



MEMORANDUM

To: Jim Melville, MBI Development
From: Andrew Topp, PE, PTOE, Martin/Alexiou/Bryson, PLLC
Date: November 21, 2008
Subject: Proposed Colleton Crossing Subdivision – Traffic Impact Assessment (TIA)

Project Background

Colleton Crossing Subdivision is proposed near Rogers Road in northern Carrboro, North Carolina (Figure 1). The project site is located on Reynard Road near Tallyho Trail (Figure 2). The proposed development will have two (2) access points. The western access point is made by extending Reynard Road to the development. A second access point to the south will access Claymore Road when the small single-family portion of Carolina Commons is built. The Colleton Crossing subdivision is proposed for 39 single-family dwelling units. This assessment is being required by the Town of Carrboro to quantify the current traffic on local residential streets and to determine what impact the proposed development would have on these streets.

In addition, once a portion of Carolina Commons is constructed to the south of the proposed development (Figure 3), the Town has asked to evaluate the type of impact the proposed development would have after that connection to Claymore Road is made. Only the small single-family portion of Carolina Commons was included in the TIA surrounding the connection. A more comprehensive study of Carolina Commons and the surrounding area will be submitted at a later date as part of site plan submittal for that project.

Construction of this project is proposed to be completed by 2010. Analyses were conducted for the morning and afternoon peak hours of travel (7:00-9:00 A.M. and 4:00-6:00 P.M.) to determine the impact of the proposed development during the peak hour conditions.

Existing (2008) Conditions

Access to Colleton Crossing is via Tallyho Trail then Reynard Road coming from Rogers Road. Access to the small single-family section of Carolina Commons is via Claymore Road and/or Sterling Bridge Road. These are subdivision roads with posted 25 miles per hour (mph) speed limits and no Annual Average Daily Traffic (AADT) available from NCDOT.

Homestead Road and Rogers Road are two-lane collector roads bordering the neighborhoods. Rogers Road has a NCDOT AADT of 2,300 vehicles per day (vpd) with a posted speed limit of 40 mph. Homestead Road has a NCDOT AADT of 7,300 vpd with a posted speed limit of 35 mph.

Martin/Alexiou/Bryson, PLLC collected the A.M. and P.M. peak hour intersection turning movement counts analyzed in this TIA in November 2008. Table 1 summarizes the schedule used

to obtain the turning movement data. A detailed summary of traffic counts can be found in Appendix B.

Table 1 Weekday Peak Period Turning Movement Count Schedule

Intersection	Time of Data Collection	Date of Count
Rogers Road and Tallyho Trail (unsignalized)	7:00 A.M. – 9:00 A.M. 4:00 P.M. – 6:00 P.M.	Wednesday November 19, 2008
Rogers Road and Claymore Road (unsignalized)	7:00 A.M. – 9:00 A.M. 4:00 P.M. – 6:00 P.M.	Wednesday November 19, 2008
Homestead Road and Sterling Bridge Road (unsignalized)	7:00 A.M. – 9:00 A.M. 4:00 P.M. – 6:00 P.M.	Wednesday November 12, 2008

The existing conditions are shown in Figure 4, and the existing peak hour turning movement volumes are shown in Figure 5.

Background Growth

Based on annual traffic surveys conducted by the North Carolina Department of Transportation (NCDOT), growth along Rogers Road has been minimal between 1999 and 2007; however, to maintain a conservative approach, an annual growth rate of 3% was applied to the existing peak hour volumes on the major roadways to reflect growth in the area. The residential streets are not expected to grow since the existing neighborhoods are fully built out. This growth rate should account for other approved developments were found within the study area of this development. See Figure 6 for No-Build (2010) peak hour turning movement volumes.

Traffic Generation

Based on the corresponding trip generation code included in the *ITE Trip Generation Manual, 8th Edition*, the proposed Colleton Crossing Subdivision is projected to generate 437 daily trips including 37 A.M. peak hour site trips (9 entering, 28 exiting) and 45 P.M. peak hour site trips (28 entering, 17 exiting).

The following table summarizes the estimated daily and peak hour trips to be generated by the Colleton Crossing Subdivision. To be conservative, no trip reductions were taken for transit, TDM, etc.

Table 2: Trip Generation (vehicle trips)

A.M. Peak Hour Total Trips						
ITE Land Use Code	USE	Units	ITE MANUAL RATES			
			ADT	Enter	Exit	Total
210	Colleton Crossing - Single Family Detached Housing	39 units	437	9	28	37
		<i>Land Use Total Trips</i>	<i>437</i>	<i>9</i>	<i>28</i>	<i>37</i>
P.M. Peak Hour Total Trips						
ITE Land Use Code	USE	Units	ITE MANUAL RATES			
			ADT	Enter	Exit	Total
210	Colleton Crossing - Single Family Detached Housing	39 units	437	28	17	45
		<i>Land Use Totals</i>	<i>437</i>	<i>28</i>	<i>17</i>	<i>45</i>

Trip Distribution

The site-generated trips were then distributed based on existing traffic patterns to the future year roadway network. Thirty-five percent (35%) of the site traffic would originate from and be destined to areas north of the project site via Rogers Road, thirty-two percent (32%) to areas south/west of the project site via Homestead Road, and thirty-three percent (33%) to areas east of the project site via Homestead Road.

Figure 7 illustrates the distribution for Colleton Crossing without the Carolina Commons connection and Figure 8 shows the A.M. and P.M. peak hour volumes according to this distribution. It should be noted that all of the site traffic must use Tallyho Trail and Rogers Road to travel to the surrounding communities.

Figure 9 illustrates the distribution for Colleton Crossing with the connection to Carolina Commons. Figure 10 shows the A.M. and P.M. peak hour volumes of Colleton Crossing according to this distribution along with traffic from the small single-family section of Carolina Commons and the diversion some existing traffic to utilize this new connection. It should be noted that once the Carolina Commons roadway link is in place, site traffic generated by the new Carolina Commons Homes (~17 units) would use Claymore Road and Sterling Bridge Road. In addition, some residents living at the end of Tallyho Trail will themselves opt to use Claymore Road and Sterling Bridge Road to access Rogers Road and Homestead Road. The specific shift in traffic was estimated using the shortest path. Figure 11 shows the Carolina Commons traffic, and Figure 12 shows the Tallyho Trail diverted traffic.

Build (2010) Conditions

The Build (2010) Conditions without Carolina Commons account for the No-Build (2010) volumes discussed previously along with the addition of the site trips illustrated in Figure 8 for Colleton Crossing. Figure 121 illustrates the Build (2010) volumes without Carolina Commons. The Build (2010) Conditions with Carolina Commons account for the No-Build (2010) volumes discussed previously along with the addition of the site trips for Colleton Crossing, Carolina Commons, and any diverted traffic link trips. Figure 14 illustrates the Build (2010) volumes with Carolina Commons.

Traffic Impacts

According to the analysis, the intersections shown in Table 3 are projected to operate at good Levels of Service (LOS B) during both the A.M. peak hour and the P.M. peak hour in the Existing, No-Build (2010), Build (2010) without Carolina Commons, and Build (2010) with Carolina Commons conditions.

Table 3: Level-of-Service Results

Intersection	Traffic Control	Existing (2008)		No-Build (2010)		Build w/o Carolina Commons (2010)		Build w/ Carolina Commons (2010)	
		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Rogers Road and Tallyho Trail	unsignalized	(WB-B)	(WB-B)	(WB-B)	(WB-B)	(WB-B)	(WB-B)	(WB-B)	(WB-B)
Rogers Road and Claymore Road	unsignalized	(WB-B)	(WB-B)	(WB-B)	(WB-B)	(WB-B)	(WB-B)	(WB-B)	(WB-B)
Homestead Road and Sterling Bridge Road	unsignalized	(EB-B)	(EB-B)	(EB-B)	(EB-B)	(EB-B)	(EB-B)	(EB-B)	(EB-B)

LEGEND: (XX-X) = worst approach LOS

Neighborhood Roadways and Access

Access to Colleton Crossing and the small single-family section of Carolina Commons is via standard subdivision roads, Reynard Road, Tallyho Trail, Claymore Road, and Sterling Bridge Road. These subdivision roads are typically narrower, approximately 18-feet to 20-feet in width, have slower speeds, posted 25 miles per hour (mph) speed limit, and have less traffic than the collector roads such as Rogers Roads and Homestead Road. The narrow roads create a traffic calming effect on drivers, but allow enough room for vehicles to pass, even when encountering school buses. In addition, the neighborhoods are heavily wooded, thereby creating a closed-in effect on the drivers. These roads typically have pedestrian activity on them, but adequate shoulders are provided for pedestrians when oncoming vehicles are approaching, if needed. At the Rogers Road and Tallyho Trail intersection, there are existing sidewalks on the east side of Rogers Road.

Emergency crews can expect approximately three minutes of additional travel time from Rogers Road to the Colleton Crossing Subdivision. Field observations revealed adequate sight distances at the Rogers Road and Tallyho Trail intersection. Once the connection to the small single-family section of Carolina Commons is made on Claymore Road, travel time is reduced to only one and a half minutes from Rogers Road. The intersection of Claymore Road and Rogers Road also has adequate sight distance.

Conclusions

In summary, the proposed Colleton Crossing Subdivision, projected to open in 2010 near Rogers Road in the northern Carrboro area is not expected to have any significant negative impacts on the surrounding roadway network. Without the Carolina Commons link in place, the site's projected 37 A.M. and 45 P.M. trips will use Tallyho Trail. With the Carolina Commons link in place, the site's traffic will predominately use Claymore Road to access Rogers Road and Sterling Bridge Road to access Homestead Road. Even with the addition of this site, Carolina Commons, and the diverted trip from Tallyho Trail, all intersections are expected to continue to operate at a Level of Service B.

APPENDIX

APPENDIX A

FIGURES

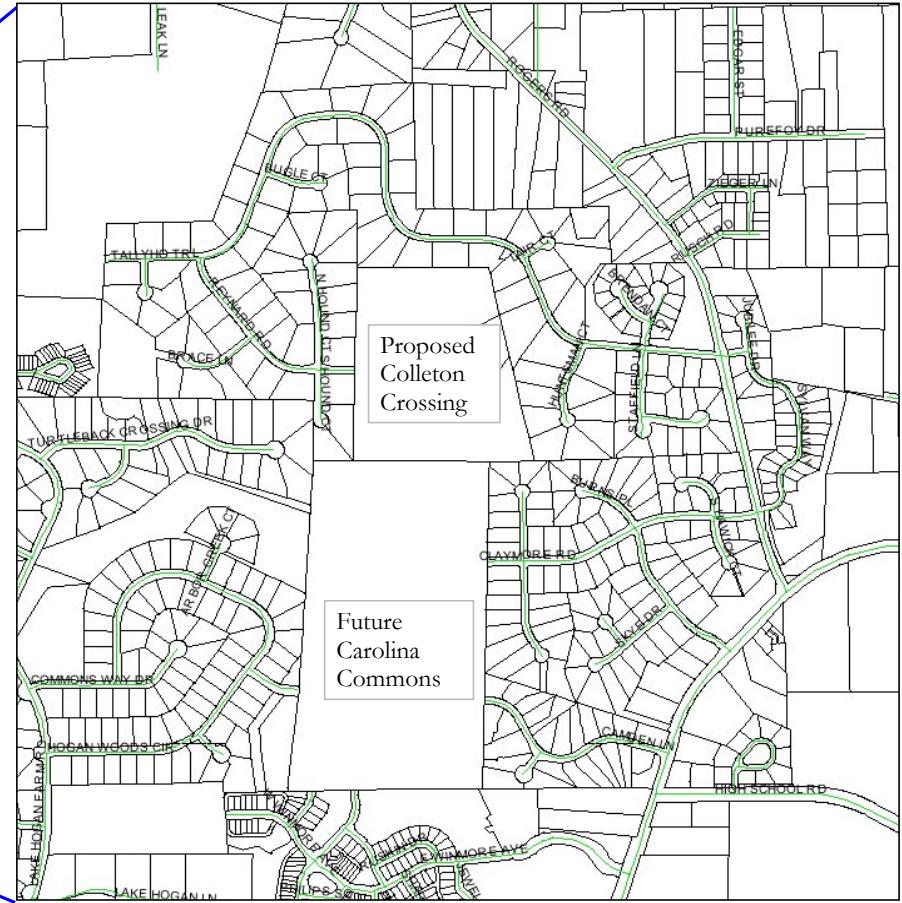
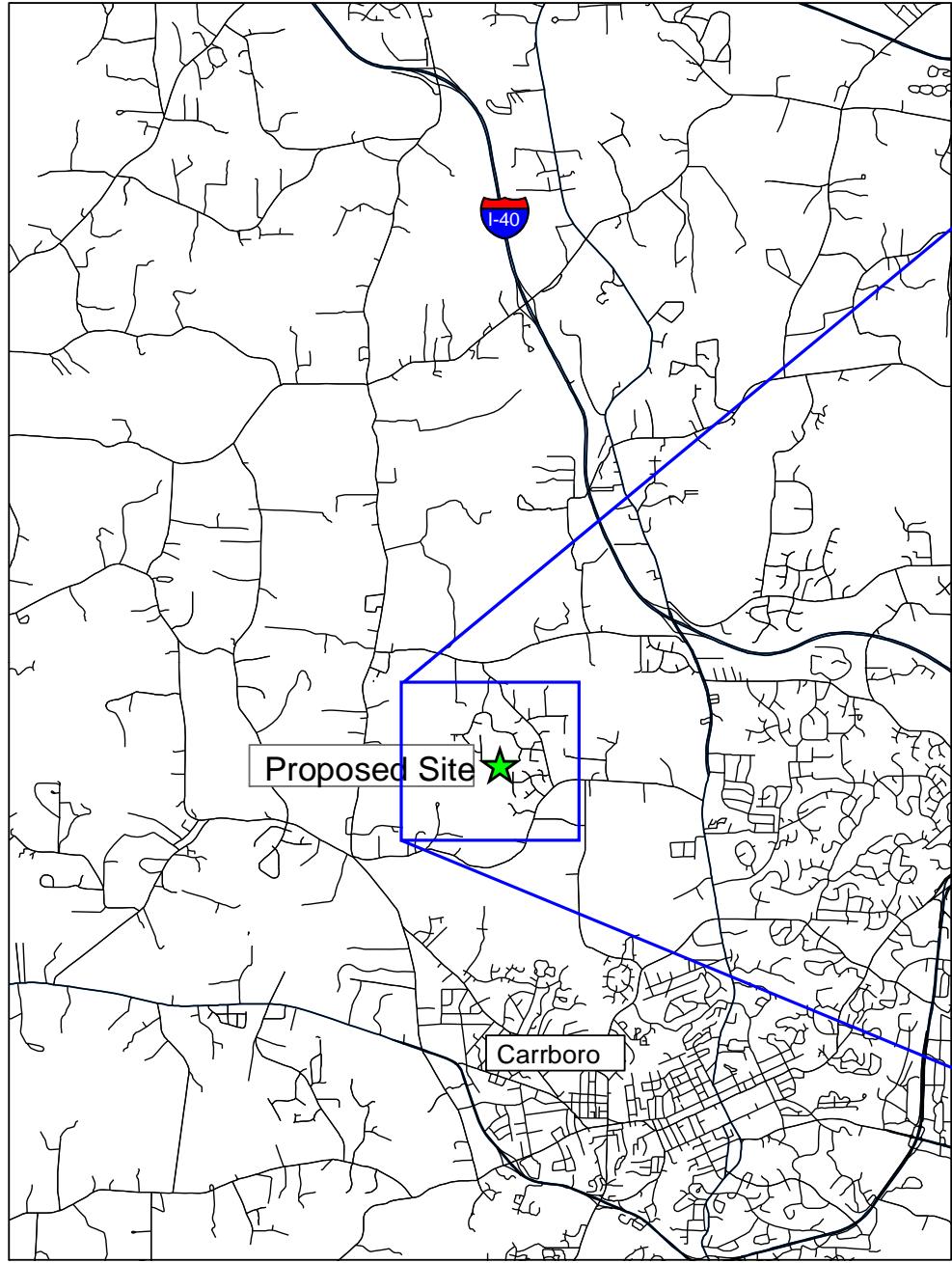
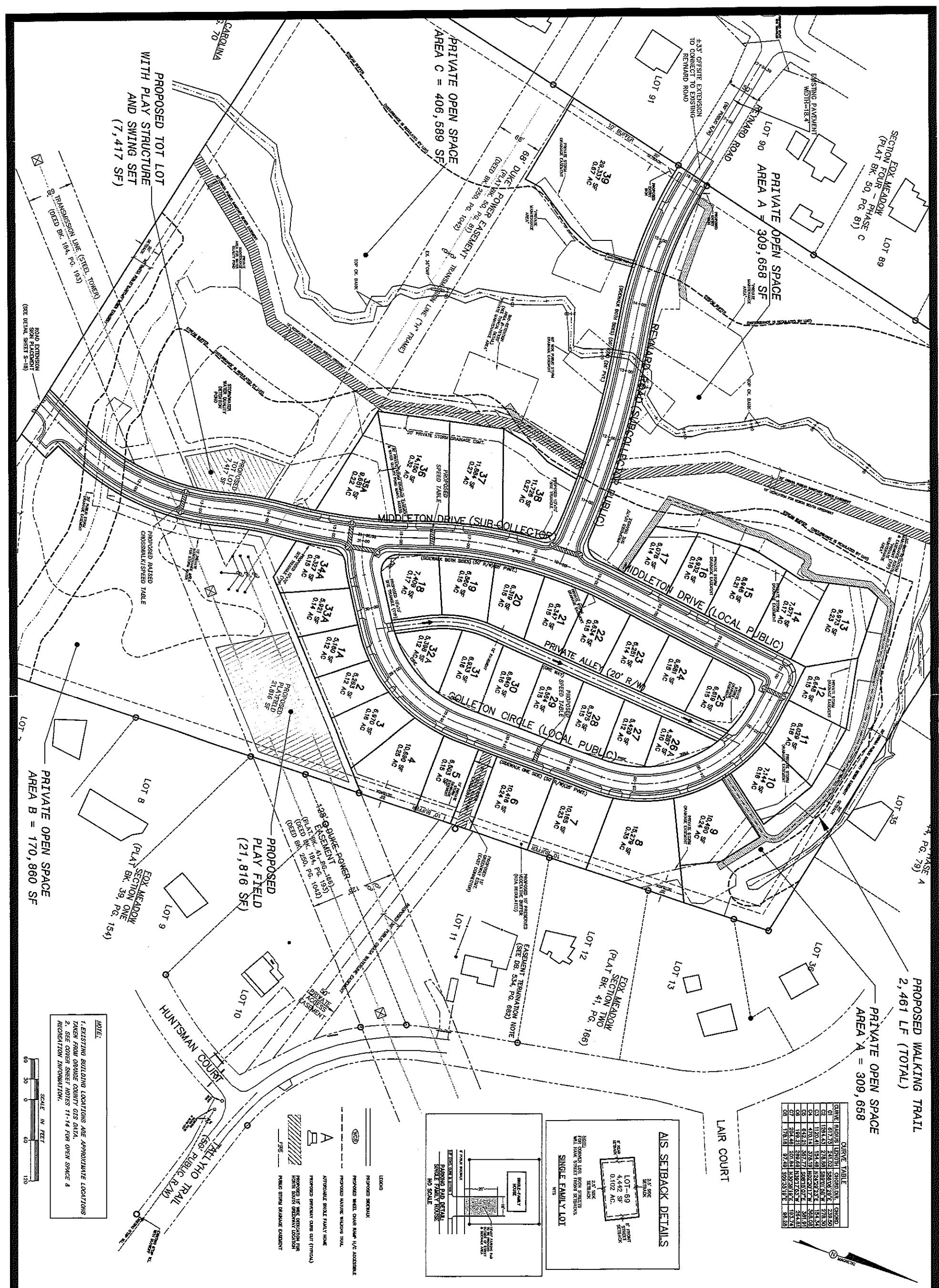


