Duvall Drive & US 276



Movement	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	520	205	1668	499	190	1509
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.3		6.3	6.3
Lane Util. Factor	1.00	1.00	0.91		1.00	0.91
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1719	1538	4769		1719	4940
Flt Permitted	0.95	1.00	1.00		0.14	1.00
Satd. Flow (perm)	1719	1538	4769		261	4940
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	578	228	1853	554	211	1677
RTOR Reduction (vph)	0	9	108	0	0	0
Lane Group Flow (vph)	578	219	2299	0	211	1677
Turn Type	Perm				Perm	
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	10.0	10.0	27.7		27.7	27.7
Effective Green, g (s)	10.0	10.0	27.7		27.7	27.7
Actuated g/C Ratio	0.20	0.20	0.55		0.55	0.55
Clearance Time (s)	6.0	6.0	6.3		6.3	6.3
Vehicle Extension (s)	4.9	4.9	4.9		4.9	4.9
Lane Grp Cap (vph)	344	308	2642		145	2737
v/s Ratio Prot	c0.34		0.48			0.34
v/s Ratio Perm		0.14			c0.81	
v/c Ratio	1.68	0.71	0.87		1.46	0.61
Uniform Delay, d1	20.0	18.7	9.6		11.2	7.5
Progression Factor	1.00	1.00	1.02		1.00	1.00
Incremental Delay, d2	318.5	9.1	2.0		238.9	1.0
Delay (s)	338.5	27.8	11.8		250.0	8.6
Level of Service	F	C	B		F	A
Approach Delay (s)	250.6		11.8			35.5
Approach LOS	F		B			D
<b>Intersection Summary</b>						
HCM Average Control Delay			58.3		HCM Level of Service	E
HCM Volume to Capacity ratio			1.52			
Actuated Cycle Length (s)			50.0		Sum of lost time (s)	12.3
Intersection Capacity Utilization			101.0%		ICU Level of Service	G
Analysis Period (min)			15			
c Critical Lane Group						





















I-85/I-385 Interchange Improvements  
2035 No-Build PM

23: US 276 & Millennium Blvd

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	126	2355	157	33	1711	14	118	71	92	84	28	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.5	6.5	4.5	6.5	6.5	6.0	6.0		6.0	6.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95		1.00	1.00	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	3335	3147		1719	1810	2707
Flt Permitted	0.06	1.00	1.00	0.04	1.00	1.00	0.95	1.00		1.00	1.00	1.00
Satd. Flow (perm)	100	3438	1538	70	3438	1538	3335	3147		1810	1810	2707
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	140	2617	174	37	1901	16	131	79	102	93	31	76
RTOR Reduction (vph)	0	0	33	0	0	4	0	67	0	0	0	38
Lane Group Flow (vph)	140	2617	141	37	1901	12	131	114	0	93	31	38
Turn Type	pm+pt		Perm	pm+pt		Perm	Prot			pm+pt		pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases	2		2	6		6				4		4
Actuated Green, G (s)	118.3	109.1	109.1	107.4	102.7	102.7	8.0	7.0		9.0	4.0	15.6
Effective Green, g (s)	118.3	109.1	109.1	107.4	102.7	102.7	8.0	7.0		9.0	4.0	15.6
Actuated g/C Ratio	0.80	0.73	0.73	0.72	0.69	0.69	0.05	0.05		0.06	0.03	0.10
Clearance Time (s)	4.0	6.5	6.5	4.5	6.5	6.5	6.0	6.0		6.0	6.0	4.0
Vehicle Extension (s)	4.3	4.9	4.9	4.3	4.9	4.9	4.3	6.4		4.3	6.4	4.3
Lane Grp Cap (vph)	206	2521	1128	103	2373	1062	179	148		106	49	284
v/s Ratio Prot	c0.05	c0.76		0.01	0.55		c0.04	c0.04		0.03	0.02	0.01
v/s Ratio Perm	0.49		0.09	0.25		0.01				0.02		0.00
v/c Ratio	0.68	1.04	0.13	0.36	0.80	0.01	0.73	0.77		0.88	0.63	0.14
Uniform Delay, d1	35.4	19.9	5.8	39.3	16.0	7.2	69.3	70.1		69.4	71.7	60.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	9.8	28.7	0.1	3.4	2.3	0.0	15.7	27.3		52.1	39.1	0.3
Delay (s)	45.2	48.6	5.9	42.7	18.3	7.2	85.0	97.4		121.5	110.8	60.8
Level of Service	D	D	A	D	B	A	F	F		F	F	E
Approach Delay (s)		45.9			18.7			92.2			96.8	
Approach LOS		D			B			F			F	
<b>Intersection Summary</b>												
HCM Average Control Delay			40.6			HCM Level of Service				D		
HCM Volume to Capacity ratio			1.02									
Actuated Cycle Length (s)			148.8			Sum of lost time (s)				22.5		
Intersection Capacity Utilization			98.8%			ICU Level of Service				F		
Analysis Period (min)			15									
c Critical Lane Group												

