

2014

DCHC MPO MOBILITY REPORT CARD



APRIL 2015

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

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Report Snapshot

This document, the DCHC MPO's first-ever Mobility Report Card, is a multimodal transportation evaluation, examining in equal measure vehicular, transit, bicycle, and pedestrian travel. The report looks at the state of the region in 2012, and compares it to previous years.

Twelve key indicators have been evaluated in this Report Card, each with its own chapter of the report. The findings are summarized by the icons associated with each indicator. Those shown in green have improved over time, those in red have degraded, and those in black are unchanged (or unknown). In sum, **they point to increased travel activity throughout the region, and changes in infrastructure and travel safety that suggest an increasingly multimodal region.** However, historical data is limited or unavailable for several key indicators, meaning that continued – and even more robust – data collection will be needed in coming years to shed further light on regional mobility.



The remainder of this Mobility Report Card discusses in more detail the findings summarized here.

The **Executive Summary** is a stand-alone document that provides for each indicator a basic definition, key data findings, and a summarized report card. **Chapters 1-12** provide in-depth information on each indicator, including the methodologies used in acquiring and analyzing relevant data, the findings of those analyses, and the ramifications of those findings when possible.

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Introduction

ABOUT OUR REGION

Regional Context

The Research Triangle region is a burgeoning Sunbelt metropolitan region. The region has experienced a rapid growth in population and jobs. Population in the region is one of the fastest growing in the country. Population of the region is forecasted to increase 81% between 2010 and 2040. The number of households is projected to increase 79%, and the number of jobs is forecasted to increase 61% during the same period. As our region has grown so has traffic congestion. The main reason for the increase in congestion within the DCHC MPO area and the region is the increase in population, but it is also attributable to a significant increase in Single Occupant Vehicles (SOV), or drive-alone trips, and a relative increase in longer trips. Over the past two decades, auto occupancy in the triangle region has been decreasing consistent with the national trend. This general decrease in auto occupancy has been accompanied by an increase in auto registration and a relative increase in vehicle miles of travel. Along with this trend, the U.S. Census data shows the average household size is declining while the number of trips per household and the average travel time per vehicle is increasing. The result is the intensification of congestion within the DCHC urban area and as well as in the Triangle Region.

People

The MPO region is home to 400,000 people and 260,000 jobs, representing about a quarter of the Triangle Region's 1.6 million people and a third of its 850,000 jobs. Migration has been the driving force behind the Triangle's growth for more than a generation. The region's dynamic economy, top notch educational institutions, and reputation for offering a high quality of life are factors that attract people from near and far. In recent years, about 6,000 more people have arrived in the Durham- Chapel Hill metropolitan area each year than have left. This number, called net migration, accounted for 60 percent of the area's population growth between 2010 and 2012. The newcomers are split almost evenly between people arriving from other states and those coming from other countries. They are also a driving force behind the region's increasing racial, ethnic, and social diversity.

Many of the new arrivals are college-age students or retirees, which keeps the average household size relatively small. As of 2010, about 60 percent of households in the region included only one or two people. The MPO recognizes that the region's growth, and its changing demographics, calls for more transportation choices. Simply building more and more highways will not be sufficient to meet the future needs of a growing and changing population.

Places/Communities

The MPO area includes Durham, Chapel Hill, Carrboro, Hillsborough, and unincorporated portions of Durham, Chatham, and Orange Counties. More than three quarters of the MPO area's population is concentrated in Durham, Chapel Hill, and along the roads that connect them. The MPO is focused on improving multimodal access between Durham and Chapel Hill and mobility along the major routes throughout the region, US 15/501, NC 54, and NC 751.

Jobs and Economy

The MPO region is home to about 260,000 jobs in a wide array of manufacturing, educational, scientific, and health care professions. The MPO region is also home to Research Triangle Park, the largest research park in the United States, housing more than 170 companies employing about 40,000 people. However, until recently, the Park has had no options for living. The Park now has a new plan that calls for adding more housing and services. The MPO encourages this type of development, because it allows more people to live near their jobs, which eases demand on the region's highways, supports the environment, and improves public health.

Land-use and Development

The region's local governments have permitted thousands of new houses, apartments, townhomes, and condominiums in recent years to keep pace with the demand for housing. The MPO region added nearly 8,700 housing units between 2010 and 2013. The entire Triangle region added nearly 38,000. This is remarkable growth during a period in which much of the United States saw slow residential development.

ABOUT THIS REPORT CARD

Regulatory Basis

The DCHC MPO Mobility Report Card (MRC) is in response to federal regulations regarding performance management and the congestion management process. Congestion Management Process (CMP) provides a systematic and continuous way for transportation planning in the DCHCMPO area to identify and manage congestion in a multi-modal manner. As stipulated by federal regulations, the MPO CMP must include a data collection and monitoring system, a range of strategies for addressing congestion, performance measures or criteria for identifying when action is needed, and a system for prioritizing which congestion management strategies would be most effective. The goal of a CMP is to have a systematic, transparent way for transportation planning agencies to identify and manage congestion and utilize performance measures to direct funding toward projects and strategies that are most effective for addressing congestion. The use of performance measures is the cornerstone of the federal CMP requirement. As noted in the most recent federal regulations, the metropolitan transportation planning process must provide for the establishment and use of a performance-based approach to transportation decision making to support the national goals of safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays. Also, the MPO is required establish performance targets that address performance measures for use in tracking system performance.

Purpose of this Report/How will it be Used?

The bi-annual DCHCMPO Mobility Report Card highlights measures of system performance for which data collected on an annual basis is used to index overall performance of the transportation system from year to year. Data reported include Average daily traffic trends, volume-to-capacity ratio, level of service, pedestrian counts, bicycle counts, safety, congestion, etc. The MRC will be used to:

1. Provide a framework for responding to congestion in a consistent and coordinated manner.
2. Measure multi-modal transportation system performance with data collected on an annual basis.
3. Identify congestion problem locations.
4. Determine the causes of congestion.
5. Develop and evaluate alternative strategies to mitigate congestion.
6. Implement cost effective actions.
7. Measure the progress of implemented strategies in reducing congestion.
8. Identify low cost strategies that complement major MTP capital recommendations.
9. Inform and receive information from other elements of the MPO transportation process, including the Metropolitan Transportation Plan (MTP) and the Transportation Improvement Program (TIP).
10. Support the re-evaluation of the MTP goals, objectives and performance targets.
11. Assist in monitoring of the MTP performance targets.
12. Support the incorporation of the CMP into NEPA Concurrency 1: Purpose and Need.
13. Feed into the development of CTP and MTP Purpose and Need statements.
14. Provide a framework for the integration of operations into the planning process.
15. Provide a guide and information for consideration by traffic and division engineers when considering low cost strategies (low-hanging fruits solutions).

Layout and indicators

Collecting quality data on various transportation indicators (i.e. highway demand, vehicular travel time, bicyclist and pedestrian activity, transit ridership) helps describe the current state of mobility within the MPO and provides meaningful ideas on what transportation improvements will have the biggest livability enhancements for the region as a whole in the short-term. These transportation improvements can include, for example: increasing transit service, increasing bicycle lane mileage, changing lane markings and road signage, or altering traffic light timings.

This is the DCHC MPO's first-ever Mobility Report Card, which summarizes all transportation data-collection efforts undertaken within the DCHC MPO jurisdiction, from the autumn of 2010 to the winter of 2013 and compares these data with those from previous years. The data-collection efforts undertaken as part of this study also compare transportation demand across all traffic modes (i.e., vehicular, bicyclist, pedestrian, and transit over the past decade).

The layout of this report card closely mirrors the mobility report cards produced by the Town of Chapel Hill and the Town of Carrboro. In addition, similar methodologies and indicators are measured. The following 12 indicators are analyzed:

1. Vehicular Activity and Arterial Level of Service
2. Vehicle Peak Hour Intersection Operations
3. Vehicular Travel Time
4. Vehicle Safety
5. Pedestrian Facilities
6. Pedestrian Activity
7. Bicycle Facilities
8. Bicyclist Activity
9. Pedestrian and Bicyclist Safety
10. Transit Service
11. Transit Ridership
12. Multi-modal Mobility/Throughput

Each of the 12 indicators comprise a separate chapter of this document, which are laid out as follows:

- What is it and why does it matter
- Methodology of data collection and analysis
- Summary of results at a county-wide level
- Results by geography

An icon appears on the first page of each chapter; its color specifies if the indicator has improved (green), worsened (red), or stayed the same (black) during the last 5-7 years.

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1. Vehicular Activity and Arterial Level of Service

WHAT IS IT?

Traffic congestion is a common problem in metropolitan areas across the country. Once traffic nears a road's capacity, conditions quickly deteriorate and traffic can grind to a halt. The MPO monitors congestion and identifies areas for improvement by tracking something called "level of service" for the major roads and intersections in the region.

The level of service grade describes how well a road or intersection is handling traffic during the busiest times of day. An LOS of A indicates that a road has plenty of capacity while an LOS of F indicates that traffic is exceeding capacity, and conditions have likely deteriorated substantially.

Traffic volume is a key ingredient in the level of service calculation. Volume refers to the number of vehicles passing a specific point over a period of time. The MPO and NC DOT both report daily traffic volumes that are recorded over at least a 24-hour period. The data for each direction are typically combined into one figure, called either **average daily traffic (ADT)** or **annual average daily traffic (AADT)**. The MPO collected traffic volume data at 342 locations during the fall of 2013 while NC DOT collected data at more than 700 locations in 2013.

WHY DOES IT MATTER?

Volume and level of service are important because roads have limited capacity to handle traffic. In order to keep traffic flowing, the region must either expand roadway capacity for vehicles or reduce the demand on congested corridors. The MPO uses the data summarized in this section to set priorities about which segments are in the greatest need of improvement.

SUMMARY

CONDITIONS WORSENING IN SELECT LOCATIONS



KEY FINDINGS

Daily Traffic Volume Increasing (2005 vs 2013)

- 937 locations compared
- 37% of all roadways had 10%+ increase in daily traffic volume
- 42% no change or decreased volume

Level of Service on DCHC Roadways remains adequate

- 78.4% - LOS A
- 90.7% - LOS C or Better
- 3.6% - LOS F

Congested Corridors are beginning to appear throughout the region

- Major Highways (I-40, US-70, US-15/501, NC-54)
- Arterials near employment hubs (Duke, UNC, NCCU, Hospitals)
- Primary Downtown Streets

METHODOLOGY

Vehicular activity is commonly evaluated using a roadway assessment called Level of Service, which assigns a roadway segment or intersection a letter grade based on vehicular flow conditions such as actual speed relative to posted speed and intersection delay. Average daily traffic (ADT) counts are an important resource for discerning the level of demand for a roadway between intersections or junctions. Such counts are usually performed for both traffic directions over a consecutive 48-hour period at a single location. Volume data are then averaged to produce the ADT for that specific section of a roadway. Some counts were done over consecutive 24-hour periods, thus not needing averaging, though these are still referred to as ADT counts. The DCHC MPO performed 342 ADT counts between September and December 2013 (Figure 1.1).

Average Daily Traffic and Annual Average Daily Traffic Counts

Average daily traffic (ADT) and Annual average daily traffic (AADT) counts both estimate daily traffic volume. While data collection methods differ slightly, they are effectively identical.

The DCHC MPO conducted 342 ADT counts in Fall 2013.

The NCDOT conducted more than 700 AADT counts within the MPO region throughout 2011.

The North Carolina Department of Transportation (NCDOT) conducts very similar counts at several locations every other year—every year for busier roadways—and exact locations are revisited for each count. These counts collect volume data for both directions of traffic and are performed over consecutive two to 14-day periods at each specific location.

From this volume data an annual average daily traffic (AADT) volume estimate is calculated for the whole year and used by the NCDOT to determine which roads require maintenance or improvements such as added lanes, optimized traffic lights phasing or additional road markings.

Both ADT and AADT counts were performed using pneumatic-tube count units placed a certain distance from an intersection to collect traffic volume moving at, or near, posted speeds. Counting too close to an intersection results in inaccurate data, as vehicles are accelerating or decelerating from the intersection. Corners, hills and commercial or public driveways were also avoided when possible.

DCHC MPO count units were established at counting locations to provide bidirectional volumes (northbound or eastbound [N/E] traffic and southbound or westbound [S/W] traffic) for upstream vs. downstream traffic. For all roadways, data was collected for each direction separately to optimize directional data accuracy. These counts were conducted on Tuesdays, Wednesdays and Thursdays over consecutive 48-hour periods from September to December 2013. Each 48-hour counts included AM, noon and PM peak periods over two consecutive calendar days for one location. Volumes from 48-hour counts were averaged over the two days to yield ADT (Table 1-1).

Measuring Level of Service

Once traffic volumes are collected, they can be compared to a roadway's capacity to help evaluate roadway functionality. This volume-to-capacity (v/c) ratio provides a measure for a level of service (LOS), or how effectively that roadway can handle the busiest daily traffic demands (Table 1-1).

All LOS grades should be perceived in the context of supply and demand. It is natural to assume that an "A" suggests roadway supply is optimized. However, it may also suggest that there is too much roadway supply and roadways are underutilized. Conversely, LOS of E or F in downtowns can be the result of an effective, multimodal street network. Ideally, LOS should be evaluated on highways and freeways as a comparison between free-flowing traffic and the actual flow of traffic, with reference to maneuverability and travel speed. On urban and suburban streets, LOS should be evaluated by the amount of delay incurred by intersections and may be thought of as travel time from one place to another. For any letter grade, it is important to remember that LOS is an evaluation of the ability of current roadway supply to handle vehicular demand.

LOS was calculated for 2005 volume data and the most recent volume data from a counting location, either in 2012 or 2013 depending on what was available. All v/c ratios are based on peak-hour capacity data from 2010 Triangle Regional Model (TRM), with lane geometry already accounted for. V/C ratios were obtained by dividing daily traffic volumes by the product of bi-directional capacity and 10 — which transforms capacity (the volume demand that

roadway is designed to handle during the most congested hour of traffic) to a capacity value for that road facility over a whole day at maximum volume.

The DCHC MPO contracted private consulting firms to acquire 342 48-hour counts.

Table 1-1. Level of Service Grades

	A	B	C	D	E	F
Arterial volume-to-capacity ratio	0.0-0.59	0.6-0.69	0.7-0.79	0.8-0.89	0.9-0.99	1.00 or >
Maneuverability	Almost Completely Unimpeded	Only Slightly Impeded	Noticeably Restricted	Severely Limited	Extremely Unstable	Almost None
Driver Comfort	High	High	Some Tension	Poor	Extremely Poor	The Lowest
Average Traveling Speed	At Speed Limit	Close to Limit	Close to Limit	Some Slowing	Significantly Slower than Limit	Significantly Slower than Limit

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REGIONWIDE RESULTS

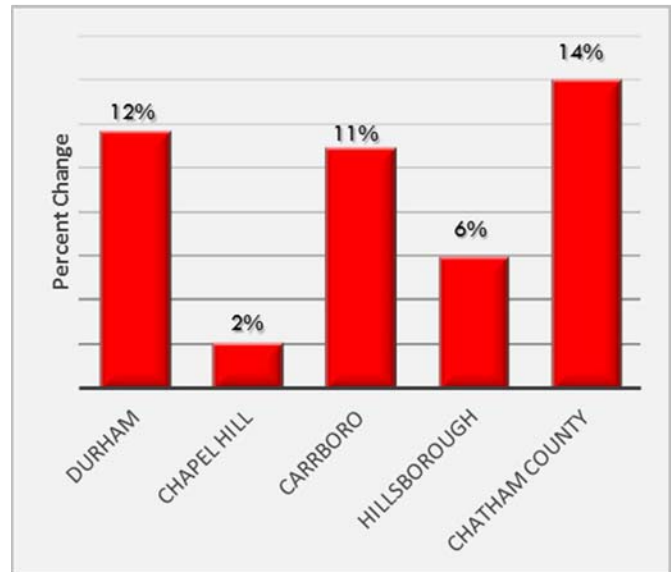
In general, roadway level of service remains adequate to serve regional travel needs, but conditions are worsening. Since 2005, vehicular activity has increased and arterial LOS has declined. With the exception of Chapel Hill, all subareas experienced rising numbers of automobile traffic. Additionally, Durham and Hillsborough have more road segments with worsening LOS than those with improving LOS.

In itself, these findings may not be inherently negative, because population in these regions has also increased. However, increasing traffic volumes make maintaining adequate LOS on all roads difficult.

The **most congested corridors provide access to the region's major employment centers** including Research Triangle Park, Downtown Durham, Duke University, and UNC. Several highways that provide access to these locations have a level of service F including:

- I 40 near Interstate 540, which is a key junction in the larger Triangle region.
- US 15-501, which is a critical highway connecting Durham and Chapel Hill, and directly connects UNC and Duke, and each university's hospital complex.
- NC 54, which connects Chapel Hill to I 40, and also connects fast growing neighborhoods and the Research Triangle Park in southern Durham County.
- US 70 on the east side of Durham, which is an alternate to I-40 between Downtown Durham and fast growing neighborhoods to the east, such as Brier Creek in Raleigh.

Figure 1-1. Percent Change in Traffic Volume 2005-13



In addition to these highways, several **urban streets that provide access to the region's major job centers are congested** with a level of service F, including:

- Hillandale Road and Roxboro Street, which connect downtown Durham and Duke University to I-85 residential neighborhoods in North Durham.
- Alston Avenue near the Durham Freeway, which connects fast growing areas in the southern Durham County with downtown and NC Central University's campus.
- Columbia Street south of Mason Farm Road, which connects US 15-501 and NC 54 to UNC's campus.

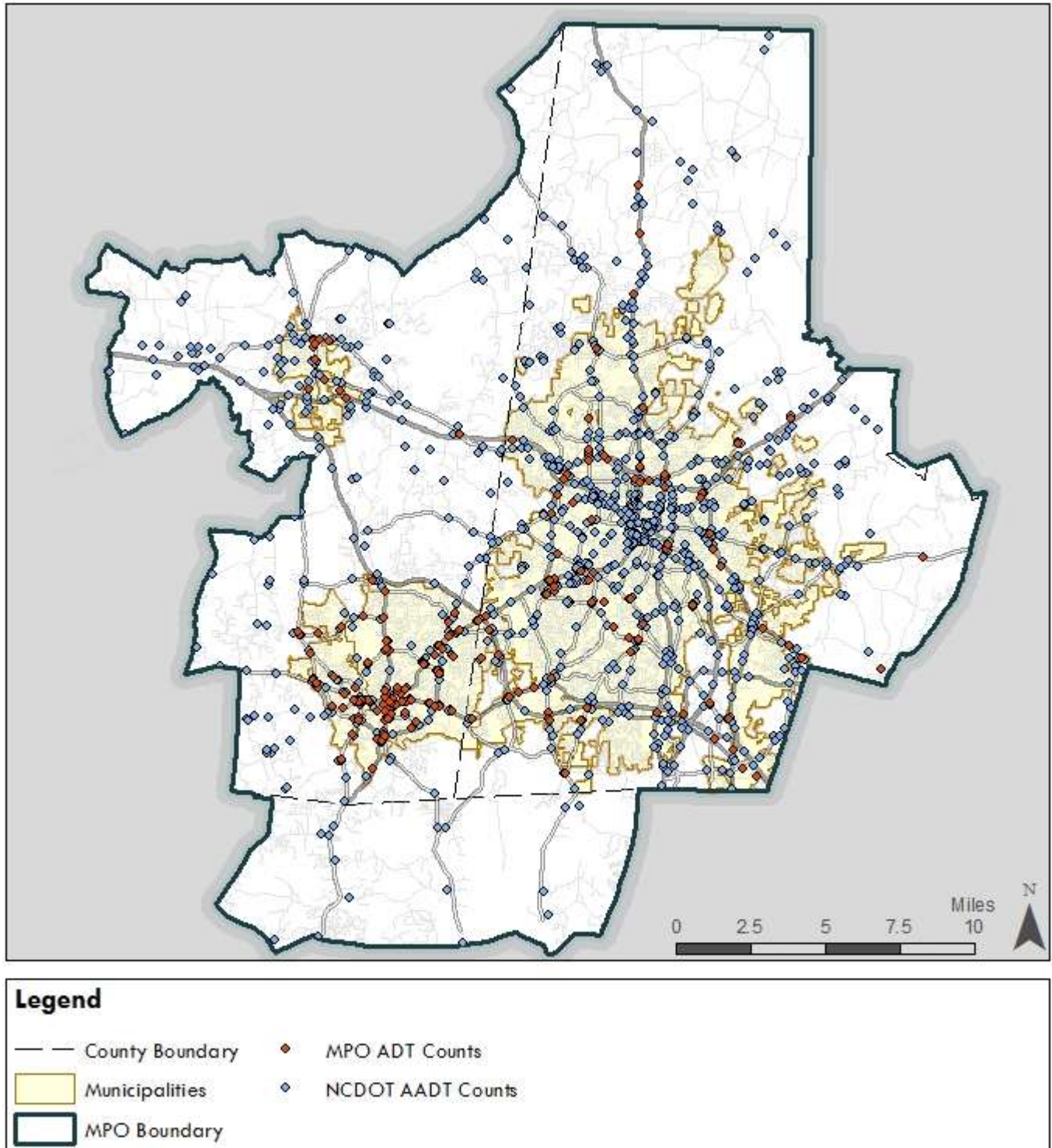
Some corridors are **congested because they serve popular downtown areas** with a lot of foot and bicycle traffic and several intersections. Three of these locations have a level of service F:

- Main Street and Greensboro Street in downtown Carrboro.
- Churton Street in downtown Hillsborough.
- Cameron Avenue west of Columbia Street in downtown Chapel Hill.

While the region has several pockets of severe congestion, **more than three-quarters of the region's roads are operating at level of service A.**

Traffic volume is up 9.69% with 37% of all roadways showing a 10% or more increase in daily traffic volume, while 42% had no change or decreased volume. Figure 1-3 shows those corridors whose LOS has changed by one or more grades.

Figure 1-2. Daily Traffic Volume Count Locations



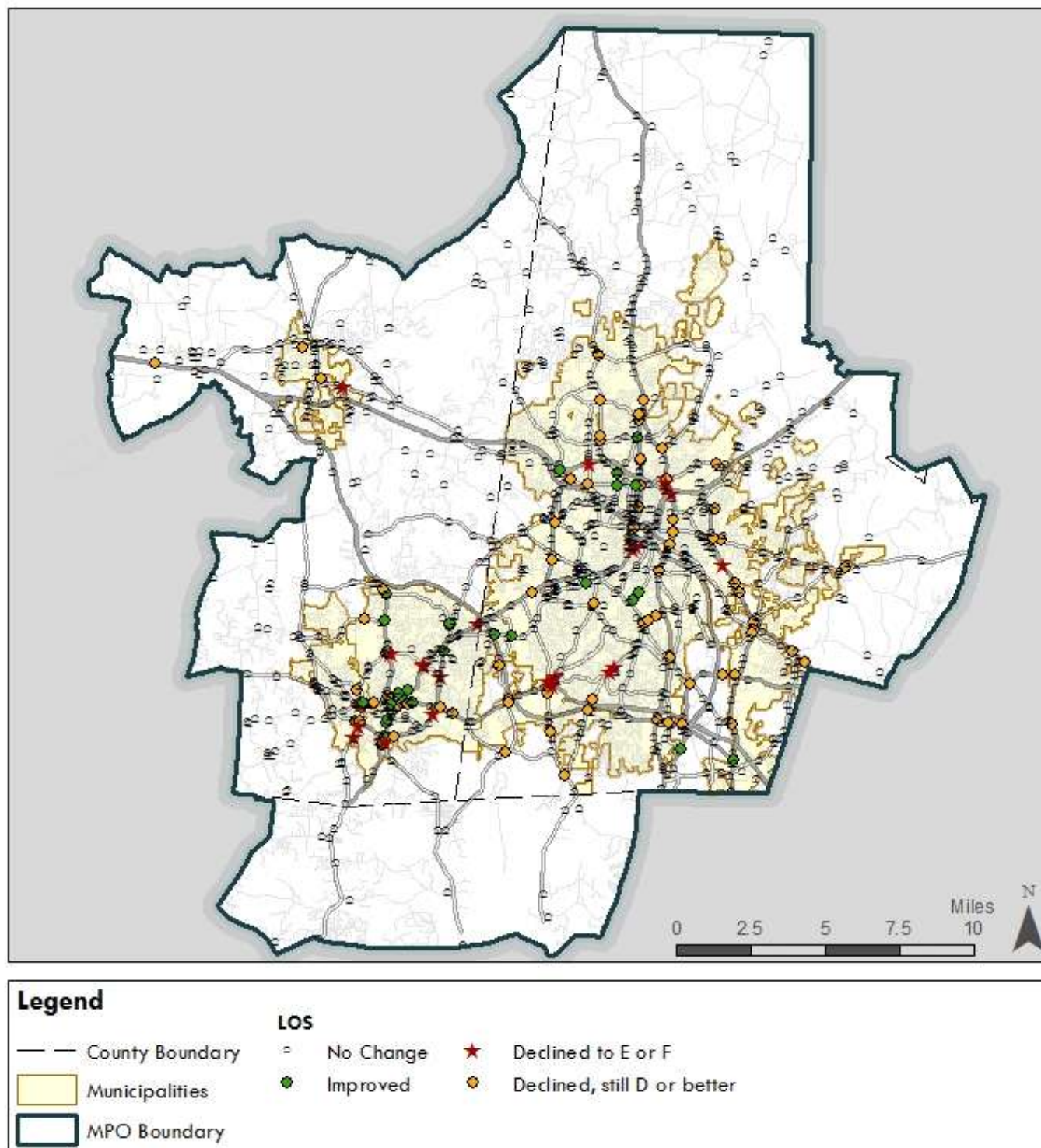
A total of 1,224 daily traffic volume count locations were compiled from 2001 to 2013

Table 1-2. Top 20 Highest Volume Roadways (2013)

Jurisdiction	Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
Downtown Durham	US 70 BYP	N OF NC 98	-	n/a	42,000	A	41,000	A	46,000	A	54,000	B
Chapel Hill	NC 54	E OF US 15-501	44,000	B	48,000	C	46,000	C	46,000	C	50,000	C
Chapel Hill	NC 54	E OF FINLEY GOLF COURSE RD	43,000	A	46,000	B	44,000	A	44,000	A	48,000	B
South Durham	US 70	N OF EAST END AVE	33,000	D	39,000	E	40,000	E	42,000	F	47,000	F
South Durham	US 70	S OF SR 1921	32,000	B	36,000	C	35,000	B	36,000	C	45,000	D
South Durham	NC 54	S OF SR 1110	43,000	F	45,000	F	46,000	F	43,000	F	45,000	F
Chapel Hill	NC 54	N OF SR 1110	42,000	F	42,000	F	42,000	F	42,000	F	43,000	F
Chapel Hill	NC 54	W OF HAMILTON	-	n/a	-	n/a	-	n/a	41,228	B	41,388	B
South Durham	NC 54	BTWN FARRINGTON RD AND I-40	-	n/a	-	n/a	-	n/a	42,306	F	40,816	F
Downtown Durham	US 70 BYP	S OF NC 98	-	n/a	34,000	A	35,000	A	37,000	A	40,000	A
South Durham	US 70	S OF SR 1815	32,000	B	36,000	C	34,000	B	37,000	C	40,000	C
Chapel Hill	NC 54	E OF EAST BARBEE CHAPEL	-	n/a	-	n/a	-	n/a	36,321	F	39,967	F
North Durham	DUKE ST	N OF RUBY ST	-	n/a	35,000	D	-	n/a	34,000	D	38,431	E
North Durham	ROXBORO ST	S OF DAVIDSON AVE	30,000	D	32,000	E	31,000	E	31,000	E	37,000	F
South Durham	US 70	W OF SR 1906	31,000	A	33,000	B	31,000	A	31,000	A	37,000	C
South Durham	US 70	E OF SR 1811	27,000	A	29,000	A	30,000	A	29,000	A	36,000	B
North Durham	ROXBORO ST	N OF US 501 BUS	34,000	C	35,000	D	33,000	C	35,000	D	35,000	D
South Durham	NC 55	N OF NC 54	26,000	A	27,000	A	30,000	A	35,000	B	34,453	B
North Durham	DUKE ST	N OF LORAIN AVE	29,000	B	34,000	D	-	n/a	32,000	C	34,000	D
South Durham	FAYETTEVILLE RD	N OF SR 1105	28,000	B	32,000	C	32,000	C	32,000	C	34,000	C

1-40, 1-85, NC 147 and US 15-501 bypass were excluded

Figure 1-3. Regionwide LOS Grade Changes



RESULTS BY GEOGRAPHY

The following provides detailed results on volume and level of service summarized by regional geographies. Because the DCHC MPO covers quite a large area, the following regional distinctions were developed: North Durham, South Durham, Downtown Durham, Chapel Hill, Carrboro, Hillsborough and Chatham County.

North Durham encompasses everything in Durham County north of I-85. This area included volume data from 53 DCHC MPO count locations and 133 NCDOT count locations.

Downtown Durham includes any count locations between I-85 and NC 147 and from the junction of I-85/US 15-501 to the US 70 bypass as downtown Durham, including Duke University. This area included volume data from 59 DCHC MPO count locations and 129 NCDOT count locations.

South Durham encompasses all counts from just north of Holloway Street / NC 98 to the Durham/Chatham County line and from the Durham/Wake County line to the Durham/Orange County line. This area included volume data from 401 locations; 145 DCHC MPO count locations and 256 NCDOT count locations.

The Chapel Hill Area includes all counts from within the Town limits and from the Chapel Hill line south to the Orange/Chatham County line. This area included volume data from 144 DCHC MPO counts and 39 NCDOT counts.

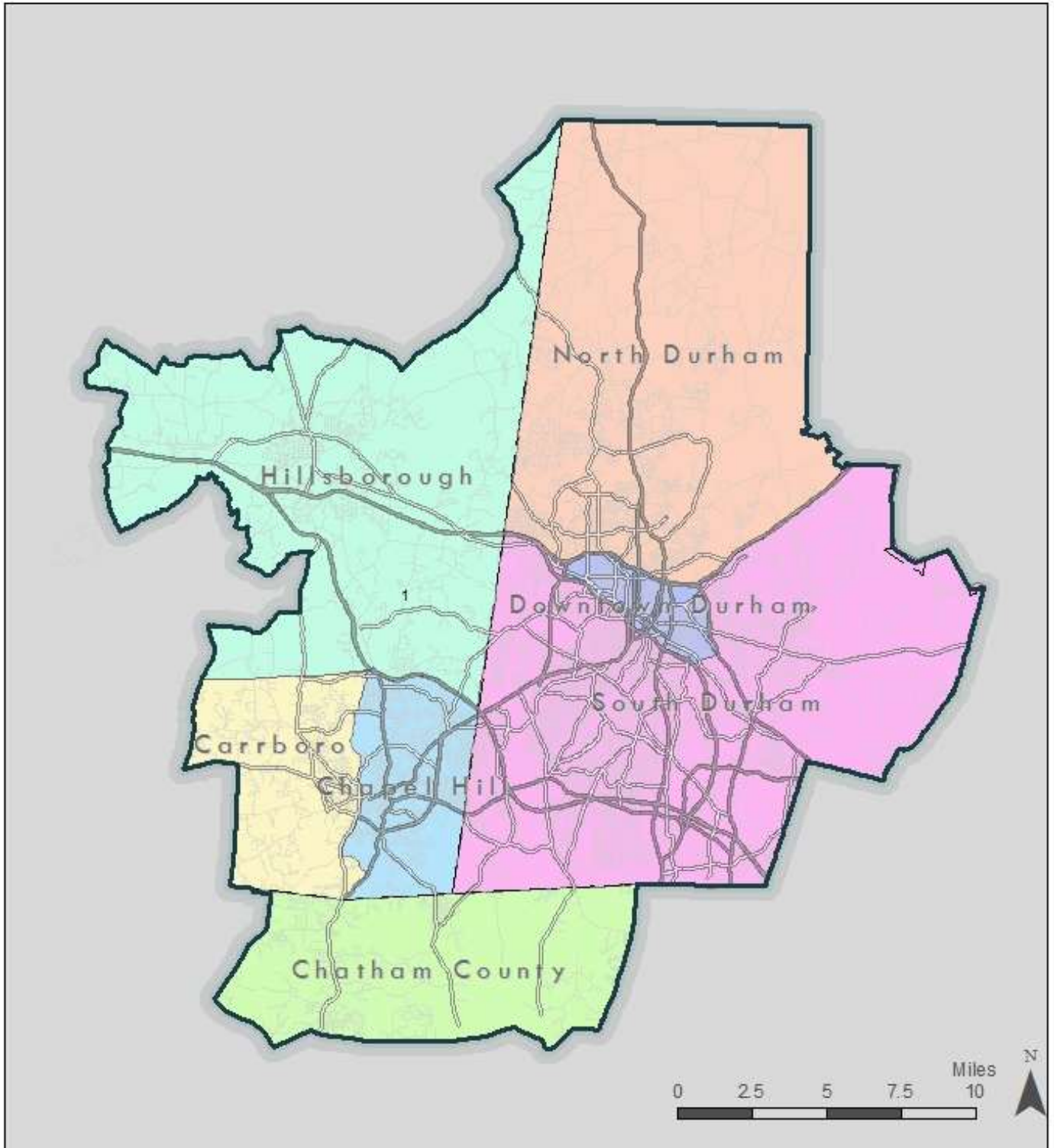
Carrboro includes all counts from Eubanks Rd. south to the Orange/Chatham County line and from the Chapel Hill line west. This area included volume data from 110 ADT count locations; 70 DCHC MPO count locations and 40 NCDOT count locations.

The Hillsborough area included all counts north of Eubanks Road between the Durham County line and the MPO boundary. This area included volume data from 141 count locations (40 DCHC MPO count locations and 101 NCDOT).

The Chatham County area included all counts from the Orange/Chatham County line to the MPO boundary. This area included volume data from 15 DCHC MPO count locations.

A map of the sub-areas is provided in Figure 1-4 below.

Figure 1-4. Sub-Area Boundaries



Notes on Methodology

Count locations were tabulated based on heavily-traveled corridors from the Congestion Management Process (CMP) analyses performed by the DCHC MPO (Table 1-3). Locations which showed changes in level of service (LOS) from 2005 to the most recent data collected are labeled as followed:

- Improving LOS is shown in green and bold
- Deteriorating LOS is shown in red and bold

North Durham

North Durham encompasses everything in Durham County north of I-85. This area included volume data from **53 DCHC MPO count locations** and **133 NCDOT count locations**.

Traffic volume in north Durham appears to be moving well with 78% of counts receiving a LOS A. Only seven count locations (5%) received LOS D or worse. Most count locations have not demonstrated enough changes in daily traffic volume from 2005 to 2013 to reflect a different LOS grade.

KEY DATA RESULTS

ADT traffic volume: 186 count locations

- 146 (78%) - LOS A
- 7 (5%) – LOS D or Worse

Changes in LOS Grade: 17 (9%) locations

- 1 improved
- 16 (9%) declined (5 to LOS of D or worse)
- 2 locations received an LOS F

Locations with heaviest traffic volume:

- Duke St/Roxboro St (US 501 N)
- Guess Road
- Hillandale Road

Changes in Daily Traffic Volume (2005 to 2013): 163 locations recorded

- 76 (47%) saw no change or decreased volume
- 57 (35%) saw changes in volume of over 10%
 - 4 of these locations were below LOS C
 - LOS grade lowered for 15 locations
 - Highest changes recorded on SR 1462 (Terry Rd) and Duke Ln (but still maintained LOS A)

Table 1-3. Daily Traffic Volumes (2005-2013) - North Durham

Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
BROAD ST	N OF HAVERFORD ST	14,000	A	13,000	A	13,000	A	12,000	A	12,000	A
BROAD ST	S OF CARVER ST	6,600	A	7,000	A	5,900	A	5,800	A	6,100	A
CAMDEN AVE	W OF SR 1709	3,300	A	2,800	A	2,600	A	2,500	A	2,800	A
CAMDEN AVE	W OF MIST LAKE DR	2,000	A	1,900	A	1,700	A	1,600	A	1,800	A
CARVER ST	W OF US 501 BYP	13,000	C	13,000	C	12,000	C	11,000	B	11,000	B
CARVER ST	W OF NC 157	10,000	A	11,000	B	11,000	B	10,000	A	10,000	A
CARVER ST	E OF US 501 BYP	9,400	A	9,900	A	10,000	A	-	n/a	10,000	A
CARVER ST	E OF DUKE HOMESTEAD RD	10,000	A	9,900	A	9,400	A	9,200	A	8,800	A
CARVER ST	E OF DUKE HOMESTEAD RD	7,700	A	7,300	A	6,900	A	6,400	A	6,300	A
CARVER ST	W OF SR 1321 HILLANDALE RD	5,300	A	4,800	A	4,300	A	-	n/a	4,200	A
CARVER ST	E OF SR 1404	3,100	A	2,600	A	2,300	A	2,300	A	2,100	A
CHERYL DR	E OF US 501	360	A	250	A	290	A	280	A	280	A
CLARK RD	W OF MORGAN RD	130	A	170	A	130	A	150	A	120	A
CLUB BLVD	E OF ROXBORO ST	9,400	B	10,000	B	10,000	B	9,100	B	11,000	C
CLUB BLVD	E OF GLENN RD	7,800	A	-	n/a	8,700	A	8,700	A	10,000	A
CLUB BLVD	W OF CAMDEN AVE	7,300	A	7,200	A	8,200	A	7,400	A	8,800	B
CLUB BLVD	W OF KISS DR	7,100	A	6,400	A	7,300	A	6,300	A	7,400	A
COLE MILL RD	W OF SR 1404	12,000	A	12,000	A	11,000	A	11,000	A	12,000	A
COLE MILL RD	N OF SPARGER RD	10,000	A	9,500	A	9,100	A	8,900	A	9,666	A
CRESTVIEW DR	E OF US 501	650	A	700	A	610	A	600	A	730	A
DUKE HOMESTEAD RD	S OF FAIRFIELD RD	-	n/a	-	n/a	1,400	A	1,300	A	1,300	A
DUKE HOMESTEAD RD	S OF CARVER ST	1,100	A	750	A	640	A	630	A	750	A
DUKE ST	BTWN I-85 AND LEON ST	-	n/a	-	n/a	-	n/a	36,970	D	-	n/a
DUKE ST	BTWN SNOW HILL AND BAHAMA	-	n/a	-	n/a	-	n/a	19,214	A	-	n/a
DUKE ST	BTWN BAHAMA AND LOWELL	-	n/a	-	n/a	-	n/a	14,833	A	-	n/a
DUKE ST	N OF RUBY ST	-	n/a	35,000	D	-	n/a	34,000	D	38,431	E
DUKE ST	N OF LORAIN AVE	29,000	B	34,000	D	-	n/a	32,000	C	34,000	D
DUKE ST	N OF MURRAY AVE	27,000	B	32,000	C	-	n/a	31,000	C	32,000	C
DUKE ST	S OF HORTON RD	25,000	A	28,000	B	-	n/a	27,000	B	29,408	B
DUKE ST	N OF FAIRFIELD RD	25,000	A	27,000	B	-	n/a	29,000	B	29,203	B
DUKE ST	N OF CARVER ST	26,000	B	29,000	B	-	n/a	27,000	B	28,000	B
DUKE ST	N OF SR 1443 HORTON RD	23,000	A	25,000	A	-	n/a	25,000	A	24,000	A
GUESS RD	BTWN I-85 AND SOVEREIGN	-	n/a	-	n/a	-	n/a	16,149	A	-	n/a

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
GUESS RD	BTWN I-85 AND HOMESTEAD DR	-	n/a	-	n/a	-	n/a	27,377	C	-	n/a
GUESS RD	BTWN LATTI RD AND UMSTEAD RD	-	n/a	-	n/a	-	n/a	17,391	A	-	n/a
GUESS RD	N OF I-85	24,000	C	23,000	B	24,000	C	23,000	B	26,000	C
GUESS RD	N OF SR 1407	18,000	A	20,000	A	22,000	B	22,000	B	25,000	C
GUESS RD	S OF CAMMIE ST	17,000	A	19,000	A	21,000	B	21,000	B	23,000	B
GUESS RD	N OF DUKE HOMESTEAD RD	22,000	A	22,000	A	23,000	A	23,000	A	22,980	A
GUESS RD	N OF OLD RD	18,000	A	20,000	A	21,000	A	21,000	A	22,000	A
GUESS RD	N OF SR 1443	17,000	A	20,000	A	21,000	B	20,000	A	22,000	B
GUESS RD	S OF SR 1404	17,000	A	19,000	A	20,000	A	19,000	A	21,000	A
GUESS RD	S OF SR 1448	17,000	A	20,000	A	20,000	A	20,000	A	21,000	B
GUESS RD	S OF GRADY RD	16,000	A	17,000	A	18,000	A	17,000	A	18,000	A
GUESS RD	S OF I-85	-	n/a	13,000	A	15,000	A	14,000	A	15,000	A
GUESS RD	N OF REDMOND DR	9,600	A	11,000	A	11,000	A	11,000	A	11,000	A
GUESS RD	S OF MASON RD	8,500	A	9,100	A	8,600	A	8,700	A	8,200	A
GUESS RD	S OF SR 1451	7,700	A	8,100	A	8,000	A	8,100	A	8,000	A
GUESS RD	N OF SR 1592	5,400	A	5,700	A	5,400	A	5,400	A	5,400	A
GUESS RD	N OF SR 2315	3,400	A	3,800	A	3,500	A	3,600	A	3,600	A
HERITAGE DR	S OF SR 1449	490	A	390	A	430	A	370	A	370	A
HILLANDALE RD	BTWN CARVER ST AND HORTON RD	-	n/a	-	n/a	-	n/a	12,539	C	-	n/a
HILLANDALE RD	N OF I-85	-	n/a	24,000	F	18,000	D	23,000	F	25,357	F
HILLANDALE RD	N OF CARVER ST	-	n/a	11,000	B	11,000	B	-	n/a	10,000	A
HORTON RD	W OF DUKE ST	12,000	C	13,000	C	13,000	C	13,000	C	14,000	D
HORTON RD	E OF DUKE ST	10,000	A	11,000	A	9,800	A	12,000	A	13,000	A
I-85	EXIT 176 TO EXIT 177	75,000	A	80,000	A	80,000	A	76,000	A	83,000	A
I-85	EXIT 175 TO EXIT 176	74,000	A	79,000	A	79,000	A	76,000	A	83,000	A
I-85	EXIT 174 TO EXIT 175	78,000	A	85,000	A	85,000	A	82,000	A	90,000	A
I-85	EXIT 174B TO EXIT 174	79,000	A	87,000	A	88,000	A	84,000	A	92,000	A
I-85	EXIT 173 TO EXIT 174B	34,000	A	38,000	A	36,000	A	31,000	A	34,000	A
I-85	EXIT 172 TO EXIT 173	31,000	A	34,000	A	32,000	A	26,000	A	31,000	A
I-85	EXIT 177 TO EXIT 178	79,000	A	83,000	A	79,000	A	79,000	A	83,000	A
I-85	EXIT 180 TO EXIT 182	41,000	A	44,000	A	44,000	A	45,000	A	47,000	A
I-85	EXIT 179 TO EXIT 180	40,000	A	44,000	A	46,000	A	47,000	A	48,000	A
I-85	EXIT 178 TO EXIT 179	40,000	A	46,000	A	49,000	A	51,000	A	52,000	B
I-85	EXIT 182 TO EXIT 183	39,000	A	41,000	A	41,000	A	42,000	A	43,000	A
I-85	EXIT 183 TO EXIT 186	39,000	A	41,000	A	41,000	A	42,000	A	43,000	A
INFINITY RD	E OF ROXBORO ST	7,600	A	7,600	A	8,000	A	7,800	A	7,900	A
INFINITY RD	W OF SNOW HILL RD	3,400	A	3,100	A	2,900	A	2,900	A	3,200	A

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
INFINITY RD	W OF GOODWIN RD	2,900	A	2,900	A	2,700	A	3,300	A	3,100	A
LATTA RD	E OF NC 157	8,900	A	9,200	A	9,400	A	9,400	A	9,800	A
MASON RD	E OF GUESS RD	4,000	A	3,900	A	3,600	A	3,800	A	3,600	A
MASON RD	W OF ROXBORO ST	3,200	A	3,100	A	2,800	A	2,400	A	2,700	A
MURRAY AVE	W OF US 501 BUS	-	n/a	2,500	A	2,200	A	2,000	A	2,300	A
NC 55 (AVONDALE RD)	N OF I-85	-	n/a	-	n/a	20,000	A	20,000	A	24,000	C
NC 57	N OF SR 1532	1,800	A	1,800	A	1,700	A	1,600	A	1,800	A
OLD OXFORD RD	E OF US 501 BUS	15,000	A	16,000	A	-	n/a	16,000	A	18,000	A
OLD OXFORD RD	S OF SR 1634	8,400	A	8,800	A	-	n/a	8,800	A	10,000	A
OLD OXFORD RD	N OF SR 1634	7,700	A	7,800	A	-	n/a	7,800	A	8,900	A
OLD OXFORD RD	S OF SR 1631	7,500	A	7,600	A	-	n/a	7,100	A	8,460	A
OLD OXFORD RD	S OF STAGVILLE RD	6,300	A	6,700	A	-	n/a	6,000	A	7,000	A
OLD OXFORD RD	N OF WANDERLUST LN	5,200	A	5,200	A	-	n/a	4,700	A	5,900	A
OLD OXFORD RD	E OF STAGVILLE RD	4,300	A	4,700	A	-	n/a	3,600	A	4,800	A
OLD OXFORD RD	E OF CASSAM RD	4,200	A	4,600	A	-	n/a	3,500	A	4,300	A
ORANGE FACTORY RD	E OF ROXBORO ST	2,200	A	2,300	A	2,300	A	2,100	A	2,300	A
RED MILL RD	N OF I-85	-	n/a	-	n/a	-	n/a	8,791	A	-	n/a
RED MILL RD	N OF I-85	8,000	A	8,500	A	8,400	A	8,900	A	10,295	A
RED MILL RD	S OF HAMLIN RD	6,800	A	6,900	A	7,100	A	7,300	A	9,179	A
ROS	E OF SHARON RD W OF NC 157	3,500	A	3,900	A	4,000	A	4,200	A	4,200	A
ROSE OF SHARON RD	N OF COLE MILL RD	7,600	A	6,600	A	5,900	A	5,800	A	6,034	A
ROSE OF SHARON RD	N OF CARVER ST	5,100	A	4,600	A	4,100	A	4,200	A	4,200	A
ROXBORO ST	BTWN CARVER AND LEWIS	-	n/a	-	n/a	-	n/a	21,848	A	-	n/a
ROXBORO ST	BTWN DUKE ST JUNCTION AND HORTON RD	-	n/a	-	n/a	-	n/a	14,780	A	-	n/a
ROXBORO ST	S OF DAVIDSON AVE	30,000	D	32,000	E	31,000	E	31,000	E	37,000	F
ROXBORO ST	N OF US 501 BUS	34,000	C	35,000	D	33,000	C	35,000	D	35,000	D
ROXBORO ST	N OF RIPPLING STREAM RD	34,000	C	32,000	C	30,000	C	32,000	C	33,951	C
ROXBORO ST	S OF SR 1004 OLD OXFORD RD	29,000	B	27,000	B	28,000	B	28,000	B	33,000	C
ROXBORO ST	N OF SR 1669 CLUB BLVD	28,000	E	29,000	F	28,000	E	28,000	E	32,790	F
ROXBORO ST	N OF INFINITY RD	28,000	B	28,000	B	27,000	B	29,000	B	29,000	B
ROXBORO ST	S OF SR 1407 CARVER ST	24,000	C	22,000	B	21,000	B	20,000	B	24,000	C
ROXBORO ST	S OF MACWOOD DR	21,000	A	22,000	A	21,000	A	21,000	A	22,000	A
ROXBORO ST	N OF SR 1407 CARVER ST	22,000	A	20,000	A	18,000	A	17,000	A	21,000	A

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
ROXBORO ST	N OF PLEASANT HILL DR	19,000	A	20,000	A	19,000	A	19,000	A	21,000	A
ROXBORO ST	N OF EPPERSON DR	18,000	A	19,000	A	18,000	A	19,000	A	19,326	A
ROXBORO ST	N OF BAHAMA RD	15,000	A	15,000	A	14,000	A	14,000	A	17,125	A
ROXBORO ST	N OF ORANGE FACTORY RD	17,000	A	17,000	A	16,000	A	16,000	A	17,125	A
ROXBORO ST	N OF SR 1443 HORTON RD	15,000	A	14,000	A	13,000	A	14,000	A	15,000	A
ROXBORO ST	S OF RED MOUNTAIN RD	15,000	A	16,000	A	14,000	A	13,000	A	15,000	A
ROXBORO ST	N OF SR 1601 MOORES MILL RD	14,000	A	15,000	A	13,000	A	13,000	A	14,160	A
SNOW HILL RD	S OF SR 1778	5,300	A	5,200	A	4,700	A	4,600	A	5,800	A
SPARGER RD	BTWN SPARGER SPRINGS LN AND BYRD RD	-	n/a	-	n/a	-	n/a	5,622	A	-	n/a
SR 1400 (SPARGER RD)	W OF SR 1401 COLE MILL RD	4,300	A	4,200	A	3,800	A	4,200	A	3,700	A
SR 1450	W OF SR 1449	3,100	A	3,100	A	2,900	A	3,100	A	3,100	A
SR 1451	S OF SR 1453	2,500	A	2,100	A	2,000	A	1,900	A	1,900	A
SR 1451	N OF SR 1449	2,100	A	1,900	A	1,700	A	1,500	A	1,700	A
SR 1451	N OF SR 1453	2,000	A	1,700	A	1,600	A	1,600	A	1,500	A
SR 1451	S OF NC 157	1,900	A	1,600	A	1,400	A	1,400	A	1,300	A
SR 1453	N OF SR 1449	3,200	A	3,100	A	3,300	A	3,200	A	3,300	A
SR 1453	N OF SR 1450	2,100	A	2,100	A	2,000	A	2,100	A	2,100	A
SR 1453	W OF SR 2384	1,300	A	1,200	A	1,300	A	1,400	A	1,300	A
SR 1456	W OF US 501	6,500	A	-	n/a	6,800	A	7,800	A	7,800	A
SR 1456 (MILTON RD)	S OF SR 1457	4,200	A	4,100	A	3,700	A	4,000	A	3,500	A
SR 1456 (MILTON RD)	N OF SR 1457	4,400	A	4,200	A	3,500	A	3,500	A	3,200	A
SR 1457	W OF US 501	1,500	A	1,600	A	1,500	A	1,100	A	1,800	A
SR 1458	E OF MILTON RD	1,500	A	1,700	A	1,600	A	1,900	A	1,500	A
SR 1461	N OF SR 1002	1,400	A	1,500	A	1,400	A	1,400	A	1,500	A
SR 1461	N OF NC 157	1,100	A	1,200	A	1,100	A	1,100	A	1,100	A
SR 1462	W OF US 501	220	A	250	A	450	A	380	A	480	A
SR 1464	W OF US 501	850	A	820	A	790	A	650	A	730	A
SR 1470	W OF US 501	1,200	A	810	A	1,200	A	1,200	A	1,200	A
SR 1471	W OF US 501	1,200	A	1,500	A	930	A	860	A	940	A
SR 1471 (RED MOUNTAIN RD)	E OF US 501	2,400	A	2,400	A	2,100	A	1,600	A	2,300	A
SR 1534	E OF NC 57	-	n/a	-	n/a	-	n/a	-	n/a	330	A
SR 1536	N OF SR 1449	400	A	460	A	410	A	460	A	400	A
SR 1557	S OF SR 1449	220	A	230	A	240	A	220	A	210	A
SR 1607	N OF SR 1616	1,900	A	1,900	A	1,600	A	1,400	A	1,400	A
SR 1607	N OF SR 1609	1,400	A	1,400	A	1,100	A	980	A	1,100	A
SR 1607	S OF SR 1609	1,500	A	1,600	A	1,200	A	1,100	A	1,100	A
SR 1615	S OF SR 1628	4,300	A	5,100	A	3,800	A	3,600	A	4,700	A
SR 1615	N OF SR 1628	4,000	A	4,700	A	3,400	A	3,400	A	4,300	A
SR 1615	S OF SR 1616	4,000	A	4,700	A	3,400	A	3,300	A	3,800	A

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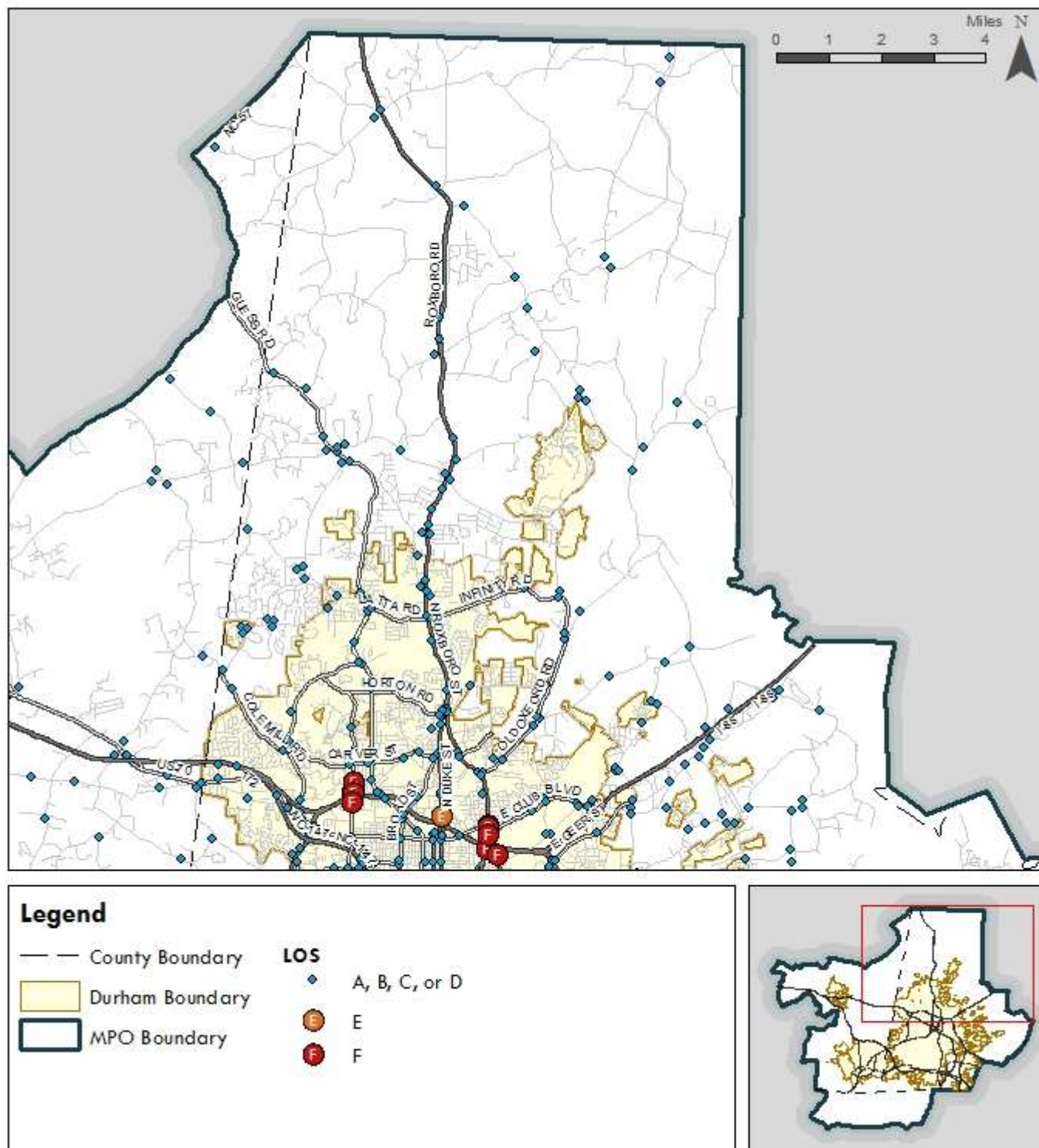
Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
SR 1615	N OF SR 1617	3,100	A	3,500	A	2,600	A	2,700	A	3,100	A
SR 1615	E OF US 501	3,000	A	3,500	A	2,500	A	2,400	A	3,000	A
SR 1616	E OF SR 1620	610	A	470	A	380	A	-	n/a	360	A
SR 1616 (BAHAMA RD)	E OF US 501	2,900	A	3,000	A	3,200	A	2,800	A	2,900	A
SR 1616 (BAHAMA RD)	E OF SR 1615	2,700	A	2,800	A	2,400	A	2,100	A	2,500	A
SR 1618	W OF SR 1627	270	A	330	A	310	A	320	A	310	A
SR 1622	N OF SR 1004	580	A	640	A	440	A	540	A	580	A
SR 1628	W OF SR 1615	950	A	990	A	860	A	840	A	950	A
SR 1631	N OF SR 1639	4,500	A	4,700	A	4,200	A	3,900	A	4,600	A
SR 1631	E OF US 501	2,600	A	2,700	A	2,500	A	2,300	A	2,700	A
SR 1634	E OF SR 1004	4,700	A	-	n/a	4,900	A	4,900	A	5,200	A
SR 1634	W OF SR 1704	2,800	A	-	n/a	2,700	A	2,300	A	2,300	A
SR 1634	W OF SR 1632 RED MILL RD	1,200	A	-	n/a	1,100	A	1,100	A	960	A
SR 1635	S OF SR 1634	1,700	A	1,800	A	1,800	A	1,600	A	1,600	A
SR 1636	N OF SR 1671	1,500	A	1,600	A	1,500	A	-	n/a	-	n/a
SR 1636	N OF SR 1675	2,900	A	3,200	A	3,600	A	3,500	A	3,600	A
SR 1636	W OF SR 1632 RED MILL RD	1,500	A	1,600	A	1,500	A	1,500	A	1,300	A
SR 1636	N OF PACKARD ST	1,500	A	1,600	A	1,800	A	1,800	A	1,100	A
SR 1636	N OF SR 1677	890	A	970	A	1,100	A	950	A	970	A
SR 1637 (REDWOOD RD)	W OF I-85	100	A	110	A	120	A	-	n/a	80	A
SR 1640 (GOODWIN RD)	E OF US 501	2,200	A	2,200	A	2,300	A	2,300	A	2,200	A
SR 1640 (GOODWIN RD)	N OF SR 1639	1,100	A	1,000	A	1,000	A	1,000	A	1,100	A
SR 1641	N OF SR 1656	770	A	1,000	A	880	A	970	A	1,100	A
SR 1641 (DENFIELD ST)	E OF US 501 BUS	4,100	A	4,500	A	4,900	A	-	n/a	5,900	A
SR 1648 (DANUBE LN)	N OF SR 1004 OLD OXFORD RD	1,600	A	2,200	A	2,600	A	2,800	A	3,300	A
SR 1656	E OF SR 1641	3,900	A	5,000	A	5,600	A	6,300	A	6,600	A
SR 1656	W OF SR 1004 OLD OXFORD RD	3,900	A	4,500	A	4,500	A	5,100	A	5,800	A
SR 1666	N OF SR 1669	9,600	A	9,100	A	9,700	A	9,400	A	9,600	A
SR 1666	E OF SR 1004	7,100	A	7,000	A	6,900	A	7,200	A	7,500	A
SR 1675	E OF SR 1636	1,900	A	2,100	A	2,700	A	2,600	A	3,100	A
SR 1677	E OF SR 1636	160	A	150	A	190	A	160	A	-	n/a
SR 1697	E OF US 501	660	A	620	A	660	A	750	A	590	A
SR 1698	E OF US 501	500	A	460	A	480	A	480	A	590	A
SR 1709	S OF SR 1669	5,200	A	4,400	A	4,100	A	3,900	A	4,300	A
SR 1827	S OF SR 1671	-	n/a	4,100	A	3,900	A	4,000	A	3,900	A
SR 2317	N OF SR 1002	210	A	300	A	290	A	250	A	260	A

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
ST MARY'S RD	W OF NC 157	3,900	A	3,700	A	3,600	A	-	n/a	3,470	A
UMSTEAD RD	W OF NC 157	8,500	A	8,200	A	8,200	A	8,200	A	8,600	A
UMSTEAD RD	N OF COLE MILL RD	8,900	A	8,600	A	8,200	A	7,900	A	8,300	A
UMSTEAD RD	S OF CRAIG RD	8,100	A	7,700	A	7,400	A	7,300	A	7,500	A
UMSTEAD RD	W OF COUNTRY CLUB DR	6,000	A	5,500	A	5,200	A	5,200	A	5,318	A
US 501 BUS	N OF HIGBEE ST	-	n/a	16,000	A	15,000	A	15,000	A	19,000	B
US 501 BUS	N OF SR 1004 OLD OXFORD RD	25,000	C	25,000	C	23,000	B	23,000	B	25,000	C
VALLEY SPRING RD	W OF SR 1404	520	A	560	A	540	A	750	A	560	A

Figure 1-5. 2013 LOS E or F Roadways - North Durham



Downtown Durham

Downtown Durham includes any count locations between I-85 and NC 147 and from the junction of I-85/US 15-501 to the US 70 bypass as downtown Durham, including Duke University. This area included volume data from 59 DCHC MPO count locations and 129 NCDOT count locations.