Figure 1
Vicinity Map

Colleton Crossing
Carrboro, NC



- SITIONS 1, 12/18/07; CUP COMMENTS 12/5/07
- /09/08: RESIZE LOTS 1, 2 & 3.
- /18/08: CUP REVIEW #2 COMMENTS
- /12/08: CUP REVIEW #3 AND COMMENTS
- /11/08: PER 5/14/08 MEETING WITH TOWN
- /5/08: CUP REVIEW #3 COMMENTS
- /29/08: CUP REVIEW #6 COMMENTS
- /23/08: CUP REVIEW #7 COMMENTS

CUP SITE PLAN

**COLLETON CROSSING
AIS SUBDIVISION**

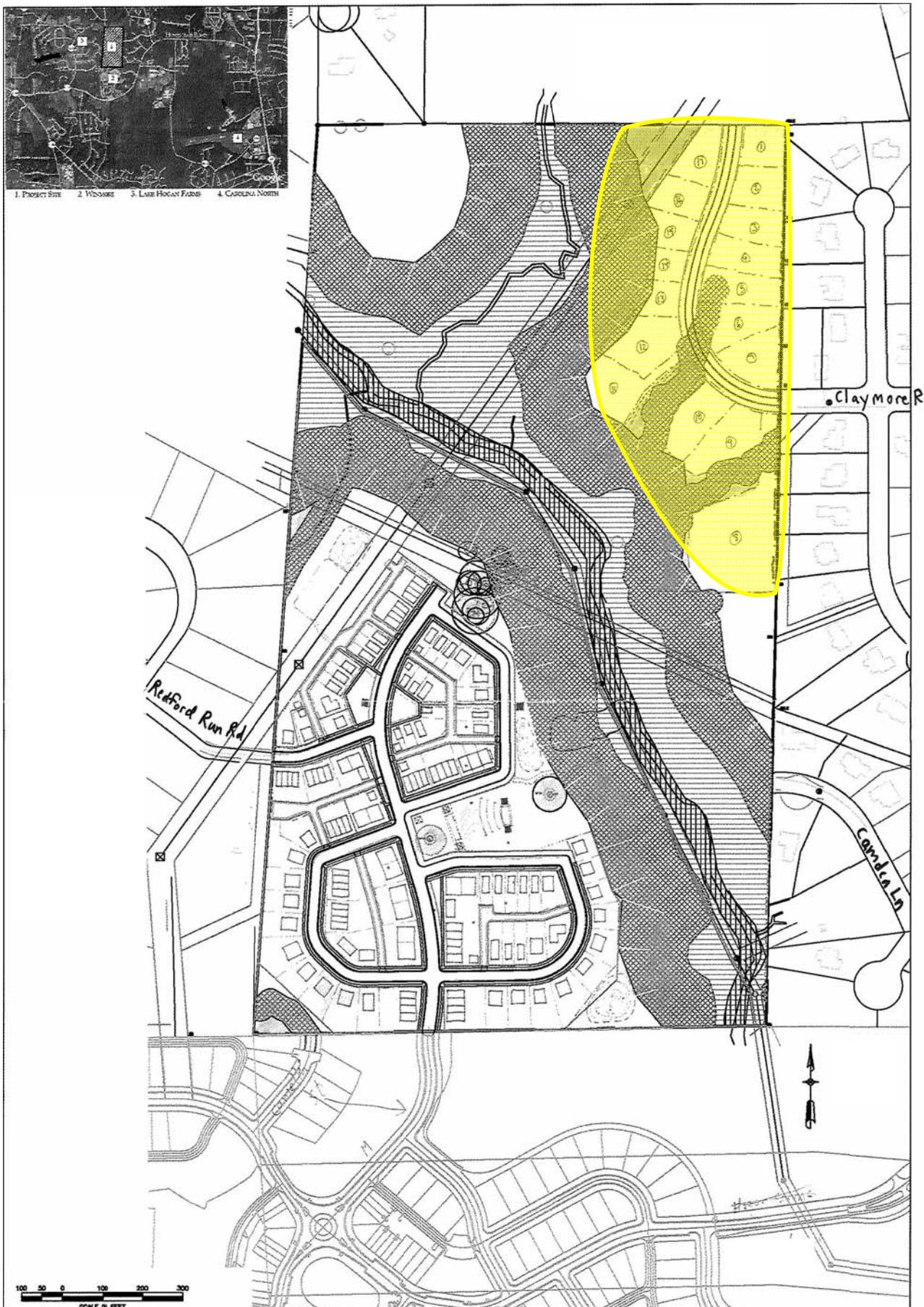


**PHILIP
POST
&
ASSOCIATES**

**ENGINEERS
PLANNERS
SURVEYORS**

401 Providence Rd. # 200
Chapel Hill NC 27514
(919)929-1173
493-2800 850-9862

Greensboro, NC
(919)277-1173

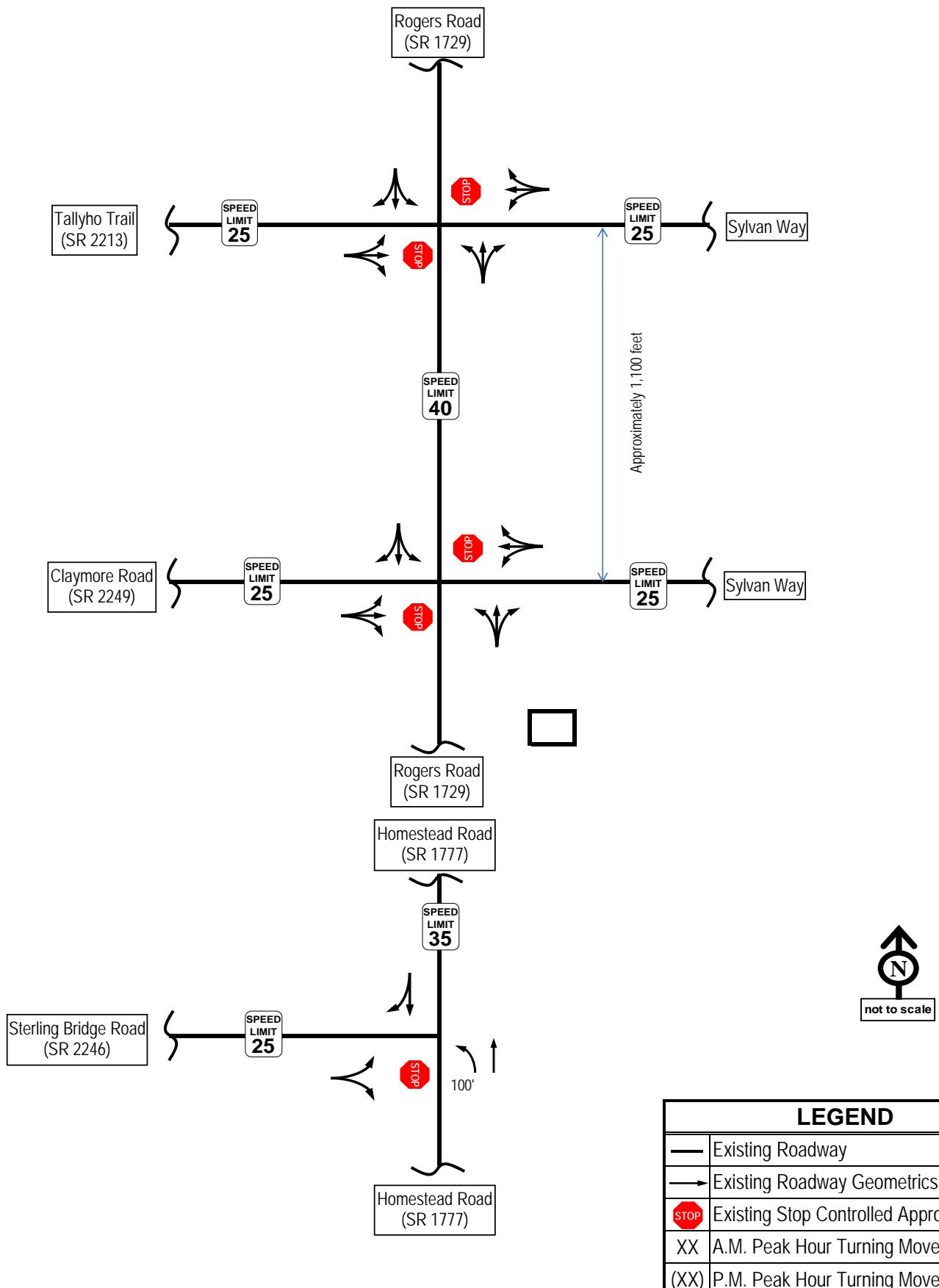


Bryan Properties, Inc.
500 Market Street, Suite 120
Chapel Hill, North Carolina 27516
919-933-4422

CAROLINA COMMONS
Carrboro, North Carolina
May 6, 2008

Civitech, Inc.
1107-B West Main Street
Durham, North Carolina 27701
919-338-1050

Mitchell Westendorf, P.A.
1709 Legion Road, Suite 201
Chapel Hill, North Carolina 27517
919-933-4867



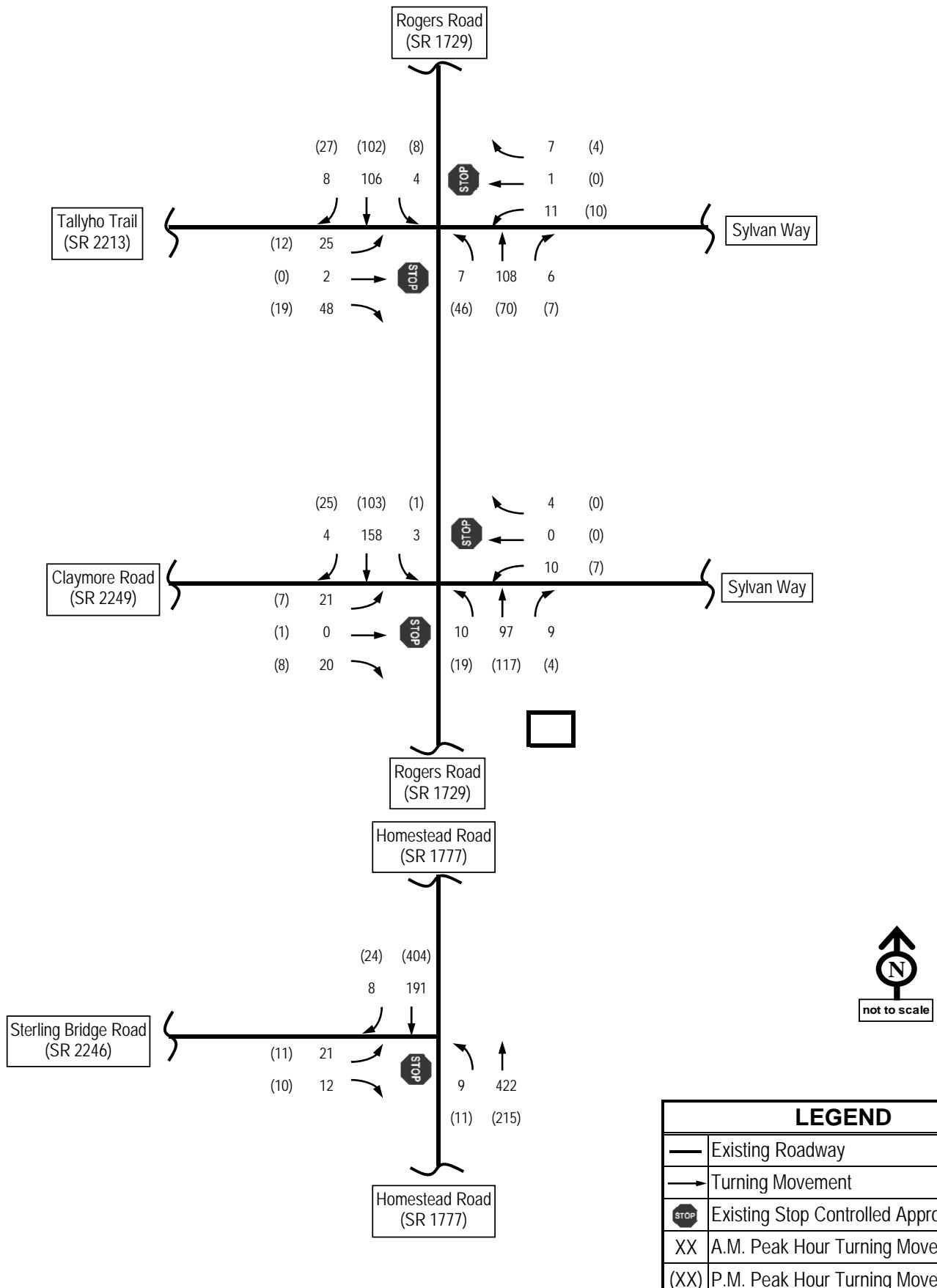


Figure 5:
Existing A.M. and P.M. Turning Movement Volumes

Colleton Crossing
Carrboro, NC

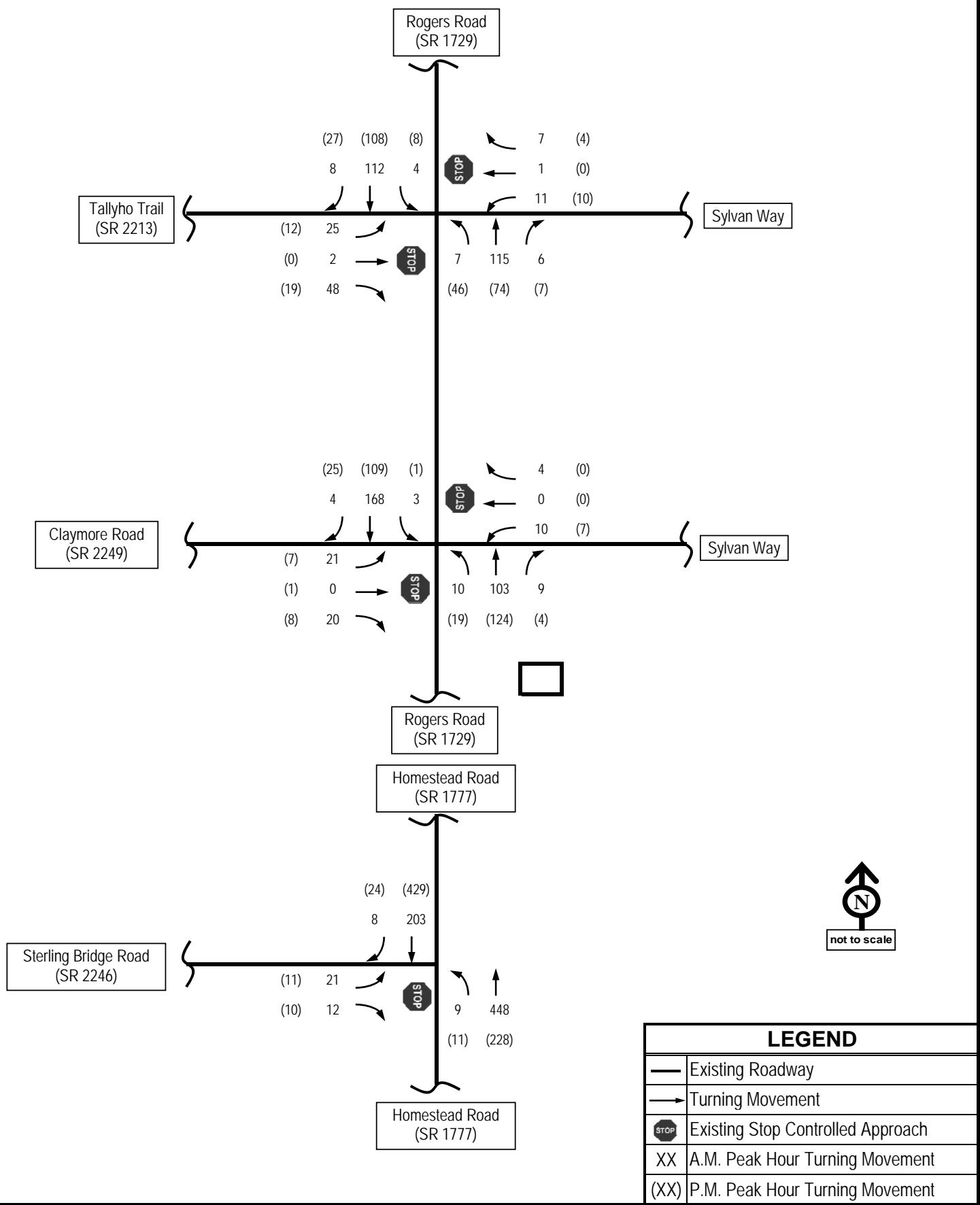


Figure 6:
No-Build (2010) A.M. and P.M. Turning Movement
Volumes

Colleton Crossing
Carrboro, NC

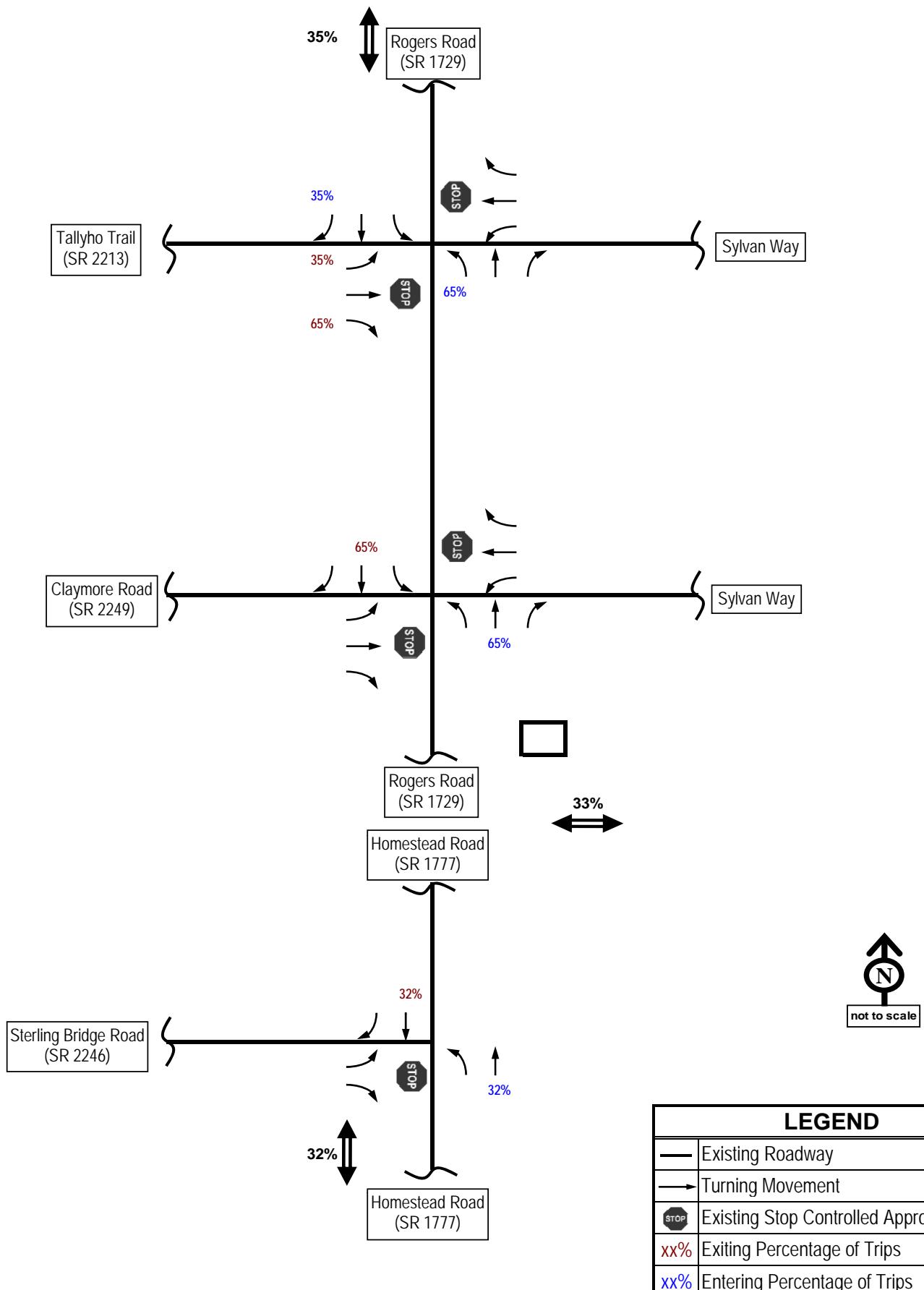


Figure 7:
Colleton Crossing Traffic Distribution
Percentages without Carolina Commons