I-85/I-385 Interchange Improvements  
2035 No-Build PM

24: Pelham Road & The Parkway

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	240	1117	877	0	1264	1009	0	0	0	395	643	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	5.8	5.8		5.8	5.3				5.3	5.3	5.3
Lane Util. Factor	0.97	0.95	1.00		0.95	1.00				1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.85				1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (prot)	3335	3438	1538		3438	1538				1719	1810	1538
Flt Permitted	0.95	1.00	1.00		1.00	1.00				0.95	1.00	1.00
Satd. Flow (perm)	3335	3438	1538		3438	1538				1719	1810	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	267	1241	974	0	1404	1121	0	0	0	439	714	394
RTOR Reduction (vph)	0	0	12	0	0	11	0	0	0	0	0	179
Lane Group Flow (vph)	267	1241	962	0	1404	1110	0	0	0	439	714	215
Turn Type	Prot		Perm	Perm		custom				Perm		Perm
Protected Phases	5	2			6	4					4	
Permitted Phases			2	6		6				4		4
Actuated Green, G (s)	6.0	33.2	33.2		21.4	37.1				15.7	15.7	15.7
Effective Green, g (s)	6.0	33.2	33.2		21.4	37.1				15.7	15.7	15.7
Actuated g/C Ratio	0.10	0.55	0.55		0.36	0.62				0.26	0.26	0.26
Clearance Time (s)	5.8	5.8	5.8		5.8	5.3				5.3	5.3	5.3
Vehicle Extension (s)	4.3	4.3	4.3		4.3	4.3				4.3	4.3	4.3
Lane Grp Cap (vph)	334	1902	851		1226	951				450	474	402
v/s Ratio Prot	0.08	0.36			0.41	0.31					c0.39	
v/s Ratio Perm			c0.63			0.42				0.26		0.14
v/c Ratio	0.80	0.65	1.13		1.15	1.17				0.98	1.51	0.54
Uniform Delay, d1	26.4	9.4	13.4		19.3	11.4				22.0	22.1	19.0
Progression Factor	1.00	1.00	1.00		1.27	0.73				1.00	1.00	1.00
Incremental Delay, d2	13.6	1.8	73.3		66.4	76.2				36.0	238.6	2.0
Delay (s)	40.0	11.1	86.7		90.9	84.5				57.9	260.8	21.0
Level of Service	D	B	F		F	F				E	F	C
Approach Delay (s)		43.9			88.1			0.0			142.1	
Approach LOS		D			F			A			F	
<b>Intersection Summary</b>												
HCM Average Control Delay			84.1		HCM Level of Service			F				
HCM Volume to Capacity ratio			1.25									
Actuated Cycle Length (s)			60.0		Sum of lost time (s)			11.1				
Intersection Capacity Utilization			137.2%		ICU Level of Service			H				
Analysis Period (min)			15									
c Critical Lane Group												