Downtown Durham contained **188 ADT count locations. Sixty-three (63) percent of the locations had an LOS of A. Most locations (75%) received a C or better.** Eighty-five percent of locations maintained the same LOS compared with 2005 data, and nearly 35% of count locations recorded no change or decreases in daily traffic volume.

KEY DATA RESULTS

ADT traffic volume: 188 count locations

- 118 (63%) - LOS A
- 141 (75%) – LOS C or better

Changes in LOS grades: 29 locations (15%)

- 5 improved (3 to an A or B)
- 12 worsened to LOS of D or worse
- 3 locations received an LOS F

Locations with heaviest traffic volume:

- NC-147, US 70, Roxboro St, NC-55, Hillandale Rd and Duke St

Changes in Daily Traffic Volume (2005 to 2013): 147 locations

- 52 (35%) saw no change or decreased volume
- 68 (46%) saw changes in volume of over 10%
 - 12 of these locations were below LOS C
 - LOS grade worsened for 21 locations
 - Highest changes recorded on Roxboro St and Main St
 - NC 147 and NC55 were also high volume roadways whose LOS worsened

Table 1-4. Daily Traffic Volumes (2005-2013) - Downtown Durham and Duke University

Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
ALSTON AVE	S OF ANGIER AVE	18,000	F	20,000	F	20,000	F	20,000	F	22,202	F
ANGIER AVE	E OF DRIVER ST	6,800	A	6,800	A	5,900	A	5,900	A	6,300	A
ANGIER AVE	W OF BRIGGS AVE	6,600	A	6,500	A	5,600	A	5,800	A	6,000	A
ANGIER AVE	W OF DRIVER ST	5,700	A	-	n/a	4,900	A	5,300	A	5,800	A
ANGIER AVE	E OF NC 55	5,000	A	5,300	A	5,200	A	5,600	A	5,400	A
ANGIER AVE	S OF HOOVER RD	4,700	A	4,800	A	4,300	A	4,200	A	4,500	A
BROAD ST	N OF SR 1322	13,000	C	12,000	C	11,000	B	12,000	C	13,574	C
BROAD ST	N OF MARKHAM AVE	13,000	C	12,000	C	13,000	C	13,000	C	13,000	C
BROAD ST	N OF PERRY ST	13,000	C	14,000	D	13,000	C	13,000	C	13,000	C
BROAD ST	N OF SPRUNT AVE	12,000	C	11,000	B	11,000	B	12,000	C	11,000	B
BROAD ST	S OF CLUB BLVD	12,000	C	12,000	C	11,000	B	12,000	C	11,000	B
CAMDEN AVE	E OF NC 55	-	n/a	-	n/a	1,300	A	1,600	A	1,500	A
CHAPEL DR	BTWN DUKE UNIVERSITY RD AND CAMPUS DR	-	n/a	-	n/a	-	n/a	3,697	A	-	n/a
CHAPEL HILL ST	E OF NC 147	12,000	A	12,000	A	14,000	A	14,000	A	16,013	A
CHAPEL HILL ST	W OF SR 1445 DUKE ST	8,400	A	10,000	A	13,000	A	11,000	A	12,000	A
CHAPEL HILL ST	E OF WILLARD ST	7,500	A	8,500	A	12,000	A	10,000	A	12,000	A
CHAPEL HILL ST	E OF US 70 BUS W	-	n/a	6,500	A	8,900	A	7,200	A	9,800	A
CHAPEL HILL ST	E OF MAIN ST	3,600	A	3,500	A	3,800	A	3,800	A	5,100	A
CHEEK RD	W OF SR 1827	12,000	A	14,000	A	14,000	A	13,000	A	14,000	A
CHEEK RD	E OF SR 1827	10,000	A	12,000	C	11,000	B	11,000	B	13,000	C
CHEEK RD	E OF HARDEE ST	8,500	A	9,800	A	8,700	A	8,600	A	12,000	A
CHEEK RD	W OF SR 1675	7,100	A	9,000	A	8,800	A	8,200	A	6,000	A
CHEEK RD	E OF SR 1675	9,000	A	9,900	A	11,000	B	-	n/a	5,800	A
CHEEK RD	E OF SR 1670	3,900	A	4,100	A	3,700	A	2,200	A	3,700	A
CLUB BLVD	BTWN WASHINGTON ST AND I-85	-	n/a	-	n/a	-	n/a	9,209	B	11,754	D
COLE MILL RD	N OF HILLSBOROUGH RD	21,000	B	-	n/a	19,000	A	18,000	A	19,104	A
COLE MILL RD	N OF I-85	17,000	A	15,000	A	15,000	A	15,000	A	16,000	A
COOK RD	BTWN MLK PKWY AND ORCHARD ORIOLE LN	-	n/a	-	n/a	-	n/a	5,774	A	-	n/a
CORNWALLIS RD	E OF US 15-501	-	n/a	-	n/a	-	n/a	6,399	A	-	n/a
CORNWALLIS RD	W OF HOPE VALLEY RD	-	n/a	-	n/a	-	n/a	9,516	A	-	n/a
CORNWALLIS RD	W OF FAYETTEVILLE RD	-	n/a	-	n/a	-	n/a	10,143	A	-	n/a
DRIVER ST	N OF SR 1926	5,000	A	5,000	A	5,100	A	4,700	A	5,000	A
DRIVER ST	S OF SR 1926	5,900	A	5,900	A	5,800	A	4,900	A	4,900	A
DRIVER ST	N OF MAIN ST	4,400	A	4,200	A	4,100	A	4,100	A	4,200	A
DUKE ST	S OF CLUB BLVD	10,000	A	11,000	B	9,600	A	11,471	B	-	n/a
DUKE ST	BTWN MADDEN AND MASON	-	n/a	-	n/a	-	n/a	20,607	A	-	n/a
DUKE ST	S OF CHAPEL HILL ST	11,000	B	12,000	B	12,000	B	12,000	B	13,000	C

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
DUKE ST	S OF MAIN ST	11,000	A	12,000	A	-	n/a	11,000	A	12,000	A
DUKE ST	N OF CLUB BLVD	-	n/a	10,000	A	9,900	A	9,600	A	11,311	B
DUKE ST	N OF MAIN ST	10,000	A	11,000	A	10,000	A	9,800	A	11,000	A
DUKE ST	N OF TRINITY AVE	10,000	A	10,000	A	9,400	A	9,600	A	10,826	B
DUKE ST	S OF CLUB BLVD	10,000	A	11,000	B	9,600	A	9,400	A	8,300	A
DUKE ST	N OF MARKHAM AVE	10,000	A	10,000	A	9,500	A	8,700	A	7,800	A
ELLIOT ST	W OF ROXBORO ST	1,700	A	1,800	A	1,600	A	1,600	A	1,900	A
ERWIN RD	W OF ANDERSON ST	12,000	A	14,000	A	14,000	A	14,000	A	13,000	A
ERWIN RD	E OF OREGON ST	8,700	A	9,300	A	-	n/a	9,000	A	8,800	A
ERWIN RD	S OF W MAIN ST	10,000	A	10,000	A	9,000	A	9,100	A	8,400	A
FULTON ST	S OF I-85	16,000	E	17,000	E	-	n/a	17,000	E	20,038	F
FULTON ST	N OF SR 1320 ERWIN RD	17,000	A	22,000	C	16,000	A	17,000	A	17,000	A
GEER ST	W OF FAY ST	8,200	A	8,900	A	8,800	A	8,100	A	-	n/a
GEER ST	BTWN TOBACCO RD AND HARDEE ST	-	n/a	-	n/a	-	n/a	5,659	A	-	n/a
GEER ST	E OF SR 1357 AVONDALE DR	14,000	A	15,000	A	14,000	A	11,000	A	14,000	A
GEER ST	E OF US 70 BYP	5,400	A	5,500	A	6,100	A	6,300	A	6,800	A
GEER ST	W OF HARDEE ST	4,700	A	4,900	A	5,500	A	5,600	A	5,900	A
GEER ST	E OF MILAN ST	3,800	A	3,800	A	5,200	A	4,900	A	5,500	A
GEER ST	W OF NC 55	5,500	A	5,400	A	5,200	A	-	n/a	5,300	A
GEER ST	E OF US 15-501 BUS S MAGNUM ST	4,900	A	4,300	A	4,000	A	-	n/a	4,000	A
GREGSON ST	S OF CLUB BLVD	14,000	C	9,600	A	8,900	A	8,900	A	-	n/a
GREGSON ST	BTWN I-85 AND CLUB BLVD	-	n/a	-	n/a	-	n/a	14,987	A	-	n/a
GREGSON ST	S OF I-85	-	n/a	12,000	A	13,000	A	16,000	A	22,000	A
GREGSON ST	S OF CHAPEL HILL ST	8,600	A	8,200	A	8,100	A	7,600	A	14,000	A
GREGSON ST	S OF US 70 BUS MAIN ST	9,500	A	9,600	A	9,600	A	9,200	A	9,900	A
GREGSON ST	N OF TRINITY AVE	10,000	A	9,700	A	9,200	A	9,300	A	9,800	A
GREGSON ST	S OF GREEN ST	9,800	A	9,500	A	8,900	A	9,100	A	9,700	A
GUESS RD	N OF LANCASTER ST	9,700	A	11,000	A	10,000	A	9,600	A	9,200	A
HARDEE ST	S OF SR 1800	4,800	A	5,400	A	5,700	A	5,500	A	5,500	A
HARDEE ST	N OF SR 1800 CHEEK RD	2,500	A	2,700	A	2,800	A	2,800	A	3,000	A
HILLANDALE	N OF FRONT ST	-	n/a	-	n/a	-	n/a	20,709	F	-	n/a
HILLANDALE RD	S OF I-85	-	n/a	-	n/a	-	n/a	18,947	F	-	n/a
HILLANDALE RD	BTWN I-85 AND FRONT ST	-	n/a	-	n/a	-	n/a	25,065	F	-	n/a
HILLANDALE RD	BTWN I-85 AND CARVER ST	-	n/a	-	n/a	-	n/a	19,517	F	-	n/a
HILLANDALE RD	N OF US 70 BUS	18,000	A	18,000	A	-	n/a	18,000	A	19,000	B
HILLSBOROUGH RD	E OF US 15-501	22,000	B	20,000	B	20,000	B	21,547	B	-	n/a
HILLSBOROUGH RD	E OF US 15-501 BYP	22,000	B	20,000	B	20,000	B	20,000	B	26,000	C
HILLSBOROUGH RD	E OF COLE MILL RD	26,000	C	26,000	C	24,000	B	24,000	B	25,161	C

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
HILLSBOROUGH RD	W OF SR 1321	18,000	A	16,000	A	16,000	A	15,000	A	16,000	A
HILLSBOROUGH RD	E OF ROSEHILL AVE	8,000	A	7,800	A	7,100	A	6,700	A	7,700	A
HILLSBOROUGH RD	E OF GEORGIA AVE	7,300	A	7,300	A	6,700	A	7,000	A	7,600	A
HILLSBOROUGH RD	E OF HICKS ST	6,400	A	6,300	A	6,000	A	5,600	A	6,700	A
HOLLOWAY ST	W OF US-70	-	n/a	-	n/a	-	n/a	14,393	A	-	n/a
HOOVER RD	S OF SR 1800	2,100	A	1,900	A	1,600	A	1,900	A	2,000	A
LAKEWOOD AVE	E OF SOUTH/BLACKWELL ST	12,000	D	11,000	C	11,000	C	10,000	B	11,000	C
LASALLE ST	BTWN ERWIN RD AND CIRCUIT DR	-	n/a	-	n/a	-	n/a	3,587	A	-	n/a
MAIN ST	W OF IREDELL ST	15,000	A	14,000	A	14,000	A	14,000	A	16,000	A
MAIN ST	W OF BUCHANON BLVD	11,000	A	11,000	A	11,000	A	-	n/a	11,000	A
MAIN ST	W OF MORGAN ST	8,600	A	8,700	A	8,000	A	-	n/a	9,400	A
MAIN ST	E OF GREGSON ST	5,800	A	6,000	A	-	n/a	-	n/a	7,600	A
MAIN ST	W OF GREGSON ST	6,000	A	6,200	A	-	n/a	-	n/a	7,200	A
MAIN ST	W OF ERWIN RD	7,000	A	6,500	A	7,200	A	6,300	A	6,800	A
MAIN ST	W OF ROXBORO ST	-	n/a	5,000	A	5,300	A	6,300	A	6,500	A
MAIN ST	E OF TRENT DR	6,700	A	6,600	A	6,600	A	6,300	A	6,300	A
MAIN ST	N OF TRENT DR	6,300	A	6,100	A	6,300	A	6,000	A	6,000	A
MAIN ST	S OF CHAPEL HILL ST	-	n/a	3,600	A	3,700	A	-	n/a	5,000	A
MANGUM ST	N OF NC 147	9,000	A	8,900	A	8,600	A	-	n/a	-	n/a
MANGUM ST	S OF PETTIGREW ST	7,900	A	8,000	A	8,300	A	8,400	A	12,000	A
MANGUM ST	N OF MAIN ST	7,700	A	7,300	A	7,500	A	7,500	A	9,600	A
MANGUM ST	S OF MAIN ST	7,800	A	7,400	A	7,700	A	8,600	A	9,500	A
MANGUM ST	N OF CORPORATION ST	8,100	A	7,700	A	7,500	A	-	n/a	9,500	A
MANGUM ST	N OF CHAPEL HILL ST	8,500	A	8,400	A	8,200	A	-	n/a	9,400	A
MANGUM ST	N OF GEER ST	7,600	A	7,100	A	6,900	A	-	n/a	7,900	A
MANGUM ST	N OF TRINITY AVE	7,700	A	6,900	A	6,800	A	-	n/a	5,700	A
MANGUM ST	N OF LAKEWOOD AVE	3,700	A	3,500	A	3,400	A	3,400	A	3,600	A
MANGUM ST	N OF MARKHAM AVE	180	A	150	A	170	A	150	A	180	A
MIAMI BLVD	BTWN HOOVER RD AND ASHE ST	-	n/a	-	n/a	-	n/a	6,277	A	-	n/a
MIAMI BLVD	S OF LIBERTY ST	7,600	A	7,800	A	7,000	A	7,100	A	10,000	A
MIAMI BLVD	N OF US 70 BUS/NC 98	8,400	A	7,800	A	6,800	A	6,700	A	10,000	A
MIAMI BLVD	S OF DREW ST	9,000	A	8,900	A	8,100	A	-	n/a	9,500	A
MIAMI BLVD	S OF NC 98	6,200	A	6,100	A	5,300	A	5,200	A	8,300	A
MIAMI BLVD	N OF HARVARD AVE	7,100	A	7,400	A	6,400	A	6,600	A	7,200	A
N MANGUM ST	S OF CHAPEL HILL ST	8,400	A	8,000	A	7,800	A	7,100	A	9,700	A
NC 147	EXIT 12A TO EXIT 12B	58,000	B	69,000	C	75,000	D	73,000	D	78,000	E
NC 147	EXIT 11 TO EXIT 12A	70,000	D	73,000	D	79,000	E	77,000	D	82,000	E

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
NC 147	EXIT 10 TO EXIT 11	60,000	C	61,000	C	67,000	D	64,000	C	68,000	D
NC 147	EXIT 12B TO EXIT 12C	67,000	C	58,000	B	62,000	C	59,000	B	64,000	C
NC 147	EXIT 12C TO EXIT 13	-	n/a	57,000	B	61,000	C	58,000	B	63,000	C
NC 147	EXIT 14 TO EXIT 15A	45,000	A	-	n/a	57,000	B	57,000	B	59,000	B
NC 147	EXIT 13 TO EXIT 14	55,000	B	56,000	B	61,000	C	59,000	B	65,000	C
NC 147	EXIT 16A TO EXIT 16B	37,000	D	39,000	E	40,000	E	40,000	E	42,000	E
NC 147	EXIT 16B TO I-85	16,000	A	17,000	A	18,000	A	20,000	A	21,000	A
NC 147	EXIT 15A TO EXIT 16A	-	n/a	28,000	B	43,000	E	42,000	E	44,000	F
NC 55	BTWN NC-147 AND ANGLIER AVE	-	n/a	-	n/a	-	n/a	22,163	F	-	n/a
NC 55	BTWN ANGLIER DR AND MAIN ST	-	n/a	-	n/a	-	n/a	20,221	E	-	n/a
NC 55	S OF I-85	14,000	D	16,000	E	15,000	D	16,000	E	19,000	F
NC 55	S OF MARKHAM AVE	15,000	D	17,000	E	17,000	E	16,000	E	19,000	F
NC 55	N OF EDWARD ST	15,000	C	16,000	C	16,000	C	-	n/a	19,000	D
NC 55	S OF MORNING GLORY AVE	16,000	C	18,000	D	17,000	D	18,000	D	19,000	D
NC 55	S OF US 70 BUS/NC 98	15,000	C	16,000	C	15,000	C	16,000	C	17,000	D
NC 55	S OF GEER ST	11,000	B	13,000	C	14,000	D	14,000	D	15,000	D
NC 55	S OF DOWD ST	11,000	A	13,000	B	14,000	B	14,000	B	15,000	C
NC 55 (APEX HWY)	N OF GANN ST	20,000	F	21,000	F	20,000	F	20,000	F	22,002	F
NC 55 (APEX HWY)	S OF MAIN ST	17,000	D	18,000	D	17,000	D	18,000	D	19,000	D
NC 98	E OF US 70 BYP	23,000	A	-	n/a	22,000	A	24,000	A	31,000	C
NC 98	E OF SR 1838	19,000	A	19,000	A	-	n/a	20,000	A	25,000	C
NC 98	E OF HARDEE ST	13,000	A	13,000	A	12,000	A	-	n/a	18,000	A
NC 98	E OF US 70 BUS HOLLOWAY ST	12,000	A	12,000	A	11,000	A	12,000	A	14,000	A
PETTIGREW ST	W OF SR 1171 BARBEE ST	6,000	A	6,000	A	6,000	A	5,400	A	4,700	A
PETTIGREW ST	W OF BRIGGS AVE	4,900	A	5,200	A	5,100	A	4,700	A	4,600	A
PETTIGREW ST	W OF AMBER PLACE	4,000	A	3,600	A	3,900	A	3,800	A	4,200	A
PETTIGREW ST	S OF CHAPEL HILL ST	2,300	A	2,700	A	4,000	A	-	n/a	4,200	A
PETTIGREW ST	E OF US 15-501 BUS N ROXBORO ST	1,800	A	2,100	A	2,500	A	2,700	A	2,700	A
PETTIGREW ST	E OF SR 1118 FAYETTEVILLE ST	1,900	A	-	n/a	2,400	A	2,300	A	2,500	A
RIDDLE RD	S OF PETTIGREW ST	5,100	A	5,400	A	5,800	A	5,700	A	5,500	A
ROSS RD	E OF SR 1838	2,500	A	2,400	A	2,900	A	2,500	A	2,800	A
ROXBORO ST	BTWN CLUB BLVD AND AVONDALE DR	-	n/a	-	n/a	-	n/a	29,194	D	-	n/a
ROXBORO ST	BTWN ELLERBEE ST AND CLUB BLVD	-	n/a	-	n/a	-	n/a	30,038	F	-	n/a
ROXBORO ST	BTWN I-85 AND KNOX ST	-	n/a	-	n/a	-	n/a	15,843	E	17,141	F
ROXBORO ST	S OF MAIN ST	2,200	A	9,300	A	-	n/a	8,600	A	13,000	C
ROXBORO ST	S OF LIBERTY ST	11,000	A	11,000	A	11,000	A	11,000	A	12,920	A
ROXBORO ST	S OF PEABODY ST	9,000	A	9,500	A	9,600	A	9,600	A	10,000	A

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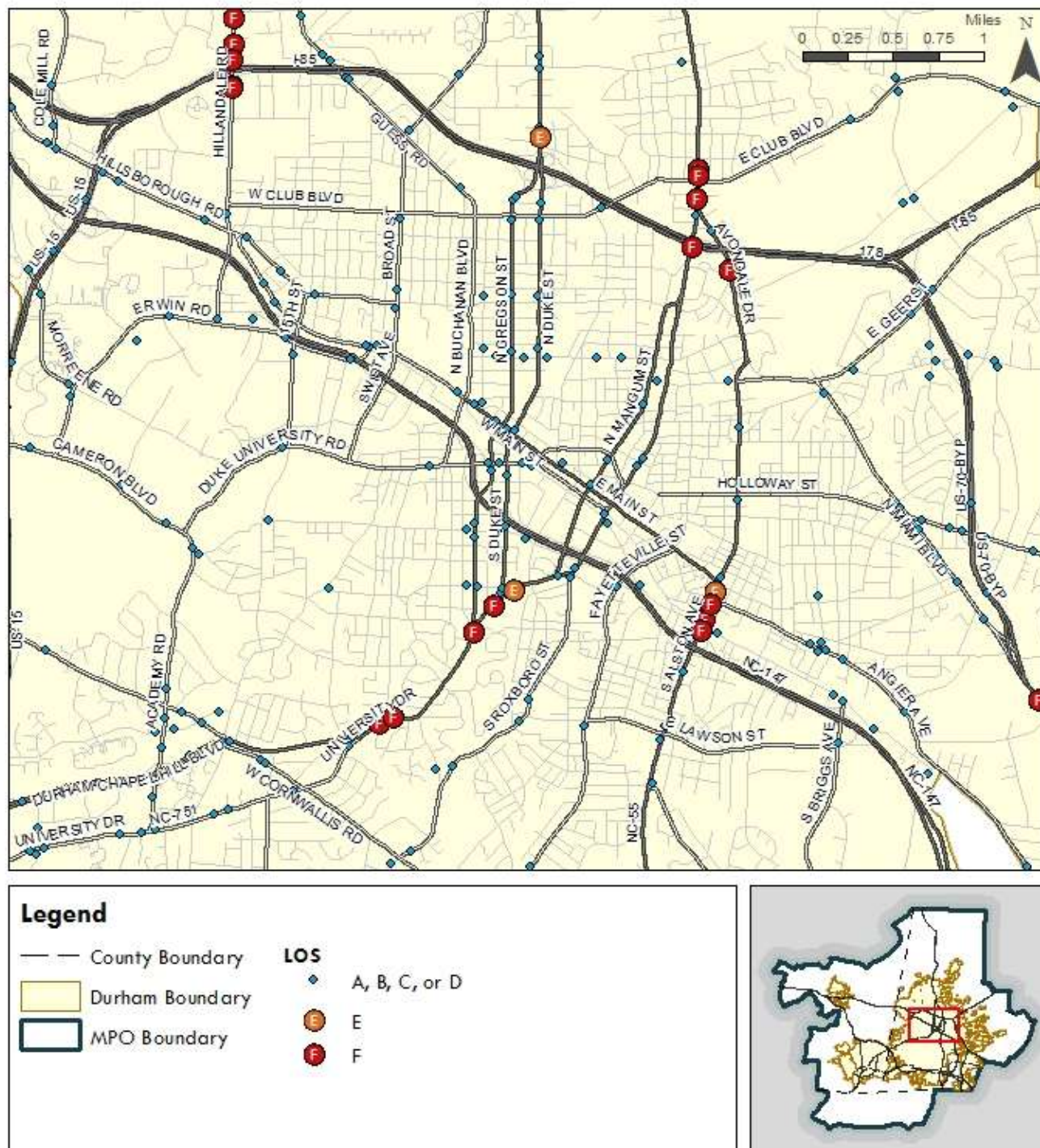


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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
ROXBORO ST	S OF HOLLOWAY ST	7,700	A	7,900	A	7,800	A	8,000	A	9,100	A
ROXBORO ST	S OF ELLIOT ST	7,400	A	7,700	A	7,400	A	7,100	A	9,000	A
ROXBORO ST	N OF ELLIOTT ST	7,400	A	-	n/a	7,400	A	-	n/a	8,900	A
ROXBORO ST	N OF CORP ST	7,700	A	7,500	A	7,400	A	7,200	A	8,400	A
ROXBORO ST	N OF GEER ST	6,800	A	6,900	A	6,900	A	6,800	A	7,600	A
ROXBORO ST	S OF MOREHEAD AVE	6,900	A	7,200	A	6,900	A	6,500	A	7,000	A
ROXBORO ST	N OF LYNCH ST	6,800	A	6,900	A	7,000	A	5,100	A	5,900	A
SR 1314	E OF SR 1387	3,900	A	3,800	A	3,900	A	4,100	A	4,300	A
SR 1322 (SWIFT DR)	N OF NC 147	20,000	F	18,000	F	18,000	F	17,000	E	18,000	F
SR 1357 (AVONDALE DR)	N OF SR 1670	7,000	A	7,400	A	7,500	A	-	n/a	8,200	A
SR 1365 (MOREHEAD ST)	W OF ROXBORO ST	8,500	A	9,400	A	8,900	A	9,600	A	10,000	A
SR 1827	N OF SR 1800	4,800	A	4,400	A	4,400	A	4,600	A	5,000	A
SR 1827	W OF SR 1670	-	n/a	4,100	A	3,900	A	4,000	A	3,900	A
SR 1838	N OF NC 98	5,300	A	5,000	A	6,000	A	5,400	A	2,400	A
TOWERVIEW RD	W OF SR 1314	5,600	A	5,900	A	5,700	A	6,400	A	7,000	A
TRENT DR	S OF ELBA ST	7,500	A	8,300	A	9,400	A	9,300	A	9,700	A
TRINITY AVE	E OF DUKE ST	5,700	A	4,900	A	4,900	A	130	A	5,200	A
TRINITY AVE	E OF GREGSON ST	5,200	A	4,700	A	4,400	A	-	n/a	5,100	A
TRINITY AVE	W OF NORTH ST	4,000	A	3,300	A	3,100	A	3,000	A	3,500	A
TRINITY AVE	W OF GREGSON ST	2,600	A	2,700	A	2,600	A	2,600	A	3,000	A
TRINITY AVE	E OF NORTH ST	3,700	A	3,000	A	2,800	A	2,600	A	2,900	A
TRINITY AVE	E OF US 15-501 BUS S	3,900	A	3,000	A	2,800	A	2,800	A	2,800	A
US 15-501	BTWN MORRENE RD AND CAMERON DR	-	n/a	-	n/a	-	n/a	56,324	A	-	n/a
US 15-501	BTWN MORRENE RD AND NC-147	-	n/a	-	n/a	-	n/a	33,884	A	-	n/a
US 15-501	BTWN I-85 AND NC-147	-	n/a	-	n/a	-	n/a	33,884	A	-	n/a
US 70 BUS	W OF SR 1401	16,000	A	15,000	A	16,000	A	16,000	A	15,000	A
US 70 BUS	N OF SR 1314	9,300	A	10,000	A	9,300	A	9,600	A	10,000	A
US 70 BUS	E OF SR 1317	8,400	A	9,100	A	8,500	A	8,700	A	8,300	A
US 70 BUS	W OF SR 1317	8,100	A	8,700	A	8,300	A	8,600	A	8,200	A
US 70 BUS/NC 98	E OF RAYNOR ST	8,700	B	9,000	B	8,300	A	9,100	B	9,600	B
US 70 BUS/NC 98	W OF SR 2267	5,800	A	5,400	A	5,200	A	5,400	A	5,800	A
US 70 BUS/NC 98 (HOLLOWAY ST)	E OF NC 55	10,000	B	10,000	B	10,000	B	11,000	C	12,000	D
US 70 BUS/NC 98 (HOLLOWAY ST)	W OF NC 55	7,300	A	6,900	A	6,300	A	6,600	A	7,400	A
US 70 BYP	N OF NC 98	-	n/a	42,000	A	41,000	A	46,000	A	54,000	B
US 70 BYP	S OF NC 98	-	n/a	34,000	A	35,000	A	37,000	A	40,000	A
US-70	BTWN I-85 AND GEER ST	-	n/a	-	n/a	-	n/a	50,473	A	-	n/a

Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
WATTS ST	N OF MARKHAM AVE	1,300	A	1,300	A	1,200	A	1,100	A	1,200	A
WATTS ST	N OF TRINITY AVE	740	A	670	A	680	A	690	A	770	A
WATTS ST	S OF LAMOND AVE	530	A	460	A	410	A	-	n/a	540	A

Figure 1-6. 2013 LOS E or F Roadways - Downtown Durham



South Durham

South Durham encompasses all counts from just north of Holloway Street / NC 98 to the Durham/Chatham County line and from the Durham/Wake County line to the Durham/Orange County line. This area included volume data from 401 locations; 145 DCHC MPO count locations and 256 NCDOT count locations.

Road facilities in the area appeared to be handling traffic volume well, with 277 (69%) LOS A grades and 322 (80%) LOS C grade or better roadways.

Although many count locations (85%) showed no change in LOS between 2005 and 2013, locations in South Durham did reflect more change in LOS than other areas of the MPO and most were declines in effectiveness (88%). Also, a higher proportion of count locations in South Durham demonstrated increases in daily volume between 2005 and 2013, with the increase sufficiently high to reduce LOS for 44 count locations. Compared with the other areas of the MPO, south Durham highest proportion of locations with more than 10% change and the lowest proportion of locations with no change or decreased daily volume.

These changes could be a result of a number of factors, including areawide growth, land use changes, or number of major roadways relative to the area's size.

KEY RESULTS

ADT traffic volume: 401 count locations

- 277 (69%) - LOS A
- 322 (80%) – LOS C or better

Changes in LOS Grades: 59 locations (15%)

- 7 (2%) improved (4 to an A or B)
- 52 (88%) declined (20 to LOS of D or worse)
- 3 locations received an LOS F

Locations with heaviest traffic volume:

- NC-54, US 70, Durham-Chapel Hill Blvd, NC-54, Miami Blvd, Fayetteville Rd and Erwin Rd

Changes in Daily Traffic Volume (2005 to 2013): 320 locations

- 117 (37%) showed no change or a decrease
 - 8 had LOS of D or worse
 - 7 showed some effect of decrease (3 improved to LOS D)
- 135 (42%) showed increase in volume over 10%
 - 15 (5%) had LOS of D or worse
 - 44 (14%) experienced sufficient increase in volume to decrease LOS (9 dropped to D or worse)
 - Top 10 locations were scattered with no pattern to discern for growth or land use; daily volumes relatively low (430-22,751 vehicles for 2013 data)

Table 1-5. Daily Traffic Volumes (2003-2013) - South and East Durham and Research Triangle Park

Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
ALSTON AVE	N OF NC 54	6,500	A	7,700	A	6,800	A	8,300	A	10,602	B
ALSTON AVE	N OF I-40	6,500	A	7,400	A	6,900	A	8,300	A	8,700	A
ALSTON AVE	S OF NC 54	6,300	A	6,900	A	7,100	A	7,900	A	8,300	A
ALSTON AVE	N OF RIDDLE	4,300	A	-	n/a	4,500	A	4,800	A	5,500	A
ALSTON AVE	S OF SR 1121 CORNWALLIS RD	4,800	A	5,100	A	4,600	A	5,100	A	5,100	A
ALSTON AVE	N OF SR 1121 CORNWALLIS RD	3,600	A	4,200	A	3,900	A	4,200	A	4,800	A
ALSTON AVE	S OF RIDDLE RD	3,300	A	4,000	A	3,300	A	3,800	A	4,507	A
ALSTON AVE	E OF NC 55	-	n/a	4,800	A	4,300	A	4,300	A	4,400	A
ALSTON AVE	N OF RUSTICH DR	3,000	A	3,700	A	3,100	A	3,600	A	4,000	A
ALSTON AVE	S OF SR 2100	3,900	A	3,500	A	3,200	A	2,400	A	2,339	A
ANDERSON ST	S OF ACME ST	7,500	A	8,100	A	8,100	A	8,200	A	9,100	A
ANGIER AVE	W OF SR 1959	7,500	A	7,500	A	7,500	A	7,700	A	9,376	A
ANGIER AVE	S OF SR 1940	7,300	A	7,000	A	6,900	A	6,700	A	7,068	A
ANGIER AVE	N OF SR 1815	7,500	A	7,100	A	7,500	A	7,000	A	6,400	A
ANGIER AVE	E OF SR 1959	7,500	A	7,100	A	6,600	A	6,500	A	6,100	A
ANGIER AVE	S OF SR 1939	7,000	A	6,600	A	5,900	A	6,100	A	6,000	A
ANGIER AVE	S OF US 70	4,700	A	4,200	A	3,800	A	3,700	A	3,500	A
BARBEE CHAPEL RD	E OF FARRINGTON MILL RD	7,700	A	12,000	C	11,000	B	12,000	C	12,646	C
BARBEE CHAPEL RD	S OF NC 54	6,800	A	8,700	A	8,700	A	11,000	B	9,694	A
BARBEE RD	S OF FAYETTEVILLE RD	7,400	A	8,200	A	7,400	A	6,900	A	7,700	A
BARBEE RD	S OF FORESTRIDGE DR	6,700	A	8,000	A	7,800	A	7,700	A	7,200	A
BARBEE RD	S OF NC 54	5,300	A	6,000	A	6,400	A	6,200	A	6,500	A
BARBEE ST	N OF NC 54	8,500	A	8,900	A	8,800	A	8,600	A	8,700	A
BRIGGS AVE	N OF NC 147	9,700	A	9,700	A	9,100	A	9,200	A	7,700	A
BRIGGS ST	S OF NC 147	9,100	A	12,000	C	12,000	C	11,000	B	8,200	A
CAMDEN AVE	E OF SR 1821	2,300	A	2,700	A	3,300	A	3,100	A	3,400	A
CAMDEN AVE	S OF SR 1670	190	A	260	A	250	A	270	A	270	A
CAMPUS DR	N OF DUKE UNIVERSITY RD	3,700	A	4,000	A	3,900	A	3,800	A	4,300	A
CARPENTER FLETCHER RD	W OF ALSTON AVE	4,600	A	4,700	A	5,000	A	4,500	A	5,200	A
CARPENTER FLETCHER RD	E OF BARBEE RD	2,200	A	2,300	A	2,200	A	1,900	A	2,100	A
CHAPEL HILL RD	W OF SR 2288	17,000	E	17,000	E	17,000	E	16,000	E	16,000	E
CHAPEL HILL RD	S OF SR 1146	6,600	A	6,900	A	6,800	A	6,800	A	6,700	A
CHAPEL HILL ST	E OF GATES ST	11,000	A	8,500	A	12,000	A	12,000	A	12,000	A
CHAPEL HILL ST	N OF PICKETT ST	10,000	B	8,700	B	9,200	B	9,300	B	9,600	B
CHAPEL HILL ST	S OF PICKETT ST	9,400	A	8,200	A	8,700	A	8,500	A	8,800	A
CHAPEL HILL ST	N OF HOUSE AVE	7,900	A	7,100	A	7,200	A	7,100	A	7,400	A
CHAPEL HILL ST	E OF ANDERSON ST	7,500	A	-	n/a	6,600	A	6,900	A	7,000	A
CHAPEL HILL ST	S OF SR 1158	6,500	A	6,400	A	6,300	A	6,200	A	6,000	A
CHAPEL HILL ST	W OF ROSEDALE AVE	5,400	A	7,400	A	5,100	A	4,900	A	4,800	A

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
CHEEK RD	E OF SR 1822	4,500	A	4,700	A	4,800	A	4,200	A	4,200	A
CHEEK RD	E OF SR 1825	3,300	A	4,000	A	3,700	A	3,700	A	4,100	A
CHEEK RD	W OF SR 1869	2,700	A	3,000	A	2,700	A	2,400	A	2,500	A
CHEEK RD	N OF SR 1812	2,300	A	2,200	A	2,000	A	1,800	A	1,800	A
CHEEK RD	E OF SR 1637	1,700	A	1,700	A	1,600	A	1,400	A	1,500	A
CHEEK RD	E OF SR 1637	270	A	350	A	320	A	320	A	430	A
COOK RD	W OF BOOKER ST	5,300	A	6,200	A	6,000	A	5,600	A	6,500	A
CORNWALLIS RD	BTWN FAYETTEVILLE RD AND INDUSTRY	-	n/a	-	n/a	-	n/a	7,166	A	-	n/a
CORNWALLIS RD	W OF MIAMI BLVD	-	n/a	-	n/a	-	n/a	8,232	A	-	n/a
CORNWALLIS RD	E OF NC 55	11,000	B	12,000	B	11,000	B	11,000	B	13,661	C
CORNWALLIS RD	E OF NC-147	-	n/a	-	n/a	-	n/a	9,854	A	10,490	A
CORNWALLIS RD	E OF US 15-501 BYP	-	n/a	-	n/a	9,500	A	8,800	A	10,000	A
CORNWALLIS RD	E OF FAYETTEVILLE ST	7,600	A	7,600	A	6,800	A	6,600	A	7,440	A
CORNWALLIS RD	W OF NC 55	8,500	A	9,000	A	8,400	A	8,100	A	7,400	A
CORNWALLIS RD	W OF US 15-501 BYP	-	n/a	4,600	A	5,100	A	4,500	A	4,800	A
CORNWALLIS RD	E OF PICKETT RD	4,300	A	4,400	A	4,500	A	4,200	A	4,200	A
CORNWALLIS RD	E OF DOGWOOD RD	3,900	A	4,400	A	4,500	A	4,100	A	4,100	A
CORNWALLIS RD	S OF SR 1306	-	n/a	3,300	A	3,800	A	3,300	A	3,400	A
CORNWALLIS RD	N OF ERWIN RD	1,600	A	1,400	A	1,500	A	1,400	A	1,400	A
CORNWALLIS RD	W OF ROXBORO ST	-	n/a	-	n/a	-	n/a	12,196	C	-	n/a
CORNWALLIS RD	W OF SR 1959	-	n/a	8,700	A	7,500	A	8,200	A	10,400	A
CORNWALLIS RD	W OF NC 147	-	n/a	11,000	A	9,200	A	9,900	A	9,978	A
CORNWALLIS RD	W OF SR 2017	-	n/a	8,100	A	8,500	A	11,000	A	9,900	A
CORNWALLIS RD	W OF SR 1118 FAYETTEVILLE RD	9,500	A	10,000	A	9,500	A	9,300	A	9,680	A
CORNWALLIS RD	W OF SR 2295 ROXBORO ST	9,100	A	-	n/a	8,800	A	8,600	A	8,500	A
CORNWALLIS RD	W OF HOPE VALLEY RD	8,200	A	8,500	A	5,200	A	8,100	A	7,900	A
CORNWALLIS RD	S OF NORTHEAST CREEK	-	n/a	11,000	B	9,500	A	9,500	A	5,400	A
CRANFORD RD	E OF NC 751	1,100	A	1,100	A	760	A	1,000	A	930	A
DAVIS DR	BTWN I-40 AND NC-54	-	n/a	-	n/a	-	n/a	18,690	A	20,681	A
DAVIS DR	S OF CORNWALLIS RD	12,000	A	11,000	A	8,400	A	14,000	A	13,000	A
DUKE ST	N OF MOREHEAD AVE	5,500	A	5,400	A	5,100	A	5,400	A	5,500	A
DUKE ST	N OF LAKEWOOD AVE	4,000	A	3,900	A	3,900	A	4,000	A	4,500	A
DUKE ST	S OF LAKEWOOD AVE	3,300	A	3,400	A	3,200	A	3,500	A	3,800	A
DUKE UNIVERSITY RD	W OF ANDERSON ST	7,900	A	9,000	A	9,400	A	9,300	A	10,000	A
DURHAM-CHAPEL HILL BLVD	BTWN TOWER RD AND SHANNON DR	-	n/a	-	n/a	-	n/a	20,728	A	-	n/a

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
DURHAM- CHAPEL HILL BLVD	BTWN US 15-501 AND SHANNON RD	-	n/a	-	n/a	-	n/a	14,083	A	-	n/a
DURHAM- CHAPEL HILL BLVD	BTWN ACADEMY RD AND CORNWALLIS RD	-	n/a	-	n/a	-	n/a	16,571	A	-	n/a
DURHAM- CHAPEL HILL BLVD	BTWN ACADEMY RD AND CORNWALLIS RD	-	n/a	-	n/a	-	n/a	15,111	A	-	n/a
DURHAM- CHAPEL HILL BLVD	W OF TOWER BLVD	19,000	A	18,000	A	16,000	A	17,000	A	20,014	A
DURHAM- CHAPEL HILL BLVD	W OF NC 751	15,000	A	15,000	A	-	n/a	15,000	A	15,000	A
DURHAM- CHAPEL HILL BLVD	E OF CORNWALLIS RD	13,000	A	14,000	A	13,000	A	12,000	A	14,000	A
DURHAM- CHAPEL HILL BLVD	W OF UNIVERSITY DR	11,000	A	12,000	A	11,000	A	11,000	A	12,000	A
ELLIS RD	N OF ED COOK RD	-	n/a	-	n/a	-	n/a	3,365	A	-	n/a
ELLIS RD	W OF MIAMI BLVD	11,000	B	10,000	A	10,000	A	9,800	A	11,000	B
ELLIS RD	W OF NC 147	8,100	A	8,700	A	7,800	A	9,000	A	9,300	A
ELLIS RD	S OF RIDDLE RD	3,100	A	3,500	A	3,400	A	3,700	A	3,758	A
END AVE	BTWN US-70 AND ROWENA AVE	-	n/a	-	n/a	-	n/a	4,511	A	-	n/a
EPHESUS CHURCH RD	W OF FARRINGTON RD	4,700	A	5,900	A	5,700	A	5,900	A	6,400	A
ERWIN RD	E OF DOUGLAS ST	21,000	B	22,000	B	21,000	B	24,000	C	23,000	B
ERWIN RD	N OF SR 1317 TOWERVIEW RD	18,000	A	17,000	A	16,000	A	18,000	A	18,000	A
ERWIN RD	S OF SR 1317 TOWERVIEW RD	14,000	A	14,000	A	13,000	A	14,000	A	14,000	A
ERWIN RD	S OF CORNWALLIS RD	-	n/a	12,000	A	12,000	A	11,000	A	11,930	A
ERWIN RD	S OF NC 751	-	n/a	11,000	A	12,000	A	10,000	A	11,000	A
ERWIN RD	S OF MT SINAI RD	-	n/a	10,000	A	10,000	A	9,200	A	9,300	A
FARRINGTON MILL RD	S OF BARBEE CHAPEL RD	9,000	A	10,000	A	8,900	A	8,200	A	9,503	A
FARRINGTON RD	S OF NC 54	11,000	B	10,000	A	14,000	D	9,000	A	13,000	C
FARRINGTON RD	S OF EPHESUS CHURCH RD	9,400	A	11,000	B	-	n/a	9,900	A	11,000	B
FARRINGTON RD	N OF NC 54	10,000	A	12,000	B	12,000	B	11,000	B	11,000	B
FARRINGTON RD	S OF I-40	-	n/a	-	n/a	-	n/a	10,436	B	7,475	A
FARRINGTON RD	S OF OLD CHAPEL HILL RD	6,700	A	7,400	A	7,000	A	6,800	A	7,200	A
FAYETTEVILLE RD	BTWN I-40 AND HERNDON RD	-	n/a	-	n/a	-	n/a	27,876	B	-	n/a
FAYETTEVILLE RD	N OF MLK PKWY	-	n/a	-	n/a	-	n/a	14,391	A	-	n/a
FAYETTEVILLE RD	N OF SR 1105	28,000	B	32,000	C	32,000	C	32,000	C	34,000	C
FAYETTEVILLE RD	N OF NC 54	23,000	A	26,000	B	25,000	A	26,000	B	26,000	B
FAYETTEVILLE RD	S OF SR 1171 RIDDLE	20,000	C	23,000	D	21,000	D	19,000	C	21,000	D
FAYETTEVILLE RD	N OF BELGREEN RD	18,000	A	21,000	A	20,000	A	19,000	A	19,000	A
FAYETTEVILLE RD	S OF OBIE ST	15,000	D	18,000	F	18,000	F	17,000	E	17,000	E

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FAYETTEVILLE RD	N OF OBIE ST	15,000	D	17,000	E	17,000	E	17,000	E	17,000	E
FAYETTEVILLE RD	S OF SR 1365	14,000	A	16,000	A	16,000	A	17,000	A	16,000	A
FAYETTEVILLE RD	S OF LAWSON ST	14,000	D	15,000	D	14,000	D	13,000	C	15,324	D
FAYETTEVILLE RD	S OF UTAH AVE	17,000	E	18,000	F	17,000	E	16,000	E	15,000	D
FAYETTEVILLE RD	N OF MUTUAL DR	16,000	E	17,000	E	16,000	E	15,000	D	15,000	D
FAYETTEVILLE RD	N OF SR 2212 CHAPPARAL DR	-	n/a	21,000	A	-	n/a	-	n/a	14,185	A
FAYETTEVILLE RD	BTWN BARBEE RD AND WORTLEY DR	-	n/a	-	n/a	-	n/a	14,519	D	14,129	D
FAYETTEVILLE RD	S OF SR 1192	-	n/a	6,400	A	6,500	A	7,000	A	7,100	A
FAYETTEVILLE ST	N OF BUXTON DR	17,000	A	19,000	A	18,000	A	17,000	A	17,826	A
FAYETTEVILLE ST	S OF SR 1121	15,000	C	15,000	C	14,000	B	15,000	C	16,112	C
GARRETT RD	N OF NC 751	17,000	E	16,000	E	16,000	E	18,000	F	20,568	F
GARRETT RD	S OF OLD CHAPEL HILL RD	18,000	F	17,000	E	16,000	E	19,000	F	19,000	F
GARRETT RD	N OF OLD CHAPEL HILL RD	11,000	B	9,600	A	9,400	A	11,000	B	11,677	B
GARRETT RD	S OF PICKETT RD	5,300	A	5,300	A	5,100	A	4,800	A	5,500	A
GEER ST	S OF REDWOOD RD	940	A	860	A	830	A	820	A	780	A
GEER ST	N OF REDWOOD RD	580	A	510	A	460	A	390	A	540	A
GRANDALE DR	N OF HUNTSMAN DR	4,100	A	4,500	A	5,100	A	4,900	A	5,000	A
HERNDON RD	E OF FAYETTEVILLE RD	5,900	A	6,600	A	7,300	A	6,600	A	6,913	A
HERNDON RD	S OF MASSEY CHAPEL RD	3,800	A	3,900	A	3,900	A	4,200	A	4,200	A
HOPE VALLEY RD	BTWN MLK PKWY AND ST. ANDREWS CT	-	n/a	-	n/a	-	n/a	22,964	F	-	n/a
HOPSON RD	W OF NC 54	9,000	A	8,100	A	8,300	A	11,000	A	12,000	A
HOPSON RD	W OF DAVIS DR	5,000	A	4,300	A	5,300	A	-	n/a	8,500	A
I-40	EXIT 280 TO EXIT 281	141,000	D	151,000	D	154,000	E	160,000	E	152,000	D
I-40	EXIT 279 TO EXIT 280	134,000	C	148,000	D	153,000	E	157,000	E	146,000	D
I-40	EXIT 278 TO EXIT 279	98,000	C	115,000	D	123,000	E	122,000	E	119,000	E
I-40	EXIT 276 TO EXIT 278	95,000	C	113,000	D	121,000	E	117,000	E	119,000	E
I-40	EXIT 274 TO EXIT 276	87,000	B	105,000	D	111,000	D	109,000	D	111,000	D
I-40	EXIT 273 TO EXIT 274	91,000	C	108,000	D	113,000	D	110,000	D	114,000	D
I-40	EXIT 270 TO EXIT 273	70,000	A	83,000	B	86,000	B	85,000	B	88,000	B
I-40	EXIT 281 TO EXIT 282	150,000	D	159,000	E	162,000	E	169,000	E	162,000	E
I-40	EXIT 282 TO EXIT 283	156,000	E	163,000	E	165,000	E	174,000	F	169,000	E
KERLEY RD	N OF ERWIN RD	3,100	A	3,000	A	3,000	A	2,800	A	3,100	A
LAKEWOOD AVE	E OF CHAPEL HILL RD	2,900	A	2,800	A	2,600	A	2,400	A	2,700	A
LAKEWOOD AVE	W OF VICKERS AVE	2,300	A	2,100	A	1,900	A	1,900	A	2,000	A

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LAKEWOOD AVE	E OF VICKERS AVE	1,800	A	1,800	A	1,700	A	1,700	A	1,800	A
LEESVILLE RD	E OF SHADY GROVE	-	n/a	-	n/a	-	n/a	2,920	A	6,098	A
LYNN ST	W OF US 70	3,500	A	3,400	A	3,500	A	3,100	A	3,000	A
MASSEY CHAPEL RD	E OF FAYETTEVILLE RD	1,500	A	2,000	A	2,100	A	2,200	A	2,400	A
MIAMI BLVD	BTWN I-40 AND NC-54	-	n/a	-	n/a	-	n/a	18,233	A	-	n/a
MIAMI BLVD	N OF ANGLIER AVE	24,000	A	26,000	B	27,000	B	28,000	B	32,000	C
MIAMI BLVD	S OF ANGLIER AVE	27,000	B	29,000	C	29,000	C	31,000	C	31,000	C
MIAMI BLVD	N OF LUMLEY RD	21,000	A	22,000	A	23,000	A	24,000	A	27,000	A
MIAMI BLVD	S OF CORNWALLIS RD	24,000	A	26,000	B	25,000	A	27,000	B	26,000	B
MIAMI BLVD	N OF NC 54	22,000	B	21,000	A	20,000	A	21,000	A	20,484	A
MIAMI BLVD	S OF TW ALEXANDER DR	17,000	A	19,000	A	19,000	A	21,000	A	20,000	A
MINERAL SPRINGS RD	N OF PLEASANT DR	11,000	B	11,000	B	11,000	B	10,000	A	11,070	B
MINERAL SPRINGS RD	N OF NC 98	9,300	A	10,000	A	8,900	A	8,700	A	9,557	A
MINERAL SPRINGS RD	N OF SHERRON RD	7,700	A	-	n/a	7,300	A	7,200	A	8,403	A
MINERAL SPRINGS RD	W OF STALLINGS RD	2,400	A	2,200	A	1,900	A	1,700	A	1,800	A
MLK PKWY	BTWN FAYETTEVILLE RD AND LAKE COOK	-	n/a	-	n/a	-	n/a	16,335	A	-	n/a
MLK PKWY	S OF SR 2295	18,000	A	23,000	A	22,000	A	23,000	A	25,000	A
MLK PKWY	W OF UNIVERSITY DR	20,000	A	22,000	A	23,000	A	22,000	A	22,000	A
MLK PKWY	E OF OLD CHAPEL HILL RD	-	n/a	18,000	A	18,000	A	19,000	A	19,000	A
MLK PKWY	W OF SR 1118 FAYETTEVILLE ST	15,000	A	18,000	A	17,000	A	17,000	A	18,000	A
MLK PKWY	W OF SR 2220 CHAPEL HILL RD	10,000	A	15,000	A	14,000	A	14,000	A	15,000	A
MLK PKWY	E OF SR 1118 FAYETTEVILLE ST	10,000	A	13,000	A	13,000	A	13,000	A	15,000	A
MLK PKWY	W OF NC 55	6,800	A	9,100	A	11,000	A	11,000	A	12,000	A
MOREHEAD AVE	W OF VICKERS AVE	2,600	A	2,700	A	2,300	A	2,400	A	2,300	A
MOREHEAD AVE	W OF SR 1445 DUKE ST	2,300	A	2,400	A	2,200	A	2,200	A	2,100	A
MOREHEAD AVE	E OF ANDERSON ST	1,700	A	2,100	A	1,300	A	1,300	A	1,400	A
MORRENE RD	E OF US 15-501	-	n/a	-	n/a	-	n/a	9,158	C	10,236	C
MORRENE RD	W OF US 15-501 BYP	9,600	A	9,600	A	9,200	A	9,400	A	9,900	A
MORRENE RD	N OF ERWIN RD	8,400	B	8,300	B	7,200	A	8,100	B	8,200	B
MT MORIAH RD	N OF SR 2220	5,200	A	5,500	A	5,000	A	5,400	A	6,000	A
NC 147	EXIT 7 TO EXIT 8	55,000	B	65,000	C	64,000	C	62,000	C	67,000	D
NC 147	S OF I-40	11,000	A	-	n/a	13,000	A	-	n/a	7,600	A
NC 147	EXIT 5 TO EXIT 6	54,000	B	66,000	D	63,000	C	55,000	B	63,000	C
NC 147	EXIT 6 TO EXIT 7	52,000	B	-	n/a	61,000	C	56,000	B	62,000	C
NC 147	EXIT 8 TO EXIT 10	-	n/a	61,000	F	62,000	F	59,000	F	64,000	F
NC 54	S OF SR 1110	43,000	F	45,000	F	46,000	F	43,000	F	45,000	F
NC 54	W OF FAYETTEVILLE ST	-	n/a	23,000	A	22,000	A	23,000	A	24,000	A
NC 54	S OF CHURCH ST	12,000	A	15,000	A	18,000	A	20,000	A	22,751	A