Colleton Crossing
Carrboro, NC

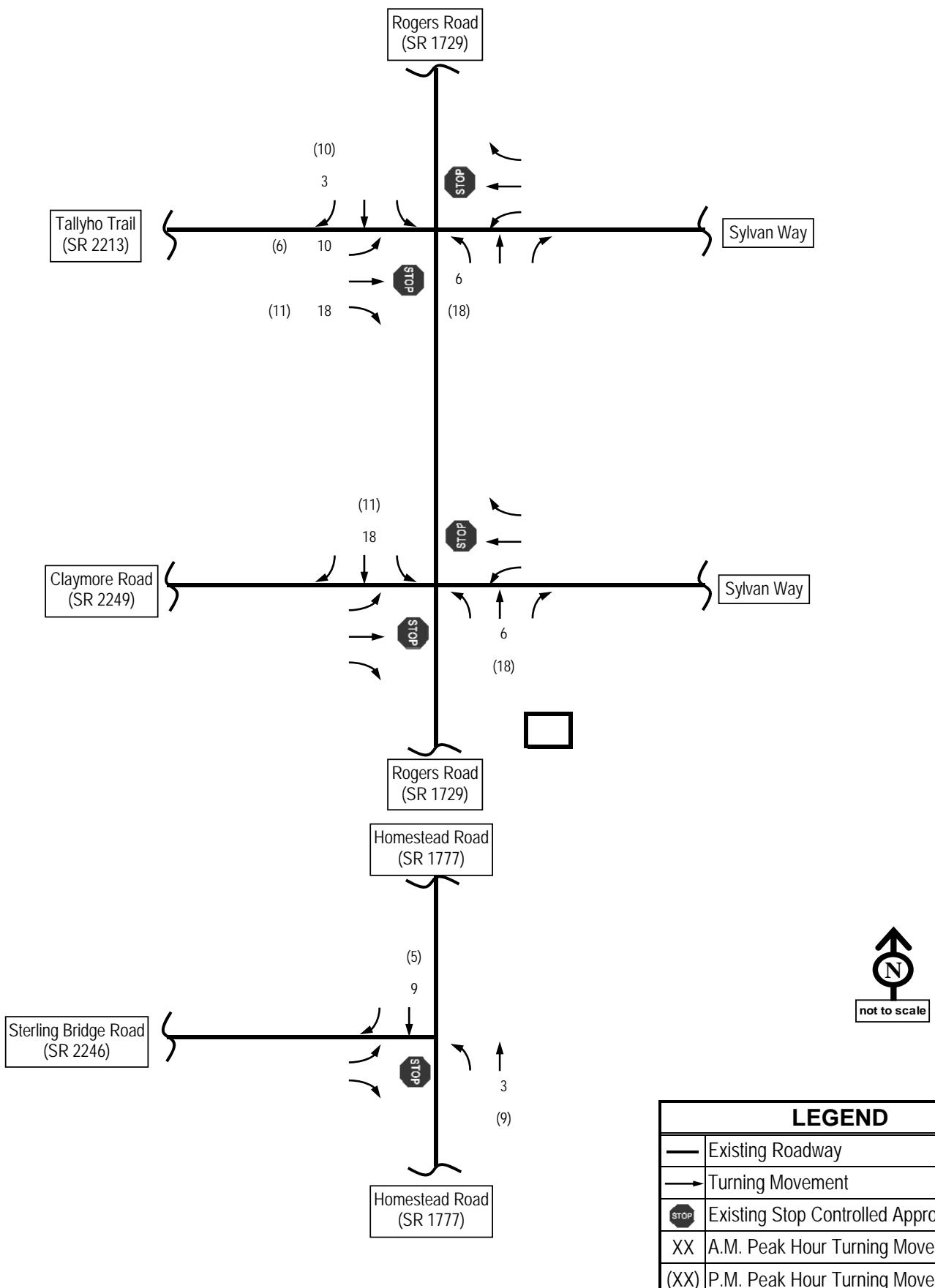


Figure 8:
Colleton Crossing without Carolina Commons
A.M. and P.M. Turning Movement Volumes

Colleton Crossing
Carrboro, NC

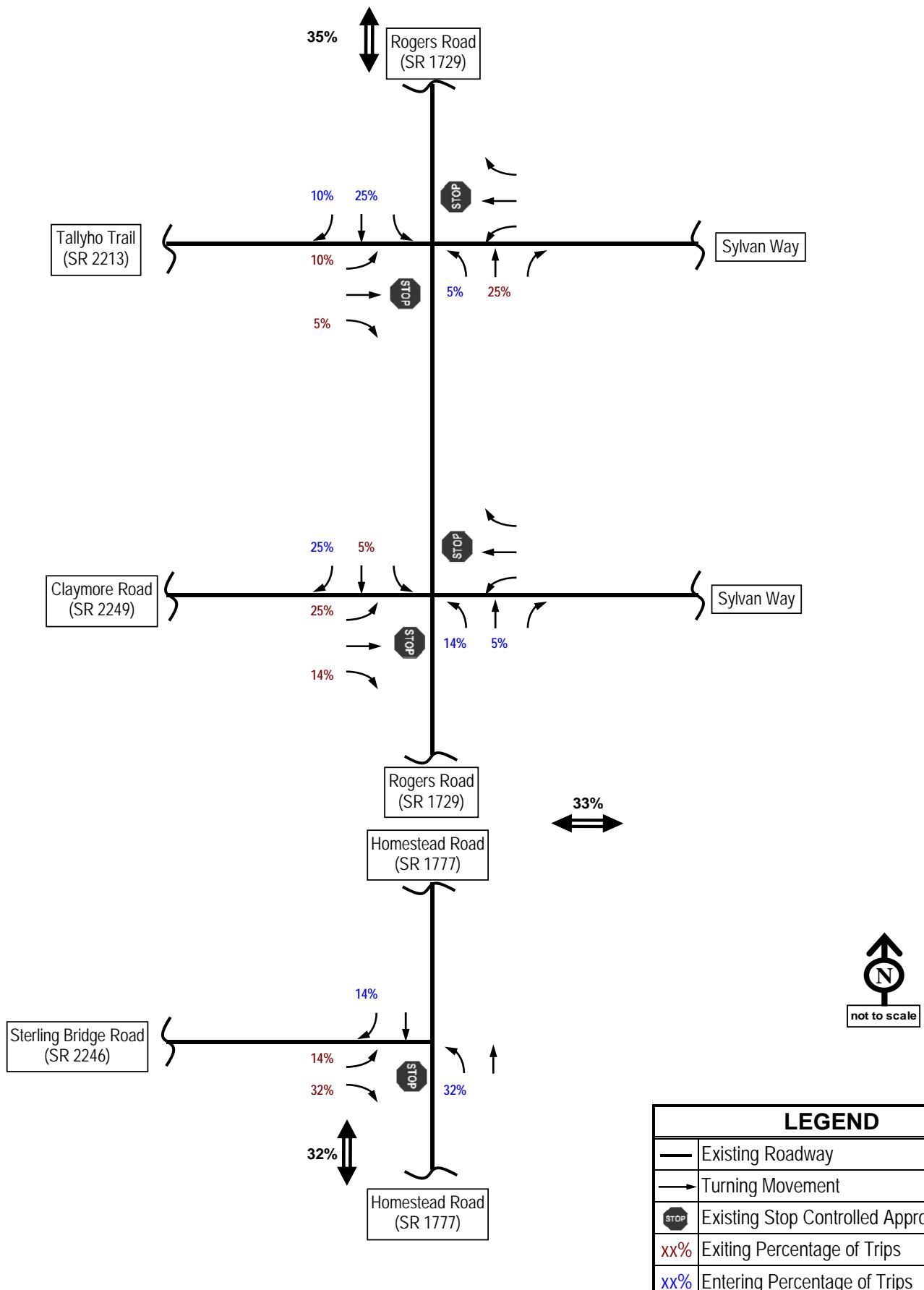


Figure 9:
Colleton Crossing Traffic Distribution
Percentages with Carolina Commons Connection

Colleton Crossing
Carrboro, NC

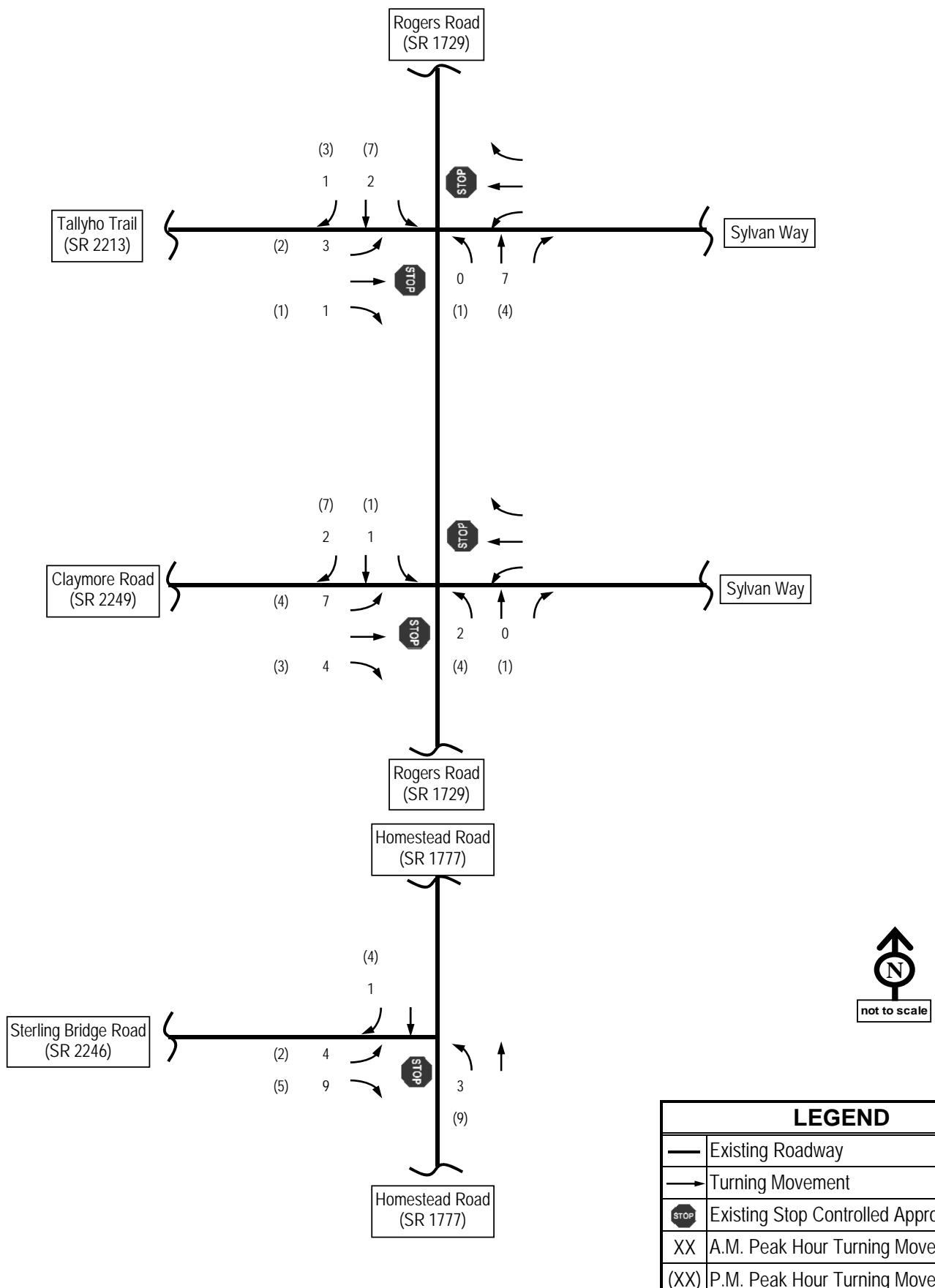


Figure 10:
Colleton Crossing with Carolina Commons Connection
A.M. and P.M. Turning Movement Volumes

Colleton Crossing
Carrboro, NC

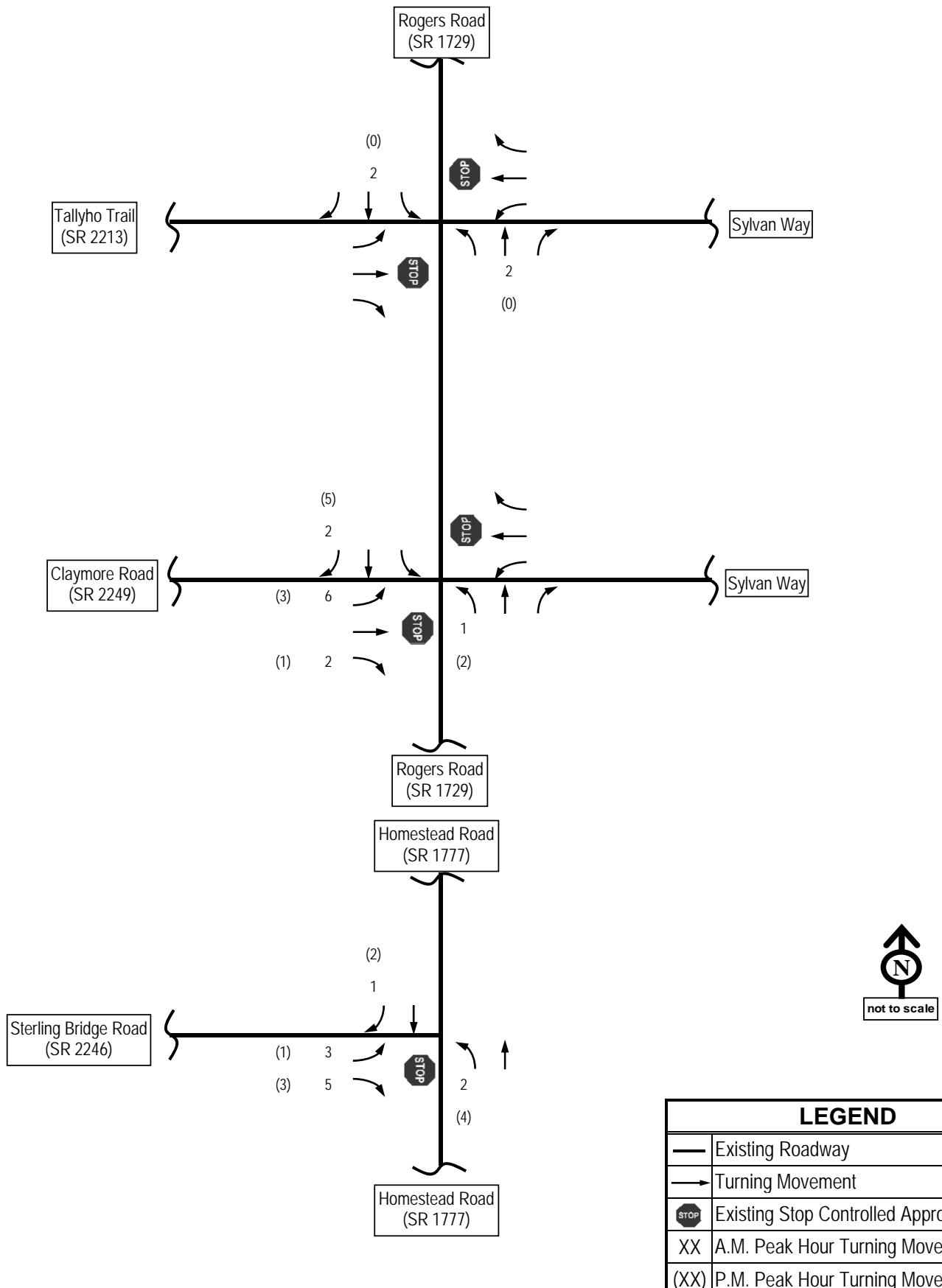
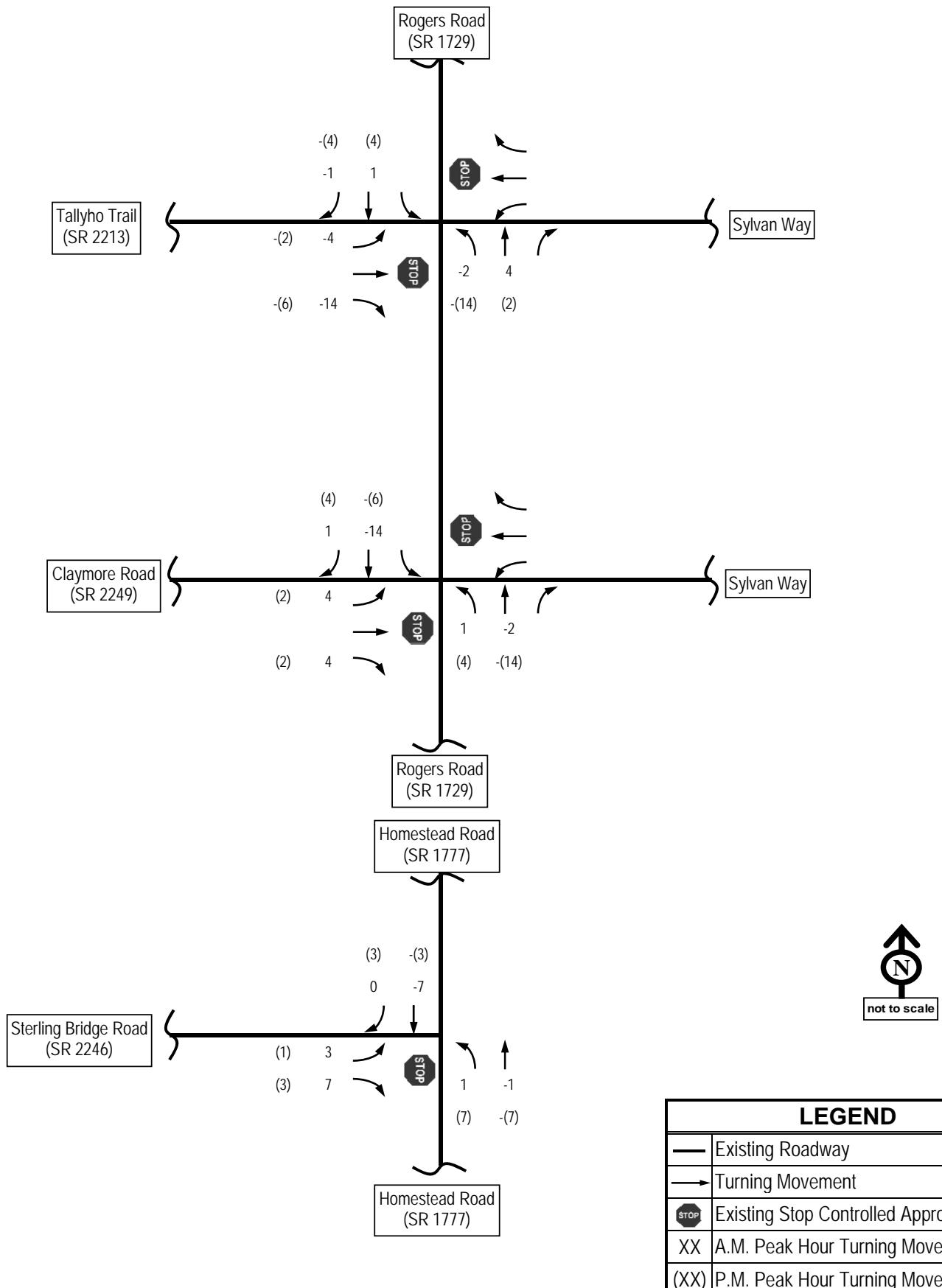


