



Memorandum

To: Joe Milazzo II, PE
Executive Director
Regional Transportation Alliance

Date: August 31, 2020

Project #: 38998.00

From: Andrew Topp, PE, PTOE

Re: Dynamic Left Turn Intersection – Data Collection
and Analysis Summary to Date

Intersection Turning Movement Counts

The Regional Transportation Alliance (RTA) reached out to VHB Engineering NC, P.C. (VHB) in the fall of 2019 to conduct before and after counts at two area intersections in conjunction with test installations of the Dynamic Left Turn Intersection (DLTi) concept. VHB conducted a 24-hour “before” turning movement count at each location as follows:

- Tryon Road at Cary Parkway in Cary, counted on Thursday, October 24, 2019
- US 70 Business and Town Centre Boulevard in Clayton, counted on Tuesday, October 29, 2019

The counts were collected using an array of cameras, which were processed to differentiate vehicle classes per turning movement. A camera was specifically focused on the dual left-turn lanes that will be converted to a DLTi treatment. As a result, the count summarized the total vehicles in each of the two left-turn lanes per 15-minute interval. The detailed turning movement counts are included at the end of this memorandum.

DLTi Delay Evaluation

Using the volume information collected at the Tryon Road at Cary Parkway intersection, VHB also conducted an hourly delay comparison between dual left-turn protected-only phasing on its eastbound approach and a DLTi operation, which included a positive offset, protected-permitted single left turn during off-peak periods. The analysis assumed protected operation was implemented from 7:15 to 9:00 am and 3:45 to 6:45 pm in conjunction with the Town of Cary’s plans. The hourly delay savings were projected to be about twenty-three seconds per EB left-turning vehicle, about 1.6 seconds per entering vehicle, and about eighteen vehicle-hours per day. At the usual NCDOT benefit rate of \$12.75 per hour of delay saved, and assuming the savings accrued during weekends as well, the benefit would be around \$86,000 per year and the payback comparing this benefit to the \$35,000 installation cost would be approximately five months with these traffic conditions. A table detailing these results and the Synchro output is also contained at the end of the memorandum. Based on our assessment, the DLTi test installation in Cary has already paid for itself based on its delay savings benefit.

Interim Compliance Observations

The DLTi operation at the Tryon Road at Cary Parkway intersection began on February 14, 2020. The COVID-19 pandemic has resulted in considerably less traffic volume since mid-March and as a result, the “after” count has been delayed. To test compliance in the interim, three cameras were arranged at the site on Wednesday, July 15th, 2020 to record multiple intersection perspectives. The videos captured vehicle maneuvers at the eastbound left-turn stop bar, views of vehicles entering the left-turn lanes, and vehicle behavior on the northern leg as left-turning vehicles drove away from the intersection. We reviewed a single hour (2:15-3:15 PM) of single lane protected-permitted operations in detail to provide a snapshot of vehicle behavior. During that hour observed, there were 192 left-turning vehicles with 159 turning from the leftmost lane and 33 turning from the rightmost lane, resulting in approximately 83% compliance and 17% non-compliance. Seventeen of the non-compliant drivers (52%) entered the left-turn lane by driving directly over the hatched area, 10 (30%) started in the leftmost lane, then shifted into the right lane, 6 made a late movement into the rightmost lane from the through lane, past the taper. Ten (30%) made a downstream right-turn into the

shopping center, 23 (70%) continued straight along Cary Parkway. Twenty-two (67%) of the non-compliant drivers made a left-turn without hesitation, typically side-by-side with a left-turning vehicle in the left lane. Six (18%) arrived during the protected (2+5) phase and made the left without stopping and 5 (15%) hesitated from that lane. They would skip an acceptable gap or in a couple of cases, would wait for the entire left lane to clear before making the left-turn. Additional details pertaining to the cycle arrivals and presence of vehicles in the lanes as left-turning vehicles approach the intersection were also summarized and contained at the end of this memorandum.

Next Steps

VHB will conduct an "after" count once vehicle volumes return to pre-pandemic or close to pre-pandemic levels. In mid-March, the Town implemented 24-hour single lane protected-permitted operations as a result of the lower intersection volumes. As volumes have increased slowly since March, the Town switched to dual lane protected operations during the PM peak, however single lane protected-permitted phasing remains adequate during the lower volume AM peak. As volumes return and the protected phasing resumes during both peaks, VHB will conduct 24-hour turning movement counts at the two locations. VHB can also conduct a before-and-after evaluation of the compliance, safety and effectiveness of the installation. Similar assessments can be made at the Clayton intersection or other future test installations. The results of a before-and-after analysis can help inform the team of potential design adjustments, enforcement/education suggestions, and ways to reduce risk.

Compliance Observation Summary

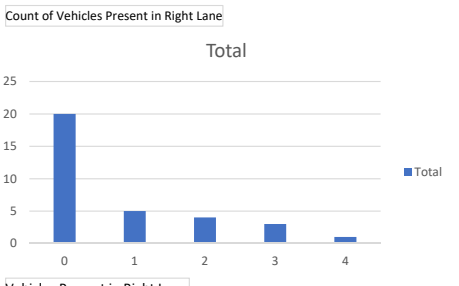
Camera 2 Observations									Camera 1 Observations		Camera 3 Observations		Add'l Vehicle Details
Veh No.	Time ¹	Arrival Phase	Action	Description	Vehicles Present in Left Lane	Vehicles Present in Right Lane ²	Queue Position	Action Thru Intersection	Camera 1 Time	Downstream Right-Turn into Lanes?	Camera 3 Time	Vehicle Action	
1	2:18:12 PM	FYA (1+6)	Stop	Red Car	1	1	1	Proceeds at first opportunity with left lane (FYA)	2:20:06 PM	No	2:18:55 PM	Starts left, shifts right	Compact
2	2:23:32 PM	Stop	Stop	Dark Car	0	1	1	Hesitates, waits until protected (2+5) phase	2:25:26 PM	No	2:24:15 PM	Drive straight into right (over hatching)	
3	2:24:13 PM	FYA (2+6)	Stop	Gray SUV	1	2	2	Proceeds at first opportunity with left lane (2+5)	2:26:07 PM	No	2:24:56 PM	Late entry into right (past taper)	
4	2:25:08 PM	Stop	Stop	Blue Car	2	1	1	Proceeds at first opportunity with left lane (2+6)	2:27:02 PM	No	2:25:51 PM	Late entry into right (past taper)	
5	2:31:32 PM	Green (2+5)	Maintains Speed	Silver Car	2	1	1	Maintains speed thru protected phase (2+5)	2:33:26 PM	Yes	2:32:15 PM	Starts left, shifts right	
6	2:31:48 PM	Stop	Stop	Blue SUV	0	1	1	Hesitates, waits until protected (2+5) phase	2:33:42 PM	Yes	2:32:31 PM	Starts left, shifts right	
7	2:34:21 PM	FYA (2+6)	Stop	Light Blue SUV	2	1	1	Proceeds at first opportunity with left lane (2+6)	2:36:15 PM	Yes	2:35:04 PM	Drive straight into right (over hatching)	
8	2:45:40 PM	FYA (2+6)	Stop	Gray Car	4	1	1	Proceeds at first opportunity with left lane (2+5)	2:47:34 PM	No	2:46:23 PM	Starts left, shifts right	
9	2:46:38 PM	Red	Stop	Dark Van	1	1	1	Proceeds at first opportunity with left lane (2+6)	2:48:32 PM	No	2:47:21 PM	Drive straight into right (over hatching)	
10	2:46:44 PM	Red	Stop	Blue Pickup	1	2	2	Proceeds at first opportunity with left lane (2+6)	2:48:38 PM	No	2:47:27 PM	Drive straight into right (over hatching)	
11	2:46:58 PM	Red	Stop	Gray Car	2	3	3	Hesitates, waits until protected (2+5) phase	2:48:52 PM	Yes	2:47:41 PM	Drive straight into right (over hatching)	Wagon Wagon
12	2:47:03 PM	Red	Stop	Silver SUV	4	4	4	Proceeds at first opportunity with left lane (2+5)	2:48:57 PM	Yes	2:47:46 PM	Starts left, shifts right	
13	2:47:25 PM	FYA (1+6)	Stop	Gray Car	5	5	5	Proceeds at first opportunity with left lane (2+5)	2:49:19 PM	No	2:48:08 PM	Drive straight into right (over hatching)	
14	2:47:59 PM	Green (2+5)	Maintains Speed	Blue Car	3	4	4	Maintains speed thru protected phase (2+5)	2:49:53 PM	Yes	2:48:42 PM	Starts left, shifts right	
15	2:48:01 PM	Green (2+5)	Maintains Speed	Gray Car	2	3	3	Maintains speed thru protected phase (2+5)	2:49:55 PM	No	2:48:44 PM	Drive straight into right (over hatching)	
16	2:51:46 PM	FYA (2+6)	Maintains Speed	Gray Car	1	3	3	Proceeds at first opportunity with left lane (2+5)	2:53:40 PM	Yes	2:52:29 PM	Drive straight into right (over hatching)	
17	2:53:26 PM	Stop	Stop	Blue SUV	4	1	1	Proceeds at first opportunity with left lane (2+6)	2:55:20 PM	No	2:54:09 PM	Starts left, shifts right	
18	2:55:11 PM	Red	Stop	Silver Car	1	1	1	Proceeds at first opportunity with left lane (2+6)	2:57:05 PM	No	2:55:54 PM	Drive straight into right (over hatching)	
19	2:56:07 PM	Green (2+5)	Maintains Speed	Blue SUV	0	1	1	Maintains speed thru protected phase (2+5)	2:58:01 PM	No	2:56:50 PM	Late entry into right (past taper)	
20	2:56:19 PM	Red	Stop	Red Car	1	1	1	Hesitates, waits until protected (2+5) phase	2:58:13 PM	No	2:57:02 PM	Late entry into right (past taper)	
21	2:57:49 PM	Red	Stop	Gray SUV	0	1	1	Proceeds at first opportunity with left lane (2+5)	2:59:43 PM	No	2:58:32 PM	Drive straight into right (over hatching)	
22	3:00:35 PM	Green (2+5)	Maintains Speed	Dark SUV	1	1	1	Maintains speed thru protected phase (2+5)	3:02:29 PM	No	3:01:18 PM	Starts left, shifts right	
23	3:01:29 PM	Red	Stop	Dark SUV	2	1	1	Proceeds at first opportunity with left lane (2+5)	3:03:23 PM	No	3:02:12 PM	Drive straight into right (over hatching)	
24	3:01:53 PM	FYA (1+6)	Stop	Gray SUV	4	2	2	Proceeds at first opportunity with left lane (2+5)	3:03:47 PM	No	3:02:36 PM	Drive straight into right (over hatching)	
25	3:02:08 PM	FYA (2+6)	Stop	Gray Car	4	3	3	Proceeds at first opportunity with left lane (2+5)	3:04:02 PM	Yes	3:02:51 PM	Drive straight into right (over hatching)	
26	3:02:11 PM	FYA (2+6)	Stop	Gray Car	4	4	4	Proceeds at first opportunity with left lane (2+5)	3:04:05 PM	Yes	3:02:54 PM	Starts left, shifts right	
27	3:02:58 PM	Red	Stop	Blue Car	1	1	1	Proceeds at first opportunity with left lane (2+6)	3:04:52 PM	No	3:03:41 PM	Starts left, shifts right	
28	3:06:14 PM	Red	Stop	White SUV	1	1	1	Long hesitation, waits until leftmost lane queue clears	3:08:08 PM	No	3:06:57 PM	Drive straight into right (over hatching)	
29	3:08:11 PM	Green (2+5)	Stop	Gray SUV	2	2	2	Proceeds at first opportunity with left lane (2+5)	3:10:05 PM	No	3:08:54 PM	Drive straight into right (over hatching)	
30	3:08:28 PM	Red	Stop	Dark Car	0	1	1	Proceeds at first opportunity with left lane (2+5)	3:10:22 PM	No	3:09:11 PM	Drive straight into right (over hatching)	
31	3:08:59 PM	Red	Stop	Gray Car	1	2	2	Proceeds at first opportunity with left lane (2+5)	3:10:53 PM	No	3:09:42 PM	Late entry into right (past taper)	
32	3:11:34 PM	FYA (1+6)	Stop	Dark Gray SUV	3	1	1	Proceeds at first opportunity with left lane (2+6)	3:13:28 PM	No	3:12:17 PM	Drive straight into right (over hatching)	
33	3:12:00 PM	FYA	Maintains Speed	Dark SUV	3	1	1	Maintains speed thru protected phase (2+5)	3:13:54 PM	Yes	3:12:43 PM	Late entry into right (past taper)	

¹Time - Approximate time of stop, or arrival to back of queue for rolling stops

²Non-compliant vehicle counted as one of vehicles present

Row Labels	Count of Vehicles Present in Left Lane	
0	5	
1	11	0.848484848
2	7	
3	3	
4	6	
5	1	
Grand Total	33	

Row Labels	Count of Vehicles Present in Right Lane	
0	20	0.606060606
1	5	
2	4	
3	3	
4	1	
Grand Total	33	



Row Labels	Count of Action Thru Intersection	
Hesitates, waits until protected (2+5) or very long gap	4	12%
Long hesitation, waits until leftmost lane queue clears	1	3%
Maintains speed thru protected phase (2+5)	6	18%
Proceeds at first opportunity with left lane (2+5)	13	39%
Proceeds at first opportunity with left lane (2+6)	8	0.242424242
Proceeds at first opportunity with left lane (FYA)	1	0.03030303
Grand Total	33	

Row Labels	Count of Vehicle Action	
Drive straight into right (over hatching)	17	52%
Late entry into right (past taper)	6	18%
Starts left, shifts right	10	30%
Grand Total	33	

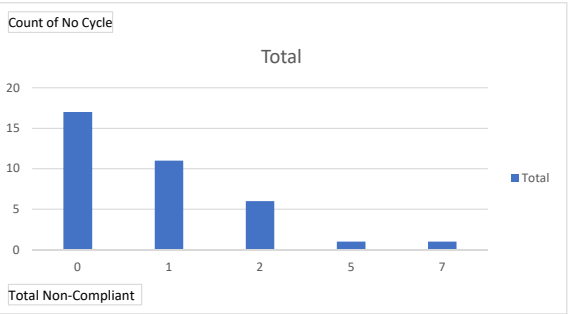
Left-Turning Vehicles Making Downstream Right-Turn

Totals By Cycle

No Cycle	Time Cycle	Total Compliant	Total Non- Compliant	Violators	Approx Cycle Length
1	2:15:32 PM	1	0		-
2	2:16:47 PM	5	0		0:01:15
3	2:18:21 PM	3	1	1	0:01:34
4	2:19:30 PM	1	0		0:01:09
5	2:21:01 PM	3	0		0:01:31
6	2:22:27 PM	3	0		0:01:26
7	2:23:46 PM	3	2	2, 3	0:01:19
8	2:25:30 PM	5	1	4	0:01:44
9	2:26:33 PM	6	0		0:01:03
10	2:28:10 PM	4	0		0:01:37
11	2:29:40 PM	4	0		0:01:30
12	2:31:11 PM	2	1	5	0:01:31
13	2:32:20 PM	1	1	6	0:01:09
14	2:34:35 PM	4	1	7	0:02:15
15	2:35:50 PM	3	0		0:01:15
16	2:37:03 PM	7	0		0:01:13
17	2:39:02 PM	3	0		0:01:59
18	2:41:20 PM	7	0		0:02:18
19	2:43:35 PM	5	0		0:02:15
20	2:45:29 PM	8	1	8	0:01:54
21	2:47:10 PM	6	7	9,10,11,12,13,14,15	0:01:41
22	2:49:38 PM	4	0		0:02:28
23	2:51:32 PM	9	1	16	0:01:54
24	2:53:43 PM	6	1	17	0:02:11
25	2:55:52 PM	3	2	18, 19	0:02:09
26	2:57:02 PM	6	1	20	0:01:10
27	2:58:46 PM	4	1	21	0:01:44
28	3:00:12 PM	2	1	22	0:01:26
29	3:02:04 PM	10	4	23, 24, 25, 26	0:01:52
30	3:03:56 PM	3	1	27	0:01:52
31	3:05:43 PM	3	0		0:01:47
32	3:07:30 PM	7	2	28, 29	0:01:47
33	3:09:54 PM	6	2	30, 31	0:02:24
34	3:11:44 PM	7	2	32, 33	0:01:50
35	3:13:24 PM	3	0		0:01:40
36	-	2	0		-
Totals		159	33	192	
% Non-Compliant		82.8%	17.2%		

4.4 veh/cycle
0.8 non-compliant on average

Row Labels	Count of No Cycle	
0	17	47%
1	11	31%
2	6	17%
5	1	3%
7	1	3%
Grand Total	36	



Intersection Delay Results

Dynamic Left-Turn Intersection - Delay Comparison
SR 1009 (Tryon Road) at SR 377 (SE Cary Parkway)

Hour (military time)	Total Vehicles per hour		EB Left Delay (sec/veh)		All Vehicle Delay (sec/veh)		All Vehicle Delay (veh-hr)	
	EBL	Total	Dual	DLTi	Dual	DLTi	Dual	DLTi
0	7	120	26.1	7.6	15.6	14.5	0.5	0.5
1	8	68	26.1	6.4	14.0	11.6	0.3	0.2
2	3	27	26.0	7.0	16.7	14.8	0.1	0.1
3	3	26	26.0	7.0	18.2	16.1	0.1	0.1
4	6	91	26.2	6.5	16.2	14.9	0.4	0.4
5	13	283	26.3	11.2	18.6	17.9	1.5	1.4
6	55	1036	32.8	11.3	21.5	20.4	6.2	5.9
7	172	2937	55.3	47.9	36.0	35.6	29.4	29.0
8	190	3250	60.1	60.1	39.5	39.5	35.7	35.7
9	188	2693	54.8	22.9	36.2	34.1	27.1	25.5
10	174	2385	52.3	16.1	34.0	31.5	22.5	20.9
11	258	2789	59.9	16.6	42.6	39.7	33.0	30.8
12	283	3073	59.5	26.2	37.9	35.2	32.4	30.0
13	240	2904	58.7	20.9	37.6	34.7	30.3	28.0
14	281	2723	55.8	19.7	37.1	33.7	28.1	25.5
15	284	3134	59.5	34.8	39.5	37.6	34.4	32.7
16	252	3510	60.7	60.7	38.8	38.8	37.8	37.8
17	259	4226	62.3	62.3	43.4	43.4	50.9	50.9
18	161	2925	53.2	44.4	33.4	32.9	27.1	26.7
19	133	1862	52.1	11.0	30.1	27.1	15.6	14.0
20	78	1269	45.7	9.5	27.5	25.2	9.7	8.9
21	67	809	27.4	11.6	19.7	18.4	4.4	4.1
22	37	492	26.9	9.9	18.1	16.8	2.5	2.3
23	27	272	26.7	7.7	17.0	15.2	1.3	1.1
Total	3179	42904	-	-	-	-	431.2	412.7
Average per Veh	-	-	55.4	32.1	36.2	34.6	-	-
			23.3		1.6		18.560	

Key Assumptions:

DLTi Operation runs from 7:15-9:00 AM and 3:45 – 6:45 PM

Dallas PT+PM (Synchro) phasing used for the EBL when not operating with dual lefts

Use splits and cycle length from Town of Cary Timing Plan

Signal runs free between 8:30 PM and 6:45 AM. Allowed Synchro cycle length optimization for free running operations.

Volumes based on intersection count collected on 10/24/2019

18.6	veh-hour savings per day
\$ 12.75	benefit rate per veh-hour
\$ 86,375	benefit
\$ 35,000	Cost
4.9	Months to recoup costs

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1am Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 	 		 	 		 	 
Traffic Volume (vph)	7	26	2	1	2	25	18	1	6	0	12	18
Future Volume (vph)	7	26	2	1	2	25	18	1	6	0	12	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	2		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850					
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3433	3539	1583	0	1770	3539	1583	3433	3539	0	3433	3539
Flt Permitted	0.950				0.950			0.950			0.950	
Satd. Flow (perm)	3433	3539	1583	0	1770	3539	1583	3433	3539	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	8	29	2	1	2	28	20	1	7	0	13	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	29	2	0	3	28	20	1	7	0	13	20
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	7.0	50.1	55.8		7.0	50.0	57.6	7.0	10.0		7.6	10.0
Actuated g/C Ratio	0.11	0.77	0.86		0.11	0.77	0.89	0.11	0.15		0.12	0.15
v/c Ratio	0.02	0.01	0.00		0.02	0.01	0.01	0.00	0.01		0.03	0.04
Control Delay	26.1	11.0	6.5		26.3	11.2	5.7	26.0	23.3		25.5	23.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	26.1	11.0	6.5		26.3	11.2	5.7	26.0	23.3		25.5	23.7
LOS	C	B	A		C	B	A	C	C		C	C
Approach Delay		13.9				9.9			23.7			23.8
Approach LOS		B				A			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1am Dual
08/28/2020

Lane Group SBR

Lane Configurations	
Traffic Volume (vph)	2
Future Volume (vph)	2
Ideal Flow (vphpl)	1900
Storage Length (ft)	400
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	2
Shared Lane Traffic (%)	
Lane Group Flow (vph)	2
Turn Type	pm+ov
Protected Phases	5
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	13.8
Total Split (s)	14.0
Total Split (%)	21.5%
Maximum Green (s)	7.2
Yellow Time (s)	3.0
All-Red Time (s)	3.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.8
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	13.6
Actuated g/C Ratio	0.21
v/c Ratio	0.01
Control Delay	14.5
Queue Delay	0.0
Total Delay	14.5
LOS	B
Approach Delay	
Approach LOS	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1am Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	1	0	0		1	0	0	0	1		2	3
Queue Length 95th (ft)	7	14	4		8	14	15	2	6		9	12
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250	275			350	
Base Capacity (vph)	380	2729	1360		190	2724	1404	380	550		411	544
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.02	0.01	0.00		0.02	0.01	0.01	0.00	0.01		0.03	0.04

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.04

Intersection Signal Delay: 15.6

Intersection Capacity Utilization 38.9%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	1
Queue Length 95th (ft)	4
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	336
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.01
Intersection Summary	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1am DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		 				 		 	 		 	 
Traffic Volume (vph)	7	26	2	1	2	25	18	1	6	0	12	18
Future Volume (vph)	7	26	2	1	2	25	18	1	6	0	12	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	1		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850					
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1770	3539	1583	0	1770	3539	1583	3433	3539	0	3433	3539
Flt Permitted	0.738				0.950			0.950			0.950	
Satd. Flow (perm)	1375	3539	1583	0	1770	3539	1583	3433	3539	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	8	29	2	1	2	28	20	1	7	0	13	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	29	2	0	3	28	20	1	7	0	13	20
Turn Type	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases	6		2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	47.5	50.1	55.8		7.0	50.0	57.6	7.0	10.0		7.6	10.0
Actuated g/C Ratio	0.73	0.77	0.86		0.11	0.77	0.89	0.11	0.15		0.12	0.15
v/c Ratio	0.01	0.01	0.00		0.02	0.01	0.01	0.00	0.01		0.03	0.04
Control Delay	7.6	11.0	6.5		26.3	11.2	5.7	26.0	23.3		25.5	23.7
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	7.6	11.0	6.5		26.3	11.2	5.7	26.0	23.3		25.5	23.7
LOS	A	B	A		C	B	A	C	C		C	C
Approach Delay		10.1				9.9			23.7			23.8
Approach LOS		B				A			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1am DLTi
08/28/2020

Lane Group SBR

Lane Configurations

Traffic Volume (vph) 2

Future Volume (vph) 2

Ideal Flow (vphpl) 1900

Storage Length (ft) 400

Storage Lanes 1

Taper Length (ft)

Lane Util. Factor 1.00

Frt 0.850

Flt Protected

Satd. Flow (prot) 1583

Flt Permitted

Satd. Flow (perm) 1583

Right Turn on Red No

Satd. Flow (RTOR)

Link Speed (mph)

Link Distance (ft)

Travel Time (s)

Peak Hour Factor 0.90

Adj. Flow (vph) 2

Shared Lane Traffic (%)

Lane Group Flow (vph) 2

Turn Type pm+ov

Protected Phases 5

Permitted Phases 4

Detector Phase 5

Switch Phase

Minimum Initial (s) 7.0

Minimum Split (s) 13.8

Total Split (s) 14.0

Total Split (%) 21.5%

Maximum Green (s) 7.2

Yellow Time (s) 3.0

All-Red Time (s) 3.8

Lost Time Adjust (s) 0.0

Total Lost Time (s) 6.8

Lead/Lag Lead

Lead-Lag Optimize? Yes

Vehicle Extension (s) 3.0

Recall Mode None

Act Effct Green (s) 13.6

Actuated g/C Ratio 0.21

v/c Ratio 0.01

Control Delay 14.5

Queue Delay 0.0

Total Delay 14.5

LOS B

Approach Delay

Approach LOS

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1am DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	0	0	0		1	0	0	0	1		2	3
Queue Length 95th (ft)	9	14	4		8	14	15	2	6		9	12
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250	275			350	
Base Capacity (vph)	1048	2729	1360		190	2724	1404	380	550		411	544
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.01	0.01	0.00		0.02	0.01	0.01	0.00	0.01		0.03	0.04

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.04

Intersection Signal Delay: 14.5

Intersection Capacity Utilization 38.9%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	1
Queue Length 95th (ft)	4
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	336
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.01
Intersection Summary	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2am Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 	 		 	 		 	 
Traffic Volume (vph)	8	12	1	1	1	16	16	0	3	1	2	5
Future Volume (vph)	8	12	1	1	1	16	16	0	3	1	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	2		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850		0.962			
Flt Protected	0.950				0.950						0.950	
Satd. Flow (prot)	3433	3539	1583	0	1770	3539	1583	3614	3405	0	3433	3539
Flt Permitted	0.950				0.950						0.950	
Satd. Flow (perm)	3433	3539	1583	0	1770	3539	1583	3614	3405	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45			45				45			45
Link Distance (ft)		889			970				633			777
Travel Time (s)		13.5			14.7				9.6			11.8
Peak Hour Factor	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)	9	13	1	1	1	18	18	0	3	1	2	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	9	13	1	0	2	18	18	0	4	0	2	6
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	7.0	54.8	57.7		7.0	54.8	57.6		10.0		7.0	10.0
Actuated g/C Ratio	0.11	0.84	0.89		0.11	0.84	0.89		0.15		0.11	0.15
v/c Ratio	0.02	0.00	0.00		0.01	0.01	0.01		0.01		0.01	0.01
Control Delay	26.1	10.8	7.0		26.0	10.6	5.7		23.2		26.0	23.4
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	26.1	10.8	7.0		26.0	10.6	5.7		23.2		26.0	23.4
LOS	C	B	A		C	B	A		C		C	C
Approach Delay		16.7				9.1			23.3			22.9
Approach LOS		B				A			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2am Dual
08/28/2020

Lane Group SBR

Lane Configurations	↑
Traffic Volume (vph)	2
Future Volume (vph)	2
Ideal Flow (vphpl)	1900
Storage Length (ft)	400
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	2
Shared Lane Traffic (%)	
Lane Group Flow (vph)	2
Turn Type	pm+ov
Protected Phases	5
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	13.8
Total Split (s)	14.0
Total Split (%)	21.5%
Maximum Green (s)	7.2
Yellow Time (s)	3.0
All-Red Time (s)	3.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.8
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	10.3
Actuated g/C Ratio	0.16
v/c Ratio	0.01
Control Delay	18.5
Queue Delay	0.0
Total Delay	18.5
LOS	B
Approach Delay	
Approach LOS	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2am Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	1	0	0		1	0	0		1		0	1
Queue Length 95th (ft)	7	8	3		6	10	14		4		3	5
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250				350	
Base Capacity (vph)	380	2986	1405		190	2981	1404		530		385	544
Starvation Cap Reductn	0	0	0		0	0	0		0		0	0
Spillback Cap Reductn	0	0	0		0	0	0		0		0	0
Storage Cap Reductn	0	0	0		0	0	0		0		0	0
Reduced v/c Ratio	0.02	0.00	0.00		0.01	0.01	0.01		0.01		0.01	0.01

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.02

Intersection Signal Delay: 14.0

Intersection Capacity Utilization 36.6%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	1
Queue Length 95th (ft)	4
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	255
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.01
Intersection Summary	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2am DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		 				 		 	 		 	 
Traffic Volume (vph)	8	12	1	1	1	16	16	0	3	1	2	5
Future Volume (vph)	8	12	1	1	1	16	16	0	3	1	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	1		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850		0.962			
Flt Protected	0.950				0.950						0.950	
Satd. Flow (prot)	1770	3539	1583	0	1770	3539	1583	3614	3405	0	3433	3539
Flt Permitted	0.745				0.950						0.950	
Satd. Flow (perm)	1388	3539	1583	0	1770	3539	1583	3614	3405	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	9	13	1	1	1	18	18	0	3	1	2	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	9	13	1	0	2	18	18	0	4	0	2	6
Turn Type	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases	6		2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	50.8	54.8	57.7		7.0	54.8	57.6		10.0		7.0	10.0
Actuated g/C Ratio	0.78	0.84	0.89		0.11	0.84	0.89		0.15		0.11	0.15
v/c Ratio	0.01	0.00	0.00		0.01	0.01	0.01		0.01		0.01	0.01
Control Delay	6.4	10.8	7.0		26.0	10.6	5.7		23.2		26.0	23.4
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	6.4	10.8	7.0		26.0	10.6	5.7		23.2		26.0	23.4
LOS	A	B	A		C	B	A		C		C	C
Approach Delay		8.9				9.1			23.3			22.9
Approach LOS		A				A			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2am DLTi
08/28/2020

Lane Group SBR

Lane Configurations	2
Traffic Volume (vph)	2
Future Volume (vph)	2
Ideal Flow (vphpl)	1900
Storage Length (ft)	400
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	2
Shared Lane Traffic (%)	
Lane Group Flow (vph)	2
Turn Type	pm+ov
Protected Phases	5
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	13.8
Total Split (s)	14.0
Total Split (%)	21.5%
Maximum Green (s)	7.2
Yellow Time (s)	3.0
All-Red Time (s)	3.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.8
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	10.3
Actuated g/C Ratio	0.16
v/c Ratio	0.01
Control Delay	18.5
Queue Delay	0.0
Total Delay	18.5
LOS	B
Approach Delay	
Approach LOS	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2am DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	0	0	0		1	0	0		1		0	1
Queue Length 95th (ft)	9	8	3		6	10	14		4		3	5
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250				350	
Base Capacity (vph)	1127	2986	1405		190	2981	1404		530		385	544
Starvation Cap Reductn	0	0	0		0	0	0		0		0	0
Spillback Cap Reductn	0	0	0		0	0	0		0		0	0
Storage Cap Reductn	0	0	0		0	0	0		0		0	0
Reduced v/c Ratio	0.01	0.00	0.00		0.01	0.01	0.01		0.01		0.01	0.01

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.01

Intersection Signal Delay: 11.6

Intersection LOS: B

Intersection Capacity Utilization 36.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	1
Queue Length 95th (ft)	4
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	255
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.01

Intersection Summary

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3am Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	5	2	1	2	4	0	1	0	1	6	2
Future Volume (vph)	3	5	2	1	2	4	0	1	0	1	6	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525	200		250	275		0	350		400
Storage Lanes	2		1	1		1	2		0	2		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3614	3539	0	3433	3539	1583
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	3433	3539	1583	1770	3539	1583	3614	3539	0	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		889			970			633			777	
Travel Time (s)		13.5			14.7			9.6			11.8	
Peak Hour Factor	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)	3	6	2	1	2	4	0	1	0	1	7	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	6	2	1	2	4	0	1	0	1	7	2
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8		7	4	5
Permitted Phases			2			6						4
Detector Phase	5	2	3	1	6	7	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0	7.0
Minimum Split (s)	13.8	19.1	13.8	13.4	19.1	13.7	13.8	16.4		13.7	16.5	13.8
Total Split (s)	14.0	21.1	14.0	13.4	20.5	14.0	14.0	16.5		14.0	16.5	14.0
Total Split (%)	21.5%	32.5%	21.5%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%	21.5%
Maximum Green (s)	7.2	14.0	7.2	7.0	13.4	7.3	7.2	10.1		7.3	10.0	7.2
Yellow Time (s)	3.0	4.7	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6	3.0
All-Red Time (s)	3.8	2.4	3.8	3.4	2.4	3.7	3.8	1.9		3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8	6.4	7.1	6.7	6.8	6.4		6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	None
Act Effect Green (s)	7.0	54.8	57.7	7.0	54.8	57.6		10.0		7.0	10.0	10.3
Actuated g/C Ratio	0.11	0.84	0.89	0.11	0.84	0.89		0.15		0.11	0.15	0.16
v/c Ratio	0.01	0.00	0.00	0.01	0.00	0.00		0.00		0.00	0.01	0.01
Control Delay	26.0	11.4	6.5	26.0	12.0	6.2		23.0		26.0	23.5	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	26.0	11.4	6.5	26.0	12.0	6.2		23.0		26.0	23.5	18.5
LOS	C	B	A	C	B	A		C		C	C	B
Approach Delay		14.5			10.7			23.0			22.8	
Approach LOS		B			B			C			C	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3am Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	0	0	0	0	0	0		0		0	1	1
Queue Length 95th (ft)	4	5	4	4	2	5		2		2	6	4
Internal Link Dist (ft)		809			890			553			697	
Turn Bay Length (ft)	400		525	200		250				350		400
Base Capacity (vph)	380	2986	1405	190	2981	1404		550		385	544	255
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	0
Reduced v/c Ratio	0.01	0.00	0.00	0.01	0.00	0.00		0.00		0.00	0.01	0.01