I-85/I-385 Interchange Improvements  
2035 No-Build PM


25: Pelham Road & I-85 SB off ramp



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↘	↗↗
Volume (vph)	0	1512	1816	0	681	457
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.6	5.6		5.3	5.3
Lane Util. Factor		0.95	0.95		1.00	0.88
Frt		1.00	1.00		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3438	3438		1719	2707
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3438	3438		1719	2707
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1680	2018	0	757	508
RTOR Reduction (vph)	0	0	0	0	0	4
Lane Group Flow (vph)	0	1680	2018	0	757	504
Turn Type					Perm	
Protected Phases		2	6		4	
Permitted Phases						4
Actuated Green, G (s)		29.4	29.4		19.7	19.7
Effective Green, g (s)		29.4	29.4		19.7	19.7
Actuated g/C Ratio		0.49	0.49		0.33	0.33
Clearance Time (s)		5.6	5.6		5.3	5.3
Vehicle Extension (s)		4.3	4.3		4.3	4.3
Lane Grp Cap (vph)		1685	1685		564	889
v/s Ratio Prot		0.49	c0.59		c0.44	
v/s Ratio Perm						0.19
v/c Ratio		1.00	1.20		1.34	0.57
Uniform Delay, d1		15.3	15.3		20.1	16.6
Progression Factor		1.16	0.77		1.00	1.00
Incremental Delay, d2		17.1	89.5		165.6	1.1
Delay (s)		34.8	101.3		185.8	17.7
Level of Service		C	F		F	B
Approach Delay (s)		34.8	101.3		118.3	
Approach LOS		C	F		F	
<b>Intersection Summary</b>						
HCM Average Control Delay			83.1		HCM Level of Service	F
HCM Volume to Capacity ratio			1.26			
Actuated Cycle Length (s)			60.0		Sum of lost time (s)	10.9
Intersection Capacity Utilization			142.1%		ICU Level of Service	H
Analysis Period (min)			15			
c Critical Lane Group						

I-85/I-385 Interchange Improvements  
2035 No-Build PM




















26: Pelham Road & I-85 NB off ramp

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↔↔	↔
Volume (vph)	812	0	0	815	1791	983
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8			5.8	5.0	5.0
Lane Util. Factor	0.95			0.95	0.97	1.00
Frt	1.00			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	3438			3438	3335	1538
Flt Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	3438			3438	3335	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	902	0	0	906	1990	1092
RTOR Reduction (vph)	0	0	0	0	0	5
Lane Group Flow (vph)	902	0	0	906	1990	1087
Turn Type					Perm	
Protected Phases	2			6	8	
Permitted Phases						8
Actuated Green, G (s)	16.2			16.2	33.0	33.0
Effective Green, g (s)	16.2			16.2	33.0	33.0
Actuated g/C Ratio	0.27			0.27	0.55	0.55
Clearance Time (s)	5.8			5.8	5.0	5.0
Vehicle Extension (s)	4.3			4.3	4.3	4.3
Lane Grp Cap (vph)	928			928	1834	846
v/s Ratio Prot	0.26			c0.26	0.60	
v/s Ratio Perm						c0.71
v/c Ratio	0.97			0.98	1.09	1.28
Uniform Delay, d1	21.7			21.7	13.5	13.5
Progression Factor	0.75			1.00	1.00	1.00
Incremental Delay, d2	4.5			24.3	48.2	137.2
Delay (s)	20.7			46.1	61.7	150.7
Level of Service	C			D	E	F
Approach Delay (s)	20.7			46.1	93.2	
Approach LOS	C			D	F	
<b>Intersection Summary</b>						
HCM Average Control Delay			71.1		HCM Level of Service	E
HCM Volume to Capacity ratio			1.18			
Actuated Cycle Length (s)			60.0		Sum of lost time (s)	10.8
Intersection Capacity Utilization			181.2%		ICU Level of Service	H
Analysis Period (min)			15			
c Critical Lane Group						
