Figure 11:
Carolina Commons
(17 units, northeast portion of property)
A.M. and P.M. Turning Movement Volumes

Colleton Crossing
Carrboro, NC



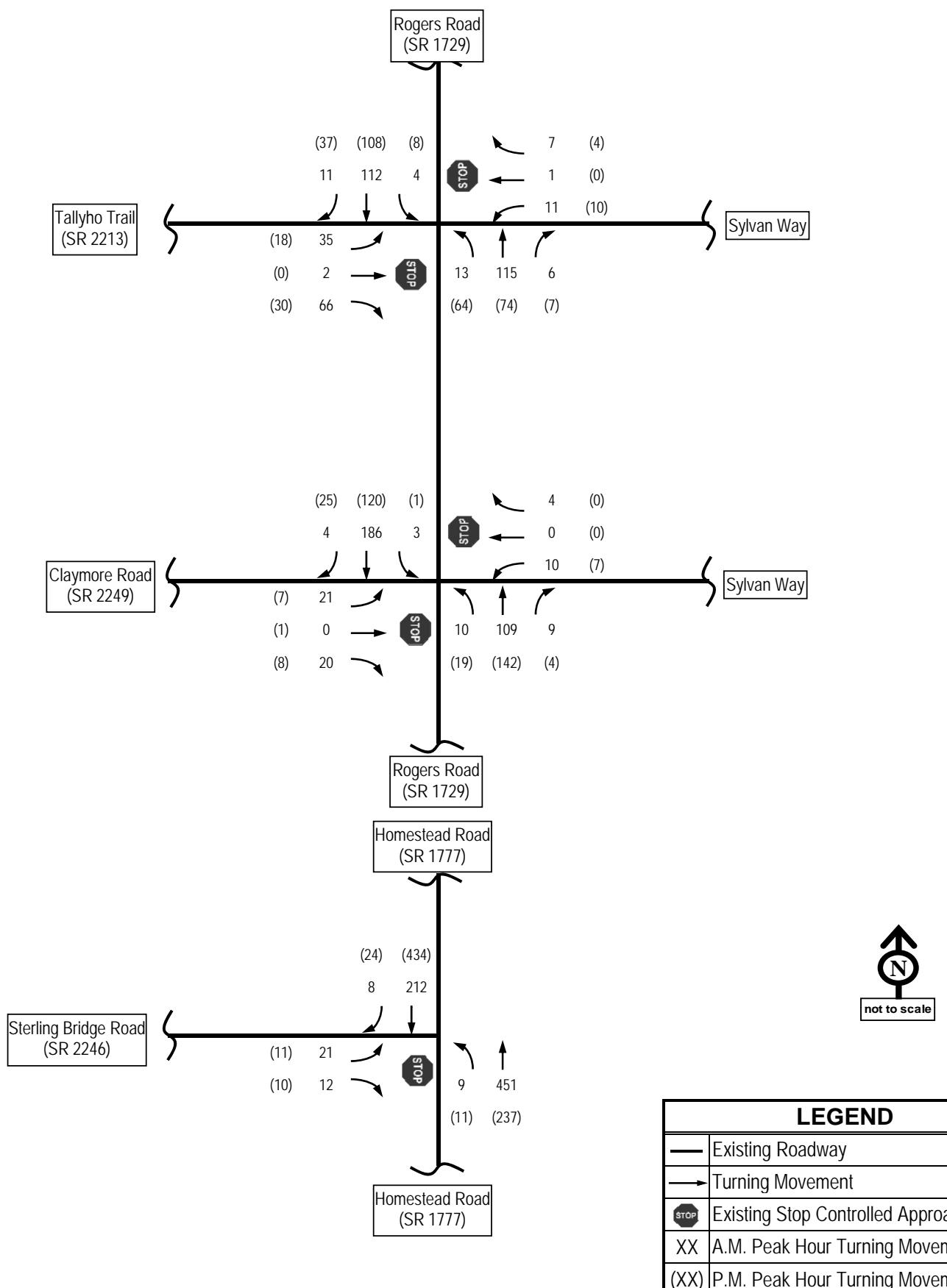
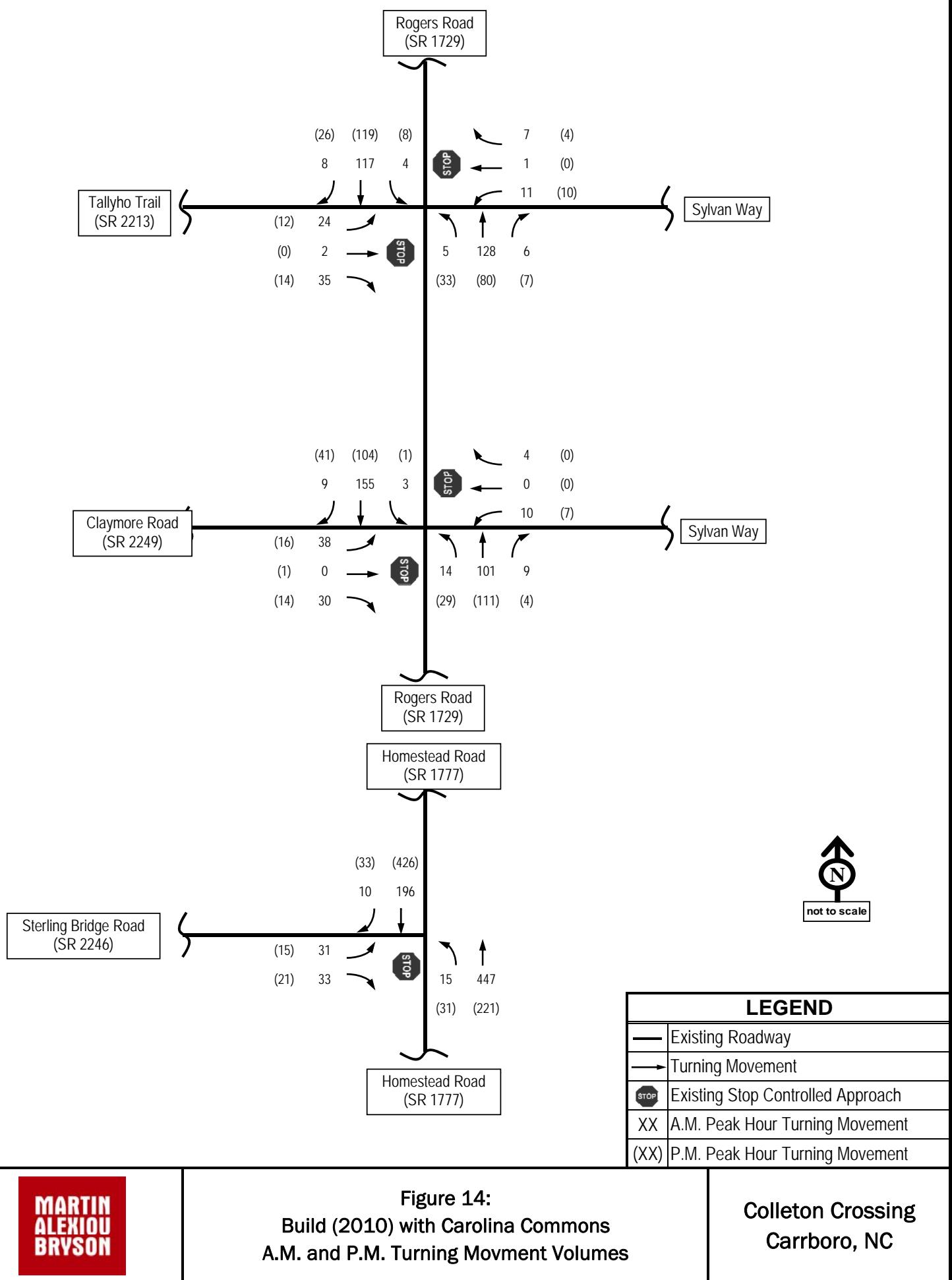


Figure 13:
Build (2010) without Carolina Commons
A.M. and P.M. Turning Movment Volumes

Colleton Crossing
Carrboro, NC



LIST OF FIGURES

- Figure 1: Vicinity Map
- Figure 2: Colleton Crossing Site Plan
- Figure 3: Carolina Commons Site Plan
- Figure 4: Existing (2008) Traffic Control and Lane Configurations
- Figure 5: Existing A.M. and P.M. Turning Movement Volumes
- Figure 6: No-Build (2020) A.M. and P.M. Turning Movement Volumes
- Figure 7: Colleton Crossing Traffic Distribution without Carolina Commons
- Figure 8: Colleton Crossing without Carolina Commons A.M. and P.M. Turning Movement Volumes
- Figure 9: Colleton Crossing Traffic Distribution with Carolina Commons
- Figure 10: Colleton Crossing with Carolina Commons A.M. and P.M. Turning Movement Volumes
- Figure 11: Carolina Commons A.M. and P.M. Turning Movement Volumes
- Figure 12: Existing Tallyho Traffic Shift A.M. and P.M. Turning Movement Volumes
- Figure 13: Build (2010) without Carolina Commons A.M. and P.M. Turning Movement Volumes
- Figure 14: Build (2010) with Carolina Commons A.M. and P.M. Turning Movement Volumes

APPENDIX B

EXISTING (2008) TURNING MOVEMENT COUNTS

Martin/Alexiou/Bryson, PLLC

4000 WestChase Boulevard, Suite 530

Raleigh, North Carolina 27607

p: 919.829.0328 f: 919.829.0329

File Name : Rogers&Tallyho

Site Code : 00000002

Start Date : 11/19/2008

Page No : 1

Groups Printed- All Vehicles

Start Time	Rogers Road Southbound				Sylvan Way Westbound				Rogers Road Northbound				Tallyho Trail Eastbound				Exclu. Total	Inclu. Total	Int. Total	
	Left	Thru	Right	Trks	Left	Thru	Right	Trks	Left	Thru	Right	Trks	Left	Thru	Right	Trks				
07:00 AM	0	11	0	1	1	0	1	0	2	12	0	1	7	0	4	1	3	38	41	
07:15 AM	0	12	1	0	0	0	2	0	2	18	0	0	6	0	12	0	0	53	53	
07:30 AM	1	28	0	3	2	0	3	0	2	34	1	1	14	1	14	0	4	100	104	
07:45 AM	2	31	4	2	3	0	2	0	2	26	3	0	5	0	13	1	3	91	94	
Total	3	82	5	6	6	0	8	0	8	90	4	2	32	1	43	2	10	282	292	
08:00 AM	0	28	0	1	2	0	1	0	2	22	0	0	3	0	7	0	1	65	66	
08:15 AM	1	19	4	2	4	1	1	1	1	26	2	2	3	1	14	1	6	77	83	
08:30 AM	0	22	0	1	3	0	1	0	6	22	3	0	5	0	16	0	1	78	79	
08:45 AM	0	8	1	0	0	0	1	0	6	19	2	2	6	0	5	0	2	48	50	
Total	1	77	5	4	9	1	4	1	15	89	7	4	17	1	42	1	10	268	278	
BREAK																				
04:00 PM	1	12	3	1	1	0	0	0	8	25	3	2	1	0	2	1	4	56	60	
04:15 PM	0	13	0	0	2	0	3	0	7	16	3	1	2	0	6	0	1	52	53	
04:30 PM	1	13	1	0	0	0	0	0	8	15	0	0	2	0	9	0	0	49	49	
04:45 PM	2	21	1	1	2	0	0	0	4	15	2	0	1	0	0	0	1	48	49	
Total	4	59	5	2	5	0	3	0	27	71	8	3	6	0	17	1	6	205	211	
05:00 PM	2	23	3	1	3	0	1	0	14	16	2	1	2	0	9	0	2	75	77	
05:15 PM	1	29	7	0	2	0	1	0	10	18	1	1	4	0	6	0	1	79	80	
05:30 PM	3	29	7	0	3	0	0	0	13	16	2	0	1	0	2	0	0	76	76	
05:45 PM	2	21	10	0	2	0	2	0	9	20	2	0	5	0	2	0	0	75	75	
Total	8	102	27	1	10	0	4	0	46	70	7	2	12	0	19	0	3	305	308	
Grand Total	16	320	42	13	30	1	19	1	96	320	26	11	67	2	121	4	29	1060	1089	
Apprch %	4.2	84.7	11.1		60	2	38		21.7	72.4	5.9		35.3	1.1	63.7					
Total %	1.5	30.2	4		2.8	0.1	1.8		9.1	30.2	2.5		6.3	0.2	11.4		2.7	97.3		

Martin/Alexiou/Bryson, PLLC

4000 WestChase Boulevard, Suite 530

Raleigh, North Carolina 27607

p: 919.829.0328 f: 919.829.0329

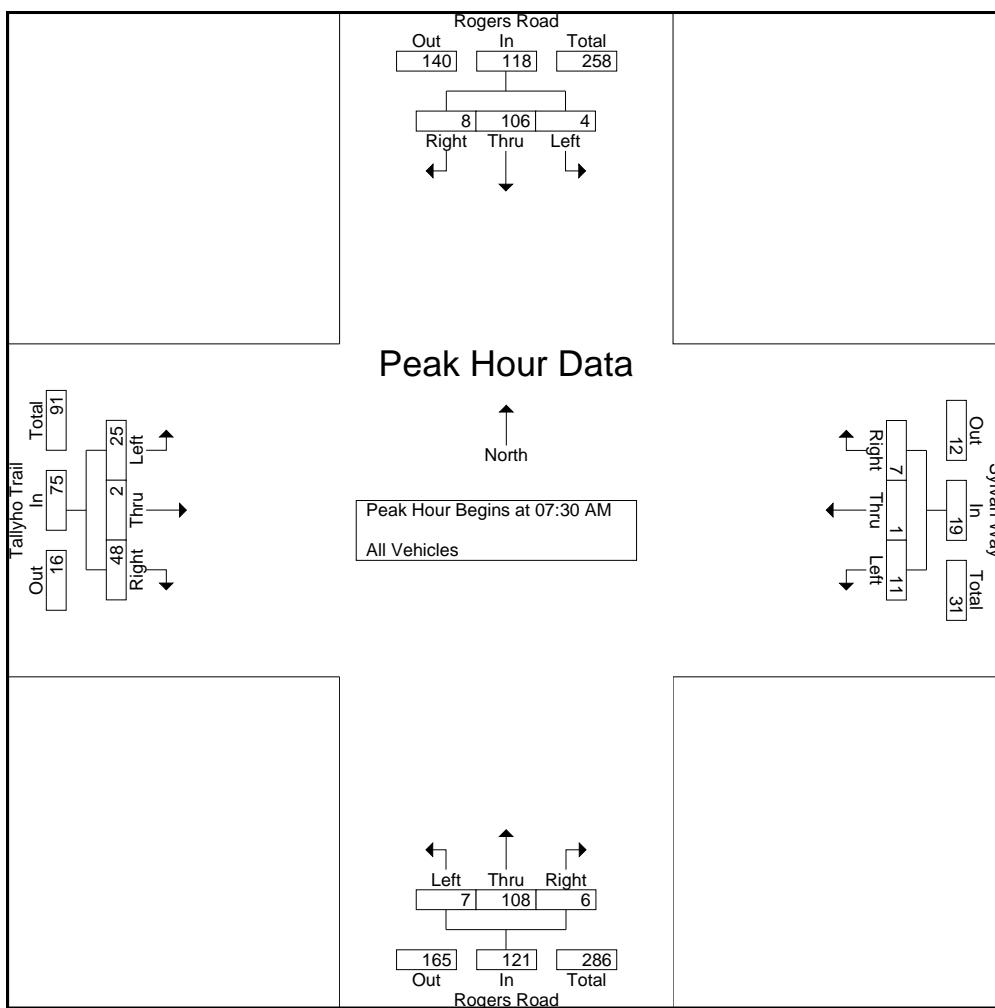
File Name : Rogers&Tallyho

Site Code : 00000002

Start Date : 11/19/2008

Page No : 2

	Rogers Road Southbound				Sylvan Way Westbound				Rogers Road Northbound				Tallyho Trail Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	1	28	0	29	2	0	3	5	2	34		37	14	1	14	29	100
07:45 AM	2	31	4	37	3	0	2	5	2	26	3						
08:00 AM	0	28	0	28	2	0	1	3	2	22	0	24	3	0	7	10	65
08:15 AM	1	19	4	24	4	1	1	6	1	26	2	29	3	1	14	18	77
Total Volume	4	106	8	118	11	1	7	19	7	108	6	121	25	2	48	75	333
% App. Total	3.4	89.8	6.8		57.9	5.3	36.8		5.8	89.3	5		33.3	2.7	64		
PHF	.500	.855	.500	.797	.688	.250	.583	.792	.875	.794	.500	.818	.446	.500	.857	.647	.833