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NC 54	S OF HOPSON RD	18,000	A	19,000	A	18,000	A	21,000	A	21,883	A
NC 54	W OF NC 55	19,000	F	19,000	F	20,000	F	21,000	F	21,000	F
NC 54	S OF SLATER RD	21,000	A	21,000	A	19,000	A	21,000	A	21,000	A
NC 54	E OF NC 55	19,000	A	18,000	A	17,000	A	21,000	A	20,000	A
NC 54	W OF NC 751	18,000	F	19,000	F	18,000	F	18,000	F	18,000	F
NC 54	E OF NC 751	15,000	D	16,000	E	18,000	F	16,000	E	17,000	E
NC 54	E OF FAYETTEVILLE ST	17,000	E	16,000	E	16,000	E	16,000	E	17,000	E
NC 54	W OF SR 1101 RAVERS RD	16,000	E	18,000	F	17,000	E	17,000	E	17,000	E
NC 54	E OF ALSTON AVE	16,000	A	15,000	A	13,000	A	16,000	A	15,000	A
NC 54	E OF SR 2028	13,000	A	-	n/a	9,800	A	14,000	A	14,256	A
NC 55	BTWN RESIDENCE INN BLVD AND I-40	-	n/a	-	n/a	-	n/a	41,617	D	-	n/a
NC 55	N OF SEDWICK DR	-	n/a	-	n/a	-	n/a	20,722	A	-	n/a
NC 55	N OF NC 54	26,000	A	27,000	A	30,000	A	35,000	B	34,453	B
NC 55	S OF LAWSON ST	22,000	C	24,000	C	24,000	C	26,000	D	25,008	D
NC 55	N OF LINWOOD AVE	24,000	C	27,000	D	27,000	D	27,000	D	25,000	C
NC 55	N OF SR 1182	-	n/a	18,000	A	21,000	A	24,000	A	25,000	A
NC 55	S OF SR 1182	-	n/a	25,000	A	22,000	A	25,000	A	24,000	A
NC 55	N OF LAWSON ST	22,000	C	24,000	C	23,000	C	25,000	D	23,000	C
NC 55	S OF ALSTON AVE	21,000	B	26,000	C	20,000	B	22,000	B	22,216	B
NC 55	N OF SR 1977	-	n/a	15,000	A	16,000	A	18,000	A	22,000	A
NC 55	N OF RIDDLE	16,000	A	28,000	B	19,000	A	21,000	A	21,000	A
NC 55	S OF ALSTON AVE	-	n/a	17,000	A	17,000	A	17,000	A	19,264	A
NC 55	S OF RIDDLE RD	14,000	A	15,000	A	16,000	A	18,000	A	19,149	A
NC 55	N OF CORNWALLIS RD	15,000	A	15,000	A	17,000	A	19,000	A	19,000	A
NC 55	S OF SR 1977	-	n/a	15,000	A	16,000	A	17,000	A	19,000	A
NC 55	S OF TW ALEXANDER DR	-	n/a	17,000	A	18,000	A	17,000	A	17,000	A
NC 751	S OF COLVARD FARMS RD	-	n/a	-	n/a	-	n/a	20,758	C	-	n/a
NC 751	N OF I-40	-	n/a	-	n/a	-	n/a	14,897	D	-	n/a
NC 751	BTWN GARRETT RD AND WOODCROFT PKWY	-	n/a	-	n/a	-	n/a	19,224	A	-	n/a
NC 751	S OF I-40	-	n/a	-	n/a	-	n/a	4,684	A	26,618	F
NC 751	E OF SR 1116	21,000	A	18,000	A	18,000	A	-	n/a	19,981	A
NC 751	E OF US 15-501 BYP	15,000	A	17,000	A	16,000	A	15,000	A	18,768	B
NC 751	N OF WOODCROFT PKWY	15,000	D	17,000	E	15,000	D	15,000	D	16,000	E
NC 751	S OF NC 54	13,000	C	14,000	D	14,000	D	15,000	D	15,000	D
NC 751	S OF SR 1118	12,000	A	12,000	A	11,000	A	11,000	A	14,595	A
NC 751	N OF SR 1192	10,000	A	13,000	C	12,000	B	12,000	B	14,183	D
NC 751	E OF US 15-501	-	n/a	13,000	A	14,000	A	13,000	A	12,000	A
NC 751	N OF SR 1118	8,200	A	9,300	A	9,100	A	9,400	A	11,118	B
NC 751	N OF SR 1146 ML KING PKWY	9,700	A	9,800	A	9,900	A	9,500	A	10,938	B
NC 751	N OF CRANFORD RD	9,900	A	11,000	B	9,800	A	9,900	A	9,900	A

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NC 751	W OF DUKE UNIVERSITY RD	9,900	A	10,000	A	9,700	A	9,200	A	9,400	A
NC 751	S OF SR 1146 ML KING PKWY	9,600	A	9,900	A	9,600	A	9,300	A	8,900	A
NC 751	N OF SR 1308 CORNWALLIS RD	9,100	A	10,000	A	9,500	A	8,900	A	8,900	A
NC 751	N OF SR 1303	8,200	A	9,400	A	8,900	A	8,600	A	8,600	A
NC 751	S OF US 15-501 BUS	6,700	A	7,400	A	7,300	A	6,600	A	6,700	A
NC 751	W OF SR 1307	5,200	A	4,900	A	5,100	A	4,700	A	4,500	A
NC 751 (ACADEMY ST)	N OF US 15-501 BUS	8,200	A	9,300	A	9,000	A	8,300	A	8,700	A
NC 751 (UNIVERSITY DR)	E OF SR 1127 DIXON RD	9,800	B	9,600	B	9,000	B	8,600	B	8,100	A
NC 98	BTWN COLEY RD AND SOUTHVIEW RD	-	n/a	-	n/a	-	n/a	9,893	A	-	n/a
NC 98	W OF SR 1815	15,000	A	15,000	A	-	n/a	16,000	A	19,000	A
NC 98	W OF SR 1825	-	n/a	14,000	A	-	n/a	15,000	A	18,000	A
NC 98	W OF SR 1807	12,000	A	12,000	A	11,000	A	12,000	A	13,378	B
NC 98	W OF SR 1910	9,500	A	10,000	A	-	n/a	11,000	A	12,358	A
OBIE ST	E OF SR 1118	1,000	A	1,000	A	870	A	780	A	810	A
OLD CHAPEL HILL RD	N OF MLK PKWY	-	n/a	-	n/a	-	n/a	4,422	A	-	n/a
OLD CHAPEL HILL RD	BTWN POPE RD AND I-40	-	n/a	-	n/a	-	n/a	10,563	B	-	n/a
OLD CHAPEL HILL RD	E OF SW DURHAM PKWY	16,000	E	17,000	E	17,000	E	15,000	D	15,000	D
OLD CHAPEL HILL RD	E OF MT MORIAH RD	12,000	C	12,000	C	11,000	B	9,900	A	9,800	A
OLD CHAPEL HILL RD	N OF SR 1146	3,900	A	4,700	A	4,400	A	4,300	A	4,300	A
PAGE RD	N OF SR 1970	-	n/a	11,000	A	12,000	A	12,000	A	13,889	A
PAGE RD	S OF SR 1966	8,000	A	12,000	A	10,000	A	10,000	A	10,000	A
PAGE RD	N OF SR 1966	8,000	A	8,900	A	9,000	A	9,000	A	9,200	A
PAGE RD	S OF US 70	7,900	A	10,000	A	8,200	A	8,100	A	8,396	A
PAGE RD	S OF SR 1970	5,800	A	5,600	A	5,100	A	4,900	A	8,000	A
PAGE RD	E OF I-40	4,900	A	6,200	A	5,700	A	6,400	A	6,869	A
PAGE RD	N OF CHIN PAGE RD	6,700	A	6,800	A	6,100	A	6,600	A	6,700	A
PAGE RD	S OF SR 1969	4,900	A	5,300	A	4,800	A	5,300	A	5,936	A
PICKETT ST	W OF SR 1127	1,400	A	1,300	A	1,300	A	1,300	A	1,500	A
PICKETT ST	E OF NC 751	1,500	A	1,300	A	1,500	A	1,400	A	1,500	A
POPE RD	S OF EPHEUSUS CHURCH RD	5,700	A	6,200	A	5,300	A	5,500	A	5,740	A
POPE RD	N OF CLARK LAKE RD	4,000	A	4,100	A	3,400	A	3,600	A	3,876	A
RED MILL RD	N OF SR 1670	4,800	A	5,300	A	4,700	A	5,000	A	4,900	A
REDWOOD RD	S OF I-85	1,100	A	1,200	A	1,100	A	-	n/a	1,029	A
RENAISSANCE PKWY	W OF FAYETTEVILLE RD	-	n/a	-	n/a	-	n/a	9,884	A	-	n/a
RENAISSANCE PKWY	BTWN NC-751 AND LEONARDO DR	-	n/a	-	n/a	-	n/a	14,884	A	-	n/a
REVERE RD	S OF NC 54	6,300	A	-	n/a	6,100	A	5,200	A	5,400	A
RIDDLE RD	W OF KIRDY ST	9,200	A	10,000	A	10,000	A	10,000	A	11,341	B

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RIDDLE RD	E OF FAYETTEVILLE ST	9,100	A	10,000	A	9,800	A	9,900	A	11,236	B
RIDDLE RD	W OF SR 1945	7,000	A	7,900	A	7,800	A	7,900	A	7,800	A
RIDDLE RD	N OF SR 2149	6,100	A	6,900	A	6,900	A	7,100	A	7,200	A
RIDDLE RD	W OF SR 2149	5,000	A	5,800	A	5,600	A	6,000	A	6,600	A
RIDDLE RD	N OF SR 1940	5,000	A	5,600	A	5,600	A	5,700	A	5,600	A
ROXBORO ST	N OF CORNWALLIS RD	8,600	A	9,600	A	9,200	A	9,300	A	9,800	A
ROXBORO ST	S OF MLK PKWY	6,200	A	7,000	A	6,800	A	7,000	A	8,100	A
ROXBORO ST	S OF LAWSON ST	6,800	A	7,500	A	7,200	A	7,400	A	7,500	A
ROXBORO ST	E OF NC 751 HOPE VALLEY	5,500	A	5,700	A	5,900	A	5,600	A	6,100	A
ROXBORO ST	N OF LAWSON ST	5,200	A	5,800	A	5,300	A	5,200	A	5,600	A
S ROXBORO ST	W OF OAK RIDGE BLVD	-	n/a	-	n/a	-	n/a	5,035	A	-	n/a
S ROXBORO ST	N OF SUMMIT ST	7,800	A	8,500	A	8,000	A	8,300	A	8,400	A
S ROXBORO ST	S OF LAKEWOOD AVE	5,300	A	5,900	A	5,800	A	5,100	A	6,100	A
SCIENCE DR	N OF NC 751	5,400	A	7,400	A	6,200	A	5,200	A	5,100	A
SCOTT KING RD	E OF SALIX DR	1,400	A	1,800	A	1,700	A	1,800	A	1,900	A
SEDWICK DR	W OF NC 55	6,800	A	6,600	A	6,800	A	6,700	A	6,800	A
SHANNON DR	BTWN UNIVERSITY DR AND MLK PKWY	-	n/a	-	n/a	-	n/a	7,957	A	-	n/a
SHANNON RD	N OF UNIVERSITY DR	12,000	A	12,000	A	10,000	A	11,000	A	9,600	A
SHANNON RD	S OF UNIVERSITY DR	8,700	A	9,100	A	8,000	A	8,000	A	8,086	A
SHERRON RD	N OF US 70	16,000	A	17,000	A	18,000	A	18,000	A	22,135	B
SHERRON RD	E OF S MINERAL SPRINGS RD	8,100	A	9,600	A	11,000	A	12,000	A	13,000	A
SHERRON RD	E OF SCHEER AVE	7,800	A	9,300	A	9,800	A	9,600	A	10,963	A
SHERRON RD	S OF NC 98	7,900	A	9,000	A	9,600	A	10,000	A	10,536	A
SLATER RD	BTWN PAGE RD AND EMPEROR BLVD	-	n/a	-	n/a	-	n/a	2,752	A	-	n/a
SLATER RD	BTWN EMPEROR BLVD AND I-540	-	n/a	-	n/a	-	n/a	20,018	E	-	n/a
SR 1192	E OF NC 751	-	n/a	1,500	A	1,500	A	1,700	A	1,800	A
SR 1303	E OF SR 1116	6,500	A	6,100	A	6,000	A	5,300	A	5,900	A
SR 1303	W OF SR 1116	4,700	A	4,700	A	4,200	A	3,900	A	4,400	A
SR 1303 (PICKETT RD)	W OF NC 751	4,400	A	4,200	A	4,300	A	3,900	A	4,400	A
SR 1309	S OF NC 751	-	n/a	2,200	A	2,300	A	2,100	A	2,200	A
SR 1365 (MOREHEAD ST)	E OF DUKE ST	2,700	A	2,800	A	2,500	A	2,600	A	2,500	A
SR 1400 (SPARGER RD)	N OF US 70 BUS	6,100	A	6,300	A	6,100	A	6,000	A	6,320	A
SR 1637	N OF SR 1800 EXUM RD	800	A	870	A	840	A	-	n/a	730	A
SR 1637	N OF SR 1815	760	A	760	A	720	A	-	n/a	650	A
SR 1670	S OF COOKSBURY RD	4,800	A	5,100	A	4,600	A	4,600	A	4,500	A
SR 1670	W OF SR 1671 CLIFFSIDE DR	2,300	A	2,400	A	2,700	A	2,400	A	2,300	A
SR 1670	N OF SR 1819	2,200	A	2,300	A	2,400	A	2,200	A	2,154	A
SR 1675	S OF SR 1671	3,200	A	2,900	A	3,500	A	3,300	A	3,600	A

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SR 1675	S OF SR 1670	1,100	A	1,100	A	2,200	A	2,100	A	2,300	A
SR 1675	N OF SR 1670	1,500	A	1,900	A	2,300	A	2,300	A	2,200	A
SR 1801 (CHEEK RD)	E OF SR 1800	1,600	A	1,700	A	1,400	A	1,500	A	1,449	A
SR 1807	N OF NC 98	-	n/a	-	n/a	1,700	A	1,800	A	1,700	A
SR 1807	E OF SR 1804	760	A	660	A	800	A	610	A	590	A
SR 1811	S OF SR 1899	1,600	A	1,600	A	1,600	A	1,400	A	1,400	A
SR 1811	S OF SR 1800	1,600	A	1,500	A	1,500	A	1,300	A	1,300	A
SR 1812	E OF SR 1800	300	A	330	A	300	A	280	A	310	A
SR 1813	W OF SR 1811	200	A	-	n/a	190	A	180	A	180	A
SR 1814	W OF SR 1811	5,300	A	-	n/a	6,600	A	6,200	A	6,279	A
SR 1815	N OF SR 1813	5,700	A	6,000	A	6,200	A	5,500	A	6,000	A
SR 1815	W OF SR 1849	5,000	A	5,100	A	5,400	A	4,800	A	5,200	A
SR 1815	E OF US 70	4,500	A	4,700	A	4,700	A	4,500	A	4,400	A
SR 1815	W OF US 70	3,300	A	3,400	A	3,500	A	3,400	A	3,469	A
SR 1818	S OF SR 1670	3,900	A	3,900	A	3,700	A	3,500	A	4,000	A
SR 1818	N OF SR 1800	3,600	A	3,500	A	3,600	A	3,200	A	3,700	A
SR 1822	E OF SR 1671	2,100	A	2,600	A	3,200	A	3,000	A	3,200	A
SR 1825	S OF SR 1846	4,000	A	4,200	A	4,200	A	3,900	A	7,000	A
SR 1825	N OF SR 1846	5,900	A	6,800	A	7,000	A	6,300	A	6,900	A
SR 1825	N OF NC 98	3,700	A	3,700	A	3,300	A	3,400	A	3,800	A
SR 1838	S OF SR 1800	2,400	A	2,400	A	2,600	A	2,000	A	2,700	A
SR 1846	W OF SR 1815	3,100	A	3,100	A	3,100	A	2,700	A	3,000	A
SR 1901	E OF SR 1906	1,700	A	1,800	A	1,700	A	1,600	A	1,700	A
SR 1902	S OF NC 98	820	A	930	A	780	A	670	A	770	A
SR 1905	S OF NC 98	2,100	A	2,300	A	2,300	A	2,200	A	3,000	A
SR 1905	S OF SR 1908	1,400	A	1,700	A	1,700	A	-	n/a	1,900	A
SR 1906	N OF US 70	4,100	A	4,300	A	4,400	A	4,100	A	4,800	A
SR 1908	W OF SR 1905	540	A	650	A	740	A	690	A	740	A
SR 1909	S OF NC 98	120	A	150	A	110	A	250	A	110	A
SR 1910	S OF NC 98	350	A	460	A	510	A	530	A	740	A
SR 1921	E OF US 70	7,600	A	8,000	A	7,200	A	7,100	A	6,600	A
SR 1940	W OF SR 2088	3,200	A	2,800	A	2,500	A	2,600	A	2,928	A
SR 1954 (ELLIS DR)	W OF SR 2149	2,900	A	3,500	A	3,100	A	4,200	A	4,400	A
SR 1958 (BELDON DR)	W OF SR 1959	940	A	1,100	A	1,000	A	1,100	A	-	n/a
SR 1959	S OF SR 1966	20,000	A	22,000	A	23,000	A	25,000	A	27,000	A
SR 1959	S OF GENERAL ELECTRIC DR	21,000	A	21,000	A	20,000	A	21,000	A	21,000	A
SR 1959	N OF SR 1121	18,000	A	21,000	A	20,000	A	23,000	A	21,000	A
SR 1966	E OF SR 1973	200	A	220	A	180	A	230	A	-	n/a
SR 1966	W OF SR 1973	3,100	A	4,000	A	3,900	A	3,900	A	3,900	A
SR 1969	E OF OLD RALEIGH RD	6,000	A	4,900	A	5,000	A	6,400	A	5,800	A
SR 1969	W OF SR 1973	2,600	A	2,300	A	2,100	A	2,200	A	2,000	A
SR 1970 (MT HERMAN RD)	E OF SR 1973	-	n/a	7,800	A	8,900	A	8,900	A	9,600	A
SR 1973	E OF NC 54	-	n/a	6,000	A	5,200	A	-	n/a	6,400	A
SR 1973	W OF SR 2095 PAGE RD	2,500	A	3,200	A	-	n/a	2,900	A	3,100	A

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SR 1977	E OF NC 55	3,500	A	4,000	A	3,800	A	4,100	A	4,700	A
SR 1977	W OF SR 1945	3,200	A	3,800	A	3,400	A	3,500	A	3,700	A
SR 1980	S OF NC 54	5,200	A	4,800	A	3,900	A	5,800	A	7,700	A
SR 2043	E OF SR 2042	160	A	190	A	170	A	170	A	150	A
SR 2100	S OF SR 2099	-	n/a	730	A	-	n/a	-	n/a	-	n/a
SR 2100	W OF NC 55	-	n/a	1,100	A	-	n/a	1,900	A	2,400	A
SR 2294	N OF SR 1206	-	n/a	5,300	A	5,500	A	5,100	A	5,300	A
SR 2295 (ROXBORO ST)	S OF SR 1158	4,900	A	5,500	A	5,400	A	5,400	A	5,300	A
STAGECOACH RD	W OF NC 751	-	n/a	7,400	A	7,200	A	7,500	A	9,020	A
SUMMIT ST	W OF SR 2295 ROXBORO ST	4,200	A	4,200	A	3,600	A	3,600	A	4,200	A
SURREY RD	W OF NC 751	1,200	A	1,100	A	950	A	960	A	980	A
SWATHMORE RD	W OF NC 751	1,500	A	1,400	A	1,500	A	1,300	A	1,400	A
TOWERVIEW RD	S OF BENNET MEMORIAL RD	3,400	A	3,600	A	3,200	A	-	n/a	-	n/a
TOWERVIEW RD	W OF DUKE UNIVERSITY RD	5,700	A	6,400	A	6,700	A	6,900	A	7,400	A
TW ALEXANDER DR	N OF I-40	-	n/a	-	n/a	-	n/a	12,359	A	-	n/a
TW ALEXANDER DR	W OF MIAMI BLVD	21,000	A	27,000	B	26,000	B	26,000	B	27,043	B
TW ALEXANDER DR	E OF NC 147	20,000	A	25,000	A	25,000	A	24,000	A	25,858	B
TW ALEXANDER DR	W OF PAGE RD	20,000	A	24,000	A	24,000	A	23,000	A	22,000	A
TW ALEXANDER DR	E OF STIRRUP CREEK DR	20,000	A	25,000	A	22,000	A	22,000	A	22,000	A
TW ALEXANDER DR	W OF MOORE DR	12,000	A	14,000	A	12,000	A	-	n/a	21,000	A
TW ALEXANDER DR	N OF NC 54	10,000	A	11,000	B	9,900	A	13,000	C	12,455	C
TW ALEXANDER DR	S OF CORNWALLIS RD	8,100	A	9,000	A	7,800	A	11,000	B	11,322	B
TW ALEXANDER DR	S OF NC 54	8,200	A	8,600	A	8,200	A	9,000	A	8,900	A
TW ALEXANDER DR	S OF SR 2145	13,000	B	14,000	B	15,000	C	-	n/a	8,200	A
TW ALEXANDER DR	E OF NC 55	10,000	A	9,800	A	9,600	A	-	n/a	4,600	A
UNIVERSITY DR	W OF SHANNON RD	-	n/a	-	n/a	-	n/a	12,202	A	-	n/a
UNIVERSITY DR	BTWN HOPE VALLEY RD AND CHAPEL HILL RD	-	n/a	-	n/a	-	n/a	9,845	B	-	n/a
UNIVERSITY DR	N OF CHAPEL HILL RD	19,000	A	18,000	A	20,000	B	19,000	A	18,000	A
UNIVERSITY DR	S OF VICKERS AVE	17,000	F	17,000	F	17,000	F	16,000	F	17,000	F
UNIVERSITY DR	W OF KENT ST	-	n/a	17,000	F	-	n/a	16,000	F	17,000	F

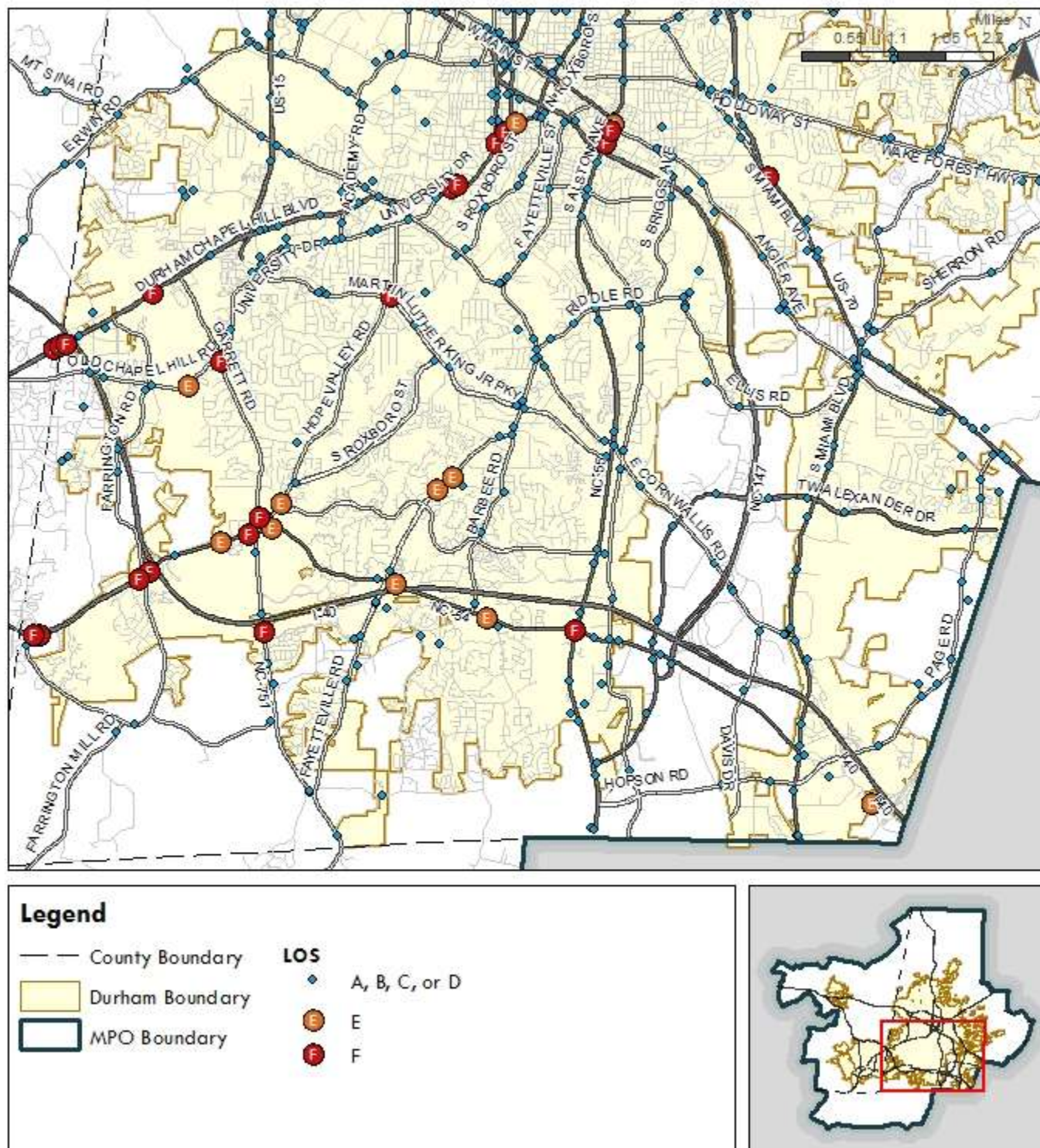
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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
UNIVERSITY DR	S OF WESTGATE DR	18,000	A	18,000	A	18,000	A	17,000	A	17,000	A
UNIVERSITY DR	N OF HILL ST	13,000	D	13,000	D	-	n/a	13,000	D	16,911	F
UNIVERSITY DR	W OF CEDAR ST	16,000	F	16,000	F	16,000	F	16,000	F	16,000	F
UNIVERSITY DR	N OF NC 751	15,000	A	15,000	A	14,000	A	14,000	A	15,000	A
UNIVERSITY DR	W OF NC 751	18,000	A	17,000	A	17,000	A	15,000	A	15,000	A
UNIVERSITY DR	W OF MYRE ST	16,000	A	16,000	A	15,000	A	14,000	A	14,000	A
UNIVERSITY DR	W OF SOUTH ST	12,000	D	12,000	D	12,000	D	12,000	D	13,000	E
UNIVERSITY DR	E OF ACADEMY DR	15,000	A	15,000	A	14,000	A	13,000	A	13,000	A
UNIVERSITY DR	W OF CHAPEL HILL RD	15,000	A	15,000	A	14,000	A	13,000	A	13,000	A
UNIVERSITY DR	W OF SHANNON RD	13,000	A	14,000	A	13,000	A	13,000	A	13,000	A
UNIVERSITY DR	W OF CORNWALLIS RD	9,200	B	9,800	B	9,500	B	9,700	B	9,600	B
UNIVERSITY DR	E OF MANGUM ST	7,900	A	8,000	A	7,700	A	7,400	A	7,900	A
UNIVERSITY DR	S OF DURHAM-CHAPEL HILL BLVD	6,800	A	7,100	A	7,800	A	7,200	A	7,000	A
US 15-501	W OF GARRETT RD	45,000	F	44,000	F	-	n/a	44,000	F	46,000	F
US 15-501	E OF GARRETT RD	45,000	A	43,000	A	44,000	A	49,000	B	51,000	B
US 15-501 BYP	N OF SR 1317 TOWNVIEW RD	-	n/a	30,000	A	31,000	A	32,000	A	32,000	A
US 15-501 BYP	S OF SR 1308	51,000	A	52,000	B	-	n/a	50,000	A	55,000	B
US 15-501 BYP	N OF SR 1308	59,000	B	58,000	B	58,000	B	58,000	B	60,000	B
US 15-501 BYP	N OF NC 751	50,000	A	55,000	A	56,000	A	55,000	A	59,000	A
US 70	N OF EAST END AVE	33,000	D	39,000	E	40,000	E	42,000	F	47,000	F
US 70	S OF SR 1921	32,000	B	36,000	C	35,000	B	36,000	C	45,000	D
US 70	S OF SR 1815	32,000	B	36,000	C	34,000	B	37,000	C	40,000	C
US 70	W OF SR 1906	31,000	A	33,000	B	31,000	A	31,000	A	37,000	C
US 70	E OF SR 1811	27,000	A	29,000	A	30,000	A	29,000	A	36,000	B
US 70	E OF SR 2095	28,000	A	29,000	A	27,000	A	29,000	A	32,000	B
US-70	BTWN MIAMI BLVD AND ANGLER AVE	-	n/a	-	n/a	-	n/a	26,639	A	-	n/a
US-70	BTWN ANGLER DR AND LEESVILLE RD	-	n/a	-	n/a	-	n/a	28,759	A	-	n/a
US-70	PAGE RD TO WAKE COUNTY LINE	-	n/a	-	n/a	-	n/a	25,414	A	-	n/a
VICKERS AVE	S OF PARKER ST	5,000	A	4,700	A	4,400	A	4,200	A	4,700	A
VICKERS AVE	S OF MOREHEAD AVE	4,200	A	4,200	A	3,900	A	3,800	A	3,800	A
WATKINS RD	E OF SR 1207	4,800	A	-	n/a	3,300	A	-	n/a	-	n/a
WESTGATE DR	N OF UNIVERSITY DR	9,000	A	-	n/a	8,200	A	7,500	A	7,700	A
WOODCROFT PKWY	E OF NC 751	10,000	A	9,400	A	8,500	A	8,100	A	8,600	A
YORKTOWN AVE	W OF NC 55	3,100	A	3,300	A	3,300	A	3,500	A	3,800	A

Figure 1-7. 2013 LOS E or F Roadways - South Durham



Chapel Hill

The Chapel Hill Area includes all counts from within the Town limits and from south of the Chapel Hill line to the Orange/Chatham County line. This area included volume data from 144 DCHC MPO counts and 39 NCDOT.

Road facilities in the area appeared to be handling traffic volume well, with 107 (59%) LOS A grades and 137 (76%) roadways with LOS C or better. Only 12 count locations received LOS F, and nearly 52% of count locations recorded no change or a decrease in daily traffic volume since 2005.

KEY DATA RESULTS

ADT traffic volume: 183 count locations

- 107 (59%) - LOS A
- 137 (76%) – LOS C or better

Changes in LOS grades: 47 locations (26%)

- 24 improved (15 improved to an A)
- 23 worsened (11 to a D or worse)
- 5 locations received an LOS F

Locations with heaviest traffic volume:

- I-40, Fordham Blvd, Durham-Chapel Hill Blvd, NC-54 and Martin Luther King Jr Blvd

Changes in Daily Traffic Volume (2005 to 2013)

- 155 locations recorded
- 81 (52%) saw no change or decreased volume
- 38 (25%) saw changes in volume of over 10%
 - 6 of these locations were below LOS C
 - Only lowered the LOS grade for 15 locations
 - Highest increases recorded on Dogwood Dr and Sage Rd (all maintained A" grades despite large increases in daily volume)

Table 1-6. Daily Traffic Volumes (2005-2013) - Chapel Hill

Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
OUNDARY RD	S OF FRANKLIN ST	2,300	A	-	n/a	-	n/a	2,402	A	2,225	A
BURNING TREE DR	N OF NC 54	1,900	A	-	n/a	-	n/a	-	n/a	-	n/a
BURNING TREE DR	N OF NC 54	1,900	A	1,700	A	1,700	A	1,700	A	1,800	A
CAMERON AVE	W OF PITTSBORO ST	7,700	A	7,700	A	9,100	B	7,500	A	-	n/a
CAMERON AVE	BTWN COLUMBIA ST AND PITTSBORO ST	14,000	F	-	n/a	-	n/a	8,627	B	-	n/a
CAMERON AVE	W OF COLUMBIA ST	14000	F	14,000	F	14,000	F	16,000	F	12,000	D
CAMERON AVE	W OF PITTSBORO AVE	7,700	A	-	n/a	-	n/a	7,221	A	6,693	A
CAMERON AVE	E OF COLUMBIA ST	6,400	A	-	n/a	-	n/a	5,908	A	4,679	A
CLELAND RD	W OF HAMILTON RD	2,100	A	2,100	A	1,600	A	2,000	A	2,400	A
COLUMBIA ST	BTWN ROSEMARY ST AND FRANKLIN ST	16,000	A	-	n/a	-	n/a	14,019	A	-	n/a
COLUMBIA ST	S OF PUREFOY RD	26,900	C	-	n/a	-	n/a	16,146	A	-	n/a
COLUMBIA ST	BTWN CAMERON AVE AND SOUTH RD	11,000	A	-	n/a	-	n/a	5,885	A	-	n/a
COLUMBIA ST	S OF FRANKLIN ST	16,000	A	-	n/a	-	n/a	14,376	A	14,663	A
COLUMBIA ST	S OF MASON FARM RD	15,000	F	-	n/a	-	n/a	14,756	F	13,982	E
COLUMBIA ST	S OF CAMERON AVE	11,000	A	11,000	A	12,000	A	9,700	A	9,600	A
COLUMBIA ST	S OF SOUTH RD	9,700	A	10,000	A	8,700	A	8,500	A	8,612	A
COUNTRY CLUB	S OF SR 2048	-	n/a	-	n/a	8,200	A	8,000	A	-	n/a
COUNTRY CLUB RD	S OF SOUTH RD	10,000	B	-	n/a	-	n/a	621	A	-	n/a
COUNTRY CLUB RD	N OF SR 2048	-	n/a	14,000	E	13,000	E	12,000	D	14,000	E
COUNTRY CLUB RD	N OF SOUTH RD	12,200	D	-	n/a	-	n/a	11,261	C	10,726	C
COUNTY CLUB RD	S OF SOUTH RD	10,000	B	-	n/a	-	n/a	-	n/a	-	n/a
CURTIS RD	N OF ELLIOT RD	2,800	A	3,000	A	3,100	A	2,800	A	3,400	A
ELLIOT RD	W OF FRANKLIN ST	4,200	A	-	n/a	-	n/a	-	n/a	-	n/a
ELLIOT RD	E OF SR 1010 FRANKLIN ST	7,700	A	7,600	A	6,900	A	7,400	A	7,400	A
ELLIOT RD	W OF SR 1010 FRANKLIN ST	4200	A	4000	A	3900	A	4100	A	4,769	A
ELLIOT RD EXTENTION	BTWN FORDHAM BLVD AND FRANKLIN ST	7,700	A	-	n/a	-	n/a	7,183	A	-	n/a

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
EPHESUS CHURCH RD	W OF EDEN LN	7,400	A	-	n/a	-	n/a	7,149	A	-	n/a
EPHESUS CHURCH RD	BTWN FORDHAM BLVD AND LEGION RD	11,000	B	-	n/a	-	n/a	9,879	A	-	n/a
EPHESUS CHURCH RD	BTWN FRANKLIN ST AND FORDHAM BLVD	9,500	B	-	n/a	-	n/a	-	n/a	-	n/a
EPHESUS CHURCH RD	E OF US 15-501	11,000	B	11,000	B	10,000	A	9,200	A	11,487	B
EPHESUS CHURCH RD	W OF BANBURY LN	7,400	A	7,400	A	6,900	A	6,600	A	7,423	A
EPHESUS CHURCH RD	E OF FRANKLIN ST	9,500	A	-	n/a	7,900	A	-	n/a	100	A
ERWIN RD	N OF FORDHAM BLVD	10,000	A	-	n/a	-	n/a	8,634	A	-	n/a
ERWIN RD	N OF COVINGTON DR	7,300	A	-	n/a	-	n/a	8,722	A	-	n/a
ERWIN RD	W OF SR 1737	9,700	A	12000	A	13,000	A	13,000	A	12,000	A
ERWIN RD	N OF FORDHAM BLVD	10,000	A	12,000	A	9,100	A	8,800	A	8,700	A
ESTES DR	W OF FORDHAM BLVD	14,000	A	-	n/a	-	n/a	14,331	A	-	n/a
ESTES DR	E OF FRANKLIN ST	17,000	A	-	n/a	-	n/a	15,258	A	-	n/a
ESTES DR	W OF FRANKLIN ST	15,000	D	-	n/a	-	n/a	15,901	E	-	n/a
ESTES DR	E OF MLK BLVD	15,000	D	-	n/a	-	n/a	17,396	F	-	n/a
ESTES DR	W OF MLK BLVD	12,000	A	-	n/a	-	n/a	12,708	B	-	n/a
ESTES DR	E OF NC 86	15,000	D	15,000	D	16,000	E	15,000	D	16,000	E
ESTES DR	S OF SEAWELL SCHOOL RD	13000	C	13000	C	12000	C	13000	C	13,000	C
ESTES DR	W OF NC 86	12,000	A	12,000	A	12,000	A	12,000	A	12,571	A
ESTES DR	W OF US 15-501	14000	A	14000	A	13000	A	12,000	A	12,000	A
ESTES DR EXT	E OF FRANKLIN ST	17000	A	17000	A	16000	A	15,000	A	17,455	A
ESTES DR EXT	W OF FRANKLIN ST	15,000	D	15,000	D	15,000	D	15,000	D	15,840	E
EUBANKS RD	W OF MLK BLVD	5400	A	-	n/a	-	n/a	7,950	A	-	n/a
EUBANKS RD	W OF NC 86	5400	A	7000	A	7,500	A	8,000	A	8,600	A
FINLEY GOLF COURSE RD	S OF NC 54	2,300	A	-	n/a	-	n/a	-	n/a	-	n/a
FINLEY GOLF COURSE RD	S OF NC 54	2,300	A	2,000	A	2,400	A	2,600	A	3,800	A
FORDHAM BLVD	S OF ESTES DR	39000	C	-	n/a	-	n/a	56,301	F	-	n/a
FORDHAM BLVD	N OF ESTES DR	31,000	B	-	n/a	-	n/a	-	n/a	-	n/a
FRANKLIN	E OF EASTGATE SHOPPING CTR	22,000	A	-	n/a	-	n/a	24,638	A	-	n/a
FRANKLIN	S OF ESTES DR	21000	A	-	n/a	-	n/a	19,882	A	-	n/a

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
FRANKLIN ST	BTWN COLUMBIA ST AND CHURCH ST	14,000	A	-	n/a	-	n/a	19,023	B	-	n/a
FRANKLIN ST	N OF ESTES DR	26000	B	-	n/a	-	n/a	-	n/a	-	n/a
FRANKLIN ST	N OF SR 1750 ESTES DR EXT	26000	B	24,000	A	23,000	A	22,000	A	26,122	B
FRANKLIN ST	N OF EPHEBUS CHURCH RD	22000	A	21,000	A	21,000	A	20,000	A	23,028	A
FRANKLIN ST	S OF SR 1750 ESTES DR EXT	21000	A	19,000	A	18,000	A	17,000	A	17,838	A
FRANKLIN ST	E OF BOUNDARY ST	19,000	B	19,000	B	17,000	A	16,000	A	17,000	A
FRANKLIN ST	E OF BOUNDARY RD	19,000	B	-	n/a	-	n/a	16,773	A	16,614	A
FRANKLIN ST	W OF RALEIGH RD	18,900	B	-	n/a	-	n/a	14,367	A	14,605	A
FRANKLIN ST	E OF COLUMBIA ST	15000	A	16,000	A	15,000	A	14,000	A	14,464	A
FRANKLIN ST	W OF COLUMBIA ST	14,000	A	14,000	A	13000	A	13,000	A	13,898	A
GLENN SCHOOL RD	BTWN GLENN RD AND I-85	-	n/a	-	n/a	-	n/a	2,642	A	-	n/a
GREENSBORO ST	N OF SHORT ST	14,000	F	14,000	F	13,000	E	14,000	F	14,677	F
GREENSBORO ST	S OF CARR ST	13,000	E	12,000	D	12,000	D	12,000	D	13,005	E
GREENSBORO ST	S OF WEAVER ST	11,000	C	11,000	C	10,000	C	11,000	C	11,000	C
HILLSBORO ST	BTWN ROSEMARY ST AND NORTH ST	7,300	A	-	n/a	-	n/a	5,768	A	-	n/a
HILLSBOROUGH ST	N OF ROSEMARY ST	7,300	A	7,500	A	-	n/a	6,800	A	8,100	A
HOMESTEAD RD	S OF HIGH SCHOOL RD	6700	A	-	n/a	-	n/a	8,189	A	-	n/a
HOMESTEAD RD	BTWN WEAVER DAIRY RD AND TRAIN TRACKS	6900	A	-	n/a	-	n/a	9,936	A	10,920	B
HOMESTEAD RD	W OF NC 86	7700	A	7700	A	7100	A	7,200	A	8,898	A
I-40	EXIT 266 TO EXIT 270	56000	B	68000	D	69000	D	72,000	D	74,000	D
LEGION RD	N OF EPHEBUS CHURCH RD	6,900	A	7,600	A	-	n/a	5,200	A	5,800	A
MAIN ST	E OF LLOYD ST	19,000	B	19,000	B	18000	B	17,000	A	18,273	B
MANNING DR	E OF RIDGE RD	17,000	A	-	n/a	-	n/a	-	n/a	-	n/a
MANNING DR	W OF RIDGE RD	18,000	B	-	n/a	18,000	B	17,000	A	18,000	B
MANNING DR	N OF US 15-501	17000	A	17000	A	17000	A	15,000	A	16,000	A
MANNING DR	S OF SKIPPER BOWLES RD	-	n/a	-	n/a	-	n/a	14,116	A	15,734	A
MANNING DR	W OF WEST DR	13,000	A	12,000	A	11,000	A	11,000	A	11,000	A

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
MANNING DR	E OF COLUMBIA ST	13,000	A	-	n/a	-	n/a	10,016	A	10,713	A
MASON FARM RD	E OF DANIELS RD	7000	A	8500	B	-	n/a	6,700	A	7,600	A
MASON FARM RD	E OF COLUMBIA ST	7,000	A	-	n/a	-	n/a	6,906	A	6,314	A
MASON FARM RD	N OF FORDHAM BLVD	1,800	A	-	n/a	-	n/a	1,728	A	1,720	A
MERRITT MILL RD	E OF ROBERTS ST	11,000	D	11,000	D	10,000	C	11,000	D	-	n/a
MLK BLVD	N OF HOMESTEAD RD	27,000	B	-	n/a	-	n/a	23,348	A	-	n/a
MLK BLVD	N OF ESTES DR	31000	C	-	n/a	-	n/a	23,746	A	-	n/a
MLK BLVD	N OF NORTH ST	19000	A	-	n/a	-	n/a	16,840	A	-	n/a
MLK BLVD	N OF CHAPEL HILL	25000	A	-	n/a	-	n/a	29,477	B	-	n/a
MLK BLVD	S OF ESTES DR	22,000	A	-	n/a	-	n/a	-	n/a	-	n/a
MOUNT CARMEL CHURCH RD	E OF US 15-501	11,000	B	-	n/a	-	n/a	9,971	A	-	n/a
MT CARMEL CHURCH RD	S OF OLD LYSTRA RD	9,000	A	9,400	A	8800	A	8,700	A	9,300	A
MT CARMEL CHURCH RD	S OF MANGUM CT	8,000	A	8,400	A	7,900	A	7,900	A	8,400	A
MT. CARMEL CHURCH RD	E OF US 15-501	11000	B	11000	B	9900	A	9,600	A	10,000	A
NC 54	AT GLEN LENNOX SHOPPING CTR	44000	B	-	n/a	-	n/a	-	n/a	-	n/a
NC 54	E OF US 15-501	44,000	B	48,000	C	46,000	C	46,000	C	50,000	C
NC 54	E OF FINLEY GOLF COURSE RD	43,000	A	46,000	B	44,000	A	44,000	A	48,000	B
NC 54	N OF SR 1110	42,000	F	42,000	F	42,000	F	42,000	F	43,000	F
NC 54	W OF HAMILTON	-	n/a	-	n/a	-	n/a	41,228	B	41,388	B
NC 54	E OF EAST BARBEE CHAPEL	-	n/a	-	n/a	-	n/a	36,321	F	39,967	F
NC 54	E OF SMITH LEVEL RD	32,000	B	32,000	B	31,000	B	30,000	A	33,000	B
NC 54/FORDHAM BLVD	S OF RALEIGH ROAD	51,000	E	-	n/a	-	n/a	26,902	A	-	n/a
NC 54/RALEIGH RD	E OF BURNING TREE DR	43,000	A	-	n/a	-	n/a	41,654	A	-	n/a
NC 86	S OF MASON FARM RD	15,000	F	16,000	F	16,000	F	13,000	D	-	n/a
NC 86	N OF SR 1750 ESTES DR EXT	31,000	C	30,000	C	28,000	B	28,000	B	29,000	B
NC 86	S OF I-40	29000	B	29,000	B	28000	B	28000	B	29,000	B
NC 86	N OF SR 1865 NORTHWOOD DR	25000	A	27000	B	27000	B	26,000	B	27,000	B
NC 86	N OF SR 1777	27000	B	27,000	B	25,000	A	24,000	A	25,000	A
NC 86	S OF ESTES DR	22,000	A	21,000	A	21,000	A	21,000	A	20,584	A

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
NC 86	N OF SR 1010 FRANKLIN ST	16,000	A	16,000	A	18,000	B	18,000	B	18,201	B
NC 86	S OF SR 1010 FRANKLIN ST	16,000	A	17,000	B	-	n/a	15,000	A	14,000	A
NC 86	N OF MASON FARM RD	14,000	E	14,000	E	13,000	D	13,000	D	12,319	D
NC 86	N OF SR 1839	6,500	A	6,700	A	6,800	A	6,400	A	6,100	A
NC 86 (AIRPORT RD)	S OF STEPHEN ST	19,000	A	19,000	A	19,000	A	17,000	A	17,000	A
OLD DURHAM RD	E OF SCARLETT DR	6700	A	-	n/a	-	n/a	6808	A	-	n/a
OLD DURHAM RD	E OF SCARLETT DR	6700	A	7000	A	6800	A	6300	A	7,268	A
OLD MASON FARM RD	E OF HIGHLAND WOODS RD	2,500	A	2,300	A	2,300	A	2,800	A	4,000	A
PINEY MOUNTAIN RD	E OF MLK BLVD	3,900	A	-	n/a	-	n/a	3,728	A	-	n/a
PINEY MT RD	S OF I-40	7,300	A	9,100	A	8,400	A	7,600	A	7,904	A
PINEY MT RD	S OF SR 1791 BROWN RD	7200	A	9100	A	8300	A	7,600	A	7,400	A
PINEY MT RD	S OF SR 1737	420	A	430	A	450	A	500	A	670	A
PINEY MTN RD	E OF NC 86	3,900	A	3,800	A	3,500	A	3500	A	3,800	A
PITTSBORO ST	N OF MCCAULEY ST	9,700	A	9,700	A	10,000	A	-	n/a	8,900	A
PITTSBORO ST	N OF UNIVERSITY DR	9,700	A	9,800	A	9,900	A	9,100	A	8,700	A
PITTSBORO ST	S OF MCCAULEY	9,700	A	-	n/a	-	n/a	8,809	A	8,061	A
POPE RD	AT EPHEBUS CHURCH RD ROUNDAABOUT	4,000	A	-	n/a	-	n/a	3,252	A	-	n/a
PUREFOY RD	E OF COLUMBIA ST	1,100	A	-	n/a	-	n/a	2,071	A	1,745	A
RALEIGH RD	W OF US 15-501	20,000	A	-	n/a	-	n/a	23,317	A	-	n/a
RALEIGH RD	W OF US 15-501	20,000	A	21,000	A	20,000	A	21,000	A	21,000	A
RALEIGH ST	N OF SOUTH RD	7,000	A	-	n/a	-	n/a	4,246	A	-	n/a
RALEIGH ST	S OF FRANKLIN ST	13,100	E	-	n/a	-	n/a	9,909	C	10,514	C
RALEIGH ST	N OF SOUTH RD	7,000	A	6,200	A	5,300	A	5,700	A	5,700	A
RANSOM	S OF CAMERON AVE	-	n/a	-	n/a	-	n/a	3,767	n/a	-	n/a
RANSOM	S OF VANCE	-	n/a	-	n/a	-	n/a	1,297	n/a	-	n/a
RIDGE RD	N OF MANNING DR	7,300	A	-	n/a	-	n/a	8,112	A	7,819	A
SAGE RD	N OF FORDHAM BLVD	6800	A	-	n/a	-	n/a	12,116	A	-	n/a
SAGE ROAD	E OF SR 1734	6,800	A	7,300	A	7,900	A	7,400	A	8,753	A
SEDFIELD DR	W OF FOXWOOD DR	1,600	A	-	n/a	-	n/a	-	n/a	-	n/a
SEDFIELD DR	W OF FOXWOOD DR	1600	A	1700	A	1700	A	1,600	A	1,600	A

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
SOUTH RD	E OF RALEIGH ST	8,800	B	7,800	A	7,100	A	10,000	B	11,000	C
SOUTH RD	E OF COLUMBIA ST	8,500	A	-	n/a	-	n/a	8,366	A	8,593	B
SOUTH RD	E OF RALEIGH ST	8,800	B	-	n/a	-	n/a	7,728	A	7,944	A
SR 1730	E OF NC 86	3,800	A	4,100	A	4,000	A	4,000	A	3,800	A
SR 1731	W OF SR 1734	4,400	A	4,800	A	5,200	A	4,700	A	4,200	A
SR 1771 (MERRITT MILL RD)	S OF ROSEMARY ST	1,700	A	1,800	A	1,500	A	1,900	A	2,046	A
SR 1915	S OF SR 1008	1,800	A	1,700	A	1,700	A	1,600	A	1,700	A
SR 1927 (MERRITT MILL RD)	N OF CAMERON AVE	6,000	A	6,500	A	5,600	A	6,400	A	6,800	A
SR 1962	W OF US 15-501	540	A	630	A	960	A	940	A	1,300	A
SR 1994	W OF US 15-501	5,600	A	5,300	A	5,100	A	5,000	A	5,800	A
SR 2048 (SOUTH RD)	W OF STADIUM DR	8500	A	8100	A	7000	A	7,400	A	8,400	A
UMSTEAD DR	W OF GREEN ST	2,000	A	-	n/a	-	n/a	-	n/a	-	n/a
UMSTEAD DR	E OF SR 1780	1,900	A	2,000	A	2,100	A	-	n/a	2,030	A
UMSTEAD DR	W OF NC 86 AIRPORT RD	2000	A	2,100	A	2,000	A	-	n/a	1,905	A
US 15-501	W OF I-40	38,000	F	37,000	F	38,000	F	37,000	F	44,359	F
US 15-501	S OF SR 1994 CULBRETH RD	18,000	A	21,000	B	22,000	B	-	n/a	25,000	C
US 15-501	S OF WINTER RD	40,000	C	43,000	D	41,000	D	-	n/a	43,000	D
US 15-501	N OF MT. CARMEL CHURCH RD	30,000	E	33,000	E	32,000	E	32,000	E	34,000	F
US 15-501	S OF NC 54	51,000	E	53,000	F	51,000	E	-	n/a	53,000	F
US 15-501	S OF SR 1750	39,000	C	40,000	C	38,000	C	-	n/a	38,235	C
US 15-501	N OF SR 1750 ESTES DR EXT	31,000	B	29,000	A	30,000	A	28,000	A	33,064	B
US 15-501	S OF SR 1838 DURHAM ST	42000	F	-	n/a	41000	F	41,000	F	43,874	F
US 15-501	S OF CULBRETH RD	18,000	A	-	n/a	-	n/a	19,161	A	-	n/a
US 15-501	S OF I-40	-	n/a	-	n/a	-	n/a	44,042	F	-	n/a
US 15-501	N OF I-40	-	n/a	-	n/a	-	n/a	46,262	D	-	n/a
US 15-501	S OF CULBRETH RD	18,000	A	-	n/a	-	n/a	16,769	A	19,993	B
US 15-501	N OF CULBRETH	30,000	E	-	n/a	-	n/a	28386	D	31,867	E
US 15-501	W OF SAGE RD	42,000	F	-	n/a	-	n/a	-	n/a	-	n/a
US 15-501	W OF ERWIN RD	30,700	C	-	n/a	-	n/a	-	n/a	-	n/a
US-15-501	W OF ERWIN RD	30700	A	-	n/a	-	n/a	52,624	A	-	n/a
US-15-501/DURHAM-CHAPEL HILL BLVD	AT EASTOWNE DR	30,900	D	-	n/a	-	n/a	41,820	F	-	n/a
W ROSEMARY ST	E OF GRAHAM ST	9100	C	8,800	B	8,800	B	8,700	B	10,369	D

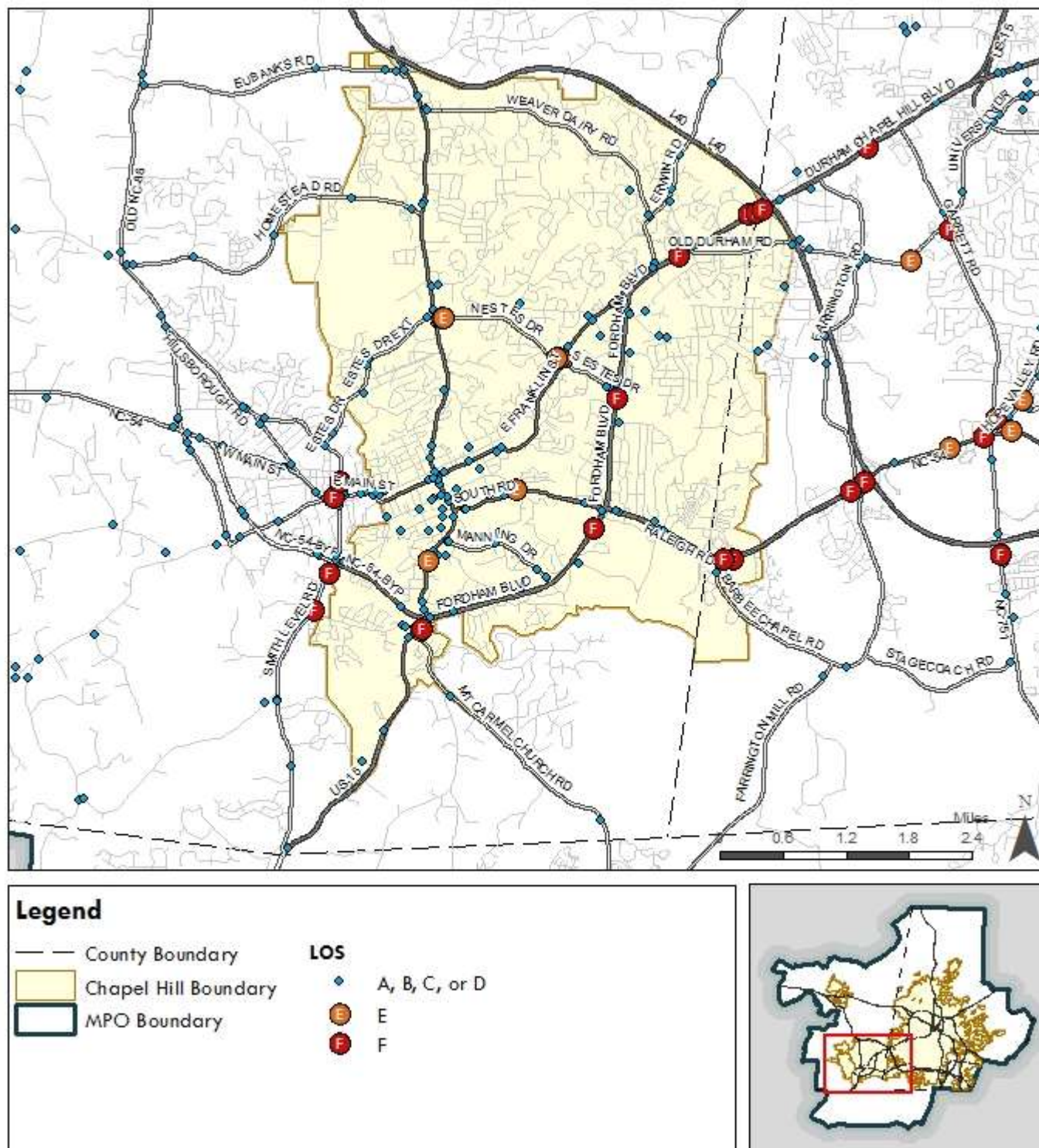
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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
W ROSEMARY ST	W OF MERRITT MILL	8,900	B	9,000	C	9,400	C	8,500	B	8,934	B
WEAVER DAIRY RD	AT ERWIN RD	12,000	C	-	n/a	-	n/a	7,601	A	-	n/a
WEAVER DAIRY RD	E OF MLK BLVD	12,000	C	-	n/a	-	n/a	11,666	B	-	n/a
WEAVER DAIRY RD	E OF NC 86	12,000	C	12,000	C	12,000	C	-	n/a	13,000	C
WEAVER DAIRY RD	N OF ERWIN RD	12,000	C	12,000	C	11,000	B	11,000	B	10,000	A
WILLOW DR	W OF FORDHAM BLVD	12,000	C	-	n/a	-	n/a	-	n/a	-	n/a
WILLOW DR	E OF WALNUT ST	2,500	A	2,500	A	2,500	A	2,300	A	2,400	A

Figure 1-8. 2013 LOS E or F Roadways - Chapel Hill



Carrboro

Carrboro includes all counts from Eubanks Rd. south to the Orange/Chatham County line and from the Chapel Hill line west. This area included volume data from 110 ADT count locations; 70 DCHC MPO count locations and 40 NCDOT count.

Road facilities in the area appeared to be handling traffic volume well, with 76 (69%) LOS A grades and 88 (80%) roadways with LOS C or better. Nearly 88% of LOS grades for count locations in Carrboro did not alter from 2005 to 2013 and forty percent of count locations experience no change or decreased daily traffic volumes.