I-85/I-385 Interchange Improvements  
2035 No-Build PM

27: Pelham Road & Boland Court

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	77	1169	549	368	1580	26	321	23	362	36	16	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.7	6.7		6.7	6.7			6.3	6.3		6.3	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	
Frt	1.00	0.95		1.00	1.00			1.00	0.85		0.94	
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.98	
Satd. Flow (prot)	1719	3273		1719	3430			1729	1538		1671	
Flt Permitted	0.10	1.00		0.06	1.00			0.66	1.00		0.40	
Satd. Flow (perm)	174	3273		103	3430			1200	1538		675	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	86	1299	610	409	1756	29	357	26	402	40	18	44
RTOR Reduction (vph)	0	39	0	0	1	0	0	0	221	0	20	0
Lane Group Flow (vph)	86	1870	0	409	1784	0	0	383	181	0	82	0
Turn Type	Perm			pm+pt			Perm			Perm	Perm	
Protected Phases	2			1		6	8			8		4
Permitted Phases	2			6			8			8	4	
Actuated Green, G (s)	63.3	63.3		92.3	92.3			34.7	34.7		34.7	
Effective Green, g (s)	63.3	63.3		92.3	92.3			34.7	34.7		34.7	
Actuated g/C Ratio	0.45	0.45		0.66	0.66			0.25	0.25		0.25	
Clearance Time (s)	6.7	6.7		6.7	6.7			6.3	6.3		6.3	
Vehicle Extension (s)	4.9	4.9		4.3	4.9			4.3	4.3		4.3	
Lane Grp Cap (vph)	79	1480		325	2261			297	381		167	
v/s Ratio Prot	0.57			c0.20		0.52	c0.32		0.12	0.12		
v/s Ratio Perm	0.49			c0.63			c0.32		0.12	0.12		
v/c Ratio	1.09	1.26		1.26	0.79			1.29	0.47		0.49	
Uniform Delay, d1	38.4	38.4		49.2	16.9			52.6	44.9		45.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	127.5	124.0		138.9	2.9			153.3	1.5		3.6	
Delay (s)	165.8	162.4		188.0	19.8			205.9	46.4		48.7	
Level of Service	F	F		F	B			F	D		D	
Approach Delay (s)	162.5			51.2			124.2			48.7		
Approach LOS	F			D			F			D		
Intersection Summary												
HCM Average Control Delay			106.2		HCM Level of Service			F				
HCM Volume to Capacity ratio			1.23									
Actuated Cycle Length (s)			140.0		Sum of lost time (s)			13.0				
Intersection Capacity Utilization			112.3%		ICU Level of Service			H				
Analysis Period (min)			15									
c Critical Lane Group												


















I-85/I-385 Interchange Improvements  
2035 No-Build PM

28: Forsythia Dr & E Butler Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	0	6	48	0	139	9	947	23	111	1392	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0		6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.95	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1719	1538		1607		1719	3426		1719	3430	
Flt Permitted		0.50	1.00		0.91		0.12	1.00		0.24	1.00	
Satd. Flow (perm)		906	1538		1475		213	3426		435	3430	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	19	0	7	53	0	154	10	1052	26	123	1547	26
RTOR Reduction (vph)	0	0	6	0	101	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	19	1	0	106	0	10	1076	0	123	1572	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)		11.4	11.4		11.4		51.6	51.6		51.6	51.6	
Effective Green, g (s)		11.4	11.4		11.4		51.6	51.6		51.6	51.6	
Actuated g/C Ratio		0.15	0.15		0.15		0.69	0.69		0.69	0.69	
Clearance Time (s)		6.0	6.0		6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		4.3	4.3		4.3		4.3	4.3		4.3	4.3	
Lane Grp Cap (vph)		138	234		224		147	2357		299	2360	
v/s Ratio Prot								0.31			c0.46	
v/s Ratio Perm		0.02	0.00		c0.07		0.05			0.28		
v/c Ratio		0.14	0.00		0.47		0.07	0.46		0.41	0.67	
Uniform Delay, d1		27.5	27.0		29.1		3.8	5.3		5.1	6.7	
Progression Factor		1.00	1.00		1.00		1.00	1.00		0.99	0.98	
Incremental Delay, d2		0.7	0.0		2.5		0.9	0.6		2.7	1.0	
Delay (s)		28.3	27.0		31.5		4.7	6.0		7.7	7.6	
Level of Service		C	C		C		A	A		A	A	
Approach Delay (s)		27.9			31.5			6.0			7.6	
Approach LOS		C			C			A			A	
<b>Intersection Summary</b>												
HCM Average Control Delay		8.8			HCM Level of Service			A				
HCM Volume to Capacity ratio		0.63										
Actuated Cycle Length (s)		75.0			Sum of lost time (s)			12.0				
Intersection Capacity Utilization		75.4%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												





