Martin/Alexiou/Bryson, PLLC

4000 WestChase Boulevard, Suite 530

Raleigh, North Carolina 27607

p: 919.829.0328 f: 919.829.0329

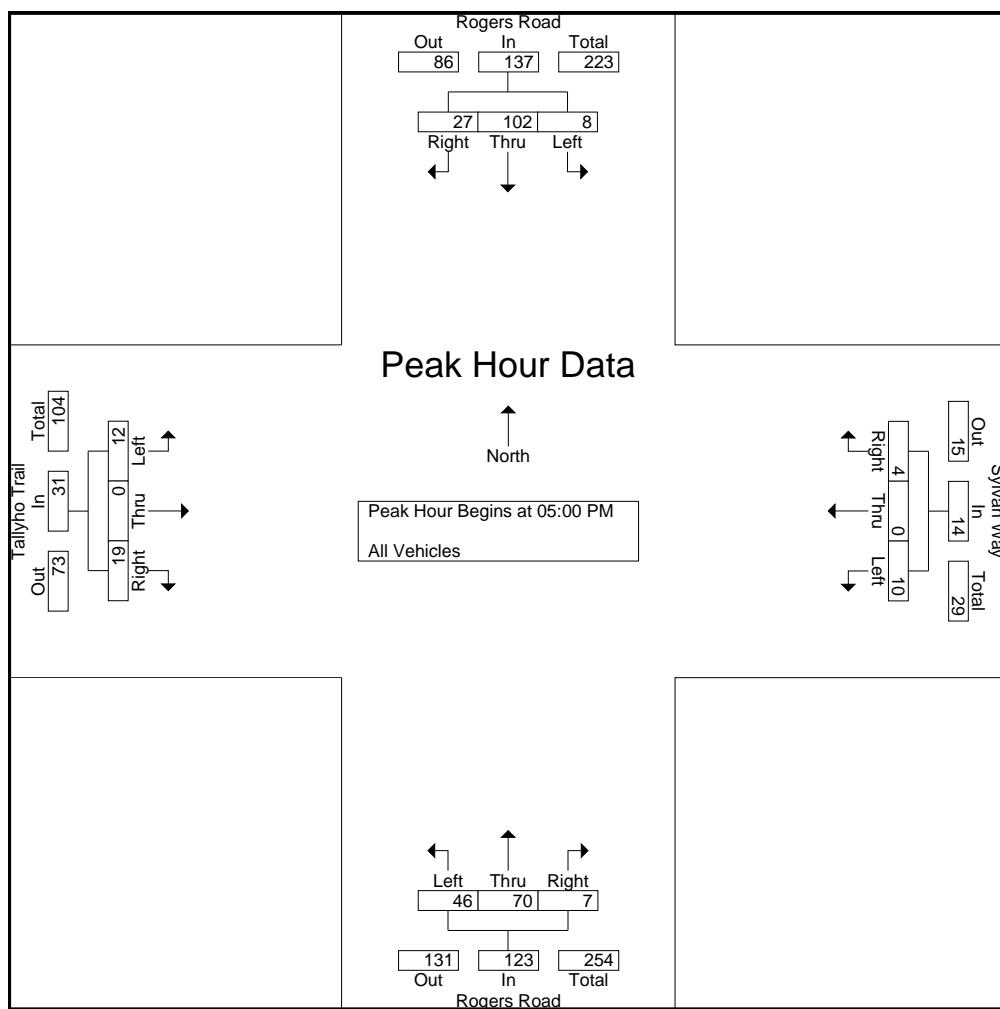
File Name : Rogers&Tallyho

Site Code : 00000002

Start Date : 11/19/2008

Page No : 3

	Rogers Road Southbound				Sylvan Way Westbound				Rogers Road Northbound				Tallyho Trail Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	2	23	3	28	3	0	1	4	14	16	2	32	2	0	9	11	75
05:15 PM	1	29															79
05:30 PM	3	29	7	39	3	0	0	3	13	16	2	31	1	0	2	3	76
05:45 PM	2	21	10				2	4	9	20			5	0	2	7	75
Total Volume	8	102	27	137	10	0	4	14	46	70	7	123	12	0	19	31	305
% App. Total	5.8	74.5	19.7		71.4	0	28.6		37.4	56.9	5.7		38.7	0	61.3		
PHF	.667	.879	.675	.878	.833	.000	.500	.875	.821	.875	.875	.961	.600	.000	.528	.705	.965



Martin/Alexiou/Bryson, PLLC

4000 WestChase Boulevard, Suite 530

Raleigh, North Carolina 27607

p: 919.829.0328 f: 919.829.0329

File Name : Rogers&Claymore

Site Code : 00000001

Start Date : 11/19/2008

Page No : 1

Groups Printed- All Vehicles

Start Time	Rogers Road Southbound				Sylvan Way Westbound				Rogers Road Northbound				Claymore Road Eastbound						
	Left	Thru	Right	Trks	Left	Thru	Right	Trks	Left	Thru	Right	Trks	Left	Thru	Right	Trks	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	16	1	1	2	0	0	0	0	14	0	1	1	0	2	1	3	36	39
07:15 AM	0	24	0	0	2	0	0	0	0	16	0	0	4	0	2	0	0	48	48
07:30 AM	0	44	0	3	1	0	2	0	1	30	2	1	4	0	7	0	4	91	95
07:45 AM	3	43	1	2	2	0	1	0	2	23	2	0	7	0	3	0	2	87	89
Total	3	127	2	6	7	0	3	0	3	83	4	2	16	0	14	1	9	262	271
08:00 AM	0	38	1	1	3	0	0	0	5	16	3	2	8	0	6	0	3	80	83
08:15 AM	0	33	2	3	4	0	1	0	2	28	2	2	2	0	4	1	6	78	84
08:30 AM	0	41	2	3	3	0	0	0	1	26	3	0	3	0	4	0	3	83	86
08:45 AM	0	13	0	0	1	0	0	0	2	26	2	2	1	0	2	0	2	47	49
Total	0	125	5	7	11	0	1	0	10	96	10	6	14	0	16	1	14	288	302
BREAK																			
04:00 PM	0	14	3	1	1	0	0	0	2	36	1	1	0	1	1	0	2	59	61
04:15 PM	0	18	3	0	3	0	0	0	5	25	3	1	0	0	3	0	1	60	61
04:30 PM	0	21	1	0	0	0	0	0	3	22	3	0	1	0	1	0	0	52	52
04:45 PM	0	21	2	1	2	0	0	0	3	20	3	0	2	0	6	0	1	59	60
Total	0	74	9	2	6	0	0	0	13	103	10	2	3	1	11	0	4	230	234
05:00 PM	1	27	6	1	3	0	0	0	5	30	1	1	2	1	1	0	2	77	79
05:15 PM	0	29	9	0	1	0	0	0	4	27	1	1	2	0	4	0	1	77	78
05:30 PM	0	26	6	0	1	0	0	0	3	30	2	0	1	0	2	0	0	71	71
05:45 PM	0	21	4	0	2	0	0	0	7	30	0	0	2	0	1	0	0	67	67
Total	1	103	25	1	7	0	0	0	19	117	4	2	7	1	8	0	3	292	295
Grand Total	4	429	41	16	31	0	4	0	45	399	28	12	40	2	49	2	30	1072	1102
Apprch %	0.8	90.5	8.6		88.6	0	11.4		9.5	84.5	5.9		44	2.2	53.8				
Total %	0.4	40	3.8		2.9	0	0.4		4.2	37.2	2.6		3.7	0.2	4.6		2.7	97.3	

Martin/Alexiou/Bryson, PLLC

4000 WestChase Boulevard, Suite 530

Raleigh, North Carolina 27607

p: 919.829.0328 f: 919.829.0329

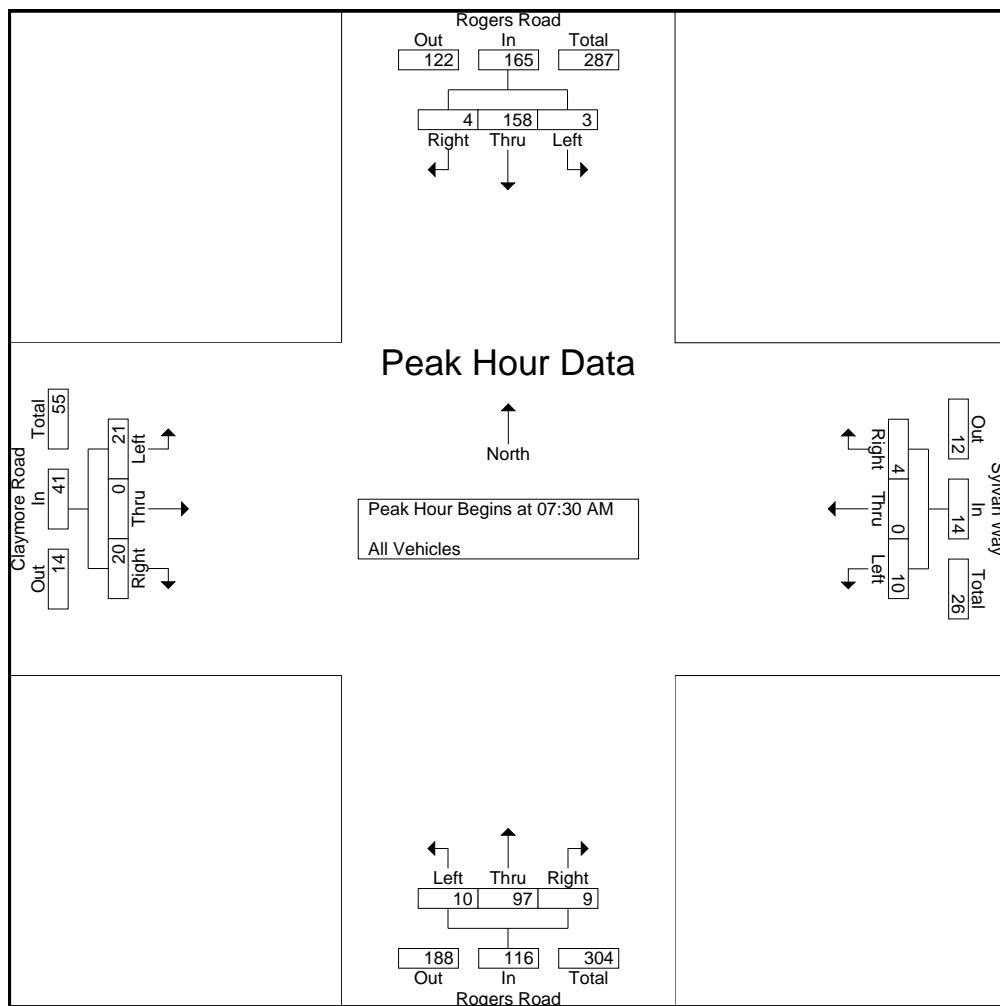
File Name : Rogers&Claymore

Site Code : 00000001

Start Date : 11/19/2008

Page No : 2

	Rogers Road Southbound				Sylvan Way Westbound				Rogers Road Northbound				Claymore Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	44				2	3	1	30	33	4	0	7	11		91	
07:45 AM	3	43	1	47	2	0	1	3	223	2	7	0	3	10		87	
08:00 AM	0	38	1	39	3	0	0	3	516	3	8	0	6	14		80	
08:15 AM	0	33	2		4	0	1	5	228	2	2	0	4	6		78	
Total Volume	3	158	4	165	10	0	4	14	1097	9	116	21	0	20	41	336	
% App. Total	1.8	95.8	2.4		71.4	0	28.6		8.6	83.6	7.8	51.2	0	48.8			
PHF	.250	.898	.500	.878	.625	.000	.500	.700	.500	.808	.750	.879	.656	.000	.714	.732	.923



Martin/Alexiou/Bryson, PLLC

4000 WestChase Boulevard, Suite 530

Raleigh, North Carolina 27607

p: 919.829.0328 f: 919.829.0329

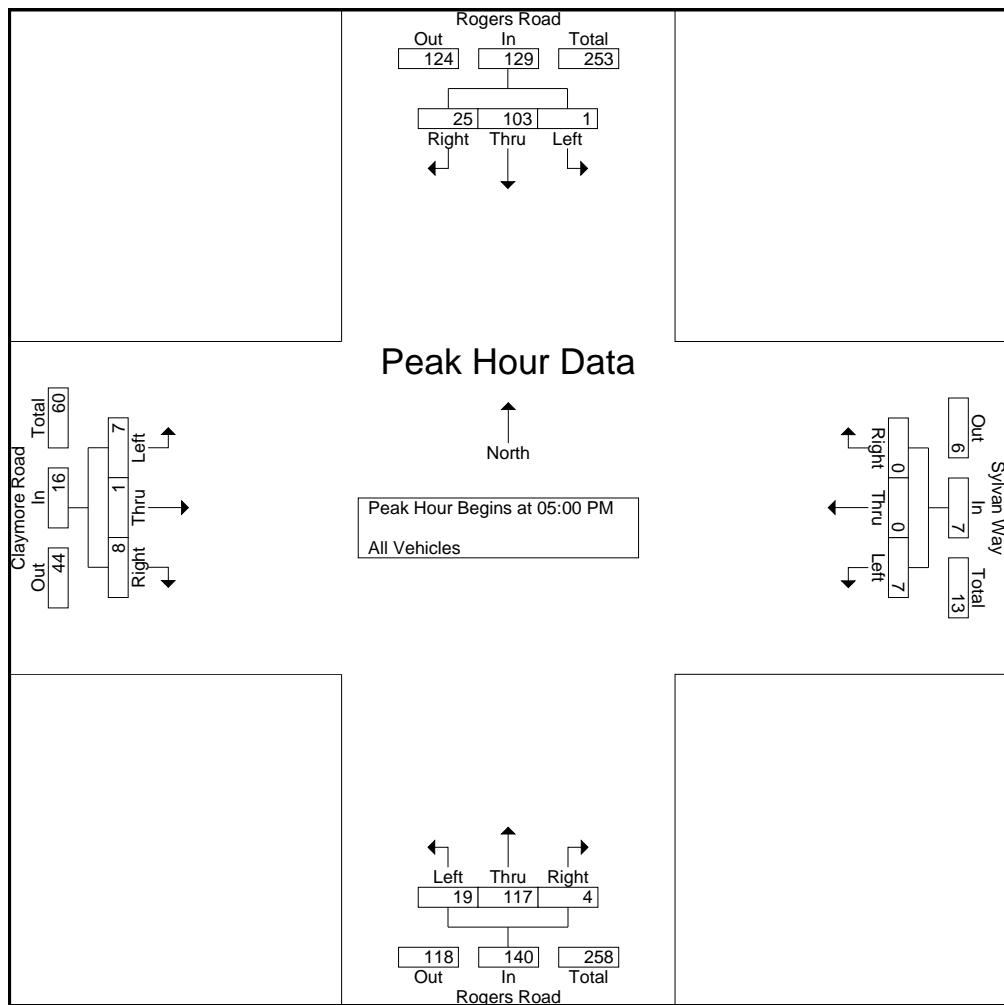
File Name : Rogers&Claymore

Site Code : 00000001

Start Date : 11/19/2008

Page No : 3

	Rogers Road Southbound				Sylvan Way Westbound				Rogers Road Northbound				Claymore Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	27	6	34	3	0	0	3	5	30			2	1	1	4	77
05:15 PM	0	29	9	38	1	0	0	1	4	27	1	32	2	0	4	6	77
05:30 PM	0	26	6	32	1	0	0	1	3	30	2						
05:45 PM	0	21	4	25	2	0	0	2	7	30	0	37	2	0	1	3	67
Total Volume	1	103	25	129	7	0	0	7	19	117	4	140	7	1	8	16	292
% App. Total	0.8	79.8	19.4		100	0	0		13.6	83.6	2.9		43.8	6.2	50		
PHF	.250	.888	.694	.849	.583	.000	.000	.583	.679	.975	.500	.946	.875	.250	.500	.667	.948



Martin/Alexiou/Bryson, PLLC

4000 WestChase Boulevard, Suite 530

Raleigh, North Carolina 27607

p: 919.829.0328 f: 919.829.0329

File Name : Homestead&Sterling

Site Code : 00000005

Start Date : 11/12/2008

Page No : 1

Groups Printed- All Vehicles

Start Time	Homestead Road Southbound				No Approach Westbound				Homestead Road Northbound				Sterling Bridge Road Eastbound						
	Left	Thru	Right	Trks	Left	Thru	Right	Trks	Left	Thru	Right	Trks	Left	Thru	Right	Trks	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	26	1	0	0	0	0	0	0	35	0	0	7	0	0	0	0	69	69
07:15 AM	0	26	1	1	0	0	0	0	0	74	0	0	4	0	0	0	1	105	106
07:30 AM	0	35	2	0	0	0	0	0	0	93	0	0	8	0	2	0	0	140	140
07:45 AM	0	30	3	0	0	0	0	0	1	115	0	0	8	0	4	0	0	161	161
Total	0	117	7	1	0	0	0	0	1	317	0	0	27	0	6	0	1	475	476
08:00 AM	0	51	0	0	0	0	0	0	3	124	0	0	6	0	4	0	0	188	188
08:15 AM	0	57	3	2	0	0	0	0	3	92	0	0	2	0	2	0	2	159	161
08:30 AM	0	53	2	2	0	0	0	0	2	91	0	0	5	0	2	0	2	155	157
08:45 AM	0	48	0	2	0	0	0	0	2	89	0	0	7	0	2	0	2	148	150
Total	0	209	5	6	0	0	0	0	10	396	0	0	20	0	10	0	6	650	656
BREAK																			
04:00 PM	0	95	1	2	0	0	0	0	1	67	0	0	1	0	2	0	2	167	169
04:15 PM	0	78	1	0	0	0	0	0	1	48	0	0	2	0	0	0	0	130	130
04:30 PM	0	78	4	0	0	0	0	0	1	53	0	0	3	0	1	0	0	140	140
04:45 PM	0	74	2	2	0	0	0	0	3	59	0	0	2	0	0	0	2	140	142
Total	0	325	8	4	0	0	0	0	6	227	0	0	8	0	3	0	4	577	581
05:00 PM	0	101	4	2	0	0	0	0	0	46	0	0	6	0	4	1	3	161	164
05:15 PM	0	111	6	1	0	0	0	0	4	56	0	1	1	0	4	0	2	182	184
05:30 PM	0	96	8	1	0	0	0	0	4	47	0	1	2	0	2	0	2	159	161
05:45 PM	0	96	6	0	0	0	0	0	3	66	0	1	2	0	0	0	1	173	174
Total	0	404	24	4	0	0	0	0	11	215	0	3	11	0	10	1	8	675	683
Grand Total	0	1055	44	15	0	0	0	0	28	1155	0	3	66	0	29	1	19	2377	2396
Apprch %	0	96	4		0	0	0	0	2.4	97.6	0		69.5	0	30.5				
Total %	0	44.4	1.9		0	0	0	0	1.2	48.6	0		2.8	0	1.2		0.8	99.2	