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.01

Intersection Signal Delay: 16.7

Intersection LOS: B

Intersection Capacity Utilization 36.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3am DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	5	2	1	2	4	0	1	0	1	6	2
Future Volume (vph)	3	5	2	1	2	4	0	1	0	1	6	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525	200		250	275		0	350		400
Storage Lanes	1		1	1		1	2		0	2		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	1.00
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3614	3539	0	3433	3539	1583
Flt Permitted	0.756			0.950						0.950		
Satd. Flow (perm)	1408	3539	1583	1770	3539	1583	3614	3539	0	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		889			970			633			777	
Travel Time (s)		13.5			14.7			9.6			11.8	
Peak Hour Factor	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)	3	6	2	1	2	4	0	1	0	1	7	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	6	2	1	2	4	0	1	0	1	7	2
Turn Type	D.P+P	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov
Protected Phases	5	2	3	1	6	7	3	8		7	4	5
Permitted Phases	6		2			6						4
Detector Phase	5	2	3	1	6	7	3	8		7	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0	7.0
Minimum Split (s)	13.8	19.1	13.8	13.4	19.1	13.7	13.8	16.4		13.7	16.5	13.8
Total Split (s)	14.0	21.1	14.0	13.4	20.5	14.0	14.0	16.5		14.0	16.5	14.0
Total Split (%)	21.5%	32.5%	21.5%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%	21.5%
Maximum Green (s)	7.2	14.0	7.2	7.0	13.4	7.3	7.2	10.1		7.3	10.0	7.2
Yellow Time (s)	3.0	4.7	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6	3.0
All-Red Time (s)	3.8	2.4	3.8	3.4	2.4	3.7	3.8	1.9		3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8	6.4	7.1	6.7	6.8	6.4		6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Min	None	None	C-Min	None	None	None		None	None	None
Act Effct Green (s)	50.8	54.8	57.7	7.0	54.8	57.6		10.0		7.0	10.0	10.3
Actuated g/C Ratio	0.78	0.84	0.89	0.11	0.84	0.89		0.15		0.11	0.15	0.16
v/c Ratio	0.00	0.00	0.00	0.01	0.00	0.00		0.00		0.00	0.01	0.01
Control Delay	7.0	11.4	6.5	26.0	12.0	6.2		23.0		26.0	23.5	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	7.0	11.4	6.5	26.0	12.0	6.2		23.0		26.0	23.5	18.5
LOS	A	B	A	C	B	A		C		C	C	B
Approach Delay		9.3			10.7			23.0			22.8	
Approach LOS		A			B			C			C	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3am DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	0	0	0	0	0	0		0		0	1	1
Queue Length 95th (ft)	5	5	4	4	2	5		2		2	6	4
Internal Link Dist (ft)		809			890			553			697	
Turn Bay Length (ft)	400		525	200		250				350		400
Base Capacity (vph)	1140	2986	1405	190	2981	1404		550		385	544	255
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	0
Reduced v/c Ratio	0.00	0.00	0.00	0.01	0.00	0.00		0.00		0.00	0.01	0.01

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.01

Intersection Signal Delay: 14.8

Intersection LOS: B

Intersection Capacity Utilization 36.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-4am Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 	 		 	 		 	 
Traffic Volume (vph)	3	3	0	1	0	9	0	1	2	0	3	3
Future Volume (vph)	3	3	0	1	0	9	0	1	2	0	3	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	2		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3433	3539	1863	0	1770	3539	1863	3433	3539	0	3433	3539
Flt Permitted	0.950				0.950			0.950			0.950	
Satd. Flow (perm)	3433	3539	1863	0	1770	3539	1863	3433	3539	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	3	3	0	1	0	10	0	1	2	0	3	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	3	0	0	1	10	0	1	2	0	3	3
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	7.0	54.8			7.0	54.8		7.0	10.0		7.0	10.0
Actuated g/C Ratio	0.11	0.84			0.11	0.84		0.11	0.15		0.11	0.15
v/c Ratio	0.01	0.00			0.01	0.00		0.00	0.00		0.01	0.01
Control Delay	26.0	12.0			26.0	11.3		26.0	23.5		26.0	23.3
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	26.0	12.0			26.0	11.3		26.0	23.5		26.0	23.3
LOS	C	B			C	B		C	C		C	C
Approach Delay		19.0				12.7			24.3			23.7
Approach LOS		B				B			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-4am Dual
08/28/2020

Lane Group SBR

Lane Configurations	↑
Traffic Volume (vph)	1
Future Volume (vph)	1
Ideal Flow (vphpl)	1900
Storage Length (ft)	400
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	1
Shared Lane Traffic (%)	
Lane Group Flow (vph)	1
Turn Type	pm+ov
Protected Phases	5
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	13.8
Total Split (s)	14.0
Total Split (%)	21.5%
Maximum Green (s)	7.2
Yellow Time (s)	3.0
All-Red Time (s)	3.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.8
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	10.3
Actuated g/C Ratio	0.16
v/c Ratio	0.00
Control Delay	18.0
Queue Delay	0.0
Total Delay	18.0
LOS	B
Approach Delay	
Approach LOS	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-4am Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	0	0			0	0		0	0		0	0
Queue Length 95th (ft)	4	3			4	7		2	3		4	4
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400				200			275			350	
Base Capacity (vph)	380	2986			190	2981		380	550		385	544
Starvation Cap Reductn	0	0			0	0		0	0		0	0
Spillback Cap Reductn	0	0			0	0		0	0		0	0
Storage Cap Reductn	0	0			0	0		0	0		0	0
Reduced v/c Ratio	0.01	0.00			0.01	0.00		0.00	0.00		0.01	0.01

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.01

Intersection Signal Delay: 18.2

Intersection Capacity Utilization 38.9%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	0
Queue Length 95th (ft)	3
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	255
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.00

Intersection Summary

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-4am DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		 				 		 	 		 	 
Traffic Volume (vph)	3	3	0	1	0	9	0	1	2	0	3	3
Future Volume (vph)	3	3	0	1	0	9	0	1	2	0	3	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	1		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1770	3539	1863	0	1770	3539	1863	3433	3539	0	3433	3539
Flt Permitted	0.751				0.950			0.950			0.950	
Satd. Flow (perm)	1399	3539	1863	0	1770	3539	1863	3433	3539	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	3	3	0	1	0	10	0	1	2	0	3	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	3	0	0	1	10	0	1	2	0	3	3
Turn Type	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases	6		2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	50.8	54.8			7.0	54.8		7.0	10.0		7.0	10.0
Actuated g/C Ratio	0.78	0.84			0.11	0.84		0.11	0.15		0.11	0.15
v/c Ratio	0.00	0.00			0.01	0.00		0.00	0.00		0.01	0.01
Control Delay	7.0	12.0			26.0	11.3		26.0	23.5		26.0	23.3
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	7.0	12.0			26.0	11.3		26.0	23.5		26.0	23.3
LOS	A	B			C	B		C	C		C	C
Approach Delay		9.5				12.7			24.3			23.7
Approach LOS		A				B			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-4am DLTi
08/28/2020

Lane Group SBR

Lane Configurations

Traffic Volume (vph) 1

Future Volume (vph) 1

Ideal Flow (vphpl) 1900

Storage Length (ft) 400

Storage Lanes 1

Taper Length (ft)

Lane Util. Factor 1.00

Frt 0.850

Flt Protected

Satd. Flow (prot) 1583

Flt Permitted

Satd. Flow (perm) 1583

Right Turn on Red No

Satd. Flow (RTOR)

Link Speed (mph)

Link Distance (ft)

Travel Time (s)

Peak Hour Factor 0.90

Adj. Flow (vph) 1

Shared Lane Traffic (%)

Lane Group Flow (vph) 1

Turn Type pm+ov

Protected Phases 5

Permitted Phases 4

Detector Phase 5

Switch Phase

Minimum Initial (s) 7.0

Minimum Split (s) 13.8

Total Split (s) 14.0

Total Split (%) 21.5%

Maximum Green (s) 7.2

Yellow Time (s) 3.0

All-Red Time (s) 3.8

Lost Time Adjust (s) 0.0

Total Lost Time (s) 6.8

Lead/Lag Lead

Lead-Lag Optimize? Yes

Vehicle Extension (s) 3.0

Recall Mode None

Act Effct Green (s) 10.3

Actuated g/C Ratio 0.16

v/c Ratio 0.00

Control Delay 18.0

Queue Delay 0.0

Total Delay 18.0

LOS B

Approach Delay

Approach LOS

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-4am DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	0	0			0	0		0	0		0	0
Queue Length 95th (ft)	5	3			4	7		2	3		4	4
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400				200			275			350	
Base Capacity (vph)	1134	2986			190	2981		380	550		385	544
Starvation Cap Reductn	0	0			0	0		0	0		0	0
Spillback Cap Reductn	0	0			0	0		0	0		0	0
Storage Cap Reductn	0	0			0	0		0	0		0	0
Reduced v/c Ratio	0.00	0.00			0.01	0.00		0.00	0.00		0.01	0.01

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.01

Intersection Signal Delay: 16.1

Intersection Capacity Utilization 38.9%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	0
Queue Length 95th (ft)	3
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	255
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.00

Intersection Summary

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

4-5am Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 	 		 	 		 	 
Traffic Volume (vph)	6	8	1	1	0	30	9	2	17	0	5	6
Future Volume (vph)	6	8	1	1	0	30	9	2	17	0	5	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	2		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850					
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3433	3539	1583	0	1770	3539	1583	3433	3539	0	3433	3539
Flt Permitted	0.950				0.950			0.950			0.950	
Satd. Flow (perm)	3433	3539	1583	0	1770	3539	1583	3433	3539	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	7	9	1	1	0	33	10	2	19	0	6	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	9	1	0	1	33	10	2	19	0	6	7
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	7.0	54.8	57.7		7.0	54.8	57.6	7.0	10.0		7.0	10.0
Actuated g/C Ratio	0.11	0.84	0.89		0.11	0.84	0.89	0.11	0.15		0.11	0.15
v/c Ratio	0.02	0.00	0.00		0.01	0.01	0.01	0.01	0.03		0.02	0.01
Control Delay	26.2	11.2	7.0		26.0	9.7	6.0	26.0	23.6		26.2	23.5
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	26.2	11.2	7.0		26.0	9.7	6.0	26.0	23.6		26.2	23.5
LOS	C	B	A		C	A	A	C	C		C	C
Approach Delay		17.1				9.3			23.8			22.8
Approach LOS		B				A			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

4-5am Dual
08/28/2020

Lane Group SBR

Lane Configurations

Traffic Volume (vph) 6

Future Volume (vph) 6

Ideal Flow (vphpl) 1900

Storage Length (ft) 400

Storage Lanes 1

Taper Length (ft)

Lane Util. Factor 1.00

Frt 0.850

Flt Protected

Satd. Flow (prot) 1583

Flt Permitted

Satd. Flow (perm) 1583

Right Turn on Red No

Satd. Flow (RTOR)

Link Speed (mph)

Link Distance (ft)

Travel Time (s)

Peak Hour Factor 0.90

Adj. Flow (vph) 7

Shared Lane Traffic (%)

Lane Group Flow (vph) 7

Turn Type pm+ov

Protected Phases 5

Permitted Phases 4

Detector Phase 5

Switch Phase

Minimum Initial (s) 7.0

Minimum Split (s) 13.8

Total Split (s) 14.0

Total Split (%) 21.5%

Maximum Green (s) 7.2

Yellow Time (s) 3.0

All-Red Time (s) 3.8

Lost Time Adjust (s) 0.0

Total Lost Time (s) 6.8

Lead/Lag Lead

Lead-Lag Optimize? Yes

Vehicle Extension (s) 3.0

Recall Mode None

Act Effct Green (s) 10.3

Actuated g/C Ratio 0.16

v/c Ratio 0.03

Control Delay 19.2

Queue Delay 0.0

Total Delay 19.2

LOS B

Approach Delay

Approach LOS

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

4-5am Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	1	0	0		0	0	0	0	3		1	1
Queue Length 95th (ft)	6	6	3		4	15	10	3	11		6	6
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250	275			350	
Base Capacity (vph)	380	2986	1405		190	2981	1404	380	550		385	544
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.02	0.00	0.00		0.01	0.01	0.01	0.01	0.03		0.02	0.01

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.03

Intersection Signal Delay: 16.2

Intersection Capacity Utilization 38.9%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	3
Queue Length 95th (ft)	9
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	255
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.03
Intersection Summary	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

4-5am DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		 				 		 	 		 	 
Traffic Volume (vph)	6	8	1	1	0	30	9	2	17	0	5	6
Future Volume (vph)	6	8	1	1	0	30	9	2	17	0	5	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	1		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850					
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1770	3539	1583	0	1770	3539	1583	3433	3539	0	3433	3539
Flt Permitted	0.734				0.950			0.950			0.950	
Satd. Flow (perm)	1367	3539	1583	0	1770	3539	1583	3433	3539	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	7	9	1	1	0	33	10	2	19	0	6	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	9	1	0	1	33	10	2	19	0	6	7
Turn Type	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases	6		2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	50.8	54.8	57.7		7.0	54.8	57.6	7.0	10.0		7.0	10.0
Actuated g/C Ratio	0.78	0.84	0.89		0.11	0.84	0.89	0.11	0.15		0.11	0.15
v/c Ratio	0.01	0.00	0.00		0.01	0.01	0.01	0.01	0.03		0.02	0.01
Control Delay	6.5	11.2	7.0		26.0	9.7	6.0	26.0	23.6		26.2	23.5
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	6.5	11.2	7.0		26.0	9.7	6.0	26.0	23.6		26.2	23.5
LOS	A	B	A		C	A	A	C	C		C	C
Approach Delay		9.0				9.3			23.8			22.8
Approach LOS		A				A			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

4-5am DLTi
08/28/2020

Lane Group SBR

Lane Configurations

Traffic Volume (vph) 6

Future Volume (vph) 6

Ideal Flow (vphpl) 1900

Storage Length (ft) 400

Storage Lanes 1

Taper Length (ft)

Lane Util. Factor 1.00

Frt 0.850

Flt Protected

Satd. Flow (prot) 1583

Flt Permitted

Satd. Flow (perm) 1583

Right Turn on Red No

Satd. Flow (RTOR)

Link Speed (mph)

Link Distance (ft)

Travel Time (s)

Peak Hour Factor 0.90

Adj. Flow (vph) 7

Shared Lane Traffic (%)

Lane Group Flow (vph) 7

Turn Type pm+ov

Protected Phases 5

Permitted Phases 4

Detector Phase 5

Switch Phase

Minimum Initial (s) 7.0

Minimum Split (s) 13.8

Total Split (s) 14.0

Total Split (%) 21.5%

Maximum Green (s) 7.2

Yellow Time (s) 3.0

All-Red Time (s) 3.8

Lost Time Adjust (s) 0.0

Total Lost Time (s) 6.8

Lead/Lag Lead

Lead-Lag Optimize? Yes

Vehicle Extension (s) 3.0

Recall Mode None

Act Effct Green (s) 10.3

Actuated g/C Ratio 0.16

v/c Ratio 0.03

Control Delay 19.2

Queue Delay 0.0

Total Delay 19.2

LOS B

Approach Delay

Approach LOS

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

4-5am DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	0	0	0		0	0	0	0	3		1	1
Queue Length 95th (ft)	8	6	3		4	15	10	3	11		6	6
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250	275			350	
Base Capacity (vph)	1113	2986	1405		190	2981	1404	380	550		385	544
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.01	0.00	0.00		0.01	0.01	0.01	0.01	0.03		0.02	0.01

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.03

Intersection Signal Delay: 14.9

Intersection Capacity Utilization 38.9%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	3
Queue Length 95th (ft)	9
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	255
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.03
Intersection Summary	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

5-6am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	12	21	0	2	72	50	12	61	0	16	10
Future Volume (vph)	1	12	21	0	2	72	50	12	61	0	16	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525	200		250	275		0	350	
Storage Lanes		2		1	1		1	2		0	2	
Taper Length (ft)		100			100			100			100	
Lane Util. Factor	0.95	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt							0.850					
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	3433	3539	1863	1770	3539	1583	3433	3539	0	3433	3539
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	3433	3539	1863	1770	3539	1583	3433	3539	0	3433	3539
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			45			45			45			45
Link Distance (ft)			889			970			633			777
Travel Time (s)			13.5			14.7			9.6			11.8
Peak Hour Factor	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)	1	13	23	0	2	80	56	13	68	0	18	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	23	0	2	80	56	13	68	0	18	11
Turn Type	Prot	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5!	5	2	3	1	6	7	3	8		7	4
Permitted Phases				2			6					
Detector Phase	5	5	2	3	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	13.8	19.1	13.8	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	14.0	21.1	14.0	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	21.5%	32.5%	21.5%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	7.2	14.0	7.2	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)		6.8	7.1	6.8	6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min	None	None	C-Min	None	None	None		None	None
Act Effect Green (s)		7.0	40.0		7.0	34.4	42.8	7.0	10.0		7.0	15.4
Actuated g/C Ratio		0.11	0.62		0.11	0.53	0.66	0.11	0.15		0.11	0.24
v/c Ratio		0.04	0.01		0.01	0.04	0.05	0.04	0.12		0.05	0.01
Control Delay		26.3	15.2		26.0	18.6	10.3	26.3	24.4		26.4	18.9
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		26.3	15.2		26.0	18.6	10.3	26.3	24.4		26.4	18.9
LOS		C	B		C	B	B	C	C		C	B
Approach Delay			19.4			15.3			24.7			17.3
Approach LOS			B			B			C			B

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

5-6am Dual
08/28/2020

Lane Group SBR

Lane Configurations	
Traffic Volume (vph)	26
Future Volume (vph)	26
Ideal Flow (vphpl)	1900
Storage Length (ft)	400
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	29
Shared Lane Traffic (%)	
Lane Group Flow (vph)	29
Turn Type	pm+ov
Protected Phases	5!
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	13.8
Total Split (s)	14.0
Total Split (%)	21.5%
Maximum Green (s)	7.2
Yellow Time (s)	3.0
All-Red Time (s)	3.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.8
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	22.3
Actuated g/C Ratio	0.34
v/c Ratio	0.05
Control Delay	11.0
Queue Delay	0.0
Total Delay	11.0
LOS	B
Approach Delay	
Approach LOS	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

5-6am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)		2	2		1	13	12	2	12		3	1
Queue Length 95th (ft)		10	12		6	29	32	9	28		11	8
Internal Link Dist (ft)			809			890			553			697
Turn Bay Length (ft)		400			200		250	275			350	
Base Capacity (vph)		380	2175		190	1871	1047	380	550		385	840
Starvation Cap Reductn		0	0		0	0	0	0	0		0	0
Spillback Cap Reductn		0	0		0	0	0	0	0		0	0
Storage Cap Reductn		0	0		0	0	0	0	0		0	0
Reduced v/c Ratio		0.04	0.01		0.01	0.04	0.05	0.03	0.12		0.05	0.01

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.12

Intersection Signal Delay: 18.6

Intersection LOS: B

Intersection Capacity Utilization 38.9%

ICU Level of Service A

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	5
Queue Length 95th (ft)	22
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	549
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.05
Intersection Summary	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

5-6am DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	12	21	0	2	72	50	12	61	0	16	10
Future Volume (vph)	1	12	21	0	2	72	50	12	61	0	16	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525	200		250	275		0	350	
Storage Lanes		1		1	1		1	2		0	2	
Taper Length (ft)		100			100			100			100	
Lane Util. Factor	0.95	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt							0.850					
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1770	3539	1863	1770	3539	1583	3433	3539	0	3433	3539
Flt Permitted		0.702			0.950			0.950			0.950	
Satd. Flow (perm)	0	1308	3539	1863	1770	3539	1583	3433	3539	0	3433	3539
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			45			45			45			45
Link Distance (ft)			889			970			633			777
Travel Time (s)			13.5			14.7			9.6			11.8
Peak Hour Factor	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)	1	13	23	0	2	80	56	13	68	0	18	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	23	0	2	80	56	13	68	0	18	11
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5!	5	2	3	1	6	7	3	8		7	4
Permitted Phases	6	6		2			6					
Detector Phase	5	5	2	3	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	13.8	19.1	13.8	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	14.0	21.1	14.0	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	21.5%	32.5%	21.5%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	7.2	14.0	7.2	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)		6.8	7.1	6.8	6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Min	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)		36.0	40.0		7.0	34.4	42.8	7.0	10.0		7.0	15.4
Actuated g/C Ratio		0.55	0.62		0.11	0.53	0.66	0.11	0.15		0.11	0.24
v/c Ratio		0.02	0.01		0.01	0.04	0.05	0.04	0.12		0.05	0.01
Control Delay		11.2	15.2		26.0	18.6	10.3	26.3	24.4		26.4	18.9
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		11.2	15.2		26.0	18.6	10.3	26.3	24.4		26.4	18.9
LOS		B	B		C	B	B	C	C		C	B
Approach Delay			13.7			15.3			24.7			17.3
Approach LOS			B			B			C			B

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

5-6am DLTi
08/28/2020

Lane Group SBR

Lane Configurations

Traffic Volume (vph) 26

Future Volume (vph) 26

Ideal Flow (vphpl) 1900

Storage Length (ft) 400

Storage Lanes 1

Taper Length (ft)

Lane Util. Factor 1.00

Frt 0.850

Flt Protected

Satd. Flow (prot) 1583

Flt Permitted

Satd. Flow (perm) 1583

Right Turn on Red No

Satd. Flow (RTOR)

Link Speed (mph)

Link Distance (ft)

Travel Time (s)

Peak Hour Factor 0.90

Adj. Flow (vph) 29

Shared Lane Traffic (%)

Lane Group Flow (vph) 29

Turn Type pm+ov

Protected Phases 5!

Permitted Phases 4

Detector Phase 5

Switch Phase

Minimum Initial (s) 7.0

Minimum Split (s) 13.8

Total Split (s) 14.0

Total Split (%) 21.5%

Maximum Green (s) 7.2

Yellow Time (s) 3.0

All-Red Time (s) 3.8

Lost Time Adjust (s) 0.0

Total Lost Time (s) 6.8

Lead/Lag Lead

Lead-Lag Optimize? Yes

Vehicle Extension (s) 3.0

Recall Mode None

Act Effct Green (s) 22.3

Actuated g/C Ratio 0.34

v/c Ratio 0.05

Control Delay 11.0

Queue Delay 0.0

Total Delay 11.0

LOS B

Approach Delay

Approach LOS

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

5-6am DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)		3	2		1	13	12	2	12		3	1
Queue Length 95th (ft)		12	12		6	29	32	9	28		11	8
Internal Link Dist (ft)			809			890			553			697
Turn Bay Length (ft)		400			200		250	275			350	
Base Capacity (vph)		778	2175		190	1871	1047	380	550		385	840
Starvation Cap Reductn		0	0		0	0	0	0	0		0	0
Spillback Cap Reductn		0	0		0	0	0	0	0		0	0
Storage Cap Reductn		0	0		0	0	0	0	0		0	0
Reduced v/c Ratio		0.02	0.01		0.01	0.04	0.05	0.03	0.12		0.05	0.01

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.12

Intersection Signal Delay: 17.9

Intersection LOS: B

Intersection Capacity Utilization 38.9%

ICU Level of Service A

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	5
Queue Length 95th (ft)	22
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	549
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.05

Intersection Summary

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	2	53	133	14	2	8	328	151	12	172	0	53
Future Volume (vph)	2	53	133	14	2	8	328	151	12	172	0	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	350
Storage Lanes		2		1		1		1	2		0	2
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97
Frt				0.850				0.850				
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	2	59	148	16	2	9	364	168	13	191	0	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	148	16	0	11	364	168	13	191	0	59
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7	3	8		7
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7
Total Split (s)	13.8	13.8	21.2	13.8	13.4	13.4	20.8	14.0	13.8	16.4		14.0
Total Split (%)	21.2%	21.2%	32.6%	21.2%	20.6%	20.6%	32.0%	21.5%	21.2%	25.2%		21.5%
Maximum Green (s)	7.0	7.0	14.1	7.0	7.0	7.0	13.7	7.3	7.0	10.0		7.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		6.7
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	Min	None	None	None	Min	None	None	None		None
Act Effect Green (s)		7.7	28.0	38.1			7.7	20.5	30.7	7.7	11.0	7.7
Actuated g/C Ratio		0.13	0.49	0.67			0.13	0.36	0.54	0.13	0.19	0.13
v/c Ratio		0.13	0.09	0.02			0.05	0.29	0.20	0.03	0.28	0.13
Control Delay		26.8	15.3	7.7			26.5	22.1	12.7	26.0	25.1	26.7
Queue Delay		0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		26.8	15.3	7.7			26.5	22.1	12.7	26.0	25.1	26.7
LOS		C	B	A			C	C	B	C	C	C
Approach Delay			17.9				19.3			25.1		
Approach LOS			B				B			C		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45am Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	44	64
Future Volume (vph)	44	64
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	49	71
Shared Lane Traffic (%)		
Lane Group Flow (vph)	49	71
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	16.5	13.8
Total Split (s)	16.6	13.8
Total Split (%)	25.5%	21.2%
Maximum Green (s)	10.1	7.0
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	15.9	24.4
Actuated g/C Ratio	0.28	0.43
v/c Ratio	0.05	0.11
Control Delay	20.8	12.0
Queue Delay	0.0	0.0
Total Delay	20.8	12.0
LOS	C	B
Approach Delay	19.2	
Approach LOS	B	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Queue Length 50th (ft)		11	17	2		4	66	40	2	34		10
Queue Length 95th (ft)		27	47	13		17	104	77	9	63		26
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			350
Base Capacity (vph)		460	1737	1056		237	1315	854	460	680		479
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.13	0.09	0.02		0.05	0.28	0.20	0.03	0.28		0.12

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 57.1

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 20.0

Intersection Capacity Utilization 52.7%

Analysis Period (min) 15

! Phase conflict between lane groups.

Intersection LOS: C

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2	 Ø3	 Ø4
13.4 s	21.2 s	13.8 s	16.6 s
 Ø5	 Ø6	 Ø7	 Ø8
13.8 s	20.8 s	14 s	16.4 s

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45am Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Queue Length 50th (ft)	6	10
Queue Length 95th (ft)	22	43
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	987	676
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.05	0.11
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45am DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	2	53	133	14	2	8	328	151	12	172	0	53
Future Volume (vph)	2	53	133	14	2	8	328	151	12	172	0	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	350
Storage Lanes		1		1		1		1	2		0	2
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97
Frt				0.850				0.850				
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Flt Permitted		0.535				0.950			0.950			0.950
Satd. Flow (perm)	0	997	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	2	59	148	16	2	9	364	168	13	191	0	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	148	16	0	11	364	168	13	191	0	59
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7	3	8		7
Permitted Phases	6	6		2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7
Total Split (s)	14.0	14.0	21.2	13.8	13.4	13.4	20.6	14.0	13.8	16.4		14.0
Total Split (%)	21.5%	21.5%	32.6%	21.2%	20.6%	20.6%	31.7%	21.5%	21.2%	25.2%		21.5%
Maximum Green (s)	7.2	7.2	14.1	7.0	7.0	7.0	13.5	7.3	7.0	10.0		7.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		6.7
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	Min	None	None	None	Min	None	None	None		None
Act Effect Green (s)		23.2	28.0	38.1			7.7	20.5	30.6	7.7	11.0	7.7
Actuated g/C Ratio		0.41	0.49	0.67			0.13	0.36	0.54	0.13	0.19	0.13
v/c Ratio		0.12	0.09	0.02			0.05	0.29	0.20	0.03	0.28	0.13
Control Delay		12.2	15.3	7.7			26.5	22.2	12.8	26.0	25.1	26.7
Queue Delay		0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		12.2	15.3	7.7			26.5	22.2	12.8	26.0	25.1	26.7
LOS		B	B	A			C	C	B	C	C	C
Approach Delay			13.9				19.4			25.2		
Approach LOS			B				B			C		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45am DLTi
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	44	64
Future Volume (vph)	44	64
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	49	71
Shared Lane Traffic (%)		
Lane Group Flow (vph)	49	71
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	16.5	13.8
Total Split (s)	16.6	14.0
Total Split (%)	25.5%	21.5%
Maximum Green (s)	10.1	7.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	15.9	24.5
Actuated g/C Ratio	0.28	0.43
v/c Ratio	0.05	0.10
Control Delay	20.8	11.9
Queue Delay	0.0	0.0
Total Delay	20.8	11.9
LOS	C	B
Approach Delay	19.2	
Approach LOS	B	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45am DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Queue Length 50th (ft)		14	17	2		4	66	40	2	34		10
Queue Length 95th (ft)		33	47	13		17	105	78	9	63		26
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			350
Base Capacity (vph)		512	1738	1057		237	1306	852	460	679		479
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.12	0.09	0.02		0.05	0.28	0.20	0.03	0.28		0.12

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 57.1

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.29

Intersection Signal Delay: 19.3

Intersection LOS: B

Intersection Capacity Utilization 52.7%

ICU Level of Service A

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2	 Ø3	 Ø4
13.4 s	21.2 s	13.8 s	16.6 s
 Ø5	 Ø6	 Ø7	 Ø8
14 s	20.6 s	14 s	16.4 s

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45am DLTi
08/28/2020

		
Lane Group	SBT	SBR
Queue Length 50th (ft)	6	10
Queue Length 95th (ft)	22	43
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	987	682
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.05	0.10
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	2	53	133	14	2	8	328	151	12	172	0	53
Future Volume (vph)	2	53	133	14	2	8	328	151	12	172	0	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	350
Storage Lanes		2		1		1		1	2		0	2
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97
Frt				0.850				0.850				
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	2	59	148	16	2	9	364	168	13	191	0	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	148	16	0	11	364	168	13	191	0	59
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7	3	8		7
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	18.0	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0
Total Split (%)	16.4%	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%
Maximum Green (s)	11.2	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		6.7
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		7.7	67.7	81.8		7.1	58.8	73.6	7.0	11.6		7.7
Actuated g/C Ratio		0.07	0.62	0.74		0.06	0.53	0.67	0.06	0.11		0.07
v/c Ratio		0.26	0.07	0.01		0.10	0.19	0.16	0.06	0.51		0.25
Control Delay		50.9	10.1	5.9		50.3	14.9	8.4	49.2	51.2		50.8
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay		50.9	10.1	5.9		50.3	14.9	8.4	49.2	51.2		50.8

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7am Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	44	64
Future Volume (vph)	44	64
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	49	71
Shared Lane Traffic (%)		
Lane Group Flow (vph)	49	71
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	43.5	13.8
Total Split (s)	35.0	18.0
Total Split (%)	31.8%	16.4%
Maximum Green (s)	28.5	11.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	30.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	17.6	31.8
Actuated g/C Ratio	0.16	0.29
v/c Ratio	0.09	0.16
Control Delay	42.0	31.6
Queue Delay	0.0	0.0
Total Delay	42.0	31.6

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7am Dual
08/28/2020

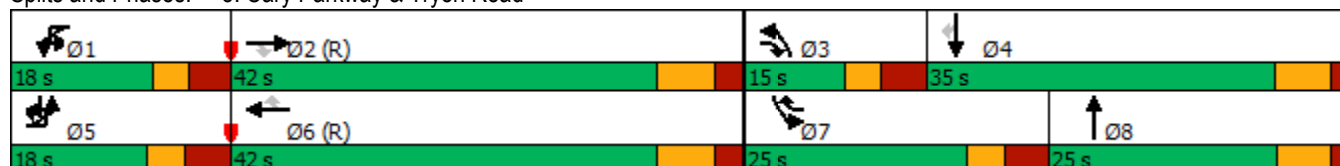
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		D	B	A		D	B	A	D	D		D
Approach Delay			20.9				13.6			51.1		
Approach LOS			C				B			D		
Queue Length 50th (ft)		21	18	2		7	69	42	4	68		20
Queue Length 95th (ft)		42	47	13		26	111	81	14	103		41
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			350
Base Capacity (vph)		349	2178	1194		186	1891	1211	255	598		571
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.17	0.07	0.01		0.06	0.19	0.14	0.05	0.32		0.10

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 125
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 25.9
Intersection Capacity Utilization 52.7%
Analysis Period (min) 15
! Phase conflict between lane groups.

Intersection LOS: C
ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7am Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
LOS	D	C
Approach Delay	40.8	
Approach LOS	D	
Queue Length 50th (ft)	16	41
Queue Length 95th (ft)	34	74
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	916	508
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.05	0.14
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7am DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	2	53	133	14	2	8	328	151	12	172	0	53
Future Volume (vph)	2	53	133	14	2	8	328	151	12	172	0	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	350
Storage Lanes		1		1		1		1	2		0	2
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97
Frt				0.850				0.850				
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Flt Permitted		0.535				0.950			0.950			0.950
Satd. Flow (perm)	0	997	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	2	59	148	16	2	9	364	168	13	191	0	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	148	16	0	11	364	168	13	191	0	59
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7	3	8		7
Permitted Phases	6	6		2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	18.0	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0
Total Split (%)	16.4%	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%
Maximum Green (s)	11.2	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		6.7
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		65.4	67.7	81.8		7.1	59.1	73.8	7.0	11.6		7.7
Actuated g/C Ratio		0.59	0.62	0.74		0.06	0.54	0.67	0.06	0.11		0.07
v/c Ratio		0.09	0.07	0.01		0.10	0.19	0.16	0.06	0.51		0.25
Control Delay		8.4	10.1	5.9		50.3	14.7	8.2	49.2	51.2		50.8
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay		8.4	10.1	5.9		50.3	14.7	8.2	49.2	51.2		50.8

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7am DLTi
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	44	64
Future Volume (vph)	44	64
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	49	71
Shared Lane Traffic (%)		
Lane Group Flow (vph)	49	71
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	43.5	13.8
Total Split (s)	35.0	18.0
Total Split (%)	31.8%	16.4%
Maximum Green (s)	28.5	11.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	30.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	17.6	31.5
Actuated g/C Ratio	0.16	0.29
v/c Ratio	0.09	0.16
Control Delay	42.0	32.0
Queue Delay	0.0	0.0
Total Delay	42.0	32.0

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7am DLTi
08/28/2020

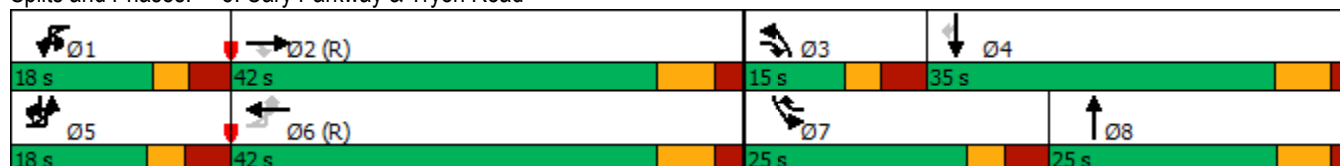
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		A	B	A		D	B	A	D	D		D
Approach Delay			9.4				13.4			51.1		
Approach LOS			A				B			D		
Queue Length 50th (ft)		14	18	2		7	68	42	4	68		20
Queue Length 95th (ft)		34	47	13		26	109	80	14	103		41
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			350
Base Capacity (vph)		698	2178	1194		186	1900	1215	255	598		571
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.09	0.07	0.01		0.06	0.19	0.14	0.05	0.32		0.10

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 23.6
 Intersection Capacity Utilization 52.7%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7am DLTi
08/28/2020

		
Lane Group	SBT	SBR
LOS	D	C
Approach Delay	40.9	
Approach LOS	D	
Queue Length 50th (ft)	16	41
Queue Length 95th (ft)	34	75
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	916	508
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.05	0.14
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-7:15am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	11	161	466	51	10	40	750	400	70	419	12	245
Future Volume (vph)	11	161	466	51	10	40	750	400	70	419	12	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	350
Storage Lanes		2		1		1		1	2		0	2
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97
Frt				0.850				0.850		0.996		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3525	0	3433
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3525	0	3433
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	12	179	518	57	11	44	833	444	78	466	13	272
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	191	518	57	0	55	833	444	78	479	0	272
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7	3	8		7
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	18.0	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0
Total Split (%)	16.4%	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%
Maximum Green (s)	11.2	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		6.7
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		10.4	44.2	59.0		9.0	39.6	61.0	7.7	18.7		14.3
Actuated g/C Ratio		0.09	0.40	0.54		0.08	0.36	0.55	0.07	0.17		0.13
v/c Ratio		0.59	0.36	0.07		0.38	0.65	0.51	0.33	0.80		0.61
Control Delay		55.3	26.2	15.9		55.0	33.5	18.2	52.4	54.9		50.9
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay		55.3	26.2	15.9		55.0	33.5	18.2	52.4	54.9		50.9

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-7:15am Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	141	161
Future Volume (vph)	141	161
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	157	179
Shared Lane Traffic (%)		
Lane Group Flow (vph)	157	179
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	43.5	13.8
Total Split (s)	35.0	18.0
Total Split (%)	31.8%	16.4%
Maximum Green (s)	28.5	11.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	30.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	27.8	44.7
Actuated g/C Ratio	0.25	0.41
v/c Ratio	0.18	0.28
Control Delay	33.0	23.2
Queue Delay	0.0	0.0
Total Delay	33.0	23.2

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-7:15am Dual
08/28/2020

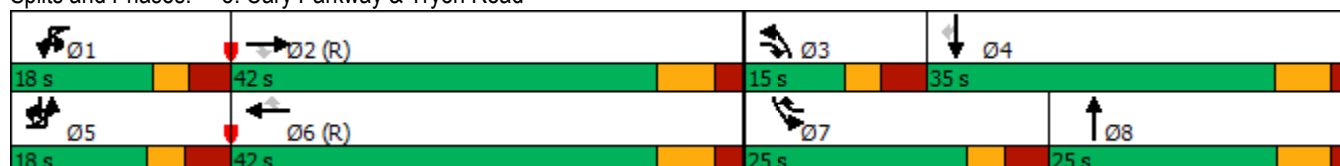
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		E	C	B		D	C	B	D	D		D
Approach Delay			32.7				29.3			54.6		
Approach LOS			C				C			D		
Queue Length 50th (ft)		67	141	20		38	265	196	27	169		95
Queue Length 95th (ft)		104	204	46		78	349	276	52	#247		132
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			350
Base Capacity (vph)		350	1421	856		186	1275	935	256	620		571
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.55	0.36	0.07		0.30	0.65	0.47	0.30	0.77		0.48

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 36.0
 Intersection Capacity Utilization 68.0%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 ! Phase conflict between lane groups.

Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-7:15am Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
LOS	C	C
Approach Delay	38.1	
Approach LOS	D	
Queue Length 50th (ft)	46	84
Queue Length 95th (ft)	73	134
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	941	655
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.17	0.27
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-7:15am DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	11	161	466	51	10	40	750	400	70	419	12	245
Future Volume (vph)	11	161	466	51	10	40	750	400	70	419	12	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	350
Storage Lanes		1		1		1		1	2		0	2
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97
Flt Protected		0.950		0.850		0.950		0.850	0.950	0.996		0.950
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	3433	3525	0	3433
Flt Permitted		0.196				0.950			0.950			0.950
Satd. Flow (perm)	0	365	3539	1583	0	1770	3539	1583	3433	3525	0	3433
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	12	179	518	57	11	44	833	444	78	466	13	272
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	191	518	57	0	55	833	444	78	479	0	272
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7	3	8		7
Permitted Phases	6	6		2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	18.0	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0
Total Split (%)	16.4%	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%
Maximum Green (s)	11.2	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		6.7
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		50.4	44.2	59.0		9.0	39.5	60.9	7.7	18.7		14.3
Actuated g/C Ratio		0.46	0.40	0.54		0.08	0.36	0.55	0.07	0.17		0.13
v/c Ratio		0.63	0.36	0.07		0.38	0.66	0.51	0.33	0.80		0.61
Control Delay		25.7	26.2	15.9		55.0	33.7	18.3	52.4	54.9		50.9
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay		25.7	26.2	15.9		55.0	33.7	18.3	52.4	54.9		50.9

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-7:15am DLTi
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	141	161
Future Volume (vph)	141	161
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	157	179
Shared Lane Traffic (%)		
Lane Group Flow (vph)	157	179
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	43.5	13.8
Total Split (s)	35.0	18.0
Total Split (%)	31.8%	16.4%
Maximum Green (s)	28.5	11.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	30.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	27.8	44.9
Actuated g/C Ratio	0.25	0.41
v/c Ratio	0.18	0.28
Control Delay	33.0	23.1
Queue Delay	0.0	0.0
Total Delay	33.0	23.1

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-7:15am DLTi
08/28/2020

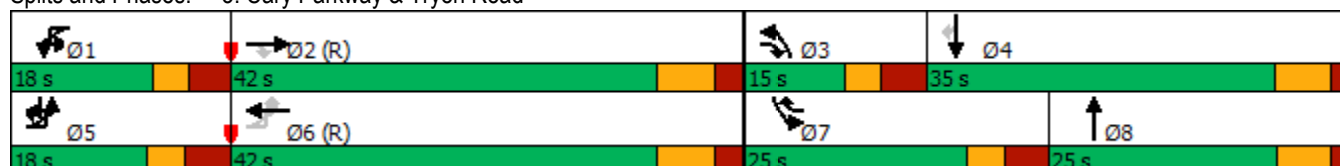
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		C	C	B		D	C	B	D	D		D
Approach Delay			25.3				29.4			54.6		
Approach LOS			C				C			D		
Queue Length 50th (ft)		72	141	20		38	268	199	27	169		95
Queue Length 95th (ft)		122	204	46		78	349	276	52	#247		132
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			350
Base Capacity (vph)		315	1421	856		186	1271	933	256	620		571
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.61	0.36	0.07		0.30	0.66	0.48	0.30	0.77		0.48

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green
Natural Cycle: 125
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 34.4
Intersection Capacity Utilization 71.7%
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
! Phase conflict between lane groups.

Intersection LOS: C
ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-7:15am DLTi
08/28/2020

		
Lane Group	SBT	SBR
LOS	C	C
Approach Delay	38.1	
Approach LOS	D	
Queue Length 50th (ft)	46	83
Queue Length 95th (ft)	73	134
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	941	657
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.17	0.27
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7:15-8am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	11	161	466	51	10	40	750	400	70	419	12	245
Future Volume (vph)	11	161	466	51	10	40	750	400	70	419	12	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	350
Storage Lanes		2		1		1		1	2		0	2
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97
Frt				0.850				0.850		0.996		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3525	0	3433
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3525	0	3433
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	12	179	518	57	11	44	833	444	78	466	13	272
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	191	518	57	0	55	833	444	78	479	0	272
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7	3	8		7
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	20.0	20.0	55.0	15.0	15.0	15.0	50.0	24.0	15.0	26.0		24.0
Total Split (%)	16.7%	16.7%	45.8%	12.5%	12.5%	12.5%	41.7%	20.0%	12.5%	21.7%		20.0%
Maximum Green (s)	13.2	13.2	47.9	8.2	8.6	8.6	42.9	17.3	8.2	19.6		17.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		11.6	52.4	67.6		8.6	46.3	68.2	8.1	20.4		14.8
Actuated g/C Ratio		0.10	0.44	0.56		0.07	0.39	0.57	0.07	0.17		0.12
v/c Ratio		0.58	0.34	0.06		0.44	0.61	0.49	0.34	0.80		0.64
Control Delay		58.9	24.9	14.7		64.3	33.1	18.5	57.2	58.8		57.0
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay		58.9	24.9	14.7		64.3	33.1	18.5	57.2	58.8		57.0

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7:15-8am Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	141	161
Future Volume (vph)	141	161
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	157	179
Shared Lane Traffic (%)		
Lane Group Flow (vph)	157	179
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	43.5	13.8
Total Split (s)	35.0	20.0
Total Split (%)	29.2%	16.7%
Maximum Green (s)	28.5	13.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	30.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	29.6	47.7
Actuated g/C Ratio	0.25	0.40
v/c Ratio	0.18	0.29
Control Delay	36.6	26.0
Queue Delay	0.0	0.0
Total Delay	36.6	26.0

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7:15-8am Dual
08/28/2020

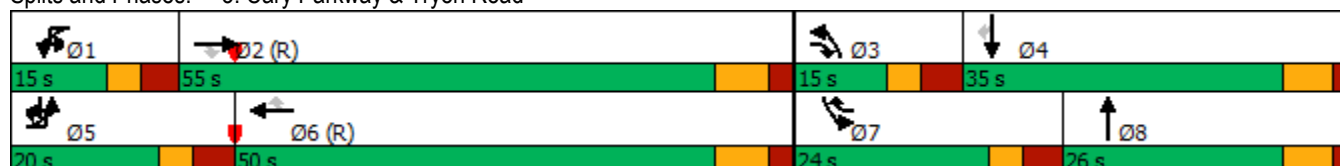
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
LOS		E	C	B		E	C	B	E	E		E
Approach Delay			32.6				29.5			58.6		
Approach LOS			C				C			E		
Queue Length 50th (ft)		73	146	21		41	276	205	30	186		105
Queue Length 95th (ft)		111	195	43		86	358	290	55	#271		146
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			350
Base Capacity (vph)		378	1584	897		133	1395	934	244	614		499
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.51	0.33	0.06		0.41	0.60	0.48	0.32	0.78		0.55

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 37.7
 Intersection Capacity Utilization 68.0%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 ! Phase conflict between lane groups.

Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7:15-8am Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
LOS	D	C
Approach Delay	42.6	
Approach LOS	D	
Queue Length 50th (ft)	51	94
Queue Length 95th (ft)	81	149
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	893	650
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.18	0.28
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8-9am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	8	182	522	53	13	56	748	406	97	391	28	6
Future Volume (vph)	8	182	522	53	13	56	748	406	97	391	28	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		2		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.990		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3504	0	0
Flt Permitted		0.950				0.950			0.950			
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3504	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	9	202	580	59	14	62	831	451	108	434	31	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	211	580	59	0	76	831	451	108	465	0	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	20.0	20.0	55.0	15.0	15.0	15.0	50.0	24.0	15.0	26.0		24.0
Total Split (%)	16.7%	16.7%	45.8%	12.5%	12.5%	12.5%	41.7%	20.0%	12.5%	21.7%		20.0%
Maximum Green (s)	13.2	13.2	47.9	8.2	8.6	8.6	42.9	17.3	8.2	19.6		17.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		11.9	50.5	66.3		8.8	44.3	68.6	8.7	19.7		
Actuated g/C Ratio		0.10	0.42	0.55		0.07	0.37	0.57	0.07	0.16		
v/c Ratio		0.62	0.39	0.07		0.59	0.64	0.50	0.43	0.81		
Control Delay		60.1	26.7	14.9		72.7	34.9	18.3	58.6	60.3		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		60.1	26.7	14.9		72.7	34.9	18.3	58.6	60.3		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8-9am Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations	LT	TH	RT
Traffic Volume (vph)	311	224	205
Future Volume (vph)	311	224	205
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	346	249	228
Shared Lane Traffic (%)			
Lane Group Flow (vph)	353	249	228
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	24.0	35.0	20.0
Total Split (%)	20.0%	29.2%	16.7%
Maximum Green (s)	17.3	28.5	13.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effect Green (s)	17.1	27.9	46.2
Actuated g/C Ratio	0.14	0.23	0.38
v/c Ratio	0.72	0.30	0.37
Control Delay	57.9	38.7	27.8
Queue Delay	0.0	0.0	0.0
Total Delay	57.9	38.7	27.8

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8-9am Dual
08/28/2020

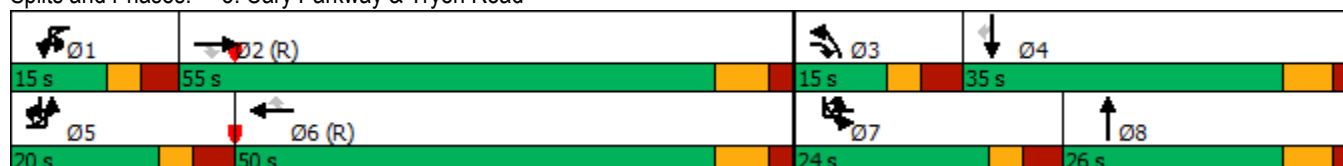
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		E	C	B		E	C	B	E	E		
Approach Delay			34.2				31.5			60.0		
Approach LOS			C				C			E		
Queue Length 50th (ft)		81	180	23		57	291	209	41	181		
Queue Length 95th (ft)		122	220	44		#123	357	296	72	#260		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		377	1554	878		133	1356	919	256	595		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.56	0.37	0.07		0.57	0.61	0.49	0.42	0.78		

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 39.5
 Intersection Capacity Utilization 73.7%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 ! Phase conflict between lane groups.

Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8-9am Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	E	D	C
Approach Delay		43.9	
Approach LOS		D	
Queue Length 50th (ft)	134	82	119
Queue Length 95th (ft)	186	122	189
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	523	869	627
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.67	0.29	0.36
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	5	183	395	56	6	40	553	272	74	332	27	5
Future Volume (vph)	5	183	395	56	6	40	553	272	74	332	27	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		2		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.989		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3500	0	0
Flt Permitted		0.950				0.950			0.950			
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3500	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	6	203	439	62	7	44	614	302	82	369	30	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	209	439	62	0	51	614	302	82	399	0	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	18.0	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0
Total Split (%)	16.4%	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%
Maximum Green (s)	11.2	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		11.2	43.0	58.3		8.8	37.6	62.0	8.2	17.0		
Actuated g/C Ratio		0.10	0.39	0.53		0.08	0.34	0.56	0.07	0.15		
v/c Ratio		0.60	0.32	0.07		0.36	0.51	0.34	0.32	0.74		
Control Delay		54.8	26.7	16.4		54.5	32.1	14.9	51.3	53.0		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		54.8	26.7	16.4		54.5	32.1	14.9	51.3	53.0		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10am Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations	 	 	
Traffic Volume (vph)	327	207	211
Future Volume (vph)	327	207	211
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	363	230	234
Shared Lane Traffic (%)			
Lane Group Flow (vph)	369	230	234
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	25.0	35.0	18.0
Total Split (%)	22.7%	31.8%	16.4%
Maximum Green (s)	18.3	28.5	11.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effct Green (s)	17.2	28.6	46.2
Actuated g/C Ratio	0.16	0.26	0.42
v/c Ratio	0.69	0.25	0.35
Control Delay	50.4	33.1	23.4
Queue Delay	0.0	0.0	0.0
Total Delay	50.4	33.1	23.4

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10am Dual
08/28/2020

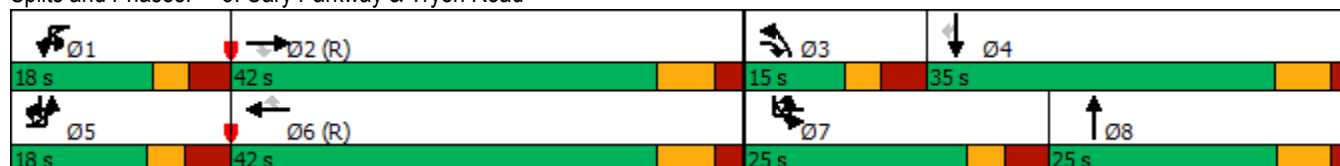
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		D	C	B		D	C	B	D	D		
Approach Delay			34.1				27.9			52.7		
Approach LOS			C				C			D		
Queue Length 50th (ft)		73	116	22		35	183	113	28	142		
Queue Length 95th (ft)		113	181	51		72	257	173	52	194		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		367	1409	846		186	1260	920	271	597		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.57	0.31	0.07		0.27	0.49	0.33	0.30	0.67		

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 36.2
 Intersection Capacity Utilization 64.2%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10am Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	D	C	C
Approach Delay		38.0	
Approach LOS		D	
Queue Length 50th (ft)	128	69	113
Queue Length 95th (ft)	170	100	169
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	601	962	673
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.61	0.24	0.35
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10am DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	5	183	395	56	6	40	553	272	74	332	27	5
Future Volume (vph)	5	183	395	56	6	40	553	272	74	332	27	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		1		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.989		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	3433	3500	0	0
Flt Permitted		0.312				0.950			0.950			
Satd. Flow (perm)	0	581	3539	1583	0	1770	3539	1583	3433	3500	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	6	203	439	62	7	44	614	302	82	369	30	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	209	439	62	0	51	614	302	82	399	0	0
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases	6	6		2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	18.0	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0
Total Split (%)	16.4%	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%
Maximum Green (s)	11.2	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		49.1	43.0	58.3		8.8	37.1	61.5	8.2	17.0		
Actuated g/C Ratio		0.45	0.39	0.53		0.08	0.34	0.56	0.07	0.15		
v/c Ratio		0.54	0.32	0.07		0.36	0.51	0.34	0.32	0.74		
Control Delay		22.9	26.7	16.4		54.5	32.6	15.3	51.3	53.0		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		22.9	26.7	16.4		54.5	32.6	15.3	51.3	53.0		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10am DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	327	207	211
Future Volume (vph)	327	207	211
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	363	230	234
Shared Lane Traffic (%)			
Lane Group Flow (vph)	369	230	234
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	25.0	35.0	18.0
Total Split (%)	22.7%	31.8%	16.4%
Maximum Green (s)	18.3	28.5	11.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effct Green (s)	17.2	28.6	46.7
Actuated g/C Ratio	0.16	0.26	0.42
v/c Ratio	0.69	0.25	0.35
Control Delay	50.4	33.1	22.9
Queue Delay	0.0	0.0	0.0
Total Delay	50.4	33.1	22.9

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10am DLTi
08/28/2020

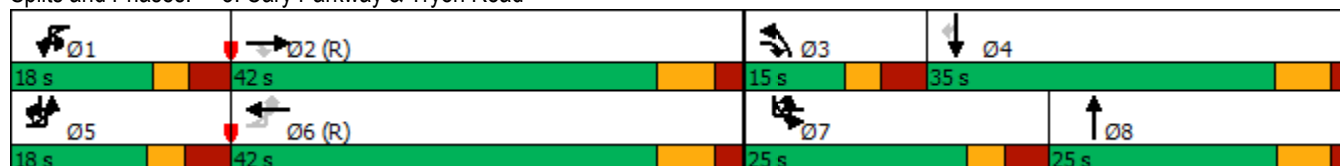
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		C	C	B		D	C	B	D	D		
Approach Delay			24.7				28.4			52.7		
Approach LOS			C				C			D		
Queue Length 50th (ft)		80	116	22		35	186	115	28	142		
Queue Length 95th (ft)		142	181	51		72	257	173	52	194		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		396	1409	846		186	1257	913	271	597		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.53	0.31	0.07		0.27	0.49	0.33	0.30	0.67		

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 34.1
 Intersection Capacity Utilization 68.8%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10am DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	D	C	C
Approach Delay		37.9	
Approach LOS		D	
Queue Length 50th (ft)	128	69	111
Queue Length 95th (ft)	170	100	169
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	601	962	681
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.61	0.24	0.34
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	6	168	411	62	5	30	470	226	1	65	308	23
Future Volume (vph)	6	168	411	62	5	30	470	226	1	65	308	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250		275		0
Storage Lanes		2		1		1		1		2		0
Taper Length (ft)		100				100				100		
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.97	0.95	0.95
Frt				0.850				0.850			0.989	
Flt Protected		0.950				0.950				0.950		
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	0	3433	3500	0
Flt Permitted		0.950				0.950				0.460		
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	0	1662	3500	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)			45				45				45	
Link Distance (ft)			889				970				633	
Travel Time (s)			13.5				14.7				9.6	
Peak Hour Factor	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)	7	187	457	69	6	33	522	251	1	72	342	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	194	457	69	0	39	522	251	0	73	368	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	custom	Prot	NA	
Protected Phases	5!	5	2	3!	1	1	6	7!		3	8	
Permitted Phases				2				6	3!			
Detector Phase	5	5	2	3	1	1	6	7	3	3	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	7.0	10.0	
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	13.8	45.4	
Total Split (s)	18.0	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	15.0	25.0	
Total Split (%)	16.4%	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	13.6%	22.7%	
Maximum Green (s)	11.2	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	8.2	18.6	
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	3.0	4.5	
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	3.8	1.9	
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.8	7.1	6.8		6.4	7.1	6.7		6.8	6.4	
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None	None	
Walk Time (s)			7.0				7.0				7.0	
Flash Dont Walk (s)			33.0				35.0				32.0	
Pedestrian Calls (#/hr)			0				0				0	
Act Effect Green (s)		11.4	52.0	69.3		8.3	43.1	62.0		10.1	16.7	
Actuated g/C Ratio		0.10	0.47	0.63		0.08	0.39	0.56		0.09	0.15	
v/c Ratio		0.54	0.27	0.07		0.29	0.38	0.28		0.48	0.69	
Control Delay		52.3	20.8	10.9		53.4	26.5	14.7		57.3	51.0	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		52.3	20.8	10.9		53.4	26.5	14.7		57.3	51.0	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11am Dual
08/28/2020

				
Lane Group	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (vph)	5	175	194	236
Future Volume (vph)	5	175	194	236
Ideal Flow (vphpl)	1900	1900	1900	1900
Storage Length (ft)		350		400
Storage Lanes		2		1
Taper Length (ft)		100		
Lane Util. Factor	0.95	0.97	0.95	1.00
Frt				0.850
Flt Protected		0.950		
Satd. Flow (prot)	0	3433	3539	1583
Flt Permitted		0.950		
Satd. Flow (perm)	0	3433	3539	1583
Right Turn on Red				No
Satd. Flow (RTOR)				
Link Speed (mph)			45	
Link Distance (ft)			777	
Travel Time (s)			11.8	
Peak Hour Factor	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	194	216	262
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	200	216	262
Turn Type	Prot	Prot	NA	pm+ov
Protected Phases	7!	7	4	5!
Permitted Phases				4
Detector Phase	7	7	4	5
Switch Phase				
Minimum Initial (s)	7.0	7.0	10.0	7.0
Minimum Split (s)	13.7	13.7	43.5	13.8
Total Split (s)	25.0	25.0	35.0	18.0
Total Split (%)	22.7%	22.7%	31.8%	16.4%
Maximum Green (s)	18.3	18.3	28.5	11.2
Yellow Time (s)	3.0	3.0	4.6	3.0
All-Red Time (s)	3.7	3.7	1.9	3.8
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		6.7	6.5	6.8
Lead/Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)			7.0	
Flash Dont Walk (s)			30.0	
Pedestrian Calls (#/hr)			0	
Act Effect Green (s)		11.7	20.9	38.8
Actuated g/C Ratio		0.11	0.19	0.35
v/c Ratio		0.55	0.32	0.47
Control Delay		52.0	40.4	30.8
Queue Delay		0.0	0.0	0.0
Total Delay		52.0	40.4	30.8

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
LOS		D	C	B		D	C	B		E	D	
Approach Delay			28.4				24.1				52.1	
Approach LOS			C				C				D	
Queue Length 50th (ft)		68	108	20		27	136	87		25	131	
Queue Length 95th (ft)		102	174	46		60	213	160		48	174	
Internal Link Dist (ft)			809				890				553	
Turn Bay Length (ft)		400		525		200		250		275		
Base Capacity (vph)		382	1674	1000		186	1404	986		156	606	
Starvation Cap Reductn		0	0	0		0	0	0		0	0	
Spillback Cap Reductn		0	0	0		0	0	0		0	0	
Storage Cap Reductn		0	0	0		0	0	0		0	0	
Reduced v/c Ratio		0.51	0.27	0.07		0.21	0.37	0.25		0.47	0.61	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 34.0
 Intersection Capacity Utilization 62.2%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
18 s	42 s	15 s	35 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
18 s	42 s	25 s	25 s

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11am Dual
08/28/2020

				
Lane Group	SBU	SBL	SBT	SBR
LOS		D	D	C
Approach Delay			40.1	
Approach LOS			D	
Queue Length 50th (ft)		70	72	148
Queue Length 95th (ft)		104	105	206
Internal Link Dist (ft)			697	
Turn Bay Length (ft)		350		400
Base Capacity (vph)		571	916	570
Starvation Cap Reductn		0	0	0
Spillback Cap Reductn		0	0	0
Storage Cap Reductn		0	0	0
Reduced v/c Ratio		0.35	0.24	0.46
Intersection Summary				

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11am DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	6	168	411	62	5	30	470	226	1	65	308	23
Future Volume (vph)	6	168	411	62	5	30	470	226	1	65	308	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250		275		0
Storage Lanes		1		1		1		1		2		0
Taper Length (ft)		100				100				100		
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.97	0.95	0.95
Frt				0.850				0.850			0.989	
Flt Protected		0.950				0.950				0.950		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	0	3433	3500	0
Flt Permitted		0.400				0.950				0.460		
Satd. Flow (perm)	0	745	3539	1583	0	1770	3539	1583	0	1662	3500	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)			45				45				45	
Link Distance (ft)			889				970				633	
Travel Time (s)			13.5				14.7				9.6	
Peak Hour Factor	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)	7	187	457	69	6	33	522	251	1	72	342	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	194	457	69	0	39	522	251	0	73	368	0
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	custom	Prot	NA	
Protected Phases	5!	5	2	3!	1	1	6	7!		3	8	
Permitted Phases	6	6		2				6	3!			
Detector Phase	5	5	2	3	1	1	6	7	3	3	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	7.0	10.0	
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	13.8	45.4	
Total Split (s)	18.0	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	15.0	25.0	
Total Split (%)	16.4%	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	13.6%	22.7%	
Maximum Green (s)	11.2	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	8.2	18.6	
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	3.0	4.5	
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	3.8	1.9	
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1		6.8	6.4	
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None	None	
Walk Time (s)			7.0				7.0				7.0	
Flash Dont Walk (s)			33.0				35.0				32.0	
Pedestrian Calls (#/hr)			0				0				0	
Act Effect Green (s)		54.9	52.0	69.3		8.3	42.8	61.6		10.1	16.7	
Actuated g/C Ratio		0.50	0.47	0.63		0.08	0.39	0.56		0.09	0.15	
v/c Ratio		0.40	0.27	0.07		0.29	0.38	0.28		0.48	0.69	
Control Delay		16.1	20.8	10.9		53.4	27.0	15.1		57.3	51.0	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		16.1	20.8	10.9		53.4	27.0	15.1		57.3	51.0	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11am DLTi
08/28/2020

				
Lane Group	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (vph)	5	175	194	236
Future Volume (vph)	5	175	194	236
Ideal Flow (vphpl)	1900	1900	1900	1900
Storage Length (ft)		350		400
Storage Lanes		2		1
Taper Length (ft)		100		
Lane Util. Factor	0.95	0.97	0.95	1.00
Frt				0.850
Flt Protected		0.950		
Satd. Flow (prot)	0	3433	3539	1583
Flt Permitted		0.950		
Satd. Flow (perm)	0	3433	3539	1583
Right Turn on Red				No
Satd. Flow (RTOR)				
Link Speed (mph)			45	
Link Distance (ft)			777	
Travel Time (s)			11.8	
Peak Hour Factor	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	194	216	262
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	200	216	262
Turn Type	Prot	Prot	NA	pm+ov
Protected Phases	7!	7	4	5!
Permitted Phases				4
Detector Phase	7	7	4	5
Switch Phase				
Minimum Initial (s)	7.0	7.0	10.0	7.0
Minimum Split (s)	13.7	13.7	43.5	13.8
Total Split (s)	25.0	25.0	35.0	18.0
Total Split (%)	22.7%	22.7%	31.8%	16.4%
Maximum Green (s)	18.3	18.3	28.5	11.2
Yellow Time (s)	3.0	3.0	4.6	3.0
All-Red Time (s)	3.7	3.7	1.9	3.8
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		6.7	6.5	6.8
Lead/Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)			7.0	
Flash Dont Walk (s)			30.0	
Pedestrian Calls (#/hr)			0	
Act Effect Green (s)		11.7	20.9	39.2
Actuated g/C Ratio		0.11	0.19	0.36
v/c Ratio		0.55	0.32	0.47
Control Delay		52.0	40.4	30.2
Queue Delay		0.0	0.0	0.0
Total Delay		52.0	40.4	30.2

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11am DLTi
08/28/2020

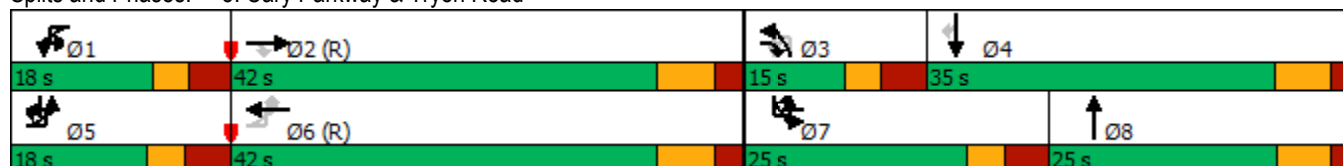
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
LOS		B	C	B		D	C	B		E	D	
Approach Delay			18.6				24.6				52.1	
Approach LOS			B				C				D	
Queue Length 50th (ft)		64	108	20		27	136	87		25	131	
Queue Length 95th (ft)		122	174	46		60	219	167		48	174	
Internal Link Dist (ft)			809				890				553	
Turn Bay Length (ft)		400		525		200		250		275		
Base Capacity (vph)		497	1674	1000		186	1405	981		156	606	
Starvation Cap Reductn		0	0	0		0	0	0		0	0	
Spillback Cap Reductn		0	0	0		0	0	0		0	0	
Storage Cap Reductn		0	0	0		0	0	0		0	0	
Reduced v/c Ratio		0.39	0.27	0.07		0.21	0.37	0.26		0.47	0.61	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 31.5
 Intersection Capacity Utilization 66.0%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11am DLTi
08/28/2020

	   			
Lane Group	SBU	SBL	SBT	SBR
LOS		D	D	C
Approach Delay			39.9	
Approach LOS			D	
Queue Length 50th (ft)		70	72	148
Queue Length 95th (ft)		104	105	199
Internal Link Dist (ft)			697	
Turn Bay Length (ft)		350		400
Base Capacity (vph)		571	916	577
Starvation Cap Reductn		0	0	0
Spillback Cap Reductn		0	0	0
Storage Cap Reductn		0	0	0
Reduced v/c Ratio		0.35	0.24	0.45
Intersection Summary				

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11am-12pm Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	6	168	411	62	5	253	455	82	75	275	31	3
Future Volume (vph)	6	168	411	62	5	253	455	82	75	275	31	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		2		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.985		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3486	0	0
Flt Permitted		0.950				0.950			0.950			
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3486	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	7	187	457	69	6	281	506	91	83	306	34	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	194	457	69	0	287	506	91	83	340	0	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	20.0	20.0	53.0	20.0	17.0	17.0	50.0	30.0	20.0	20.0		30.0
Total Split (%)	16.7%	16.7%	44.2%	16.7%	14.2%	14.2%	41.7%	25.0%	16.7%	16.7%		25.0%
Maximum Green (s)	13.2	13.2	45.9	13.2	10.6	10.6	42.9	23.3	13.2	13.6		23.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		11.3	25.5	41.1		35.7	49.5	71.4	8.5	17.4		
Actuated g/C Ratio		0.09	0.21	0.34		0.30	0.41	0.60	0.07	0.14		
v/c Ratio		0.60	0.61	0.13		0.55	0.35	0.10	0.34	0.67		
Control Delay		59.9	45.6	25.6		43.2	26.5	12.0	56.6	55.2		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		59.9	45.6	25.6		43.2	26.5	12.0	56.6	55.2		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11am-12pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	241	187	287
Future Volume (vph)	241	187	287
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	268	208	319
Shared Lane Traffic (%)			
Lane Group Flow (vph)	271	208	319
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	30.0	30.0	20.0
Total Split (%)	25.0%	25.0%	16.7%
Maximum Green (s)	23.3	23.5	13.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effct Green (s)	14.7	23.5	41.3
Actuated g/C Ratio	0.12	0.20	0.34
v/c Ratio	0.64	0.30	0.59
Control Delay	57.1	41.5	36.1
Queue Delay	0.0	0.0	0.0
Total Delay	57.1	41.5	36.1

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11am-12pm Dual
08/28/2020

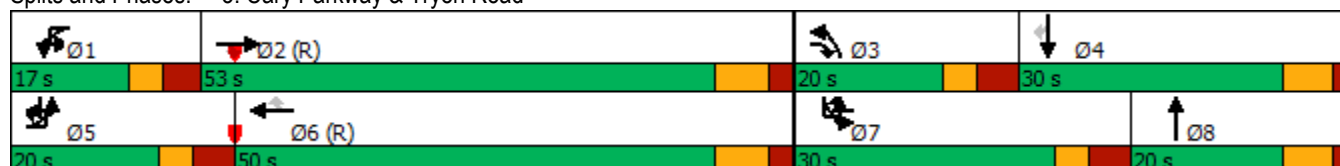
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		E	D	C		D	C	B	E	E		
Approach Delay			47.6				30.4			55.5		
Approach LOS			D				C			E		
Queue Length 50th (ft)		75	165	35		192	138	29	31	132		
Queue Length 95th (ft)		111	210	64		#377	213	60	57	177		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		384	1353	604		526	1484	1054	377	507		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.51	0.34	0.11		0.55	0.34	0.09	0.22	0.67		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 135
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 42.6
Intersection Capacity Utilization 64.9%
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
! Phase conflict between lane groups.