KEY DATA RESULTS

ADT traffic volume: 110 count locations

- 76 (69%) - LOS A
- 88 (80%) – LOS C or better

Changes in LOS grades: 13 locations (12%)

- 6 improved to an A or B
- 7 declined (5 dropped to a D or worse)
- 3 locations received an LOS F

Locations with heaviest traffic volume:

- Fordham Blvd, NC-54, Main St and Smith Level Rd

Changes in Daily Traffic Volume (2005 to 2013): 91 counts

- 36 (40%) saw no change or decreased volume
- 33 (36%) saw changes in volume of over 10%
 - 5 of these locations were below LOS C
 - Only lowered the LOS grade for 6 locations
 - Highest increases recorded on Old Fayetteville Rd, Main St and Smith Level Rd

Table 1-7. Daily Traffic Volumes (2003-2013) – Carrboro

Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
ARTHUR MINNIS RD	W OF OLD NC 86	2,400	A	2,300	A	2,500	A	2,500	A	2,300	A
CHAPEL HILL RD	S OF SR 1777 HOMESTEAD RD	3,200	A	3,800	A	3,300	A	3,600	A	4,000	A
CHAPEL HILL RD	W OF SR 1843	3,200	A	3,500	A	2,800	A	2,800	A	3,500	A
CULBRETH RD	W OF US 15-501	5,600	A	-	n/a	-	n/a	5,532	A	5,532*	A
CULBRETH RD	BTWN ROSSBURN WAY AND COBBLE RIDGE DR	5,300	A	-	n/a	-	n/a	-	n/a	-	n/a
DAIRYLAND RD	W OF OLD NC 86	5,600	A	5,900	A	5,500	A	5,500	A	6,700	A
DAIRYLAND RD	E OF YORKSHIRE LN	4,400	A	4,500	A	4,300	A	4,300	A	4,900	A
DAIRYLAND RD	N OF ROLLINGWOOD RD	1,900	A	1,900	A	1,800	A	1,600	A	2,200	A
ESTES DR	BTWN GREENSBORO ST AND HILLCREST AVE	14,000	D	-	n/a	-	n/a	-	n/a	-	n/a
ESTES DR	N OF GREENSBORO ST	14,000	D	14,000	D	13,000	C	13,000	C	14,000	D
EUBANKS RD	W OF MILLHOUSE RD	4,500	A	5,100	A	5,400	A	5,900	A	6,400	A
EUBANKS RD	E OF OLD NC 86	3,000	A	3,200	A	3,600	A	3,800	A	4,300	A
FORDHAM BLVD	E OF 15-501	40,000	F	-	n/a	-	n/a	20,552	A	20,552*	A
GREENSBORO ST	BTWN RAND ST AND NC-54	12,000	C	-	n/a	-	n/a	12,755	C	12,755*	C
GREENSBORO ST	S OF CARR ST	13,000	C	-	n/a	-	n/a	11,701	B	11,701*	B
GREENSBORO ST	BTWN MAIN ST AND WEAVER ST	11,000	C	-	n/a	-	n/a	10,505	C	10,505*	C
GREENSBORO ST	BTWN ESTES DR AND OAK ST	12,000	C	-	n/a	-	n/a	14,977	D	14,977*	D
GREENSBORO ST	BTWN SHORT ST AND POPLAR AVE	14,000	F	-	n/a	-	n/a	-	n/a	-	n/a
GREENSBORO ST	BTWN HILLSBOROUGH RD AND ROBERT HUNT DR	6,400	A	-	n/a	-	n/a	-	n/a	-	n/a
GREENSBORO ST	S OF RAND RD	12,000	C	13,000	C	12,000	C	12,000	C	13,954	D
GREENSBORO ST	E OF MORNINGSIDE DR	6,400	A	6,900	A	6,600	A	6,500	A	9,758	A
HILLSBOROUGH RD	N OF BLUERIDGE RD	6,100	A	-	n/a	-	n/a	6,357	A	6,357*	A
HILLSBOROUGH RD	BTWN BEL ARBOR LN AND DILLARD ST	1,700	A	-	n/a	-	n/a	-	n/a	-	n/a
HILLSBOROUGH RD	AT CARRBORO ELEMENTARY SCHOOL	2,600	A	-	n/a	-	n/a	-	n/a	-	n/a
HILLSBOROUGH RD	W OF BLUERIDGE RD	-	n/a	-	n/a	6,200	A	6,500	A	6,000	A
HILLSBOROUGH RD	N OF SR 1010 W MAIN ST	2,600	A	2,800	A	2,700	A	2,700	A	2,700	A
HILLSBOROUGH RD	S OF GREENSBORO ST	1,700	A	1,800	A	1,800	A	1,500	A	1,700	A
HOMESTEAD RD	BTWN STRATFORD RD AND LAKE HOGAN FARM RD	6,000	A	-	n/a	-	n/a	6,354	A	6,354*	A
HOMESTEAD RD	BTWN OLD NC-86 AND HARDEE LANE	5,100	A	-	n/a	-	n/a	5,334	A	5,334*	A
HOMESTEAD RD	S OF HIGH SCHOOL RD	6,700	A	7,300	A	6,700	A	7,100	A	8,800	A

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
HOMESTEAD RD	E OF OLD NC 86	5,100	A	5,500	A	5,200	A	5,300	A	6,000	A
I-40	EXIT 263 TO EXIT 266	55,000	B	65,000	C	67,000	C	66,000	C	69,000	D
JONES FERRY RD	E OF OLD FAYETTEVILLE RD	12,000	C	-	n/a	-	n/a	11,809	C	11,809*	C
JONES FERRY RD	E OF DAVIE RD	9,300	B	-	n/a	-	n/a	8,947	B	8,947*	B
JONES FERRY RD	W OF NC 54	12,000	C	11,000	C	11,000	C	11,000	C	11,000	C
JONES FERRY RD	W OF OLD FAYETTEVILLE RD	10,000	A	9,700	A	9,500	A	9,000	A	9,900	A
JONES FERRY RD	E OF DAVIE RD	9,300	B	9,400	B	9,000	B	8,600	B	8,600	B
MAIN ST	E OF BLACKWOOD DR	4,800	A	-	n/a	-	n/a	4,170	A	4,170*	A
MAIN ST	S OF WEAVER ST	4,900	A	-	n/a	-	n/a	7,813	A	7,813*	A
MAIN ST	BTWN JONES FERRY RD AND GREENSBORO ST	11,000	C	-	n/a	-	n/a	15,032	F	15,032*	F
MAIN ST	BTWN LLOYD ST AND ROSEMARY ST	19,000	B	-	n/a	-	n/a	18,584	B	18,584*	B
MAIN ST	BTWN JAMES ST AND SIMPSON ST	6,900	A	-	n/a	-	n/a	-	n/a	-	n/a
MAIN ST	E OF JONES FERRY RD	11,000	C	10,000	B	10,000	B	14,000	E	10,700	C
MAIN ST	BTWN ROSEMARY ST AND MERRITT MILL RD	9,700	A	-	n/a	-	n/a	16,377	C	10,466	A
MAIN ST	BTWN WEAVER ST AND GREENSBORO ST	7,800	A	-	n/a	-	n/a	10,835	C	8,565	B
MAIN ST	W OF SIMPSON ST	6,900	A	6,600	A	6,400	A	5,900	A	6,541	A
MAIN ST	S OF WEAVER ST	4,900	A	4,800	A	4,500	A	-	n/a	4,500	A
MAIN ST	W OF HILLSBOROUGH RD	4,800	A	4,600	A	4,400	A	3,800	A	4,337	A
MCCAULEY	W OF BROOKSIDE	-	n/a	-	n/a	-	n/a	231	n/a	231*	n/a
MERRITT MILL RD	E OF GREENSBORO ST	11,000	D	-	n/a	-	n/a	6,274	A	6,274*	A
NC 54	E OF OLD FAYETTEVILLE RD	16,000	A	-	n/a	-	n/a	16,825	A	16,825*	A
NC 54	BTWN JONES FERRY RD AND OLEANDER RD	19,000	A	-	n/a	-	n/a	19,711	A	19,711*	A
NC 54	BTWN SMITH LEVEL RD AND ABBEY LANE	31,000	B	-	n/a	-	n/a	29,711	A	29,711*	A
NC 54	AT KINGWOOD APTS	32,000	B	-	n/a	-	n/a	-	n/a	-	n/a
NC 54	W OF SMITH LEVEL RD	31,000	B	32,000	B	30,000	A	30,000	A	32,000	B
NC 54	N OF JONES FERRY RD	19,000	A	21,000	A	20,000	A	24,000	A	21,000	A
NC 54	E OF SR 1107	16,000	A	18,000	A	18,000	A	17,000	A	18,000	A
NC 54	W OF SR 1107	14,000	A	15,000	A	14,000	A	15,000	A	15,000	A
NC 54	E OF SR 1207	12,000	A	12,000	A	11,000	A	12,000	A	13,000	A
NC 54	W OF SR 1945	11,000	A	12,000	A	13,000	A	12,000	A	13,000	A
OLD FAYETTEVILLE RD	N OF NC-54	7,600	A	-	n/a	-	n/a	9,421	A	9,421*	A
OLD FAYETTEVILLE RD	S OF NC-54	3,600	A	-	n/a	-	n/a	5,883	A	5,883*	A

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
OLD FAYETTEVILLE RD	BTWN JONES FERRY RD AND CRABTREE DR	3,800	A	-	n/a	-	n/a	-	n/a	-	n/a
OLD FAYETTEVILLE RD	N OF NC 54	7,600	A	8,400	A	8,200	A	8,700	A	9,300	A
OLD FAYETTEVILLE RD	S OF NC 54	3,600	A	3,700	A	3,800	A	3,600	A	4,100	A
OLD FAYETTEVILLE RD	N OF JONES FERRY RD	3,800	A	3,900	A	3,900	A	3,900	A	3,761	A
OLD GREENSBORO RD	W OF SR 1946 BOWDEN RD	4,000	A	4,000	A	4,100	A	3,700	A	3,700*	A
OLD GREENSBORO RD	N OF JONES FERRY RD	4,800	A	4,800	A	5,100	A	4,600	A	5,000	A
OLD NC-86	BTWN STONEY HILL RD AND HOMESTEAD RD	6,100	A	-	n/a	-	n/a	7,466	A	7,466*	A
OLD NC-86	BTWN FARM HOUSE DR AND HILLSBOROUGH RD	10,000	A	-	n/a	-	n/a	10,895	A	10,895*	A
OLD NC-86	N OF OLD FAYETTEVILLE RD	10,000	A	11,000	A	11,000	A	11,000	A	11,000	A
OLD NC-87	N OF SR 1104 DAIRYLAND RD	6,100	A	6,700	A	6,900	A	7,300	A	8,400	A
OLD NC-87	N OF EUBANKS RD	4,300	A	4,500	A	4,600	A	4,800	A	5,400	A
ROCKY RIDGE RD	S OF ARTHUR MINNIS RD	1,000	A	1,000	A	1,500	A	1,100	A	1,100	A
ROGERS RD	BTWN CLAYMORE RD AND TALLYHO TR	2,100	A	-	n/a	-	n/a	-	n/a	-	n/a
ROSEMARY ST	BTWN MAIN ST AND MERRITT MILL RD	8,900	B	-	n/a	-	n/a	-	n/a	-	n/a
SEAWELL SCHOOL RD	N OF ESTES DR	-	n/a	-	n/a	-	n/a	3,871	A	3,871*	A
SEAWELL SCHOOL RD	AT RAILROAD	4,500	A	-	n/a	-	n/a	-	n/a	-	n/a
SMITH LEVEL RD	S OF DAMASCUS CHURCH RD	7,400	A	-	n/a	-	n/a	14,941	A	14,941*	A
SMITH LEVEL RD	N OF CULBRETH RD	11,600	B	-	n/a	-	n/a	17,599	F	17,599*	F
SMITH LEVEL RD	BTWN WILLOW OAK LN AND PUBLIC WORKS DR	17,000	E	-	n/a	-	n/a	-	n/a	-	n/a
SMITH LEVEL RD	S OF NC 54	17,000	E	17,000	E	17,000	E	16,000	E	19,669	F
SMITH LEVEL RD	S OF SR 1939	7,400	A	7,700	A	7,700	A	7,800	A	6,900	A
SMITH LEVEL RD	S OF SR 1920 WOODWARD	6,700	A	6,900	A	7,000	A	7,100	A	6,800	A
SR 1177	E OF SR 1102	-	n/a	-	n/a	-	n/a	-	n/a	2,000	A
SR 1179	N OF SR 1111	590	A	540	A	550	A	520	A	610	A
SR 1179	S OF SR 1113	680	A	570	A	740	A	630	A	580	A
SR 1213	E OF SR 1102	200	A	220	A	210	A	220	A	230	A
SR 1729 (ROGERS RD)	S OF SR 2213 TALLYHO TR	2,100	A	2,300	A	2,400	A	2,600	A	3,000	A
SR 1843 (SEAWELL SCHOOL RD)	W OF SR 1780 ESTES DR EXT	4,500	A	4,300	A	3,700	A	3,700	A	4,136	A
SR 1939	W OF SMITH LEVEL RD	-	n/a	1,700	A	1,800	A	1,500	A	1,600	A

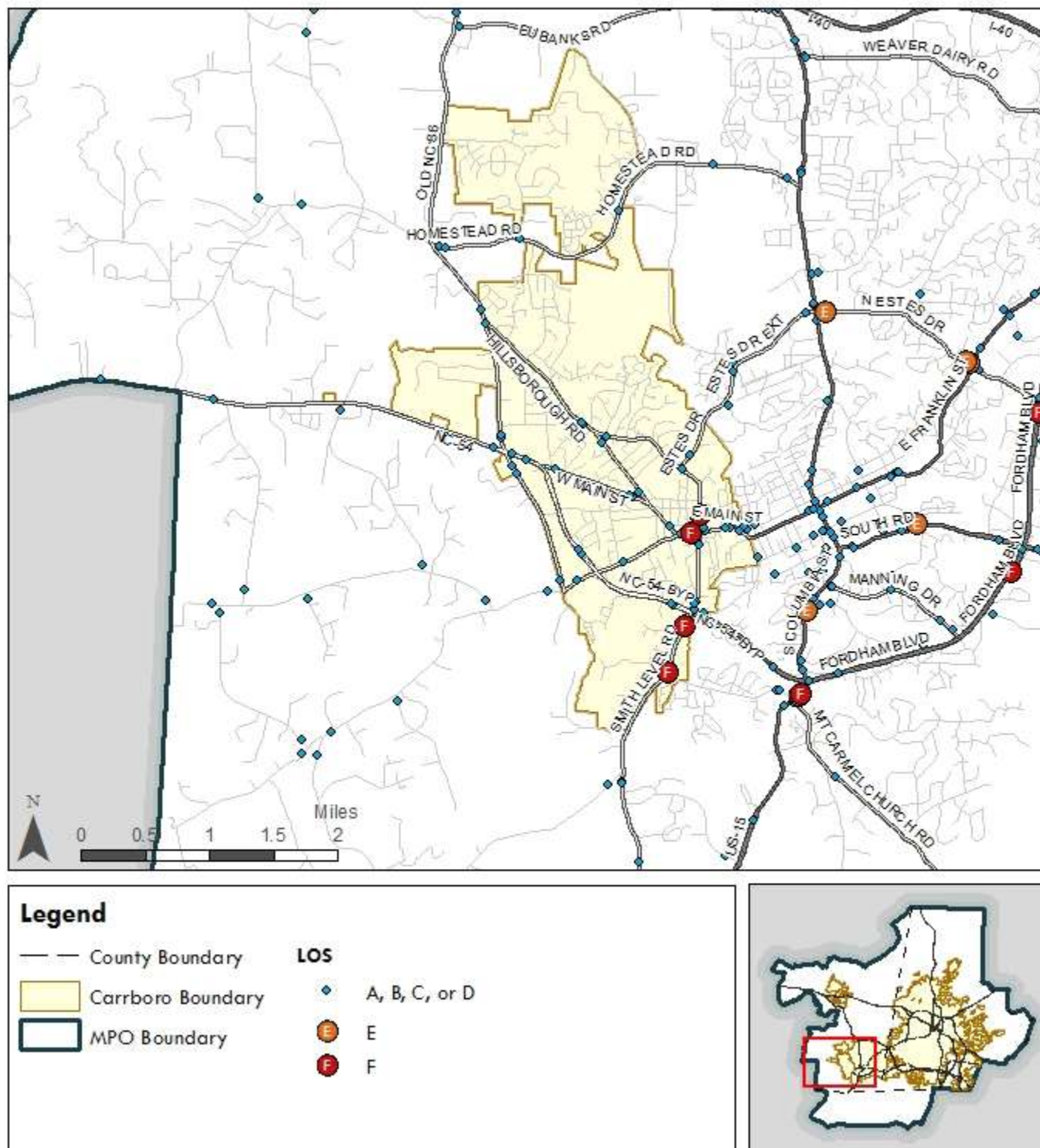
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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
SR 1939	S OF SR 1940	1,800	A	1,400	A	1,400	A	1,300	A	1,300	A
SR 1939	E OF SR 1940	1,300	A	1,100	A	1,100	A	1,100	A	1,100	A
SR 1940	S OF SR 1942	1,500	A	1,600	A	1,500	A	1,400	A	1,700	A
SR 1941	S OF SR 1942	400	A	260	A	340	A	280	A	330	A
SR 1942	E OF SR 1940	5,100	A	4,700	A	4,200	A	4,100	A	4,800	A
SR 1942	W OF SR 1946	3,800	A	3,500	A	3,100	A	3,100	A	3,400	A
SR 1943	S OF JONES FERRY RD	330	A	290	A	380	A	270	A	320	A
SR 1944	S OF NC 54	910	A	950	A	1,100	A	-	n/a	1,000	A
SR 1944	N OF JONES FERRY RD	750	A	740	A	790	A	720	A	780	A
SR 1945	N OF JONES FERRY RD	660	A	700	A	650	A	630	A	680	A
SR 1946	W OF SR 1942	700	A	760	A	700	A	660	A	880	A
SR 1946	S OF SR 1005	490	A	500	A	370	A	440	A	450	A
SR 1994	E OF SMITH LEVEL RD	5,300	A	4,900	A	5,000	A	5,300	A	5,200	A
UNION GROVE CHURCH RD	S OF ALBERT RD	640	A	630	A	650	A	650	A	770	A
US 15-501	N OF SMITH LEVEL RD	13,000	A	17,000	A	16,000	A	17,000	A	19,000	A
WEAVER ST	BTWN MAIN ST AND GREENSBORO ST	10,000	C	-	n/a	-	n/a	6,617	A	6,617*	A
WEAVER ST	BTWN OAK AVE AND GREENSBORO ST	7,800	B	-	n/a	-	n/a	-	n/a	-	n/a
WEAVER ST	N OF SR 1010 E MAIN ST	10,000	C	11,000	C	9,300	B	-	n/a	9,200	B
WEAVER ST	W OF SR 1772	7,800	A	7,500	A	6,900	A	-	n/a	6,678	A

Figure 1-9. 2013 LOS E or F Roadways - Carrboro



Hillsborough

The Hillsborough area included all counts north of Eubanks Road between the Durham County line and the MPO boundary. This area included volume data from 141 count locations (40 DCHC MPO count locations and 101 NCDOT).

Road facilities in the area appeared to be handling traffic volume well, with 115 (82%) LOS A grades and 122 (87%) LOS C or better. LOS grades altered from 2005 to 2013 at only four locations. Half of count locations had no change or decreased daily traffic volume since 2005 and most of those count locations with increasing daily volumes since 2005 still had A grades.

KEY DATA RESULTS

ADT traffic volume: 141 count locations

- 115 (82%) - LOS A
- 122 (87%) – LOS C or better

Changes in LOS grades: 4 locations (3%)

- 1 improved (to a LOS A)
- 3 worsened

Locations with heaviest traffic volume:

- I-40, I-85, NC-86, Churton St, US 70

Changes in Daily Traffic Volume (2005 to 2013): 119 locations

- 62 (52%) saw no change or decreased volume
- 30 (25%) saw changes in volume of over 10%
 - 1 of these locations were below LOS C
 - Only lowered the LOS grade for 11 locations
 - 3 highest increases were from secondary facilities experiencing low daily traffic volumes
 - Locations with increasing traffic volume had an average volume of just over 11,000 vehicles and most received a LOS A grade

Table 1-8. Daily Traffic Volumes (2003-2013) - Hillsborough and Orange County

Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
BUCKHORN RD	N OF I-40	6,700	A	6,700	A	7,700	A	45	A	11,000	A
BUCKHORN RD	S OF I-40	2,800	A	2,300	A	2,300	A	2,700	A	2,500	A
CHURTON ST	BTWN I-85 AND ORANGE GROVE RD	-	n/a	-	n/a	-	n/a	19,683	F	-	n/a
CHURTON ST	BTWN US-70 BYP AND CORBIN ST	-	n/a	-	n/a	-	n/a	15,722	F	-	n/a
CHURTON ST	BTWN TRYON ST AND KING ST	-	n/a	-	n/a	-	n/a	15,216	D	-	n/a
CHURTON ST	N OF CORBIN ST	-	n/a	-	n/a	-	n/a	11,477	C	-	n/a
CHURTON ST	S OF DANIEL BOONE VILLAGE RD	-	n/a	-	n/a	-	n/a	-	n/a	20,322	F
CHURTON ST	S OF US 70 BUS/NC 86	16,000	F	18,000	F	17,000	F	17,000	F	16,914	F
CHURTON ST	N OF ORANGE ST	-	n/a	-	n/a	-	n/a	15,322	F	12,297	D
CORNWALLIS RD	W OF SR 1717	1,600	A	1,500	A	1,300	A	-	n/a	-	n/a
CORNWALLIS RD	S OF US 70	2,600	A	2,600	A	2,400	A	2,300	A	2,400	A
EFLAND-CEDAR GROVE RD	N OF US 70	5,400	A	5,100	A	4,900	A	45	A	5,500	A
EFLAND-CEDAR GROVE RD	N OF SR 1306	3,300	A	3,200	A	3,000	A	3,100	A	3,200	A
I-40	EXIT 261 TO EXIT 263	52,000	B	62,000	C	64,000	C	63,000	C	66,000	D
I-40	EXIT 260 (I-85) TO EXIT 261	46,000	A	54,000	B	58,000	C	56,000	B	59,000	C
I-40/85	EXIT 157 TO EXIT 160	84,000	A	87,000	A	89,000	A	86,000	A	90,000	A
I-40/85	EXIT 161 TO EXIT 163	87,000	A	90,000	A	92,000	A	88,000	A	92,000	A
I-85	EXIT 165 TO EXIT 170	43,000	A	43,000	A	40,000	A	36,000	A	42,000	A
I-85	EXIT 164 TO EXIT 165	45,000	A	46,000	A	43,000	A	37,000	A	43,000	A
I-85	EXIT 163 TO EXIT 164	39,000	A	40,000	A	38,000	A	33,000	A	37,000	A
I-85	EXIT 160 TO EXIT 161	89,000	A	92,000	A	94,000	A	91,000	A	96,000	A
I-85	EXIT 170 TO EXIT 172	51,000	A	52,000	A	49,000	A	45,000	A	52,000	A
I-85/US 70 CONNECTOR	N OF I-40	3,500	A	3,700	A	3,500	A	3,600	A	4,291	A
KERLEY RD	N OF MT SINAI RD	3,000	A	2,500	A	2,400	A	2,300	A	2,400	A
KING ST	E OF US 70 BUS/NC 86	3,700	A	3,900	A	3,500	A	3,500	A	3,741	A
MT SINAI RD	W OF SR 1803	2,000	A	1,900	A	2,000	A	2,500	A	2,565	A
MT SINAI RD	W OF HATHAWAY LN	2,400	A	2,700	A	2,900	A	2,700	A	2,400	A
MT SINAI RD	E OF TWIN MOUNTAIN RD	1,600	A	1,700	A	1,700	A	1,700	A	1,900	A
MT WILLING RD	N OF SR 1317	6,800	A	6,700	A	6,100	A	6,600	A	6,900	A
MT WILLING RD	S OF SR 1146	1,800	A	1,900	A	2,100	A	45	A	2,100	A
MT WILLING RD	E OF SR 1114	920	A	900	A	840	A	930	A	860	A
MT WILLING RD	W OF SR 1114	450	A	630	A	720	A	55	A	690	A
MT WILLING RD	E OF SR 1117	600	A	590	A	720	A	55	A	640	A
NC 57	N OF NC 86	4,500	A	5,200	A	5,400	A	4,800	A	5,100	A
NC 57	S OF SR 1551	4,000	A	4,300	A	4,900	A	6,600	A	4,000	A

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
NC 751	S OF US 70	5,700	A	-	n/a	5,200	A	4,800	A	4,400	A
NC 86	BTWN I-85 AND US-70 BUS	-	n/a	-	n/a	-	n/a	11,499	A	-	n/a
NC 86	BTWN I-85 AND HAMPTON POINTE SHOPPING CTR	-	n/a	-	n/a	-	n/a	14,787	A	-	n/a
NC 86	N OF US 70 BUS	12,000	C	13,000	D	13,000	D	13,000	D	11,262	C
NC 86	S OF US 70 BUS	9,700	A	11,000	A	11,000	A	10,000	A	10,073	A
NC 86	N OF NC 57	10,000	B	10,000	B	11,000	C	10,000	B	9,400	B
NC 86	S OF SR 1710	-	n/a	11,000	A	10,000	A	10,000	A	8,900	A
NC 86	N OF NEW HOPE CHURCH RD	-	n/a	8,200	A	8,400	A	8,100	A	8,000	A
OLD CHAPEL HILL- HILLSBOROUGH RD	N OF CARDINAL DR	-	n/a	15,000	F	15,000	F	17,000	F	15,000	F
OLD CHAPEL HILL- HILLSBOROUGH RD	S OF WATERSTONE DR	11,000	B	12,000	B	12,000	B	13,000	C	12,000	B
OLD CHAPEL HILL- HILLSBOROUGH RD	S OF I-40	4,400	A	4,500	A	4,700	A	45	A	5,446	A
OLD NC-88	N OF NEW HOPE CHURCH RD	3,600	A	3,500	A	3,500	A	4,700	A	3,700	A
ORANGE GROVE RD	E OF TIMBER DR	3,900	A	4,600	A	4,400	A	3,200	A	4,100	A
ORANGE GROVE RD	N OF OLD TURNER RD	3,800	A	3,100	A	3,100	A	45	A	3,586	A
ORANGE GROVE RD	W OF CHURTON ST	3,200	A	3,100	A	3,200	A	35	A	3,511	A
PLEASANT GREEN DR	S OF ST MARY'S RD	3,000	A	2,500	A	2,600	A	2,200	A	2,200	A
PLEASANT GREEN DR	N OF ST MARY'S RD	2,400	A	2,200	A	2,400	A	2,100	A	2,000	A
SR 1117	W OF SR 1120	850	A	1,100	A	1,100	A	1,100	A	1,000	A
SR 1129	W OF SR 1009	1,600	A	1,700	A	1,600	A	45	A	1,800	A
SR 1129	S OF SR 1130	1,000	A	970	A	-	n/a	1,000	A	850	A
SR 1133	W OF SR 1009	4,500	A	3,200	A	3,600	A	45	A	4,800	A
SR 1133	S OF SR 1006	-	n/a	3,600	A	3,600	A	3,800	A	2,800	A
SR 1134	W OF SR 1144	1,200	A	1,100	A	1,100	A	1,200	A	960	A
SR 1134	N OF SR 1006	600	A	410	A	410	A	45	A	680	A
SR 1137	S OF SR 1146	230	A	270	A	220	A	45	A	350	A
SR 1144	W OF SR 1161	1,600	A	1,600	A	1,700	A	35	A	1,755	A
SR 1146	E OF SR 1114	880	A	930	A	1,100	A	55	A	1,700	A
SR 1146	W OF SR 1120	870	A	1,000	A	900	A	-	n/a	1,500	A
SR 1148	N OF SR 1006	3,500	A	3,500	A	3,600	A	3,300	A	3,400	A
SR 1150	W OF US 70 BUS/NC 86	3,600	A	3,400	A	3,200	A	20	A	3,143	A
SR 1150	E OF SR 1161	1,700	A	1,900	A	1,800	A	1,700	A	1,600	A
SR 1156	S OF US 70 BUS	2,100	A	1,900	A	2,300	A	35	A	2,217	A
SR 1156	N OF SR 1150	-	n/a	2,600	A	2,000	A	1,900	A	2,000	A
SR 1161	E OF US 70	1,600	A	1,500	A	1,500	A	1,500	A	1,500	A
SR 1161	S OF SR 1150	1,500	A	1,500	A	1,500	A	1,500	A	1,496	A
SR 1162	W OF SR 1161	510	A	620	A	630	A	700	A	587	A

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Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
SR 1221	W OF SR 1006	-	n/a	1,400	A	2,100	A	45	A	3,800	A
SR 1306	W OF SR 1004	2,800	A	2,600	A	2,600	A	55	A	2,800	A
SR 1306	W OF SR 1310	2,100	A	2,100	A	2,000	A	1,800	A	1,700	A
SR 1312	N OF US 70	990	A	850	A	930	A	1,200	A	970	A
SR 1316	N OF SR 1317	300	A	300	A	230	A	260	A	270	A
SR 1317	W OF SR 1120	450	A	400	A	390	A	25	A	450	A
SR 1324	N OF US 70	1,200	A	1,100	A	1,200	A	45	A	1,400	A
SR 1328	N OF US 70 BYP	2,300	A	2,500	A	2,100	A	1,900	A	2,165	A
SR 1332	W OF NC 86	890	A	860	A	850	A	55	A	860	A
SR 1332	W OF SR 1334	710	A	680	A	690	A	55	A	820	A
SR 1339	W OF SR 1004	720	A	750	A	790	A	710	A	630	A
SR 1395	N OF SR 1328	1,200	A	1,400	A	990	A	900	A	1,028	A
SR 1399	S OF US 70	320	A	-	n/a	210	A	45	A	140	A
SR 1538	N OF SR 1002	2,200	A	2,100	A	2,300	A	2,200	A	2,200	A
SR 1554	S OF SR 1553	960	A	1,100	A	1,000	A	990	A	1,000	A
SR 1555	N OF US 70 BYP	2,100	A	2,100	A	2,300	A	2,100	A	1,800	A
SR 1555	N OF SR 1588	1,500	A	1,100	A	990	A	55	A	1,300	A
SR 1560	S OF SR 1002	780	A	590	A	540	A	45	A	700	A
SR 1562	E OF SR 1561	620	A	570	A	750	A	45	A	800	A
SR 1562	N OF US 70 BYP	850	A	780	A	760	A	760	A	780	A
SR 1567	N OF SR 1582	3,900	A	3,800	A	3,800	A	3,500	A	3,500	A
SR 1569	E OF SR 1571	2,600	A	2,400	A	2,200	A	-	n/a	2,301	A
SR 1573	N OF SR 1002	680	A	620	A	650	A	680	A	640	A
SR 1573	E OF SR 1538	600	A	420	A	560	A	650	A	550	A
SR 1588	N OF US 70 BYP	-	n/a	3,500	A	3,300	A	3,300	A	-	n/a
SR 1588	W OF SR 1555	590	A	-	n/a	1,100	A	1,100	A	910	A
SR 1628	N OF US 70 BYP	450	A	-	n/a	450	A	450	A	390	A
SR 1709	S OF US 70 BYP	3,600	A	3,900	A	3,800	A	45	A	5,000	A
SR 1709	N OF SR 1710	2,700	A	3,100	A	3,200	A	45	A	4,200	A
SR 1709	S OF US 70 BUS	2,900	A	3,300	A	3,400	A	3,400	A	3,700	A
SR 1710	E OF NC 86	3,600	A	4,100	A	4,300	A	45	A	5,300	A
SR 1710	E OF SR 1723	2,200	A	2,300	A	2,500	A	2,400	A	2,200	A
SR 1710	W OF SR 1713	2,200	A	2,200	A	2,300	A	2,400	A	2,100	A
SR 1711	S OF US 70 BUS	510	A	550	A	560	A	420	A	460	A
SR 1712	S OF SR 1721	1,000	A	1,000	A	1,000	A	960	A	-	n/a
SR 1715	E OF SR 1844	2,100	A	2,000	A	2,400	A	2,200	A	2,114	A
SR 1719	S OF SR 1716	550	A	630	A	650	A	750	A	730	A
SR 1723	E OF NC 86	1,700	A	2,800	A	2,900	A	1,900	A	1,800	A
SR 1724	E OF SR 1009	260	A	-	n/a	380	A	35	A	360	A
SR 1820	W OF SR 1709	380	A	360	A	500	A	-	n/a	390	A
SR 1821	W OF SR 1709	420	A	380	A	310	A	320	A	320	A
SR 1882	E OF NC 86	860	A	960	A	920	A	800	A	900	A
SR 2206	W OF NC 86	830	A	740	A	710	A	45	A	830	A
ST MARY'S RD	E OF US 70	4,500	A	4,200	A	4,000	A	45	A	4,400	A
ST MARY'S RD	E OF NEW SHARON CHURCH RD	3,300	A	3,200	A	3,000	A	3,400	A	3,400	A

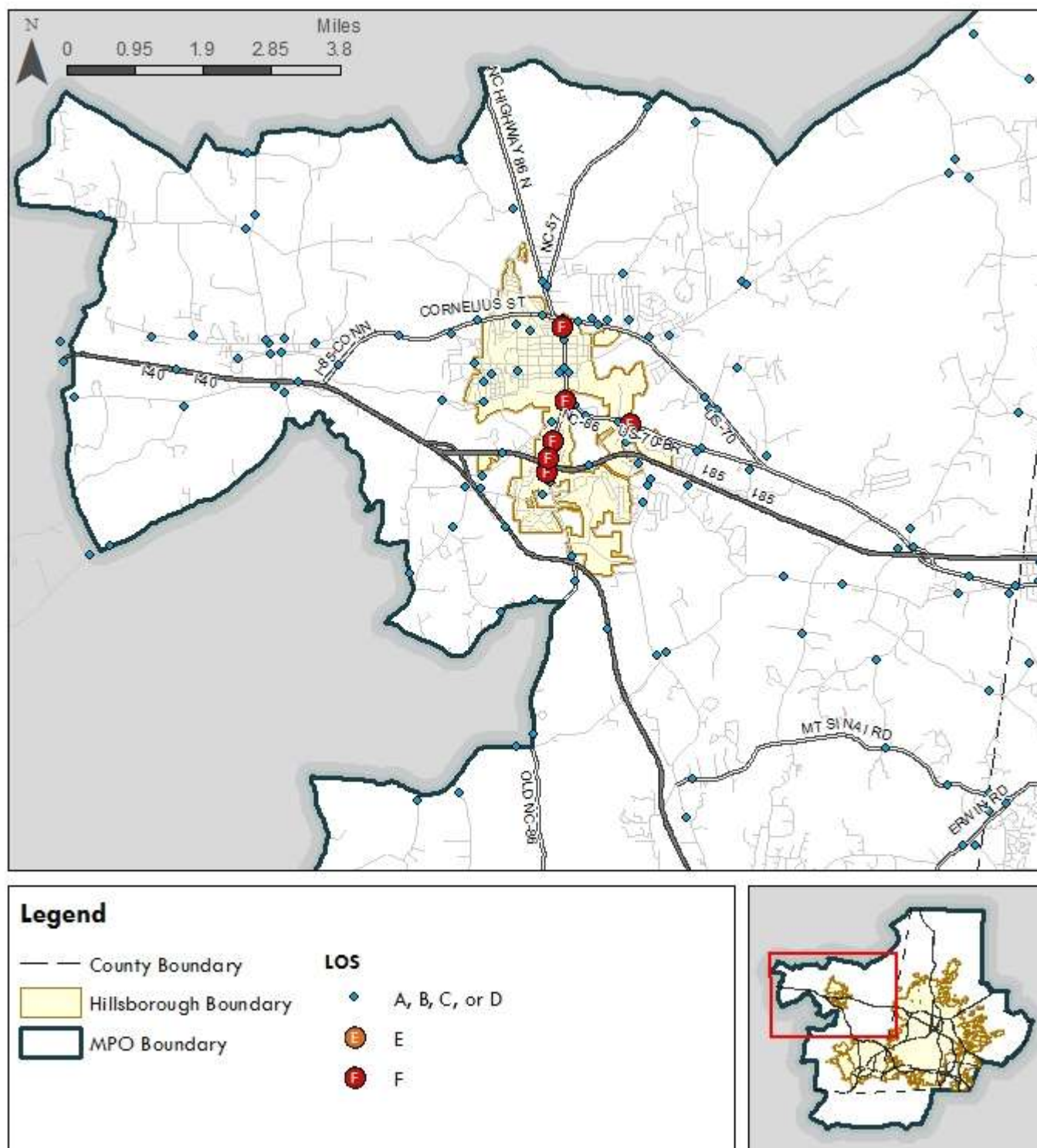
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CHAPTER ONE

Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
ST MARY'S RD	W OF US 70 BYP	3,300	A	2,900	A	2,600	A	35	A	3,200	A
ST MARY'S RD	E OF TIDWELL RD	3,600	A	3,100	A	3,000	A	2,900	A	2,900	A
ST MARY'S RD	W OF PLEASANT GREEN DR	2,400	A	2,400	A	2,400	A	2,400	A	2,300	A
US 70	E OF US 70 BUS	11,000	A	11,000	A	11,000	A	12,000	A	11,000	A
US 70	E OF NC 751	9,600	A	9,900	A	9,300	A	8,500	A	8,100	A
US 70	W OF SR 1161	8,000	A	9,200	A	7,700	A	8,800	A	7,700	A
US 70	W OF SR 1710	7,400	A	7,500	A	7,000	A	6,800	A	7,292	A
US 70	W OF SR 1390	6,400	A	7,500	A	7,100	A	7,100	A	6,900	A
US 70	E OF SR 1004	4,100	A	4,900	A	4,500	A	4,400	A	4,100	A
US 70	W OF SR 1327	3,700	A	4,300	A	3,800	A	3,900	A	3,700	A
US 70 BUS	E OF NC 86	6,100	A	6,600	A	5,900	A	6,700	A	5,500	A
US 70 BUS	E OF SR 1709	2,500	A	2,400	A	2,300	A	2,500	A	2,400	A
US 70 BUS	E OF SR 1156	1,800	A	2,900	A	2,600	A	2,400	A	2,100	A
US 70 BUS/NC 86	N OF SR 1009	19,000	F	21,000	F	21,000	F	20,000	F	19,820	F
US 70 BUS/NC 86	N OF SR 1150	14,000	D	14,000	D	15,000	D	13,000	C	13,335	C
US 70 BUS/NC 86	E OF SR 1009	8,500	A	9,600	A	9,400	A	9,200	A	7,900	A
US 70 BYP	E OF NC 86	10,000	A	12,000	A	12,000	A	12,000	A	12,471	A
US 70 BYP	W OF SR 1709	10,000	A	11,000	A	13,000	A	11,000	A	11,000	A
US 70 BYP	E OF SR 1709	8,900	A	9,200	A	9,400	A	9,400	A	9,300	A
US 70 BYP (CORNELIUS)	W OF NC 86	8,900	A	7,900	A	9,800	A	9,800	A	10,778	B
US-70	BTWN I-85 AND PLEASANT GREEN RD	-	n/a	-	n/a	-	n/a	16,835	C	-	n/a
US-70 BUS	BTWN NC-86 AND CHURTON ST	-	n/a	-	n/a	-	n/a	7,832	A	-	n/a
US-70 BUS	BTWN NC-86 AND US-70 BYP	-	n/a	-	n/a	-	n/a	7,220	A	-	n/a
US-70 BUS	E OF OLD NC- 86/CHURTON ST	-	n/a	-	n/a	-	n/a	8,637	A	-	n/a
US-70 BYP	BTWN CHURTON ST AND ST MARYS ST	-	n/a	-	n/a	-	n/a	12,917	B	13,464	B

Figure 1-10. 2013 LOS E or F Segments - Hillsborough



Chatham County

The Chatham County area included all counts from the Orange/Chatham County line to the MPO boundary. This area included volume data from 15 count locations.

Road facilities in the area appeared to be handling traffic volume well. All of the locations had an LOS of A. Four count locations had no change or decreased daily traffic volume since 2005 and most of those count locations with increasing daily volumes since 2005 still had A grades.

KEY DATA RESULTS

ADT traffic volume: 15 count locations

- 15 (100%) - LOS A

Locations with heaviest traffic volume:

- US 15-501 and Farrington Point Rd

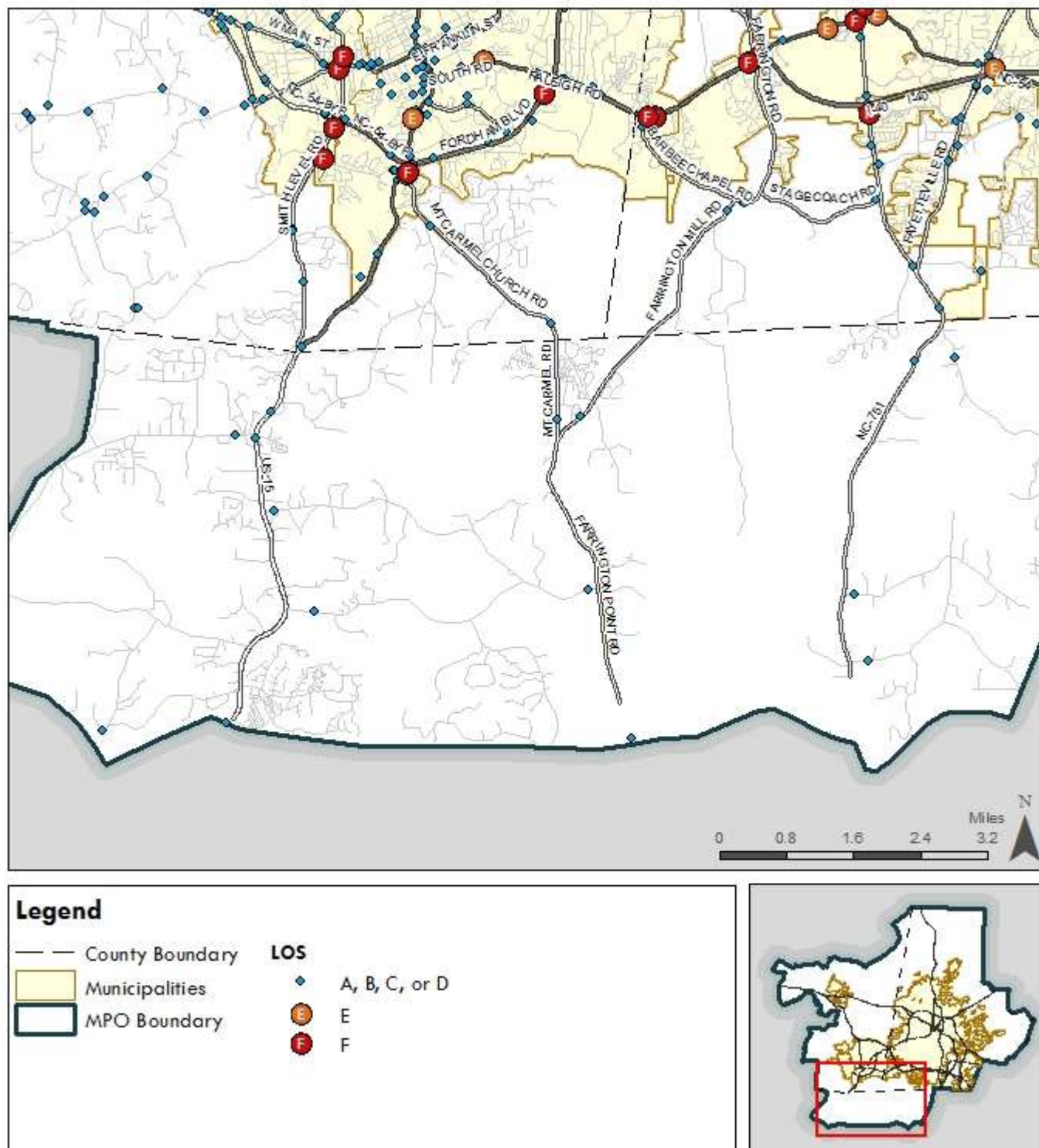
Changes in Daily Traffic Volume (2005 to 2013):

- Traffic volume is up 14%
- 4 locations saw no change or decreased volume
- 7 locations saw changes in volume of over 10%

Table 1-9. Daily Traffic Volumes (2005-2013) – Chatham County

Route	Location	2005 Volume	LOS	2007 Volume	LOS	2009 Volume	LOS	2011 Volume	LOS	2013 Volume	LOS
FARRINGTON MILL RD	E OF MT CARMEL CHURCH RD	4,600	A	4,200	A	3,500	A	3,900	A	5,041	A
FARRINGTON POINT RD	N OF SR 1752	6,600	A	5,400	A	4,300	A	5,300	A	5,594	A
MT CARMEL RD	N OF OLD FARRINGTON RD	5,700	A	5,200	A	4,300	A	5,000	A	5,461	A
NC 751	S OF SR 1731	11,000	A	9,500	A	-	n/a	7,500	A	7,577	A
SR 1526	N OF SR 1525	400	A	320	A	330	A	360	A	660	A
SR 1532	W OF SR 1601	5,400	A	6,000	A	-	n/a	6,400	A	7,027	A
SR 1717	W OF SR 1008	4,400	A	2,300	A	4,200	A	4,800	A	6,486	A
SR 1717	E OF US 15-501	2,500	A	2,900	A	2,700	A	3,400	A	4,400	A
SR 1721	E OF US 15-501	3,000	A	3,300	A	4,500	A	4,800	A	6,047	A
SR 1731	S OF NC 751	-	n/a	2,800	A	3,200	A	4,100	A	6,600	A
SR 1733	E OF NC 751	530	A	-	n/a	600	A	45	A	594	A
SR 1736	E OF NC 751	550	A	430	A	320	A	320	A	370	A
US 15-501	S OF N CHATHAM PKWY	-	n/a	21,000	A	21,000	A	22,000	A	26,000	A
US 15-501	N OF SR 1700	12,000	A	14,000	A	14,000	A	15,000	A	15,356	A
US 15-501	S OF MANNIS CHAPEL RD	-	n/a	19,000	A	19,000	A	20,000	A	24,000	A

Figure 1-11. 2013 LOS A Segments – Chatham County



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2. Vehicle Peak Hour Intersection Operations

WHAT IS IT?

Similar to highway or street segments, the performance of intersections can also be described by its level of service. But delay, rather than traffic volume, is the most important factors in determining an intersection's level of service. The MPO collected data and calculated level of service for 252 intersections in 2011, 2012 and 2013. The MPO reports the intersection level of service for the three busiest travel periods – the morning commute, evening commute, and lunchtime.

Why Does it Matter?

The MPO uses intersection level of service to identify locations that need improvement. The improvement may be as simple as adjusting the traffic signals to more complex projects that add lanes or even separate two roads with an interchange.

METHODOLOGY

Similar to roadway segments, intersection effectiveness is qualified using level of service (LOS) A to F; however, signalized intersections LOS grading is based on intersection delay (in seconds) for automobile mode. Other statistics are often employed as well when evaluating intersections, but delay is very effective at revealing intersection inefficiencies, and is thus the primary data input in intersection analyses. Table 2-1 outlines the Highway Capacity Manual (HCM) standards for signalized intersection LOS. It is noted that service quality scores for pedestrian and bicycle modes, which are representing nonautomobile users' perception of service quality and traveling experience at a signalized intersection, are not analyzed. The scores may be included in the next version of this document.

Analyses of movement data were performed using Synchro, a macroscopic analysis software which follows HCM 2010 methodologies. For each approach at each intersection, peak hour volumes (the volume of all modes of traffic at the **most congested hour**), peak hour factors (a ratio of a peak hour volume to 4 times its most congested quarter), lane arrangements, signal timings and other statistic data were employed to calculate an average intersection delay (in seconds/vehicle) and a corresponding level of service.

The first step in calculating signalized intersection delay is collecting the movement taken by each vehicle as it travels through the intersection (either straight through, left turn, or right turn). These turning movement counts (TMC) were collected Tuesdays, Wednesdays and Thursdays, during three peak periods of motor traffic: 7:00 to 9:00 A.M. (also known as AM peak), 11:00 A.M. to 1:00 P.M. (noon peak), and 4:00 P.M. to 6:00 P.M. (PM peak). Counts were performed during the fall of 2011, spring of 2012 and spring of 2013. Turning movement data were collected manually

SUMMARY

CONDITIONS IMPROVING



KEY FINDINGS

The overwhelming majority of intersections provide an acceptable level of service.

In locations with 2013 and 2005 data, conditions have routinely improved, likely through intervention (timing improvements, infrastructure upgrades, etc.)

Average control delay for signalized intersections in the DCHC MPO is **35 seconds/vehicle or less**.

The worst intersection delays in the region are on highways with commercial development (US 15-501 and NC 54.)

Number of Failing Intersections (LOS E or F in one or more peak periods):

- Durham: 6
- Chapel Hill: 14
- Carrboro: 1
- Hillsborough: 0

using JAMAR counting boards, with data recorded in 15-minute intervals over each peak period. Movement data for light vehicles (passenger cars, pick-up trucks, motorcycles, etc.), heavy vehicles (buses, trucks with trailers, box trucks, etc.), pedestrians and bicyclists were collected for all approaches of an intersection.

By collecting movement data for many modes of traffic at an intersection, signalized intersections can be better managed for improved multimodal travel.

Table 2-1. Highway Capacity Manual Standards for Signalized Intersection Level of Service (2010)

Mode		A	B	C	D	E	F
	Control Delay (s/vehicle)	≤10	>10-20	>20-35	>35-55	>55-80	>80
Automobile	Manueverability	Most vehicles travel through the intersection without stopping.	More vehicles stop than with LOS A.	Many vehicles still pass through the intersection without stopping.	Many vehicles stop and individual cycle failures are noticeable.	Individual cycle failures are frequent.	Most cycles fail to clear the queue.
	Service Quality Score	≤2.00	>2.00-2.75	>2.75-3.50	>3.50-4.25	>4.25-5.00	>5.00
Nonautomobile	Travelers' perception of service quality and traveling experience	Best	Very good	Good	Fair	Poor	Very poor

REGIONWIDE RESULTS

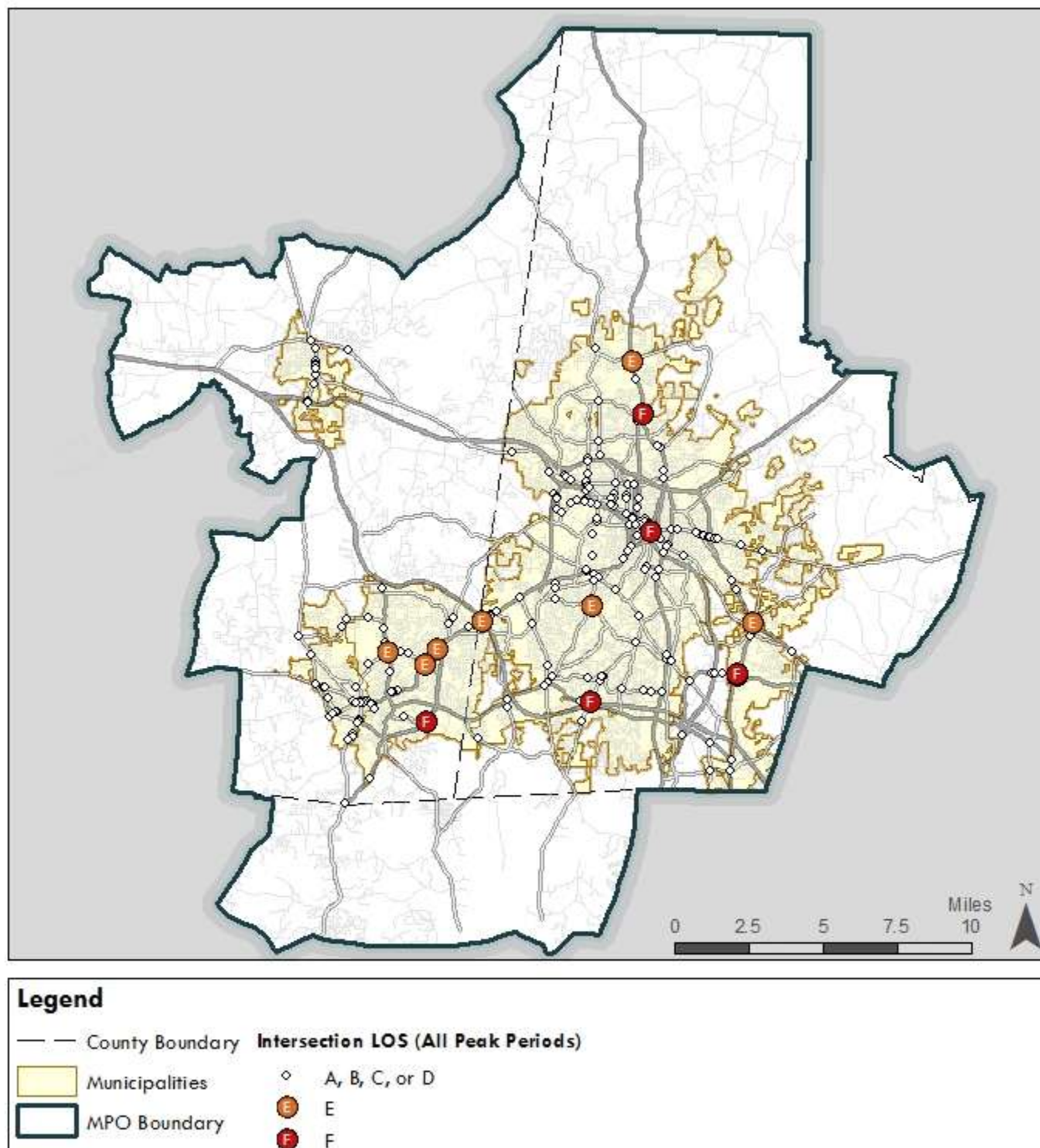
Across the entire DCHC MPO, movement data was gathered for 252 intersections. Data for all three peak periods was unable to be collected for the majority of intersections ($n = 175$; 69%). Results for the entire DCHC MPO are provided in Table 2-2.

- The overwhelming majority of intersections provide an acceptable level of service.
- The worst intersection delays in the region are on major, high-volume highways with substantial commercial development that requires direct access, such as US 15-501 and NC 54.
- Intersections in downtown areas are functioning relatively well. Downtowns often have a grid pattern of streets that allows people to use several different routes between two places.
- Intersections in the region with the most delay include:
 - **Durham:** TW Alexander Drive at Miami Blvd; Fayetteville Street at NC 54; and Roxboro Street at Horton Road.
 - **Chapel Hill:** Estes Drive at Franklin Street; Martin Luther King Jr. Boulevard at Eubanks Road; US 15-501 at Lakeview Drive; Fordham Blvd at Manning Drive; Fordham Blvd at Old Mason Farm Road; Fordham Blvd at Ephesus Church Road; and Columbia Street at Cameron Avenue.
 - **Carrboro:** Greensboro Street at Merritt Mill Road.
 - **Hillsborough:** Churton Street at E Margaret Lane is the only intersection with LOS below B.

Table 2-2. MPO-Wide LOS Grades by Peak Period

LOS	Peak Periods		
	AM	Noon	PM
A	33%	29%	23%
B	30%	31%	33%
C	20%	17%	24%
D	11%	12%	12%
E	2%	10%	5%
F	3%	1%	3%

Figure 2-1. Intersection LOS (All Peak Periods) - DCHC MPO



RESULTS BY GEOGRAPHY

Unlike the previous chapter, study areas within this chapter are more closely associated with municipal boundaries. For the City of Durham, most count locations occur within the city limits and Research Triangle Park area.

Notes on Methodology

Using 2005 data on control delays at the same intersections, comparisons can be made with most recent 2013 data. Changes in delay are color-coded, with improvements in control delay indicated by a green letter and worsening delays by red letters. It is important to note that these are merely comparisons of change in control delay which reflect an improvement or decline in level of service, not an exploration or discussion of reasons for such changes.

Nevertheless, data for delays at intersections during the morning and evening peak periods is still useful in providing an evaluation for signalized intersections, as these periods are, theoretically, the busiest during sampling periods of Tuesdays, Wednesdays and Thursdays.

Durham

Within the City of Durham, movement data was gathered and control delay calculated for 130 intersections. Between 60 and 70% of intersections received an LOS A or B for control delay in the morning and evening peak periods. These results suggest the average control delay for signalized intersections in Durham is 35 seconds/vehicle or less. No data was analyzed for the noon peak period.