Martin/Alexiou/Bryson, PLLC

4000 WestChase Boulevard, Suite 530

Raleigh, North Carolina 27607

p: 919.829.0328 f: 919.829.0329

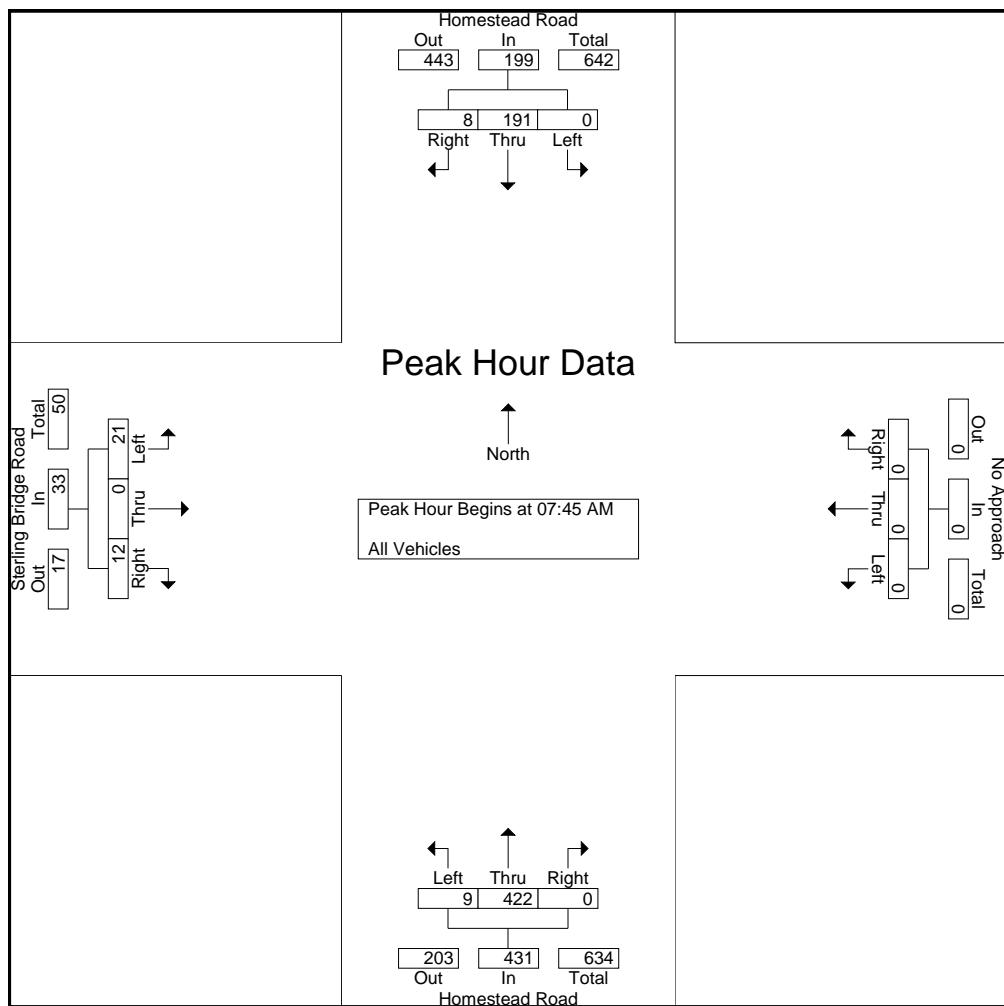
File Name : Homestead&Sterling

Site Code : 00000005

Start Date : 11/12/2008

Page No : 2

	Homestead Road Southbound				No Approach Westbound				Homestead Road Northbound				Sterling Bridge Road Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:45 AM																		
07:45 AM	0	30	3										8	0	4	12	161	
08:00 AM	0	51	0	51	0	0	0	0	3	124			127	6	0	4	10	188
08:15 AM	0	57	60		0	0	0	0	3	92	0	95	2	0	2	4	159	
08:30 AM	0	53	2	55	0	0	0	0	2	91	0	93	5	0	2	7	155	
Total Volume	0	191	8	199	0	0	0	0	9	422	0	431	21	0	12	33	663	
% App. Total	0	96	4		0	0	0		2.1	97.9	0		63.6	0	36.4			
PHF	.000	.838	.667	.829	.000	.000	.000	.000	.750	.851	.000	.848	.656	.000	.750	.688	.882	



Martin/Alexiou/Bryson, PLLC

4000 WestChase Boulevard, Suite 530

Raleigh, North Carolina 27607

p: 919.829.0328 f: 919.829.0329

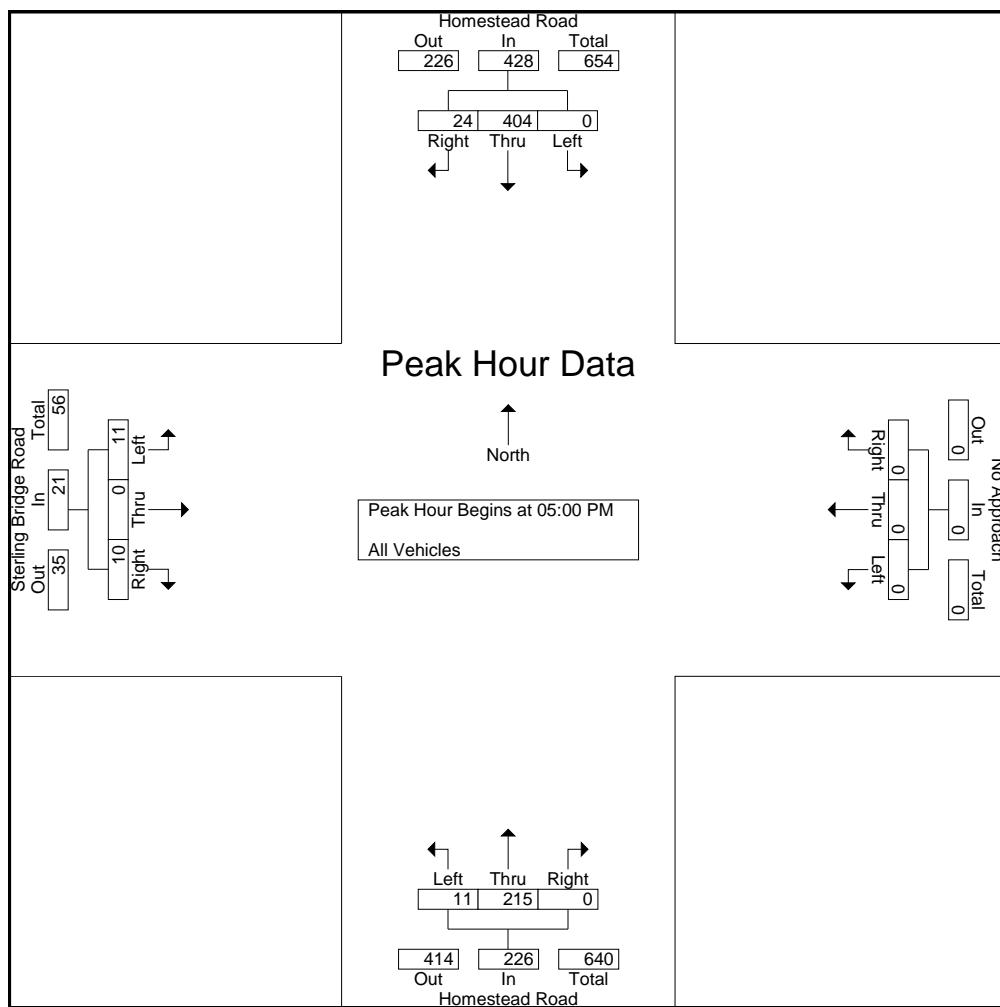
File Name : Homestead&Sterling

Site Code : 00000005

Start Date : 11/12/2008

Page No : 3

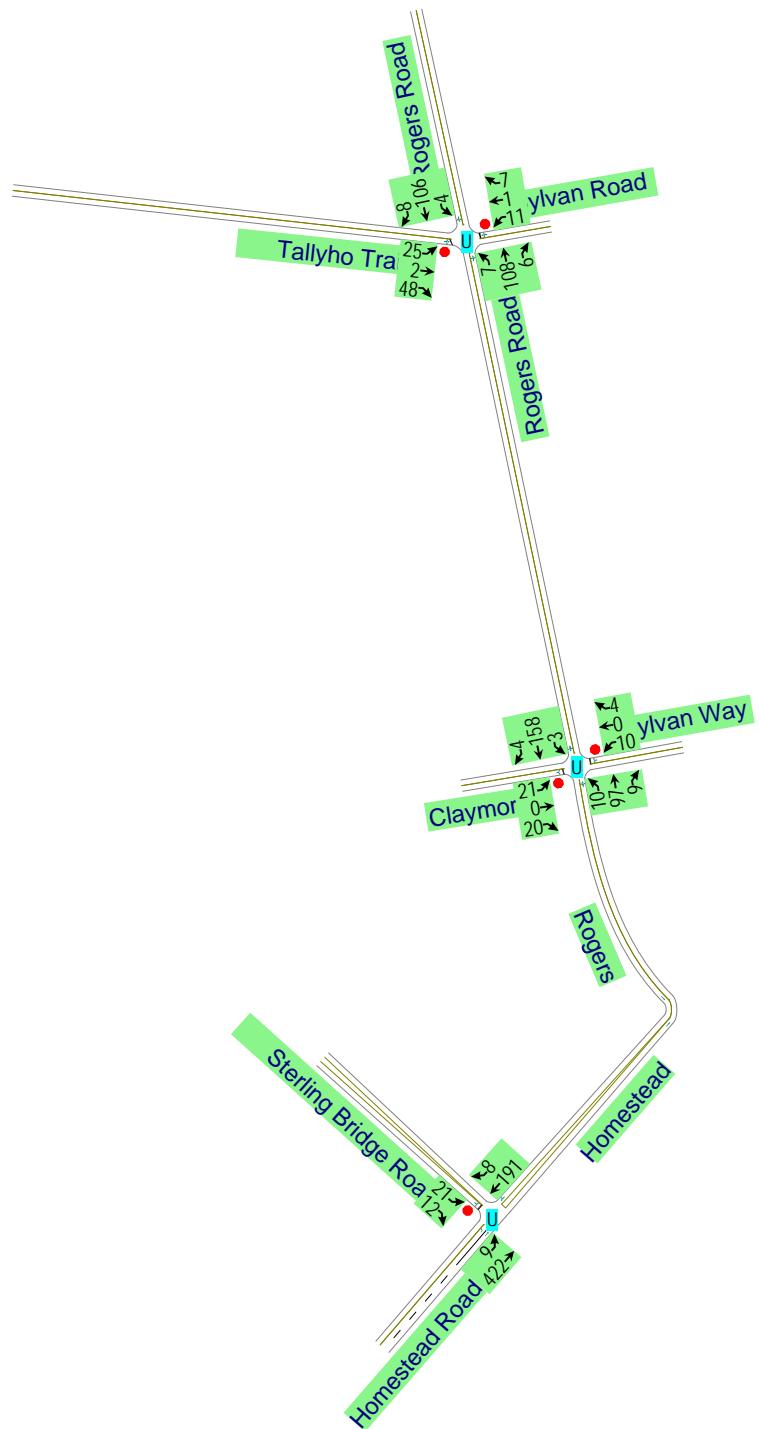
	Homestead Road Southbound				No Approach Westbound				Homestead Road Northbound				Sterling Bridge Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	101	4	105	0	0	0	0	0	46	0	46	6	0	4	10	161
05:15 PM	0	111		117	0	0	0	0	4	56	0	60	1	0	4	5	182
05:30 PM	0	96	8														
05:45 PM	0	96	6	102	0	0	0	0	3	66	0	69	2	0	0	2	173
Total Volume	0	404	24	428	0	0	0	0	11	215	0	226	11	0	10	21	675
% App. Total	0	94.4	5.6		0	0	0		4.9	95.1	0		52.4	0	47.6		
PHF	.000	.910	.750	.915	.000	.000	.000	.000	.688	.814	.000	.819	.458	.000	.625	.525	.927



APPENDIX C
INTERSECTION CAPACITY ANALYSIS

Colleton Crossing
Map - Level of Service

Existing (2008) AM
11/19/2008



Colleton Crossing
1: Tallyho Trail & Rogers Road

Existing (2008) AM

11/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	2	48	11	1	7	7	108	6	4	106	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	28	2	53	12	1	8	8	120	7	4	118	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	278	273	122	324	274	123	127				127	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	278	273	122	324	274	123	127				127	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	96	100	94	98	100	99	99				100	
cM capacity (veh/h)	663	628	929	587	627	928	1460				1460	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	83	21	134	131								
Volume Left	28	12	8	4								
Volume Right	53	8	7	9								
cSH	810	682	1460	1460								
Volume to Capacity	0.10	0.03	0.01	0.00								
Queue Length 95th (ft)	9	2	0	0								
Control Delay (s)	10.0	10.5	0.5	0.3								
Lane LOS	A	B	A	A								
Approach Delay (s)	10.0	10.5	0.5	0.3								
Approach LOS	A	B										
Intersection Summary												
Average Delay			3.1									
Intersection Capacity Utilization		20.4%			ICU Level of Service						A	
Analysis Period (min)		15										

Colleton Crossing
2: Claymore & Rogers Road

Existing (2008) AM

11/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	0	20	10	0	4	10	97	9	3	158	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	23	0	22	11	0	4	11	108	10	3	176	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	324	324	178	342	322	113	180				118	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	324	324	178	342	322	113	180				118	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	96	100	97	98	100	100	99				100	
cM capacity (veh/h)	621	587	865	592	589	940	1396				1470	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	46	16	129	183								
Volume Left	23	11	11	3								
Volume Right	22	4	10	4								
cSH	720	662	1396	1470								
Volume to Capacity	0.06	0.02	0.01	0.00								
Queue Length 95th (ft)	5	2	1	0								
Control Delay (s)	10.3	10.6	0.7	0.2								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.3	10.6	0.7	0.2								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.0									
Intersection Capacity Utilization		21.2%			ICU Level of Service					A		
Analysis Period (min)		15										

Colleton Crossing
3: Sterling Bridge Road & Homestead Road

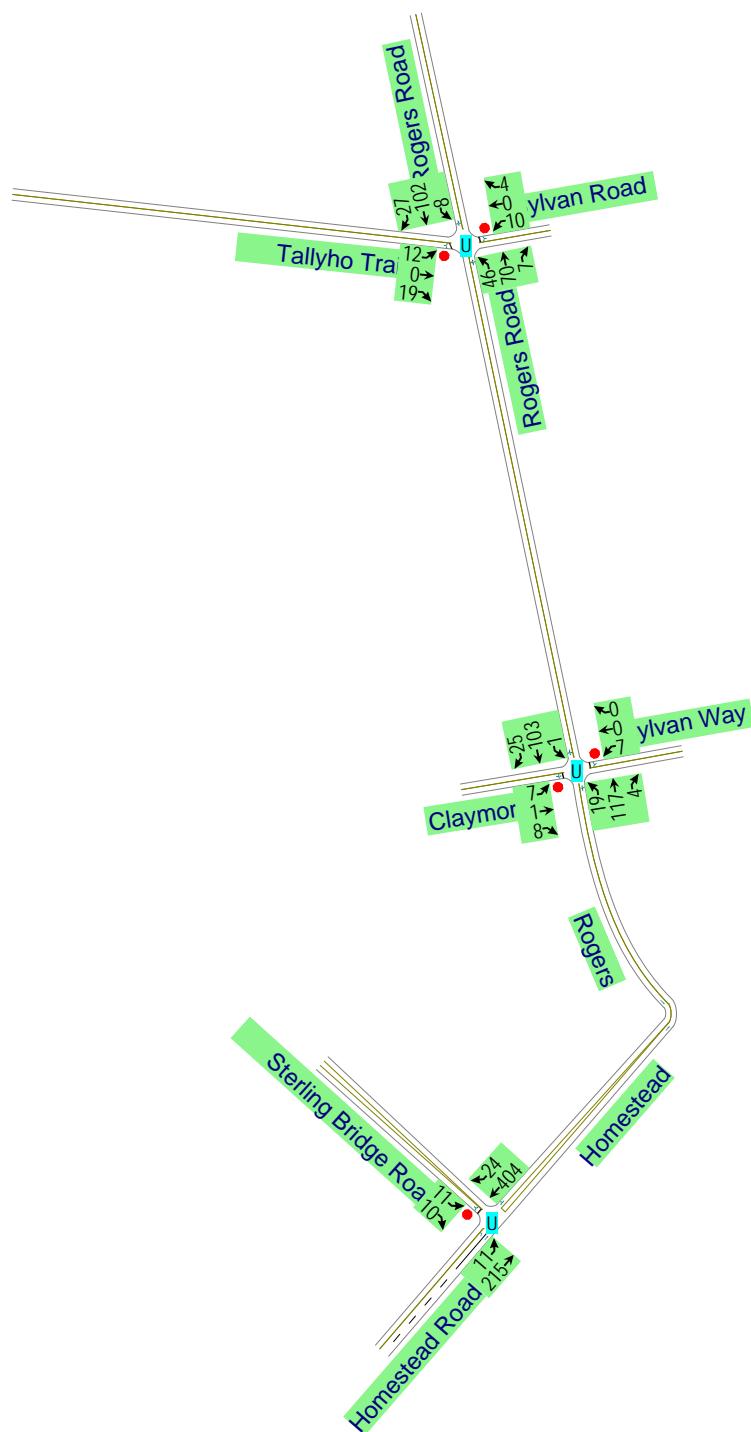
Existing (2008) AM

11/20/2008

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	21	12	9	422	191	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	23	13	10	469	212	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	706	217	221			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	706	217	221			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	98	99			
cM capacity (veh/h)	399	823	1348			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	37	10	469	221		
Volume Left	23	10	0	0		
Volume Right	13	0	0	9		
cSH	491	1348	1700	1700		
Volume to Capacity	0.07	0.01	0.28	0.13		
Queue Length 95th (ft)	6	1	0	0		
Control Delay (s)	12.9	7.7	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	12.9	0.2		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization		32.2%		ICU Level of Service		A
Analysis Period (min)		15				

Colleton Crossing
Map - Level of Service

Existing (2008) PM
11/19/2008



Colleton Crossing
1: Tallyho Trail & Rogers Road

Existing (2008) PM

11/20/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	0	19	10	0	4	46	70	7	8	102	27
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	13	0	21	11	0	4	51	78	8	9	113	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	334	334	128	351	345	82	143				86	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	334	334	128	351	345	82	143				86	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	98	100	98	98	100	100	96				99	
cM capacity (veh/h)	597	562	922	571	554	978	1439				1511	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	34	16	137	152								
Volume Left	13	11	51	9								
Volume Right	21	4	8	30								
cSH	761	648	1439	1511								
Volume to Capacity	0.05	0.02	0.04	0.01								
Queue Length 95th (ft)	4	2	3	0								
Control Delay (s)	10.0	10.7	3.0	0.5								
Lane LOS	A	B	A	A								
Approach Delay (s)	10.0	10.7	3.0	0.5								
Approach LOS	A	B										
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Utilization		27.4%			ICU Level of Service						A	
Analysis Period (min)		15										