Intersection LOS: D
ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11am-12pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	E	D	D
Approach Delay		44.7	
Approach LOS		D	
Queue Length 50th (ft)	104	72	202
Queue Length 95th (ft)	144	103	265
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	666	743	572
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.41	0.28	0.56
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11am-12pm DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	6	168	411	62	5	253	455	82	75	275	31	3
Future Volume (vph)	6	168	411	62	5	253	455	82	75	275	31	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		1		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.985		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	3433	3486	0	0
Flt Permitted		0.415				0.950			0.950			
Satd. Flow (perm)	0	773	3539	1583	0	1770	3539	1583	3433	3486	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	7	187	457	69	6	281	506	91	83	306	34	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	194	457	69	0	287	506	91	83	340	0	0
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases	6	6		2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	20.0	20.0	53.0	20.0	17.0	17.0	50.0	30.0	20.0	20.0		30.0
Total Split (%)	16.7%	16.7%	44.2%	16.7%	14.2%	14.2%	41.7%	25.0%	16.7%	16.7%		25.0%
Maximum Green (s)	13.2	13.2	45.9	13.2	10.6	10.6	42.9	23.3	13.2	13.6		23.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		61.1	25.5	41.1		35.7	48.6	70.5	8.5	17.4		
Actuated g/C Ratio		0.51	0.21	0.34		0.30	0.40	0.59	0.07	0.14		
v/c Ratio		0.39	0.61	0.13		0.55	0.35	0.10	0.34	0.67		
Control Delay		16.6	45.6	25.6		43.2	27.5	12.7	56.6	55.2		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		16.6	45.6	25.6		43.2	27.5	12.7	56.6	55.2		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11am-12pm DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations	LT	TH	RT
Traffic Volume (vph)	241	187	287
Future Volume (vph)	241	187	287
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	268	208	319
Shared Lane Traffic (%)			
Lane Group Flow (vph)	271	208	319
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	30.0	30.0	20.0
Total Split (%)	25.0%	25.0%	16.7%
Maximum Green (s)	23.3	23.5	13.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effct Green (s)	14.7	23.5	42.2
Actuated g/C Ratio	0.12	0.20	0.35
v/c Ratio	0.64	0.30	0.57
Control Delay	57.1	41.5	34.8
Queue Delay	0.0	0.0	0.0
Total Delay	57.1	41.5	34.8

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11am-12pm DLTi
08/28/2020

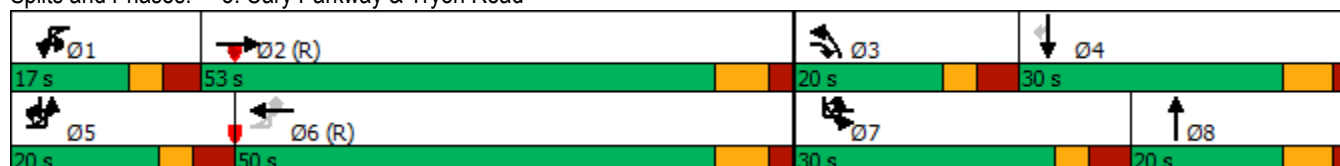
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		B	D	C		D	C	B	E	E		
Approach Delay			35.9				31.1			55.5		
Approach LOS			D				C			E		
Queue Length 50th (ft)		70	165	35		192	140	29	31	132		
Queue Length 95th (ft)		127	210	64		#377	221	64	57	177		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		523	1353	604		526	1474	1042	377	507		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.37	0.34	0.11		0.55	0.34	0.09	0.22	0.67		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green
Natural Cycle: 135
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 39.7
Intersection Capacity Utilization 68.7%
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
! Phase conflict between lane groups.

Intersection LOS: D
ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11am-12pm DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	E	D	C
Approach Delay		44.1	
Approach LOS		D	
Queue Length 50th (ft)	104	72	199
Queue Length 95th (ft)	144	103	253
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	666	743	582
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.41	0.28	0.55
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1pm Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	10	273	524	82	17	56	640	314	79	265	39	6
Future Volume (vph)	10	273	524	82	17	56	640	314	79	265	39	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		2		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.981		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3472	0	0
Flt Permitted		0.950				0.950			0.950			
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3472	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	11	303	582	91	19	62	711	349	88	294	43	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	314	582	91	0	81	711	349	88	337	0	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	20.0	20.0	53.0	20.0	17.0	17.0	50.0	30.0	20.0	20.0		30.0
Total Split (%)	16.7%	16.7%	44.2%	16.7%	14.2%	14.2%	41.7%	25.0%	16.7%	16.7%		25.0%
Maximum Green (s)	13.2	13.2	45.9	13.2	10.6	10.6	42.9	23.3	13.2	13.6		23.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		15.4	53.9	69.6		10.5	45.9	67.3	8.6	17.4		
Actuated g/C Ratio		0.13	0.45	0.58		0.09	0.38	0.56	0.07	0.14		
v/c Ratio		0.71	0.37	0.10		0.52	0.53	0.39	0.36	0.67		
Control Delay		59.5	25.1	14.4		64.0	31.9	17.4	56.8	55.3		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		59.5	25.1	14.4		64.0	31.9	17.4	56.8	55.3		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations	 	 	
Traffic Volume (vph)	221	242	305
Future Volume (vph)	221	242	305
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	246	269	339
Shared Lane Traffic (%)			
Lane Group Flow (vph)	253	269	339
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	30.0	30.0	20.0
Total Split (%)	25.0%	25.0%	16.7%
Maximum Green (s)	23.3	23.5	13.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effect Green (s)	14.3	22.8	44.8
Actuated g/C Ratio	0.12	0.19	0.37
v/c Ratio	0.62	0.40	0.57
Control Delay	56.7	43.5	33.4
Queue Delay	0.0	0.0	0.0
Total Delay	56.7	43.5	33.4

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1pm Dual
08/28/2020

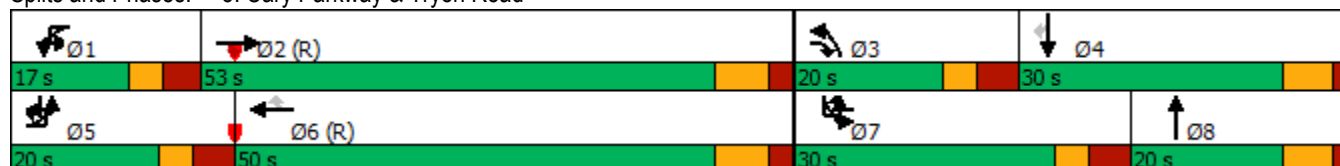
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		E	C	B		E	C	B	E	E		
Approach Delay			35.1				29.7			55.6		
Approach LOS			D				C			E		
Queue Length 50th (ft)		121	160	32		61	223	148	34	131		
Queue Length 95th (ft)		171	242	69		111	316	232	60	176		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		447	1622	978		170	1408	1006	377	504		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.70	0.36	0.09		0.48	0.50	0.35	0.23	0.67		

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 37.9
 Intersection Capacity Utilization 73.4%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	E	D	C
Approach Delay		43.4	
Approach LOS		D	
Queue Length 50th (ft)	97	96	205
Queue Length 95th (ft)	135	130	279
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	666	735	593
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.38	0.37	0.57
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1pm DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	10	273	524	82	17	56	640	314	79	265	39	6
Future Volume (vph)	10	273	524	82	17	56	640	314	79	265	39	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		1		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.981		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	3433	3472	0	0
Flt Permitted		0.270				0.950			0.950			
Satd. Flow (perm)	0	503	3539	1583	0	1770	3539	1583	3433	3472	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	11	303	582	91	19	62	711	349	88	294	43	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	314	582	91	0	81	711	349	88	337	0	0
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases	6	6		2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	20.0	20.0	53.0	20.0	17.0	17.0	50.0	30.0	20.0	20.0		30.0
Total Split (%)	16.7%	16.7%	44.2%	16.7%	14.2%	14.2%	41.7%	25.0%	16.7%	16.7%		25.0%
Maximum Green (s)	13.2	13.2	45.9	13.2	10.6	10.6	42.9	23.3	13.2	13.6		23.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		61.6	53.9	69.6		10.5	44.0	65.4	8.6	17.4		
Actuated g/C Ratio		0.51	0.45	0.58		0.09	0.37	0.54	0.07	0.14		
v/c Ratio		0.71	0.37	0.10		0.52	0.55	0.40	0.36	0.67		
Control Delay		26.2	25.1	14.4		64.0	33.6	18.6	56.8	55.3		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		26.2	25.1	14.4		64.0	33.6	18.6	56.8	55.3		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1pm DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	221	242	305
Future Volume (vph)	221	242	305
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	246	269	339
Shared Lane Traffic (%)			
Lane Group Flow (vph)	253	269	339
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	30.0	30.0	20.0
Total Split (%)	25.0%	25.0%	16.7%
Maximum Green (s)	23.3	23.5	13.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effect Green (s)	14.3	22.8	46.7
Actuated g/C Ratio	0.12	0.19	0.39
v/c Ratio	0.62	0.40	0.55
Control Delay	56.7	43.5	31.4
Queue Delay	0.0	0.0	0.0
Total Delay	56.7	43.5	31.4

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1pm DLTi
08/28/2020

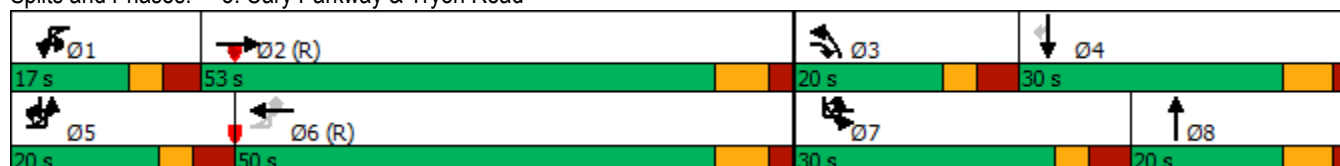
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		C	C	B		E	C	B	E	E		
Approach Delay			24.5				31.2			55.6		
Approach LOS			C				C			E		
Queue Length 50th (ft)		121	160	32		61	233	157	34	131		
Queue Length 95th (ft)		#241	242	69		111	316	232	60	176		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		441	1622	978		170	1375	981	377	504		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.71	0.36	0.09		0.48	0.52	0.36	0.23	0.67		

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 35.2
 Intersection Capacity Utilization 81.0%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 ! Phase conflict between lane groups.

Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

12-1pm DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	E	D	C
Approach Delay		42.6	
Approach LOS		D	
Queue Length 50th (ft)	97	96	197
Queue Length 95th (ft)	135	130	279
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	666	735	615
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.38	0.37	0.55
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2pm Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	3	237	488	90	20	73	641	293	81	264	24	4
Future Volume (vph)	3	237	488	90	20	73	641	293	81	264	24	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		2		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.987		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3493	0	0
Flt Permitted		0.950				0.950			0.950			
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3493	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	3	263	542	100	22	81	712	326	90	293	27	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	542	100	0	103	712	326	90	320	0	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	20.0	20.0	53.0	20.0	17.0	17.0	50.0	30.0	20.0	20.0		30.0
Total Split (%)	16.7%	16.7%	44.2%	16.7%	14.2%	14.2%	41.7%	25.0%	16.7%	16.7%		25.0%
Maximum Green (s)	13.2	13.2	45.9	13.2	10.6	10.6	42.9	23.3	13.2	13.6		23.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		14.1	50.8	66.5		11.9	48.3	69.6	8.7	16.5		
Actuated g/C Ratio		0.12	0.42	0.55		0.10	0.40	0.58	0.07	0.14		
v/c Ratio		0.66	0.36	0.11		0.59	0.50	0.36	0.36	0.67		
Control Delay		58.7	26.1	14.9		64.9	30.0	15.7	56.9	56.0		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		58.7	26.1	14.9		64.9	30.0	15.7	56.9	56.0		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations	 	 	
Traffic Volume (vph)	221	244	221
Future Volume (vph)	221	244	221
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	246	271	246
Shared Lane Traffic (%)			
Lane Group Flow (vph)	250	271	246
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	30.0	30.0	20.0
Total Split (%)	25.0%	25.0%	16.7%
Maximum Green (s)	23.3	23.5	13.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effect Green (s)	14.2	21.8	42.4
Actuated g/C Ratio	0.12	0.18	0.35
v/c Ratio	0.62	0.42	0.44
Control Delay	56.7	44.7	31.2
Queue Delay	0.0	0.0	0.0
Total Delay	56.7	44.7	31.2

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2pm Dual
08/28/2020

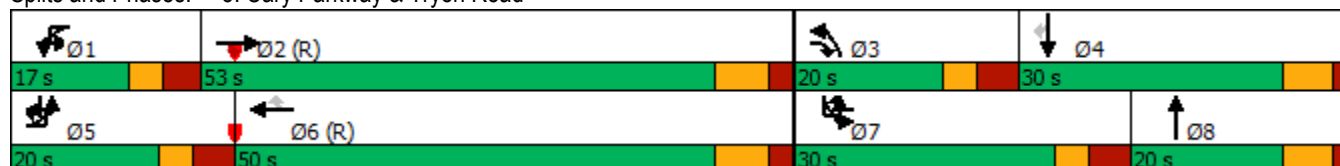
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		E	C	B		E	C	B	E	E		
Approach Delay			34.4				29.1			56.2		
Approach LOS			C				C			E		
Queue Length 50th (ft)		102	149	36		77	215	128	35	125		
Queue Length 95th (ft)		145	225	74		135	316	215	61	169		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		420	1535	937		183	1455	1037	377	486		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.63	0.35	0.11		0.56	0.49	0.31	0.24	0.66		

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 37.6
 Intersection Capacity Utilization 67.0%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	E	D	C
Approach Delay		44.3	
Approach LOS		D	
Queue Length 50th (ft)	96	98	144
Queue Length 95th (ft)	134	132	195
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	666	723	567
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.38	0.37	0.43
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2pm DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	3	237	488	90	20	73	641	293	81	264	24	4
Future Volume (vph)	3	237	488	90	20	73	641	293	81	264	24	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		1		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.987		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	3433	3493	0	0
Flt Permitted		0.284				0.950			0.950			
Satd. Flow (perm)	0	529	3539	1583	0	1770	3539	1583	3433	3493	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	3	263	542	100	22	81	712	326	90	293	27	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	542	100	0	103	712	326	90	320	0	0
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases	6	6		2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	20.0	20.0	53.0	20.0	17.0	17.0	50.0	30.0	20.0	20.0		30.0
Total Split (%)	16.7%	16.7%	44.2%	16.7%	14.2%	14.2%	41.7%	25.0%	16.7%	16.7%		25.0%
Maximum Green (s)	13.2	13.2	45.9	13.2	10.6	10.6	42.9	23.3	13.2	13.6		23.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		62.6	50.8	66.5		11.9	47.3	68.6	8.7	16.5		
Actuated g/C Ratio		0.52	0.42	0.55		0.10	0.39	0.57	0.07	0.14		
v/c Ratio		0.62	0.36	0.11		0.59	0.51	0.36	0.36	0.67		
Control Delay		20.9	26.1	14.9		64.9	30.8	16.3	56.9	56.0		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		20.9	26.1	14.9		64.9	30.8	16.3	56.9	56.0		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2pm DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations	 	 	
Traffic Volume (vph)	221	244	221
Future Volume (vph)	221	244	221
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	246	271	246
Shared Lane Traffic (%)			
Lane Group Flow (vph)	250	271	246
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	30.0	30.0	20.0
Total Split (%)	25.0%	25.0%	16.7%
Maximum Green (s)	23.3	23.5	13.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effect Green (s)	14.2	21.8	43.3
Actuated g/C Ratio	0.12	0.18	0.36
v/c Ratio	0.62	0.42	0.43
Control Delay	56.7	44.7	30.4
Queue Delay	0.0	0.0	0.0
Total Delay	56.7	44.7	30.4

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2pm DLTi
08/28/2020

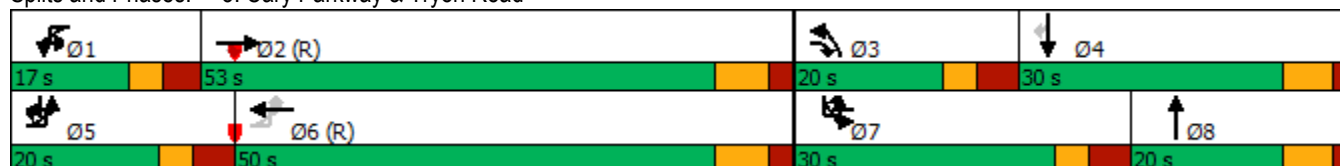
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		C	C	B		E	C	B	E	E		
Approach Delay			23.3				29.8			56.2		
Approach LOS			C				C			E		
Queue Length 50th (ft)		97	149	36		77	220	132	35	125		
Queue Length 95th (ft)		173	225	74		135	316	215	61	169		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		439	1535	937		183	1443	1025	377	486		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.61	0.35	0.11		0.56	0.49	0.32	0.24	0.66		

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 34.7
 Intersection Capacity Utilization 73.4%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

1-2pm DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	E	D	C
Approach Delay		44.0	
Approach LOS		D	
Queue Length 50th (ft)	96	98	141
Queue Length 95th (ft)	134	132	195
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	666	723	578
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.38	0.37	0.43
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3pm Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	10	271	469	70	5	52	554	265	56	257	32	3
Future Volume (vph)	10	271	469	70	5	52	554	265	56	257	32	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		2		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.983		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3479	0	0
Flt Permitted		0.950				0.950			0.950			
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3479	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	11	301	521	78	6	58	616	294	62	286	36	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	312	521	78	0	64	616	294	62	322	0	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	20.0	20.0	53.0	20.0	17.0	17.0	50.0	30.0	20.0	20.0		30.0
Total Split (%)	16.7%	16.7%	44.2%	16.7%	14.2%	14.2%	41.7%	25.0%	16.7%	16.7%		25.0%
Maximum Green (s)	13.2	13.2	45.9	13.2	10.6	10.6	42.9	23.3	13.2	13.6		23.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		16.5	56.6	71.6		9.9	46.9	67.0	7.9	16.6		
Actuated g/C Ratio		0.14	0.47	0.60		0.08	0.39	0.56	0.07	0.14		
v/c Ratio		0.66	0.31	0.08		0.44	0.45	0.33	0.28	0.67		
Control Delay		55.8	22.6	13.5		61.2	30.0	16.9	56.2	56.0		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		55.8	22.6	13.5		61.2	30.0	16.9	56.2	56.0		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations	 	 	
Traffic Volume (vph)	195	266	218
Future Volume (vph)	195	266	218
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	217	296	242
Shared Lane Traffic (%)			
Lane Group Flow (vph)	220	296	242
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	30.0	30.0	20.0
Total Split (%)	25.0%	25.0%	16.7%
Maximum Green (s)	23.3	23.5	13.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effect Green (s)	13.0	21.5	44.5
Actuated g/C Ratio	0.11	0.18	0.37
v/c Ratio	0.59	0.47	0.41
Control Delay	57.4	45.8	29.0
Queue Delay	0.0	0.0	0.0
Total Delay	57.4	45.8	29.0

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3pm Dual
08/28/2020

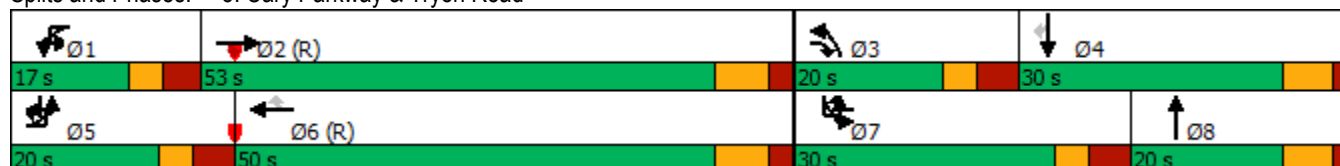
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		E	C	B		E	C	B	E	E		
Approach Delay			33.2				28.1			56.0		
Approach LOS			C				C			E		
Queue Length 50th (ft)		120	134	26		48	182	117	24	126		
Queue Length 95th (ft)		161	207	59		92	277	208	46	170		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		477	1685	1014		166	1436	1019	377	487		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.65	0.31	0.08		0.39	0.43	0.29	0.16	0.66		

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 37.1
 Intersection Capacity Utilization 65.6%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	E	D	C
Approach Delay		43.8	
Approach LOS		D	
Queue Length 50th (ft)	85	108	137
Queue Length 95th (ft)	122	145	181
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	666	721	589
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.33	0.41	0.41
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3pm DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	10	271	469	70	5	52	554	265	56	257	32	3
Future Volume (vph)	10	271	469	70	5	52	554	265	56	257	32	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		1		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.983		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	3433	3479	0	0
Flt Permitted		0.331				0.950			0.950			
Satd. Flow (perm)	0	617	3539	1583	0	1770	3539	1583	3433	3479	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	11	301	521	78	6	58	616	294	62	286	36	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	312	521	78	0	64	616	294	62	322	0	0
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases	6	6		2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	20.0	20.0	53.0	20.0	17.0	17.0	50.0	30.0	20.0	20.0		30.0
Total Split (%)	16.7%	16.7%	44.2%	16.7%	14.2%	14.2%	41.7%	25.0%	16.7%	16.7%		25.0%
Maximum Green (s)	13.2	13.2	45.9	13.2	10.6	10.6	42.9	23.3	13.2	13.6		23.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		63.7	56.6	71.6		9.9	45.0	65.1	7.9	16.6		
Actuated g/C Ratio		0.53	0.47	0.60		0.08	0.38	0.54	0.07	0.14		
v/c Ratio		0.62	0.31	0.08		0.44	0.46	0.34	0.28	0.67		
Control Delay		19.7	22.6	13.5		61.2	31.7	18.2	56.2	56.0		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		19.7	22.6	13.5		61.2	31.7	18.2	56.2	56.0		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3pm DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations			
Traffic Volume (vph)	195	266	218
Future Volume (vph)	195	266	218
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	217	296	242
Shared Lane Traffic (%)			
Lane Group Flow (vph)	220	296	242
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	30.0	30.0	20.0
Total Split (%)	25.0%	25.0%	16.7%
Maximum Green (s)	23.3	23.5	13.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effct Green (s)	13.0	21.5	46.5
Actuated g/C Ratio	0.11	0.18	0.39
v/c Ratio	0.59	0.47	0.40
Control Delay	57.4	45.8	27.3
Queue Delay	0.0	0.0	0.0
Total Delay	57.4	45.8	27.3

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3pm DLTi
08/28/2020

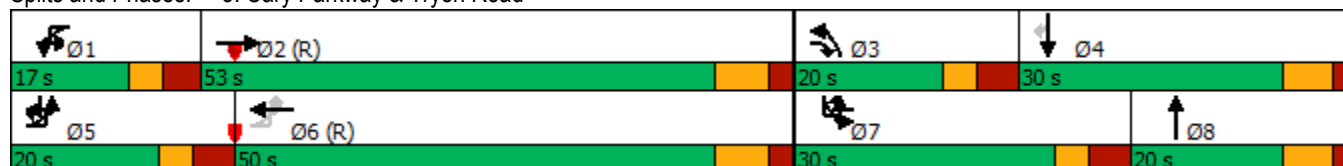
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		B	C	B		E	C	B	E	E		
Approach Delay			20.8				29.6			56.0		
Approach LOS			C				C			E		
Queue Length 50th (ft)		115	134	26		48	187	122	24	126		
Queue Length 95th (ft)		197	207	59		92	283	215	46	170		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		504	1685	1014		166	1409	993	377	487		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.62	0.31	0.08		0.39	0.44	0.30	0.16	0.66		

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 33.7
 Intersection Capacity Utilization 73.1%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

2-3pm DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	E	D	C
Approach Delay		43.2	
Approach LOS		D	
Queue Length 50th (ft)	85	108	134
Queue Length 95th (ft)	122	145	175
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	666	721	612
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.33	0.41	0.40
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-3:45pm Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	7	277	614	85	12	58	636	315	3	71	261	23
Future Volume (vph)	7	277	614	85	12	58	636	315	3	71	261	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250		275		0
Storage Lanes		2		1		1		1		2		0
Taper Length (ft)		100				100				100		
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.97	0.95	0.95
Frt				0.850				0.850			0.988	
Flt Protected		0.950				0.950				0.950		
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	0	3433	3497	0
Flt Permitted		0.950				0.950				0.278		
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	0	1005	3497	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)			45				45				45	
Link Distance (ft)			889				970				633	
Travel Time (s)			13.5				14.7				9.6	
Peak Hour Factor	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)	8	308	682	94	13	64	707	350	3	79	290	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	316	682	94	0	77	707	350	0	82	316	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	custom	Prot	NA	
Protected Phases	5!	5	2	3!	1	1	6	7!		3	8	
Permitted Phases				2				6	3!			
Detector Phase	5	5	2	3	1	1	6	7	3	3	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	7.0	10.0	
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	13.8	45.4	
Total Split (s)	20.0	20.0	53.0	20.0	17.0	17.0	50.0	30.0	20.0	20.0	20.0	
Total Split (%)	16.7%	16.7%	44.2%	16.7%	14.2%	14.2%	41.7%	25.0%	16.7%	16.7%	16.7%	
Maximum Green (s)	13.2	13.2	45.9	13.2	10.6	10.6	42.9	23.3	13.2	13.2	13.6	
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	3.0	4.5	
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	3.8	1.9	
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1		6.8	6.4	
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None	None	
Walk Time (s)			7.0				7.0				7.0	
Flash Dont Walk (s)			33.0				35.0				32.0	
Pedestrian Calls (#/hr)			0				0				0	
Act Effect Green (s)		15.5	53.8	75.2		10.2	45.4	68.2		14.4	16.3	
Actuated g/C Ratio		0.13	0.45	0.63		0.08	0.38	0.57		0.12	0.14	
v/c Ratio		0.71	0.43	0.09		0.51	0.53	0.39		0.68	0.66	
Control Delay		59.5	26.2	11.1		64.1	32.3	16.7		77.3	56.0	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		59.5	26.2	11.1		64.1	32.3	16.7		77.3	56.0	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-3:45pm Dual
08/28/2020

				
Lane Group	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (vph)	8	258	286	220
Future Volume (vph)	8	258	286	220
Ideal Flow (vphpl)	1900	1900	1900	1900
Storage Length (ft)		350		400
Storage Lanes		2		1
Taper Length (ft)		100		
Lane Util. Factor	0.95	0.97	0.95	1.00
Frt				0.850
Flt Protected		0.950		
Satd. Flow (prot)	0	3433	3539	1583
Flt Permitted		0.950		
Satd. Flow (perm)	0	3433	3539	1583
Right Turn on Red				No
Satd. Flow (RTOR)				
Link Speed (mph)			45	
Link Distance (ft)			777	
Travel Time (s)			11.8	
Peak Hour Factor	0.90	0.90	0.90	0.90
Adj. Flow (vph)	9	287	318	244
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	296	318	244
Turn Type	Prot	Prot	NA	pm+ov
Protected Phases	7!	7	4	5!
Permitted Phases				4
Detector Phase	7	7	4	5
Switch Phase				
Minimum Initial (s)	7.0	7.0	10.0	7.0
Minimum Split (s)	13.7	13.7	43.5	13.8
Total Split (s)	30.0	30.0	30.0	20.0
Total Split (%)	25.0%	25.0%	25.0%	16.7%
Maximum Green (s)	23.3	23.3	23.5	13.2
Yellow Time (s)	3.0	3.0	4.6	3.0
All-Red Time (s)	3.7	3.7	1.9	3.8
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		6.7	6.5	6.8
Lead/Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)			7.0	
Flash Dont Walk (s)			30.0	
Pedestrian Calls (#/hr)			0	
Act Effect Green (s)		15.8	17.5	39.6
Actuated g/C Ratio		0.13	0.15	0.33
v/c Ratio		0.66	0.62	0.47
Control Delay		56.4	53.3	34.6
Queue Delay		0.0	0.0	0.0
Total Delay		56.4	53.3	34.6

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-3:45pm Dual
08/28/2020

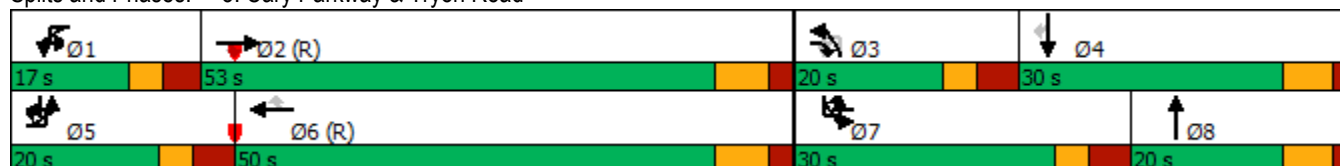
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
LOS		E	C	B		E	C	B		E	E	
Approach Delay			34.5				29.6				60.4	
Approach LOS			C				C				E	
Queue Length 50th (ft)		121	194	29		58	225	147		31	123	
Queue Length 95th (ft)		173	290	60		107	315	226		59	167	
Internal Link Dist (ft)			809				890				553	
Turn Bay Length (ft)		400		525		200		250		275		
Base Capacity (vph)		448	1620	1008		166	1394	999		130	484	
Starvation Cap Reductn		0	0	0		0	0	0		0	0	
Spillback Cap Reductn		0	0	0		0	0	0		0	0	
Storage Cap Reductn		0	0	0		0	0	0		0	0	
Reduced v/c Ratio		0.71	0.42	0.09		0.46	0.51	0.35		0.63	0.65	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 125
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 39.5
Intersection Capacity Utilization 68.1%
Analysis Period (min) 15
! Phase conflict between lane groups.

Intersection LOS: D
ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-3:45pm Dual
08/28/2020

Lane Group	SBU	SBL	SBT	SBR
LOS		E	D	C
Approach Delay			49.0	
Approach LOS			D	
Queue Length 50th (ft)		113	124	148
Queue Length 95th (ft)		154	165	218
Internal Link Dist (ft)			697	
Turn Bay Length (ft)		350		400
Base Capacity (vph)		666	693	523
Starvation Cap Reductn		0	0	0
Spillback Cap Reductn		0	0	0
Storage Cap Reductn		0	0	0
Reduced v/c Ratio		0.44	0.46	0.47
Intersection Summary				

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-3:45pm DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	7	277	614	85	12	58	636	315	3	71	261	23
Future Volume (vph)	7	277	614	85	12	58	636	315	3	71	261	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250		275		0
Storage Lanes		1		1		1		1		2		0
Taper Length (ft)		100				100				100		
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.97	0.95	0.95
Frt				0.850				0.850			0.988	
Flt Protected		0.950				0.950				0.950		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	0	3433	3497	0
Flt Permitted		0.265				0.950				0.278		
Satd. Flow (perm)	0	494	3539	1583	0	1770	3539	1583	0	1005	3497	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)			45				45				45	
Link Distance (ft)			889				970				633	
Travel Time (s)			13.5				14.7				9.6	
Peak Hour Factor	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)	8	308	682	94	13	64	707	350	3	79	290	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	316	682	94	0	77	707	350	0	82	316	0
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	custom	Prot	NA	
Protected Phases	5!	5	2	3!	1	1	6	7!		3	8	
Permitted Phases	6	6		2				6	3!			
Detector Phase	5	5	2	3	1	1	6	7	3	3	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	7.0	10.0	
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	13.8	45.4	
Total Split (s)	20.0	20.0	53.0	20.0	17.0	17.0	50.0	30.0	20.0	20.0	20.0	
Total Split (%)	16.7%	16.7%	44.2%	16.7%	14.2%	14.2%	41.7%	25.0%	16.7%	16.7%	16.7%	
Maximum Green (s)	13.2	13.2	45.9	13.2	10.6	10.6	42.9	23.3	13.2	13.2	13.6	
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	3.0	4.5	
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	3.8	1.9	
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1		6.8	6.4	
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None	None	
Walk Time (s)			7.0				7.0				7.0	
Flash Dont Walk (s)			33.0				35.0				32.0	
Pedestrian Calls (#/hr)			0				0				0	
Act Effect Green (s)		61.2	53.8	75.2		10.2	42.6	65.4		14.4	16.3	
Actuated g/C Ratio		0.51	0.45	0.63		0.08	0.36	0.54		0.12	0.14	
v/c Ratio		0.71	0.43	0.09		0.51	0.56	0.41		0.68	0.66	
Control Delay		26.6	26.2	11.1		64.1	34.7	18.4		77.3	56.0	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		26.6	26.2	11.1		64.1	34.7	18.4		77.3	56.0	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-3:45pm DLTi
08/28/2020

				
Lane Group	SBU	SBL	SBT	SBR
Lane Configurations				
Traffic Volume (vph)	8	258	286	220
Future Volume (vph)	8	258	286	220
Ideal Flow (vphpl)	1900	1900	1900	1900
Storage Length (ft)		350		400
Storage Lanes		2		1
Taper Length (ft)		100		
Lane Util. Factor	0.95	0.97	0.95	1.00
Frt				0.850
Flt Protected		0.950		
Satd. Flow (prot)	0	3433	3539	1583
Flt Permitted		0.950		
Satd. Flow (perm)	0	3433	3539	1583
Right Turn on Red				No
Satd. Flow (RTOR)				
Link Speed (mph)			45	
Link Distance (ft)			777	
Travel Time (s)			11.8	
Peak Hour Factor	0.90	0.90	0.90	0.90
Adj. Flow (vph)	9	287	318	244
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	296	318	244
Turn Type	Prot	Prot	NA	pm+ov
Protected Phases	7!	7	4	5!
Permitted Phases				4
Detector Phase	7	7	4	5
Switch Phase				
Minimum Initial (s)	7.0	7.0	10.0	7.0
Minimum Split (s)	13.7	13.7	43.5	13.8
Total Split (s)	30.0	30.0	30.0	20.0
Total Split (%)	25.0%	25.0%	25.0%	16.7%
Maximum Green (s)	23.3	23.3	23.5	13.2
Yellow Time (s)	3.0	3.0	4.6	3.0
All-Red Time (s)	3.7	3.7	1.9	3.8
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		6.7	6.5	6.8
Lead/Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)			7.0	
Flash Dont Walk (s)			30.0	
Pedestrian Calls (#/hr)			0	
Act Effect Green (s)		15.8	17.5	42.4
Actuated g/C Ratio		0.13	0.15	0.35
v/c Ratio		0.66	0.62	0.44
Control Delay		56.4	53.3	32.1
Queue Delay		0.0	0.0	0.0
Total Delay		56.4	53.3	32.1

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-3:45pm DLTi
08/28/2020

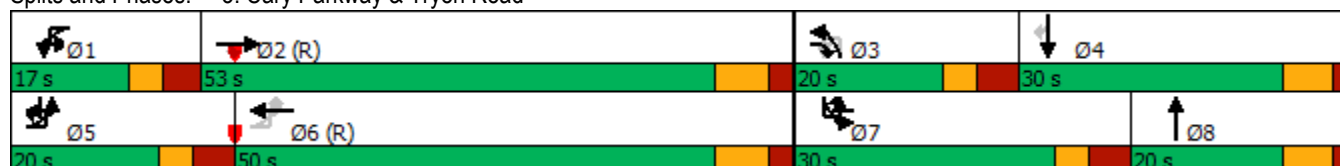
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
LOS		C	C	B		E	C	B		E	E	
Approach Delay			25.0				31.7				60.4	
Approach LOS			C				C				E	
Queue Length 50th (ft)		123	194	29		58	240	161		31	123	
Queue Length 95th (ft)		#256	290	60		107	315	226		59	167	
Internal Link Dist (ft)			809				890				553	
Turn Bay Length (ft)		400		525		200		250		275		
Base Capacity (vph)		446	1620	1008		166	1355	962		130	484	
Starvation Cap Reductn		0	0	0		0	0	0		0	0	
Spillback Cap Reductn		0	0	0		0	0	0		0	0	
Storage Cap Reductn		0	0	0		0	0	0		0	0	
Reduced v/c Ratio		0.71	0.42	0.09		0.46	0.52	0.36		0.63	0.65	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 37.0
 Intersection Capacity Utilization 75.7%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 ! Phase conflict between lane groups.

Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3-3:45pm DLTi
08/28/2020

				
Lane Group	SBU	SBL	SBT	SBR
LOS		E	D	C
Approach Delay			48.3	
Approach LOS			D	
Queue Length 50th (ft)		113	124	139
Queue Length 95th (ft)		154	165	218
Internal Link Dist (ft)			697	
Turn Bay Length (ft)		350		400
Base Capacity (vph)		666	693	558
Starvation Cap Reductn		0	0	0
Spillback Cap Reductn		0	0	0
Storage Cap Reductn		0	0	0
Reduced v/c Ratio		0.44	0.46	0.44
Intersection Summary				

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3:45-4pm Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	7	277	614	85	12	58	636	315	3	71	261	23
Future Volume (vph)	7	277	614	85	12	58	636	315	3	71	261	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250		275		0
Storage Lanes		2		1		1		1		2		0
Taper Length (ft)		100				100				100		
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.97	0.95	0.95
Frt				0.850				0.850			0.988	
Flt Protected		0.950				0.950				0.950		
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	0	3433	3497	0
Flt Permitted		0.950				0.950				0.430		
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	0	1554	3497	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)			45				45				45	
Link Distance (ft)			889				970				633	
Travel Time (s)			13.5				14.7				9.6	
Peak Hour Factor	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)	8	308	682	94	13	64	707	350	3	79	290	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	316	682	94	0	77	707	350	0	82	316	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	custom	Prot	NA	
Protected Phases	5!	5	2	3!	1	1	6	7!		3	8	
Permitted Phases				2				6	3!			
Detector Phase	5	5	2	3	1	1	6	7	3	3	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	7.0	10.0	
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	13.8	45.4	
Total Split (s)	20.0	20.0	45.0	15.0	15.0	15.0	40.0	34.0	15.0	15.0	26.0	
Total Split (%)	16.7%	16.7%	37.5%	12.5%	12.5%	12.5%	33.3%	28.3%	12.5%	12.5%	21.7%	
Maximum Green (s)	13.2	13.2	37.9	8.2	8.6	8.6	32.9	27.3	8.2	8.2	19.6	
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	3.0	4.5	
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	3.8	1.9	
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.8	7.1	6.8		6.4	7.1	6.7		6.8	6.4	
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None	None	
Walk Time (s)			7.0				7.0				7.0	
Flash Dont Walk (s)			33.0				35.0				32.0	
Pedestrian Calls (#/hr)			0				0				0	
Act Effect Green (s)		16.4	53.4	69.8		10.8	44.7	67.6		9.3	16.1	
Actuated g/C Ratio		0.14	0.44	0.58		0.09	0.37	0.56		0.08	0.13	
v/c Ratio		0.67	0.43	0.10		0.48	0.54	0.39		0.68	0.68	
Control Delay		56.5	26.7	15.0		61.5	33.2	17.4		81.6	56.7	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		56.5	26.7	15.0		61.5	33.2	17.4		81.6	56.7	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3:45-4pm Dual
08/28/2020

				
Lane Group	SBU	SBL	SBT	SBR
Lane Configurations		LT	LT	LT
Traffic Volume (vph)	8	258	286	220
Future Volume (vph)	8	258	286	220
Ideal Flow (vphpl)	1900	1900	1900	1900
Storage Length (ft)		350		400
Storage Lanes		2		1
Taper Length (ft)		100		
Lane Util. Factor	0.95	0.97	0.95	1.00
Frt				0.850
Flt Protected		0.950		
Satd. Flow (prot)	0	3433	3539	1583
Flt Permitted		0.950		
Satd. Flow (perm)	0	3433	3539	1583
Right Turn on Red				No
Satd. Flow (RTOR)				
Link Speed (mph)			45	
Link Distance (ft)			777	
Travel Time (s)			11.8	
Peak Hour Factor	0.90	0.90	0.90	0.90
Adj. Flow (vph)	9	287	318	244
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	296	318	244
Turn Type	Prot	Prot	NA	pm+ov
Protected Phases	7!	7	4	5!
Permitted Phases				4
Detector Phase	7	7	4	5
Switch Phase				
Minimum Initial (s)	7.0	7.0	10.0	7.0
Minimum Split (s)	13.7	13.7	43.5	13.8
Total Split (s)	34.0	34.0	45.0	20.0
Total Split (%)	28.3%	28.3%	37.5%	16.7%
Maximum Green (s)	27.3	27.3	38.5	13.2
Yellow Time (s)	3.0	3.0	4.6	3.0
All-Red Time (s)	3.7	3.7	1.9	3.8
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		6.7	6.5	6.8
Lead/Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)			7.0	
Flash Dont Walk (s)			30.0	
Pedestrian Calls (#/hr)			0	
Act Effect Green (s)		15.8	22.4	45.3
Actuated g/C Ratio		0.13	0.19	0.38
v/c Ratio		0.65	0.48	0.41
Control Delay		56.2	45.1	28.3
Queue Delay		0.0	0.0	0.0
Total Delay		56.2	45.1	28.3

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

3:45-4pm Dual
08/28/2020

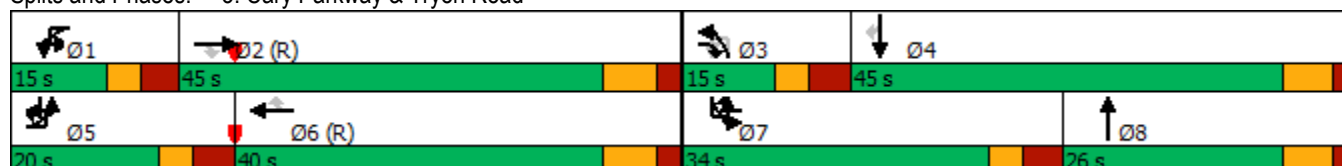
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
LOS		E	C	B		E	C	B		F	E	
Approach Delay			34.3				30.3				61.8	
Approach LOS			C				C				E	
Queue Length 50th (ft)		121	195	31		58	224	146		31	124	
Queue Length 95th (ft)		165	299	77		105	332	245		#78	167	
Internal Link Dist (ft)			809				890				553	
Turn Bay Length (ft)		400		525		200		250		275		
Base Capacity (vph)		473	1574	923		163	1317	1042		123	574	
Starvation Cap Reductn		0	0	0		0	0	0		0	0	
Spillback Cap Reductn		0	0	0		0	0	0		0	0	
Storage Cap Reductn		0	0	0		0	0	0		0	0	
Reduced v/c Ratio		0.67	0.43	0.10		0.47	0.54	0.34		0.67	0.55	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 38.6
 Intersection Capacity Utilization 68.1%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 ! Phase conflict between lane groups.

Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
 3: Cary Parkway & Tryon Road

3:45-4pm Dual
 08/28/2020

Lane Group	SBU	SBL	SBT	SBR
LOS		E	D	C
Approach Delay			44.2	
Approach LOS			D	
Queue Length 50th (ft)		113	119	141
Queue Length 95th (ft)		153	146	172
Internal Link Dist (ft)			697	
Turn Bay Length (ft)		350		400
Base Capacity (vph)		781	1135	599
Starvation Cap Reductn		0	0	0
Spillback Cap Reductn		0	0	0
Storage Cap Reductn		0	0	0
Reduced v/c Ratio		0.38	0.28	0.41
Intersection Summary				

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

4-5pm Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	11	241	692	89	7	47	741	351	73	278	30	1
Future Volume (vph)	11	241	692	89	7	47	741	351	73	278	30	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		2		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.986		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3490	0	0
Flt Permitted		0.950				0.950			0.950			
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3490	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	12	268	769	99	8	52	823	390	81	309	33	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	280	769	99	0	60	823	390	81	342	0	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	20.0	20.0	45.0	15.0	15.0	15.0	40.0	34.0	15.0	26.0		34.0
Total Split (%)	16.7%	16.7%	37.5%	12.5%	12.5%	12.5%	33.3%	28.3%	12.5%	21.7%		28.3%
Maximum Green (s)	13.2	13.2	37.9	8.2	8.6	8.6	32.9	27.3	8.2	19.6		27.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		14.0	50.6	65.5		8.8	42.3	69.1	7.8	16.9		
Actuated g/C Ratio		0.12	0.42	0.55		0.07	0.35	0.58	0.06	0.14		
v/c Ratio		0.70	0.52	0.11		0.46	0.66	0.43	0.36	0.70		
Control Delay		60.7	29.8	16.9		64.8	37.6	17.0	58.4	56.5		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		60.7	29.8	16.9		64.8	37.6	17.0	58.4	56.5		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

4-5pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations	LT	TH	RT
Traffic Volume (vph)	355	375	219
Future Volume (vph)	355	375	219
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	394	417	243
Shared Lane Traffic (%)			
Lane Group Flow (vph)	395	417	243
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	34.0	45.0	20.0
Total Split (%)	28.3%	37.5%	16.7%
Maximum Green (s)	27.3	38.5	13.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effect Green (s)	19.7	28.7	49.2
Actuated g/C Ratio	0.16	0.24	0.41
v/c Ratio	0.70	0.49	0.37
Control Delay	54.0	40.5	25.2
Queue Delay	0.0	0.0	0.0
Total Delay	54.0	40.5	25.2

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

4-5pm Dual
08/28/2020

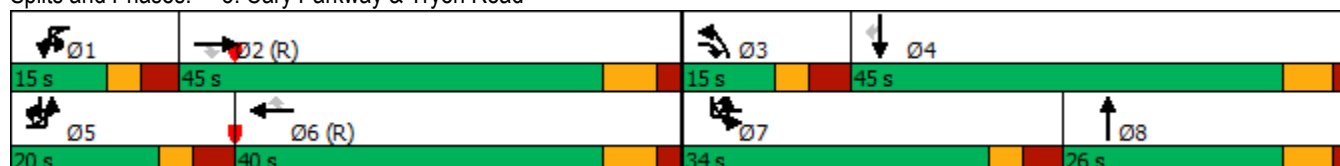
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		E	C	B		E	D	B	E	E		
Approach Delay			36.2				32.6			56.9		
Approach LOS			D				C			E		
Queue Length 50th (ft)		107	240	38		45	286	166	31	134		
Queue Length 95th (ft)		#158	344	80		91	#399	255	57	178		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		413	1492	869		136	1248	1012	234	579		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.68	0.52	0.11		0.44	0.66	0.39	0.35	0.59		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 135
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 38.8
Intersection Capacity Utilization 70.0%
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
! Phase conflict between lane groups.

Intersection LOS: D
ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

4-5pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	D	D	C
Approach Delay		42.0	
Approach LOS		D	
Queue Length 50th (ft)	150	147	127
Queue Length 95th (ft)	193	176	171
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	781	1135	654
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.51	0.37	0.37
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

5-6pm Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	6	253	795	253	6	85	942	406	1	69	243	30
Future Volume (vph)	6	253	795	253	6	85	942	406	1	69	243	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250		275		0
Storage Lanes		2		1		1		1		2		0
Taper Length (ft)		100				100				100		
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.97	0.95	0.95
Frt				0.850				0.850			0.984	
Flt Protected		0.950				0.950				0.950		
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	0	3433	3483	0
Flt Permitted		0.950				0.950				0.950		
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	0	3433	3483	0
Right Turn on Red				No				No				No
Satd. Flow (RTOR)												
Link Speed (mph)			45				45				45	
Link Distance (ft)			889				970				633	
Travel Time (s)			13.5				14.7				9.6	
Peak Hour Factor	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)	7	281	883	281	7	94	1047	451	1	77	270	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	288	883	281	0	101	1047	451	0	78	303	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	Prot	NA	
Protected Phases	5!	5	2	3!	1	1	6	7!	3!	3	8	
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	3	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	7.0	10.0	
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	13.8	45.4	
Total Split (s)	20.0	20.0	45.0	15.0	15.0	15.0	40.0	34.0	15.0	15.0	26.0	
Total Split (%)	16.7%	16.7%	37.5%	12.5%	12.5%	12.5%	33.3%	28.3%	12.5%	12.5%	21.7%	
Maximum Green (s)	13.2	13.2	37.9	8.2	8.6	8.6	32.9	27.3	8.2	8.2	19.6	
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	3.0	4.5	
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	3.8	1.9	
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.8	7.1	6.8		6.4	7.1	6.7		6.8	6.4	
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None	None	
Walk Time (s)			7.0				7.0				7.0	
Flash Dont Walk (s)			33.0				35.0				32.0	
Pedestrian Calls (#/hr)			0				0				0	
Act Effect Green (s)		13.9	42.7	57.5		10.5	38.9	70.5		7.8	15.6	
Actuated g/C Ratio		0.12	0.36	0.48		0.09	0.32	0.59		0.06	0.13	
v/c Ratio		0.72	0.70	0.37		0.66	0.91	0.48		0.35	0.67	
Control Delay		62.3	38.0	22.8		73.2	52.8	17.1		58.2	56.9	
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	
Total Delay		62.3	38.0	22.8		73.2	52.8	17.1		58.2	56.9	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

5-6pm Dual
08/28/2020

				
Lane Group	SBU	SBL	SBT	SBR
Lane Configurations		LT	LT	LT
Traffic Volume (vph)	2	507	480	285
Future Volume (vph)	2	507	480	285
Ideal Flow (vphpl)	1900	1900	1900	1900
Storage Length (ft)		350		400
Storage Lanes		2		1
Taper Length (ft)		100		
Lane Util. Factor	0.95	0.97	0.95	1.00
Frt				0.850
Flt Protected		0.950		
Satd. Flow (prot)	0	3433	3539	1583
Flt Permitted		0.950		
Satd. Flow (perm)	0	3433	3539	1583
Right Turn on Red				No
Satd. Flow (RTOR)				
Link Speed (mph)			45	
Link Distance (ft)			777	
Travel Time (s)			11.8	
Peak Hour Factor	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2	563	533	317
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	565	533	317
Turn Type	Prot	Prot	NA	pm+ov
Protected Phases	7!	7	4	5!
Permitted Phases				4
Detector Phase	7	7	4	5
Switch Phase				
Minimum Initial (s)	7.0	7.0	10.0	7.0
Minimum Split (s)	13.7	13.7	43.5	13.8
Total Split (s)	34.0	34.0	45.0	20.0
Total Split (%)	28.3%	28.3%	37.5%	16.7%
Maximum Green (s)	27.3	27.3	38.5	13.2
Yellow Time (s)	3.0	3.0	4.6	3.0
All-Red Time (s)	3.7	3.7	1.9	3.8
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		6.7	6.5	6.8
Lead/Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)			7.0	
Flash Dont Walk (s)			30.0	
Pedestrian Calls (#/hr)			0	
Act Effect Green (s)		24.6	32.2	52.7
Actuated g/C Ratio		0.20	0.27	0.44
v/c Ratio		0.80	0.56	0.46
Control Delay		54.8	39.5	25.1
Queue Delay		0.0	0.0	0.0
Total Delay		54.8	39.5	25.1

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

5-6pm Dual
08/28/2020

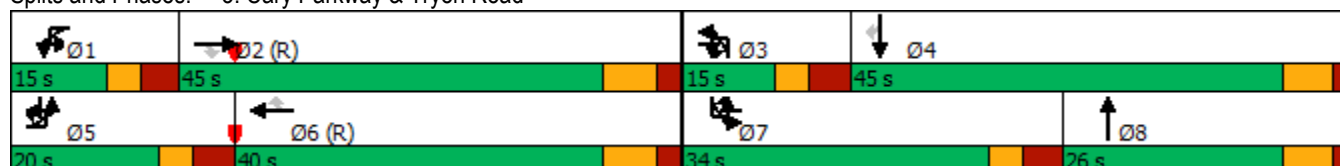
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
LOS		E	D	C		E	D	B		E	E	
Approach Delay			39.9				44.1				57.2	
Approach LOS			D				D				E	
Queue Length 50th (ft)		110	323	142		75	423	198		30	119	
Queue Length 95th (ft)		#173	407	218		#177	#610	296		56	162	
Internal Link Dist (ft)			809				890				553	
Turn Bay Length (ft)		400		525		200		250		275		
Base Capacity (vph)		407	1258	764		154	1146	966		234	568	
Starvation Cap Reductn		0	0	0		0	0	0		0	0	
Spillback Cap Reductn		0	0	0		0	0	0		0	0	
Storage Cap Reductn		0	0	0		0	0	0		0	0	
Reduced v/c Ratio		0.71	0.70	0.37		0.66	0.91	0.47		0.33	0.53	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 145
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 43.4
Intersection Capacity Utilization 79.8%
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
! Phase conflict between lane groups.

Intersection LOS: D
ICU Level of Service D

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

5-6pm Dual
08/28/2020

				
Lane Group	SBU	SBL	SBT	SBR
LOS		D	D	C
Approach Delay			42.4	
Approach LOS			D	
Queue Length 50th (ft)		213	185	162
Queue Length 95th (ft)		273	226	228
Internal Link Dist (ft)			697	
Turn Bay Length (ft)		350		400
Base Capacity (vph)		781	1135	699
Starvation Cap Reductn		0	0	0
Spillback Cap Reductn		0	0	0
Storage Cap Reductn		0	0	0
Reduced v/c Ratio		0.72	0.47	0.45
Intersection Summary				

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45pm Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations	 	 			 	 		 	 			 
Traffic Volume (vph)	161	624	82	10	64	637	321	52	218	23	4	274
Future Volume (vph)	161	624	82	10	64	637	321	52	218	23	4	274
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0		350
Storage Lanes	2		1		1		1	2		0		2
Taper Length (ft)	100				100			100				100
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95	0.97
Frt			0.850				0.850		0.985			
Flt Protected	0.950				0.950			0.950				0.950
Satd. Flow (prot)	3433	3539	1583	0	1770	3539	1583	3433	3486	0	0	3433
Flt Permitted	0.950				0.950			0.950				0.950
Satd. Flow (perm)	3433	3539	1583	0	1770	3539	1583	3433	3486	0	0	3433
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			
Link Distance (ft)		889				970			633			
Travel Time (s)		13.5				14.7			9.6			
Peak Hour Factor	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)	179	693	91	11	71	708	357	58	242	26	4	304
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	693	91	0	82	708	357	58	268	0	0	308
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	Prot
Protected Phases	5	2	3	1	1	6	7	3	8		7	7
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	7
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	7.0
Minimum Split (s)	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7	13.7
Total Split (s)	20.0	45.0	15.0	15.0	15.0	40.0	34.0	15.0	26.0		34.0	34.0
Total Split (%)	16.7%	37.5%	12.5%	12.5%	12.5%	33.3%	28.3%	12.5%	21.7%		28.3%	28.3%
Maximum Green (s)	13.2	37.9	8.2	8.6	8.6	32.9	27.3	8.2	19.6		27.3	27.3
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	3.0
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4			6.7
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Walk Time (s)		7.0				7.0			7.0			
Flash Dont Walk (s)		33.0				35.0			32.0			
Pedestrian Calls (#/hr)		0				0			0			
Act Effect Green (s)	11.6	51.4	66.0		11.1	50.5	74.0	7.6	14.5			16.4
Actuated g/C Ratio	0.10	0.43	0.55		0.09	0.42	0.62	0.06	0.12			0.14
v/c Ratio	0.54	0.46	0.10		0.50	0.48	0.37	0.27	0.64			0.66
Control Delay	57.5	27.4	15.7		61.6	28.1	13.6	56.7	57.1			55.6
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	57.5	27.4	15.7		61.6	28.1	13.6	56.7	57.1			55.6

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45pm Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	292	163
Future Volume (vph)	292	163
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	324	181
Shared Lane Traffic (%)		
Lane Group Flow (vph)	324	181
Turn Type	NA	pm+ov
Protected Phases	4	5
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	43.5	13.8
Total Split (s)	45.0	20.0
Total Split (%)	37.5%	16.7%
Maximum Green (s)	38.5	13.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	30.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	23.1	41.2
Actuated g/C Ratio	0.19	0.34
v/c Ratio	0.48	0.33
Control Delay	44.4	29.4
Queue Delay	0.0	0.0
Total Delay	44.4	29.4

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45pm Dual
08/28/2020

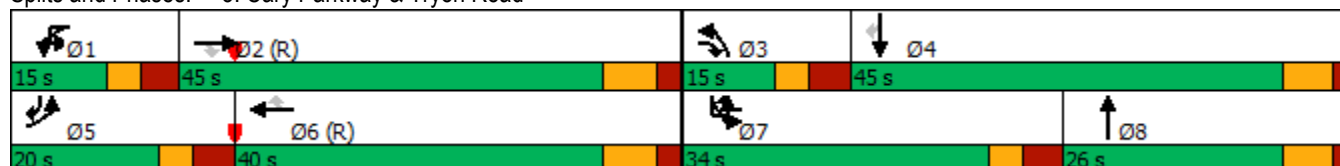
												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
LOS	E	C	B		E	C	B	E	E			E
Approach Delay		31.9				26.0			57.0			
Approach LOS		C				C			E			
Queue Length 50th (ft)	69	196	32		61	204	128	22	105			118
Queue Length 95th (ft)	104	301	74		111	308	220	44	146			158
Internal Link Dist (ft)		809				890			553			
Turn Bay Length (ft)	400		525		200		250	275				350
Base Capacity (vph)	386	1514	879		169	1489	1120	234	569			781
Starvation Cap Reductn	0	0	0		0	0	0	0	0			0
Spillback Cap Reductn	0	0	0		0	0	0	0	0			0
Storage Cap Reductn	0	0	0		0	0	0	0	0			0
Reduced v/c Ratio	0.46	0.46	0.10		0.49	0.48	0.32	0.25	0.47			0.39

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 35.7
 Intersection Capacity Utilization 64.1%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6-6:45pm Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
LOS	D	C
Approach Delay	45.3	
Approach LOS	D	
Queue Length 50th (ft)	118	103
Queue Length 95th (ft)	151	141
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	1135	569
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.29	0.32
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7pm Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations	 	 			 	 		 	 			 
Traffic Volume (vph)	161	624	82	10	64	637	321	52	218	23	4	274
Future Volume (vph)	161	624	82	10	64	637	321	52	218	23	4	274
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0		350
Storage Lanes	2		1		1		1	2		0		2
Taper Length (ft)	100				100			100				100
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95	0.97
Frt			0.850				0.850		0.985			
Flt Protected	0.950				0.950			0.950				0.950
Satd. Flow (prot)	3433	3539	1583	0	1770	3539	1583	3433	3486	0	0	3433
Flt Permitted	0.950				0.950			0.950				0.950
Satd. Flow (perm)	3433	3539	1583	0	1770	3539	1583	3433	3486	0	0	3433
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			
Link Distance (ft)		889				970			633			
Travel Time (s)		13.5				14.7			9.6			
Peak Hour Factor	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)	179	693	91	11	71	708	357	58	242	26	4	304
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	693	91	0	82	708	357	58	268	0	0	308
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	Prot
Protected Phases	5	2	3	1	1	6	7	3	8		7	7
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	7
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	7.0
Minimum Split (s)	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7	13.7
Total Split (s)	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0	25.0
Total Split (%)	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%	22.7%
Maximum Green (s)	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3	18.3
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	3.0
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4			6.7
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Walk Time (s)		7.0				7.0			7.0			
Flash Dont Walk (s)		33.0				35.0			32.0			
Pedestrian Calls (#/hr)		0				0			0			
Act Effect Green (s)	10.7	47.0	61.7		10.2	43.4	65.7	7.6	13.7			15.2
Actuated g/C Ratio	0.10	0.43	0.56		0.09	0.39	0.60	0.07	0.12			0.14
v/c Ratio	0.54	0.46	0.10		0.50	0.51	0.38	0.24	0.62			0.65
Control Delay	53.2	26.3	14.9		57.6	28.3	13.8	50.8	51.7			51.2
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	53.2	26.3	14.9		57.6	28.3	13.8	50.8	51.7			51.2

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7pm Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	292	163
Future Volume (vph)	292	163
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	324	181
Shared Lane Traffic (%)		
Lane Group Flow (vph)	324	181
Turn Type	NA	pm+ov
Protected Phases	4	5
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	43.5	13.8
Total Split (s)	35.0	18.0
Total Split (%)	31.8%	16.4%
Maximum Green (s)	28.5	11.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	30.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	23.9	41.1
Actuated g/C Ratio	0.22	0.37
v/c Ratio	0.42	0.31
Control Delay	39.0	25.6
Queue Delay	0.0	0.0
Total Delay	39.0	25.6

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7pm Dual
08/28/2020

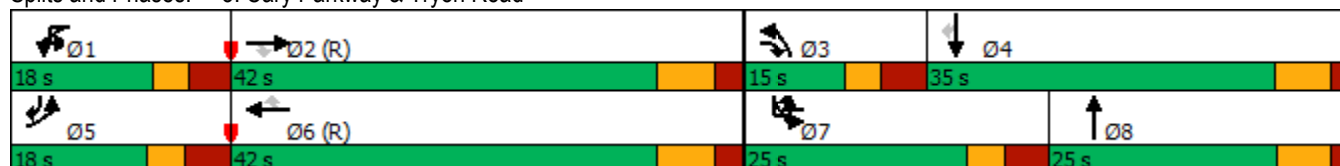
												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
LOS	D	C	B		E	C	B	D	D			D
Approach Delay		30.2				25.9			51.6			
Approach LOS		C				C			D			
Queue Length 50th (ft)	62	188	30		56	196	124	20	95			107
Queue Length 95th (ft)	97	283	68		104	290	210	41	135			148
Internal Link Dist (ft)		809				890			553			
Turn Bay Length (ft)	400		525		200		250	275				350
Base Capacity (vph)	363	1514	897		191	1399	991	259	589			575
Starvation Cap Reductn	0	0	0		0	0	0	0	0			0
Spillback Cap Reductn	0	0	0		0	0	0	0	0			0
Storage Cap Reductn	0	0	0		0	0	0	0	0			0
Reduced v/c Ratio	0.49	0.46	0.10		0.43	0.51	0.36	0.22	0.46			0.54

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 33.4
 Intersection Capacity Utilization 64.1%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7pm Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
LOS	D	C
Approach Delay	40.6	
Approach LOS	D	
Queue Length 50th (ft)	107	92
Queue Length 95th (ft)	142	135
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	916	604
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.35	0.30
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7pm DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	161	624	82	10	64	637	321	52	218	23	4	274
Future Volume (vph)	161	624	82	10	64	637	321	52	218	23	4	274
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0		350
Storage Lanes	1		1		1		1	2		0		2
Taper Length (ft)	100				100			100				100
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95	0.97
Frt			0.850				0.850		0.985			
Flt Protected	0.950				0.950			0.950				0.950
Satd. Flow (prot)	1770	3539	1583	0	1770	3539	1583	3433	3486	0	0	3433
Flt Permitted	0.286				0.950			0.950				0.950
Satd. Flow (perm)	533	3539	1583	0	1770	3539	1583	3433	3486	0	0	3433
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			
Link Distance (ft)		889				970			633			
Travel Time (s)		13.5				14.7			9.6			
Peak Hour Factor	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)	179	693	91	11	71	708	357	58	242	26	4	304
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	693	91	0	82	708	357	58	268	0	0	308
Turn Type	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	Prot
Protected Phases	5	2	3	1	1	6	7	3	8		7	7
Permitted Phases	6		2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	7
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	7.0
Minimum Split (s)	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7	13.7
Total Split (s)	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0	25.0
Total Split (%)	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%	22.7%
Maximum Green (s)	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3	18.3
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	3.0
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4			6.7
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Walk Time (s)		7.0				7.0			7.0			
Flash Dont Walk (s)		33.0				35.0			32.0			
Pedestrian Calls (#/hr)		0				0			0			
Act Effect Green (s)	54.4	47.0	61.7		10.2	43.5	65.8	7.6	13.7			15.2
Actuated g/C Ratio	0.49	0.43	0.56		0.09	0.40	0.60	0.07	0.12			0.14
v/c Ratio	0.47	0.46	0.10		0.50	0.51	0.38	0.24	0.62			0.65
Control Delay	17.9	26.3	14.9		57.6	28.3	13.8	50.8	51.7			51.2
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	17.9	26.3	14.9		57.6	28.3	13.8	50.8	51.7			51.2

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7pm DLTi
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	292	163
Future Volume (vph)	292	163
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	324	181
Shared Lane Traffic (%)		
Lane Group Flow (vph)	324	181
Turn Type	NA	pm+ov
Protected Phases	4	5
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	43.5	13.8
Total Split (s)	35.0	18.0
Total Split (%)	31.8%	16.4%
Maximum Green (s)	28.5	11.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	30.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	23.9	40.9
Actuated g/C Ratio	0.22	0.37
v/c Ratio	0.42	0.31
Control Delay	39.0	25.6
Queue Delay	0.0	0.0
Total Delay	39.0	25.6

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7pm DLTi
08/28/2020

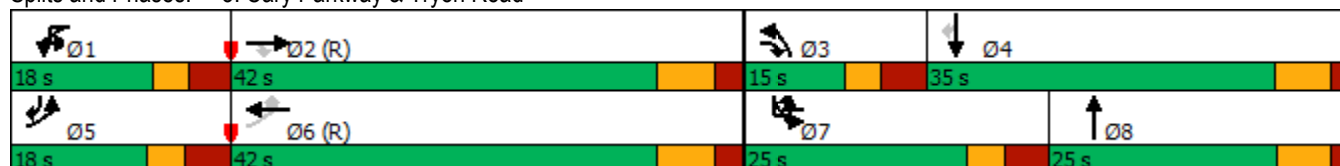
												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL
LOS	B	C	B		E	C	B	D	D			D
Approach Delay		23.7				25.9			51.6			
Approach LOS		C				C			D			
Queue Length 50th (ft)	59	188	30		56	196	123	20	95			107
Queue Length 95th (ft)	114	283	68		104	290	210	41	135			148
Internal Link Dist (ft)		809				890			553			
Turn Bay Length (ft)	400		525		200		250	275				350
Base Capacity (vph)	401	1514	897		191	1403	993	259	589			575
Starvation Cap Reductn	0	0	0		0	0	0	0	0			0
Spillback Cap Reductn	0	0	0		0	0	0	0	0			0
Storage Cap Reductn	0	0	0		0	0	0	0	0			0
Reduced v/c Ratio	0.45	0.46	0.10		0.43	0.50	0.36	0.22	0.46			0.54

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 31.5
 Intersection Capacity Utilization 67.2%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

6:45-7pm DLTi
08/28/2020

	↓	↙
Lane Group	SBT	SBR
LOS	D	C
Approach Delay	40.6	
Approach LOS	D	
Queue Length 50th (ft)	107	93
Queue Length 95th (ft)	142	135
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	916	606
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.35	0.30
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-8pm Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	1	132	348	72	13	46	408	219	35	130	6	1
Future Volume (vph)	1	132	348	72	13	46	408	219	35	130	6	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		2		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.993		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3514	0	0
Flt Permitted		0.950				0.950			0.950			
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3514	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	1	147	387	80	14	51	453	243	39	144	7	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	148	387	80	0	65	453	243	39	151	0	0
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	18.0	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0
Total Split (%)	16.4%	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%
Maximum Green (s)	11.2	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		10.0	54.2	68.5		9.6	50.6	69.2	7.3	10.8		
Actuated g/C Ratio		0.09	0.49	0.62		0.09	0.46	0.63	0.07	0.10		
v/c Ratio		0.47	0.22	0.08		0.42	0.28	0.24	0.17	0.44		
Control Delay		52.1	18.2	10.9		55.3	19.9	10.2	50.2	50.7		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		52.1	18.2	10.9		55.3	19.9	10.2	50.2	50.7		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-8pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations	 	 	
Traffic Volume (vph)	173	174	104
Future Volume (vph)	173	174	104
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	192	193	116
Shared Lane Traffic (%)			
Lane Group Flow (vph)	193	193	116
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	25.0	35.0	18.0
Total Split (%)	22.7%	31.8%	16.4%
Maximum Green (s)	18.3	28.5	11.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effect Green (s)	11.5	17.6	34.1
Actuated g/C Ratio	0.10	0.16	0.31
v/c Ratio	0.54	0.34	0.24
Control Delay	52.0	43.4	29.7
Queue Delay	0.0	0.0	0.0
Total Delay	52.0	43.4	29.7

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-8pm Dual
08/28/2020

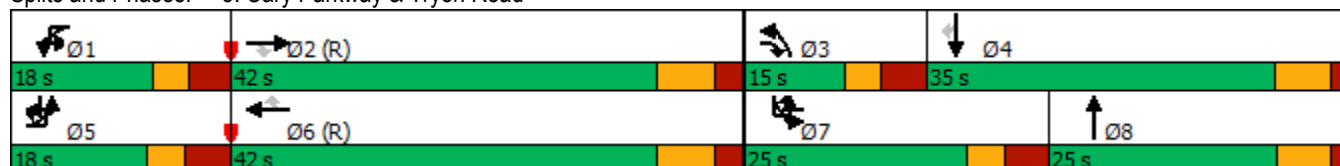
												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		D	B	B		E	B	B	D	D		
Approach Delay			25.4				19.9			50.6		
Approach LOS			C				B			D		
Queue Length 50th (ft)		52	82	22		44	100	68	13	54		
Queue Length 95th (ft)		82	134	52		87	157	124	30	85		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		359	1742	999		190	1629	1094	255	594		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.41	0.22	0.08		0.34	0.28	0.22	0.15	0.25		

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.54
 Intersection Signal Delay: 30.1
 Intersection Capacity Utilization 55.7%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 3: Cary Parkway & Tryon Road



Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-8pm Dual
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	D	D	C
Approach Delay		43.6	
Approach LOS		D	
Queue Length 50th (ft)	67	66	64
Queue Length 95th (ft)	102	98	101
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	571	916	512
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.34	0.21	0.23
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-8pm DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
Lane Configurations												
Traffic Volume (vph)	1	132	348	72	13	46	408	219	35	130	6	1
Future Volume (vph)	1	132	348	72	13	46	408	219	35	130	6	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	
Storage Lanes		1		1		1		1	2		0	
Taper Length (ft)		100				100			100			
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.95
Frt				0.850				0.850		0.993		
Flt Protected		0.950				0.950			0.950			
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	3433	3514	0	0
Flt Permitted		0.470				0.950			0.950			
Satd. Flow (perm)	0	875	3539	1583	0	1770	3539	1583	3433	3514	0	0
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	1	147	387	80	14	51	453	243	39	144	7	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	148	387	80	0	65	453	243	39	151	0	0
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7!	3	8		7!
Permitted Phases	6	6		2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7
Total Split (s)	18.0	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0
Total Split (%)	16.4%	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%
Maximum Green (s)	11.2	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Walk Time (s)			7.0				7.0			7.0		
Flash Dont Walk (s)			33.0				35.0			32.0		
Pedestrian Calls (#/hr)			0				0			0		
Act Effect Green (s)		61.0	54.2	68.5		9.6	51.1	69.7	7.3	10.8		
Actuated g/C Ratio		0.55	0.49	0.62		0.09	0.46	0.63	0.07	0.10		
v/c Ratio		0.26	0.22	0.08		0.42	0.28	0.24	0.17	0.44		
Control Delay		11.0	18.2	10.9		55.3	19.6	10.0	50.2	50.7		
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total Delay		11.0	18.2	10.9		55.3	19.6	10.0	50.2	50.7		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-8pm DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
Lane Configurations	RT	TT	RT
Traffic Volume (vph)	173	174	104
Future Volume (vph)	173	174	104
Ideal Flow (vphpl)	1900	1900	1900
Storage Length (ft)	350		400
Storage Lanes	2		1
Taper Length (ft)	100		
Lane Util. Factor	0.97	0.95	1.00
Frt			0.850
Flt Protected	0.950		
Satd. Flow (prot)	3433	3539	1583
Flt Permitted	0.950		
Satd. Flow (perm)	3433	3539	1583
Right Turn on Red			No
Satd. Flow (RTOR)			
Link Speed (mph)		45	
Link Distance (ft)		777	
Travel Time (s)		11.8	
Peak Hour Factor	0.90	0.90	0.90
Adj. Flow (vph)	192	193	116
Shared Lane Traffic (%)			
Lane Group Flow (vph)	193	193	116
Turn Type	Prot	NA	pm+ov
Protected Phases	7	4	5!
Permitted Phases			4
Detector Phase	7	4	5
Switch Phase			
Minimum Initial (s)	7.0	10.0	7.0
Minimum Split (s)	13.7	43.5	13.8
Total Split (s)	25.0	35.0	18.0
Total Split (%)	22.7%	31.8%	16.4%
Maximum Green (s)	18.3	28.5	11.2
Yellow Time (s)	3.0	4.6	3.0
All-Red Time (s)	3.7	1.9	3.8
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	6.7	6.5	6.8
Lead/Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Walk Time (s)		7.0	
Flash Dont Walk (s)		30.0	
Pedestrian Calls (#/hr)		0	
Act Effect Green (s)	11.5	17.6	33.6
Actuated g/C Ratio	0.10	0.16	0.31
v/c Ratio	0.54	0.34	0.24
Control Delay	52.0	43.4	30.0
Queue Delay	0.0	0.0	0.0
Total Delay	52.0	43.4	30.0

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-8pm DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBU
LOS		B	B	B		E	B	B	D	D		
Approach Delay			15.5				19.6			50.6		
Approach LOS			B				B			D		
Queue Length 50th (ft)		40	82	22		44	98	66	13	54		
Queue Length 95th (ft)		78	134	52		87	157	124	30	85		
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			
Base Capacity (vph)		594	1742	999		190	1645	1101	255	594		
Starvation Cap Reductn		0	0	0		0	0	0	0	0		
Spillback Cap Reductn		0	0	0		0	0	0	0	0		
Storage Cap Reductn		0	0	0		0	0	0	0	0		
Reduced v/c Ratio		0.25	0.22	0.08		0.34	0.28	0.22	0.15	0.25		

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.54
 Intersection Signal Delay: 27.1
 Intersection Capacity Utilization 57.3%
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
18 s	42 s	15 s	35 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
18 s	42 s	25 s	25 s

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

7-8pm DLTi
08/28/2020

			
Lane Group	SBL	SBT	SBR
LOS	D	D	C
Approach Delay		43.6	
Approach LOS		D	
Queue Length 50th (ft)	67	66	64
Queue Length 95th (ft)	102	98	101
Internal Link Dist (ft)		697	
Turn Bay Length (ft)	350		400
Base Capacity (vph)	571	916	512
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.34	0.21	0.23
Intersection Summary			

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8-8:30pm Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 	 		 	 		 	 
Traffic Volume (vph)	78	268	46	8	37	241	128	17	78	4	108	181
Future Volume (vph)	78	268	46	8	37	241	128	17	78	4	108	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	2		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850		0.993			
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3433	3539	1583	0	1770	3539	1583	3433	3514	0	3433	3539
Flt Permitted	0.950				0.950			0.950			0.950	
Satd. Flow (perm)	3433	3539	1583	0	1770	3539	1583	3433	3514	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	87	298	51	9	41	268	142	19	87	4	120	201
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	298	51	0	50	268	142	19	91	0	120	201
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7	43.5
Total Split (s)	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0	35.0
Total Split (%)	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%	31.8%
Maximum Green (s)	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3	28.5
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Walk Time (s)		7.0				7.0			7.0			7.0
Flash Dont Walk (s)		33.0				35.0			32.0			30.0
Pedestrian Calls (#/hr)		0				0			0			0
Act Effect Green (s)	8.3	60.7	74.8		8.8	58.1	75.0	7.0	10.1		9.8	12.2
Actuated g/C Ratio	0.08	0.55	0.68		0.08	0.53	0.68	0.06	0.09		0.09	0.11
v/c Ratio	0.34	0.15	0.05		0.35	0.14	0.13	0.09	0.28		0.39	0.51
Control Delay	51.5	14.7	9.0		54.3	14.9	7.6	49.5	49.0		51.0	50.6
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	51.5	14.7	9.0		54.3	14.9	7.6	49.5	49.0		51.0	50.6

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8-8:30pm Dual
08/28/2020

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	75
Future Volume (vph)	75
Ideal Flow (vphpl)	1900
Storage Length (ft)	400
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	83
Shared Lane Traffic (%)	
Lane Group Flow (vph)	83
Turn Type	pm+ov
Protected Phases	5
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	13.8
Total Split (s)	18.0
Total Split (%)	16.4%
Maximum Green (s)	11.2
Yellow Time (s)	3.0
All-Red Time (s)	3.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.8
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	27.0
Actuated g/C Ratio	0.25
v/c Ratio	0.21
Control Delay	33.6
Queue Delay	0.0
Total Delay	33.6

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8-8:30pm Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
LOS	D	B	A		D	B	A	D	D		D	D
Approach Delay		21.4				16.9			49.1			47.3
Approach LOS		C				B			D			D
Queue Length 50th (ft)	30	57	13		34	51	35	6	32		42	71
Queue Length 95th (ft)	55	93	32		72	82	64	19	58		70	107
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250	275			350	
Base Capacity (vph)	349	1951	1093		186	1868	1201	255	594		571	916
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.25	0.15	0.05		0.27	0.14	0.12	0.07	0.15		0.21	0.22

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 29.5

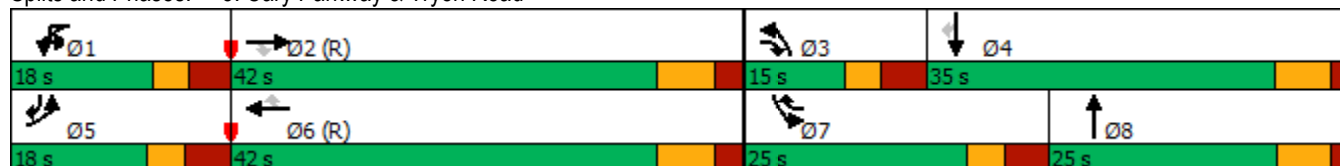
Intersection Capacity Utilization 42.6%

Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road





Lane Group	SBR
LOS	C
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	47
Queue Length 95th (ft)	85
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	430
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.19
Intersection Summary	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8-8:30pm DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		 				 		 	 		 	 
Traffic Volume (vph)	78	268	46	8	37	241	128	17	78	4	108	181
Future Volume (vph)	78	268	46	8	37	241	128	17	78	4	108	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	1		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850		0.993			
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1770	3539	1583	0	1770	3539	1583	3433	3514	0	3433	3539
Flt Permitted	0.587				0.950			0.950			0.950	
Satd. Flow (perm)	1093	3539	1583	0	1770	3539	1583	3433	3514	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	87	298	51	9	41	268	142	19	87	4	120	201
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	298	51	0	50	268	142	19	91	0	120	201
Turn Type	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases	6		2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	47.1	13.8	13.4	13.4	49.1	13.7	13.8	45.4		13.7	43.5
Total Split (s)	18.0	42.0	15.0	18.0	18.0	42.0	25.0	15.0	25.0		25.0	35.0
Total Split (%)	16.4%	38.2%	13.6%	16.4%	16.4%	38.2%	22.7%	13.6%	22.7%		22.7%	31.8%
Maximum Green (s)	11.2	34.9	8.2	11.6	11.6	34.9	18.3	8.2	18.6		18.3	28.5
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Walk Time (s)		7.0				7.0			7.0			7.0
Flash Dont Walk (s)		33.0				35.0			32.0			30.0
Pedestrian Calls (#/hr)		0				0			0			0
Act Effect Green (s)	66.7	60.7	74.8		8.8	58.5	75.5	7.0	10.1		9.8	12.2
Actuated g/C Ratio	0.61	0.55	0.68		0.08	0.53	0.69	0.06	0.09		0.09	0.11
v/c Ratio	0.12	0.15	0.05		0.35	0.14	0.13	0.09	0.28		0.39	0.51
Control Delay	8.3	14.7	9.0		54.3	14.6	7.4	49.5	49.0		51.0	50.6
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	8.3	14.7	9.0		54.3	14.6	7.4	49.5	49.0		51.0	50.6

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8-8:30pm DLTi
08/28/2020

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	75
Future Volume (vph)	75
Ideal Flow (vphpl)	1900
Storage Length (ft)	400
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	83
Shared Lane Traffic (%)	
Lane Group Flow (vph)	83
Turn Type	pm+ov
Protected Phases	5
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	13.8
Total Split (s)	18.0
Total Split (%)	16.4%
Maximum Green (s)	11.2
Yellow Time (s)	3.0
All-Red Time (s)	3.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.8
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	26.5
Actuated g/C Ratio	0.24
v/c Ratio	0.22
Control Delay	34.2
Queue Delay	0.0
Total Delay	34.2

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8-8:30pm DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
LOS	A	B	A		D	B	A	D	D		D	D
Approach Delay		12.8				16.7			49.1			47.4
Approach LOS		B				B			D			D
Queue Length 50th (ft)	21	57	13		34	50	34	6	32		42	71
Queue Length 95th (ft)	43	93	32		72	82	63	19	58		70	107
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250	275			350	
Base Capacity (vph)	764	1951	1093		186	1883	1208	255	594		571	916
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.11	0.15	0.05		0.27	0.14	0.12	0.07	0.15		0.21	0.22

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 26.8

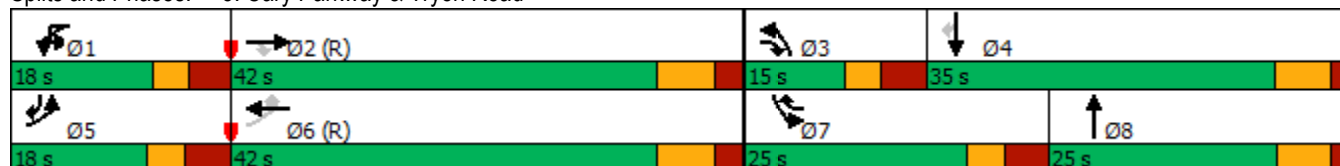
Intersection Capacity Utilization 42.6%

Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road





Lane Group	SBR
LOS	C
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	48
Queue Length 95th (ft)	85
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	430
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.19
Intersection Summary	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8:30-9pm Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 	 		 	 		 	 
Traffic Volume (vph)	78	268	46	8	37	241	128	17	78	4	108	181
Future Volume (vph)	78	268	46	8	37	241	128	17	78	4	108	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	2		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850		0.993			
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3433	3539	1583	0	1770	3539	1583	3433	3514	0	3433	3539
Flt Permitted	0.950				0.950			0.950			0.950	
Satd. Flow (perm)	3433	3539	1583	0	1770	3539	1583	3433	3514	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	87	298	51	9	41	268	142	19	87	4	120	201
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	298	51	0	50	268	142	19	91	0	120	201
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.0	14.0	13.4	13.4	20.4	13.8	14.0	16.8		13.8	16.6
Total Split (%)	21.5%	32.3%	21.5%	20.6%	20.6%	31.4%	21.2%	21.5%	25.8%		21.2%	25.5%
Maximum Green (s)	7.2	13.9	7.2	7.0	7.0	13.3	7.1	7.2	10.4		7.1	10.1
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	7.2	21.8	35.9		7.1	18.8	33.3	7.0	10.1		7.5	13.2
Actuated g/C Ratio	0.11	0.34	0.55		0.11	0.29	0.51	0.11	0.16		0.12	0.20
v/c Ratio	0.23	0.25	0.06		0.26	0.26	0.18	0.05	0.17		0.30	0.28
Control Delay	28.1	20.1	11.1		30.2	22.0	12.2	26.5	24.7		28.5	23.9
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	28.1	20.1	11.1		30.2	22.0	12.2	26.5	24.7		28.5	23.9
LOS	C	C	B		C	C	B	C	C		C	C
Approach Delay		20.7				19.9			25.0			23.1
Approach LOS		C				B			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8:30-9pm Dual
08/28/2020

Lane Group SBR

Lane Configurations

Traffic Volume (vph) 75

Future Volume (vph) 75

Ideal Flow (vphpl) 1900

Storage Length (ft) 400

Storage Lanes 1

Taper Length (ft)

Lane Util. Factor 1.00

Frt 0.850

Flt Protected

Satd. Flow (prot) 1583

Flt Permitted

Satd. Flow (perm) 1583

Right Turn on Red No

Satd. Flow (RTOR)

Link Speed (mph)

Link Distance (ft)

Travel Time (s)

Peak Hour Factor 0.90

Adj. Flow (vph) 83

Shared Lane Traffic (%)

Lane Group Flow (vph) 83

Turn Type pm+ov

Protected Phases 5

Permitted Phases 4

Detector Phase 5

Switch Phase

Minimum Initial (s) 7.0

Minimum Split (s) 13.8

Total Split (s) 14.0

Total Split (%) 21.5%

Maximum Green (s) 7.2

Yellow Time (s) 3.0

All-Red Time (s) 3.8

Lost Time Adjust (s) 0.0

Total Lost Time (s) 6.8

Lead/Lag Lead

Lead-Lag Optimize? Yes

Vehicle Extension (s) 3.0

Recall Mode None

Act Effct Green (s) 26.8

Actuated g/C Ratio 0.41

v/c Ratio 0.13

Control Delay 13.3

Queue Delay 0.0

Total Delay 13.3

LOS B

Approach Delay

Approach LOS

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8:30-9pm Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	16	54	11		19	48	34	3	16		22	37
Queue Length 95th (ft)	35	87	29		48	80	68	12	35		45	66
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250	275			350	
Base Capacity (vph)	384	1207	879		193	1039	812	380	562		396	717
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.23	0.25	0.06		0.26	0.26	0.17	0.05	0.16		0.30	0.28

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 21.4

Intersection Capacity Utilization 42.6%

Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21 s	14 s	16.6 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.4 s	13.8 s	16.8 s



Lane Group	SBR
Queue Length 50th (ft)	21
Queue Length 95th (ft)	48
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	656
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.13
Intersection Summary	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8:30-9pm DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		 				 		 	 		 	 
Traffic Volume (vph)	78	268	46	8	37	241	128	17	78	4	108	181
Future Volume (vph)	78	268	46	8	37	241	128	17	78	4	108	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	1		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850		0.993			
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1770	3539	1583	0	1770	3539	1583	3433	3514	0	3433	3539
Flt Permitted	0.587				0.950			0.950			0.950	
Satd. Flow (perm)	1093	3539	1583	0	1770	3539	1583	3433	3514	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	87	298	51	9	41	268	142	19	87	4	120	201
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	298	51	0	50	268	142	19	91	0	120	201
Turn Type	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases	6		2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.0	14.0	13.4	13.4	20.4	13.8	14.0	16.8		13.8	16.6
Total Split (%)	21.5%	32.3%	21.5%	20.6%	20.6%	31.4%	21.2%	21.5%	25.8%		21.2%	25.5%
Maximum Green (s)	7.2	13.9	7.2	7.0	7.0	13.3	7.1	7.2	10.4		7.1	10.1
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	24.8	21.8	35.9		7.1	18.7	33.3	7.0	10.1		7.5	13.2
Actuated g/C Ratio	0.38	0.34	0.55		0.11	0.29	0.51	0.11	0.16		0.12	0.20
v/c Ratio	0.18	0.25	0.06		0.26	0.26	0.18	0.05	0.17		0.30	0.28
Control Delay	13.0	20.1	11.1		30.2	22.1	12.2	26.5	24.7		28.5	23.9
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	13.0	20.1	11.1		30.2	22.1	12.2	26.5	24.7		28.5	23.9
LOS	B	C	B		C	C	B	C	C		C	C
Approach Delay		17.6				19.9			25.0			23.1
Approach LOS		B				B			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8:30-9pm DLTi
08/28/2020

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	75
Future Volume (vph)	75
Ideal Flow (vphpl)	1900
Storage Length (ft)	400
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	83
Shared Lane Traffic (%)	
Lane Group Flow (vph)	83
Turn Type	pm+ov
Protected Phases	5
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	13.8
Total Split (s)	14.0
Total Split (%)	21.5%
Maximum Green (s)	7.2
Yellow Time (s)	3.0
All-Red Time (s)	3.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.8
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	26.9
Actuated g/C Ratio	0.41
v/c Ratio	0.13
Control Delay	13.3
Queue Delay	0.0
Total Delay	13.3
LOS	B
Approach Delay	
Approach LOS	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

8:30-9pm DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	20	54	11		19	48	34	3	16		22	37
Queue Length 95th (ft)	44	87	29		48	80	68	12	35		45	66
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250	275			350	
Base Capacity (vph)	494	1207	879		193	1038	810	380	562		396	717
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.18	0.25	0.06		0.26	0.26	0.18	0.05	0.16		0.30	0.28

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 20.5

Intersection Capacity Utilization 42.6%

Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21 s	14 s	16.6 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.4 s	13.8 s	16.8 s



Lane Group	SBR
Queue Length 50th (ft)	21
Queue Length 95th (ft)	48
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	657
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.13
Intersection Summary	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10pm Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	1	66	181	23	5	17	146	78	7	48	3	62
Future Volume (vph)	1	66	181	23	5	17	146	78	7	48	3	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	350
Storage Lanes		2		1		1		1	2		0	2
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97
Frt				0.850				0.850		0.992		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3511	0	3433
Flt Permitted		0.635				0.950			0.950			0.950
Satd. Flow (perm)	0	2295	3539	1583	0	1770	3539	1583	3433	3511	0	3433
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	1	73	201	26	6	19	162	87	8	53	3	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	201	26	0	25	162	87	8	56	0	69
Turn Type	custom	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases		5	2	3	1	1	6	7	3	8		7
Permitted Phases	5!			2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7
Total Split (s)	14.0	14.0	21.1	14.0	13.4	13.4	20.5	13.8	14.0	16.7		13.8
Total Split (%)	21.5%	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.2%	21.5%	25.7%		21.2%
Maximum Green (s)	7.2	7.2	14.0	7.2	7.0	7.0	13.4	7.1	7.2	10.3		7.1
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		6.7
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Act Effect Green (s)		7.7	32.2	43.5			7.1	26.0	38.1	7.0		7.8
Actuated g/C Ratio		0.12	0.50	0.67			0.11	0.40	0.59	0.11		0.12
v/c Ratio		0.27	0.11	0.02			0.13	0.11	0.09	0.02		0.17
Control Delay		28.8	16.3	9.8			27.7	20.2	11.3	26.1		26.8
Queue Delay		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Delay		28.8	16.3	9.8			27.7	20.2	11.3	26.1		26.8
LOS		C	B	A			C	C	B	C		C
Approach Delay			18.8				18.1			24.5		
Approach LOS			B				B			C		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10pm Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	130	42
Future Volume (vph)	130	42
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	144	47
Shared Lane Traffic (%)		
Lane Group Flow (vph)	144	47
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	16.5	13.8
Total Split (s)	16.5	14.0
Total Split (%)	25.4%	21.5%
Maximum Green (s)	10.0	7.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	12.9	23.8
Actuated g/C Ratio	0.20	0.37
v/c Ratio	0.20	0.08
Control Delay	22.8	11.9
Queue Delay	0.0	0.0
Total Delay	22.8	11.9
LOS	C	B
Approach Delay	21.9	
Approach LOS	C	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10pm Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Queue Length 50th (ft)		13	24	3		9	28	20	1	10		12
Queue Length 95th (ft)		31	63	19		29	53	45	7	24		29
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			350
Base Capacity (vph)		273	1767	1062		194	1446	928	380	556		415
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.27	0.11	0.02		0.13	0.11	0.09	0.02	0.10		0.17

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 19.9

Intersection LOS: B

Intersection Capacity Utilization 50.4%

ICU Level of Service A

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	13.8 s	16.7 s

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10pm Dual
08/28/2020

		
Lane Group	SBT	SBR
Queue Length 50th (ft)	19	7
Queue Length 95th (ft)	50	30
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	703	581
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.20	0.08
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10pm DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	1	66	181	23	5	17	146	78	7	48	3	62
Future Volume (vph)	1	66	181	23	5	17	146	78	7	48	3	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	350
Storage Lanes		1		1		1		1	2		0	2
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97
Frt				0.850				0.850		0.992		
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	3433	3511	0	3433
Flt Permitted		0.649				0.950			0.950			0.950
Satd. Flow (perm)	0	1209	3539	1583	0	1770	3539	1583	3433	3511	0	3433
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	1	73	201	26	6	19	162	87	8	53	3	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	201	26	0	25	162	87	8	56	0	69
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7	3	8		7
Permitted Phases	6	6		2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7
Total Split (s)	14.0	14.0	21.1	14.0	13.4	13.4	20.5	13.8	14.0	16.7		13.8
Total Split (%)	21.5%	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.2%	21.5%	25.7%		21.2%
Maximum Green (s)	7.2	7.2	14.0	7.2	7.0	7.0	13.4	7.1	7.2	10.3		7.1
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		6.7
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Act Effect Green (s)		31.1	32.2	43.5			7.1	26.3	38.4	7.0		7.8
Actuated g/C Ratio		0.48	0.50	0.67			0.11	0.40	0.59	0.11		0.12
v/c Ratio		0.12	0.11	0.02			0.13	0.11	0.09	0.02		0.17
Control Delay		11.6	16.3	9.8			27.7	19.9	11.1	26.1		26.8
Queue Delay		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Delay		11.6	16.3	9.8			27.7	19.9	11.1	26.1		26.8
LOS		B	B	A			C	B	B	C		C
Approach Delay			14.6				17.9			24.5		
Approach LOS			B				B			C		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10pm DLTi
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	130	42
Future Volume (vph)	130	42
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	144	47
Shared Lane Traffic (%)		
Lane Group Flow (vph)	144	47
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	16.5	13.8
Total Split (s)	16.5	14.0
Total Split (%)	25.4%	21.5%
Maximum Green (s)	10.0	7.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	12.9	23.5
Actuated g/C Ratio	0.20	0.36
v/c Ratio	0.20	0.08
Control Delay	22.8	12.1
Queue Delay	0.0	0.0
Total Delay	22.8	12.1
LOS	C	B
Approach Delay	21.9	
Approach LOS	C	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10pm DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Queue Length 50th (ft)		17	24	3		9	27	20	1	10		12
Queue Length 95th (ft)		39	63	19		29	53	45	7	24		29
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			350
Base Capacity (vph)		644	1767	1062		194	1451	935	380	556		415
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.11	0.11	0.02		0.13	0.11	0.09	0.02	0.10		0.17

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.20

Intersection Signal Delay: 18.4

Intersection LOS: B

Intersection Capacity Utilization 50.4%

ICU Level of Service A

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	13.8 s	16.7 s

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

9-10pm DLTi
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Queue Length 50th (ft)	19	7
Queue Length 95th (ft)	50	30
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	703	574
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.20	0.08
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11pm Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	 	 			 	 		 	 		 	 
Traffic Volume (vph)	37	96	18	2	10	99	56	7	25	6	40	70
Future Volume (vph)	37	96	18	2	10	99	56	7	25	6	40	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	2		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850		0.970			
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	3433	3539	1583	0	1770	3539	1583	3433	3433	0	3433	3539
Flt Permitted	0.950				0.950			0.950			0.950	
Satd. Flow (perm)	3433	3539	1583	0	1770	3539	1583	3433	3433	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	41	107	20	2	11	110	62	8	28	7	44	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	107	20	0	13	110	62	8	35	0	44	78
Turn Type	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases			2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	7.1	37.9	49.1		7.0	32.2	46.0	7.0	10.0		8.2	10.0
Actuated g/C Ratio	0.11	0.58	0.76		0.11	0.50	0.71	0.11	0.15		0.13	0.15
v/c Ratio	0.11	0.05	0.02		0.07	0.06	0.06	0.02	0.07		0.10	0.14
Control Delay	26.9	12.8	7.1		27.0	16.9	8.9	26.1	23.9		26.1	24.5
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	26.9	12.8	7.1		27.0	16.9	8.9	26.1	23.9		26.1	24.5
LOS	C	B	A		C	B	A	C	C		C	C
Approach Delay		15.5				15.0			24.3			22.9
Approach LOS		B				B			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11pm Dual
08/28/2020

Lane Group SBR

Lane Configurations

Traffic Volume (vph) 26

Future Volume (vph) 26

Ideal Flow (vphpl) 1900

Storage Length (ft) 400

Storage Lanes 1

Taper Length (ft)

Lane Util. Factor 1.00

Frt 0.850

Flt Protected

Satd. Flow (prot) 1583

Flt Permitted

Satd. Flow (perm) 1583

Right Turn on Red No

Satd. Flow (RTOR)

Link Speed (mph)

Link Distance (ft)

Travel Time (s)

Peak Hour Factor 0.90

Adj. Flow (vph) 29

Shared Lane Traffic (%)

Lane Group Flow (vph) 29

Turn Type pm+ov

Protected Phases 5

Permitted Phases 4

Detector Phase 5

Switch Phase

Minimum Initial (s) 7.0

Minimum Split (s) 13.8

Total Split (s) 14.0

Total Split (%) 21.5%

Maximum Green (s) 7.2

Yellow Time (s) 3.0

All-Red Time (s) 3.8

Lost Time Adjust (s) 0.0

Total Lost Time (s) 6.8

Lead/Lag Lead

Lead-Lag Optimize? Yes

Vehicle Extension (s) 3.0

Recall Mode None

Act Effct Green (s) 20.3

Actuated g/C Ratio 0.31

v/c Ratio 0.06

Control Delay 13.8

Queue Delay 0.0

Total Delay 13.8

LOS B

Approach Delay

Approach LOS

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11pm Dual
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	7	7	0		5	13	7	1	6		7	14
Queue Length 95th (ft)	20	36	15		19	37	34	7	17		21	31
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250	275			350	
Base Capacity (vph)	381	2062	1200		191	1755	1122	380	534		439	546
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.11	0.05	0.02		0.07	0.06	0.06	0.02	0.07		0.10	0.14

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 18.1

Intersection Capacity Utilization 38.9%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	7
Queue Length 95th (ft)	22
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	498
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.06

Intersection Summary

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11pm DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		 				 		 	 		 	 
Traffic Volume (vph)	37	96	18	2	10	99	56	7	25	6	40	70
Future Volume (vph)	37	96	18	2	10	99	56	7	25	6	40	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	400		525		200		250	275		0	350	
Storage Lanes	1		1		1		1	2		0	2	
Taper Length (ft)	100				100			100			100	
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95
Frt			0.850				0.850		0.970			
Flt Protected	0.950				0.950			0.950			0.950	
Satd. Flow (prot)	1770	3539	1583	0	1770	3539	1583	3433	3433	0	3433	3539
Flt Permitted	0.682				0.950			0.950			0.950	
Satd. Flow (perm)	1270	3539	1583	0	1770	3539	1583	3433	3433	0	3433	3539
Right Turn on Red			No				No			No		
Satd. Flow (RTOR)												
Link Speed (mph)		45				45			45			45
Link Distance (ft)		889				970			633			777
Travel Time (s)		13.5				14.7			9.6			11.8
Peak Hour Factor	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)	41	107	20	2	11	110	62	8	28	7	44	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	107	20	0	13	110	62	8	35	0	44	78
Turn Type	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot	NA
Protected Phases	5	2	3	1	1	6	7	3	8		7	4
Permitted Phases	6		2				6					
Detector Phase	5	2	3	1	1	6	7	3	8		7	4
Switch Phase												
Minimum Initial (s)	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0	10.0
Minimum Split (s)	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7	16.5
Total Split (s)	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0	16.5
Total Split (%)	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%	25.4%
Maximum Green (s)	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3	10.0
Yellow Time (s)	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0	4.6
All-Red Time (s)	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7	1.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.8	7.1	6.8		6.4	7.1	6.7	6.8	6.4		6.7	6.5
Lead/Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	C-Min	None	None	None	C-Min	None	None	None		None	None
Act Effct Green (s)	35.4	37.9	49.1		7.0	32.1	46.0	7.0	10.0		8.2	10.0
Actuated g/C Ratio	0.54	0.58	0.76		0.11	0.49	0.71	0.11	0.15		0.13	0.15
v/c Ratio	0.06	0.05	0.02		0.07	0.06	0.06	0.02	0.07		0.10	0.14
Control Delay	9.9	12.8	7.1		27.0	17.1	9.0	26.1	23.9		26.1	24.5
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	9.9	12.8	7.1		27.0	17.1	9.0	26.1	23.9		26.1	24.5
LOS	A	B	A		C	B	A	C	C		C	C
Approach Delay		11.4				15.1			24.3			22.9
Approach LOS		B				B			C			C

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11pm DLTi
08/28/2020

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	26
Future Volume (vph)	26
Ideal Flow (vphpl)	1900
Storage Length (ft)	400
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	29
Shared Lane Traffic (%)	
Lane Group Flow (vph)	29
Turn Type	pm+ov
Protected Phases	5
Permitted Phases	4
Detector Phase	5
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	13.8
Total Split (s)	14.0
Total Split (%)	21.5%
Maximum Green (s)	7.2
Yellow Time (s)	3.0
All-Red Time (s)	3.8
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.8
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	20.4
Actuated g/C Ratio	0.31
v/c Ratio	0.06
Control Delay	13.7
Queue Delay	0.0
Total Delay	13.7
LOS	B
Approach Delay	
Approach LOS	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

10-11pm DLTi
08/28/2020

												
Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)	5	7	0		5	13	7	1	6		7	14
Queue Length 95th (ft)	25	36	15		19	38	34	7	17		21	31
Internal Link Dist (ft)		809				890			553			697
Turn Bay Length (ft)	400		525		200		250	275			350	
Base Capacity (vph)	748	2062	1200		191	1755	1120	380	534		439	546
Starvation Cap Reductn	0	0	0		0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0		0	0
Reduced v/c Ratio	0.05	0.05	0.02		0.07	0.06	0.06	0.02	0.07		0.10	0.14

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.14

Intersection Signal Delay: 16.8

Intersection LOS: B

Intersection Capacity Utilization 38.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s



Lane Group	SBR
Queue Length 50th (ft)	7
Queue Length 95th (ft)	22
Internal Link Dist (ft)	
Turn Bay Length (ft)	400
Base Capacity (vph)	500
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.06

Intersection Summary

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11pm-12am Dual

08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	3	24	55	8	1	5	40	37	1	18	0	28
Future Volume (vph)	3	24	55	8	1	5	40	37	1	18	0	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	350
Storage Lanes		2		1		1		1	2		0	2
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	0.97	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97
Frt				0.850				0.850				
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	3433	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Flt Permitted		0.950				0.950			0.950			0.950
Satd. Flow (perm)	0	3433	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	3	27	61	9	1	6	44	41	1	20	0	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	61	9	0	7	44	41	1	20	0	31
Turn Type	Prot	Prot	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7	3	8		7
Permitted Phases				2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7
Total Split (s)	14.0	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0
Total Split (%)	21.5%	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%
Maximum Green (s)	7.2	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		6.7
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Act Effect Green (s)		7.0	45.4	53.9		7.0	39.8	49.4	7.0	10.0		8.1
Actuated g/C Ratio		0.11	0.70	0.83		0.11	0.61	0.76	0.11	0.15		0.12
v/c Ratio		0.08	0.02	0.01		0.04	0.02	0.03	0.00	0.04		0.07
Control Delay		26.7	10.9	6.2		26.5	14.5	6.8	26.0	23.6		25.5
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay		26.7	10.9	6.2		26.5	14.5	6.8	26.0	23.6		25.5
LOS		C	B	A		C	B	A	C	C		C
Approach Delay			15.2				12.0			23.7		
Approach LOS			B				B			C		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11pm-12am Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	38	14
Future Volume (vph)	38	14
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	42	16
Shared Lane Traffic (%)		
Lane Group Flow (vph)	42	16
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	16.5	13.8
Total Split (s)	16.5	14.0
Total Split (%)	25.4%	21.5%
Maximum Green (s)	10.0	7.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	10.0	16.9
Actuated g/C Ratio	0.15	0.26
v/c Ratio	0.08	0.04
Control Delay	24.0	13.8
Queue Delay	0.0	0.0
Total Delay	24.0	13.8
LOS	C	B
Approach Delay	22.7	
Approach LOS	C	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11pm-12am Dual
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Queue Length 50th (ft)		5	4	1		3	5	4	0	3		5
Queue Length 95th (ft)		16	24	9		13	19	25	2	12		17
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			350
Base Capacity (vph)		380	2472	1314		190	2167	1204	380	550		438
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.08	0.02	0.01		0.04	0.02	0.03	0.00	0.04		0.07

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.08
Intersection Signal Delay: 17.0
Intersection Capacity Utilization 38.9%
Analysis Period (min) 15
! Phase conflict between lane groups.