I-85/I-385 Interchange Improvements  
2035 No-Build PM

30: E Butler Road & I-385 SB Ramps

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	1026	105	545	931	0	578	0	589	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0			6.0	6.0			
Lane Util. Factor		0.95		1.00	0.95			1.00	1.00			
Flt		0.99		1.00	1.00			1.00	0.85			
Flt Protected		1.00		0.95	1.00			0.95	1.00			
Satd. Flow (prot)		3390		1719	3438			1719	1538			
Flt Permitted		1.00		0.08	1.00			0.95	1.00			
Satd. Flow (perm)		3390		137	3438			1719	1538			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1140	117	606	1034	0	642	0	654	0	0	0
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	79	0	0	0
Lane Group Flow (vph)	0	1252	0	606	1034	0	0	642	575	0	0	0
Turn Type				pm+pt			Perm		Perm			
Protected Phases				1	6			4				
Permitted Phases		2		6			4		4			
Actuated Green, G (s)		47.0		91.0	91.0			47.0	47.0			
Effective Green, g (s)		47.0		91.0	91.0			47.0	47.0			
Actuated g/C Ratio		0.31		0.61	0.61			0.31	0.31			
Clearance Time (s)		6.0		6.0	6.0			6.0	6.0			
Vehicle Extension (s)		4.3		4.3	4.3			4.3	4.3			
Lane Grp Cap (vph)		1062		484	2086			539	482			
v/s Ratio Prot				c0.32	0.30							
v/s Ratio Perm		0.37		c0.44				0.37	c0.37			
v/c Ratio		1.18		1.25	0.50			1.19	1.19			
Uniform Delay, d1		51.5		48.0	16.6			51.5	51.5			
Progression Factor		0.91		1.24	0.21			1.00	1.00			
Incremental Delay, d2		89.5		122.6	0.5			103.3	105.8			
Delay (s)		136.3		182.1	4.0			154.8	157.3			
Level of Service		F		F	A			F	F			
Approach Delay (s)		136.3			69.8			156.1			0.0	
Approach LOS		F			E			F			A	
<b>Intersection Summary</b>												
HCM Average Control Delay			116.4			HCM Level of Service			F			
HCM Volume to Capacity ratio			1.20									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			12.0			
Intersection Capacity Utilization			108.9%			ICU Level of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												
