Colleton Crossing
2: Claymore & Rogers Road

Existing (2008) PM

11/20/2008

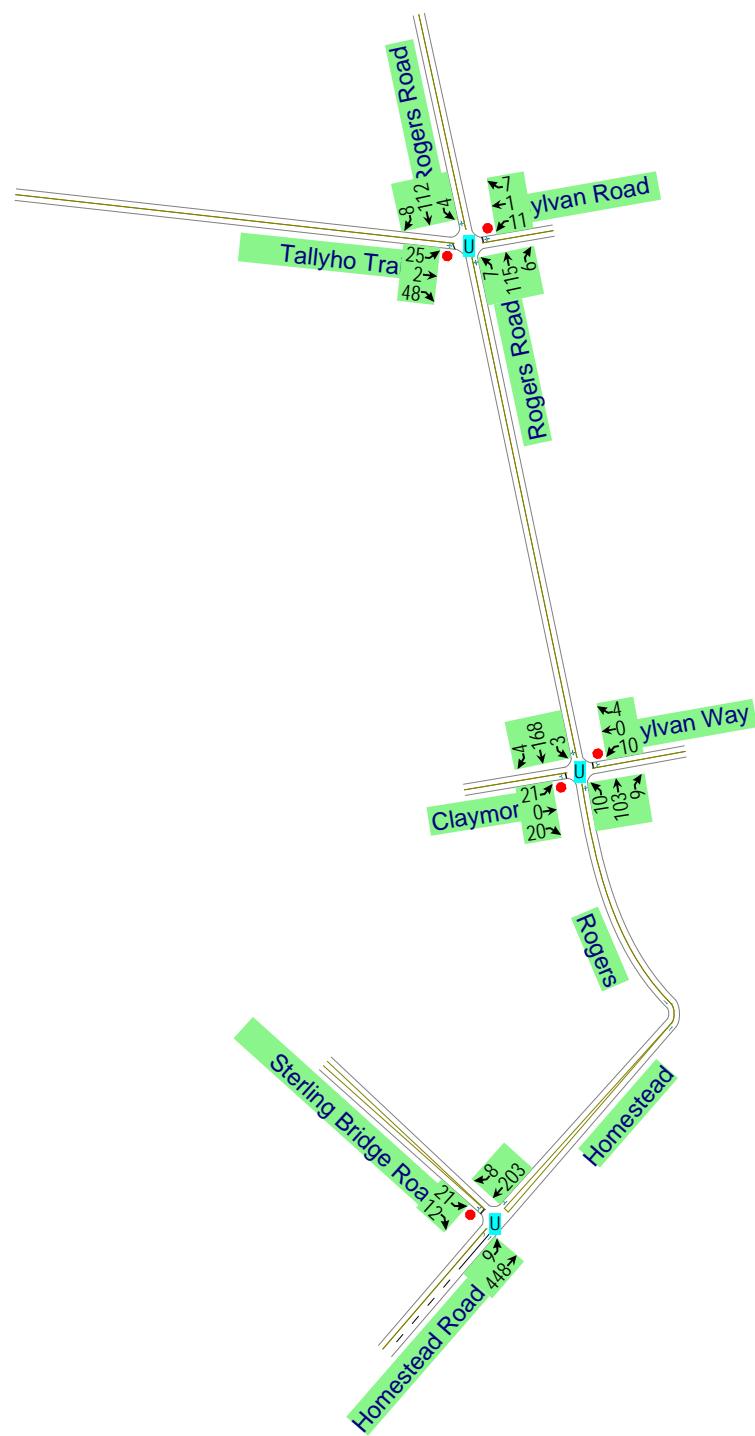
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	1	8	7	0	0	19	117	4	1	103	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	1	9	8	0	0	21	130	4	1	114	28
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	305	307	128	314	319	132	142				134	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	305	307	128	314	319	132	142				134	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	99	100	99	99	100	100	99				100	
cM capacity (veh/h)	640	597	922	624	588	917	1441				1450	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	18	8	156	143								
Volume Left	8	8	21	1								
Volume Right	9	0	4	28								
cSH	751	624	1441	1450								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	2	1	1	0								
Control Delay (s)	9.9	10.8	1.1	0.1								
Lane LOS	A	B	A	A								
Approach Delay (s)	9.9	10.8	1.1	0.1								
Approach LOS	A	B										
Intersection Summary												
Average Delay				1.4								
Intersection Capacity Utilization			27.8%		ICU Level of Service					A		
Analysis Period (min)			15									

Colleton Crossing
3: Sterling Bridge Road & Homestead Road

Existing (2008) PM

11/20/2008

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	11	10	11	215	404	24
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	12	11	12	239	449	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	726	462	476			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	726	462	476			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	98	99			
cM capacity (veh/h)	387	600	1087			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	23	12	239	476		
Volume Left	12	12	0	0		
Volume Right	11	0	0	27		
cSH	466	1087	1700	1700		
Volume to Capacity	0.05	0.01	0.14	0.28		
Queue Length 95th (ft)	4	1	0	0		
Control Delay (s)	13.1	8.4	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	13.1	0.4		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization		32.7%		ICU Level of Service		A
Analysis Period (min)		15				



Colleton Crossing
1: Tallyho Trail & Rogers Road

No-Build (2010) AM

11/21/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	2	48	11	1	7	7	115	6	4	112	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	28	2	53	12	1	8	8	128	7	4	124	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	293	288	129	339	289	131	133				134	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	293	288	129	339	289	131	133				134	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	96	100	94	98	100	99	99				100	
cM capacity (veh/h)	649	617	921	574	616	918	1451				1450	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	83	21	142	138								
Volume Left	28	12	8	4								
Volume Right	53	8	7	9								
cSH	799	669	1451	1450								
Volume to Capacity	0.10	0.03	0.01	0.00								
Queue Length 95th (ft)	9	2	0	0								
Control Delay (s)	10.0	10.6	0.5	0.3								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.0	10.6	0.5	0.3								
Approach LOS	B	B										
Intersection Summary												
Average Delay			3.0									
Intersection Capacity Utilization		20.8%			ICU Level of Service						A	
Analysis Period (min)		15										

Colleton Crossing
2: Claymore & Rogers Road

No-Build (2010) AM

11/21/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	0	20	10	0	4	10	103	9	3	168	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	23	0	22	11	0	4	11	114	10	3	187	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	342	342	189	359	339	119	191				124	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	342	342	189	359	339	119	191				124	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	96	100	97	98	100	100	99				100	
cM capacity (veh/h)	605	574	853	576	576	932	1383				1462	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	46	16	136	194								
Volume Left	23	11	11	3								
Volume Right	22	4	10	4								
cSH	705	647	1383	1462								
Volume to Capacity	0.06	0.02	0.01	0.00								
Queue Length 95th (ft)	5	2	1	0								
Control Delay (s)	10.5	10.7	0.7	0.1								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.5	10.7	0.7	0.1								
Approach LOS	B	B										
Intersection Summary												
Average Delay				2.0								
Intersection Capacity Utilization				21.6%				ICU Level of Service			A	
Analysis Period (min)				15								

Colleton Crossing
3: Sterling Bridge Road & Homestead Road

No-Build (2010) AM

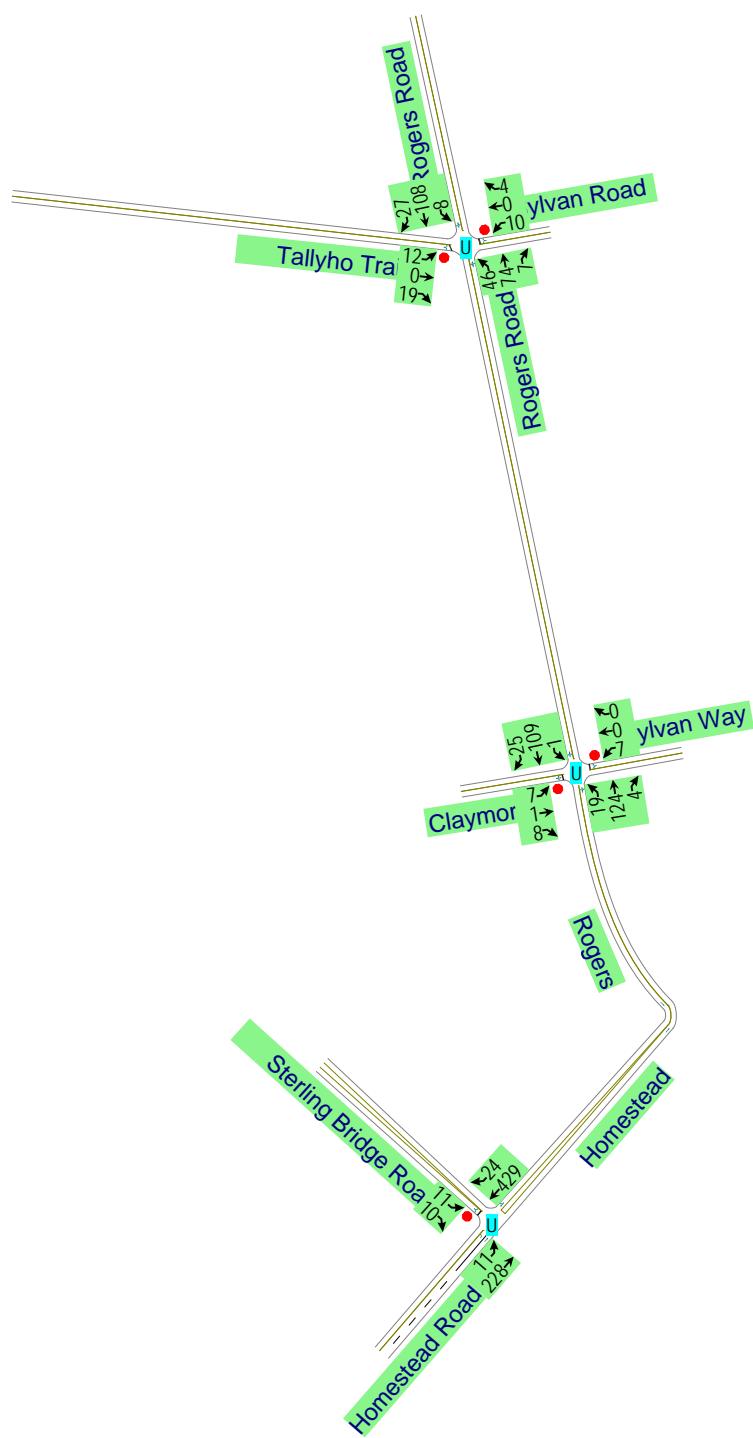
11/21/2008

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	21	12	9	448	203	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	23	13	10	498	226	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	748	230	234			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	748	230	234			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	98	99			
cM capacity (veh/h)	377	809	1333			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	37	10	498	234		
Volume Left	23	10	0	0		
Volume Right	13	0	0	9		
cSH	468	1333	1700	1700		
Volume to Capacity	0.08	0.01	0.29	0.14		
Queue Length 95th (ft)	6	1	0	0		
Control Delay (s)	13.3	7.7	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	13.3	0.2		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization		33.6%		ICU Level of Service		A
Analysis Period (min)		15				

Colleton Crossing Map - Level of Service

No-Build (2010) PM

11/21/2008



Colleton Crossing
1: Tallyho Trail & Rogers Road

No-Build (2010) PM

11/21/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	0	19	10	0	4	46	74	7	8	108	27
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	13	0	21	11	0	4	51	82	8	9	120	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	346	345	135	362	356	86	150				90	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	346	345	135	362	356	86	150				90	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	98	100	98	98	100	100	96				99	
cM capacity (veh/h)	587	554	914	562	546	973	1431				1505	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	34	16	141	159								
Volume Left	13	11	51	9								
Volume Right	21	4	8	30								
cSH	752	639	1431	1505								
Volume to Capacity	0.05	0.02	0.04	0.01								
Queue Length 95th (ft)	4	2	3	0								
Control Delay (s)	10.0	10.8	2.9	0.5								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.0	10.8	2.9	0.5								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Utilization		28.0%			ICU Level of Service						A	
Analysis Period (min)		15										

Colleton Crossing
2: Claymore & Rogers Road

No-Build (2010) PM

11/21/2008

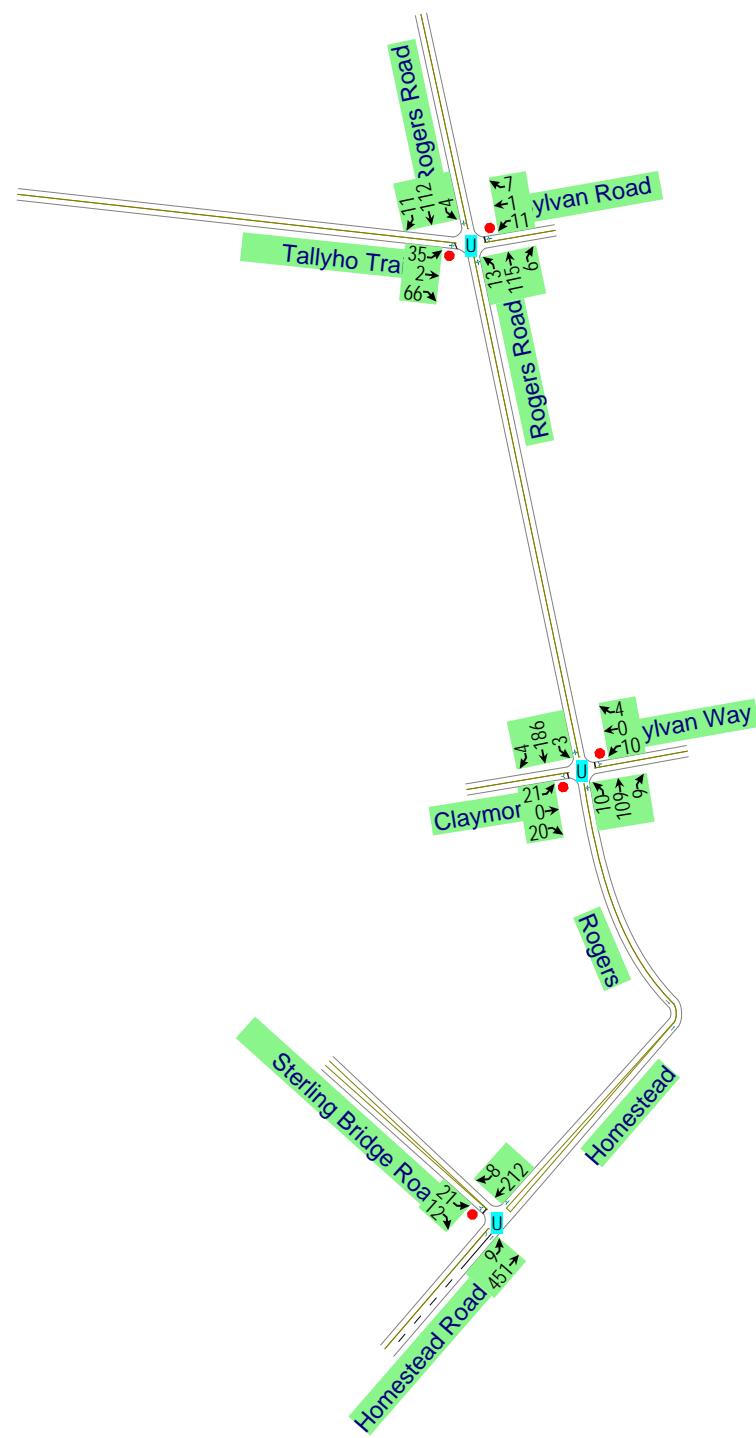
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	1	8	7	0	0	19	124	4	1	109	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	8	1	9	8	0	0	21	138	4	1	121	28
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	319	322	135	329	333	140	149				142	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	319	322	135	329	333	140	149				142	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	99	100	99	99	100	100	99				100	
cM capacity (veh/h)	626	586	914	610	578	908	1433				1441	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	18	8	163	150								
Volume Left	8	8	21	1								
Volume Right	9	0	4	28								
cSH	739	610	1433	1441								
Volume to Capacity	0.02	0.01	0.01	0.00								
Queue Length 95th (ft)	2	1	1	0								
Control Delay (s)	10.0	11.0	1.1	0.1								
Lane LOS	A	B	A	A								
Approach Delay (s)	10.0	11.0	1.1	0.1								
Approach LOS	A	B										
Intersection Summary												
Average Delay				1.3								
Intersection Capacity Utilization			28.5%		ICU Level of Service					A		
Analysis Period (min)			15									

Colleton Crossing
3: Sterling Bridge Road & Homestead Road

No-Build (2010) PM

11/21/2008

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	11	10	11	228	429	24
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	12	11	12	253	477	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	768	490	503			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	768	490	503			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	98	99			
cM capacity (veh/h)	366	578	1061			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	23	12	253	503		
Volume Left	12	12	0	0		
Volume Right	11	0	0	27		
cSH	443	1061	1700	1700		
Volume to Capacity	0.05	0.01	0.15	0.30		
Queue Length 95th (ft)	4	1	0	0		
Control Delay (s)	13.6	8.4	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	13.6	0.4		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization		34.0%		ICU Level of Service		A
Analysis Period (min)		15				



Colleton Crossing
1: Tallyho Trail & Rogers Road

Build (2010) AM without Carolina Commons

11/21/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	35	2	66	11	1	7	13	115	6	4	112	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	39	2	73	12	1	8	14	128	7	4	124	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	308	303	131	374	306	131	137				134	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	308	303	131	374	306	131	137				134	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	94	100	92	98	100	99	99				100	
cM capacity (veh/h)	632	602	919	530	600	918	1447				1450	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	114	21	149	141								
Volume Left	39	12	14	4								
Volume Right	73	8	7	12								
cSH	789	632	1447	1450								
Volume to Capacity	0.15	0.03	0.01	0.00								
Queue Length 95th (ft)	13	3	1	0								
Control Delay (s)	10.3	10.9	0.8	0.3								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.3	10.9	0.8	0.3								
Approach LOS	B	B										
Intersection Summary												
Average Delay			3.7									
Intersection Capacity Utilization		25.4%			ICU Level of Service					A		
Analysis Period (min)		15										

Colleton Crossing
2: Claymore & Rogers Road

Build (2010) AM without Carolina Commons

11/21/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	0	20	10	0	4	10	109	9	3	186	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	23	0	22	11	0	4	11	121	10	3	207	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	368	369	209	386	366	126	211				131	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	368	369	209	386	366	126	211				131	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	96	100	97	98	100	100	99				100	
cM capacity (veh/h)	581	555	831	553	557	924	1359				1454	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	46	16	142	214								
Volume Left	23	11	11	3								
Volume Right	22	4	10	4								
cSH	681	624	1359	1454								
Volume to Capacity	0.07	0.02	0.01	0.00								
Queue Length 95th (ft)	5	2	1	0								
Control Delay (s)	10.7	10.9	0.7	0.1								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.7	10.9	0.7	0.1								
Approach LOS	B	B										
Intersection Summary												
Average Delay				1.9								
Intersection Capacity Utilization				22.1%				ICU Level of Service			A	
Analysis Period (min)				15								