KEY DATA RESULTS

Average Control Delay: 35 seconds/vehicle or less

Movement Data: 124 intersections

- Unable to calculate noon peak locations

Morning Peak Period

- 86 (70%) intersections received an LOS A or B grade for control delay
- 110 (90%) received a C or better
- Longest delays (for LOS grade D or worse) on TW Alexander Dr at Miami Blvd, Fayetteville St at NC 54, Roxboro St at Latta Rd, MLK Pkwy at Hope Valley Rd, and US 70 at Miami Blvd

Evening Peak Period

- 72 intersections (59%) scored an LOS A or B for control delay
- 104 (85%) were LOS C or better
- Longest delays on Roxboro St at Horton Rd, Fayetteville St at NC 54, TW Alexander Dr at Miami Blvd and Erwin Rd at Fulton St and at Morreene Rd

Table 2-3. Intersection Level of Service - Durham

		Peak Period	
	Count Location	AM	PM
Anderson St	Anderson St and Campus Dr	B	B
	Anderson St and Duke University Dr	B	B
Angier Ave	Angier Ave and Driver St	B	B
Broad St	Broad St and Club Blvd	B	C
	Broad St and Green St	A	A
	Broad St and W Markham Ave	A	B
Durham-Chapel Hill Blvd	Durham Chapel Hill Blvd and Mt Moriah Rd	B	D
	Durham Chapel Hill Blvd and SW Durham Dr	B	C
	Garrett Rd and Durham Chapel Hill Blvd	C	C
Club Blvd	Club Blvd and N Buchanan Blvd	B	D
	Gregson St and W Club Blvd	B	B
	Roxboro St and E Club Blvd	B	C
Davis Dr	Davis Dr and Hopson Rd	C	C
	Davis Dr and NC-54	C	C
Duke St/US 501	Duke St and Fairfield St	A	A
	Duke St and Holt School Rd	A	A
	Duke St and Horton Rd	C	C
	Duke St and W Main St	B	B
	Duke St and W Trinity Ave	A	B
	Markham Ave and Duke St	A	B
	Roxboro St and Latta Rd	D	E
	Roxboro St and Seven Oaks Rd	A	A
Erwin Rd	Erwin Rd and Anderson St	C	C
	Erwin Rd and Fulton St	D	D
	Erwin Rd and LaSalle Rd	C	B
	Erwin Rd and Research Dr	C	D
	Erwin Rd and Trent Dr	C	C
Fayetteville Rd	Fayetteville Rd and Cook Rd	A	B
	Fayetteville Rd and Geneva Dr	B	B
	Fayetteville Rd and NC-54	D	F
	Fayetteville Rd and Renaissance Pkwy	B	C
	Fayetteville Rd and Southpoint Blvd	A	B

		Peak Periods	
	Count Location	AM	PM
Fayetteville Rd	Fayetteville Rd and Woodcroft Pky	D	C
	Fayetteville St and Brant St	A	A
	Fayetteville St and E Lawson St	A	B
Gregson St/Vickers Ave	Gregson St and Morgan St	A	B
	Gregson St and W Main St	A	B
	Vickers Ave and University Dr	B	C
Guess Rd/Buchanan Blvd	Buchanan Blvd and Green St	A	A
	Guess Rd and Carver St	C	C
	Guess Rd and Horton Rd	C	C
	Guess Rd and North Pointe Dr	B	C
	Guess Rd and Umstead Dr	B	C
	Markham Ave and N Buchanan Blvd	A	B
Hillandale Rd	Fulton St and Elba St	D	C
	Hillandale Rd and Club Blvd	B	B
	Hillandale Rd and Crest Dr	B	B
	Hillandale Rd and I-85 NB Ramp	C	B
	Hillandale Rd and I-85 SB Ramp	B	A
	Hillandale Rd and Sprunt St	B	A
	Hillandale Rd/Fulton St and NC-147	C	C
Hillsborough Rd	Hillsborough Rd and Sparger Rd	C	B
Holloway St/NC Hwy 98	Holloway and US-70 EB Ramp	A	B
	Holloway and US-70 WB Ramp	A	A
	Holloway St and Hoover Rd	A	B
	Holloway St and Hyde Park Ave	A	A
	Holloway St and Junction Rd	B	A
	Holloway St and Lynn Rd	B	A
	Holloway St and N Hardee St	A	A
	Holloway St and Raynor St	A	A
	S Miami Blvd and Holloway St	C	C
E Main	Main St and Buchanan Blvd	B	C
	Main St and Corcoran St	A	B
	Main St and Morris St	B	B
	Main St and N Mangum St	A	B
	Main St and Roxboro St	B	C

		Peak Periods	
	Count Location	AM	PM
Mangum St	Mangum St and Chapel Hill St	B	C
	Mangum St and Morgan St	B	B
	Mangum St and Pettigrew St	A	A
	Mangum St and Ramseur St	B	B
	N Mangum St and Parrish St	A	A
S Miami Blvd	S Miami Blvd and Angier Ave	D	C
	S Miami Blvd and Ellis Rd	B	D
	S Miami Blvd and Hopson Rd	-	-
	S Miami Blvd and Slater Rd	-	-
	S Miami Blvd/US-70 and Lynn Rd	C	D
	TW Alexander Dr and S Miami Blvd	F	F
MLK Pkwy	MLK Pkwy and Fayetteville Rd	D	D
	MLK Pkwy and Hope Valley Rd	D	E
	MLK Pkwy and Shannon Rd	B	B
	MLK Pkwy and NC-55	B	B
	MLK Pkwy and University Dr	C	C
NC Hwy 54	NC-54 and Hope Valley Rd	C	D
	NC-54 and Rollingwood Dr	B	B
NC Hwy 55/Alston Ave	Alston Ave and Holloway St	B	C
	Alston Ave and Main St	A	B
	NC-55 and Carpenter Fletcher Rd	B	B
	NC-55 and Cecil St	A	B
	NC-55 and E Cornwallis Rd	D	D
	S Alston Ave and Angier Ave	B	C
	S Alston Ave and E Lawson St	B	B
	S Alston Ave and Gann St	A	A
NC Hwy 751/Hope Valley Rd	Hope Valley Rd and Garrett Rd	C	D
	Hope Valley Rd and Woodcroft Pky	B	B
N Roxboro Rd	Roxboro St and E Lavender Ave	A	A
	Roxboro St and Hewitt St	A	A
	Roxboro St and Holloway St	B	B
	Roxboro St and Horton Rd	B	F
	Roxboro St and Morgan St Ext	A	A
	Roxboro St and Old Oxford Rd	C	C

		Peak Periods	
	Count Location	AM	PM
TW Alexander Rd	TW Alexander Dr and Blue Ridge Blvd	-	-
	TW Alexander Dr and NC-147 NB Ramp	B	B
	TW Alexander Dr and NC-147 SB Ramp	B	B
University Dr	University Dr and S Duke St	A	B
US Hwy 70	US-70 and Leesville Rd	B	B
	US-70 and Pleasant Dr	C	C
	US-70 and S Miami Blvd	D	E
Downtown Loop	Foster St and Morgan St	A	A
	Morgan St and Morris St	A	B
W Cornwallis Rd	Cornwallis Rd and Chapel Hill Rd	-	-
	Cornwallis Rd and Chapel Hill Rd (w/light)	B	B
	Cornwallis Rd and Roxboro Rd	B	B
	University Dr and Cornwallis Rd	B	B
	University Dr and Hope Valley Rd	C	C
S Alston Ave	S Alston Ave and E Cornwallis Rd	B	B
Woodcroft Pkwy	Woodcroft Pkwy and Barbee Rd	C	C
	Woodcroft Pky and Highgate Dr	-	-
Garrett Rd	Garrett Rd and Old Chapel Hill Rd	D	D
	Garrett Rd and Trotter Ridge Rd	A	B
W Main St	Main St and 9Th St	B	D
	Main St and Hillsborough	A	A
	Main St and Swift Ave	C	C
Morreene Rd	Morreene Rd and Campus Walk Dr	A	B
	Morreene Rd and Erwin Rd	D	D
	Morreene Rd and US 15-501 NB Ramp	-	-
	Morreene Rd and US 15-501 SB Ramp	C	C
Others	Blackwell St and Pettigrew St	B	B
	Blackwell St and Willard Dr	A	-
	Chapel Hill St and Pettigrew St	A	B
	Shannon Dr and Auto Dr	A	A

Figure 2-2. Intersection LOS Grades (AM Peak) - North Durham

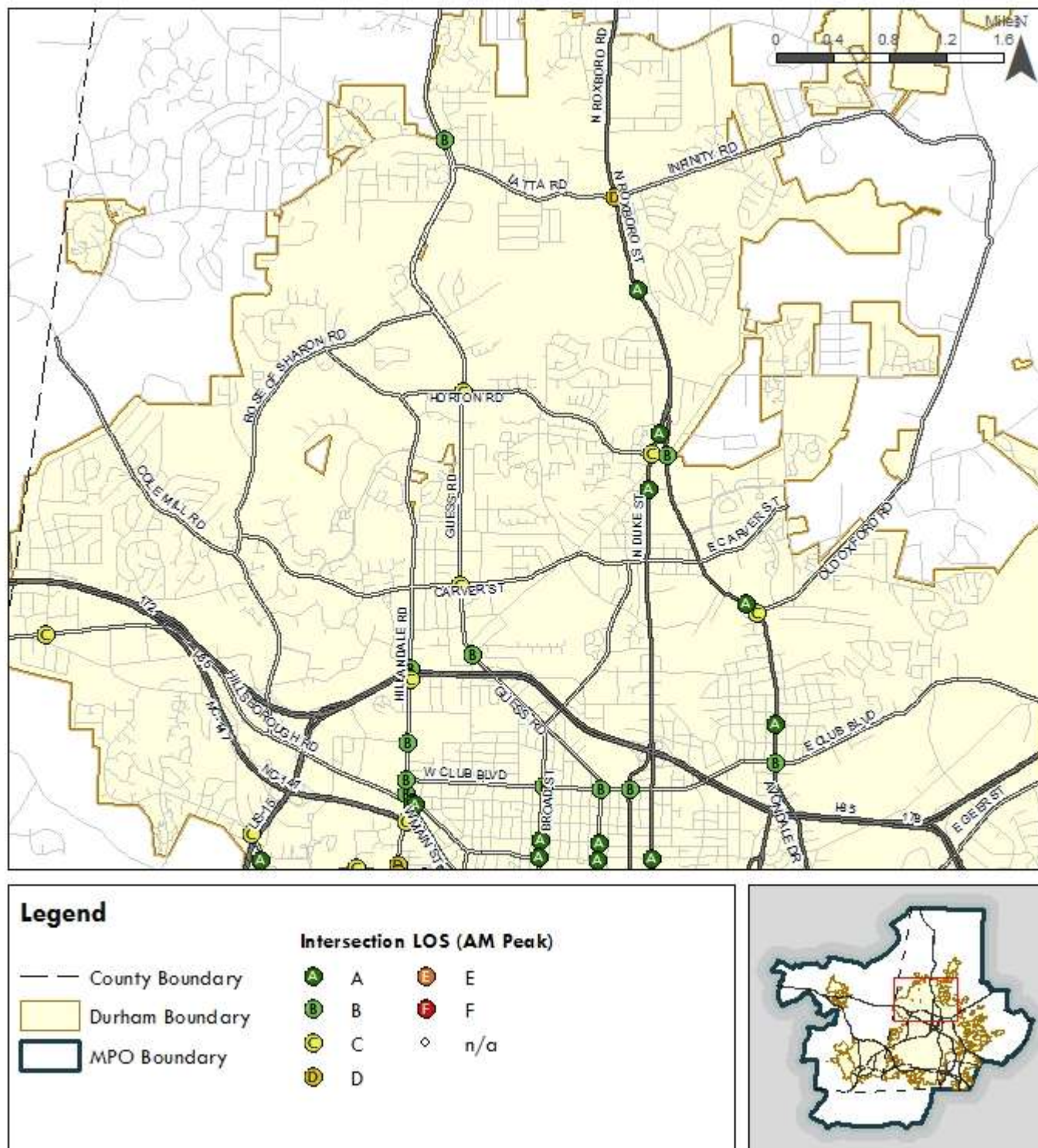
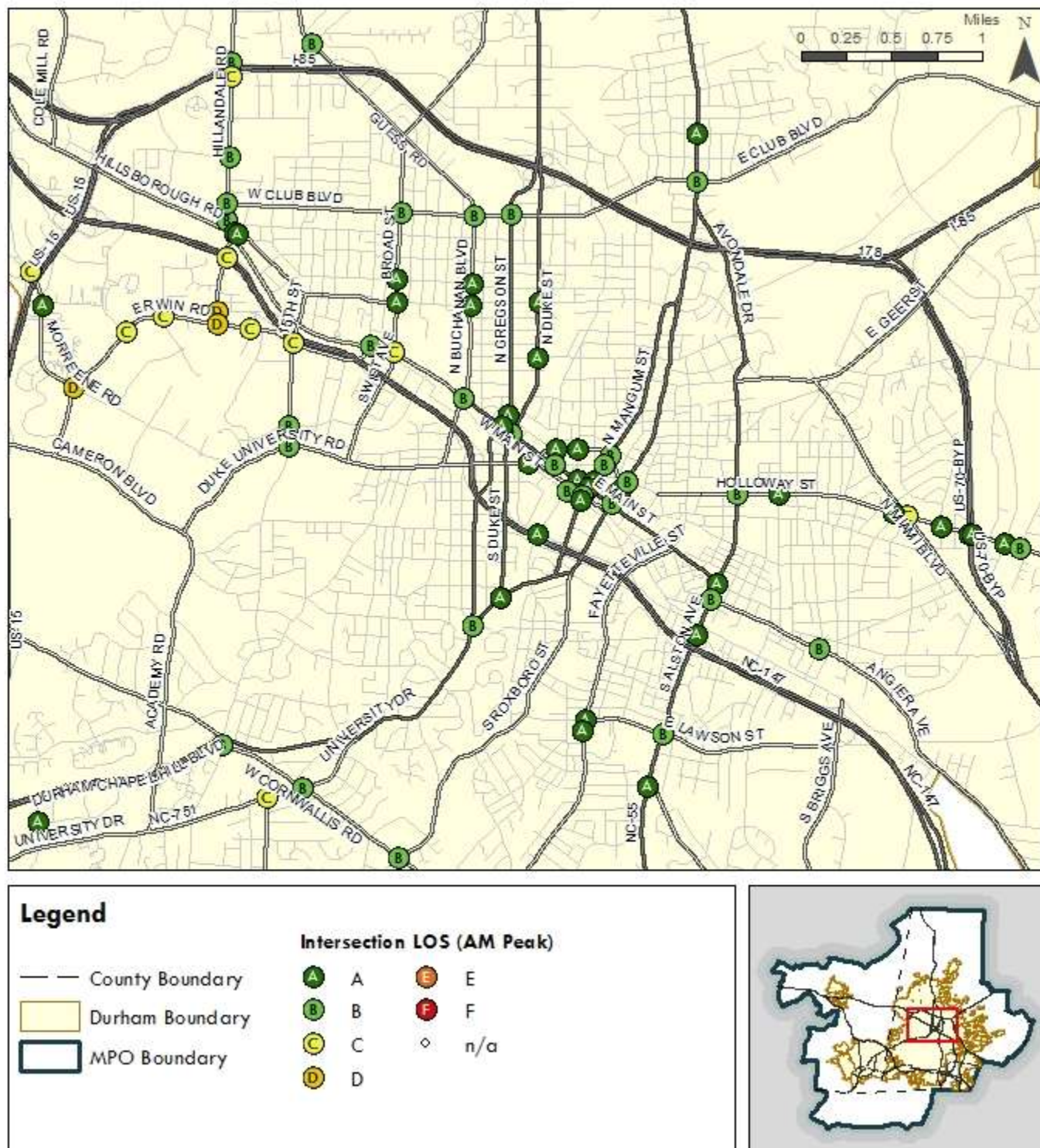
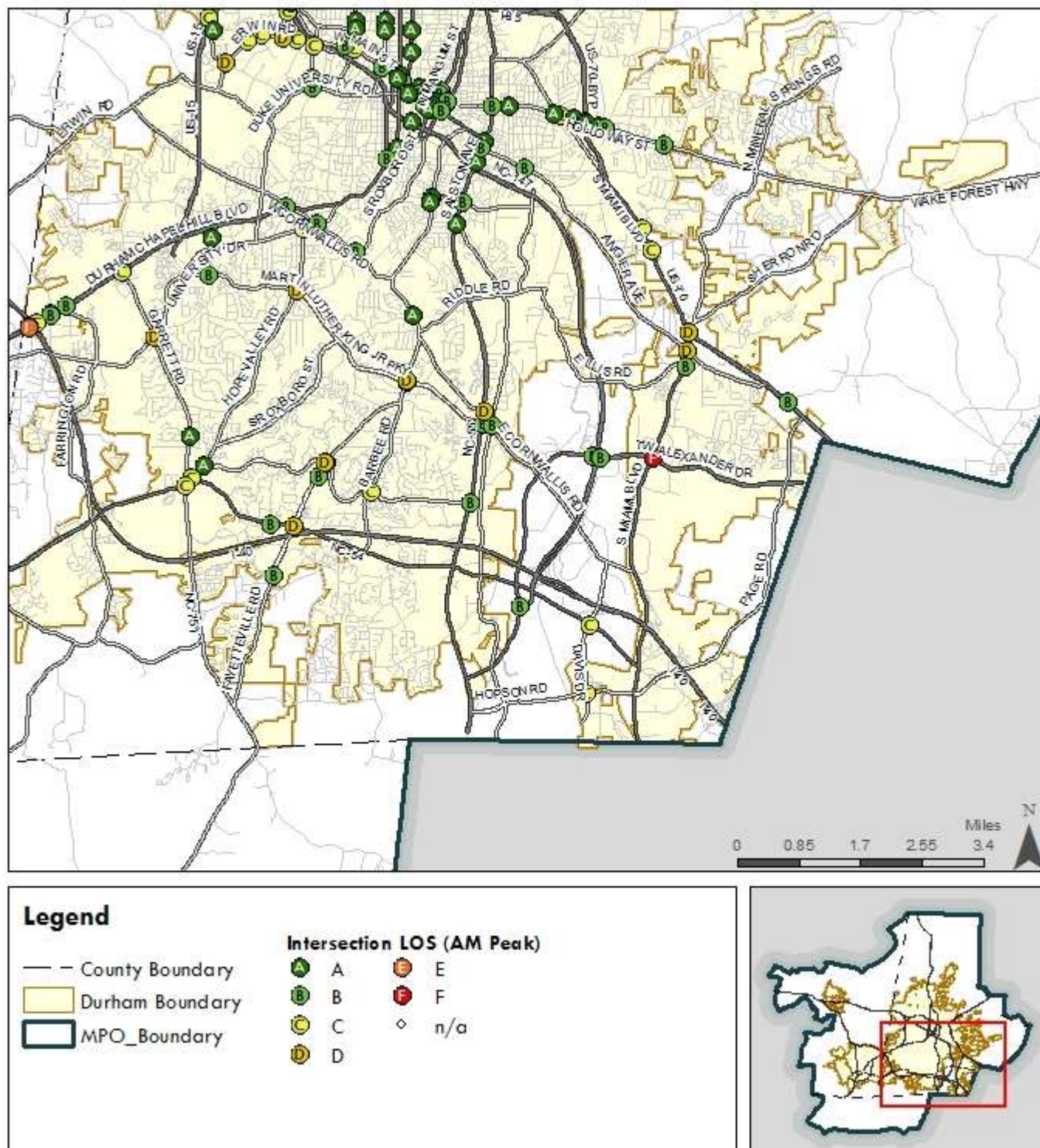


Figure 2-3. Intersection LOS Grades (AM Peak) - Downtown Durham



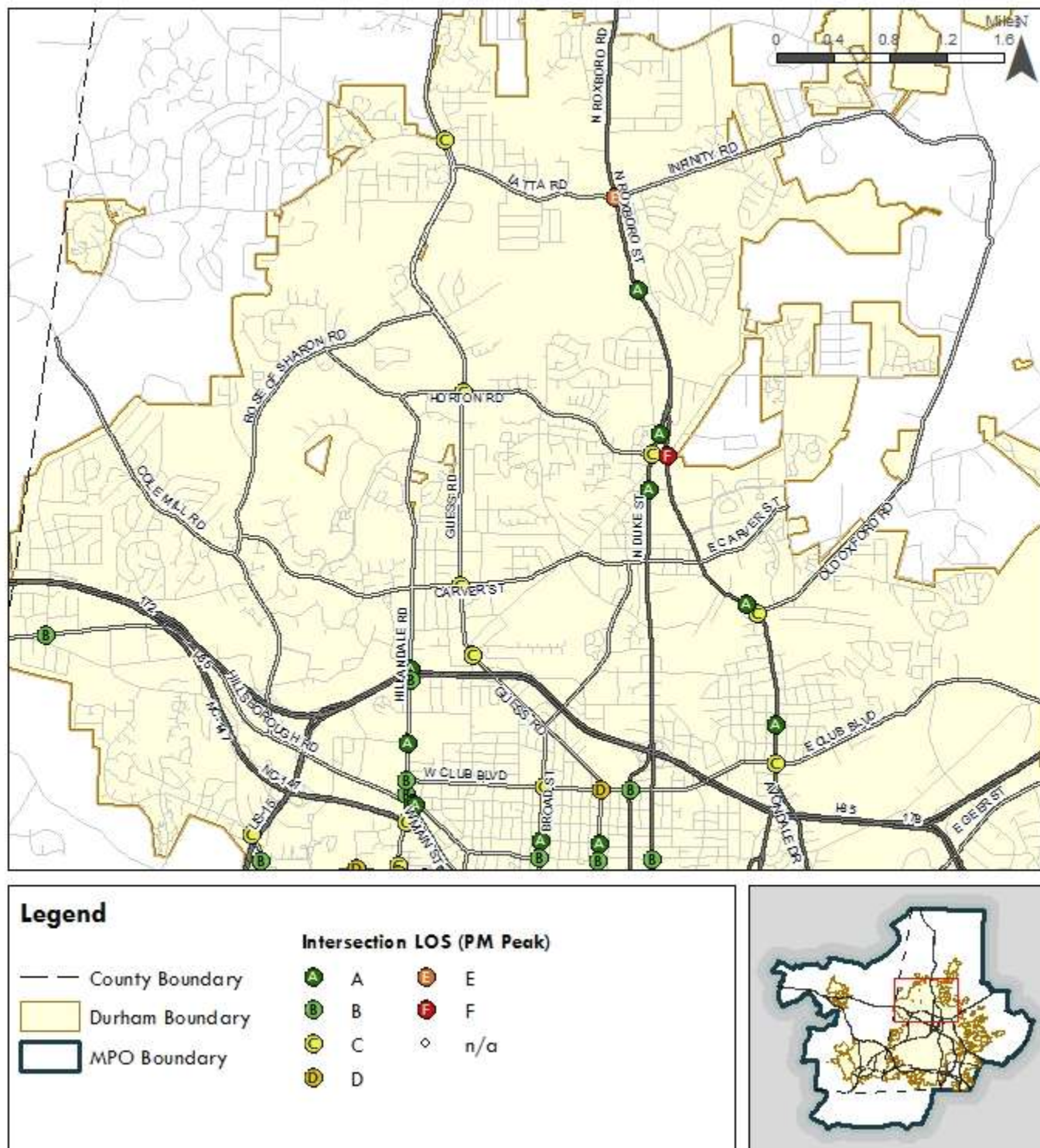
Morning Peak Period is from 7:00 AM to 9:00 AM

Figure 2-4. Intersection LOS Grades (AM Peak) - South Durham



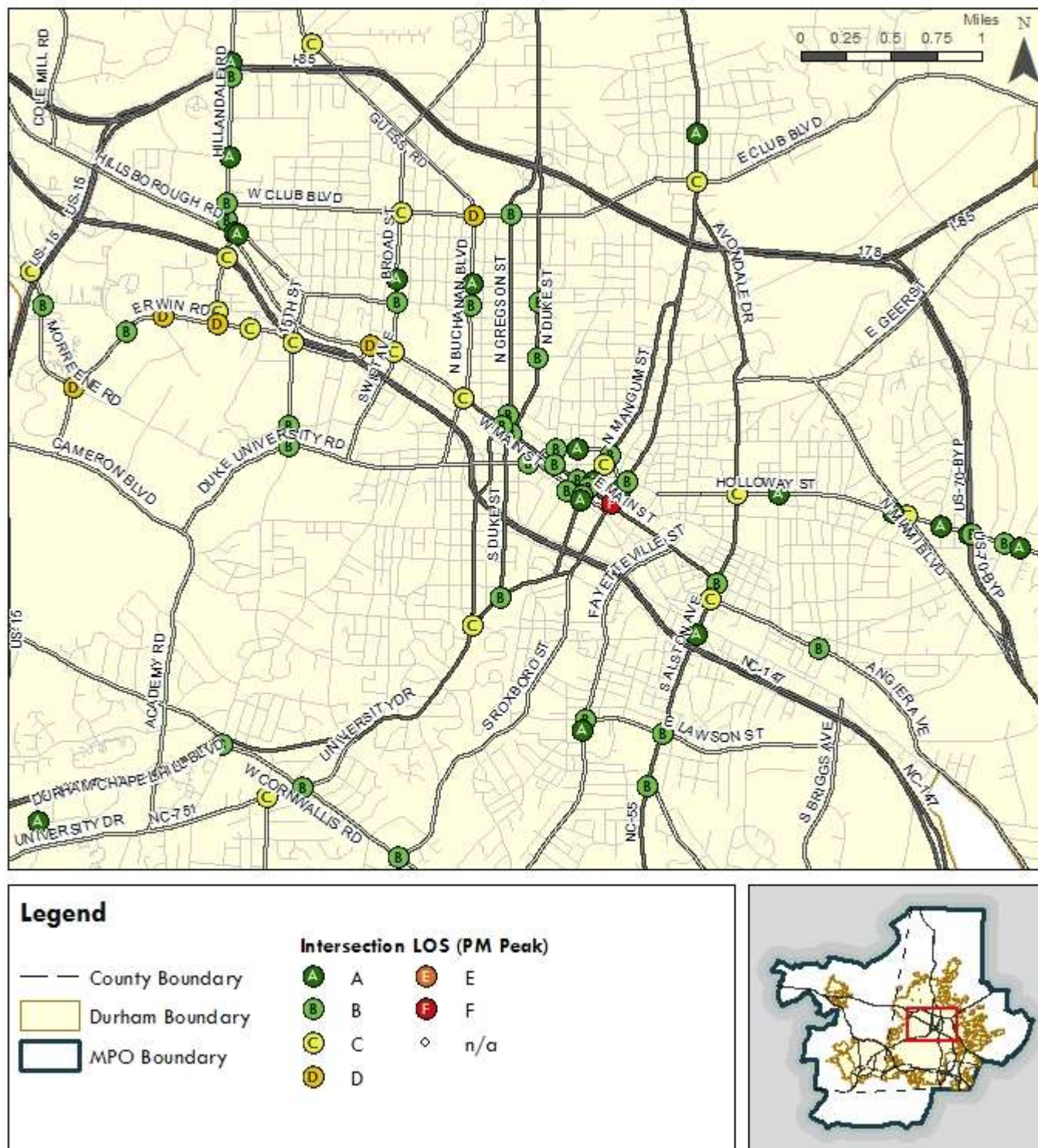
Morning Peak Period is from 7:00 AM to 9:00 AM

Figure 2-5. Intersection LOS Grades (PM Peak) - North Durham



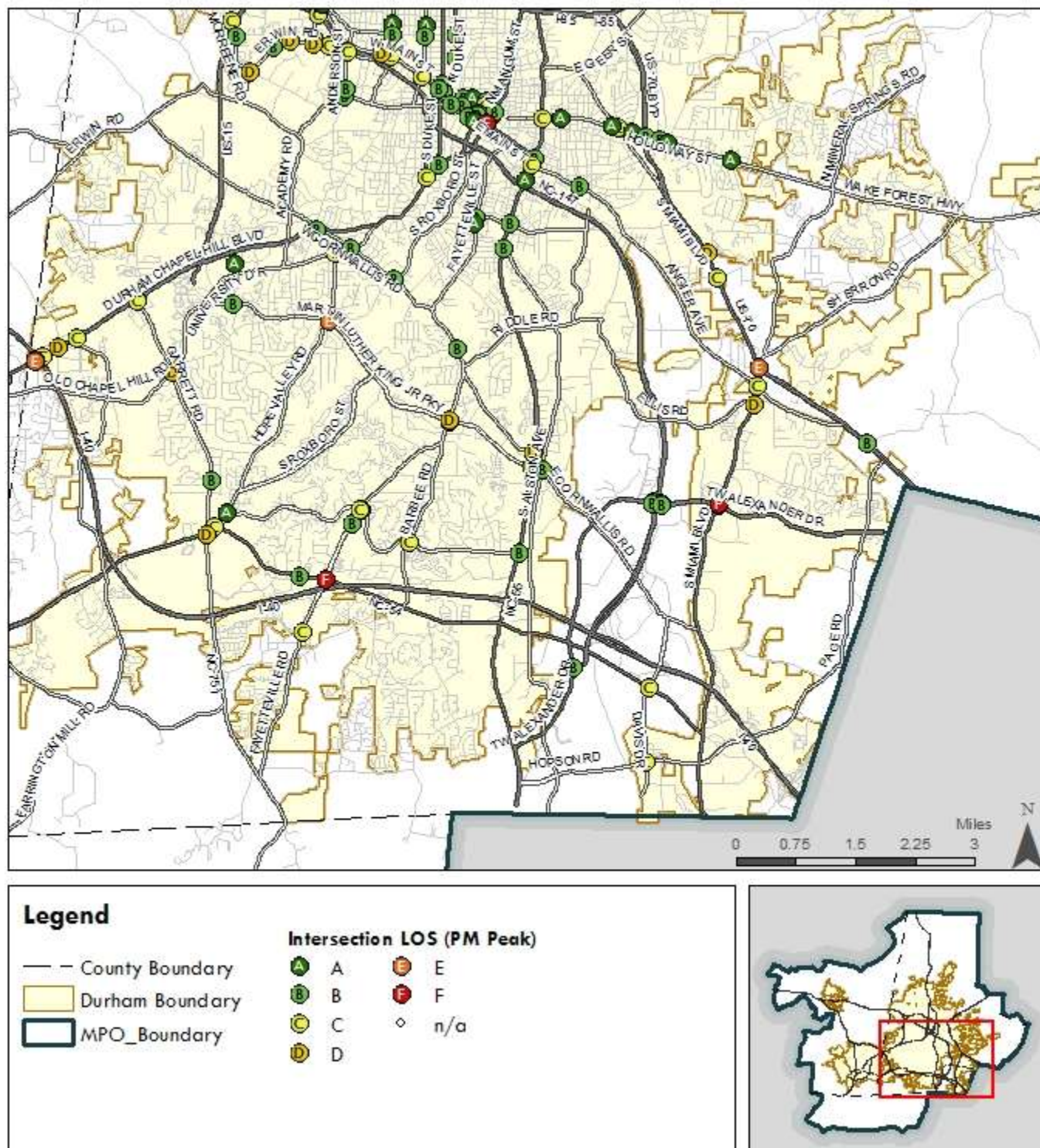
Evening Peak Period is from 4:00 PM to 6:00 PM

Figure 2-6. Intersection LOS Grades (PM Peak) - Downtown Durham



Evening Peak Period is from 4:00 PM to 6:00 PM

Figure 2-7. Intersection LOS Grades (PM Peak) - South Durham



Evening Peak Period is from 4:00 PM to 6:00 PM

Chapel Hill

Within the Town of Chapel Hill, movement data was gathered for 86 intersections, 52 of which had data collected for all three peak periods. The morning and evening control delays increased compared to the noon peak period. During the morning peak period, 35 (62%) received an LOS C or better compared to 34 (62%) in the evening peak period. The majority of signalized intersections in Chapel Hill have a control delay of 35 seconds/vehicle or less.

Table 2-4 on the following pages provides 2013 and 2005 LOS grades at analyzed intersections. When LOS has changed over that time, it is noted in green for improvements and red for degradations.

KEY DATA RESULTS

Average Control Delay: 35 seconds/vehicle or less

Movement Data: 86 intersections

- Control delay for all three peak periods at only 52 intersections

Morning Peak Period

- 22 (39%) intersections received an LOS A or B grade for control delay
- 35 (62%) received a C or better
- D or worse: Durham-Chapel Hill Blvd, MLK Blvd, Fordham Blvd, Columbia St, NC 54 and Estes Dr
- 6 received an F

Noon Peak Period (52 intersections)

- 27 (52%) intersections received an LOS A or B grade for control delay
- 36 (69%) received a C or better
- 1 received an F

Evening Peak Period

- 22 intersections (40%) scored an A or B for control delay
- 34 (62%) getting a C or better
- 3 received an F
- Longest delays : Columbia St, MLK Blvd and Estes Dr

Changes in Control Delay (2005 to 2013):

- Morning Peak Period: 40(74%) intersections showed change
 - 15 (28%) showed improvement – 13 to A or B; 2 to D
 - 8 (15%) fell to B or C, 17 (31%) fell to D or worsen
- Noon Peak Period: 29 (73%) intersections showed change
 - 10 (25%) improved; 9 fell to a C or better; 10 fell to D or worse
- Evening Peak Period: 40 (75%) intersections showed change
 - 21 (40%) showed improvement – 15 to C or better; 3 to D; 3 to E
 - 5 (9%) fell to C or better, 14 (26%) fell to D or worse; 3 fell to F

Table 2-4. Intersection Level of Service - Chapel Hill

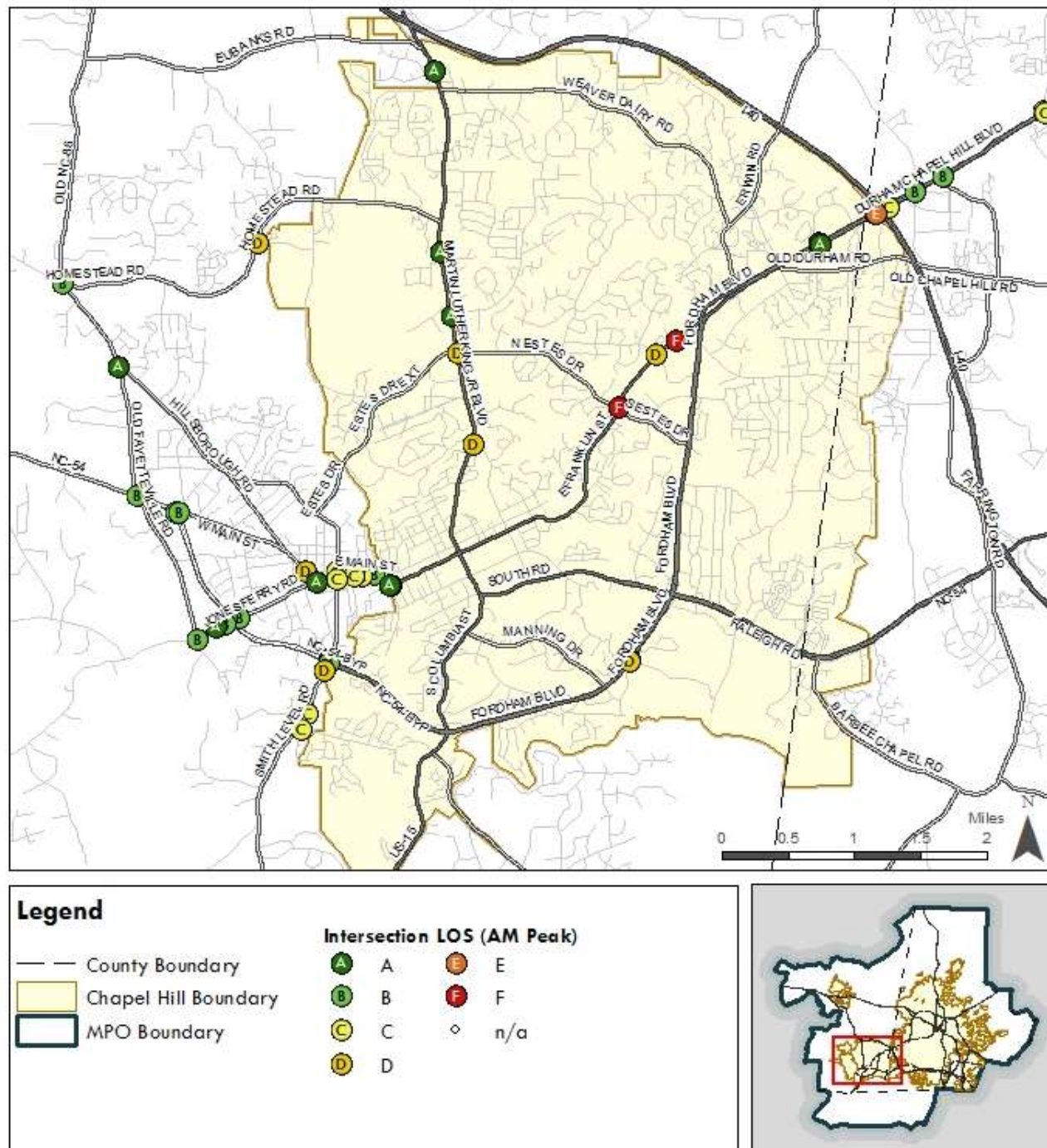
		2013			2005		
	Count Location	AM	Noon	PM	AM	Noon	PM
Farrington Rd	Farrington Rd and Farmington Dr	-	-	-	-	-	-
Homestead Rd	Homestead Rd and Seawell School Rd	-	-	-	A	A	A
	Homestead Rd and Weaver Dairy Rd Ext.	-	-	-	-	-	-
Franklin St/Durham-Chapel Hill Blvd	Durham Chapel Hill Blvd and I-40 WB Off	C	C	C	C	B	D
	Durham Chapel Hill Blvd and Eastowne Dr	A	B	B	F	F	F
	Durham Chapel Hill Blvd and Erwin Rd	C	B	B	-	-	-
	Durham Chapel Hill Blvd and Europa Dr	B	B	B	F	F	F
	Durham Chapel Hill Blvd and I-40 EB On	E	E	E	C	B	B
	Durham Chapel Hill Blvd and Lakeview Dr	F	E	E	F	F	F
	Durham Chapel Hill Blvd and Mt Moriah Rd	E	E	E	C	B	C
	Durham Chapel Hill Blvd and Sage Rd	D	C	D	F	E	F
	Franklin St and Boundary St	A	A	A	A	-	A
	Franklin St and Elliot Rd	D	D	D	C	C	C
	Franklin St and Eastgate Shopping Center				A	B	A
	Franklin St and Graham St	A	A	A	D	D	D
	Franklin St and Henderson St	A	A	A	A	A	A
	Franklin St and Mallette St	A	A	A	A	A	A
	Franklin St and Merritt Mill Rd	A	A	A	C	A	F
	Franklin St and Old Fraternity Row	-	-	-	-	-	-
	Franklin St and Raleigh St	-	-	-	B	-	B
	Franklin St and Robertson Ln	-	-	-	A	A	A
Fordham Blvd	Fordham Blvd and Elliot Rd	C	C	C	C	D	C
	Fordham Blvd and Ephesus Church Rd	F	E	E	F	F	F
	Fordham Blvd and Estes Dr	D	D	D	F	C	F
	Fordham Blvd and Manning Dr	F	D	E	C	-	F
	Fordham Blvd and Old Mason Farm Rd	D	F	C	C	B	C
	Fordham Blvd and Willow Dr	D	D	D	A	A	B
Columbia St/US 15-501 South	Columbia St and Cameron Ave	D	D	F	C	-	D
	Columbia St and Franklin St	A	A	A	C	-	C
	Columbia St and Fraternity Ct	-	-	-	B	A	A
	Columbia St and Manning Dr	-	-	-	D	-	B

		2013			2005		
	Count Location	AM	Noon	PM	AM	Noon	PM
Columbia St/US 15-501 South	Columbia St and Mason Farm Rd	B	-	-	B	-	C
	Columbia St and N Medical Dr	A	A	A	A	A	A
	Columbia St and NC-54 EB Ramps	C	A	A	B	-	C
	Columbia St and NC-54 WB Ramps	B	B	D	C	-	B
	Columbia St and Rosemary St	-	-	-	C	-	C
	Columbia St and South Rd	C	C	C	C	-	C
	US 15-501 and Market St	C	B	C	B	A	D
	US 15-501 and Mt Carmel Church Rd	E	B	C	C	C	C
Weaver Dairy Rd	Weaver Dairy Rd and East Chapel Hill High School	-	-	-	B	B	B
	Weaver Dairy Rd and Erwin Rd	-	-	-	C	B	B
	Weaver Dairy Rd and Kingston Dr	-	-	-	B	A	A
	Weaver Dairy Rd and Silo Dr	-	-	-	B	A	B
MLK Blvd	MLK Blvd and Eubanks Rd	E	B	F	A	A	A
	MLK Blvd and Hillsborough St	D	A	A	A	A	B
	MLK Blvd and Homestead Rd	C	C	C	B	B	B
	MLK Blvd and I-40 EB On	D	A	B	A	A	B
	MLK Blvd and I-40 WB On	C	C	C	B	A	F
	MLK Blvd and Northfield Dr	A	A	A	B	A	B
	MLK Blvd and Perkins Dr	A	A	B	A	A	B
	MLK Blvd and Piney Mountain Rd	A	A	B	B	B	D
	MLK Blvd and Weaver Dairy Rd	D	C	D	C	B	E
	MLK Blvd and Westminster Dr	A	A	B	A	A	A
Estes Dr	Estes Dr and Caswell Rd	-	-	-	B	B	B
	Estes Dr and Franklin St	F	E	F	E	C	E
	Estes Dr and MLK Blvd	D	E	D	B	B	C
	Estes Dr and Seawell School Rd	-	-	-	A	A	A
	Estes Dr and Willow Dr	-	-	-	D	D	C
NC Hwy 54/Raleigh Rd	Meadowmont Ln and Barbee Chapel Rd	A	A	A	B	A	B
	Meadowmont Ln and Meadowmont Apartments	A	A	A	B	B	C
	NC-54 and Barbee Chapel Rd	A	B	C	A	A	A
	NC-54 and Barbee Chapel Rd Ext	C	C	D	B	B	B
	NC-54 and Burning Tree Dr	D	B	B	C	B	C

		2013			2005		
Count Location		AM	Noon	PM	AM	Noon	PM
NC Hwy 54/Raleigh Rd	NC-54 and Farrington Rd	-	-	-	-	-	-
	NC-54 and Hamilton Rd	C	C	C	A	A	A
	NC-54 and Meadowmont Ln	B	E	E	F	B	C
	South Rd and Bell Tower Parking Lot	F	-	E	B	A	B
	South Rd and Country Club Rd	C	-	C	B	-	C
	South Rd and Pittsboro St	-	-	-	B	-	B
	South Rd and Raleigh St	A	-	A	B	-	A
Manning Dr	Manning Dr and Skipper Bowles Dr	C	D	D	B	-	B
	Manning Dr and West Dr	A	A	A	A	-	A
	Manning Dr and New East Dr	A	B	C	B	-	B
	Paul Hardin Dr and Manning Dr	-	-	-	-	-	-
	Ridge Rd and Manning Dr	C	D	D	-	-	-
Others	Barbee Chapel Rd and Downing Creek Pky	-	-	-	-	-	-
	Cameron Ave and Merritt Mil Rd	-	-	-	A	A	B
	Cameron Ave and Pittsboro St	-	-	-	B	-	B
	Cameron Ave and Raleigh St	-	-	-	C	-	C
	Cameron Ave and Ransom St	-	-	-	F	F	F
	Ephesus Church Rd and Legion Rd	-	-	-	B	B	B
	Rosemary St and Church St	-	-	-	A	A	B
	Rosemary St and Henderson St	-	-	-	C	B	B
	Rosemary St and Hillsborough St	-	-	-	A	A	A
	Rosemary St and N Roberson St	-	-	-	B	B	B
	Umstead Dr and Umstead Park	-	-	-	A	A	B

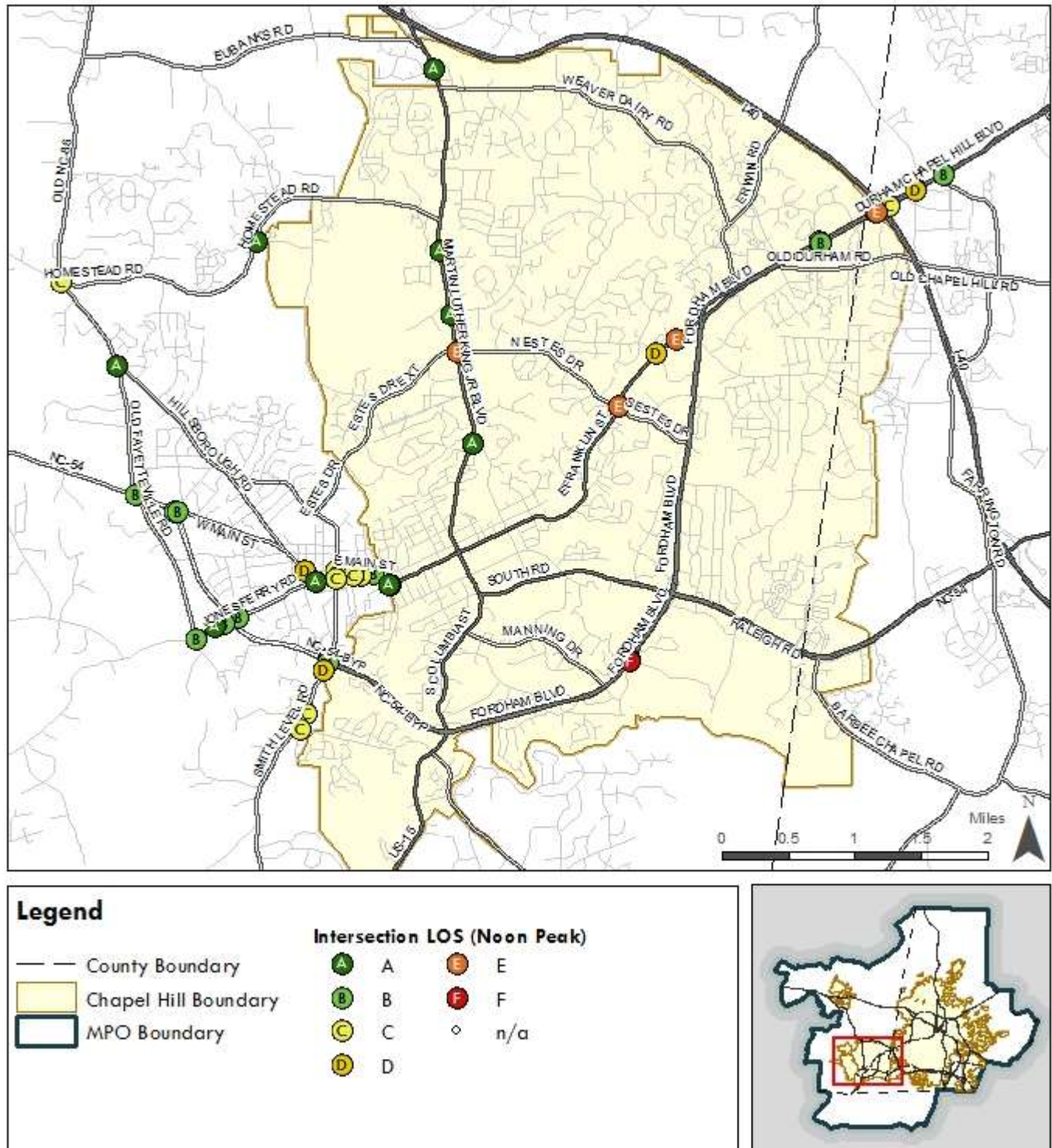
Green text denotes improvements and red denotes degradations

Figure 2-8. Intersection LOS Grades (AM Peak) - Chapel Hill



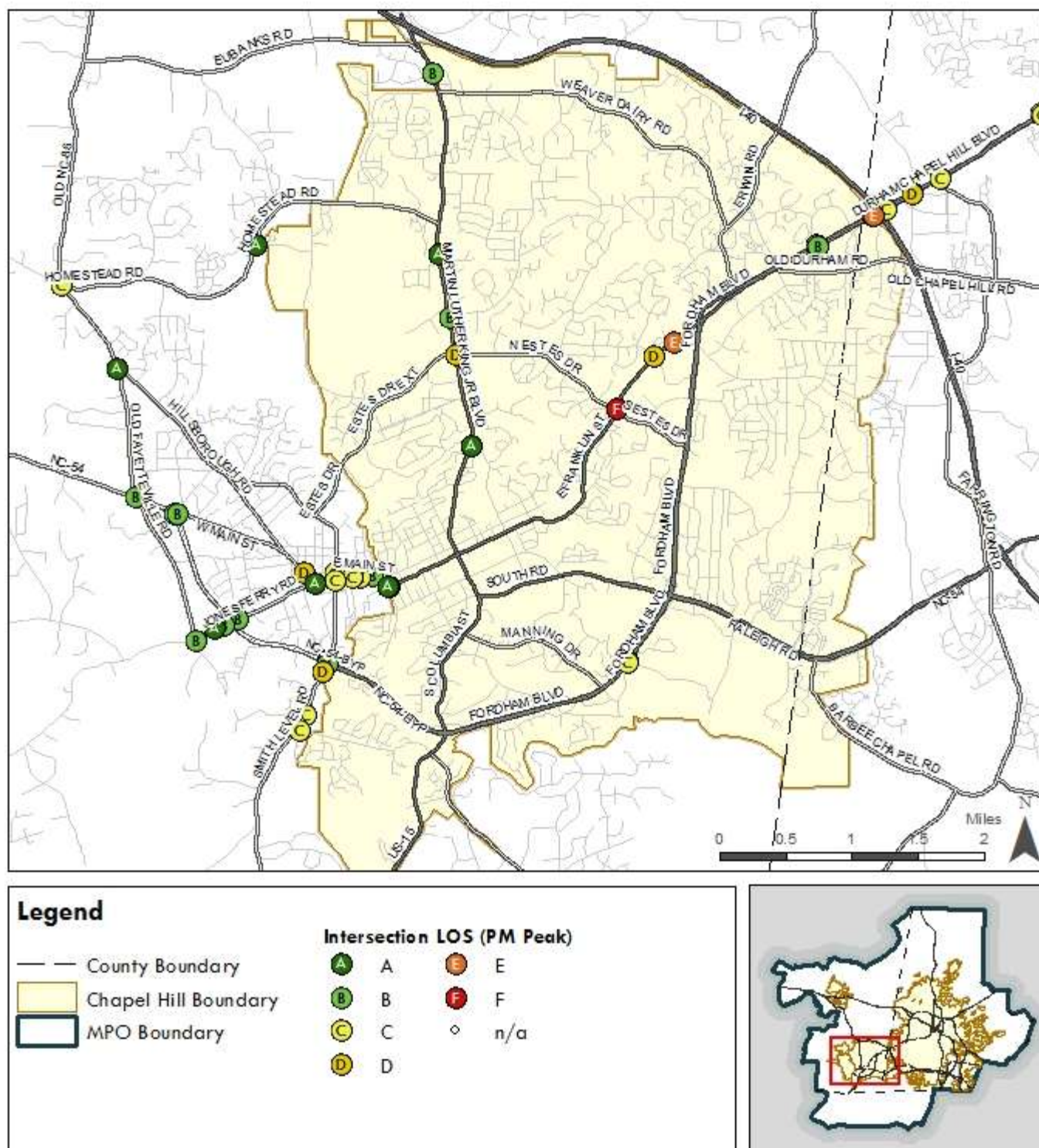
Morning Peak Period is from 7:00 PM to 9:00 AM

Figure 2-9. Intersection LOS Grades (Noon Peak) - Chapel Hill



Noon Peak Period is from 11:00 AM to 1:00 PM

Figure 2-10. Intersection LOS Grades (PM Peak) - Chapel Hill



Carrboro

Within the Town of Carrboro, movement data was gathered and control delay calculated for 24 intersections. Control delay is unchanged at nearly all intersections between 2005 and 2011, and most (91.7%) have a LOS C or better. Only two intersections have a delay longer than 35 seconds/vehicle over the three peak periods of daily traffic. During the evening peak period, control delays were about the same as in the morning peak.

Table 2-5 on the following pages provides 2012 and 2005 LOS grades at analyzed intersections. When LOS has changed over that time, it is noted in green for improvements and red for degradations.

KEY DATA RESULTS

Average Control Delay: 35 seconds/vehicle or less

Movement Data: 24 intersections; 23 intersections for all peak periods

Morning Peak Period

- 18 (78.3%) intersections received an A or B LOS grade for control delay
- 22 (91.7%) received a C or better
- Greensboro St at Merritt Mill Rd had the longest delay for vehicles.

Noon Peak Period (23 intersections)

- 18 (78.3%) scored an A or B for control delay
- 22 (95.6%) getting a C or better
- Main St at Weaver St had the longest control delay

Evening Peak Period

- 17 (70.8%) scored an A or B for control delay
- 23 (95.8%) getting a C or better
- Main St at Weaver St had the longest control delay

Changes in Control Delay (2005 to 2011):

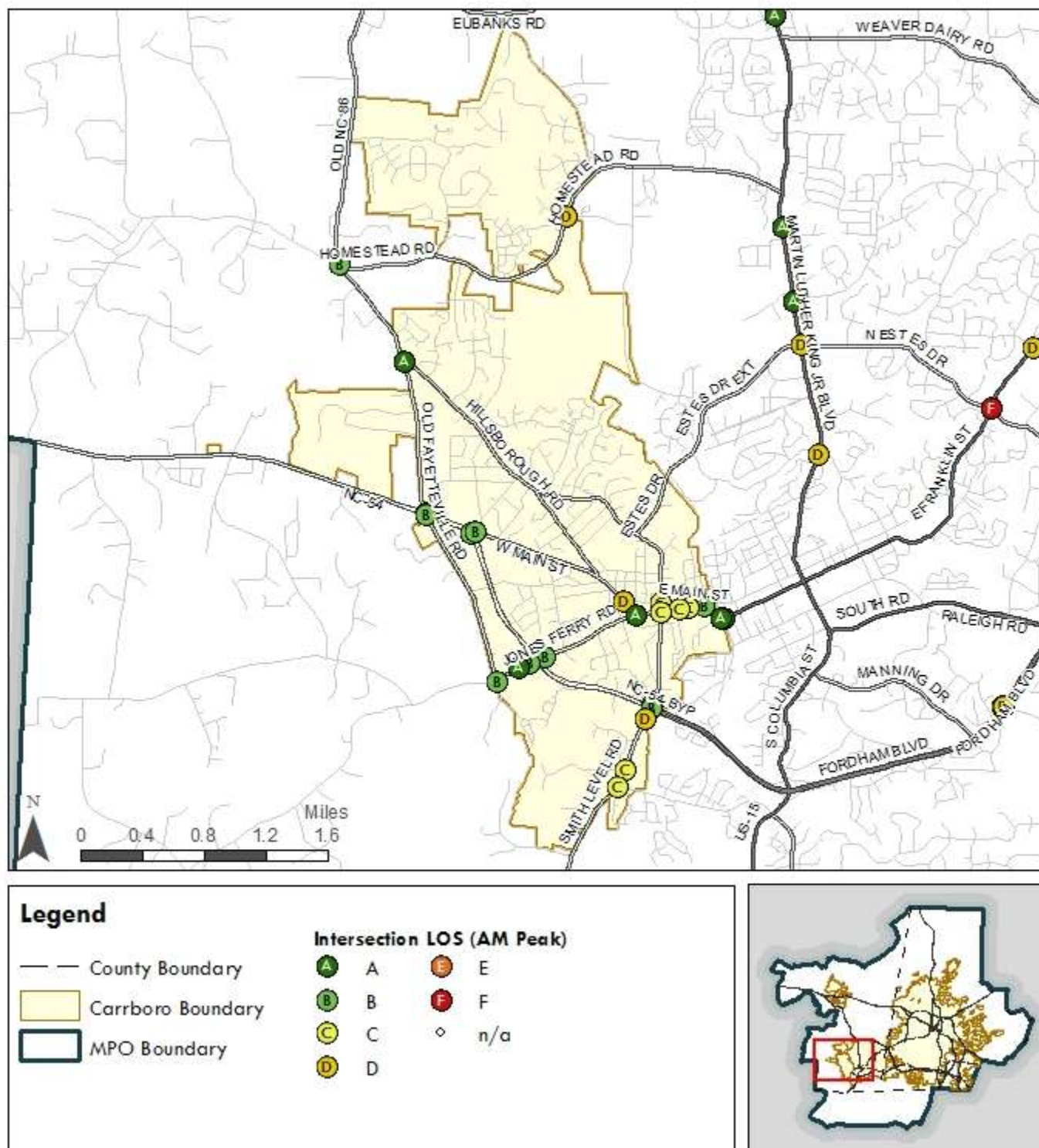
- Morning Peak Period: 16 intersections showed change
 - 5 (31.3%) showed improvement – all to A or B; 10 slipped to a C or D
 - 1 slipped to E – Greensboro St at Merritt Mill Rd
- Noon Peak Period: 16 intersections showed change
 - 3 (18.8%) improved to a C or better; 13 worsened-- 10 fell to B, 2 received C's.
 - 1 slipped to D – Main St at Weaver St slipped to a D.
- Evening Peak Period: 13 intersections showed change
 - 6 (25%) improved to C or better; 7 had longer delays
 - 1 fell to a D -- Main St at Weaver St

Table 2-5. Intersection Level of Service - Carrboro

		2012			2005		
	Count Location	AM	Noon	PM	AM	Noon	PM
Homestead Rd	Homestead Rd and High School Rd	A	A	A	D	D	E
	Homestead Rd and Old NC 86	B	B	C	C	A	B
Jones Ferry Rd	Jones Ferry Rd and NC-54	B	B	B	A	A	A
	Jones Ferry Rd and Old Fayetteville Rd	A	A	A	A	A	A
	Jones Ferry Rd and Willow Creek Ctr	A	A	A	A	A	A
Main St	Greensboro St and Main St	B	B	B	B	B	B
	Main St and Jones Ferry Rd	B	B	B	B	B	B
	Main St and Lloyd St	A	B	A	A	A	A
	Main St and NC-54	A	B	A	A	A	A
	Main St and Roberson St	C	C	C	C	D	D
	Main St and Rosemary St	C	C	C	A	A	A
	Main St and Weaver St	C	D	D	A	B	C
NC 54	Poplar Ave and NC 54	A	A	A	A	A	A
Old Fayetteville Rd	Hillsborough Rd and Old Fayetteville Rd	A	A	A	B	A	B
	NC-54 and Old Fayetteville Rd	B	B	B	A	A	B
Smith Level Rd/Greensboro St	Greensboro St and Estes Dr	B	B	C	A	B	B
	Greensboro St and Merritt Mill Rd	E	B	B	A	A	A
	Greensboro St and Weaver St	C	C	C	B	B	D
	Smith Level Rd and BPW Club Rd	B	B	B	A	A	B
	Smith Level Rd and Culbreth Rd	B	C	C	F	D	D
	Smith Level Rd and NC-54	B	B	B	A	A	B
	Smith Level Rd and Public Works	C	B	B	A	A	A
	Smith Level Rd and Rock Haven Rd	-	-	-	A	A	A
Merritt Rd	Franklin St and Merritt Mill Rd	B	B	B	C	A	F
	Merritt Mill Rd and Cameron Ave	B	-	B	A	A	B

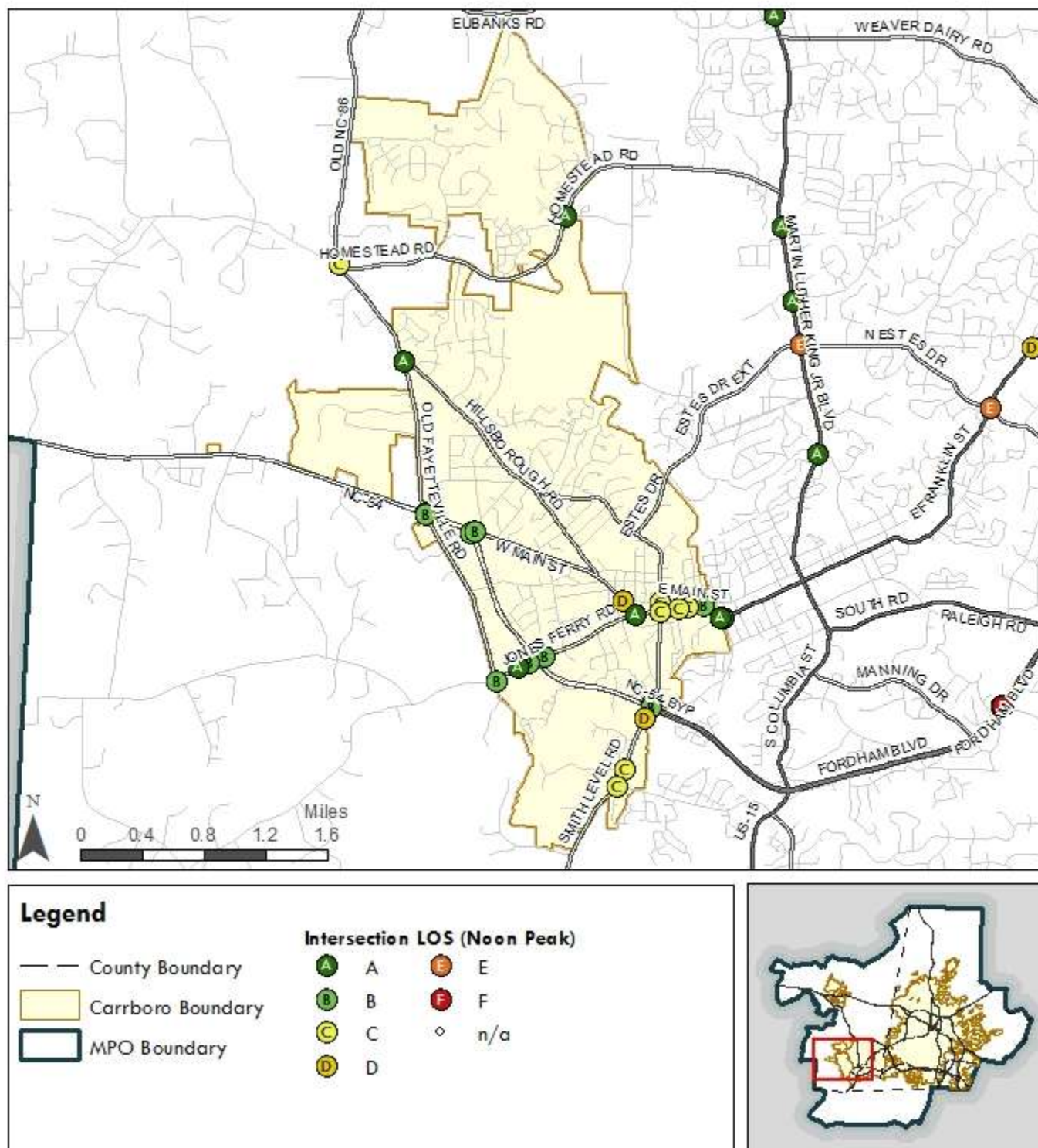
Green text denotes improvements and red denotes degradations

Figure 2-11. Intersection LOS Grades (AM Peak) - Carrboro



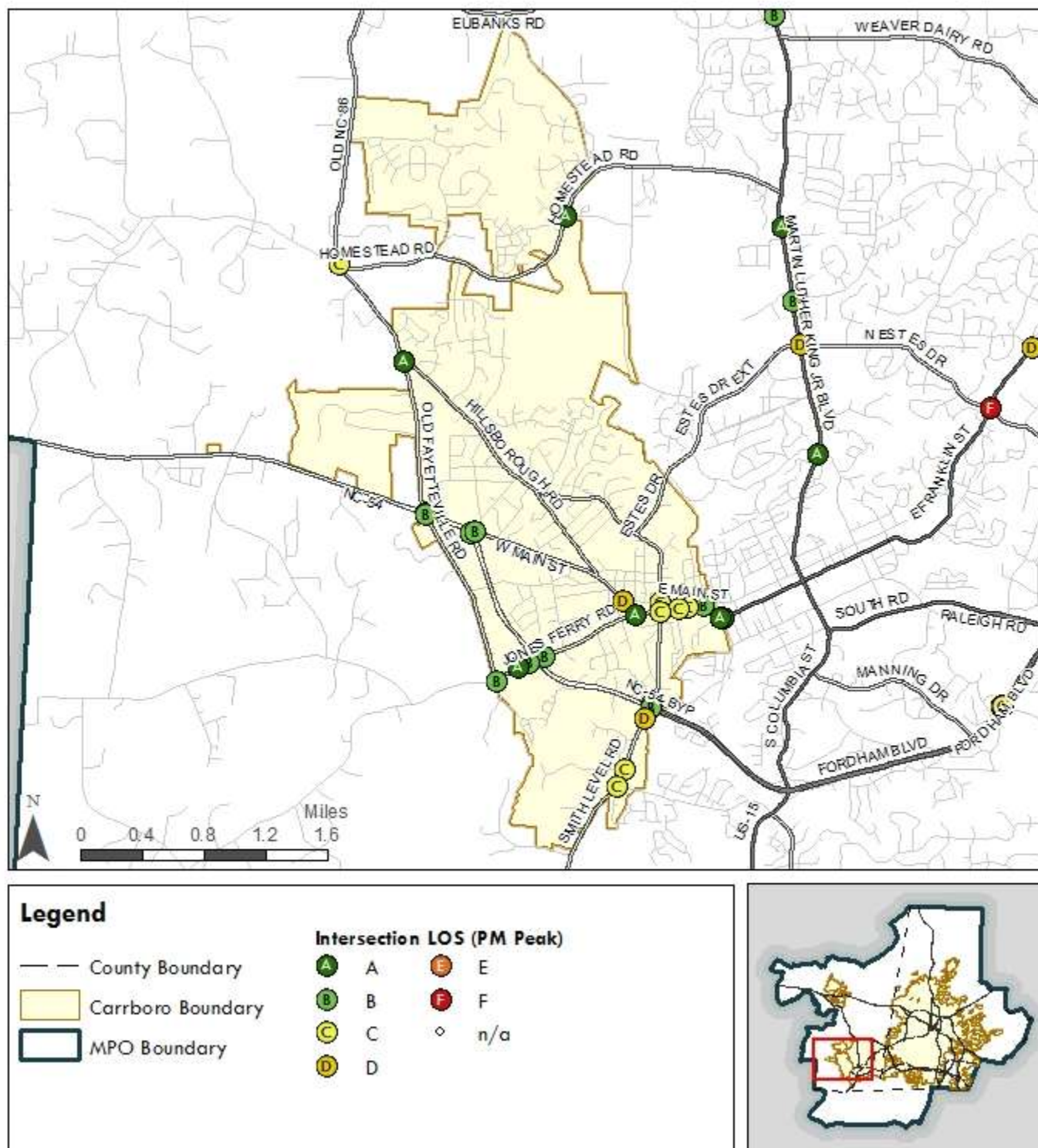
Morning Peak Period is from 7:00 AM to 9:00 AM

Figure 2-12. Intersection LOS Grades (Noon Peak) - Carrboro



Noon Peak Period is from 11:00 AM to 1:00 PM

Figure 2-13. Intersection LOS Grades (PM Peak) - Carrboro



Hillsborough

Within the Town of Hillsborough, movement data was gathered and control delay calculated for only five intersections. No data was collected for noon peak period for any of these intersections. During the morning peak period, all intersections received an LOS A or B for control delay. Similarly, during the evening peak period all intersections got an A or B for control delay, except Churton St at E Margaret Ln (Table 2-6).