I-85/I-385 Interchange Improvements  
2035 No-Build PM

31: E Butler Road & I-385 NB Ramps

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		 			 							
Volume (vph)	376	1228	0	0	1417	1062	0	0	0	59	0	309
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0	6.0				6.0		6.0
Lane Util. Factor	1.00	0.95			0.95	1.00				1.00		1.00
Frt	1.00	1.00			1.00	0.85				1.00		0.85
Flt Protected	0.95	1.00			1.00	1.00				0.95		1.00
Satd. Flow (prot)	1719	3438			3438	1538				1719		1538
Flt Permitted	0.05	1.00			1.00	1.00				0.95		1.00
Satd. Flow (perm)	94	3438			3438	1538				1719		1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	418	1364	0	0	1574	1180	0	0	0	66	0	343
RTOR Reduction (vph)	0	0	0	0	0	248	0	0	0	0	0	87
Lane Group Flow (vph)	418	1364	0	0	1574	932	0	0	0	66	0	256
Turn Type	pm+pt		custom				custom				custom	
Protected Phases	5	2										8
Permitted Phases	2				6	6				8		
Actuated Green, G (s)	115.0	115.0			81.0	81.0				23.0		23.0
Effective Green, g (s)	115.0	115.0			81.0	81.0				23.0		23.0
Actuated g/C Ratio	0.77	0.77			0.54	0.54				0.15		0.15
Clearance Time (s)	6.0	6.0			6.0	6.0				6.0		6.0
Vehicle Extension (s)	4.3	4.3			4.3	4.3				4.3		4.3
Lane Grp Cap (vph)	375	2636			1857	831				264		236
v/s Ratio Prot	c0.21	0.40										c0.17
v/s Ratio Perm	c0.64				0.46	0.61				0.04		
v/c Ratio	1.11	0.52			0.85	1.12				0.25		1.08
Uniform Delay, d1	51.8	6.8			29.3	34.5				55.9		63.5
Progression Factor	0.74	1.94			1.00	1.00				1.00		1.00
Incremental Delay, d2	55.5	0.1			5.0	70.3				0.8		82.7
Delay (s)	93.8	13.2			34.3	104.8				56.7		146.2
Level of Service	F	B			C	F				E		F
Approach Delay (s)		32.1			64.5			0.0			131.8	
Approach LOS		C			E			A			F	
<b>Intersection Summary</b>												
HCM Average Control Delay			58.4		HCM Level of Service				E			
HCM Volume to Capacity ratio			1.08									
Actuated Cycle Length (s)			150.0		Sum of lost time (s)			12.0				
Intersection Capacity Utilization			108.9%		ICU Level of Service			G				
Analysis Period (min)			15									
c Critical Lane Group												




















I-85/I-385 Interchange Improvements  
2035 No-Build PM

34: Frontage Road & Roper Mountain Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	20	590	954	80	88	280	1973	304	21	1530	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1719	1547		1633	1649	1538	1719	3438	1538	1719	3425	
Flt Permitted	0.95	1.00		0.95	0.96	1.00	0.06	1.00	1.00	0.07	1.00	
Satd. Flow (perm)	1719	1547		1633	1649	1538	117	3438	1538	129	3425	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	22	656	1060	89	98	311	2192	338	23	1700	44
RTOR Reduction (vph)	0	118	0	0	0	15	0	0	78	0	1	0
Lane Group Flow (vph)	44	560	0	572	577	83	311	2192	261	23	1743	0
Turn Type	Split			Split		Perm	pm+pt		Perm	Perm		
Protected Phases	4	4		8	8		5	2				6
Permitted Phases						8	2		2	6		
Actuated Green, G (s)	25.0	25.0		32.0	32.0	32.0	75.0	75.0	75.0	56.0	56.0	
Effective Green, g (s)	25.0	25.0		32.0	32.0	32.0	75.0	75.0	75.0	56.0	56.0	
Actuated g/C Ratio	0.17	0.17		0.21	0.21	0.21	0.50	0.50	0.50	0.37	0.37	
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	4.9	4.9		4.9	4.9	4.9	4.3	4.9	4.9	4.9	4.9	
Lane Grp Cap (vph)	287	258		348	352	328	197	1719	769	48	1279	
v/s Ratio Prot	0.03	c0.36		c0.35	0.35		0.14	c0.64			0.51	
v/s Ratio Perm						0.05	c0.65		0.17	0.18		
v/c Ratio	0.15	2.17		1.64	1.64	0.25	1.58	1.28	0.34	0.48	1.36	
Uniform Delay, d1	53.4	62.5		59.0	59.0	49.1	48.0	37.5	22.6	35.9	47.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	538.8		302.3	300.2	0.8	283.3	128.5	0.5	14.4	168.3	
Delay (s)	54.0	601.3		361.3	359.2	49.9	331.4	166.0	23.1	50.3	215.3	
Level of Service	D	F		F	F	D	F	F	C	D	F	
Approach Delay (s)		567.9			335.9			167.1			213.1	
Approach LOS		F			F			F			F	
Intersection Summary												
HCM Average Control Delay			255.5	HCM Level of Service			F					
HCM Volume to Capacity ratio			1.67									
Actuated Cycle Length (s)			150.0	Sum of lost time (s)			18.0					
Intersection Capacity Utilization			161.5%	ICU Level of Service			H					
Analysis Period (min)			15									
c Critical Lane Group												