Intersection LOS: B
ICU Level of Service A

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11pm-12am Dual
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Queue Length 50th (ft)	7	4
Queue Length 95th (ft)	20	15
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	544	416
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.08	0.04
Intersection Summary		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11pm-12am DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	3	24	55	8	1	5	40	37	1	18	0	28
Future Volume (vph)	3	24	55	8	1	5	40	37	1	18	0	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		400		525		200		250	275		0	350
Storage Lanes		1		1		1		1	2		0	2
Taper Length (ft)		100				100			100			100
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.97	0.95	0.95	0.97
Frt				0.850				0.850				
Flt Protected		0.950				0.950			0.950			0.950
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Flt Permitted		0.727				0.950			0.950			0.950
Satd. Flow (perm)	0	1354	3539	1583	0	1770	3539	1583	3433	3539	0	3433
Right Turn on Red				No				No			No	
Satd. Flow (RTOR)												
Link Speed (mph)			45				45			45		
Link Distance (ft)			889				970			633		
Travel Time (s)			13.5				14.7			9.6		
Peak Hour Factor	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)	3	27	61	9	1	6	44	41	1	20	0	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	61	9	0	7	44	41	1	20	0	31
Turn Type	D.P+P	D.P+P	NA	pm+ov	Prot	Prot	NA	pm+ov	Prot	NA		Prot
Protected Phases	5!	5	2	3	1	1	6	7	3	8		7
Permitted Phases	6	6		2				6				
Detector Phase	5	5	2	3	1	1	6	7	3	8		7
Switch Phase												
Minimum Initial (s)	7.0	7.0	12.0	7.0	7.0	7.0	12.0	7.0	7.0	10.0		7.0
Minimum Split (s)	13.8	13.8	19.1	13.8	13.4	13.4	19.1	13.7	13.8	16.4		13.7
Total Split (s)	14.0	14.0	21.1	14.0	13.4	13.4	20.5	14.0	14.0	16.5		14.0
Total Split (%)	21.5%	21.5%	32.5%	21.5%	20.6%	20.6%	31.5%	21.5%	21.5%	25.4%		21.5%
Maximum Green (s)	7.2	7.2	14.0	7.2	7.0	7.0	13.4	7.3	7.2	10.1		7.3
Yellow Time (s)	3.0	3.0	4.7	3.0	3.0	3.0	4.7	3.0	3.0	4.5		3.0
All-Red Time (s)	3.8	3.8	2.4	3.8	3.4	3.4	2.4	3.7	3.8	1.9		3.7
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)		6.8	7.1	6.8			6.4	7.1	6.7	6.8		6.7
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Recall Mode	None	None	C-Min	None	None	None	C-Min	None	None	None		None
Act Effect Green (s)		41.5	45.4	53.9		7.0	39.7	49.3	7.0	10.0		8.1
Actuated g/C Ratio		0.64	0.70	0.83		0.11	0.61	0.76	0.11	0.15		0.12
v/c Ratio		0.03	0.02	0.01		0.04	0.02	0.03	0.00	0.04		0.07
Control Delay		7.7	10.9	6.2		26.5	14.7	6.8	26.0	23.6		25.5
Queue Delay		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay		7.7	10.9	6.2		26.5	14.7	6.8	26.0	23.6		25.5
LOS		A	B	A		C	B	A	C	C		C
Approach Delay			9.5				12.1			23.7		
Approach LOS			A				B			C		

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11pm-12am DLTi
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	38	14
Future Volume (vph)	38	14
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	45	
Link Distance (ft)	777	
Travel Time (s)	11.8	
Peak Hour Factor	0.90	0.90
Adj. Flow (vph)	42	16
Shared Lane Traffic (%)		
Lane Group Flow (vph)	42	16
Turn Type	NA	pm+ov
Protected Phases	4	5!
Permitted Phases		4
Detector Phase	4	5
Switch Phase		
Minimum Initial (s)	10.0	7.0
Minimum Split (s)	16.5	13.8
Total Split (s)	16.5	14.0
Total Split (%)	25.4%	21.5%
Maximum Green (s)	10.0	7.2
Yellow Time (s)	4.6	3.0
All-Red Time (s)	1.9	3.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.8
Lead/Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	10.0	17.0
Actuated g/C Ratio	0.15	0.26
v/c Ratio	0.08	0.04
Control Delay	24.0	13.6
Queue Delay	0.0	0.0
Total Delay	24.0	13.6
LOS	C	B
Approach Delay	22.7	
Approach LOS	C	

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11pm-12am DLTi
08/28/2020

												
Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Queue Length 50th (ft)		4	4	1		3	5	4	0	3		5
Queue Length 95th (ft)		20	24	9		13	19	25	2	12		17
Internal Link Dist (ft)			809				890			553		
Turn Bay Length (ft)		400		525		200		250	275			350
Base Capacity (vph)		911	2472	1314		190	2163	1202	380	550		438
Starvation Cap Reductn		0	0	0		0	0	0	0	0		0
Spillback Cap Reductn		0	0	0		0	0	0	0	0		0
Storage Cap Reductn		0	0	0		0	0	0	0	0		0
Reduced v/c Ratio		0.03	0.02	0.01		0.04	0.02	0.03	0.00	0.04		0.07

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:EBT and 6:EBWB, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.08

Intersection Signal Delay: 15.2

Intersection LOS: B

Intersection Capacity Utilization 38.9%

ICU Level of Service A

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 3: Cary Parkway & Tryon Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13.4 s	21.1 s	14 s	16.5 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
14 s	20.5 s	14 s	16.5 s

Cary DLTi Evaluation
3: Cary Parkway & Tryon Road

11pm-12am DLTi
08/28/2020

	↓	↙
Lane Group	SBT	SBR
Queue Length 50th (ft)	7	4
Queue Length 95th (ft)	20	15
Internal Link Dist (ft)	697	
Turn Bay Length (ft)		400
Base Capacity (vph)	544	417
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.08	0.04
Intersection Summary		

Turning Movement Counts

VHB Engineering NC, P.C.

Venture I
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
p: 919.829.0328 f: 919.833.0034

File Name : Tryon@CaryParkway
Site Code :
Start Date : 10/24/2019
Page No : 1

Groups Printed- Passenger Vehicles - Single Unit - TTST

	Cary Parkway Southbound				Tryon Road Westbound				Cary Parkway Northbound				Tryon Road Eastbound				
Start Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Int. Total
12:00 AM	2	3	1	0	0	5	5	1	0	3	0	0	5	14	0	0	39
12:15 AM	4	5	1	0	1	11	5	0	0	0	0	0	1	6	1	0	35
12:30 AM	3	5	0	0	1	3	4	0	0	2	0	0	1	3	0	0	22
12:45 AM	3	5	0	0	0	6	4	0	1	1	0	0	0	3	1	0	24
Total	12	18	2	0	2	25	18	1	1	6	0	0	7	26	2	0	120
01:00 AM	0	1	1	0	0	3	7	0	0	0	1	0	5	5	0	0	23
01:15 AM	1	2	1	0	0	4	3	0	0	1	0	0	2	2	0	0	16
01:30 AM	1	0	0	0	1	4	4	1	0	1	0	0	1	2	1	0	16
01:45 AM	0	2	0	0	0	5	2	0	0	1	0	0	0	3	0	0	13
Total	2	5	2	0	1	16	16	1	0	3	1	0	8	12	1	0	68
02:00 AM	0	2	1	0	0	1	3	0	0	0	0	0	0	2	0	0	9
02:15 AM	0	2	0	0	0	1	1	0	0	1	0	0	1	1	1	0	8
02:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	2	0	1	0	5
02:45 AM	1	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	5
Total	1	6	2	0	1	2	4	0	0	1	0	0	3	5	2	0	27
03:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	3
03:15 AM	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	3
03:30 AM	2	2	0	0	0	5	0	1	0	0	0	0	1	1	0	0	12
03:45 AM	1	1	1	0	0	1	0	0	0	2	0	0	1	1	0	0	8
Total	3	3	1	0	0	9	0	1	1	2	0	0	3	3	0	0	26
04:00 AM	1	1	1	0	0	6	2	0	0	4	0	0	0	2	0	0	17
04:15 AM	0	1	0	0	0	7	0	0	1	4	0	0	1	1	1	0	16
04:30 AM	2	2	1	0	0	7	3	0	0	2	0	0	1	2	0	0	20
04:45 AM	2	2	4	0	0	10	4	1	1	7	0	0	4	3	0	0	38
Total	5	6	6	0	0	30	9	1	2	17	0	0	6	8	1	0	91
05:00 AM	3	3	7	0	0	9	5	0	3	5	0	0	2	1	0	1	39
05:15 AM	1	2	7	0	0	12	14	0	5	12	0	0	1	6	0	0	60
05:30 AM	5	1	7	0	1	17	13	0	2	21	0	0	3	5	0	0	75
05:45 AM	7	4	5	0	1	34	18	0	2	23	0	0	6	9	0	0	109
Total	16	10	26	0	2	72	50	0	12	61	0	0	12	21	0	1	283
06:00 AM	5	4	12	0	1	31	17	1	0	26	0	0	7	12	2	0	118
06:15 AM	16	12	9	0	1	75	39	0	3	37	0	0	5	32	6	0	235
06:30 AM	14	11	22	0	2	88	44	0	4	56	0	0	18	30	1	1	291
06:45 AM	18	17	21	0	4	134	51	1	5	53	0	0	23	59	5	1	392
Total	53	44	64	0	8	328	151	2	12	172	0	0	53	133	14	2	1036
07:00 AM	35	21	19	0	7	135	72	1	11	84	3	0	37	93	6	2	526
07:15 AM	45	21	40	0	8	173	104	7	13	116	2	0	45	104	10	1	689
07:30 AM	76	30	42	0	13	208	118	0	14	105	3	0	50	131	18	5	813
07:45 AM	89	69	60	0	12	234	106	2	32	114	4	0	29	138	17	3	909
Total	245	141	161	0	40	750	400	10	70	419	12	0	161	466	51	11	2937
08:00 AM	76	59	49	1	15	187	87	6	24	91	8	0	52	146	15	2	818
08:15 AM	86	50	49	3	12	176	110	3	21	107	4	0	33	135	12	2	803
08:30 AM	75	58	55	1	11	185	116	1	19	89	3	0	50	121	12	2	798
08:45 AM	74	57	52	1	18	200	93	3	33	104	13	0	47	120	14	2	831
Total	311	224	205	6	56	748	406	13	97	391	28	0	182	522	53	8	3250
09:00 AM	80	50	54	1	16	159	79	0	22	98	4	0	46	109	12	0	730
09:15 AM	99	57	51	2	10	156	81	0	20	90	11	0	46	114	15	4	756
09:30 AM	84	47	54	1	5	121	60	4	13	66	5	0	54	80	10	1	605
09:45 AM	64	53	52	1	9	117	52	2	19	78	7	0	37	92	19	0	602
Total	327	207	211	5	40	553	272	6	74	332	27	0	183	395	56	5	2693

VHB Engineering NC, P.C.

Venture I
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
p: 919.829.0328 f: 919.833.0034

File Name : Tryon@CaryParkway
Site Code :
Start Date : 10/24/2019
Page No : 2

Groups Printed- Passenger Vehicles - Single Unit - TTST

	Cary Parkway Southbound				Tryon Road Westbound				Cary Parkway Northbound				Tryon Road Eastbound				
Start Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Int. Total
10:00 AM	45	46	48	0	6	105	54	0	12	75	6	1	33	109	13	3	556
10:15 AM	37	40	61	3	9	117	48	4	10	64	6	0	36	108	17	1	561
10:30 AM	37	50	59	1	8	110	51	0	18	97	5	0	47	86	16	1	586
10:45 AM	56	58	68	1	7	138	73	1	25	72	6	0	52	108	16	1	682
Total	175	194	236	5	30	470	226	5	65	308	23	1	168	411	62	6	2385
11:00 AM	57	47	59	2	9	123	56	0	15	60	5	0	74	124	17	2	650
11:15 AM	59	52	70	0	18	135	78	3	24	74	7	0	62	89	13	2	686
11:30 AM	60	37	75	0	9	137	65	1	15	81	7	0	64	122	23	0	696
11:45 AM	65	51	83	1	15	164	81	1	21	60	12	0	53	120	29	1	757
Total	241	187	287	3	51	559	280	5	75	275	31	0	253	455	82	5	2789
12:00 PM	48	57	87	0	9	141	71	4	20	68	12	0	74	127	29	3	750
12:15 PM	56	55	75	1	24	173	82	2	30	67	9	0	51	155	12	1	793
12:30 PM	60	43	58	3	10	142	85	3	14	58	8	0	83	126	22	2	717
12:45 PM	57	87	85	2	13	184	76	8	15	72	10	0	65	116	19	4	813
Total	221	242	305	6	56	640	314	17	79	265	39	0	273	524	82	10	3073
01:00 PM	64	50	55	2	11	149	58	3	20	65	6	0	54	134	22	1	694
01:15 PM	55	70	52	0	21	181	84	6	22	68	7	0	44	115	30	0	755
01:30 PM	53	61	53	1	23	150	72	6	23	66	6	0	69	122	21	0	726
01:45 PM	49	63	61	1	18	161	79	5	16	65	5	0	70	117	17	2	729
Total	221	244	221	4	73	641	293	20	81	264	24	0	237	488	90	3	2904
02:00 PM	63	54	59	1	12	151	67	1	17	75	7	0	81	120	17	4	729
02:15 PM	50	72	40	1	13	138	66	3	13	48	11	0	71	123	18	0	667
02:30 PM	37	68	60	0	10	114	57	0	12	71	7	0	63	120	14	1	634
02:45 PM	45	72	59	1	17	151	75	1	14	63	7	0	56	106	21	5	693
Total	195	266	218	3	52	554	265	5	56	257	32	0	271	469	70	10	2723
03:00 PM	56	67	48	3	13	138	75	4	15	71	7	0	91	175	15	4	782
03:15 PM	70	92	67	0	19	177	74	2	23	58	6	3	68	127	21	2	809
03:30 PM	71	62	47	3	12	140	85	2	23	69	5	0	64	157	26	1	767
03:45 PM	61	65	58	2	14	181	81	4	10	63	5	0	54	155	23	0	776
Total	258	286	220	8	58	636	315	12	71	261	23	3	277	614	85	7	3134
04:00 PM	60	102	56	1	12	173	77	0	17	86	3	0	57	154	16	3	817
04:15 PM	93	78	45	0	13	144	94	4	13	71	8	0	65	166	22	3	819
04:30 PM	80	95	57	0	14	193	87	0	21	55	7	0	64	187	25	0	885
04:45 PM	122	100	61	0	8	231	93	3	22	66	12	0	55	185	26	5	989
Total	355	375	219	1	47	741	351	7	73	278	30	0	241	692	89	11	3510
05:00 PM	175	114	72	0	31	212	95	2	16	55	7	0	72	210	29	3	1093
05:15 PM	109	155	64	2	17	267	109	1	18	66	9	0	58	174	30	0	1079
05:30 PM	127	117	79	0	18	211	104	1	21	68	2	0	75	216	24	3	1066
05:45 PM	96	94	70	0	19	252	98	2	14	54	12	1	48	195	33	0	988
Total	507	480	285	2	85	942	406	6	69	243	30	1	253	795	116	6	4226
06:00 PM	73	101	55	1	20	200	97	2	13	63	9	0	35	184	20	0	873
06:15 PM	69	73	35	2	16	152	80	4	11	56	6	0	46	181	18	0	749
06:30 PM	71	75	39	1	18	159	76	3	14	45	4	0	43	135	19	0	702
06:45 PM	61	43	34	0	10	126	68	1	14	54	4	0	37	124	25	0	601
Total	274	292	163	4	64	637	321	10	52	218	23	0	161	624	82	0	2925
07:00 PM	49	46	30	0	7	128	70	2	6	41	1	0	34	77	11	0	502
07:15 PM	40	43	30	0	18	99	58	2	11	30	3	0	38	114	22	0	508
07:30 PM	53	43	26	0	12	103	46	4	8	35	0	0	33	86	20	1	470
07:45 PM	31	42	18	1	9	78	45	5	10	24	2	0	27	71	19	0	382
Total	173	174	104	1	46	408	219	13	35	130	6	0	132	348	72	1	1862

VHB Engineering NC, P.C.

Venture I
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
p: 919.829.0328 f: 919.833.0034

File Name : Tryon@CaryParkway
Site Code :
Start Date : 10/24/2019
Page No : 3

Groups Printed- Passenger Vehicles - Single Unit - TTST

	Cary Parkway Southbound				Tryon Road Westbound				Cary Parkway Northbound				Tryon Road Eastbound				Int. Total
Start Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	
08:00 PM	26	48	19	0	10	67	32	3	3	23	2	0	15	75	14	0	337
08:15 PM	32	48	22	0	7	64	46	2	8	26	1	0	24	85	11	0	376
08:30 PM	17	40	21	0	12	56	22	1	4	17	1	0	24	58	11	0	284
08:45 PM	33	45	13	0	8	54	28	2	2	12	0	0	15	50	10	0	272
Total	108	181	75	0	37	241	128	8	17	78	4	0	78	268	46	0	1269
09:00 PM	16	30	14	0	4	63	24	1	0	17	1	0	21	57	6	1	255
09:15 PM	17	30	12	0	6	24	22	1	3	11	0	0	11	52	9	0	198
09:30 PM	14	44	9	0	3	28	16	1	2	9	1	0	22	42	4	0	195
09:45 PM	15	26	7	0	4	31	16	2	2	11	1	0	12	30	4	0	161
Total	62	130	42	0	17	146	78	5	7	48	3	0	66	181	23	1	809
10:00 PM	15	22	8	0	6	29	17	1	4	5	2	0	12	26	7	0	154
10:15 PM	17	19	6	0	1	23	15	0	1	6	4	0	11	36	3	0	142
10:30 PM	5	22	6	0	0	26	12	1	1	6	0	0	10	16	5	0	110
10:45 PM	3	7	6	0	3	21	12	0	1	8	0	0	4	18	3	0	86
Total	40	70	26	0	10	99	56	2	7	25	6	0	37	96	18	0	492
11:00 PM	8	11	4	0	0	14	13	0	0	6	0	0	10	27	1	1	95
11:15 PM	9	10	3	0	3	12	7	1	0	5	0	0	8	15	0	1	74
11:30 PM	5	12	5	0	1	7	11	0	1	4	0	0	3	10	4	0	63
11:45 PM	6	5	2	0	1	7	6	0	0	3	0	0	3	3	3	1	40
Total	28	38	14	0	5	40	37	1	1	18	0	0	24	55	8	3	272
Grand Total	3833	3823	3095	48	781	9287	4615	151	957	4072	342	5	3089	7611	1105	90	42904
Apprch %	35.5	35.4	28.7	0.4	5.3	62.6	31.1	1	17.8	75.7	6.4	0.1	26	64	9.3	0.8	
Total %	8.9	8.9	7.2	0.1	1.8	21.6	10.8	0.4	2.2	9.5	0.8	0	7.2	17.7	2.6	0.2	
Passenger Vehicles	3759	3759	3064	48	770	9117	4551	151	947	4015	340	5	3053	7480	1086	90	42235
% Passenger Vehicles	98.1	98.3	99	100	98.6	98.2	98.6	100	99	98.6	99.4	100	98.8	98.3	98.3	100	98.4
Single Unit	60	59	25	0	11	147	55	0	9	50	2	0	31	112	18	0	579
% Single Unit	1.6	1.5	0.8	0	1.4	1.6	1.2	0	0.9	1.2	0.6	0	1	1.5	1.6	0	1.3
TTST	14	5	6	0	0	23	9	0	1	7	0	0	5	19	1	0	90
% TTST	0.4	0.1	0.2	0	0	0.2	0.2	0	0.1	0.2	0	0	0.2	0.2	0.1	0	0.2

VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

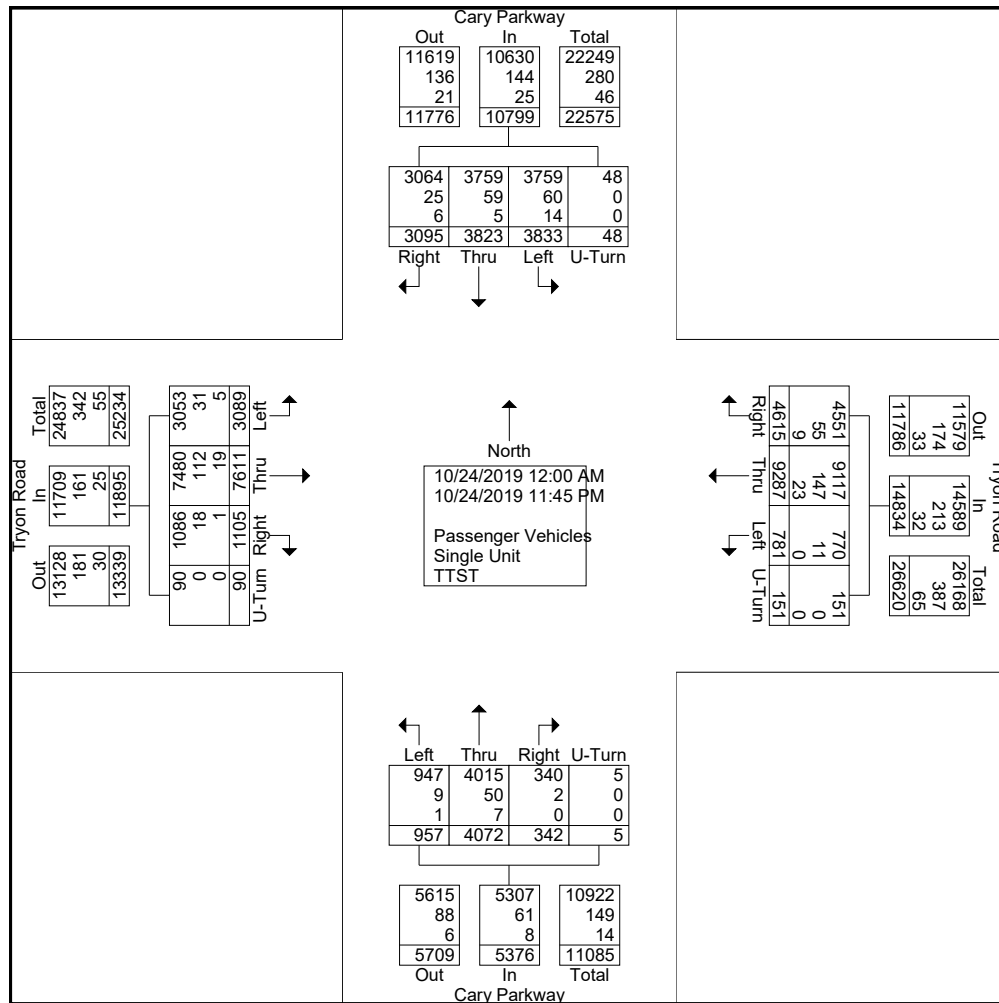
p: 919.829.0328 f: 919.833.0034

File Name : Tryon@CaryParkway

Site Code :

Start Date : 10/24/2019

Page No : 4



VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

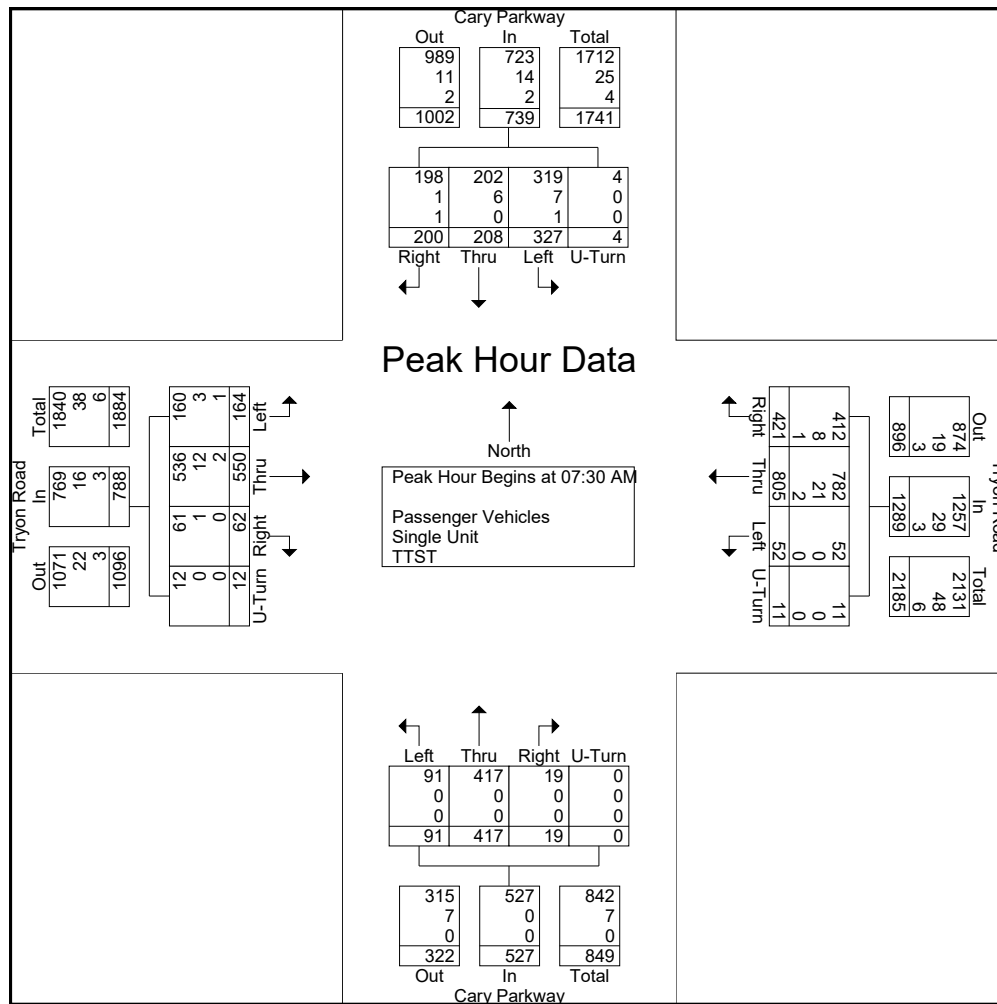
File Name : Tryon@CaryParkway

Site Code :

Start Date : 10/24/2019

Page No : 5

	Cary Parkway Southbound					Tryon Road Westbound					Cary Parkway Northbound					Tryon Road Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	76	30	42	0	148	13	208	118	0	339	14	105	3	0	122	50	131	18	5	204	813
07:45 AM	89	69	60	0	218	12	234	106	2	354	32	114	4	0	150	29	138	17	3	187	909
08:00 AM	76	59	49	1	185	15	187	87	6	295	24	91	8	0	123	52	146	15	2	215	818
08:15 AM	86	50	49	3	188	12	176	110	3	301	21	107	4	0	132	33	135	12	2	182	803
Total Volume	327	208	200	4	739	52	805	421	11	1289	91	417	19	0	527	164	550	62	12	788	3343
% App. Total	44.2	28.1	27.1	0.5		4	62.5	32.7	0.9		17.3	79.1	3.6	0		20.8	69.8	7.9	1.5		
PHF	.919	.754	.833	.333	.847	.867	.860	.892	.458	.910	.711	.914	.594	.000	.878	.788	.942	.861	.600	.916	.919
Passenger Vehicles	319	202	198	4	723	52	782	412	11	1257	91	417	19	0	527	160	536	61	12	769	3276
% Passenger Vehicles	97.6	97.1	99.0	100	97.8	100	97.1	97.9	100	97.5	100	100	100	0	100	97.6	97.5	98.4	100	97.6	98.0
Single Unit	7	6	1	0	14	0	21	8	0	29	0	0	0	0	0	3	12	1	0	16	59
% Single Unit	2.1	2.9	0.5	0	1.9	0	2.6	1.9	0	2.2	0	0	0	0	0	1.8	2.2	1.6	0	2.0	1.8
TTST	1	0	1	0	2	0	2	1	0	3	0	0	0	0	0	1	2	0	0	3	8
% TTST	0.3	0	0.5	0	0.3	0	0.2	0.2	0	0.2	0	0	0	0	0	0.6	0.4	0	0	0.4	0.2

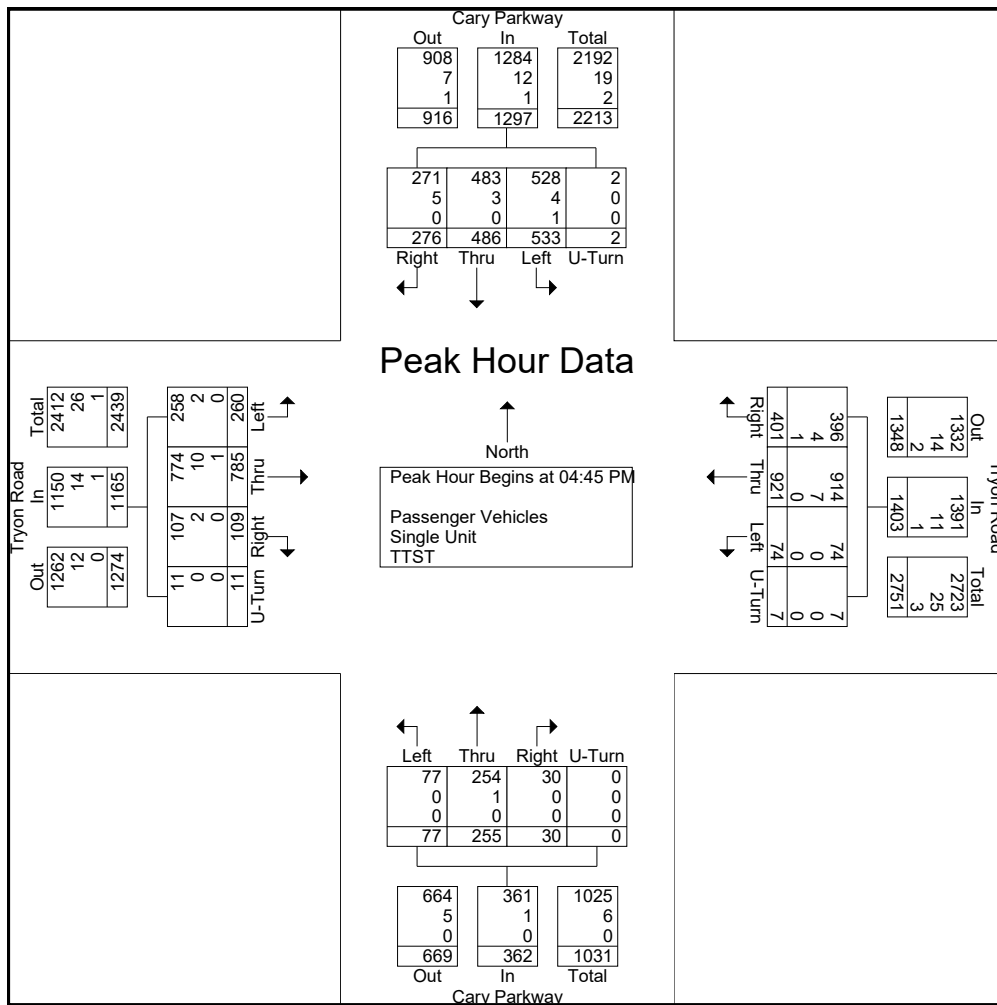


VHB Engineering NC, P.C.