KEY DATA RESULTS

Average Control Delay: 35 seconds/vehicle or less

Movement Data: 5 intersections (AM and PM peaks only)

Morning Peak Period

- All intersections LOS A or B

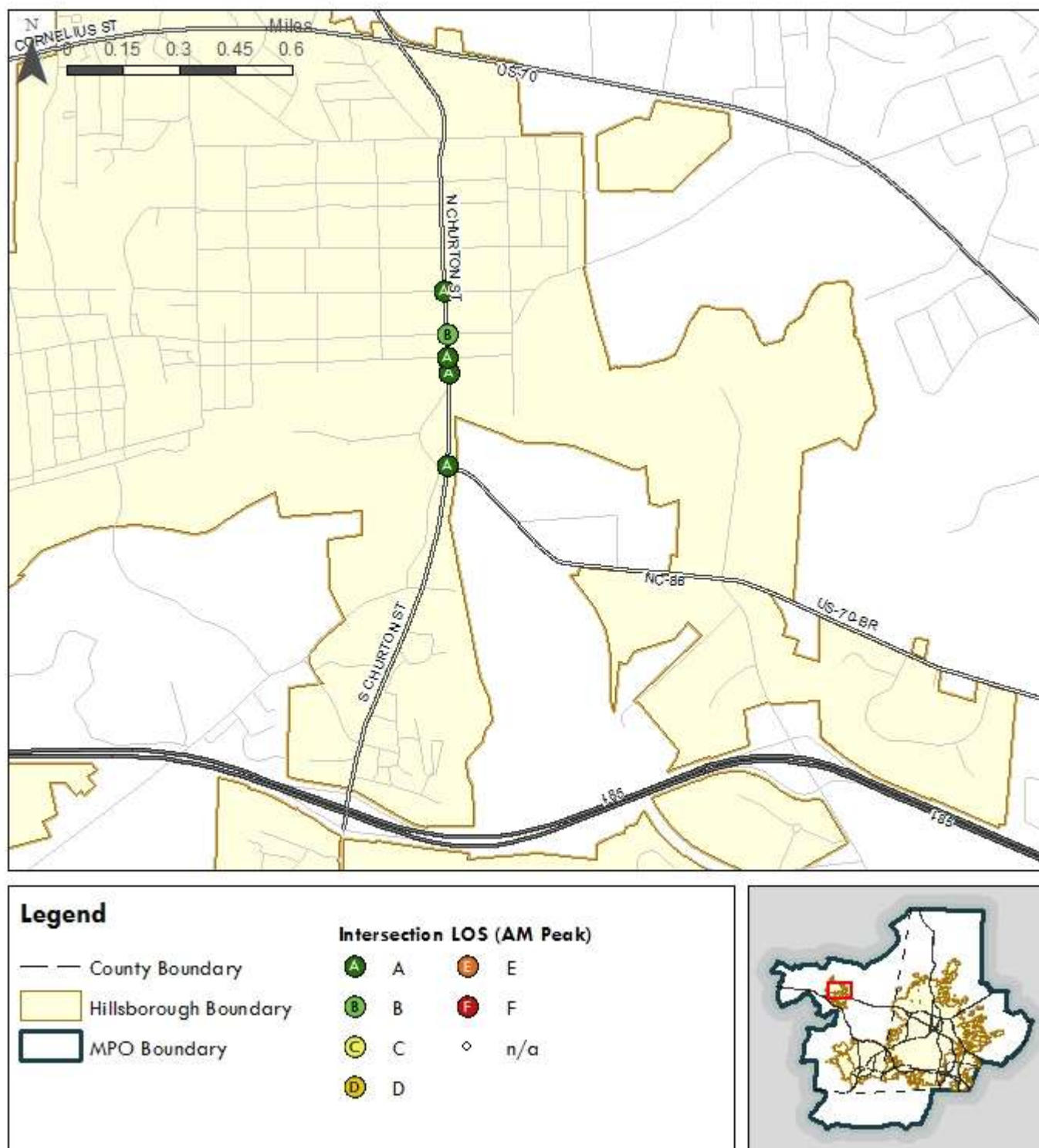
Evening Peak Period

- 60% LOS A
- 20% LOS B
- 20% LOS D (Churton St & Margaret Ln)

Table 2-6. Intersection Level of Service - Hillsborough

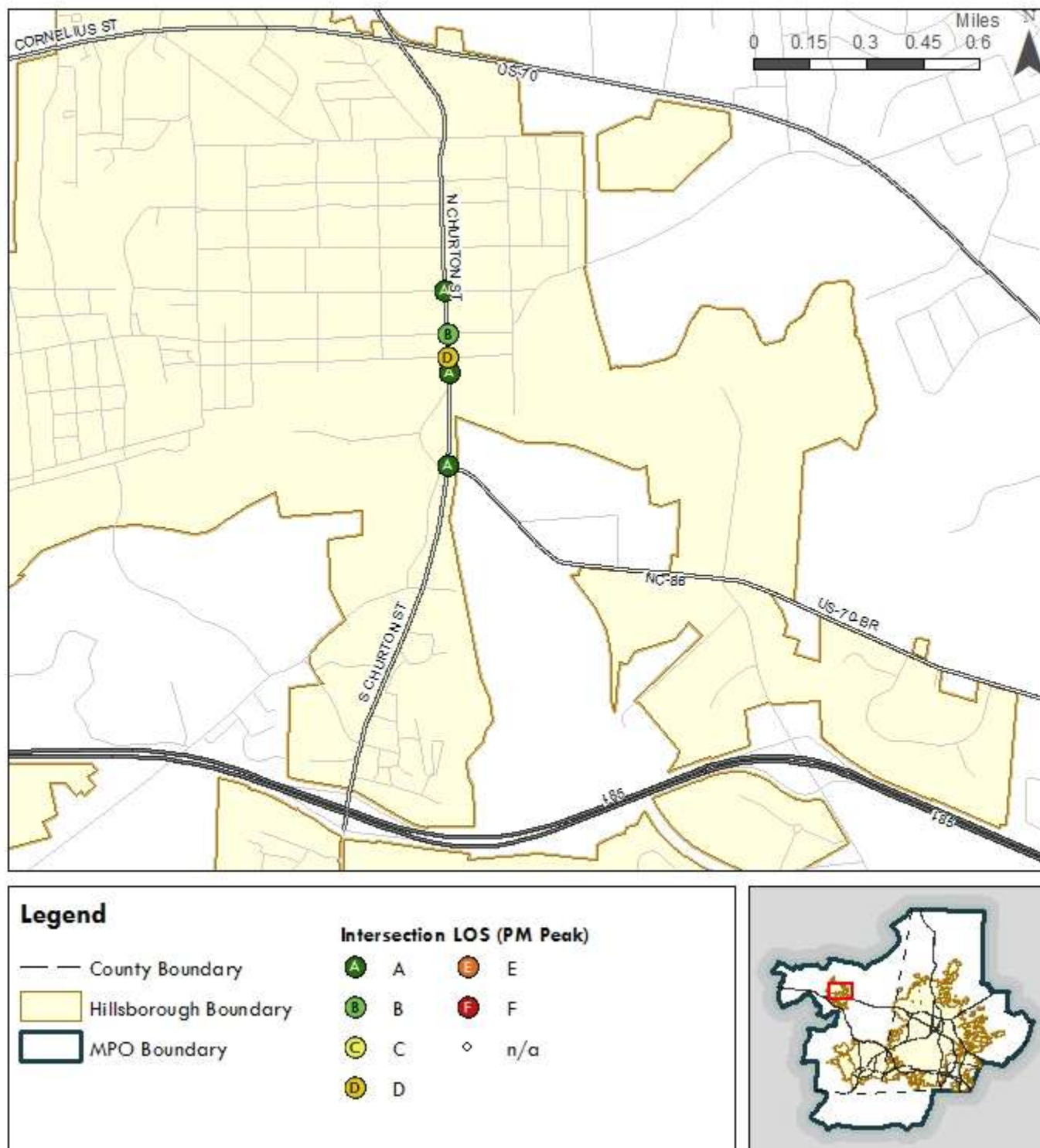
		Peak Periods	
Count Location		AM	PM
Churton St	Churton St and E Margaret Ln	A	D
	Churton St and King St	B	B
	Churton St and Nash-Kollock St	A	A
	Churton St and Tryon St	A	A
	Churton St and US 70 Business/NC-86	A	A

Figure 2-14. Intersection LOS Grades (AM Peak) - Hillsborough



Morning Peak Period is from 7:00 AM to 9:00 AM

Figure 2-15. Intersection LOS Grades (PM Peak) - Hillsborough



Evening Peak Period is from 4:00 PM to 6:00 PM



3. Vehicular Travel Time

WHAT IS IT?

Level of service is useful for telling us how well a specific segment of road or intersection accommodates demand. But level of service cannot tell us how long it takes to get from point A to point B. Travel time is an easy-to-understand measure that describes the travel experience between points, capturing the effects of both volume and intersection delays.

The MPO monitors travel time and average speed on 95 corridors in the region. As with most travel-related measures, the MPO collects data on Tuesday, Wednesday, and Thursday. The MPO compares the average travel speeds to the posted speed limit to calculate a travel time index (TTI). TTI is the ratio of travel time in congested conditions compared to the travel time in free flowing conditions. A TTI greater than 1 indicates congestion. It is noted that the posted speed limit in this report was applied as a surrogate for free flowing conditions rather than observed free flowing conditions.

Why does it matter?

MPOs and DOTs can use the travel time index to identify congested corridors. However, TTI only tells one part of a complex story. The MPO uses TTI in combination with level of service and several other measures presented in this report to paint a complete picture of congestion and identify hot spots that need attention.

METHODOLOGY

Travel-time analysis is simply the length of time needed for travelling from point A to point B. It would be too time consuming and expensive to perform a travel time study on every facility in the DCHC MPO. This report therefore uses Congestion Management Process (CMP) corridors as a sample from which to extrapolate travel times across the MPO.

There are 95 CMP corridors throughout the MPO, including interstates, state highways, major arterial facilities and minor facilities; both urban and rural. These corridors are used in this report as a representative sample of all facilities in the MPO. Data were collected using satellite navigation to yield cruise-travel time data which provided an average speed and an average travel time for the facility traveled. Traffic volumes, traffic control devices, signal timing, and delay are all elements that affect actual travel time. Data were collected by INRIX on Tuesdays, Wednesdays and Thursdays during the three peak periods of the day (AM [7:00 to 9:00], noon [11:00 AM to 1:00 PM] and PM [4:00 to 6:00 PM]). All data collection runs were traveled in both directions. Data for three corridors was collected by vehicle probe data instead of INRIX.

SUMMARY

CONDITION CHANGES UNKNOWN

KEY FINDINGS

92.2% of corridors had slower travel times in peak periods than under free-flow conditions, suggesting there is at least a little peak travel time delay on nearly all corridors

Other corridors approaching congested status:

- Durham County
 - Anderson / 15th St
 - E Main St
 - Gregson/Vickers St
 - Lawson St
 - Downtown Loop
 - S Alston Ave
 - NC 147
- Orange County
 - Eubanks Rd
 - US 15-501
 - Jones Ferry Rd



Using travel time data helps determine locations where traffic flow becomes too bogged down, or where facilities are underused. A travel time index (TTI) can be derived and related to a level of service (LOS) grade of A to F. Traffic engineers and transportation planners aim for a grade of C for any particular facility which generally suggest that facility is coping with traffic demand; not overly crowded, but not underused.

Travel time estimates are based on cruise-travel time data.

Table 3-1. Level of Service (LOS) Based on Travel Time Index (TTI) Data

	A	B	C	D	E	F
Maneuverability	Almost Completely Unimpeded	Only Slightly Impeded	Noticeably Restricted	Severely Limited	Extremely Unstable	Almost None
Driver Comfort	High	High	Some Tension	Poor	Extremely Poor	The Worst
TTI (Posted Speed / Avg Speed)	≤1.2	1.20 – 1.50	1.50 – 1.96	1.96 – 2.50	2.50 – 3.456	>3.46

REGIONWIDE RESULTS

Travel times and average travel speeds were collected on 95 Congestion Management Process (CMP) corridors, both at the corridor level and at a smaller segment level. A Travel Time Index (TTI) was calculated, defined as the posted speed limit divided by the actual speed. The further actual speeds drift below posted speeds, the higher the TTI rises. Higher TTIs suggest a corridor is congested or approaching congestion.

No full corridors were identified as congested (as defined by a TTI of 2.5 or greater): All corridors in the MPO planning area had a LOS C or better. However, several corridors had TTIs approaching congestion levels, including:

Orange: US 15/501 and Columbia Street from Smith Level Road to Franklin Street.

Durham: Anderson Street from Duke University Road to Hillsborough Road.

Durham: E Main St from Alston Avenue to N Buchanan Blvd

Durham: Downtown Loop

Durham: S Alston Avenue from the Wake County Line to NC 55

The small number of corridors identified as congested reflects the significant lengths of the corridors, which range from 0.45 miles to 30 miles long. Shorter segments of congestion or delay can be washed out by free-flow conditions elsewhere on the corridor, resulting in generally better LOS grades here than found in Chapter 1.

Figure 3-1. Percent LOS E or F Segments - DCHC MPO

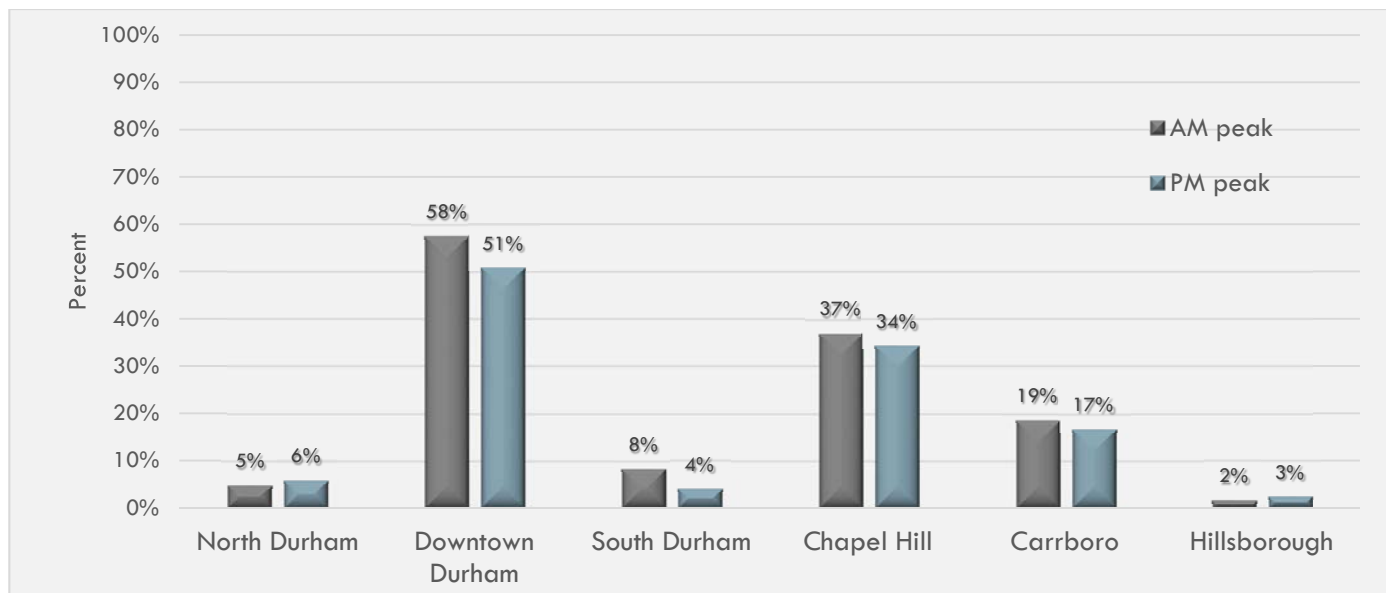


Table 3-2. Highest and Lowest CMP Corridor Speeds (All-Day)

	Corridor	Start	Endpoint	County	Speed	LOS	TTI
Top 10							
1	I-40	Aviation Pkwy	Alamance Coutny / Orange County Line	Durham / Orange	67.38	A	0.97
2	I-40	Alamance Coutny / Orange County Line	Aviation Pkwy	Orange / Durham	67.13	A	0.97
3	I-85	Butner - Exit 189	I-40 / I-85	Durham / Orange	65.36	A	0.96
4	I-85	I-40 / I-85	Butner - Exit 189	Orange / Durham	65.31	A	0.95
5	NC 147	I-85 Exit 172	T.W. Alexander Dr	Durham	63.99	A	0.92
6	NC 147	T.W. Alexander Dr	I-85 Exit 172	Durham	63.07	A	0.95
7	US 15-501 Bypass	MLK Pkwy	I-85 Exit 174	Durham	62.45	A	0.88
8	US 15-501 Bypass	I-85 Exit 174	MLK Pkwy	Durham	59.74	A	0.90
9	US 70	I-85	Wake County Line	Durham	52.12	A	0.98
10	NC 57	Person County line	NC 86 N	Orange	50.00	A	1.10
Bottom 10							
86	Lawson St	Fayetteville St	Briggs Ave	Durham	23.40	B	1.36
87	Jones Ferry Rd	Main St	Old Fayetteville Rd	Orange	23.43	C	1.54
88	Main St	NC 54	Merritt Mill Rd	Orange	23.25	A	1.17
89	Anderson St/Fifteenth St	DUKE UNIVERSITY RD	Hillsborough Rd	Durham	22.79	C	1.52
90	E Main St	N BUCHANAN BLVD	NC 55 / Alston Ave	Durham	22.72	C	1.50
91	Main St	Merritt Mill Rd	NC 54	Orange	22.61	B	1.23
92	Lawson St (East)	Briggs Ave	Fayetteville St	Durham	21.65	B	1.46
93	Anderson St/Fifteenth St	Hillsborough Rd	DUKE UNIVERSITY RD	Durham	19.95	C	1.74
94	E Main St	NC 55 / Alston Ave	N BUCHANAN BLVD	Durham	18.51	C	1.79
95	Downtown Loop	W Main St @ N Great Jones St	W Main St @ S Great Jones St	Durham	18.27	B	1.39

Table 3-3. Highest and Lowest CMP Corridor Speeds (AM Peak)

	Corridor	Start	Endpoint	County	Speed	LOS	TTI
Top 10							
1	I-40	Aviation Pkwy	Alamance Coutny / Orange County Line	Durham / Orange	67.48	A	0.96
2	I-40	Alamance Coutny / Orange County Line	Aviation Pkwy	Orange / Durham	67.17	A	0.97
3	I-85	I-40 / I-85	Butner - Exit 189	Orange / Durham	66.05	A	0.94
4	I-85	Butner - Exit 189	I-40 / I-85	Durham / Orange	65.05	A	0.96
5	NC 147	I-85 Exit 172	T.W. Alexander Dr	Durham	64.33	A	0.92
6	NC 147	T.W. Alexander Dr	I-85 Exit 172	Durham	63.70	A	0.95
7	US 15-501 Bypass	MLK Pkwy	I-85 Exit 174	Durham	61.76	A	0.89
8	US 15-501 Bypass	I-85 Exit 174	MLK Pkwy	Durham	60.18	A	0.90
9	US 70	Wake County Line	I-85	Durham	50.23	A	1.03
10	US 70	I-85	Wake County Line	Durham	49.76	A	1.04
Bottom 10							
86	Lawson St	Fayetteville St	Briggs Ave	Durham	21.65	B	1.46
87	Main St	Merritt Mill Rd	NC 54	Orange	22.39	B	1.24
88	Main St	NC 54	Merritt Mill Rd	Orange	22.26	B	1.23
89	E Main St	N BUCHANAN BLVD	NC 55 / Alston Ave	Durham	21.41	C	1.61
90	Lawson St (East)	Briggs Ave	Fayetteville St	Durham	21.39	C	1.50
91	Anderson St/Fifteenth St	DUKE UNIVERSITY RD	Hillsborough Rd	Durham	21.03	C	1.65
92	Gregson St (North and South) / Vickers Ave	University Dr	I-85	Durham	19.88	C	1.76
93	Downtown Loop	W Main St @ N Great Jones St	W Main St @ S Great Jones St	Durham	18.63	B	1.36
94	E Main St	NC 55 / Alston Ave	N BUCHANAN BLVD	Durham	17.25	C	1.94
95	Downtown Loop	W Main St @ S Great Jones St	W Main St @ N Great Jones St	Durham	16.49	C	1.75

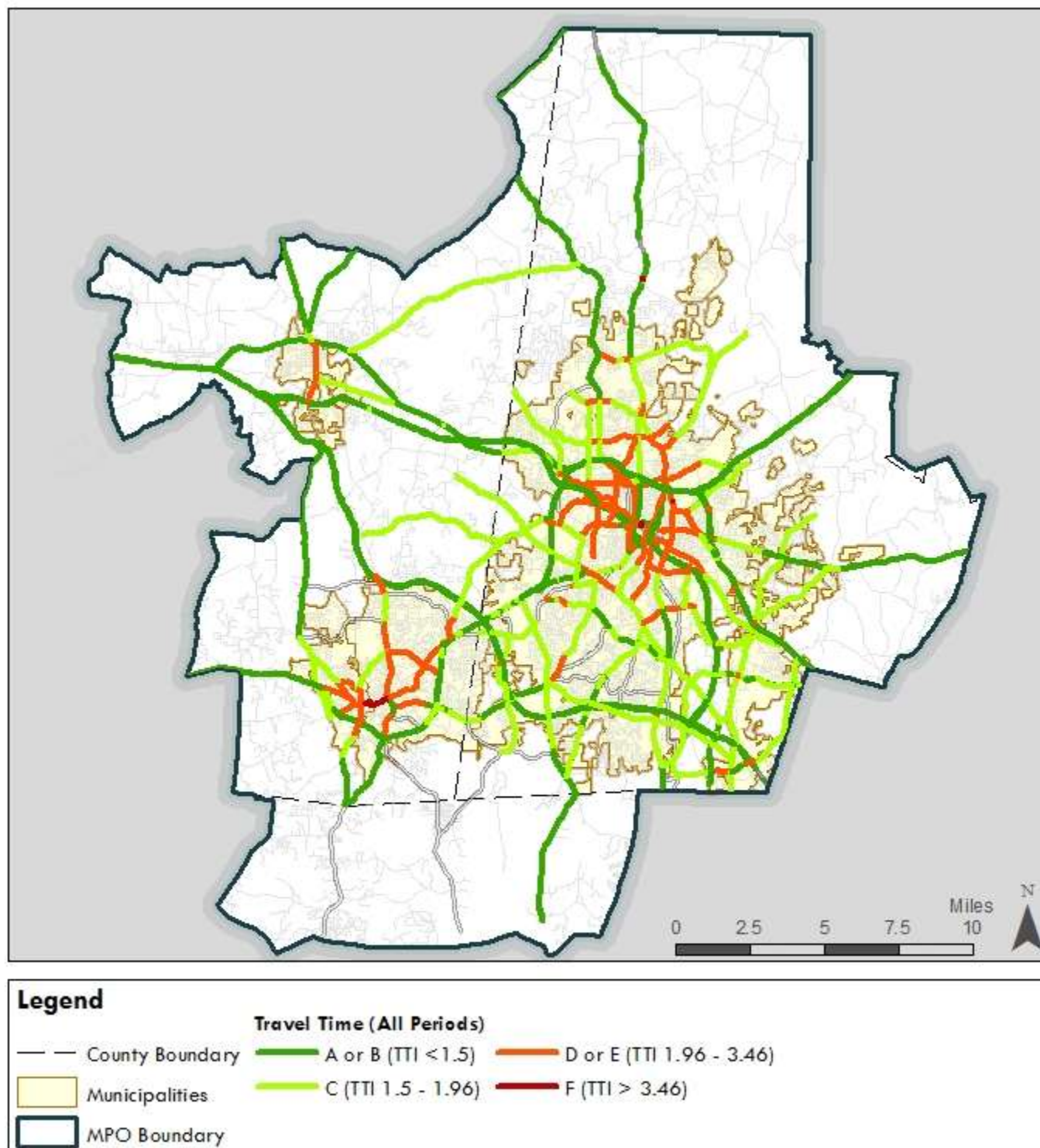
Table 3-4. Highest and Lowest CMP Corridor Speeds (Noon Peak)

	Corridor	Start	Endpoint	County	Speed	LOS	TTI
Top 10							
1	I-40	Alamance Coutny / Orange County Line	Aviation Pkwy	Orange / Durham	68.49	A	0.95
2	I-85	I-40 / I-85	Butner - Exit 189	Orange / Durham	65.71	A	0.95
3	I-85	Butner - Exit 189	I-40 / I-85	Durham / Orange	65.64	A	0.95
4	I-40	Aviation Pkwy	Alamance Coutny / Orange County Line	Durham / Orange	64.54	A	1.01
5	NC 147	I-85 Exit 172	T.W. Alexander Dr	Durham	64.34	A	0.92
6	NC 147	T.W. Alexander Dr	I-85 Exit 172	Durham	64.07	A	0.94
7	US 15-501 Bypass	MLK Pkwy	I-85 Exit 174	Durham	62.14	A	0.89
8	US 15-501 Bypass	I-85 Exit 174	MLK Pkwy	Durham	60.66	A	0.89
9	US 70	I-85	Wake County Line	Durham	51.63	A	1.00
10	NC 57	NC 86 N	Person County line	Orange	49.72	A	1.11
Bottom 10							
86	Main St	NC 54	Merritt Mill Rd	Orange	22.60	B	1.21
87	Lawson St (East)	Fayetteville St	Briggs Ave	Durham	22.43	B	1.45
88	Main St	Merritt Mill Rd	NC 54	Orange	21.87	B	1.29
89	E Main St	N BUCHANAN BLVD	NC 55 / Alston Ave	Durham	19.68	C	1.75
90	Gregson St (North and South) / Vickers Ave	University Dr	I-85	Durham	19.38	C	1.81
91	Anderson St/Fifteenth St	Hillsborough Rd	DUKE UNIVERSITY RD	Durham	19.35	C	1.79
92	Downtown Loop	W Main St @ N Great Jones St	W Main St @ S Great Jones St	Durham	18.78	B	1.37
93	E Main St	NC 55 / Alston Ave	N BUCHANAN BLVD	Durham	17.92	C	1.87
94	Anderson St/Fifteenth St	DUKE UNIVERSITY RD	Hillsborough Rd	Durham	16.93	D	2.05
95	Downtown Loop	W Main St @ S Great Jones St	W Main St @ N Great Jones St	Durham	16.50	C	1.75

Table 3-5. Highest and Lowest CMP Corridor Speeds (PM Peak)

	Corridor	Start	Endpoint	County	Speed	LOS	TTI
Top 10							
1	I-40	Alamance Coutny / Orange County Line	Aviation Pkwy	Orange / Durham	67.04	A	0.97
2	I-40	Aviation Pkwy	Alamance Coutny / Orange County Line	Durham / Orange	66.85	A	0.97
3	I-85	I-40 / I-85	Butner - Exit 189	Orange / Durham	66.22	A	0.94
4	I-85	Butner - Exit 189	I-40 / I-85	Durham / Orange	64.92	A	0.96
5	NC 147	T.W. Alexander Dr	I-85 Exit 172	Durham	63.17	A	0.95
6	NC 147	I-85 Exit 172	T.W. Alexander Dr	Durham	62.20	A	0.96
7	US 15-501 Bypass	MLK Pkwy	I-85 Exit 174	Durham	61.98	A	0.89
8	US 15-501 Bypass	I-85 Exit 174	MLK Pkwy	Durham	60.19	A	0.90
9	US 70	Wake County Line	I-85	Durham	49.37	A	1.05
10	US 70	I-85	Wake County Line	Durham	49.25	A	1.05
Bottom 10							
86	Main St	Merritt Mill Rd	NC 54	Orange	22.91	B	1.21
87	Lawson St (East)	Briggs Ave	Fayetteville St	Durham	22.75	B	1.39
88	E Main St	N BUCHANAN BLVD	NC 55 / Alston Ave	Durham	21.56	C	1.57
89	Main St	NC 54	Merritt Mill Rd	Orange	21.08	B	1.30
90	Anderson St/Fifteenth St	DUKE UNIVERSITY RD	Hillsborough Rd	Durham	20.95	C	1.66
91	S Columbia St / US 15-501 S	Smith Level Rd	Franklin St	Orange	20.75	C	1.71
92	Anderson St/Fifteenth St	Hillsborough Rd	DUKE UNIVERSITY RD	Durham	19.56	C	1.78
93	Downtown Loop	W Main St @ N Great Jones St	W Main St @ S Great Jones St	Durham	19.27	B	1.32
94	E Main St	NC 55 / Alston Ave	N BUCHANAN BLVD	Durham	18.39	C	1.81
95	Downtown Loop	W Main St @ S Great Jones St	W Main St @ N Great Jones St	Durham	16.21	C	1.78

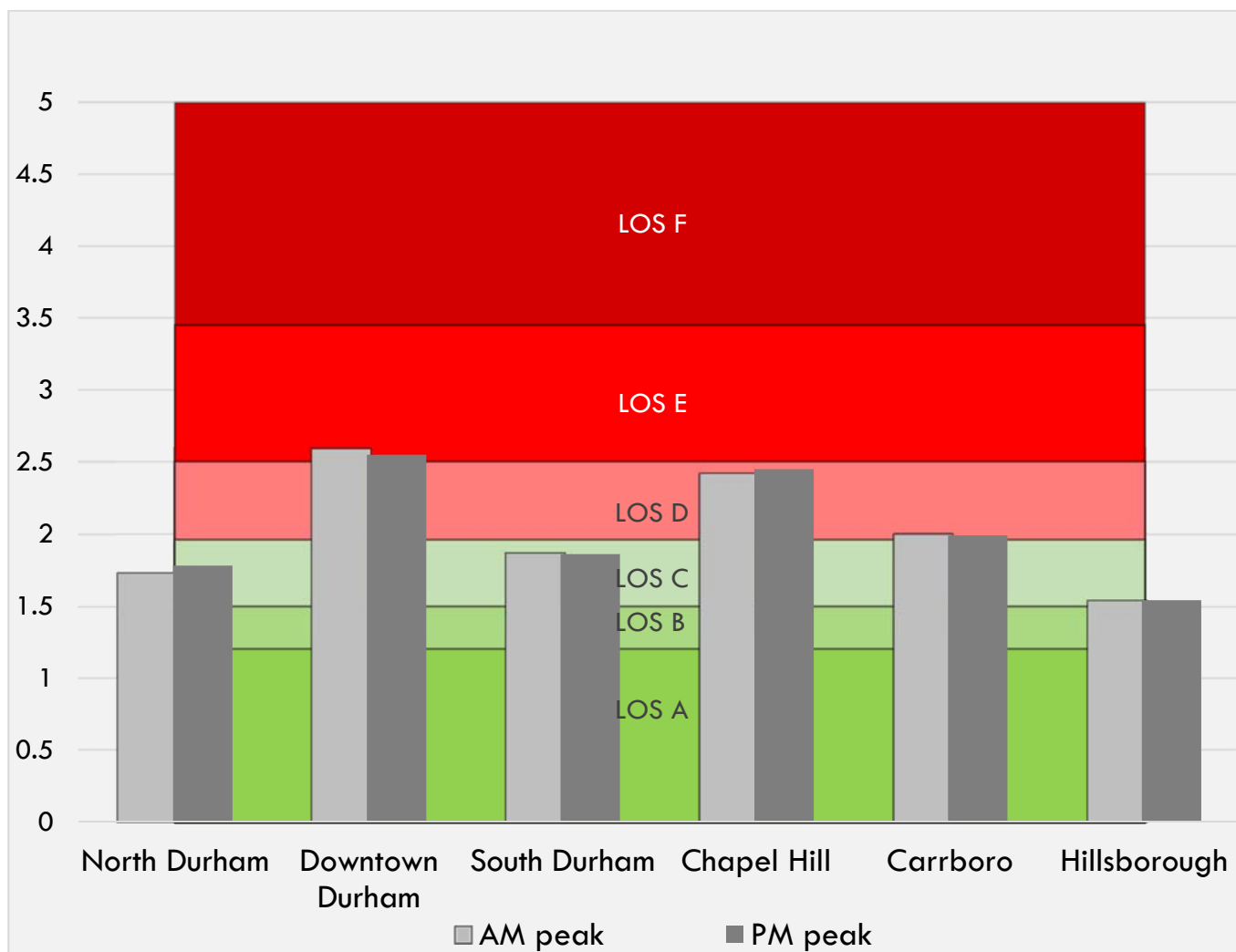
Figure 3-2. Highest Travel Time Index Experienced (All Periods) - DCHC MPO



RESULTS BY GEOGRAPHY

The following provides detailed results on average speed summarized by county. Average travel time index (TTI) and LOS are available at the sub-region level, and they show that Chapel Hill and Downtown Durham are the most congested places in the region. Downtown Durham has an average LOS E, and Chapel Hill is very close to the same condition.

Figure 3-3. Average TTI by Sub-Area



Durham County

There are 69 CMP corridors either partially or entirely within Durham County, including interstates, state highways, major arterial facilities and minor facilities; both urban and rural. The corridors range in length from three-quarters of a mile to 30 miles long. As such, shorter segments of congestion or delay can be washed out by free-flow conditions elsewhere on the corridor, resulting in generally higher LOS grades than found in Chapter 1. All corridors in the county had a LOS C or better.

Table 3-6. All-Day Travel Times, LOS and Travel Time Indices (TTI) - Durham County

Corridor	From (A)	To (B)	All day					
			A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
Academy Rd/Cameron Blvd/NC 751	Erwin Rd	University Dr	35.42	A	0.99	33.14	A	1.06
Anderson St/Fifteenth St	DUKE UNIVERSITY RD	Hillsborough Rd	22.79	C	1.52	19.95	C	1.74
Angier Ave	US 70	Alston Ave	34.46	A	1.12	34.09	A	1.13
Briggs Ave	Riddle Rd	Pettigrew St	36.00	A	0.98	32.19	A	1.10
Broad St / Swift Ave	Duke University Rd	W Carver St	27.98	B	1.22	25.13	B	1.37
Carver St	Danube Ln	Rose of Sharon Rd	32.34	A	1.09	31.49	A	1.13
Chapel Hill Blvd	University Dr	I-40 Exit 270	40.77	A	1.14	40.33	A	1.18
Club Blvd	N BUCHANAN BLVD	N ROXBORO ST	26.34	B	1.34	26.62	B	1.32
Cole Mill Rd	Hillsborough Rd	Umstead Rd	39.17	A	1.06	38.45	A	1.09
Cornwallis Rd (East)	Miami Blvd	Fayetteville Rd	37.76	B	1.19	35.42	B	1.28
Davis Dr	Cornwallis Rd	Wake County Line	36.40	B	1.24	38.03	B	1.30
Duke St (North and South) / US 501 North	University Dr	Durham County / Person County Line	48.79	A	0.92	36.49	A	1.12
Erwin Rd / Cameron Blvd	W Main St	US 15-501 Bypass	34.28	A	1.09	26.66	B	1.33
Fayetteville St / Fayetteville Rd	E Main St	NC 751	33.21	B	1.22	32.85	B	1.24
Gregson St (North and South) / Vickers Ave	I-85	University Dr	30.61	A	1.08	30.60	A	1.14
Guess Rd / Buchanan Blvd	W Chapel Hill St	Durham County / Orange County Line	44.18	A	1.08	41.73	A	1.15
Hillandale Rd / Fulton St	Rose of Sharon Rd	Erwin Rd	34.37	A	1.13	33.83	B	1.22
Hillsborough Rd / Markham Ave	Broad St	I-85 Exit 170	37.53	A	1.12	34.60	B	1.22
Holloway St / NC 98	N Dillard St	Durham County / Wake County Line	42.73	A	1.12	41.26	A	1.16
I-40	Alamance County / Orange County Line	Aviation Pkwy	67.13	A	0.97	67.38	A	0.97
Infinity Rd / Latta Rd / Snow Hill Rd	Guess Rd	Old Oxford Hwy	38.24	A	1.11	37.03	A	1.15
Lawson St (East)	Fayetteville St	Briggs Ave	23.90	B	1.35	21.65	B	1.46
E Main St	N BUCHANAN BLVD	NC 55 / Alston Ave	22.72	C	1.50	18.51	C	1.79
Mangum St	Roxboro Rd @ Markham Ave	Lakewood Ave @ University Dr	27.38	B	1.26	-	-	-
S Miami Blvd	Durham County / Wake County Line	US 70	37.72	A	1.16	35.66	B	1.23
MLK Pkwy	NC 55	University Dr	37.54	A	1.12	37.02	A	1.12
NC 147	T.W. Alexander Dr	I-85 Exit 172	63.07	A	0.95	63.99	A	0.92
NC 54	Little John Rd	Slater Rd	38.41	B	1.19	36.83	B	1.24
NC 55 / Alston Ave / Avondale Dr	N Roxboro Rd	Durham County / Wake County Line	37.35	A	1.13	35.90	B	1.18
NC 751 / Hope Valley Rd	University Dr	US 64	39.13	A	1.03	41.94	A	1.11
Old Oxford Rd	N Roxboro Rd	SNOW HILL RD	38.21	A	1.09	37.56	A	1.11
Page Rd / Page Rd Extension / Hopson Rd	US 70	NC 55	36.65	B	1.20	35.83	B	1.22
N Roxboro Rd	E LAKEWOOD AVE	N Duke St / US 501 N	31.01	A	1.14	29.30	B	1.24
T. W. Alexander Dr	NC 55	WIND RIVER PKY	39.41	B	1.23	37.01	B	1.30
University Dr / Lakewood Ave	Chapel Hill Blvd	S Roxboro St	32.32	A	1.09	30.66	A	1.13
US 15-501 Bypass	I-85 Exit 174	MLK Pkwy	59.74	A	0.90	62.45	A	0.88

DCHC MPO MOBILITY REPORT CARD



CHAPTER THREE

Corridor	From (A)	To (B)	All day					
			A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
US 70	I-85	Wake County Line	52.12	A	0.98	47.31	A	1.10
Downtown Loop	W Main St @ S Great Jones St	W Main St @ N Great Jones St	17.38	C	1.67	18.27	B	1.39
W Chapel Hill St / Duke University Rd	W Ramseur St	Cameron Blvd	28.70	B	1.23	26.54	B	1.35
W Cornwallis Rd	ERWIN RD	Fayetteville Rd	35.00	A	1.01	32.71	A	1.10
Erwin Rd / Hwy 751	N Fordham Blvd @ Chapel Hill Blvd	US 15-501 Bypass	38.49	A	1.15	39.32	A	1.14
Rose of Sharon Rd	Cole Mill Rd	Guess Rd	35.80	B	1.26	34.08	B	1.32
Sherron Rd	S MINERAL SPRINGS RD	Wake Forest Hwy	39.81	A	1.13	38.98	A	1.15
S Alston Ave	NC 55	Durham County / Wake County Line	37.90	B	1.28	32.40	C	1.50
Garrett Rd	US 15-501	Hope Valley Rd	38.59	A	1.10	37.25	A	1.15
Farrington Rd	STAGECOACH RD	NC 54	39.14	A	1.03	38.20	A	1.06
Barbee Chapel Rd / Farrington Rd / Stagecoach Rd	NC 54 (West)	NC 751	39.12	A	1.15	38.19	B	1.18
Riddle Rd / Ellis Rd	Fayetteville St	S Miami Blvd	34.41	A	1.11	34.69	A	1.10
Miami Blvd (North and South)	E Geer St	US 70	33.37	A	1.12	30.86	A	1.14
Anderson St	Chapel Hill Rd	DUKE UNIVERSITY RD	30.18	A	0.99	30.00	A	1.00
W Club Blvd	Hillandale Rd	N BUCHANAN BLVD	27.03	B	1.30	26.77	B	1.31
E Club Blvd	N ROXBORO ST	I-85	34.53	A	1.11	33.31	A	1.16
W Main St	Hillsborough Rd	N BUCHANAN BLVD	26.90	B	1.31	24.86	B	1.44
Mineral Springs Rd	US 70	Fletchers Chapel Rd	37.52	A	0.98	36.99	A	1.00
Old Oxford Hwy	SNOW HILL RD	Durham County / Granville County Line	39.99	A	1.13	40.00	A	1.13
S Roxboro Rd	Cornwallis Rd	E LAKEWOOD AVE	32.59	A	1.09	30.67	A	1.17
HORTON RD	GUESS RD	N DUKE ST	33.57	A	1.04	31.74	A	1.13
E GEER ST	N ALSTON AVE	GLENN SCHOOL RD	36.46	A	0.97	34.39	A	1.03
FARRINGTON RD / SW DURHAM PKY	NC 54	DURHAM CHAPEL HILL BLVD	39.38	A	1.14	38.83	A	1.16
University Dr / Old Chapel Hill Rd / Old Durham Rd	Chapel Hill Blvd	Durham-Chapel Hill Blvd (Chapel Hill)	35.66	A	0.99	34.53	A	1.03

Table 3-7. AM Peak Period Travel Times, LOS and TTI - Durham County

Corridor	From (A)	To (B)	AM Peak					
			A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
Academy Rd/Cameron Blvd/NC 751	Erwin Rd	University Dr	34.21	A	1.02	33.90	A	1.04
Anderson St/Fifteenth St	DUKE UNIVERSITY RD	Hillsborough Rd	21.03	C	1.65	16.05	D	2.16
Angier Ave	US 70	Alston Ave	33.72	A	1.15	32.21	B	1.21
Briggs Ave	Riddle Rd	Pettigrew St	36.42	A	0.97	31.43	A	1.12
Broad St / Swift Ave	Duke University Rd	W Carver St	28.10	B	1.21	25.19	B	1.36
Carver St	Danube Ln	Rose of Sharon Rd	30.83	A	1.15	32.42	A	1.09
Chapel Hill Blvd	University Dr	I-40 Exit 270	39.22	B	1.18	37.83	B	1.27
Club Blvd	N BUCHANAN BLVD	N ROXBORO ST	26.33	B	1.33	24.87	B	1.42
Cole Mill Rd	Hillsborough Rd	Umstead Rd	38.41	A	1.08	38.24	A	1.09
Cornwallis Rd (East)	Miami Blvd	Fayetteville Rd	36.35	B	1.24	36.50	B	1.24
Davis Dr	Cornwallis Rd	Wake County Line	31.68	B	1.44	37.72	B	1.31
Duke St (North and South) / US 501 North	University Dr	Durham County / Person County Line	48.04	A	0.94	35.91	A	1.15
Erwin Rd / Cameron Blvd	W Main St	US 15-501 Bypass	31.79	B	1.20	27.65	B	1.28
Fayetteville St / Fayetteville Rd	E Main St	NC 751	33.05	B	1.23	31.82	B	1.28
Gregson St (North and South) / Vickers Ave	I-85	University Dr	29.74	A	1.11	19.88	C	1.76
Guess Rd / Buchanan Blvd	W Chapel Hill St	Durham County / Orange County Line	43.40	A	1.10	42.41	A	1.14
Hillandale Rd / Fulton St	Rose of Sharon Rd	Erwin Rd	32.39	B	1.21	34.65	B	1.18
Hillsborough Rd / Markham Ave	Broad St	I-85 Exit 170	35.35	B	1.22	34.70	B	1.22
Holloway St / NC 98	N Dillard St	Durham County / Wake County Line	42.09	A	1.14	40.89	B	1.18
I-40	Alamance County / Orange County Line	Aviation Pkwy	67.17	A	0.97	67.48	A	0.96
Infinity Rd / Latta Rd / Snow Hill Rd	Guess Rd	Old Oxford Hwy	37.24	A	1.15	38.69	A	1.10
Lawson St (East)	Fayetteville St	Briggs Ave	22.40	B	1.44	21.39	C	1.50
E Main St	N BUCHANAN BLVD	NC 55 / Alston Ave	21.41	C	1.61	17.25	C	1.94
Mangum St	Roxboro Rd @ Markham Ave	Lakewood Ave @ University Dr	26.05	B	1.32	#DIV/0!	#DIV/0!	#DIV/0!
S Miami Blvd	Durham County / Wake County Line	US 70	35.28	B	1.25	35.19	B	1.25
MLK Pkwy	NC 55	University Dr	37.38	A	1.12	36.55	A	1.14
NC 147	T.W. Alexander Dr	I-85 Exit 172	63.70	A	0.95	64.33	A	0.92
NC 54	Little John Rd	Slater Rd	36.72	B	1.25	35.72	B	1.28
NC 55 / Alston Ave / Avondale Dr	N Roxboro Rd	Durham County / Wake County Line	36.15	B	1.18	35.49	B	1.21
NC 751 / Hope Valley Rd	University Dr	US 64	38.48	A	1.05	42.50	A	1.10
Old Oxford Rd	N Roxboro Rd	SNOW HILL RD	37.59	A	1.12	37.91	A	1.10
Page Rd / Page Rd Extension / Hopson Rd	US 70	NC 55	34.83	B	1.28	35.87	B	1.22
N Roxboro Rd	E LAKEWOOD AVE	N Duke St / US 501 N	30.80	A	1.15	27.97	B	1.29
T. W. Alexander Dr	NC 55	WIND RIVER PKY	37.97	B	1.28	38.29	B	1.26

DCHC MPO MOBILITY REPORT CARD



CHAPTER THREE

AM Peak

Corridor	From (A)	To (B)	A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
University Dr / Lakewood Ave	Chapel Hill Blvd	S Roxboro St	31.62	A	1.11	29.39	B	1.19
US 15-501 Bypass	I-85 Exit 174	MLK Pkwy	60.18	A	0.90	61.76	A	0.89
US 70	I-85	Wake County Line	49.76	A	1.04	50.23	A	1.03
Downtown Loop	W Main St @ S Great Jones St	W Main St @ N Great Jones St	16.49	C	1.75	18.63	B	1.36
W Chapel Hill St / Duke University Rd	W Ramseur St	Cameron Blvd	26.90	B	1.32	27.01	B	1.32
W Cornwallis Rd	ERWIN RD	Fayetteville Rd	34.34	A	1.03	34.10	A	1.04
Erwin Rd / Hwy 751	N Fordham Blvd @ Chapel Hill Blvd	US 15-501 Bypass	37.81	A	1.17	39.62	A	1.13
Rose of Sharon Rd	Cole Mill Rd	Guess Rd	35.48	B	1.27	34.23	B	1.31
Sherron Rd	S MINERAL SPRINGS RD	Wake Forest Hwy	38.90	A	1.16	39.68	A	1.13
S Alston Ave	NC 55	Durham County / Wake County Line	38.20	B	1.27	37.88	B	1.28
Garrett Rd	US 15-501	Hope Valley Rd	38.26	A	1.11	36.24	A	1.18
Farrington Rd	STAGECOACH RD	NC 54	38.03	A	1.06	38.95	A	1.04
Barbee Chapel Rd / Farrington Rd / Stagecoach Rd	NC 54 (West)	NC 751	38.03	B	1.18	38.95	A	1.16
Riddle Rd / Ellis Rd	Fayetteville St	S Miami Blvd	33.08	A	1.16	34.73	A	1.10
Miami Blvd (North and South)	E Geer St	US 70	32.86	A	1.14	31.76	A	1.11
Anderson St	Chapel Hill Rd	DUKE UNIVERSITY RD	30.28	A	0.99	27.50	A	1.09
W Club Blvd	Hillandale Rd	N BUCHANAN BLVD	27.26	B	1.29	26.48	B	1.32
E Club Blvd	N ROXBORO ST	I-85	33.49	A	1.15	32.06	B	1.20
W Main St	Hillsborough Rd	N BUCHANAN BLVD	26.44	B	1.34	24.99	B	1.44
Mineral Springs Rd	US 70	Fletchers Chapel Rd	36.94	A	1.00	36.63	A	1.01
Old Oxford Hwy	SNOW HILL RD	Durham County / Granville County Line	40.00	A	1.13	39.93	A	1.13
S Roxboro Rd	Cornwallis Rd	E LAKEWOOD AVE	32.80	A	1.08	29.44	B	1.23
HORTON RD	GUESS RD	N DUKE ST	34.18	A	1.03	30.28	A	1.17
E GEER ST	N ALSTON AVE	GLENN SCHOOL RD	36.00	A	0.98	34.87	A	1.02
FARRINGTON RD / SW DURHAM PKY	NC 54	DURHAM CHAPEL HILL BLVD	38.35	A	1.17	39.56	A	1.14
University Dr / Old Chapel Hill Rd / Old Durham Rd	Chapel Hill Blvd	Durham-Chapel Hill Blvd (Chapel Hill)	35.28	A	1.01	34.96	A	1.02

Table 3-8. Noon Peak Period Travel Times, LOS and TTI - Durham County

Corridor	From (A)	To (B)	Noon Peak					
			A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
Academy Rd/Cameron Blvd/NC 751	Erwin Rd	University Dr	34.90	A	1.00	33.28	A	1.06
Anderson St/Fifteenth St	DUKE UNIVERSITY RD	Hillsborough Rd	16.93	D	2.05	19.35	C	1.79
Angier Ave	US 70	Alston Ave	33.76	A	1.14	35.11	A	1.09
Briggs Ave	Riddle Rd	Pettigrew St	33.53	A	1.05	33.20	A	1.06
Broad St / Swift Ave	Duke University Rd	W Carver St	25.84	B	1.32	25.13	B	1.37
Carver St	Danube Ln	Rose of Sharon Rd	30.35	A	1.18	32.73	A	1.08
Chapel Hill Blvd	University Dr	I-40 Exit 270	37.56	B	1.24	37.83	B	1.27
Club Blvd	N BUCHANAN BLVD	N ROXBORO ST	24.35	B	1.46	24.65	B	1.43
Cole Mill Rd	Hillsborough Rd	Umstead Rd	38.65	A	1.07	38.35	A	1.09
Cornwallis Rd (East)	Miami Blvd	Fayetteville Rd	36.86	B	1.23	35.67	B	1.27
Davis Dr	Cornwallis Rd	Wake County Line	35.33	B	1.28	38.55	B	1.28
Duke St (North and South) / US 501 North	University Dr	Durham County / Person County Line	47.27	A	0.96	34.76	B	1.19
Erwin Rd / Cameron Blvd	W Main St	US 15-501 Bypass	32.45	A	1.17	26.31	B	1.35
Fayetteville St / Fayetteville Rd	E Main St	NC 751	31.62	B	1.28	30.65	B	1.33
Gregson St (North and South) / Vickers Ave	I-85	University Dr	28.10	B	1.19	19.38	C	1.81
Guess Rd / Buchanan Blvd	W Chapel Hill St	Durham County / Orange County Line	43.47	A	1.10	41.82	A	1.15
Hillandale Rd / Fulton St	Rose of Sharon Rd	Erwin Rd	33.12	B	1.18	34.35	B	1.19
Hillsborough Rd / Markham Ave	Broad St	I-85 Exit 170	35.86	B	1.18	34.88	B	1.21
Holloway St / NC 98	N Dillard St	Durham County / Wake County Line	41.95	A	1.15	40.94	A	1.17
I-40	Alamance County / Orange County Line	Aviation Pkwy	68.49	A	0.95	64.54	A	1.01
Infinity Rd / Latta Rd / Snow Hill Rd	Guess Rd	Old Oxford Hwy	38.72	A	1.10	37.81	A	1.13
Lawson St (East)	Fayetteville St	Briggs Ave	22.43	B	1.45	22.97	B	1.38
E Main St	N BUCHANAN BLVD	NC 55 / Alston Ave	19.68	C	1.75	17.92	C	1.87
Mangum St	Roxboro Rd @ Markham Ave	Lakewood Ave @ University Dr	24.86	B	1.39	#DIV/0!	#DIV/0!	#DIV/0!
S Miami Blvd	Durham County / Wake County Line	US 70	36.05	B	1.22	33.30	B	1.33
MLK Pkwy	NC 55	University Dr	36.44	A	1.15	35.32	B	1.18
NC 147	T.W. Alexander Dr	I-85 Exit 172	64.07	A	0.94	64.34	A	0.92
NC 54	Little John Rd	Slater Rd	36.29	B	1.26	34.03	B	1.35
NC 55 / Alston Ave / Avondale Dr	N Roxboro Rd	Durham County / Wake County Line	35.89	B	1.19	34.43	B	1.25
NC 751 / Hope Valley Rd	University Dr	US 64	37.75	A	1.07	41.30	A	1.13
Old Oxford Rd	N Roxboro Rd	SNOW HILL RD	37.71	A	1.11	37.30	A	1.12
Page Rd / Page Rd Extension / Hopson Rd	US 70	NC 55	35.74	B	1.25	35.61	B	1.22
N Roxboro Rd	E LAKEWOOD AVE	N Duke St / US 501 N	28.01	B	1.27	28.35	B	1.27
T. W. Alexander Dr	NC 55	WIND RIVER PKY	38.38	B	1.27	36.98	B	1.31