I-85/I-385 Interchange Improvements  
2035 No-Build PM

35: I-385 NB Ramps & Roper Mountain Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	687	0	757	536	1800	0	0	2281	793
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0	6.0	6.0	6.0	6.0			6.0	6.0
Lane Util. Factor				0.95	0.95	0.88	0.97	0.95			0.95	1.00
Frt				1.00	1.00	0.85	1.00	1.00			1.00	0.85
Flt Protected				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)				1633	1633	2707	3335	3438			3438	1538
Flt Permitted				0.95	0.95	1.00	0.95	1.00			1.00	1.00
Satd. Flow (perm)				1633	1633	2707	3335	3438			3438	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	763	0	841	596	2000	0	0	2534	881
RTOR Reduction (vph)	0	0	0	0	0	34	0	0	0	0	0	175
Lane Group Flow (vph)	0	0	0	381	382	807	596	2000	0	0	2534	706
Turn Type				Perm		Perm	Prot					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				31.0	31.0	31.0	19.0	107.0			82.0	82.0
Effective Green, g (s)				31.0	31.0	31.0	19.0	107.0			82.0	82.0
Actuated g/C Ratio				0.21	0.21	0.21	0.13	0.71			0.55	0.55
Clearance Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	6.0
Vehicle Extension (s)				4.9	4.9	4.9	4.3	4.9			4.9	4.9
Lane Grp Cap (vph)				337	337	559	422	2452			1879	841
v/s Ratio Prot							c0.18	0.58			c0.74	
v/s Ratio Perm				0.23	0.23	c0.30						0.46
v/c Ratio				1.13	1.13	1.44	1.41	0.82			1.35	0.84
Uniform Delay, d1				59.5	59.5	59.5	65.5	14.7			34.0	28.5
Progression Factor				1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2				89.2	90.3	209.5	199.2	2.5			160.5	8.3
Delay (s)				148.7	149.8	269.0	264.7	17.2			194.5	36.8
Level of Service				F	F	F	F	B			F	D
Approach Delay (s)		0.0			212.1			74.0			153.8	
Approach LOS		A			F			E			F	
<b>Intersection Summary</b>												
HCM Average Control Delay			138.9			HCM Level of Service					F	
HCM Volume to Capacity ratio			1.38									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			178.6%			ICU Level of Service			H			
Analysis Period (min)			15									
c Critical Lane Group												






