Colleton Crossing

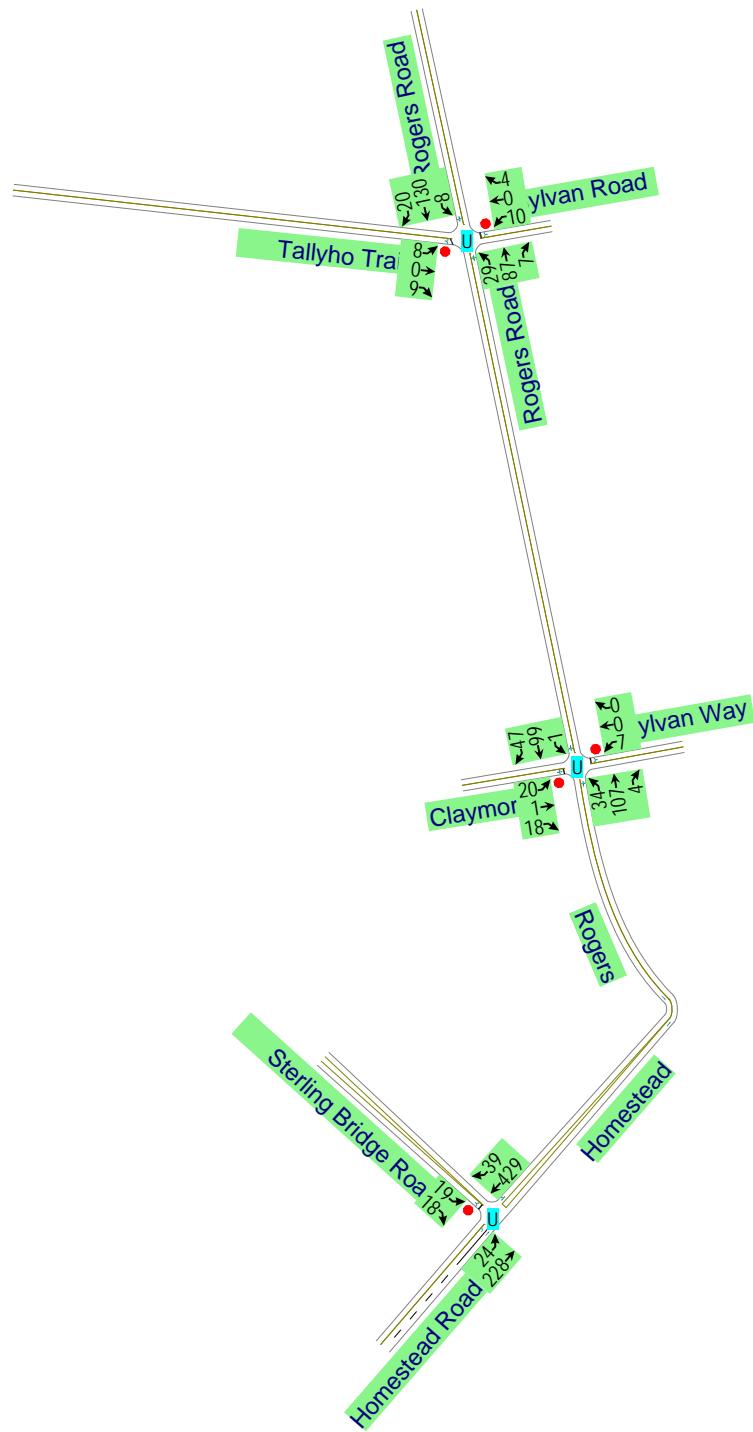
Build (2010) AM without Carolina Commons

3: Sterling Bridge Road & Homestead Road

11/21/2008



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	21	12	9	451	212	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	23	13	10	501	236	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	761	240	244			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	761	240	244			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	98	99			
cM capacity (veh/h)	370	799	1322			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	37	10	501	244		
Volume Left	23	10	0	0		
Volume Right	13	0	0	9		
cSH	460	1322	1700	1700		
Volume to Capacity	0.08	0.01	0.29	0.14		
Queue Length 95th (ft)	6	1	0	0		
Control Delay (s)	13.5	7.7	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	13.5	0.2		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization		33.7%		ICU Level of Service		A
Analysis Period (min)		15				



Colleton Crossing
1: Tallyho Trail & Rogers Road

Build (2010) PM with Carolina Commons

11/21/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	0	9	10	0	4	29	87	7	8	130	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	9	0	10	11	0	4	32	97	8	9	144	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	343	342	156	348	349	101	167				104	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	343	342	156	348	349	101	167				104	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	99	100	99	98	100	100	98				99	
cM capacity (veh/h)	595	563	890	586	558	955	1411				1487	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	19	16	137	176								
Volume Left	9	11	32	9								
Volume Right	10	4	8	22								
cSH	722	659	1411	1487								
Volume to Capacity	0.03	0.02	0.02	0.01								
Queue Length 95th (ft)	2	2	2	0								
Control Delay (s)	10.1	10.6	1.9	0.4								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.1	10.6	1.9	0.4								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.0									
Intersection Capacity Utilization		26.4%			ICU Level of Service						A	
Analysis Period (min)		15										

Colleton Crossing
2: Claymore & Rogers Road

Build (2010) PM with Carolina Commons

11/21/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	1	18	7	0	0	34	107	4	1	99	47
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	22	1	20	8	0	0	38	119	4	1	110	52
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	335	337	136	356	361	121	162				123	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	335	337	136	356	361	121	162				123	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	96	100	98	99	100	100	97				100	
cM capacity (veh/h)	606	568	913	573	551	930	1417				1464	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	43	8	161	163								
Volume Left	22	8	38	1								
Volume Right	20	0	4	52								
cSH	715	573	1417	1464								
Volume to Capacity	0.06	0.01	0.03	0.00								
Queue Length 95th (ft)	5	1	2	0								
Control Delay (s)	10.4	11.4	2.0	0.1								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.4	11.4	2.0	0.1								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization		29.2%			ICU Level of Service					A		
Analysis Period (min)		15										

Colleton Crossing

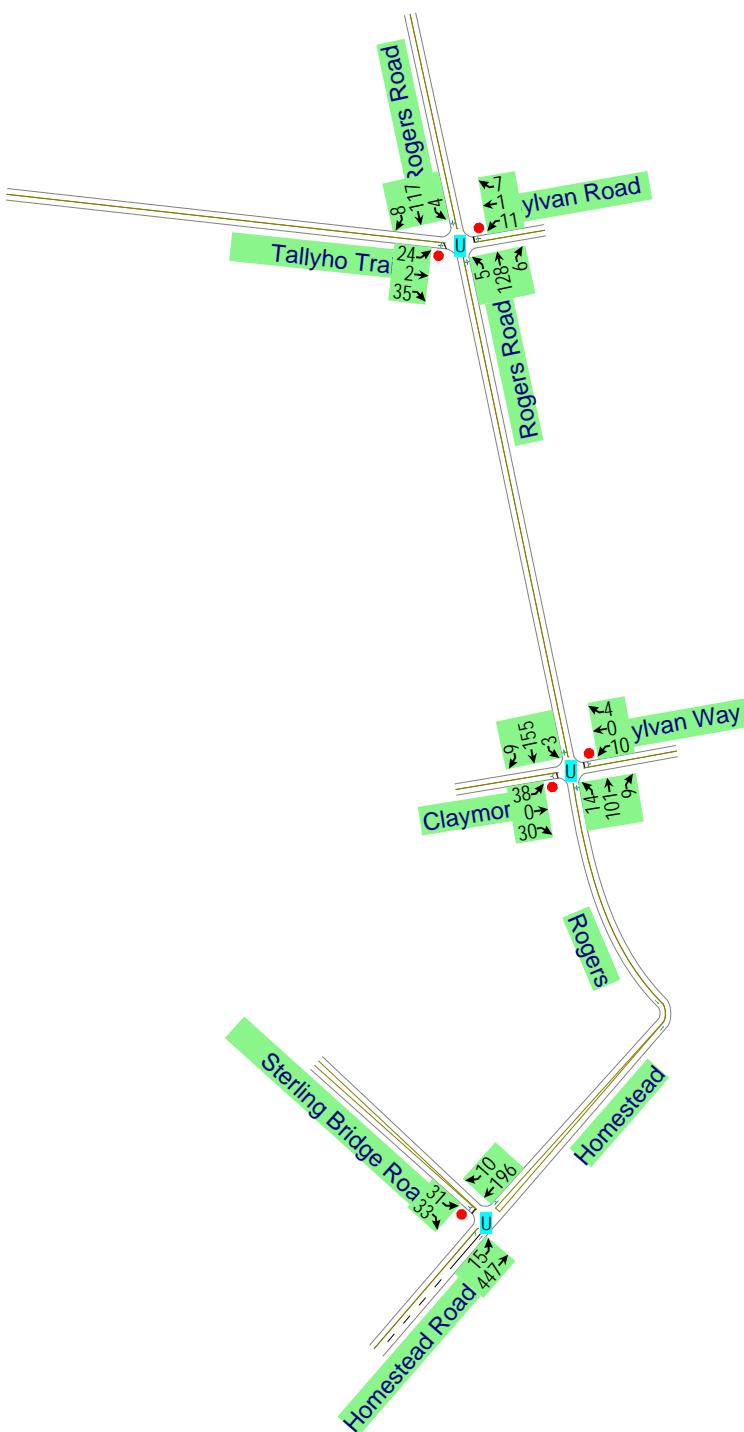
Build (2010) PM with Carolina Commons

3: Sterling Bridge Road & Homestead Road

11/21/2008



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		T	↑	↔	
Volume (veh/h)	19	18	24	228	429	39
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	21	20	27	253	477	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	805	498	520			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	805	498	520			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	97	97			
cM capacity (veh/h)	343	572	1046			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	41	27	253	520		
Volume Left	21	27	0	0		
Volume Right	20	0	0	43		
cSH	426	1046	1700	1700		
Volume to Capacity	0.10	0.03	0.15	0.31		
Queue Length 95th (ft)	8	2	0	0		
Control Delay (s)	14.4	8.5	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	14.4	0.8		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization		34.9%		ICU Level of Service		A
Analysis Period (min)		15				



Colleton Crossing
1: Tallyho Trail & Rogers Road

Build (2010) PM with Carolina Commons

11/21/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	2	35	11	1	7	5	128	6	4	117	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	27	2	39	12	1	8	6	142	7	4	130	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	308	303	134	340	304	146	139				149	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	308	303	134	340	304	146	139				149	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	96	100	96	98	100	99	100				100	
cM capacity (veh/h)	634	606	914	583	605	902	1445				1433	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	68	21	154	143								
Volume Left	27	12	6	4								
Volume Right	39	8	7	9								
cSH	768	672	1445	1433								
Volume to Capacity	0.09	0.03	0.00	0.00								
Queue Length 95th (ft)	7	2	0	0								
Control Delay (s)	10.1	10.5	0.3	0.3								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.1	10.5	0.3	0.3								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization		19.8%			ICU Level of Service						A	
Analysis Period (min)		15										

Colleton Crossing
2: Claymore & Rogers Road

Build (2010) PM with Carolina Commons

11/21/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	38	0	30	10	0	4	14	101	9	3	155	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	42	0	33	11	0	4	16	112	10	3	172	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	337	337	177	366	337	117	182				122	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	337	337	177	366	337	117	182				122	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	93	100	96	98	100	100	99				100	
cM capacity (veh/h)	608	576	866	562	576	935	1393				1465	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	76	16	138	186								
Volume Left	42	11	16	3								
Volume Right	33	4	10	10								
cSH	700	634	1393	1465								
Volume to Capacity	0.11	0.02	0.01	0.00								
Queue Length 95th (ft)	9	2	1	0								
Control Delay (s)	10.8	10.8	0.9	0.2								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.8	10.8	0.9	0.2								
Approach LOS	B	B										
Intersection Summary												
Average Delay				2.7								
Intersection Capacity Utilization				24.7%				ICU Level of Service			A	
Analysis Period (min)				15								

Colleton Crossing

Build (2010) PM with Carolina Commons

3: Sterling Bridge Road & Homestead Road

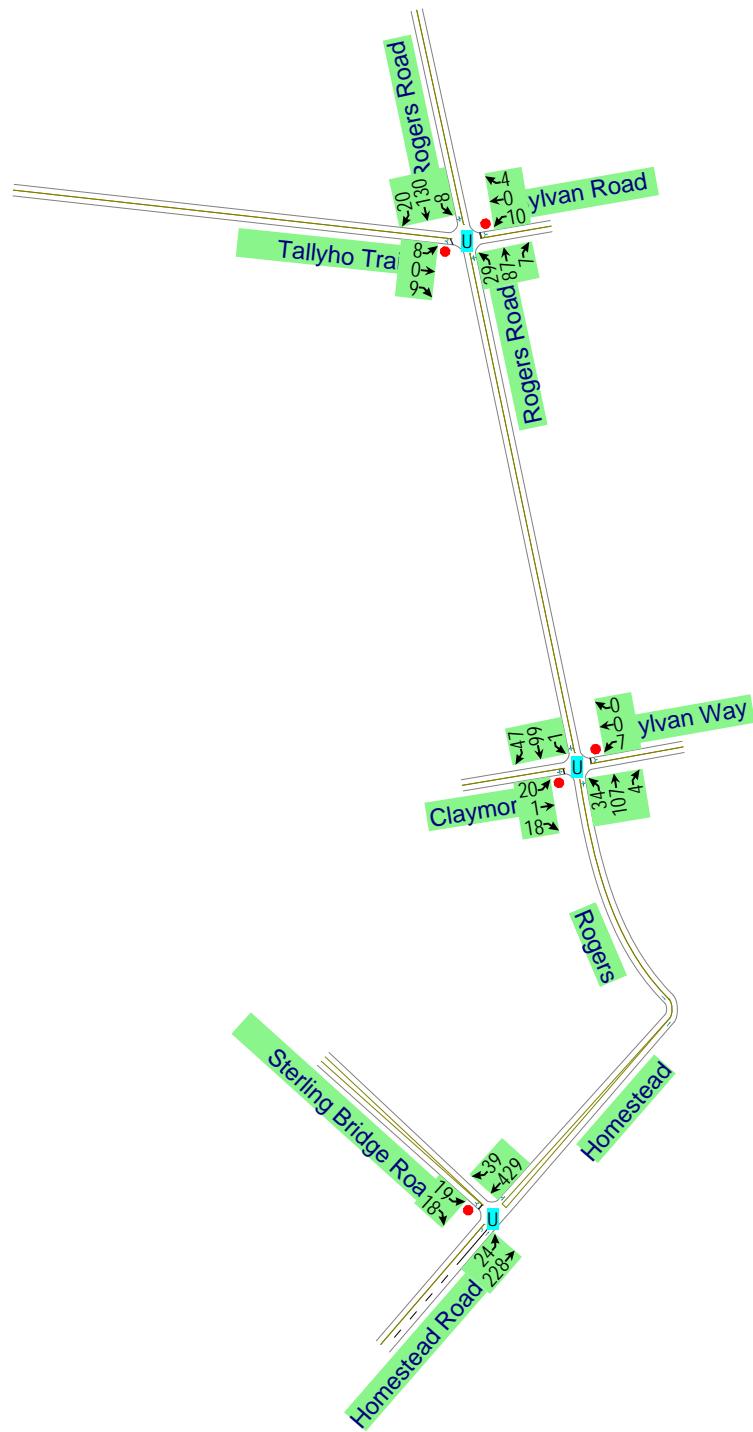
11/21/2008



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	Y	Y	
Volume (veh/h)	31	33	15	447	196	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	34	37	17	497	218	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	753	223	229			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	753	223	229			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	96	99			
cM capacity (veh/h)	373	816	1339			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	71	17	497	229		
Volume Left	34	17	0	0		
Volume Right	37	0	0	11		
cSH	518	1339	1700	1700		
Volume to Capacity	0.14	0.01	0.29	0.13		
Queue Length 95th (ft)	12	1	0	0		
Control Delay (s)	13.1	7.7	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	13.1	0.3		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization		33.9%		ICU Level of Service		A
Analysis Period (min)		15				

Colleton Crossing Map - Level of Service

Build (2010) PM with Carolina Commons
11/21/2008



Colleton Crossing
1: Tallyho Trail & Rogers Road

Build (2010) PM with Carolina Commons

11/21/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	0	9	10	0	4	29	87	7	8	130	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	9	0	10	11	0	4	32	97	8	9	144	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	343	342	156	348	349	101	167				104	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	343	342	156	348	349	101	167				104	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	99	100	99	98	100	100	98				99	
cM capacity (veh/h)	595	563	890	586	558	955	1411				1487	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	19	16	137	176								
Volume Left	9	11	32	9								
Volume Right	10	4	8	22								
cSH	722	659	1411	1487								
Volume to Capacity	0.03	0.02	0.02	0.01								
Queue Length 95th (ft)	2	2	2	0								
Control Delay (s)	10.1	10.6	1.9	0.4								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.1	10.6	1.9	0.4								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.0									
Intersection Capacity Utilization		26.4%			ICU Level of Service						A	
Analysis Period (min)		15										

Colleton Crossing
2: Claymore & Rogers Road

Build (2010) PM with Carolina Commons

11/21/2008

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	1	18	7	0	0	34	107	4	1	99	47
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	22	1	20	8	0	0	38	119	4	1	110	52
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	335	337	136	356	361	121	162				123	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	335	337	136	356	361	121	162				123	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2				2.2	
p0 queue free %	96	100	98	99	100	100	97				100	
cM capacity (veh/h)	606	568	913	573	551	930	1417				1464	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	43	8	161	163								
Volume Left	22	8	38	1								
Volume Right	20	0	4	52								
cSH	715	573	1417	1464								
Volume to Capacity	0.06	0.01	0.03	0.00								
Queue Length 95th (ft)	5	1	2	0								
Control Delay (s)	10.4	11.4	2.0	0.1								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.4	11.4	2.0	0.1								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization		29.2%			ICU Level of Service					A		
Analysis Period (min)		15										

Colleton Crossing

Build (2010) PM with Carolina Commons

3: Sterling Bridge Road & Homestead Road

11/21/2008



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	Y	Y	
Volume (veh/h)	19	18	24	228	429	39
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	21	20	27	253	477	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	805	498	520			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	805	498	520			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	97	97			
cM capacity (veh/h)	343	572	1046			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	41	27	253	520		
Volume Left	21	27	0	0		
Volume Right	20	0	0	43		
cSH	426	1046	1700	1700		
Volume to Capacity	0.10	0.03	0.15	0.31		
Queue Length 95th (ft)	8	2	0	0		
Control Delay (s)	14.4	8.5	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	14.4	0.8		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization		34.9%		ICU Level of Service		A
Analysis Period (min)		15				