DCHC MPO MOBILITY REPORT CARD



CHAPTER THREE

Corridor	From (A)	To (B)	Noon Peak					
			A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
University Dr / Lakewood Ave	Chapel Hill Blvd	S Roxboro St	30.62	A	1.15	28.79	B	1.21
US 15-501 Bypass	I-85 Exit 174	MLK Pkwy	60.66	A	0.89	62.14	A	0.89
US 70	I-85	Wake County Line	51.63	A	1.00	47.09	A	1.11
Downtown Loop	W Main St @ S Great Jones St	W Main St @ N Great Jones St	16.50	C	1.75	18.78	B	1.37
W Chapel Hill St / Duke University Rd	W Ramseur St	Cameron Blvd	27.23	B	1.30	27.76	B	1.28
W Cornwallis Rd	ERWIN RD	Fayetteville Rd	34.66	A	1.02	34.17	A	1.04
Erwin Rd / Hwy 751	N Fordham Blvd @ Chapel Hill Blvd	US 15-501 Bypass	38.53	A	1.15	38.92	A	1.15
Rose of Sharon Rd	Cole Mill Rd	Guess Rd	34.78	B	1.29	35.58	B	1.26
Sherron Rd	S MINERAL SPRINGS RD	Wake Forest Hwy	39.88	A	1.13	39.60	A	1.14
S Alston Ave	NC 55	Durham County / Wake County Line	35.98	B	1.35	37.50	B	1.30
Garrett Rd	US 15-501	Hope Valley Rd	37.66	A	1.13	36.23	B	1.18
Farrington Rd	STAGECOACH RD	NC 54	39.00	A	1.03	37.55	A	1.07
Barbee Chapel Rd / Farrington Rd / Stagecoach Rd	NC 54 (West)	NC 751	39.00	A	1.15	37.53	B	1.20
Riddle Rd / Ellis Rd	Fayetteville St	S Miami Blvd	33.96	A	1.13	34.69	A	1.10
Miami Blvd (North and South)	E Geer St	US 70	28.39	B	1.32	31.48	A	1.11
Anderson St	Chapel Hill Rd	DUKE UNIVERSITY RD	26.08	A	1.15	30.88	A	0.97
W Club Blvd	Hillandale Rd	N BUCHANAN BLVD	25.93	B	1.35	27.42	B	1.28
E Club Blvd	N ROXBORO ST	I-85	33.81	A	1.14	31.86	B	1.22
W Main St	Hillsborough Rd	N BUCHANAN BLVD	24.70	B	1.44	24.88	B	1.44
Mineral Springs Rd	US 70	Fletchers Chapel Rd	37.36	A	0.99	36.39	A	1.02
Old Oxford Hwy	SNOW HILL RD	Durham County / Granville County Line	39.98	A	1.13	40.00	A	1.13
S Roxboro Rd	Cornwallis Rd	E LAKEWOOD AVE	31.19	A	1.15	32.04	A	1.10
HORTON RD	GUESS RD	N DUKE ST	32.33	A	1.09	29.90	B	1.18
E GEER ST	N ALSTON AVE	GLENN SCHOOL RD	35.72	A	0.99	35.01	A	1.01
FARRINGTON RD / SW DURHAM PKY	NC 54	DURHAM CHAPEL HILL BLVD	38.33	A	1.17	39.63	A	1.13
University Dr / Old Chapel Hill Rd / Old Durham Rd	Chapel Hill Blvd	Durham-Chapel Hill Blvd (Chapel Hill)	34.77	A	1.02	34.57	A	1.03

Table 3-9. PM Peak Period Travel Times, LOS and TTI - Durham County

Corridor	From (A)	To (B)	PM Peak					
			A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
Academy Rd/Cameron Blvd/NC 751	Erwin Rd	University Dr	34.11	A	1.03	34.14	A	1.03
Anderson St/Fifteenth St	DUKE UNIVERSITY RD	Hillsborough Rd	20.95	C	1.66	19.56	C	1.78
Angier Ave	US 70	Alston Ave	34.17	A	1.13	34.59	A	1.11
Briggs Ave	Riddle Rd	Pettigrew St	35.91	A	0.98	33.38	A	1.06
Broad St / Swift Ave	Duke University Rd	W Carver St	27.19	B	1.25	25.94	B	1.33
Carver St	Danube Ln	Rose of Sharon Rd	30.43	B	1.18	33.02	A	1.07
Chapel Hill Blvd	University Dr	I-40 Exit 270	37.31	B	1.25	39.26	B	1.21
Club Blvd	N BUCHANAN BLVD	N ROXBORO ST	24.45	B	1.44	25.94	B	1.36
Cole Mill Rd	Hillsborough Rd	Umstead Rd	38.59	A	1.07	38.66	A	1.08
Cornwallis Rd (East)	Miami Blvd	Fayetteville Rd	35.56	B	1.28	36.83	B	1.23
Davis Dr	Cornwallis Rd	Wake County Line	35.02	B	1.31	38.40	B	1.28
Duke St (North and South) / US 501 North	University Dr	Durham County / Person County Line	46.67	A	0.98	36.55	A	1.12
Erwin Rd / Cameron Blvd	W Main St	US 15-501 Bypass	31.08	B	1.24	28.12	B	1.26
Fayetteville St / Fayetteville Rd	E Main St	NC 751	31.02	B	1.31	32.23	B	1.26
Gregson St (North and South) / Vickers Ave	I-85	University Dr	28.46	A	1.16	23.67	B	1.48
Guess Rd / Buchanan Blvd	W Chapel Hill St	Durham County / Orange County Line	42.19	A	1.14	42.57	A	1.13
Hillandale Rd / Fulton St	Rose of Sharon Rd	Erwin Rd	32.50	B	1.20	35.07	A	1.16
Hillsborough Rd / Markham Ave	Broad St	I-85 Exit 170	36.19	A	1.17	35.38	B	1.19
Holloway St / NC 98	N Dillard St	Durham County / Wake County Line	41.42	A	1.17	41.33	A	1.15
I-40	Alamance County / Orange County Line	Aviation Pkwy	67.04	A	0.97	66.85	A	0.97
Infinity Rd / Latta Rd / Snow Hill Rd	Guess Rd	Old Oxford Hwy	35.88	B	1.24	38.18	A	1.11
Lawson St (East)	Fayetteville St	Briggs Ave	23.29	B	1.37	22.75	B	1.39
E Main St	N BUCHANAN BLVD	NC 55 / Alston Ave	21.56	C	1.57	18.39	C	1.81
Mangum St	Roxboro Rd @ Markham Ave	Lakewood Ave @ University Dr	26.18	B	1.32	#DIV/0!	#DIV/0!	#DIV/0!
S Miami Blvd	Durham County / Wake County Line	US 70	36.19	B	1.21	36.02	B	1.22
MLK Pkwy	NC 55	University Dr	35.77	A	1.17	37.06	A	1.12
NC 147	T.W. Alexander Dr	I-85 Exit 172	63.17	A	0.95	62.20	A	0.96
NC 54	Little John Rd	Slater Rd	36.61	B	1.25	36.47	B	1.25
NC 55 / Alston Ave / Avondale Dr	N Roxboro Rd	Durham County / Wake County Line	34.69	B	1.23	36.00	B	1.18
NC 751 / Hope Valley Rd	University Dr	US 64	37.06	A	1.09	42.36	A	1.10
Old Oxford Rd	N Roxboro Rd	SNOW HILL RD	37.43	A	1.12	37.66	A	1.11
Page Rd / Page Rd Extension / Hopson Rd	US 70	NC 55	36.25	B	1.22	36.26	B	1.20
N Roxboro Rd	E LAKEWOOD AVE	N Duke St / US 501 N	27.33	B	1.29	29.30	B	1.23
T. W. Alexander Dr	NC 55	WIND RIVER PKY	37.51	B	1.31	38.77	B	1.24
University Dr / Lakewood Ave	Chapel Hill Blvd	S Roxboro St	30.34	A	1.16	30.10	A	1.16
US 15-501 Bypass	I-85 Exit 174	MLK Pkwy	60.19	A	0.90	61.98	A	0.89

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CHAPTER THREE

Corridor	From (A)	To (B)	PM Peak					
			A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
US 70	I-85	Wake County Line	49.25	A	1.05	49.37	A	1.05
Downtown Loop	W Main St @ S Great Jones St	W Main St @ N Great Jones St	16.21	C	1.78	19.27	B	1.32
W Chapel Hill St / Duke University Rd	W Ramseur St	Cameron Blvd	28.06	B	1.26	27.76	B	1.28
W Cornwallis Rd	ERWIN RD	Fayetteville Rd	33.97	A	1.05	34.34	A	1.03
Erwin Rd / Hwy 751	N Fordham Blvd @ Chapel Hill Blvd	US 15-501 Bypass	38.27	A	1.15	39.49	A	1.14
Rose of Sharon Rd	Cole Mill Rd	Guess Rd	35.80	B	1.26	35.11	B	1.28
Sherron Rd	S MINERAL SPRINGS RD	Wake Forest Hwy	39.98	A	1.13	39.52	A	1.14
S Alston Ave	NC 55	Durham County / Wake County Line	37.98	B	1.28	36.95	B	1.32
Garrett Rd	US 15-501	Hope Valley Rd	36.68	A	1.16	37.04	A	1.15
Farrington Rd	STAGECOACH RD	NC 54	37.05	A	1.09	38.22	A	1.06
Barbee Chapel Rd / Farrington Rd / Stagecoach Rd	NC 54 (West)	NC 751	37.07	B	1.21	38.23	B	1.18
Riddle Rd / Ellis Rd	Fayetteville St	S Miami Blvd	32.27	B	1.20	34.99	A	1.09
Miami Blvd (North and South)	E Geer St	US 70	32.25	A	1.16	31.49	A	1.11
Anderson St	Chapel Hill Rd	DUKE UNIVERSITY RD	30.35	A	0.99	29.79	A	1.01
W Club Blvd	Hillandale Rd	N BUCHANAN BLVD	26.50	B	1.32	27.35	B	1.28
E Club Blvd	N ROXBORO ST	I-85	33.31	A	1.15	33.02	A	1.17
W Main St	Hillsborough Rd	N BUCHANAN BLVD	26.16	B	1.36	25.40	B	1.40
Mineral Springs Rd	US 70	Fletchers Chapel Rd	37.00	A	1.00	36.73	A	1.01
Old Oxford Hwy	SNOW HILL RD	Durham County / Granville County Line	39.97	A	1.13	39.98	A	1.13
S Roxboro Rd	Cornwallis Rd	E LAKEWOOD AVE	30.78	A	1.15	31.26	A	1.14
HORTON RD	GUESS RD	N DUKE ST	31.42	A	1.11	31.56	A	1.12
E GEER ST	N ALSTON AVE	GLENN SCHOOL RD	35.34	A	1.01	35.06	A	1.01
FARRINGTON RD / SW DURHAM PKY	NC 54	DURHAM CHAPEL HILL BLVD	39.02	A	1.15	39.51	A	1.14
University Dr / Old Chapel Hill Rd / Old Durham Rd	Chapel Hill Blvd	Durham-Chapel Hill Blvd (Chapel Hill)	34.57	A	1.03	34.74	A	1.02

Figure 3-4. Travel Time Index (All Day) - North Durham

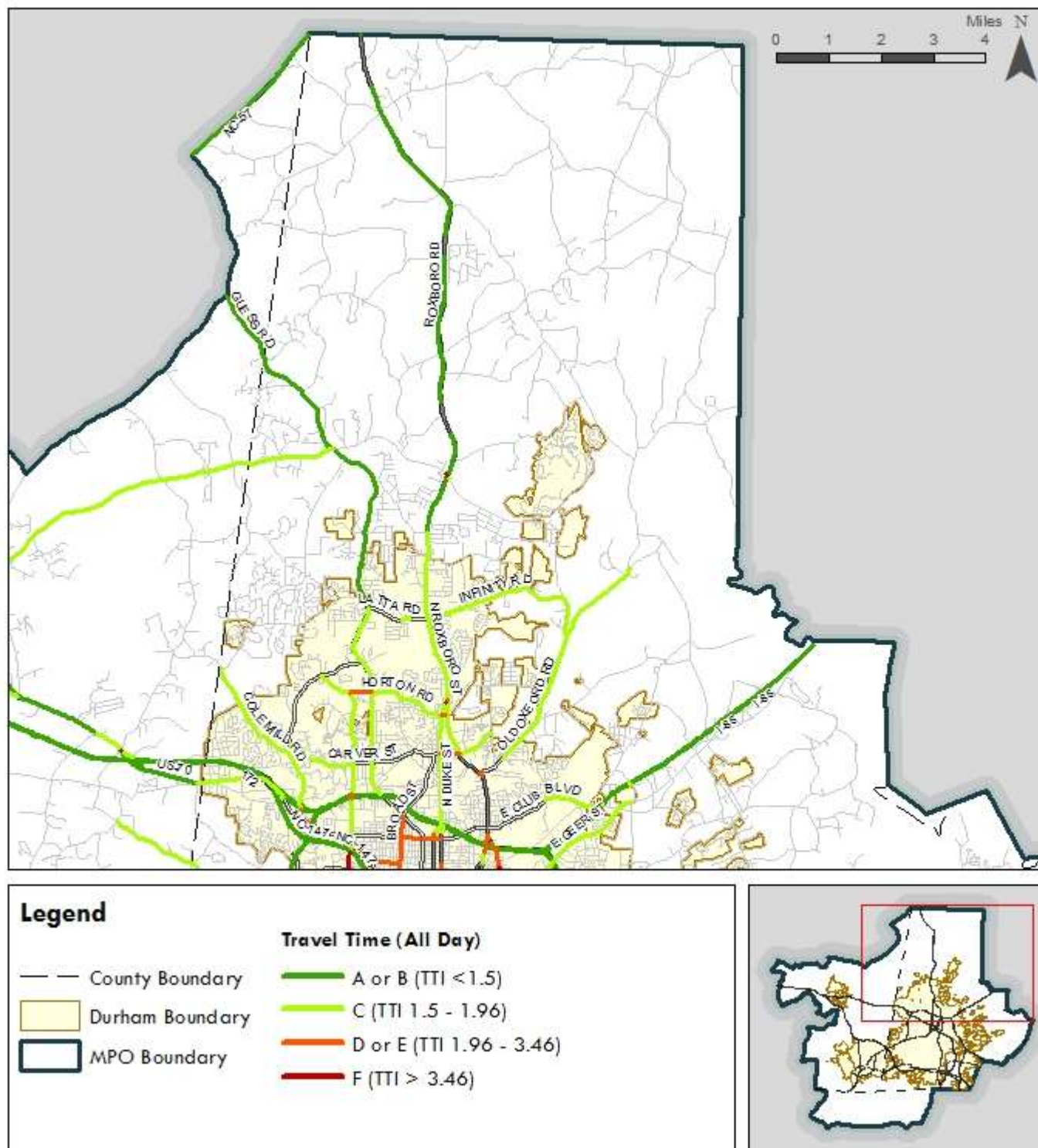


Figure 3-5. Travel Time Index (All Day) - Downtown Durham

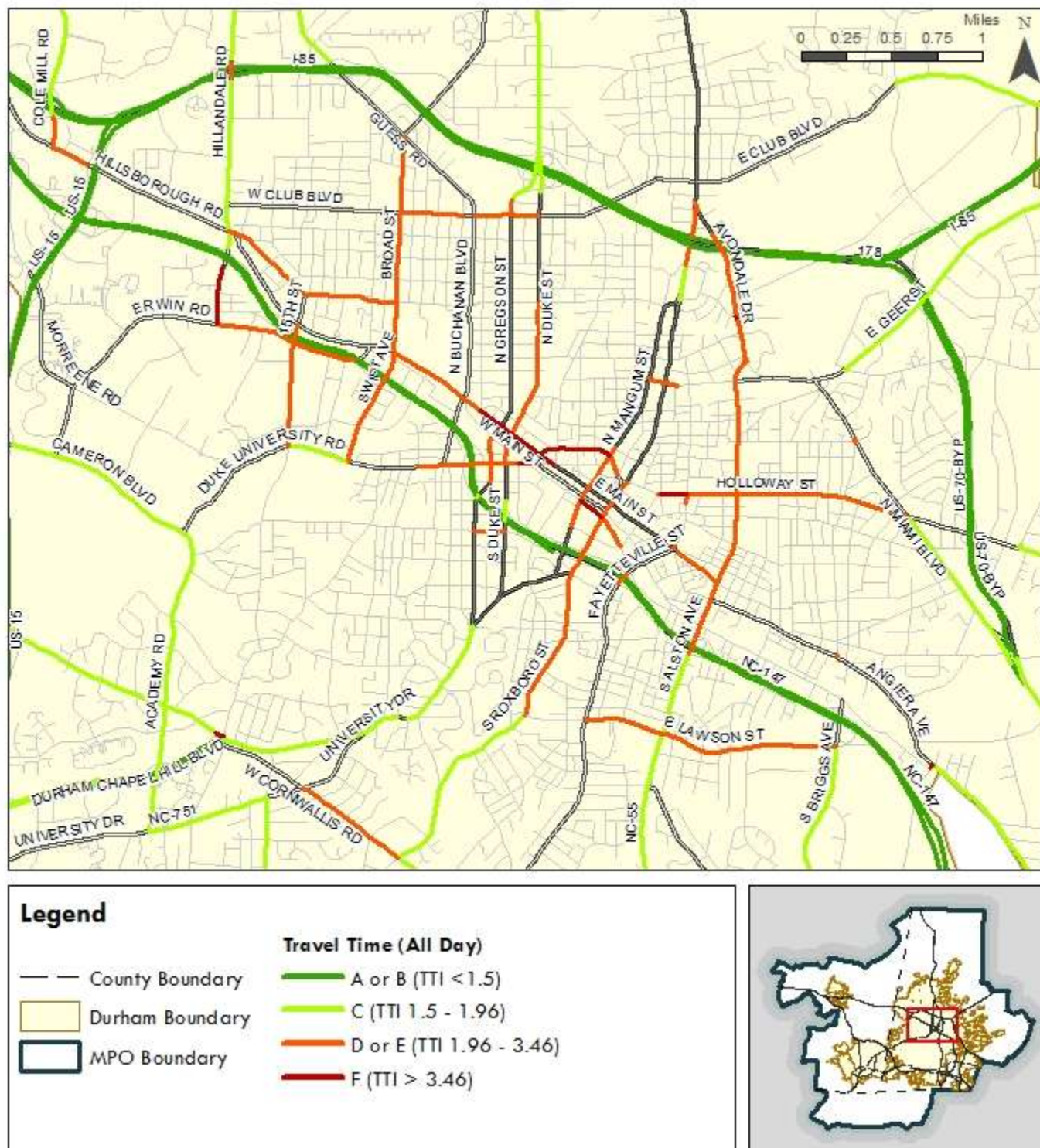


Figure 3-6. Travel Time Index (All Day) - South Durham

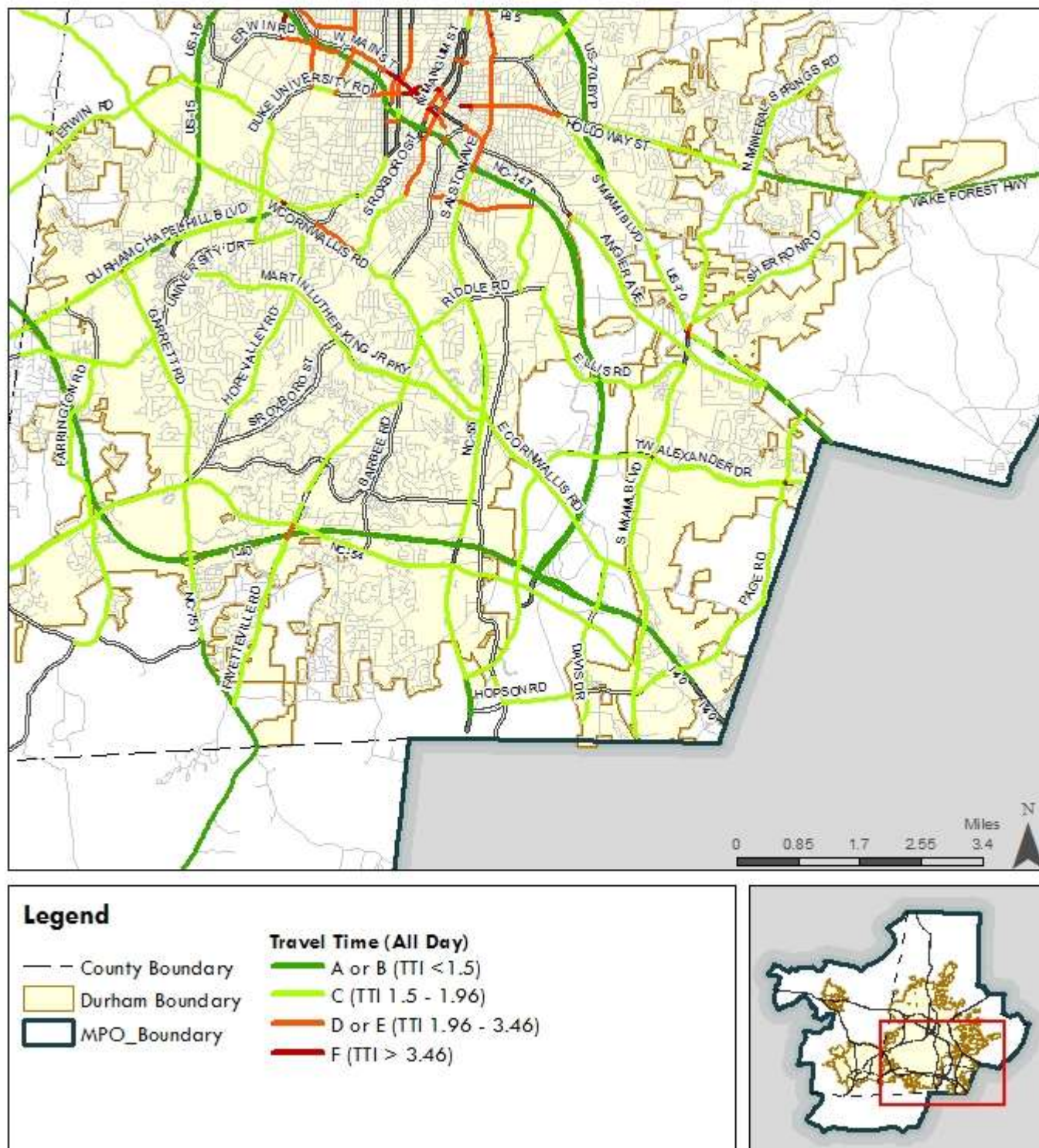
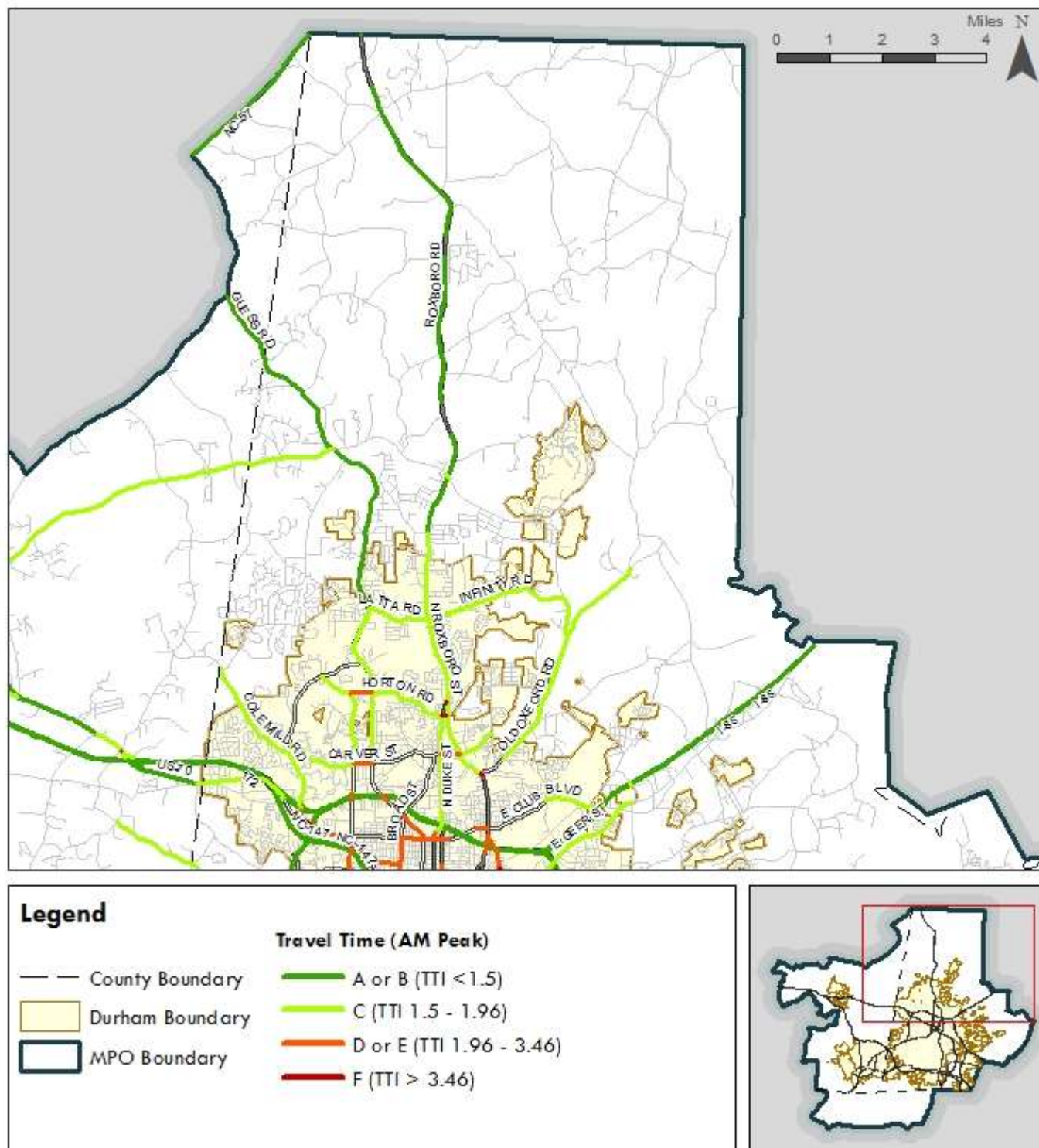


Figure 3-7. Travel Time Index (AM Peak) - North Durham



Morning Peak Period is from 7:00 AM to 9:00 AM

Figure 3-8. Travel Time Index (AM Peak) - Downtown Durham

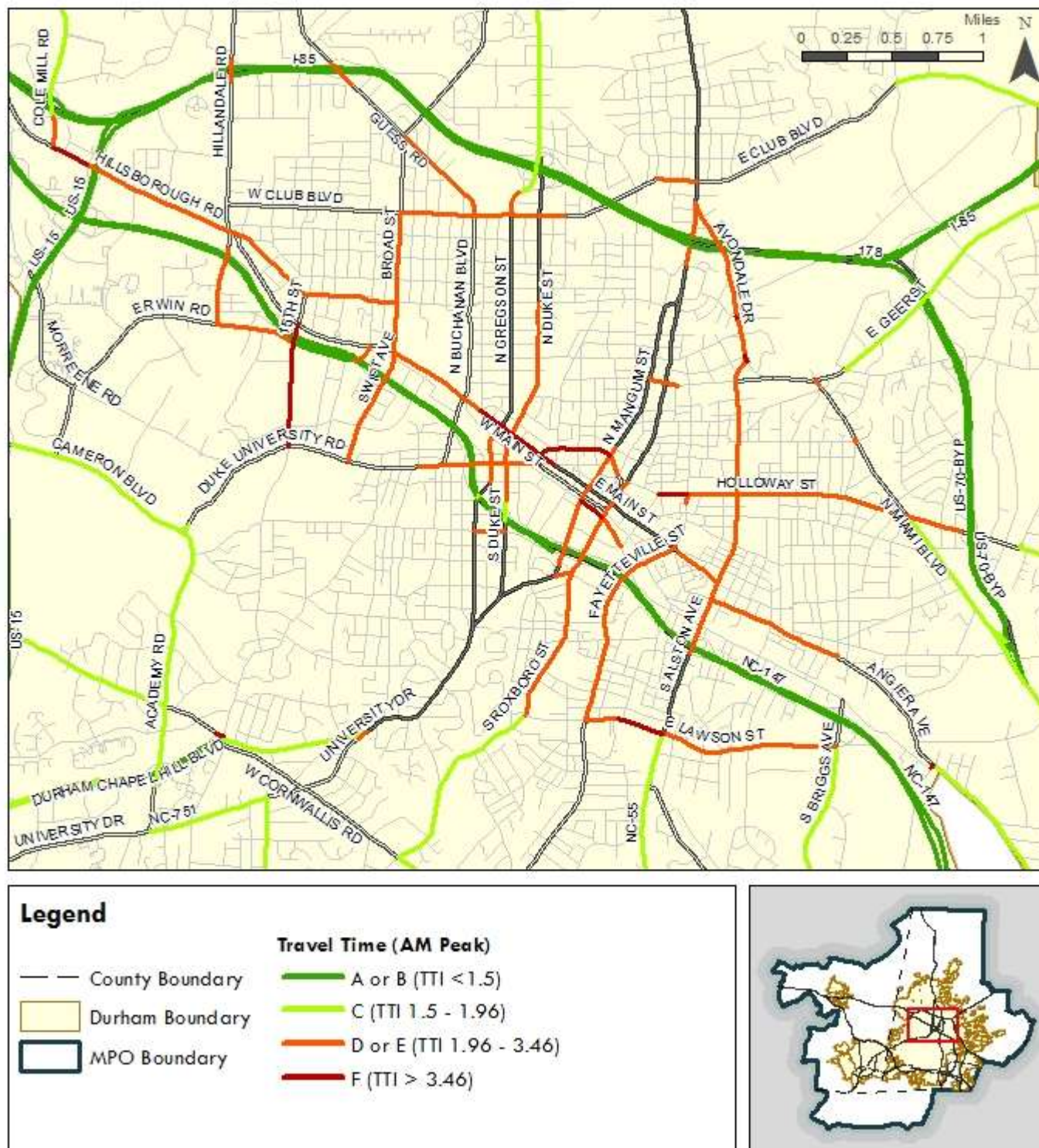


Figure 3-9. Travel Time Index (AM Peak) - South Durham

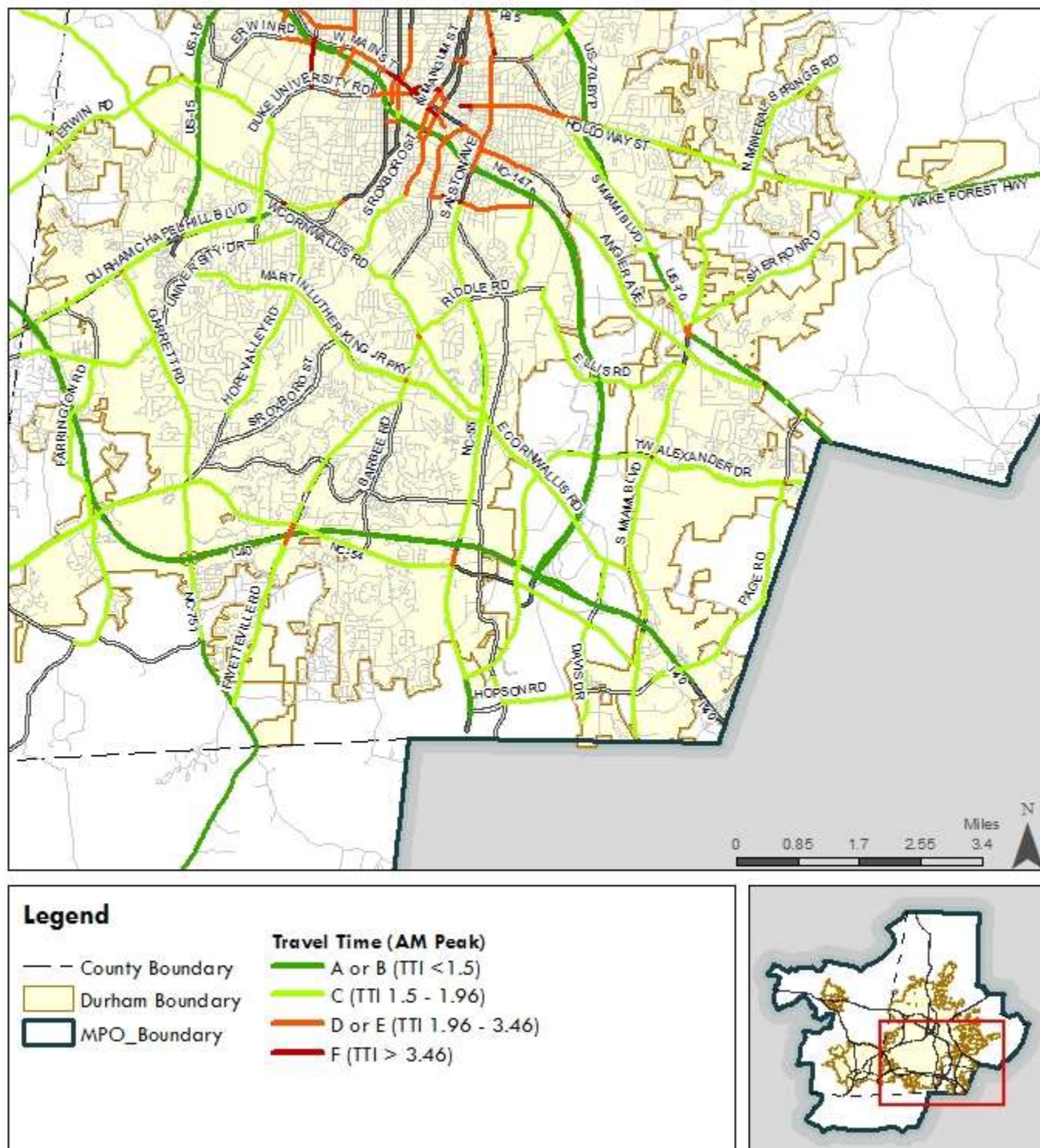
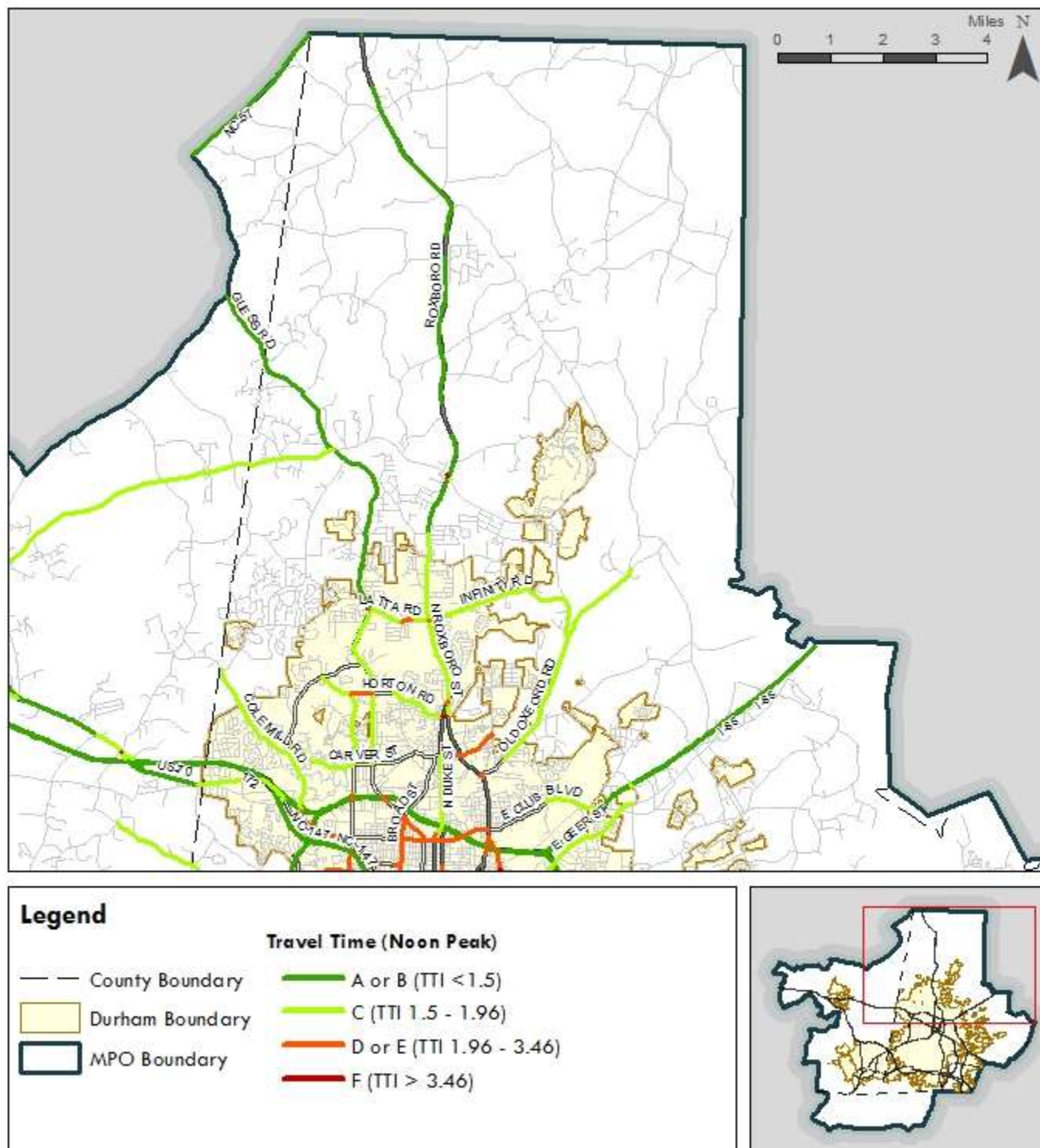


Figure 3-10. Travel Time Index (Noon Peak) - North Durham



Noon Peak Period is from 11:00 AM to 1:00 PM

Figure 3-11. Travel Time Index (Noon Peak) - Downtown Durham

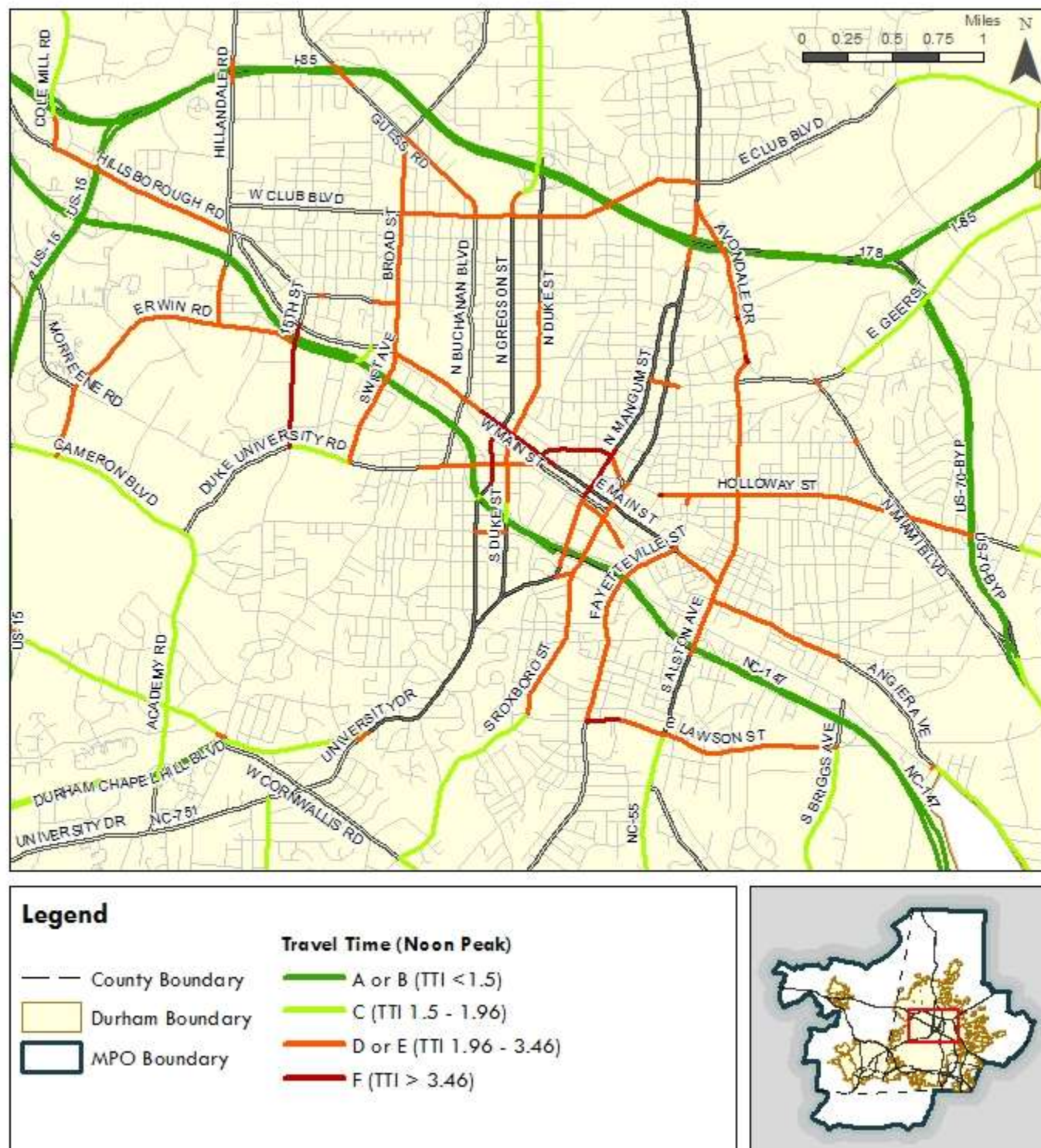


Figure 3-12. Travel Time Index (Noon Peak) - South Durham

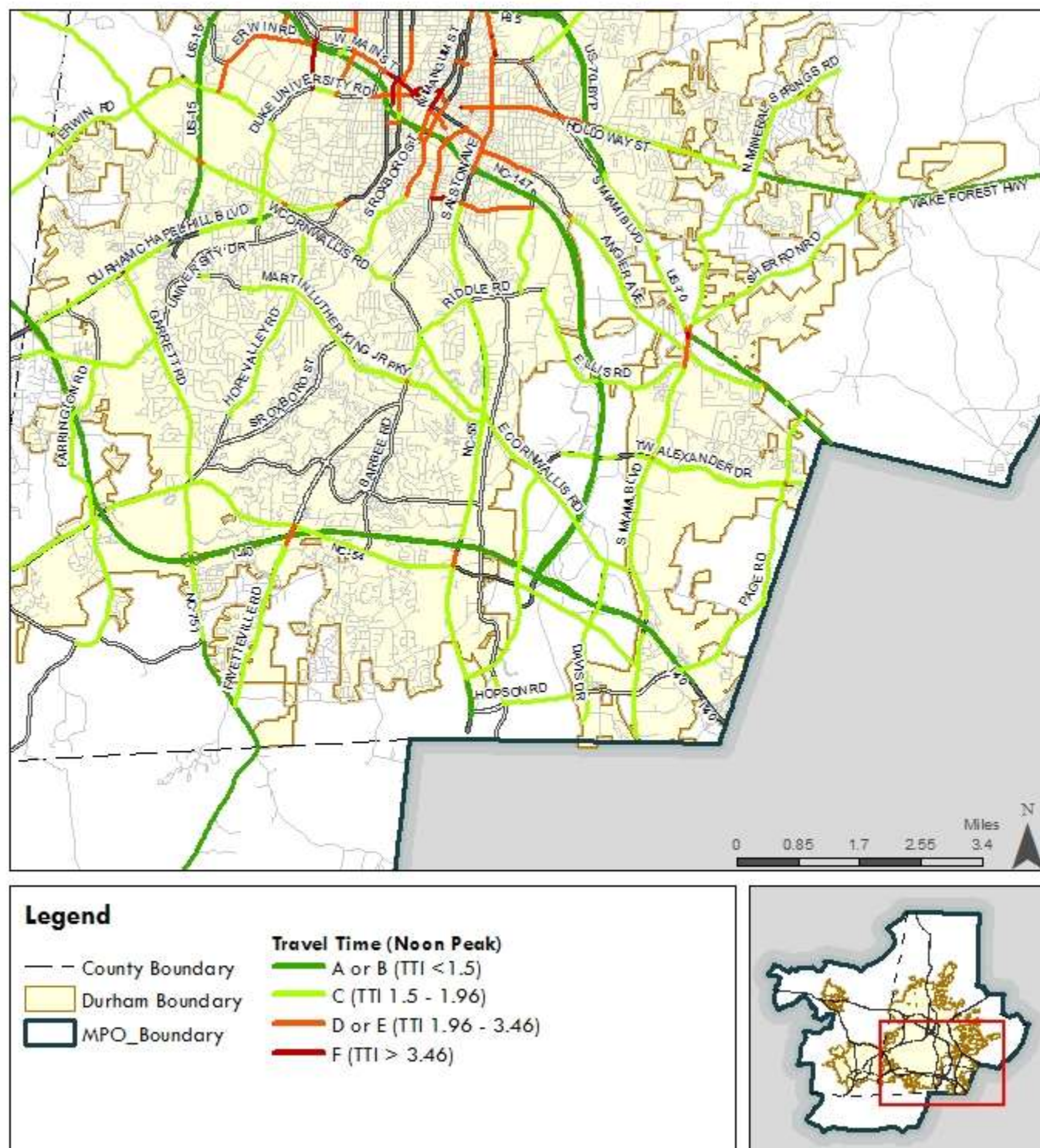
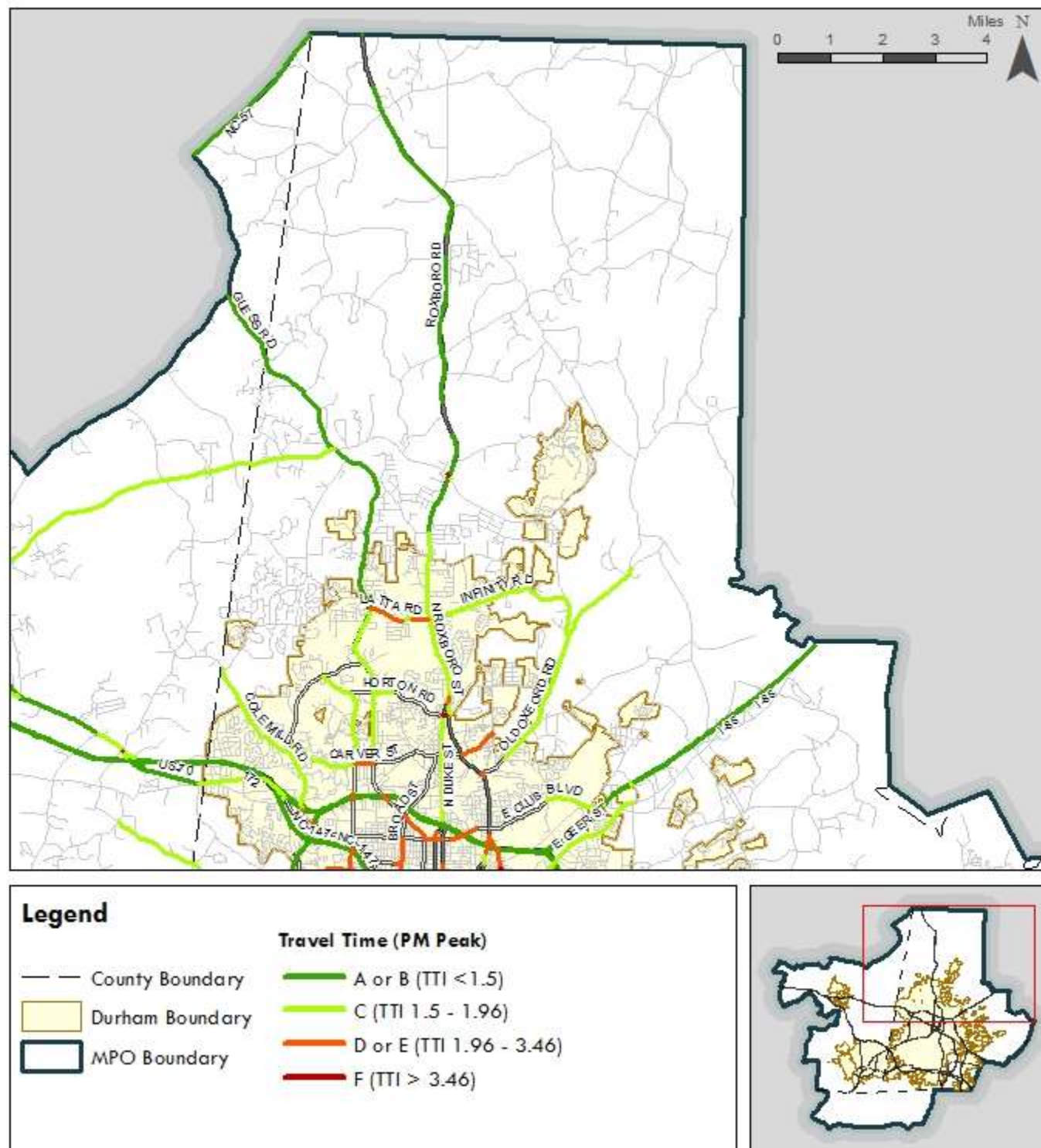


Figure 3-13. Travel Time Index (PM Peak) - North Durham



Evening Peak Period is from 4:00 PM to 6:00 PM

Figure 3-14. Travel Time Index (PM Peak) - Downtown Durham

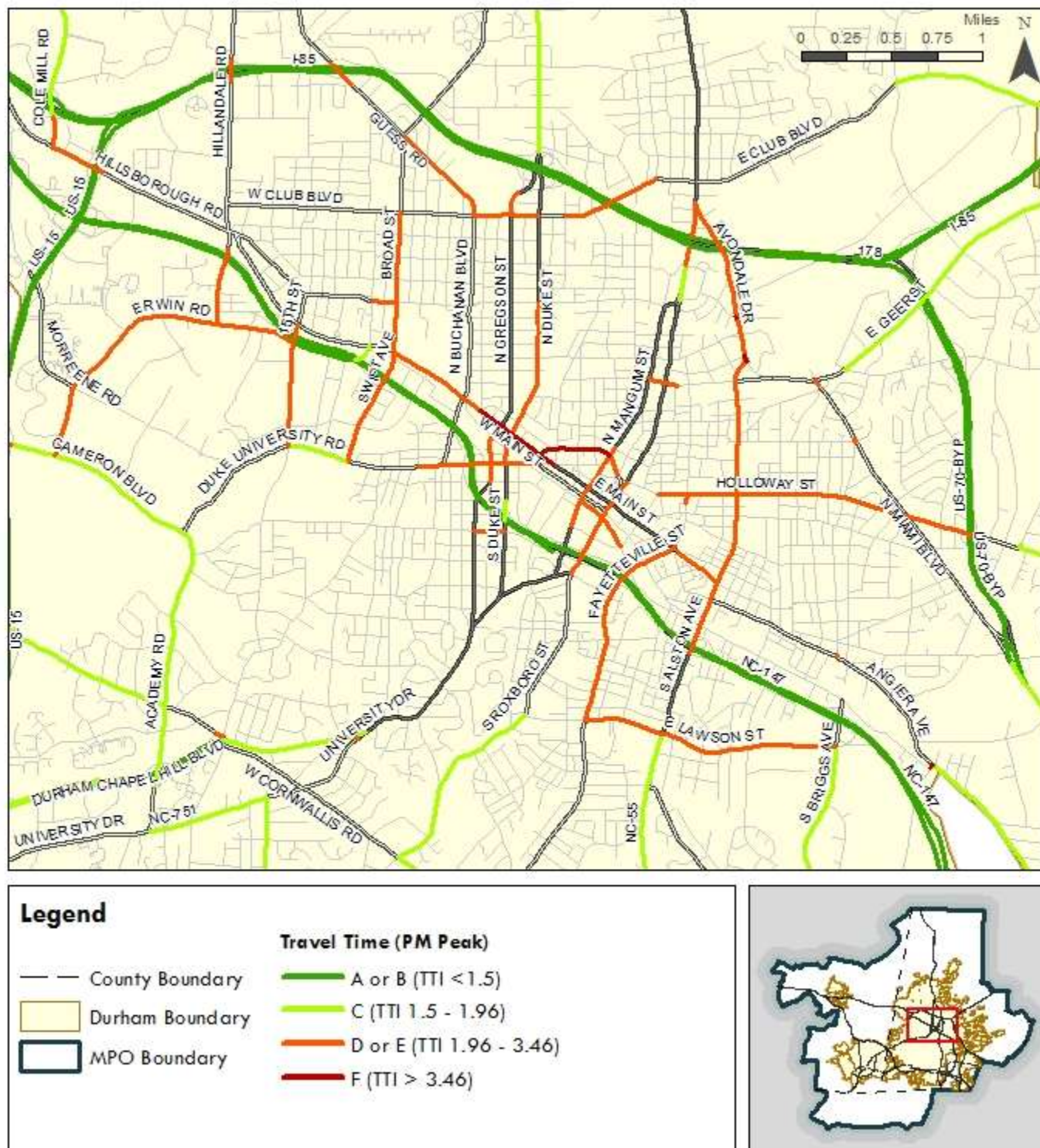
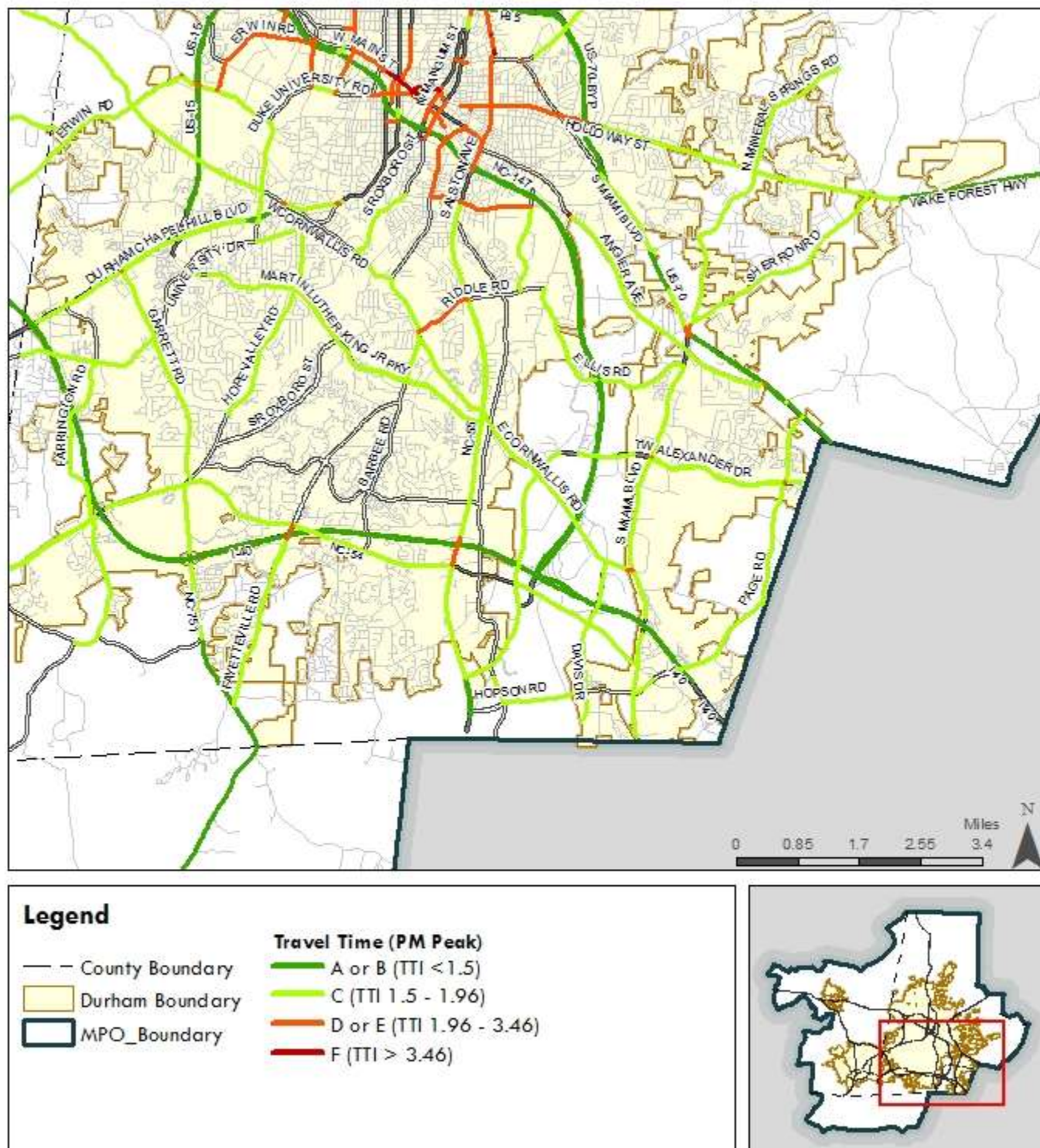


Figure 3-15. Travel Time Index (PM Peak) - South Durham



Orange County

There are 33 CMP corridors spread throughout Orange County, including interstates, state highways, major arterial facilities and minor facilities; both urban and rural. The corridors range in length from one-half mile to 30 miles long. As such, shorter segments of congestion or delay can be washed out by free-flow conditions elsewhere on the corridor, resulting in generally higher LOS grades than found in Chapter 1. At this scale, all other corridors in the county had a LOS C or better, with several corridors exhibiting faster average speeds than posted speeds.