I-85/I-385 Interchange Improvements  
2035 No-Build PM

36: Roper Mountain Road & I-385 SB Ramps

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↑↑↑	↑	↑	↑↑		↑	↑	↑↑			
Volume (vph)	0	1627	1068	1825	1143	0	709	0	533	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.4	6.4	5.8	6.4		6.1	6.1	6.1			
Lane Util. Factor		0.91	1.00	1.00	0.95		0.95	0.95	0.88			
Flt		1.00	0.85	1.00	1.00		1.00	1.00	0.85			
Flt Protected		1.00	1.00	0.95	1.00		0.95	0.95	1.00			
Satd. Flow (prot)		4940	1538	1719	3438		1633	1633	2707			
Flt Permitted		1.00	1.00	0.07	1.00		0.95	0.95	1.00			
Satd. Flow (perm)		4940	1538	123	3438		1633	1633	2707			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1808	1187	2028	1270	0	788	0	592	0	0	0
RTOR Reduction (vph)	0	0	153	0	0	0	0	0	212	0	0	0
Lane Group Flow (vph)	0	1808	1034	2028	1270	0	394	394	380	0	0	0
Turn Type		Perm		pm+pt			Perm		Perm			
Protected Phases		2		1	6			4				
Permitted Phases			2	6			4		4			
Actuated Green, G (s)		52.6	52.6	121.2	120.6		16.9	16.9	16.9			
Effective Green, g (s)		52.6	52.6	121.2	120.6		16.9	16.9	16.9			
Actuated g/C Ratio		0.35	0.35	0.81	0.80		0.11	0.11	0.11			
Clearance Time (s)		6.4	6.4	5.8	6.4		6.1	6.1	6.1			
Vehicle Extension (s)		4.9	4.9	4.3	4.9		4.9	4.9	4.9			
Lane Grp Cap (vph)		1732	539	761	2764		184	184	305			
v/s Ratio Prot		0.37		c1.10	0.37							
v/s Ratio Perm			0.67	c1.05			c0.24	0.24	0.14			
v/c Ratio		1.04	1.92	2.66	0.46		2.14	2.14	1.25			
Uniform Delay, d1		48.7	48.7	39.4	4.6		66.5	66.5	66.5			
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	1.00			
Incremental Delay, d2		34.1	419.9	753.0	0.2		531.3	531.3	135.0			
Delay (s)		82.8	468.6	792.4	4.8		597.9	597.9	201.6			
Level of Service		F	F	F	A		F	F	F			
Approach Delay (s)		235.7			489.1			427.9			0.0	
Approach LOS		F			F			F			A	
<b>Intersection Summary</b>												
HCM Average Control Delay			379.2			HCM Level of Service			F			
HCM Volume to Capacity ratio			2.56									
Actuated Cycle Length (s)			150.0			Sum of lost time (s)			11.9			
Intersection Capacity Utilization			178.6%			ICU Level of Service			H			
Analysis Period (min)			15									
c Critical Lane Group												

I-85/I-385 Interchange Improvements  
2035 No-Build PM

37: Roper Mountain Road & Congaree Road

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	167	1677	2	10	1061	605	1006	2	519	6	2	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8	6.4			6.4	6.4	6.1	6.1			6.1	6.1
Lane Util. Factor	1.00	0.91			0.95	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00			1.00	0.85	1.00	0.85			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00			0.96	1.00
Satd. Flow (prot)	1719	4939			3437	1538	1719	1539			1742	1538
Flt Permitted	0.08	1.00			0.86	1.00	0.75	1.00			0.79	1.00
Satd. Flow (perm)	153	4939			2968	1538	1360	1539			1421	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	186	1863	2	11	1179	672	1118	2	577	7	2	13
RTOR Reduction (vph)	0	0	0	0	0	354	0	58	0	0	0	2
Lane Group Flow (vph)	186	1865	0	0	1190	318	1118	521	0	0	9	11
Turn Type	pm+pt			Perm		Perm	Perm			Perm		Perm
Protected Phases	5	2			6			4			8	
Permitted Phases	2			6		6	4			8		8
Actuated Green, G (s)	51.6	51.6			41.6	41.6	55.9	55.9			55.9	55.9
Effective Green, g (s)	51.6	51.6			41.6	41.6	55.9	55.9			55.9	55.9
Actuated g/C Ratio	0.43	0.43			0.35	0.35	0.47	0.47			0.47	0.47
Clearance Time (s)	5.8	6.4			6.4	6.4	6.1	6.1			6.1	6.1
Vehicle Extension (s)	4.3	4.9			4.9	4.9	4.9	4.9			4.9	4.9
Lane Grp Cap (vph)	121	2124			1029	533	634	717			662	716
v/s Ratio Prot	c0.05	0.38						0.34				
v/s Ratio Perm	c0.61				0.40	0.21	c0.82				0.01	0.01
v/c Ratio	1.54	0.88			1.16	0.60	1.76	0.73			0.01	0.02
Uniform Delay, d1	33.9	31.3			39.2	32.3	32.0	25.9			17.2	17.2
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	278.7	4.8			81.6	2.6	350.0	4.4			0.0	0.0
Delay (s)	312.5	36.1			120.8	34.9	382.0	30.3			17.2	17.3
Level of Service	F	D			F	C	F	C			B	B
Approach Delay (s)		61.2			89.8			262.0			17.3	
Approach LOS		E			F			F			B	

Intersection Summary

HCM Average Control Delay	131.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	11.9
Intersection Capacity Utilization	140.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			