Venture I
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
p: 919.829.0328 f: 919.833.0034

File Name : Tryon@CaryParkway
Site Code :
Start Date : 10/24/2019
Page No : 6

	Cary Parkway Southbound					Tryon Road Westbound					Cary Parkway Northbound					Tryon Road Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 11:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	122	100	61	0	283	8	231	93	3	335	22	66	12	0	100	55	185	26	5	271	989
05:00 PM	175	114	72	0	361	31	212	95	2	340	16	55	7	0	78	72	210	29	3	314	1093
05:15 PM	109	155	64	2	330	17	267	109	1	394	18	66	9	0	93	58	174	30	0	262	1079
05:30 PM	127	117	79	0	323	18	211	104	1	334	21	68	2	0	91	75	216	24	3	318	1066
Total Volume	533	486	276	2	1297	74	921	401	7	1403	77	255	30	0	362	260	785	109	11	1165	4227
% App. Total	41.1	37.5	21.3	0.2		5.3	65.6	28.6	0.5		21.3	70.4	8.3	0		22.3	67.4	9.4	0.9		
PHF	.761	.784	.873	.250	.898	.597	.862	.920	.583	.890	.875	.938	.625	.000	.905	.867	.909	.908	.550	.916	.967
Passenger Vehicles	528	483	271	2	1284	74	914	396	7	1391	77	254	30	0	361	258	774	107	11	1150	4186
% Passenger Vehicles	99.1	99.4	98.2	100	99.0	100	99.2	98.8	100	99.1	100	99.6	100	0	99.7	99.2	98.6	98.2	100	98.7	99.0
Single Unit	4	3	5	0	12	0	7	4	0	11	0	1	0	0	1	2	10	2	0	14	38
% Single Unit	0.8	0.6	1.8	0	0.9	0	0.8	1.0	0	0.8	0	0.4	0	0	0.3	0.8	1.3	1.8	0	1.2	0.9
TTST	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	3
% TTST	0.2	0	0	0	0.1	0	0	0.2	0	0.1	0	0	0	0	0	0	0.1	0	0	0.1	0.1



Location: Tryon Road at Cary Parkway, Cary NC (Eastbound Tryon Road Approach)
 Start Date: 10/24/2019
 Start Time: 12:00:00 AM

Start Time	U-Turn (Leftmost)	Left-Turn (Leftmost)	Left-Turn (Rightmost)	TOTAL
12:00 AM	0	2	3	5
12:15 AM	0	0	1	1
12:30 AM	0	0	1	1
12:45 AM	0	0	0	0
01:00 AM	0	0	5	5
01:15 AM	0	0	2	2
01:30 AM	0	0	1	1
01:45 AM	0	0	0	0
02:00 AM	0	0	0	0
02:15 AM	0	0	1	1
02:30 AM	0	0	2	2
02:45 AM	0	0	0	0
03:00 AM	0	0	1	1
03:15 AM	0	0	0	0
03:30 AM	0	0	1	1
03:45 AM	0	0	1	1
04:00 AM	0	0	0	0
04:15 AM	0	0	1	1
04:30 AM	0	0	1	1
04:45 AM	0	0	4	4
05:00 AM	1	1	1	3
05:15 AM	0	0	1	1
05:30 AM	0	1	2	3
05:45 AM	0	1	5	6
06:00 AM	0	1	6	7
06:15 AM	0	0	5	5
06:30 AM	1	3	15	19
06:45 AM	1	4	19	24
07:00 AM	2	9	28	39
07:15 AM	1	21	24	46
07:30 AM	5	19	31	55
07:45 AM	3	7	22	32
08:00 AM	2	24	28	54
08:15 AM	2	11	22	35
08:30 AM	2	26	24	52
08:45 AM	2	16	31	49
09:00 AM	0	19	27	46
09:15 AM	4	17	29	50
09:30 AM	1	20	34	55
09:45 AM	0	12	25	37
10:00 AM	3	6	27	36
10:15 AM	1	16	20	37
10:30 AM	1	20	27	48
10:45 AM	1	22	30	53
11:00 AM	2	33	41	76
11:15 AM	2	23	39	64
11:30 AM	0	23	41	64
11:45 AM	1	21	32	54
12:00 PM	3	35	39	77
12:15 PM	1	19	32	52
12:30 PM	2	38	45	85
12:45 PM	4	31	34	69
01:00 PM	1	24	30	55
01:15 PM	0	15	29	44
01:30 PM	0	35	34	69
01:45 PM	2	25	45	72
02:00 PM	4	34	47	85
02:15 PM	0	28	43	71
02:30 PM	1	24	39	64
02:45 PM	5	18	38	61
03:00 PM	4	42	49	95
03:15 PM	2	27	41	70
03:30 PM	1	27	37	65
03:45 PM	0	22	32	54
04:00 PM	3	17	40	60
04:15 PM	3	20	45	68
04:30 PM	0	21	43	64
04:45 PM	5	14	41	60
05:00 PM	3	30	42	75
05:15 PM	0	18	40	58
05:30 PM	3	26	49	78
05:45 PM	0	12	36	48
06:00 PM	0	8	27	35
06:15 PM	0	12	34	46
06:30 PM	0	19	24	43
06:45 PM	0	8	29	37
07:00 PM	0	5	29	34
07:15 PM	0	11	27	38
07:30 PM	1	5	28	34
07:45 PM	0	6	21	27
08:00 PM	0	2	13	15
08:15 PM	0	4	20	24
08:30 PM	0	4	20	24
08:45 PM	0	0	15	15
09:00 PM	1	6	15	22
09:15 PM	0	0	11	11
09:30 PM	0	5	17	22
09:45 PM	0	2	10	12
10:00 PM	0	0	12	12
10:15 PM	0	3	8	11
10:30 PM	0	3	7	10
10:45 PM	0	0	4	4
11:00 PM	1	1	9	11
11:15 PM	1	2	6	9
11:30 PM	0	1	2	3
11:45 PM	1	1	2	4
Total	90	1088	2001	3179

Start Time	Total Volume Leftmost Lane (Lefts & U-Turns)	Total Volume Rightmost Lane (Only Lefts)
12:00 AM	2	3
12:15 AM	0	1
12:30 AM	0	1
12:45 AM	0	0
01:00 AM	0	5
01:15 AM	0	2
01:30 AM	0	1
01:45 AM	0	0
02:00 AM	0	0
02:15 AM	0	1
02:30 AM	0	2
02:45 AM	0	0
03:00 AM	0	1
03:15 AM	0	0
03:30 AM	0	1
03:45 AM	0	1
04:00 AM	0	0
04:15 AM	0	1
04:30 AM	0	1
04:45 AM	0	4
05:00 AM	2	1
05:15 AM	0	1
05:30 AM	1	2
05:45 AM	1	5
06:00 AM	1	6
06:15 AM	0	5
06:30 AM	4	15
06:45 AM	5	19
07:00 AM	11	28
07:15 AM	22	24
07:30 AM	24	31
07:45 AM	10	22
08:00 AM	26	28
08:15 AM	13	22
08:30 AM	28	24
08:45 AM	18	31
09:00 AM	19	27
09:15 AM	21	29
09:30 AM	21	34
09:45 AM	12	25
10:00 AM	9	27
10:15 AM	17	20
10:30 AM	21	27
10:45 AM	23	30
11:00 AM	35	41
11:15 AM	25	39
11:30 AM	23	41
11:45 AM	22	32
12:00 PM	38	39
12:15 PM	20	32
12:30 PM	40	45
12:45 PM	35	34
01:00 PM	25	30
01:15 PM	15	29
01:30 PM	35	34
01:45 PM	27	45
02:00 PM	38	47
02:15 PM	28	43
02:30 PM	25	39
02:45 PM	23	38
03:00 PM	46	49
03:15 PM	29	41
03:30 PM	28	37
03:45 PM	22	32
04:00 PM	20	40
04:15 PM	23	45
04:30 PM	21	43
04:45 PM	19	41
05:00 PM	33	42
05:15 PM	18	40
05:30 PM	29	49
05:45 PM	12	36
06:00 PM	8	27
06:15 PM	12	34
06:30 PM	19	24
06:45 PM	8	29
07:00 PM	5	29
07:15 PM	11	27
07:30 PM	6	28
07:45 PM	6	21
08:00 PM	2	13
08:15 PM	4	20
08:30 PM	4	20
08:45 PM	0	15
09:00 PM	7	15
09:15 PM	0	11
09:30 PM	5	17
09:45 PM	2	10
10:00 PM	0	12
10:15 PM	3	8
10:30 PM	3	7
10:45 PM	0	4
11:00 PM	2	9
11:15 PM	3	6
11:30 PM	1	2
11:45 PM	2	2
Total	1178	2001
	37.1%	62.9%

VHB Engineering NC, P.C.

Venture I
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
p: 919.829.0328 f: 919.833.0034

File Name : US70@TownCentre
Site Code :
Start Date : 10/29/2019
Page No : 1

Groups Printed- Passenger Vehicles - Single Unit - TTST - Bicycles on Crosswalk - Pedestrians

	Town Centre Boulevard Southbound				US 70 Business Westbound				Town Centre Boulevard Northbound				US 70 Business Eastbound				
Start Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Int. Total
12:00 AM	0	0	0	0	2	12	0	0	4	0	4	0	0	28	4	0	54
12:15 AM	0	0	0	0	0	17	0	0	0	0	3	0	0	40	4	0	64
12:30 AM	0	0	0	0	1	24	0	0	2	0	1	0	0	22	1	0	51
12:45 AM	4	0	0	0	1	10	0	0	0	0	0	0	0	23	3	0	41
Total	4	0	0	0	4	63	0	0	6	0	8	0	0	113	12	0	210
01:00 AM	0	0	0	0	2	15	0	0	0	0	2	0	0	21	3	0	43
01:15 AM	0	0	0	0	0	6	0	0	1	0	4	0	0	13	3	0	27
01:30 AM	0	0	0	0	0	7	1	0	2	0	0	0	0	10	0	0	20
01:45 AM	0	0	0	0	0	14	0	0	1	0	1	0	0	9	0	0	25
Total	0	0	0	0	2	42	1	0	4	0	7	0	0	53	6	0	115
02:00 AM	0	0	0	0	0	6	0	0	0	0	0	0	0	12	3	1	22
02:15 AM	1	0	0	0	2	14	2	0	2	0	3	0	0	17	3	0	44
02:30 AM	0	0	0	0	0	12	0	0	1	0	0	0	0	14	1	0	28
02:45 AM	0	0	0	0	0	16	0	0	0	0	0	0	0	10	2	0	28
Total	1	0	0	0	2	48	2	0	3	0	3	0	0	53	9	1	122
03:00 AM	1	0	0	0	1	11	0	0	0	0	2	0	1	12	1	0	29
03:15 AM	3	0	0	0	1	19	1	0	2	0	0	0	0	14	4	0	44
03:30 AM	0	0	0	0	1	25	1	0	0	0	5	0	0	16	0	0	48
03:45 AM	1	0	0	0	0	26	1	0	2	0	0	0	0	17	4	0	51
Total	5	0	0	0	3	81	3	0	4	0	7	0	1	59	9	0	172
04:00 AM	0	0	0	0	0	26	0	0	2	0	0	0	0	9	2	0	39
04:15 AM	0	0	0	0	0	38	1	0	0	0	2	0	0	16	2	2	61
04:30 AM	0	1	0	0	4	62	1	0	2	1	2	0	0	19	4	0	96
04:45 AM	0	0	0	0	1	56	4	0	0	0	0	0	2	23	1	0	87
Total	0	1	0	0	5	182	6	0	4	1	4	0	2	67	9	2	283
05:00 AM	1	1	0	0	6	84	1	1	0	0	2	0	1	29	0	3	129
05:15 AM	3	2	0	0	1	170	6	0	6	0	2	0	0	57	2	1	250
05:30 AM	5	0	0	0	0	207	8	0	6	0	0	0	4	99	5	0	334
05:45 AM	2	0	0	0	2	225	7	0	5	0	2	0	1	86	3	1	334
Total	11	3	0	0	9	686	22	1	17	0	6	0	6	271	10	5	1047
06:00 AM	2	1	0	0	1	442	9	0	9	1	3	0	3	99	10	0	580
06:15 AM	11	0	0	0	5	469	13	0	7	1	4	0	7	124	5	1	647
06:30 AM	12	2	0	0	1	460	22	0	8	0	3	0	8	139	7	0	662
06:45 AM	9	1	0	0	7	360	20	0	9	1	5	0	6	175	11	4	608
Total	34	4	0	0	14	1731	64	0	33	3	15	0	24	537	33	5	2497
07:00 AM	11	1	0	0	6	347	15	1	12	1	6	0	4	128	9	1	542
07:15 AM	16	1	0	0	8	352	29	1	14	0	8	0	2	171	14	0	616
07:30 AM	8	1	1	0	15	304	25	0	37	3	14	0	5	193	13	3	622
07:45 AM	15	2	1	0	21	330	24	9	59	4	11	0	3	206	23	0	708
Total	50	5	2	0	50	1333	93	11	122	8	39	0	14	698	59	4	2488
08:00 AM	16	4	0	0	11	329	24	2	46	8	9	0	3	148	8	0	608
08:15 AM	10	1	4	0	9	353	32	0	21	1	14	0	6	158	14	4	627
08:30 AM	26	4	0	0	13	297	31	0	16	2	7	0	4	156	17	3	576
08:45 AM	20	4	0	0	19	307	34	0	12	0	13	0	6	148	14	1	578
Total	72	13	4	0	52	1286	121	2	95	11	43	0	19	610	53	8	2389
09:00 AM	19	5	0	0	17	235	26	0	12	1	14	0	7	143	17	1	497
09:15 AM	20	3	2	0	7	260	23	0	16	1	14	0	7	131	18	0	502
09:30 AM	11	6	0	0	25	229	18	0	21	1	16	0	6	132	23	3	491
09:45 AM	17	8	1	0	17	210	19	1	17	2	15	1	4	172	25	2	511
Total	67	22	3	0	66	934	86	1	66	5	59	1	24	578	83	6	2001

VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

File Name : US70@TownCentre

Site Code :

Start Date : 10/29/2019

Page No : 2

Groups Printed- Passenger Vehicles - Single Unit - TTST - Bicycles on Crosswalk - Pedestrians

	Town Centre Boulevard Southbound				US 70 Business Westbound				Town Centre Boulevard Northbound				US 70 Business Eastbound				
Start Time	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Int. Total
10:00 AM	14	5	0	0	10	184	19	1	25	2	19	0	5	162	23	2	471
10:15 AM	12	1	1	0	19	201	18	0	24	1	9	0	3	142	25	0	456
10:30 AM	8	3	1	0	24	182	11	2	20	3	16	0	5	145	13	1	434
10:45 AM	16	4	1	0	21	175	18	1	26	2	24	0	3	161	30	2	484
Total	50	13	3	0	74	742	66	4	95	8	68	0	16	610	91	5	1845
11:00 AM	11	4	0	0	21	206	18	1	18	3	30	0	3	149	38	1	503
11:15 AM	12	1	0	0	39	191	16	0	28	1	24	0	4	167	29	3	515
11:30 AM	14	0	0	0	32	203	17	0	25	2	30	0	8	145	42	2	520
11:45 AM	22	3	0	0	36	182	20	1	19	3	43	0	5	150	40	2	526
Total	59	8	0	0	128	782	71	2	90	9	127	0	20	611	149	8	2064
12:00 PM	13	3	1	0	49	191	18	1	34	3	44	0	5	192	38	1	593
12:15 PM	10	3	0	0	37	218	15	1	43	2	43	0	5	198	34	1	610
12:30 PM	13	3	0	0	36	178	23	0	36	1	52	0	11	168	43	2	566
12:45 PM	15	5	0	0	37	206	19	0	34	4	52	0	5	190	44	1	612
Total	51	14	1	0	159	793	75	2	147	10	191	0	26	748	159	5	2381
01:00 PM	25	6	0	0	30	175	20	2	45	2	58	0	9	206	48	1	627
01:15 PM	28	5	0	0	31	199	14	0	40	4	54	0	15	161	44	1	596
01:30 PM	16	2	0	0	23	198	16	2	27	6	63	0	9	207	41	4	614
01:45 PM	12	7	0	0	21	150	11	0	31	5	55	1	5	229	43	2	572
Total	81	20	0	0	105	722	61	4	143	17	230	1	38	803	176	8	2409
02:00 PM	22	3	1	0	27	152	13	0	27	3	47	0	5	178	44	2	524
02:15 PM	16	1	0	0	37	205	21	0	24	1	65	1	9	214	29	0	623
02:30 PM	17	3	0	0	15	194	15	2	25	1	47	0	4	233	46	1	603
02:45 PM	17	6	0	0	30	156	15	0	36	4	45	0	9	233	56	0	607
Total	72	13	1	0	109	707	64	2	112	9	204	1	27	858	175	3	2357
03:00 PM	28	7	11	0	29	214	9	3	34	4	35	0	2	289	52	1	718
03:15 PM	26	2	4	0	22	167	7	1	34	4	62	0	2	313	41	2	687
03:30 PM	15	3	4	0	54	209	8	3	60	2	109	0	6	290	54	2	819
03:45 PM	16	3	1	0	23	181	14	3	50	2	88	0	2	325	51	5	764
Total	85	15	20	0	128	771	38	10	178	12	294	0	12	1217	198	10	2988
04:00 PM	20	3	1	0	46	234	12	1	37	2	53	0	3	302	53	1	768
04:15 PM	16	3	0	0	34	199	11	0	28	1	60	0	8	357	54	1	772
04:30 PM	15	2	3	0	33	194	12	3	28	0	40	0	5	286	49	2	672
04:45 PM	8	3	2	0	23	246	6	1	28	5	50	0	3	351	53	1	780
Total	59	11	6	0	136	873	41	5	121	8	203	0	19	1296	209	5	2992
05:00 PM	11	2	0	0	36	244	16	1	37	1	59	0	2	314	64	0	787
05:15 PM	9	2	1	0	36	252	12	5	31	1	69	0	6	390	72	0	886
05:30 PM	7	2	0	0	57	247	9	4	34	4	67	0	4	285	66	1	787
05:45 PM	22	5	0	0	38	194	5	2	24	0	67	0	5	318	58	0	738
Total	49	11	1	0	167	937	42	12	126	6	262	0	17	1307	260	1	3198
06:00 PM	5	2	0	0	38	233	8	0	39	0	59	0	3	253	56	1	697
06:15 PM	12	4	0	0	20	185	9	0	23	7	61	0	2	313	34	3	673
06:30 PM	7	3	0	0	48	146	12	0	35	6	48	0	5	278	61	0	649
06:45 PM	8	3	0	0	29	165	4	0	31	0	65	0	3	313	45	2	668
Total	32	12	0	0	135	729	33	0	128	13	233	0	13	1157	196	6	2687
07:00 PM	10	2	0	0	38	143	6	0	30	3	55	0	3	236	47	1	574
07:15 PM	9	3	0	0	21	105	8	1	18	1	41	0	3	252	38	0	500
07:30 PM	10	2	0	0	27	80	2	0	26	1	58	0	4	209	36	0	455
07:45 PM	9	2	0	0	20	88	7	0	30	0	52	1	2	196	24	0	431
Total	38	9	0	0	106	416	23	1	104	5	206	1	12	893	145	1	1960

VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

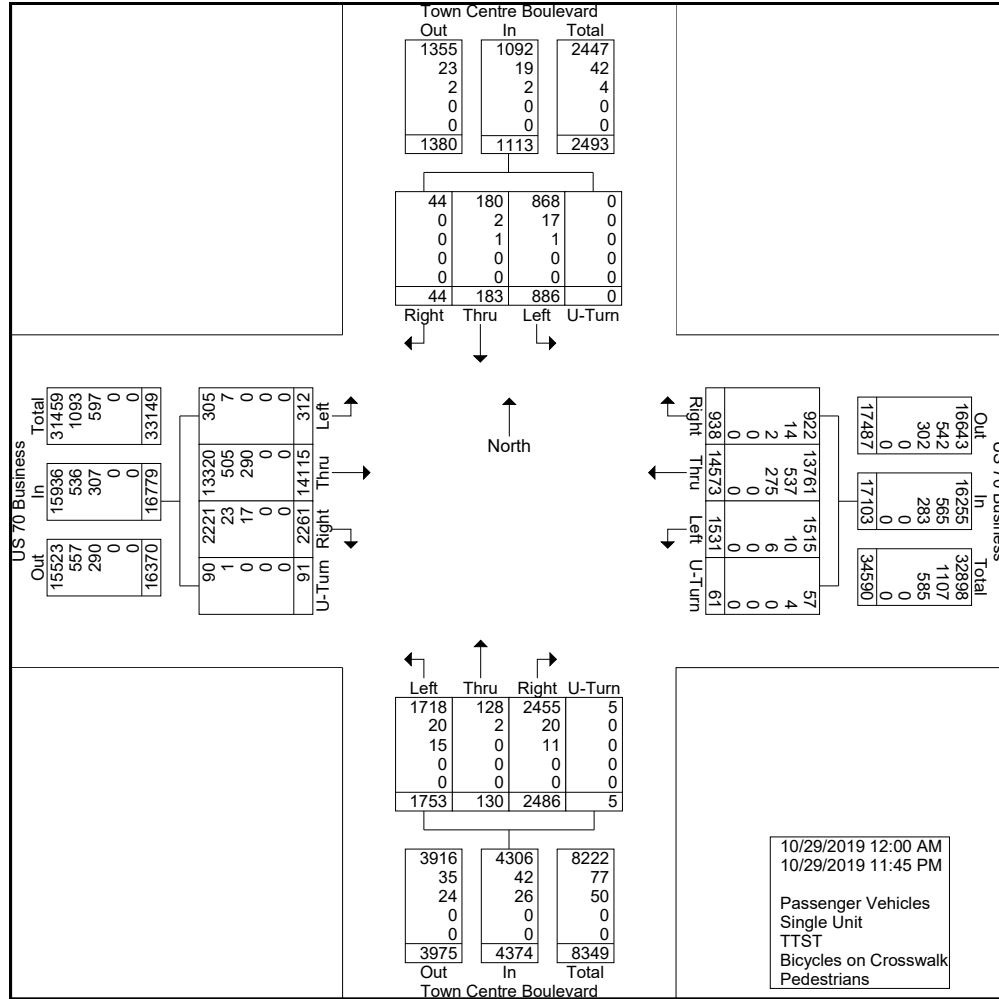
p: 919.829.0328 f: 919.833.0034

File Name : US70@TownCentre

Site Code :

Start Date : 10/29/2019

Page No : 4

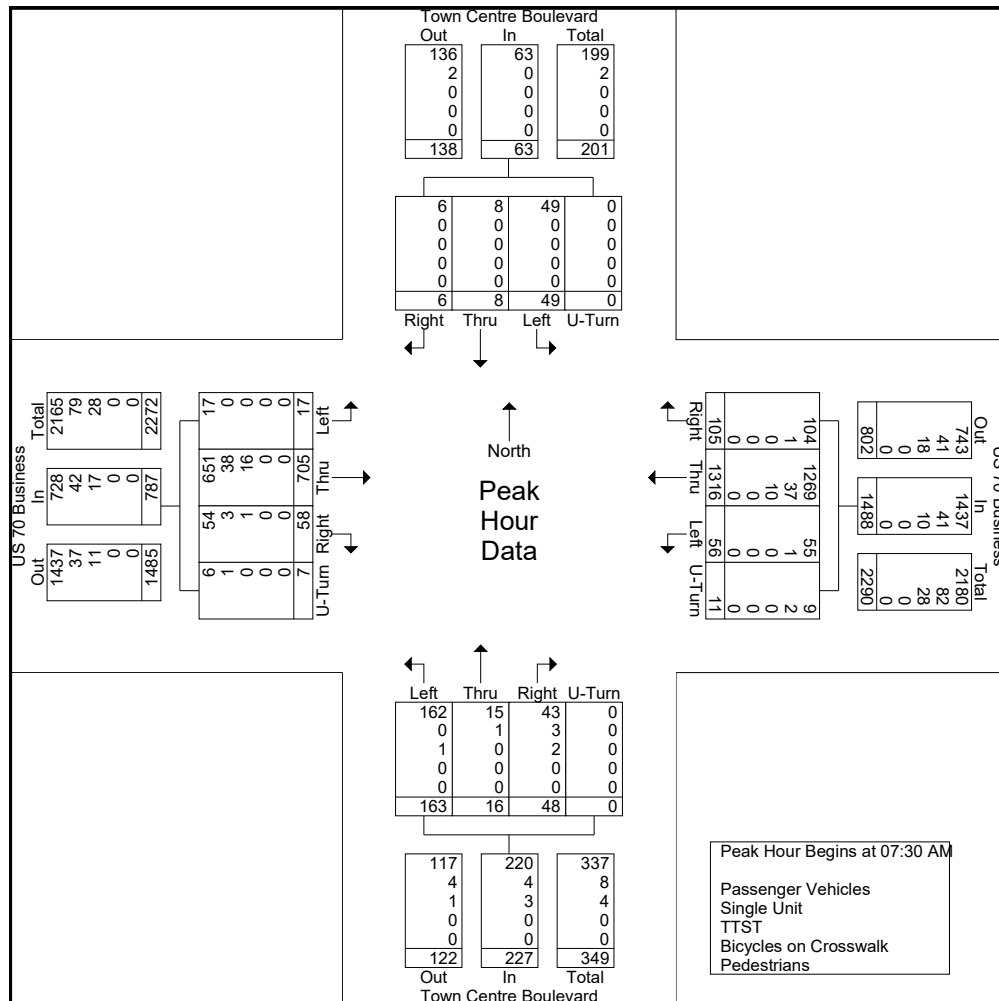


VHB Engineering NC, P.C.

Venture I
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
p: 919.829.0328 f: 919.833.0034

File Name : US70@TownCentre
Site Code :
Start Date : 10/29/2019
Page No : 5

	Town Centre Boulevard Southbound					US 70 Business Westbound					Town Centre Boulevard Northbound					US 70 Business Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	8	1	1	0	10	15	304	25	0	344	37	3	14	0	54	5	193	13	3	214	622
07:45 AM	15	2	1	0	18	21	330	24	9	384	59	4	11	0	74	3	206	23	0	232	708
08:00 AM	16	4	0	0	20	11	329	24	2	366	46	8	9	0	63	3	148	8	0	159	608
08:15 AM	10	1	4	0	15	9	353	32	0	394	21	1	14	0	36	6	158	14	4	182	627
Total Volume	49	8	6	0	63	56	1316	105	11	1488	163	16	48	0	227	17	705	58	7	787	2565
% App. Total	77.8	12.7	9.5	0		3.8	88.4	7.1	0.7		71.8	7	21.1	0		2.2	89.6	7.4	0.9		
PHF	.766	.500	.375	.000	.788	.667	.932	.820	.306	.944	.691	.500	.857	.000	.767	.708	.856	.630	.438	.848	.906
Passenger Vehicles	49	8	6	0	63	55	1269	104	9	1437	162	15	43	0	220	17	651	54	6	728	2448
% Passenger Vehicles	100	100	100	0	100	98.2	96.4	99.0	81.8	96.6	99.4	93.8	89.6	0	96.9	100	92.3	93.1	85.7	92.5	95.4
Single Unit	0	0	0	0	0	1	37	1	2	41	0	1	3	0	4	0	38	3	1	42	87
% Single Unit	0	0	0	0	0	1.8	2.8	1.0	18.2	2.8	0	6.3	6.3	0	1.8	0	5.4	5.2	14.3	5.3	3.4
TTST	0	0	0	0	0	0	10	0	0	10	1	0	2	0	3	0	16	1	0	17	30
% TTST	0	0	0	0	0	0	0.8	0	0	0.7	0.6	0	4.2	0	1.3	0	2.3	1.7	0	2.2	1.2
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

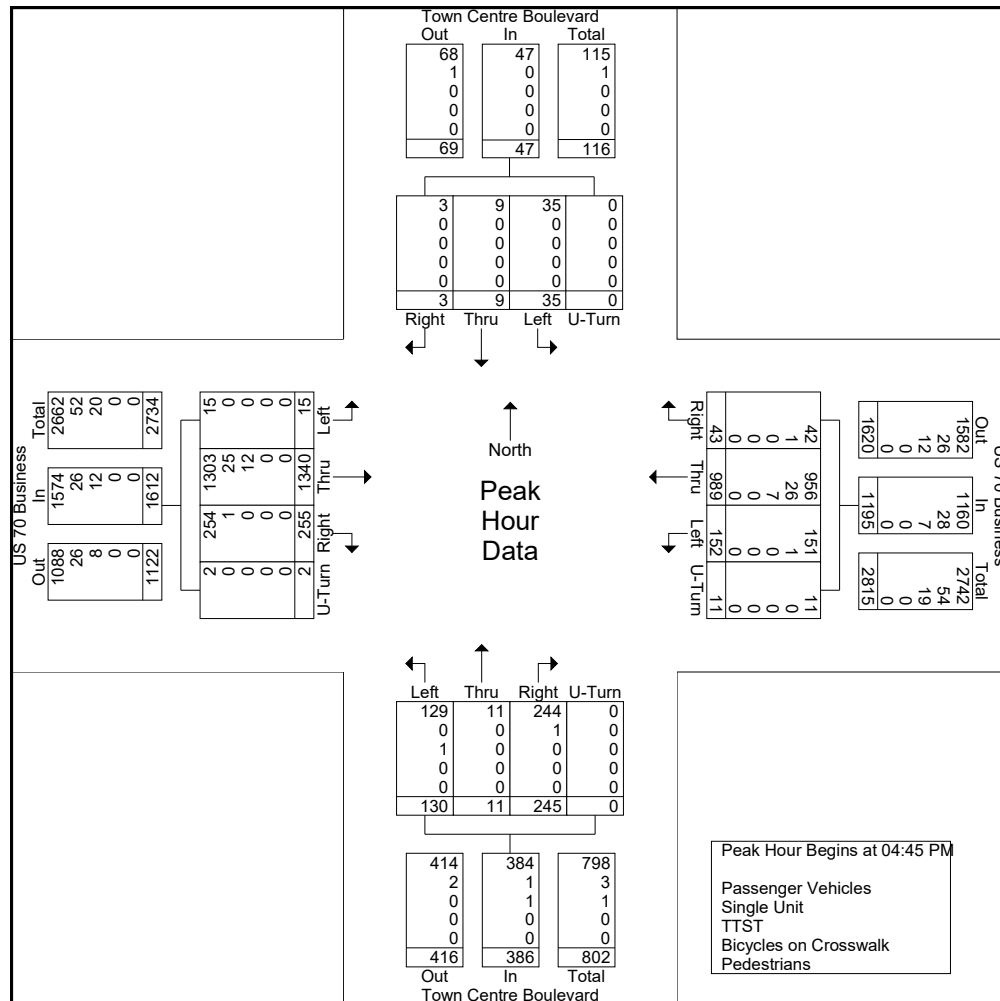
File Name : US70@TownCentre

Site Code :

Start Date : 10/29/2019

Page No : 6

	Town Centre Boulevard Southbound					US 70 Business Westbound					Town Centre Boulevard Northbound					US 70 Business Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 11:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	8	3	2	0	13	23	246	6	1	276	28	5	50	0	83	3	351	53	1	408	780
05:00 PM	11	2	0	0	13	36	244	16	1	297	37	1	59	0	97	2	314	64	0	380	787
05:15 PM	9	2	1	0	12	36	252	12	5	305	31	1	69	0	101	6	390	72	0	468	886
05:30 PM	7	2	0	0	9	57	247	9	4	317	34	4	67	0	105	4	285	66	1	356	787
Total Volume	35	9	3	0	47	152	989	43	11	1195	130	11	245	0	386	15	1340	255	2	1612	3240
% App. Total	74.5	19.1	6.4	0		12.7	82.8	3.6	0.9		33.7	2.8	63.5	0		0.9	83.1	15.8	0.1		
PHF	.795	.750	.375	.000	.904	.667	.981	.672	.550	.942	.878	.550	.888	.000	.919	.625	.859	.885	.500	.861	.914
Passenger Vehicles	35	9	3	0	47	151	956	42	11	1160	129	11	244	0	384	15	1303	254	2	1574	3165
% Passenger Vehicles	100	100	100	0	100	99.3	96.7	97.7	100	97.1	99.2	100	99.6	0	99.5	100	97.2	99.6	100	97.6	97.7
Single Unit	0	0	0	0	0	1	26	1	0	28	0	0	1	0	1	0	25	1	0	26	55
% Single Unit	0	0	0	0	0	0.7	2.6	2.3	0	2.3	0	0	0.4	0	0.3	0	1.9	0.4	0	1.6	1.7
TTST	0	0	0	0	0	0	7	0	0	7	1	0	0	0	1	0	12	0	0	12	20
% TTST	0	0	0	0	0	0	0.7	0	0	0.6	0.8	0	0	0	0.3	0	0.9	0	0	0.7	0.6
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Location: US 70 Business and Town Centre Blvd, Clayton NC (Westbound US 70 Business Approach)

Start Date: 10/29/2019

Start Time: 12:00:00 AM

Start Time	U-Turn (Leftmost)	Left-Turn (Leftmost)	Left-Turn (Rightmost)	TOTAL
12:00 AM	0	1	1	2
12:15 AM	0	0	0	0
12:30 AM	0	0	1	1
12:45 AM	0	0	1	1
01:00 AM	0	1	1	2
01:15 AM	0	0	0	0
01:30 AM	0	0	0	0
01:45 AM	0	0	0	0
02:00 AM	0	0	0	0
02:15 AM	0	0	2	2
02:30 AM	0	0	0	0
02:45 AM	0	0	0	0
03:00 AM	0	0	1	1
03:15 AM	0	0	1	1
03:30 AM	0	0	1	1
03:45 AM	0	0	0	0
04:00 AM	0	0	0	0
04:15 AM	0	0	0	0
04:30 AM	0	0	3	3
04:45 AM	0	0	1	1
05:00 AM	1	1	5	7
05:15 AM	0	1	0	1
05:30 AM	0	0	0	0
05:45 AM	0	0	2	2
06:00 AM	0	1	0	1
06:15 AM	0	0	5	5
06:30 AM	0	1	0	1
06:45 AM	0	2	5	7
07:00 AM	1	1	3	5
07:15 AM	1	2	6	9
07:30 AM	0	5	10	15
07:45 AM	8	13	8	29
08:00 AM	2	2	9	13
08:15 AM	0	1	8	9
08:30 AM	0	4	9	13
08:45 AM	0	5	14	19
09:00 AM	0	3	14	17
09:15 AM	0	3	5	8
09:30 AM	0	7	16	23
09:45 AM	1	4	12	17
10:00 AM	1	3	7	11
10:15 AM	0	8	11	19
10:30 AM	2	6	18	26
10:45 AM	1	5	17	23
11:00 AM	1	7	14	22
11:15 AM	0	15	24	39
11:30 AM	0	7	24	31
11:45 AM	1	10	26	37
12:00 PM	1	20	29	50
12:15 PM	1	21	20	42
12:30 PM	0	18	18	36
12:45 PM	0	14	23	37
01:00 PM	2	10	20	32
01:15 PM	0	9	22	31
01:30 PM	2	8	15	25
01:45 PM	0	4	17	21
02:00 PM	0	6	21	27
02:15 PM	0	11	27	38
02:30 PM	2	8	7	17
02:45 PM	0	13	18	31
03:00 PM	3	11	18	32
03:15 PM	1	10	12	23
03:30 PM	6	23	30	59
03:45 PM	4	9	16	29
04:00 PM	2	16	30	48
04:15 PM	0	17	17	34
04:30 PM	2	13	20	35
04:45 PM	1	9	14	24
05:00 PM	1	11	25	37
05:15 PM	5	15	20	40
05:30 PM	4	24	33	61
05:45 PM	2	17	21	40
06:00 PM	2	18	19	39
06:15 PM	0	3	14	17
06:30 PM	0	14	32	46
06:45 PM	0	11	19	30
07:00 PM	0	19	19	38
07:15 PM	0	8	14	22
07:30 PM	0	7	18	25
07:45 PM	0	8	12	20
08:00 PM	0	3	10	13
08:15 PM	0	2	8	10
08:30 PM	1	3	6	10
08:45 PM	1	1	7	9
09:00 PM	1	5	3	9
09:15 PM	0	2	3	5
09:30 PM	0	5	5	10
09:45 PM	0	1	3	4
10:00 PM	0	1	2	3
10:15 PM	0	0	1	1
10:30 PM	0	1	1	2
10:45 PM	0	2	0	2
11:00 PM	0	0	0	0
11:15 PM	1	1	1	3
11:30 PM	0	0	0	0
11:45 PM	0	1	0	1
Total	65	552	975	1592

Total Volume Leftmost Lane (Lefts & U-Turns)	Total Volume Rightmost Lane (Only Lefts)
1	1
0	0
0	1
0	1
1	1
0	0
0	0
0	0
0	0
0	2
0	0
0	0
0	1
0	1
0	1
0	0
0	0
0	0
0	3
0	1
2	5
1	0
0	0
0	2
1	0
0	5
1	0
2	5
2	3
3	6
5	10
21	8
4	9
1	8
4	9
5	14
3	14
3	5
7	16
5	12
4	7
8	11
8	18
6	17
8	14
15	24
7	24
11	26
21	29
22	20
18	18
14	23
12	20
9	22
10	15
4	17
6	21
11	27
10	7
13	18
14	18
11	12
29	30
13	16
18	30
17	17
15	20
10	14
12	25
20	20
28	33
19	21
20	19
3	14
14	32
11	19
19	19
8	14
7	18
8	12
3	10
2	8
4	6
2	7
6	3
2	3
5	5
1	3
1	2
0	1
1	1
2	0
0	0
2	1
0	0
1	0
38.8%	61.2%