Table 3-10. All-Day Travel Times, LOS and TTI - Orange County

Corridor	From (A)	To (B)	All Day					
			A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
Churton St (North and South)	I-85	US 70	29.48	A	1.08	28.83	A	1.11
I-85	I-40 / I-85	Butner - Exit 189	65.31	A	0.95	65.36	A	0.96
US 70 Bus	US 70 Bypass (east)	Cornelius St	40.10	A	1.12	39.61	A	1.15
US 70 Bus / US 70 Byp / US 70 / I-85 US 70 Connect	I-85 Exit 170	I-85 US 70 Connector	49.21	A	1.01	47.23	A	1.06
W Cornwallis Rd / Mt Herman Church Rd	US-70	ERWIN RD	39.98	A	1.13	39.99	A	1.13
St. Mary's Road/Mason Road	US 70 Bypass	US 15-501 N	39.86	B	1.34	40.00	B	1.33
Mt Sinai Rd	Erwin Rd	NC 86	38.93	A	1.16	37.87	B	1.19
Estes Dr Ext	Greensboro St	Village Dr	35.13	A	1.00	32.45	A	1.08
Eubanks Rd	Old NC 86	MLK Blvd	33.41	B	1.42	36.77	B	1.29
Hillsborough Rd	Old NC 86	Main St	33.71	A	1.05	32.94	A	1.06
Homestead Rd	Old NC 86	MLK Blvd	30.95	B	1.25	35.75	A	1.09
Jones Ferry Rd	Old Fayetteville Rd	Main St	32.56	A	1.07	23.43	C	1.54
Main St	NC 54	Merritt Mill Rd	23.25	A	1.17	22.61	B	1.23
NC 54 Bypass / NC 54 W	Smith Level Rd	DODSONS CROSSROADS	48.47	A	1.06	47.58	A	1.10
Old NC 86 / Fayetteville Rd	I-40	Jones Ferry Rd	43.98	A	0.97	40.99	A	1.06
Smith Level Rd / Greensboro St	US 15-501	Hillsborough Rd	31.10	B	1.18	33.64	B	1.20
Franklin St (East and West)	I-40	Merritt Mill Rd	28.59	B	1.18	28.35	B	1.22
Fordham Blvd (North and South) / NC 54 Bypass	Smith Level Rd / Greensboro St	Franklin St / US 15-501 Merger	44.26	A	1.02	43.03	A	1.06
S Columbia St / US 15-501 S	Smith Level Rd	Franklin St	26.96	B	1.30	31.58	B	1.40
MLK Blvd	I-40	Franklin St	31.71	B	1.19	30.87	B	1.22
Estes Dr	Greensboro St	Fordham Blvd	32.02	A	1.10	30.21	A	1.16
NC 54 / Raleigh Rd / South Rd	Little John Rd	S Columbia St	31.85	A	1.03	28.34	B	1.23
NC 86 N	US 70 Bypass	Person County line	48.12	A	1.10	47.79	A	1.11
NC 57	NC 86 N	Person County line	49.63	A	1.11	50.00	A	1.10

Table 3-11. AM Peak Period Travel Times, LOS and TTI - Orange County

Corridor	From (A)	To (B)	AM Peak					
			A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
Churton St (North and South)	I-85	US 70	29.15	A	1.09	27.38	A	1.16
I-85	I-40 / I-85	Butner - Exit 189	66.05	A	0.94	65.05	A	0.96
US 70 Bus	US 70 Bypass (east)	Cornelius St	40.16	A	1.12	40.70	A	1.12
US 70 Bus / US 70 Byp / US 70 / I-85 US 70 Connect	I-85 Exit 170	I-85 US 70 Connector	46.28	A	1.08	46.87	A	1.07
W Cornwallis Rd / Mt Herman Church Rd	US-70	ERWIN RD	40.00	A	1.13	40.00	A	1.13
St. Mary's Road/Mason Road	US 70 Bypass	US 15-501 N	39.82	B	1.35	39.80	B	1.33
Mt Sinai Rd	Erwin Rd	NC 86	39.49	A	1.14	37.78	B	1.20
Estes Dr Ext	Greensboro St	Village Dr	33.80	A	1.04	33.18	A	1.06
Eubanks Rd	Old NC 86	MLK Blvd	27.74	C	1.71	35.76	B	1.33
Hillsborough Rd	Old NC 86	Main St	31.45	A	1.13	33.10	A	1.06
Homestead Rd	Old NC 86	MLK Blvd	29.85	B	1.30	34.99	A	1.11
Jones Ferry Rd	Old Fayetteville Rd	Main St	31.46	A	1.11	27.99	B	1.28
Main St	NC 54	Merritt Mill Rd	22.26	B	1.23	22.39	B	1.24
NC 54 Bypass / NC 54 W	Smith Level Rd	DODSONS CROSSROADS	47.26	A	1.10	47.49	A	1.10
Old NC 86 / Fayetteville Rd	I-40	Jones Ferry Rd	42.86	A	1.00	42.06	A	1.03
Smith Level Rd / Greensboro St	US 15-501	Hillsborough Rd	29.37	B	1.26	34.30	A	1.16
Franklin St (East and West)	I-40	Merritt Mill Rd	26.22	B	1.29	26.02	B	1.31
Fordham Blvd (North and South) / NC 54 Bypass	Smith Level Rd / Greensboro St	Franklin St / US 15-501 Merger	42.17	A	1.08	41.82	A	1.10
S Columbia St / US 15-501 S	Smith Level Rd	Franklin St	25.05	B	1.46	35.02	B	1.31
MLK Blvd	I-40	Franklin St	26.74	B	1.42	30.41	B	1.24
Estes Dr	Greensboro St	Fordham Blvd	31.22	A	1.13	30.12	A	1.17
NC 54 / Raleigh Rd / South Rd	Little John Rd	S Columbia St	28.71	A	1.15	28.94	B	1.21
NC 86 N	US 70 Bypass	Person County line	47.58	A	1.12	47.89	A	1.10
NC 57	NC 86 N	Person County line	49.63	A	1.11	48.78	A	1.13

Table 3-12. Noon Peak Period Travel Times, LOS and TTI - Orange County

Corridor	From (A)	To (B)	Noon Peak					
			A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
Churton St (North and South)	I-85	US 70	27.68	A	1.15	25.54	B	1.25
I-85	I-40 / I-85	Butner - Exit 189	65.71	A	0.95	65.64	A	0.95
US 70 Bus	US 70 Bypass (east)	Cornelius St	39.64	A	1.14	39.33	A	1.15
US 70 Bus / US 70 Byp / US 70 / I-85 US 70 Connect	I-85 Exit 170	I-85 US 70 Connector	47.78	A	1.04	45.56	A	1.10
W Cornwallis Rd / Mt Herman Church Rd	US-70	ERWIN RD	40.00	A	1.13	40.00	A	1.13
St. Mary's Road/Mason Road	US 70 Bypass	US 15-501 N	39.81	B	1.34	40.00	B	1.33
Mt Sinai Rd	Erwin Rd	NC 86	36.94	B	1.23	37.95	B	1.19
Estes Dr Ext	Greensboro St	Village Dr	34.55	A	1.01	33.40	A	1.05
Eubanks Rd	Old NC 86	MLK Blvd	37.12	B	1.28	37.22	B	1.27
Hillsborough Rd	Old NC 86	Main St	32.05	A	1.10	32.11	A	1.10
Homestead Rd	Old NC 86	MLK Blvd	32.26	B	1.20	37.46	A	1.04
Jones Ferry Rd	Old Fayetteville Rd	Main St	32.12	A	1.09	26.52	B	1.35
Main St	NC 54	Merritt Mill Rd	22.60	B	1.21	21.87	B	1.29
NC 54 Bypass / NC 54 W	Smith Level Rd	DODSONS CROSSROADS	47.82	A	1.07	47.32	A	1.11
Old NC 86 / Fayetteville Rd	I-40	Jones Ferry Rd	43.44	A	0.99	41.17	A	1.07
Smith Level Rd / Greensboro St	US 15-501	Hillsborough Rd	30.16	B	1.22	33.46	B	1.20
Franklin St (East and West)	I-40	Merritt Mill Rd	26.41	B	1.27	23.23	B	1.47
Fordham Blvd (North and South) / NC 54 Bypass	Smith Level Rd / Greensboro St	Franklin St / US 15-501 Merger	42.11	A	1.08	39.68	A	1.17
S Columbia St / US 15-501 S	Smith Level Rd	Franklin St	24.82	B	1.42	33.72	B	1.39
MLK Blvd	I-40	Franklin St	28.85	B	1.31	26.61	B	1.42
Estes Dr	Greensboro St	Fordham Blvd	31.02	A	1.14	29.71	B	1.19
NC 54 / Raleigh Rd / South Rd	Little John Rd	S Columbia St	29.51	A	1.12	26.28	B	1.33
NC 86 N	US 70 Bypass	Person County line	47.92	A	1.11	47.85	A	1.11
NC 57	NC 86 N	Person County line	49.72	A	1.11	48.53	A	1.13

Table 3-13. PM Peak Period Travel Times, LOS and TTI - Orange County

Corridor	From (A)	To (B)	PM Peak					
			A to B			B to A		
			Speed	LOS	TTI	Speed	LOS	TTI
Churton St (North and South)	I-85	US 70	27.75	A	1.15	27.95	A	1.14
I-85	I-40 / I-85	Butner - Exit 189	66.22	A	0.94	64.92	A	0.96
US 70 Bus	US 70 Bypass (east)	Cornelius St	38.60	A	1.17	40.30	A	1.13
US 70 Bus / US 70 Byp / US 70 / I-85 US 70 Connect	I-85 Exit 170	I-85 US 70 Connector	47.28	A	1.05	47.11	A	1.06
W Cornwallis Rd / Mt Herman Church Rd	US-70	ERWIN RD	40.00	A	1.13	39.99	A	1.13
St. Mary's Road/Mason Road	US 70 Bypass	US 15-501 N	39.86	B	1.34	39.96	B	1.33
Mt Sinai Rd	Erwin Rd	NC 86	38.74	A	1.16	38.02	B	1.19
Estes Dr Ext	Greensboro St	Village Dr	33.45	A	1.05	33.14	A	1.06
Eubanks Rd	Old NC 86	MLK Blvd	37.32	B	1.27	37.36	B	1.27
Hillsborough Rd	Old NC 86	Main St	33.18	A	1.07	33.12	A	1.06
Homestead Rd	Old NC 86	MLK Blvd	30.82	B	1.26	34.92	A	1.11
Jones Ferry Rd	Old Fayetteville Rd	Main St	31.48	A	1.11	27.66	B	1.29
Main St	NC 54	Merritt Mill Rd	21.08	B	1.30	22.91	B	1.21
NC 54 Bypass / NC 54 W	Smith Level Rd	DODSONS CROSSROADS	47.81	A	1.08	47.79	A	1.09
Old NC 86 / Fayetteville Rd	I-40	Jones Ferry Rd	42.37	A	1.01	42.07	A	1.03
Smith Level Rd / Greensboro St	US 15-501	Hillsborough Rd	29.75	B	1.24	34.18	A	1.17
Franklin St (East and West)	I-40	Merritt Mill Rd	24.91	B	1.35	27.00	B	1.27
Fordham Blvd (North and South) / NC 54 Bypass	Smith Level Rd / Greensboro St	Franklin St / US 15-501 Merger	38.98	B	1.19	42.79	A	1.07
S Columbia St / US 15-501 S	Smith Level Rd	Franklin St	20.75	C	1.71	35.16	B	1.25
MLK Blvd	I-40	Franklin St	30.15	B	1.26	30.38	B	1.24
Estes Dr	Greensboro St	Fordham Blvd	29.83	B	1.19	30.32	A	1.16
NC 54 / Raleigh Rd / South Rd	Little John Rd	S Columbia St	26.00	B	1.29	29.39	B	1.19
NC 86 N	US 70 Bypass	Person County line	47.91	A	1.11	47.99	A	1.10
NC 57	NC 86 N	Person County line	48.85	A	1.13	49.16	A	1.12

Figure 3-16. Travel Time Index (All Day) - Chapel Hill

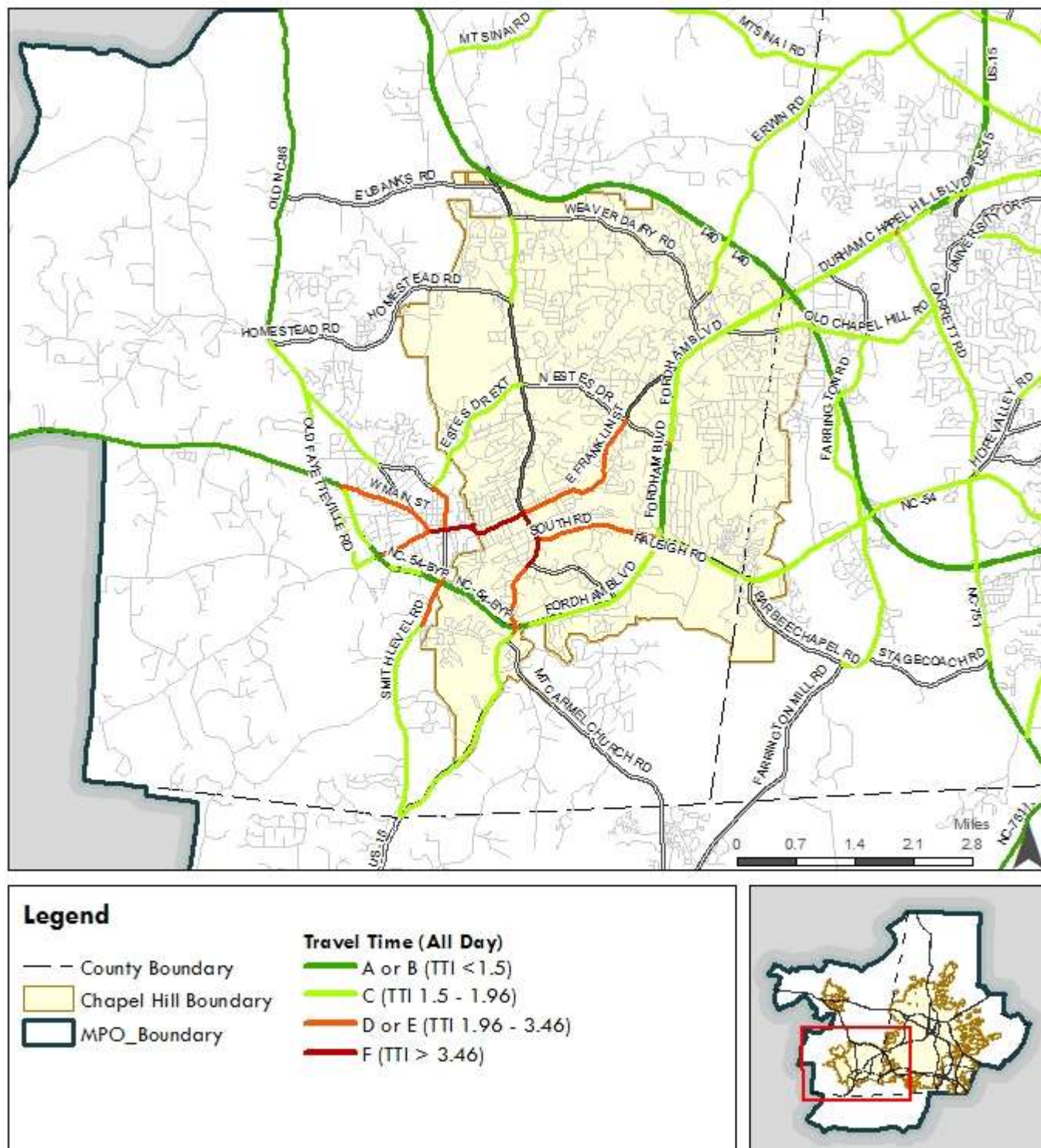


Figure 3-17. Travel Time Index (All Day) - Carrboro

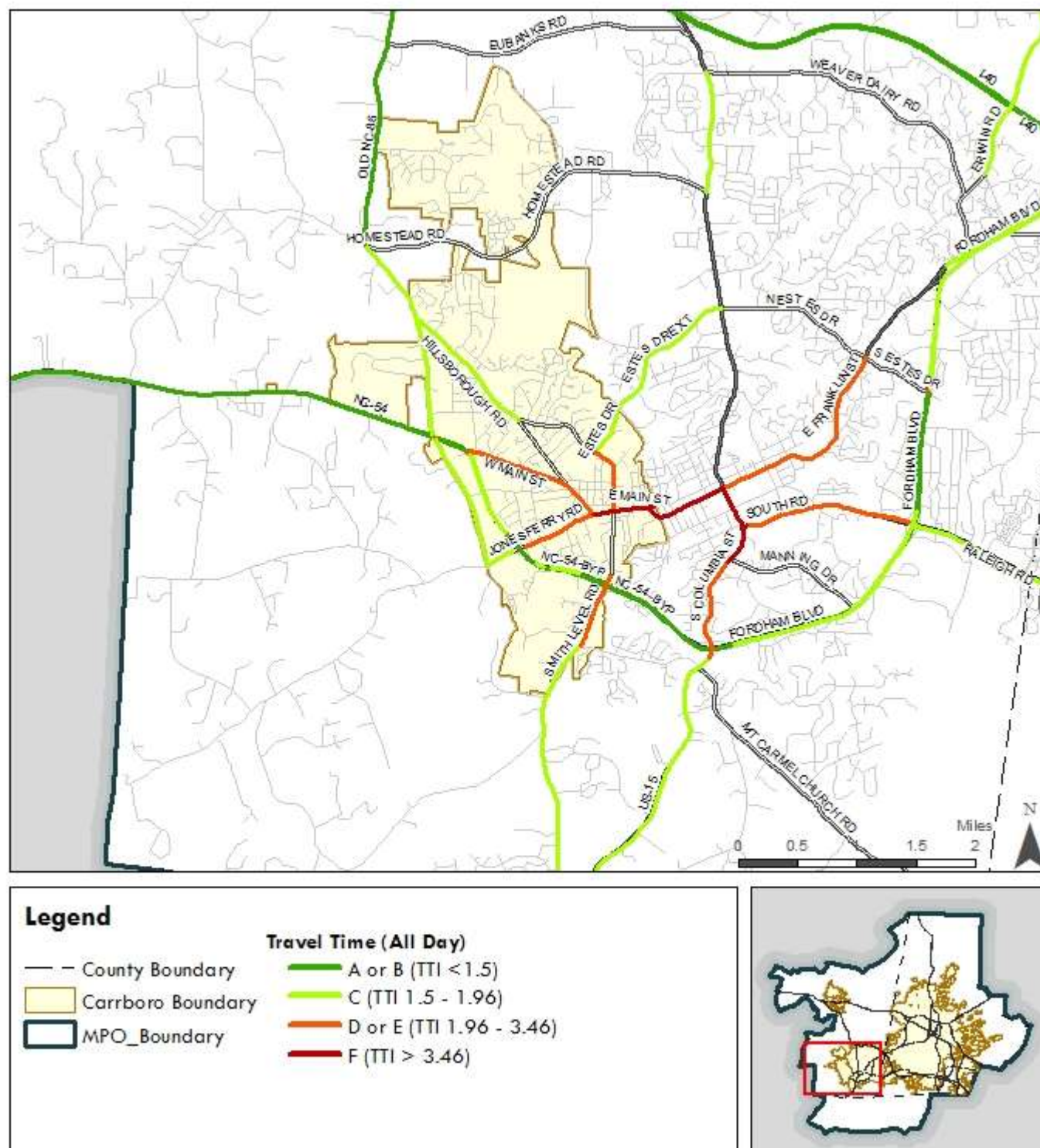


Figure 3-18. Travel Time Index (All Day) - Hillsborough

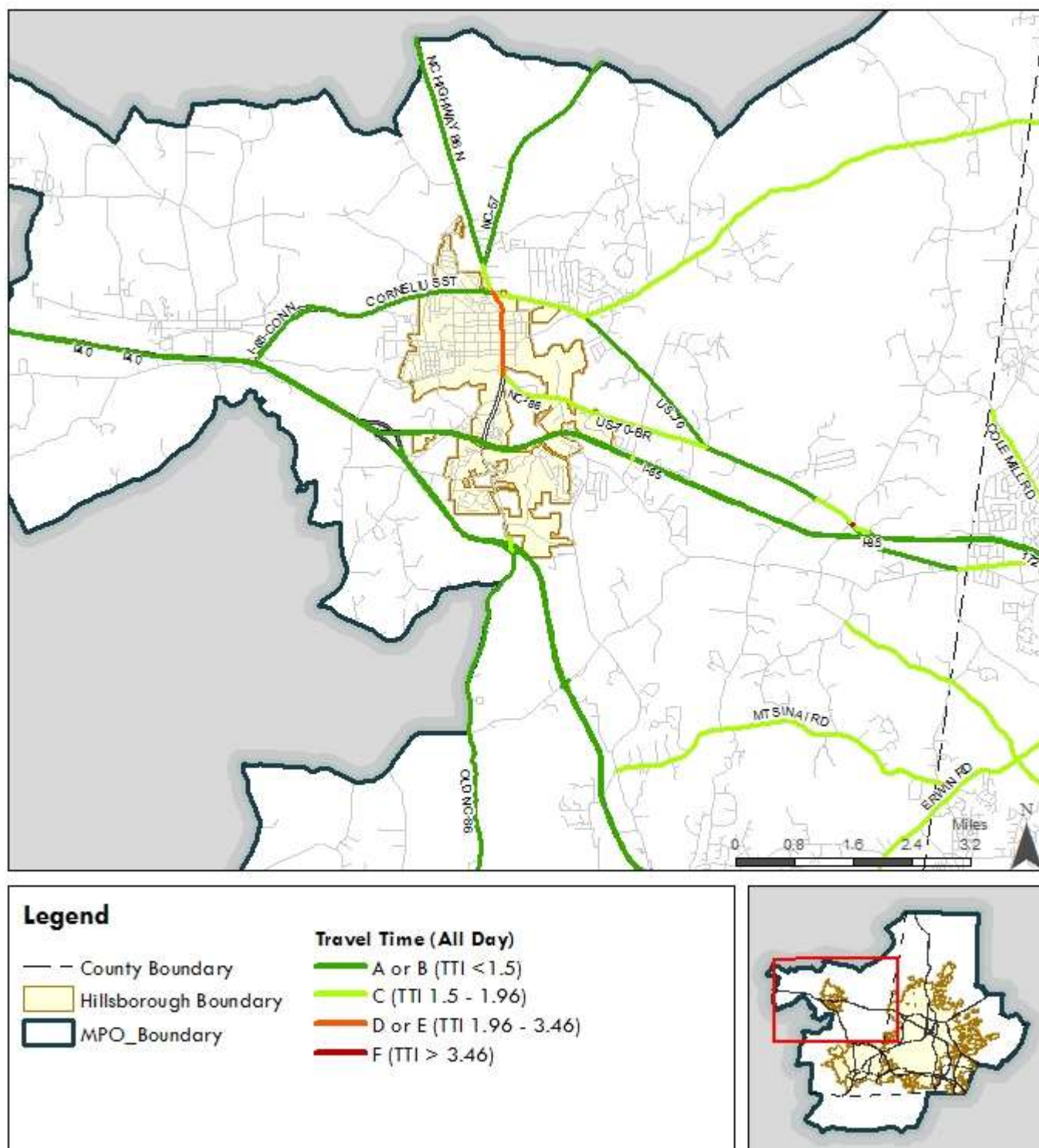
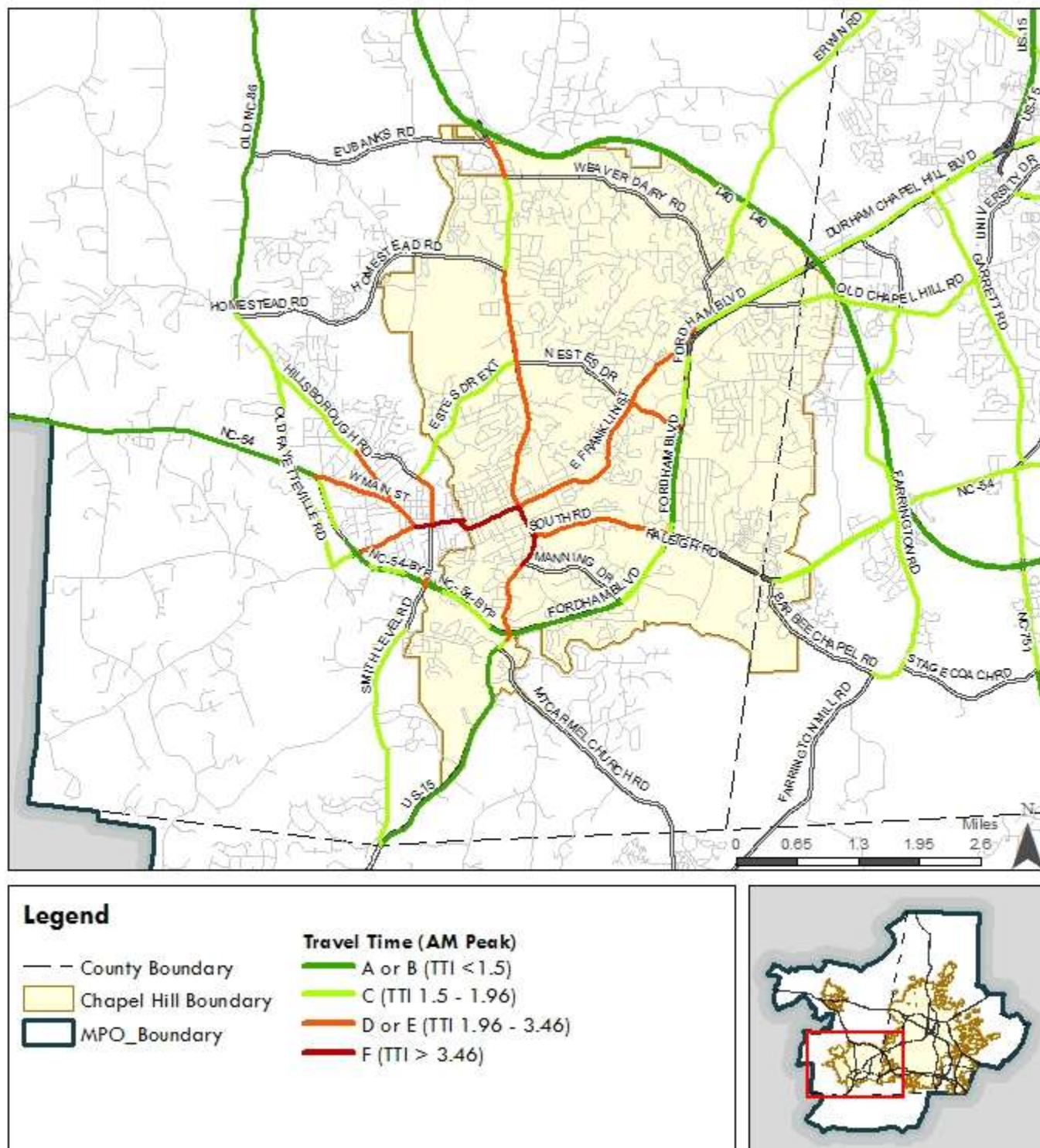


Figure 3-19. Travel Time Index (AM Peak) - Chapel Hill



Morning Peak Period is from 7:00 AM to 9:00 AM

Figure 3-20. Travel Time Index (AM Peak) - Carrboro

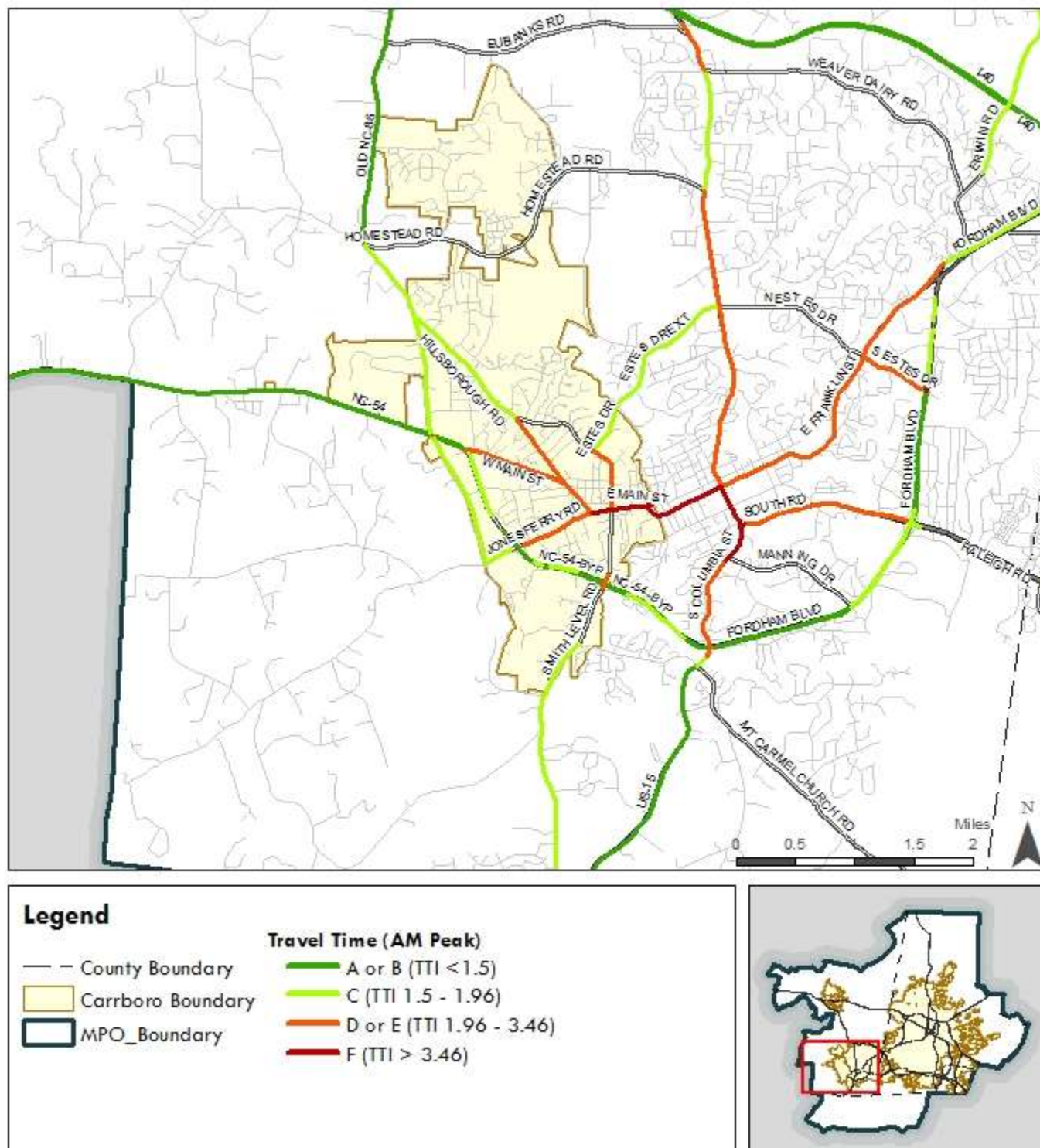


Figure 3-21. Travel Time Index (AM Peak) - Hillsborough

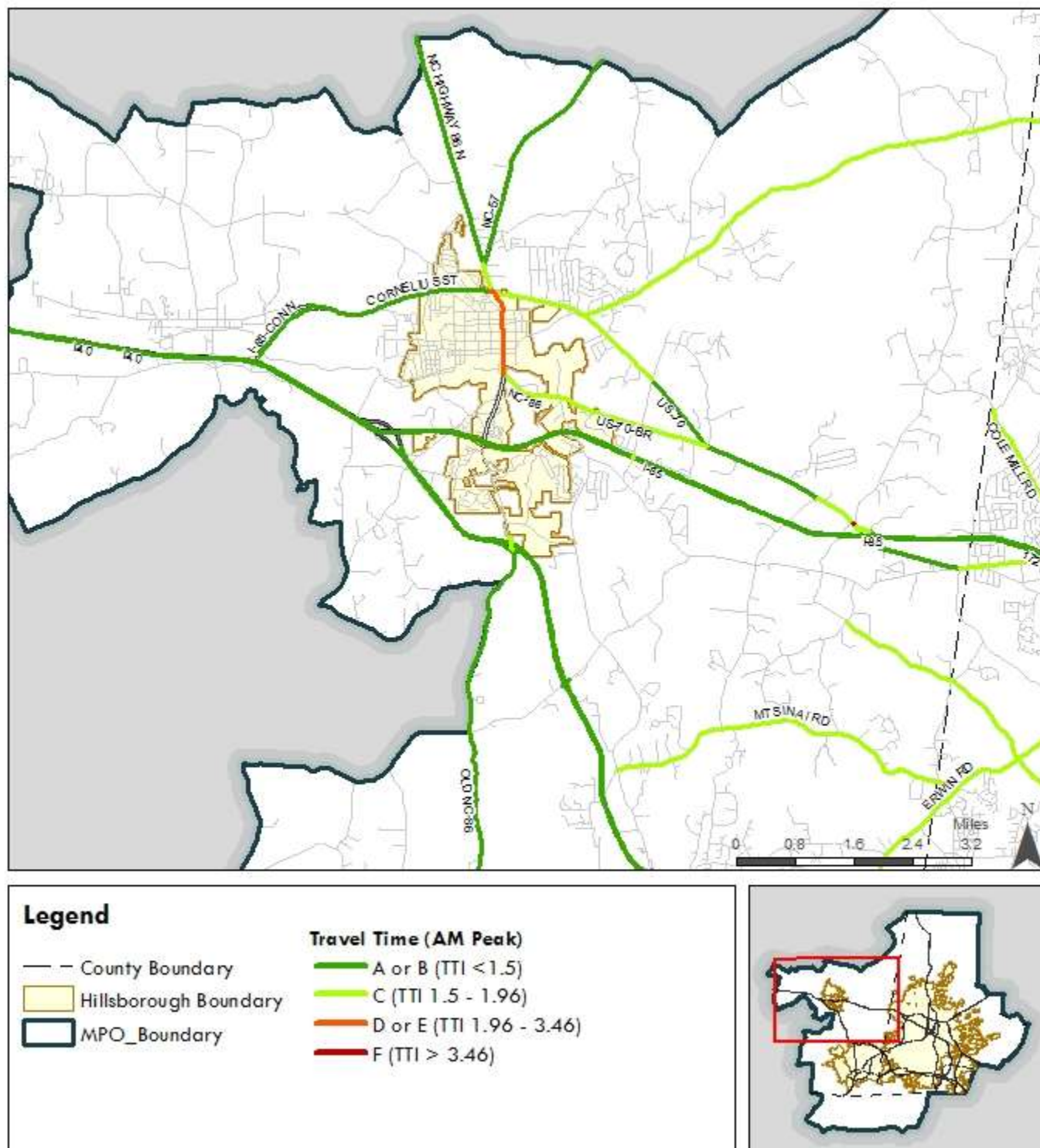
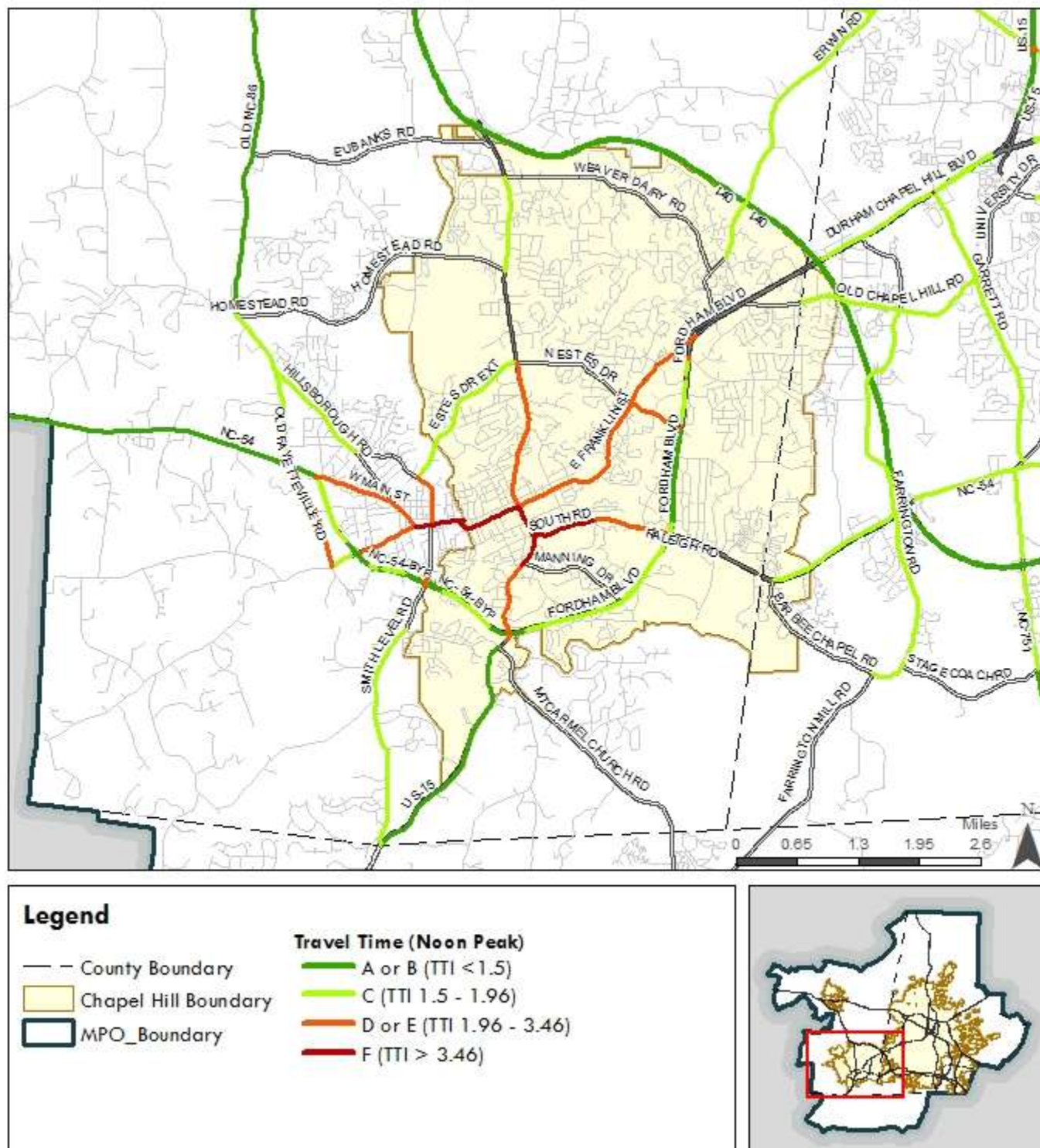


Figure 3-22. Travel Time Index (Noon Peak) - Chapel Hill



Noon Peak Period is from 11:00 AM to 1:00 PM

Figure 3-23. Travel Time Index (Noon Peak) - Carrboro

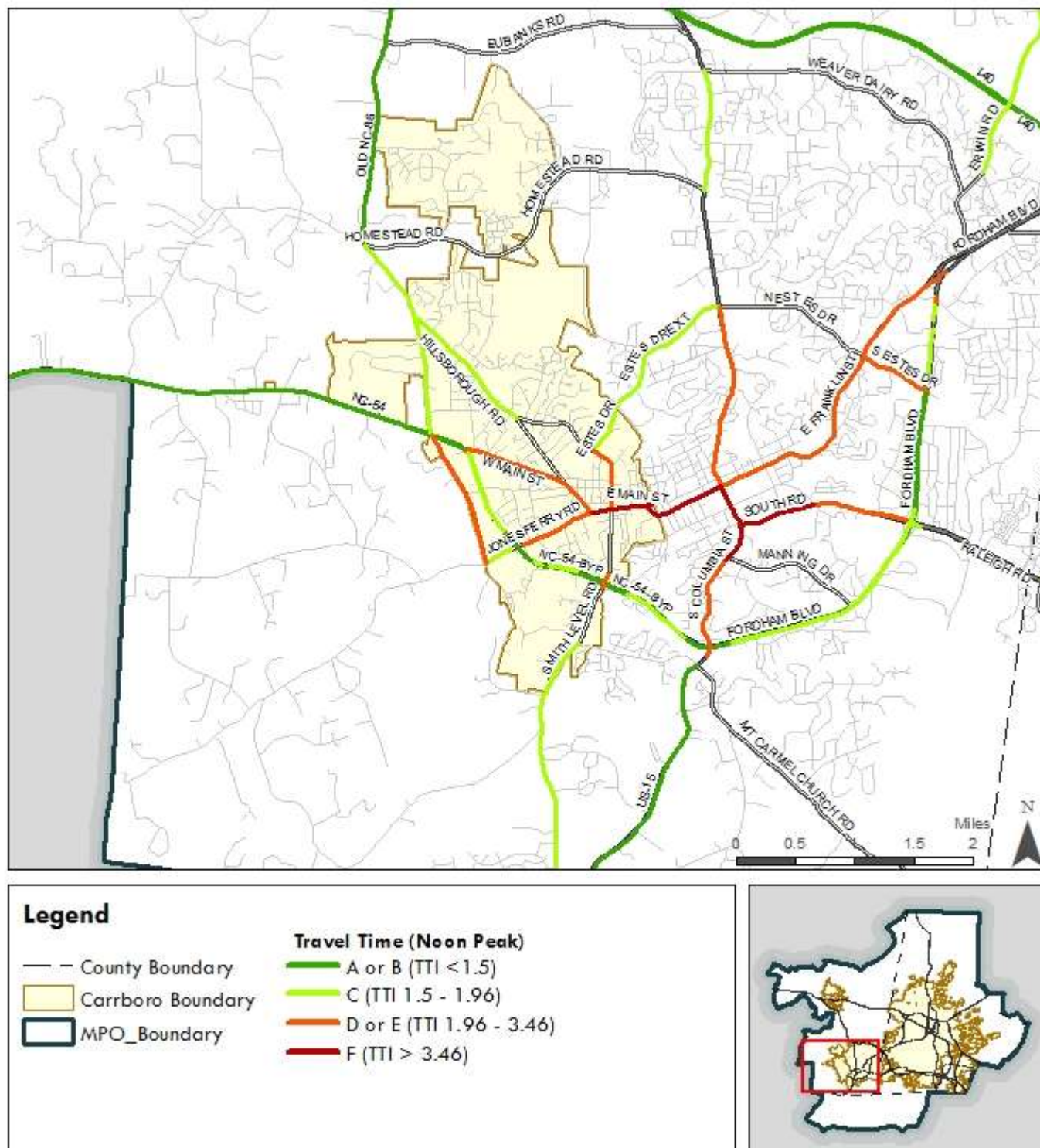


Figure 3-24. Travel Time Index (Noon Peak) - Hillsborough

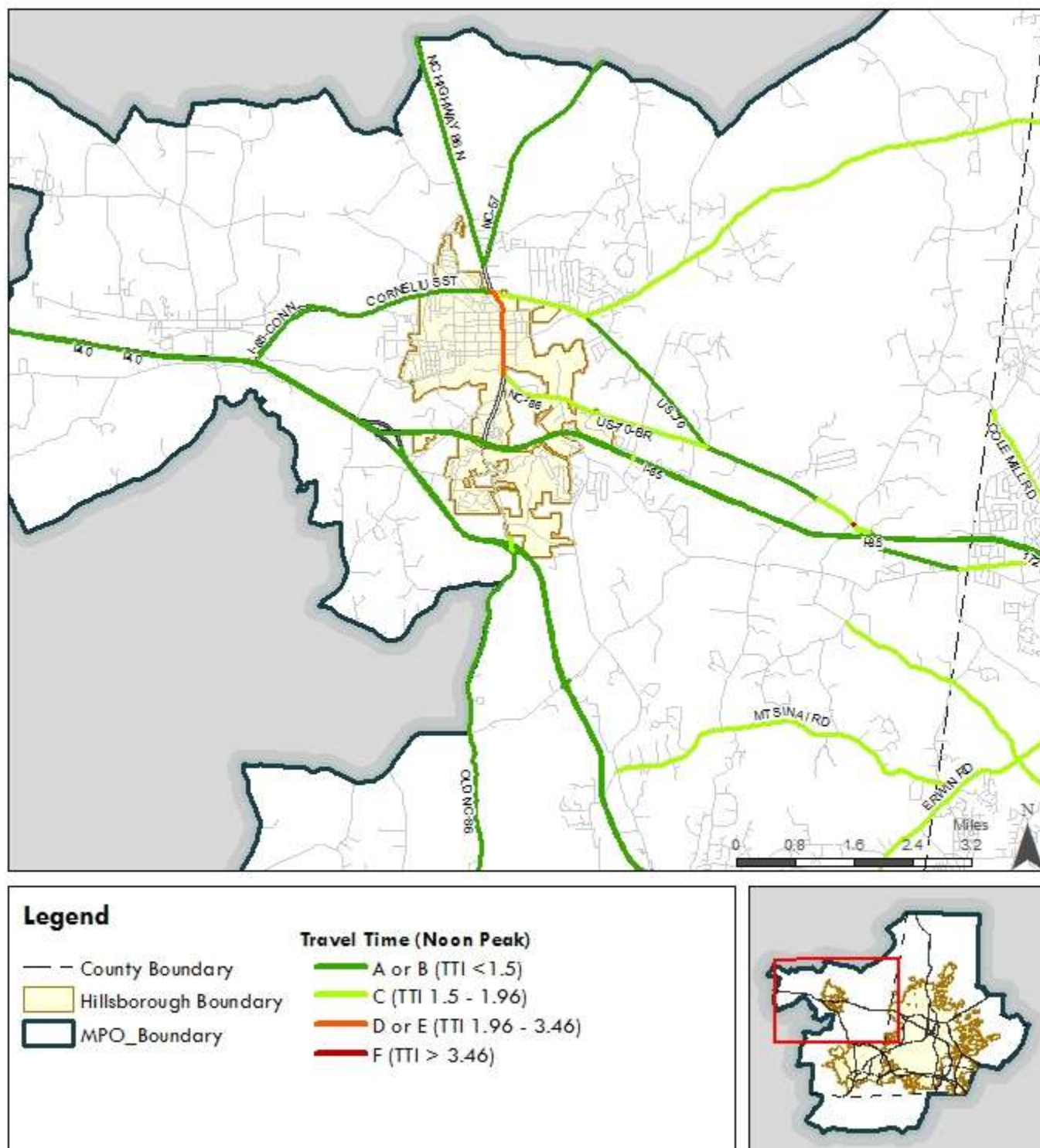
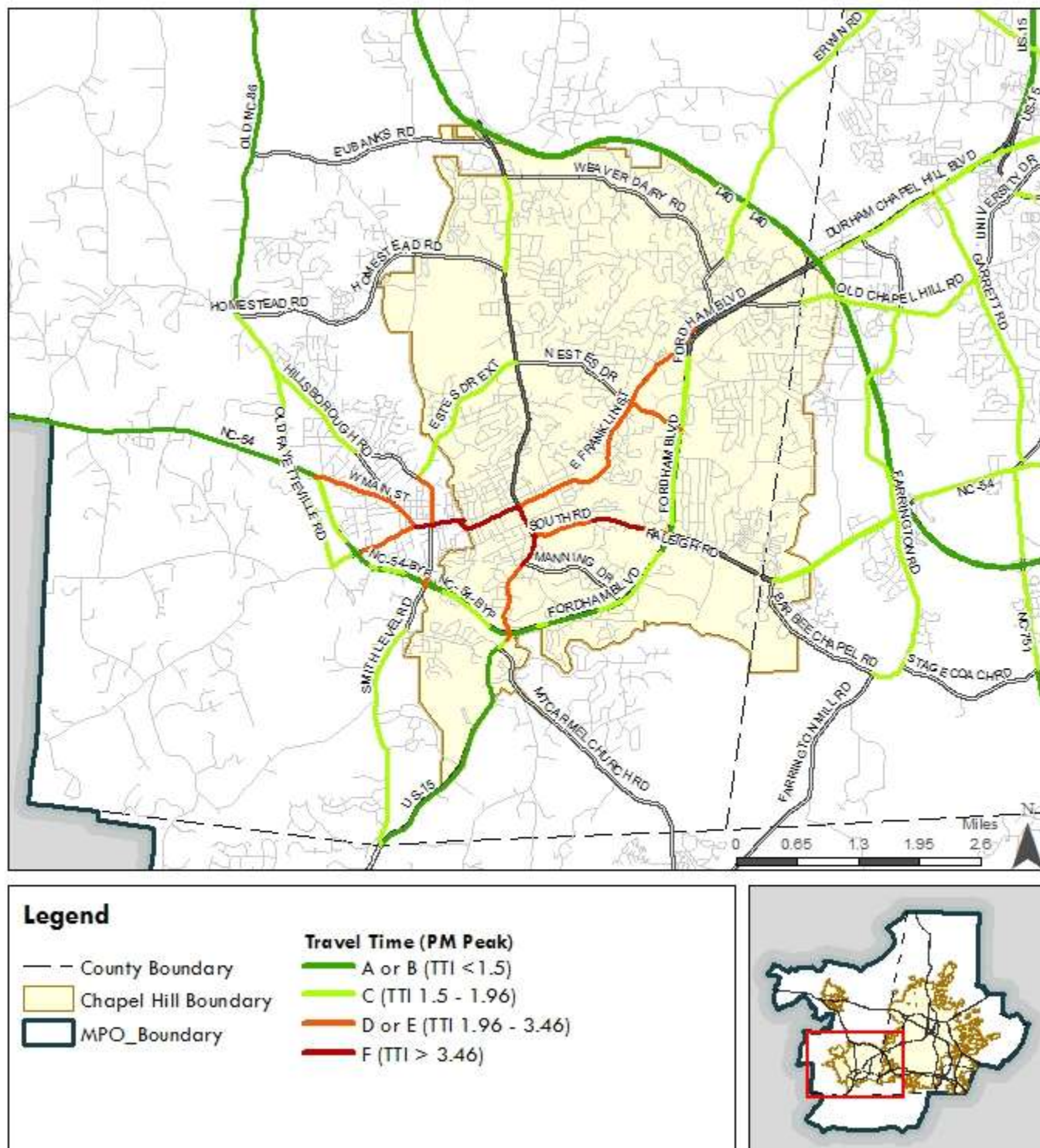


Figure 3-25. Travel Time Index (PM Peak) - Chapel Hill



Evening Peak Period is from 4:00 PM to 6:00 PM

Figure 3-26. Travel Time Index (PM Peak) - Carrboro

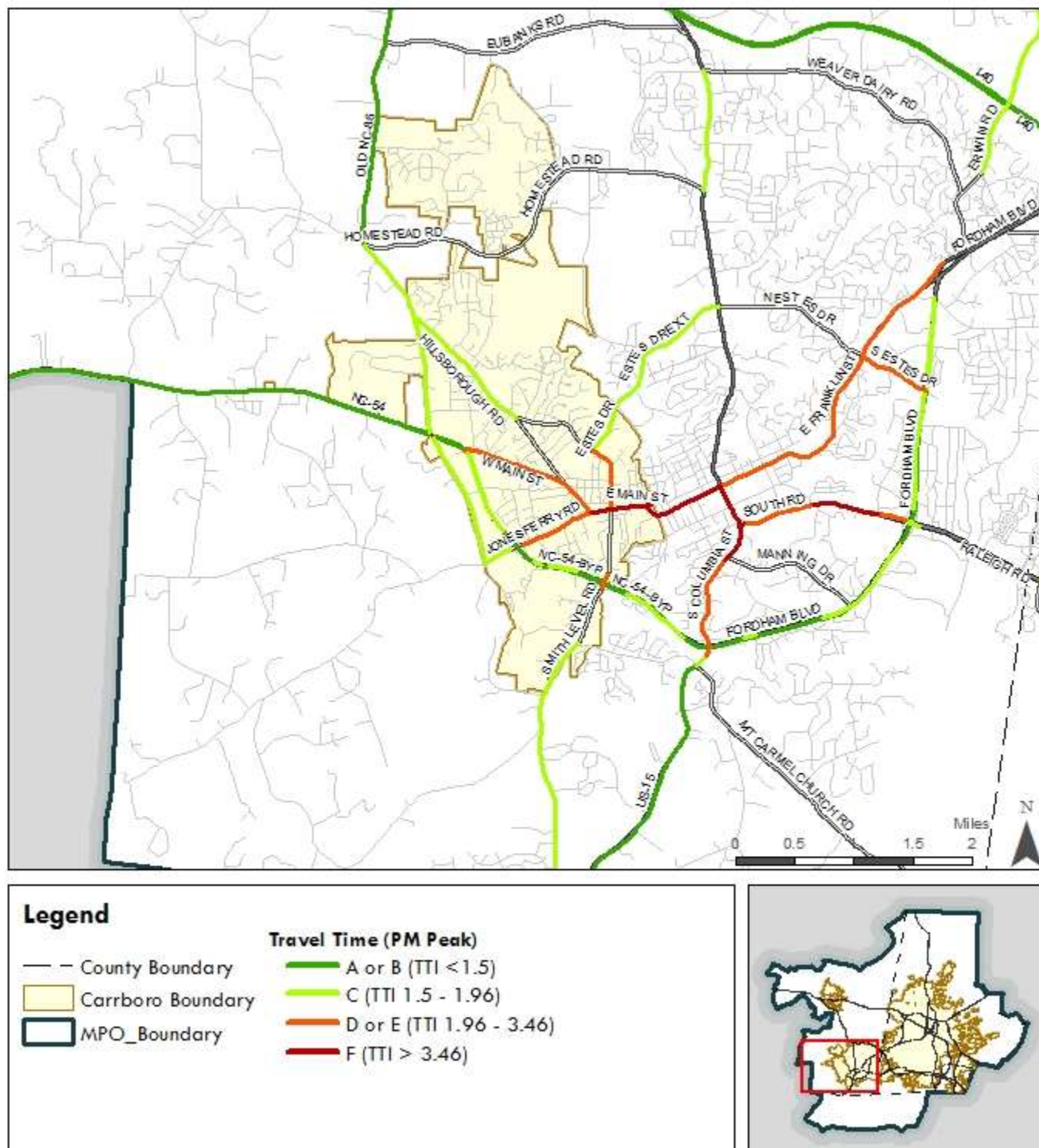
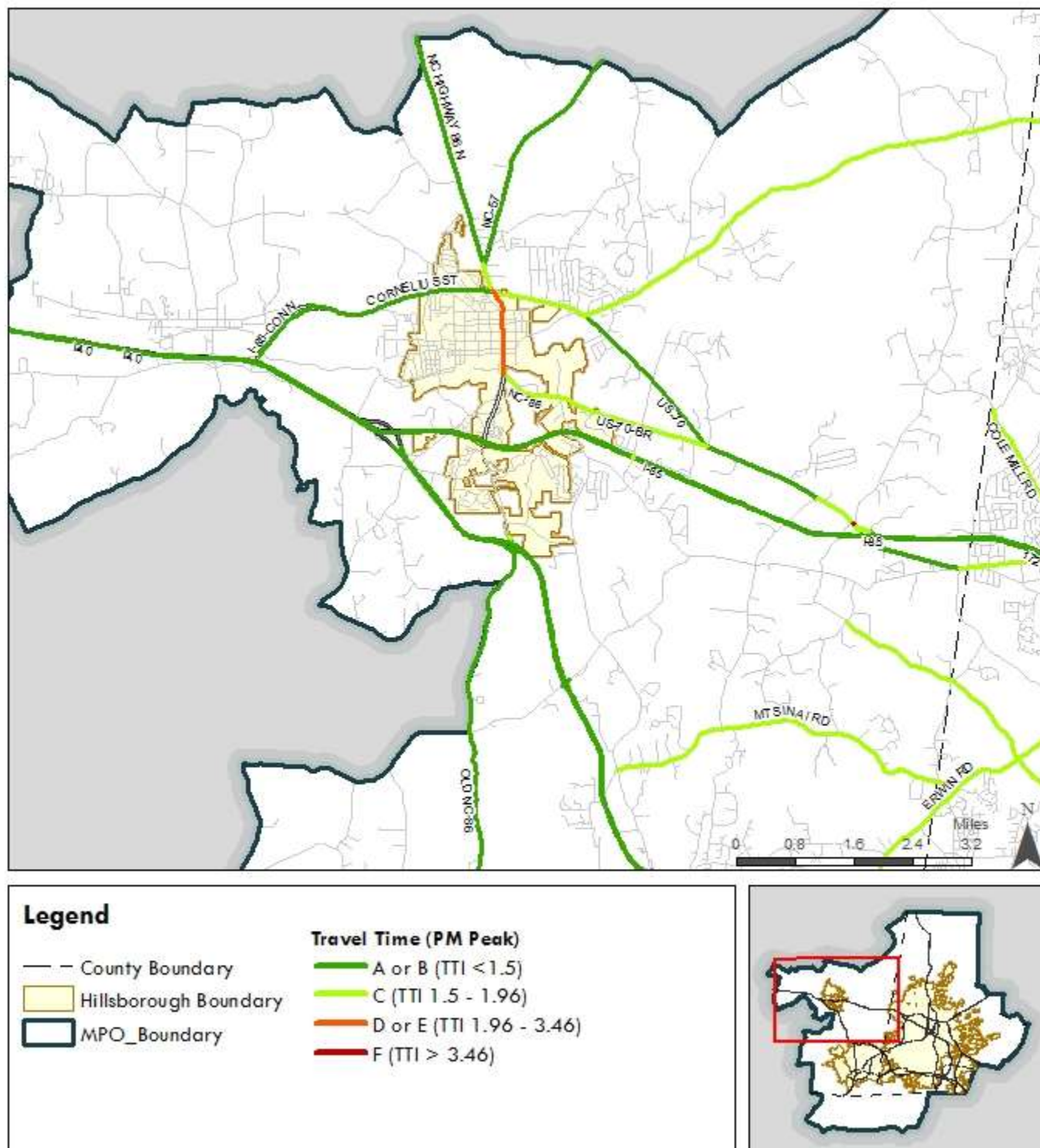


Figure 3-27. Travel Time Index (PM Peak) - Hillsborough



Chatham County

There are four CMP corridors wholly or partially in Chatham County, though only one had travel time information. The corridors range in length from 4 miles to 13 miles long. None had available data on corridor TTI, but some data is available at the segment level, as shown in the figures below.

Figure 3-28. Travel Time Index (All Day) - Chatham County

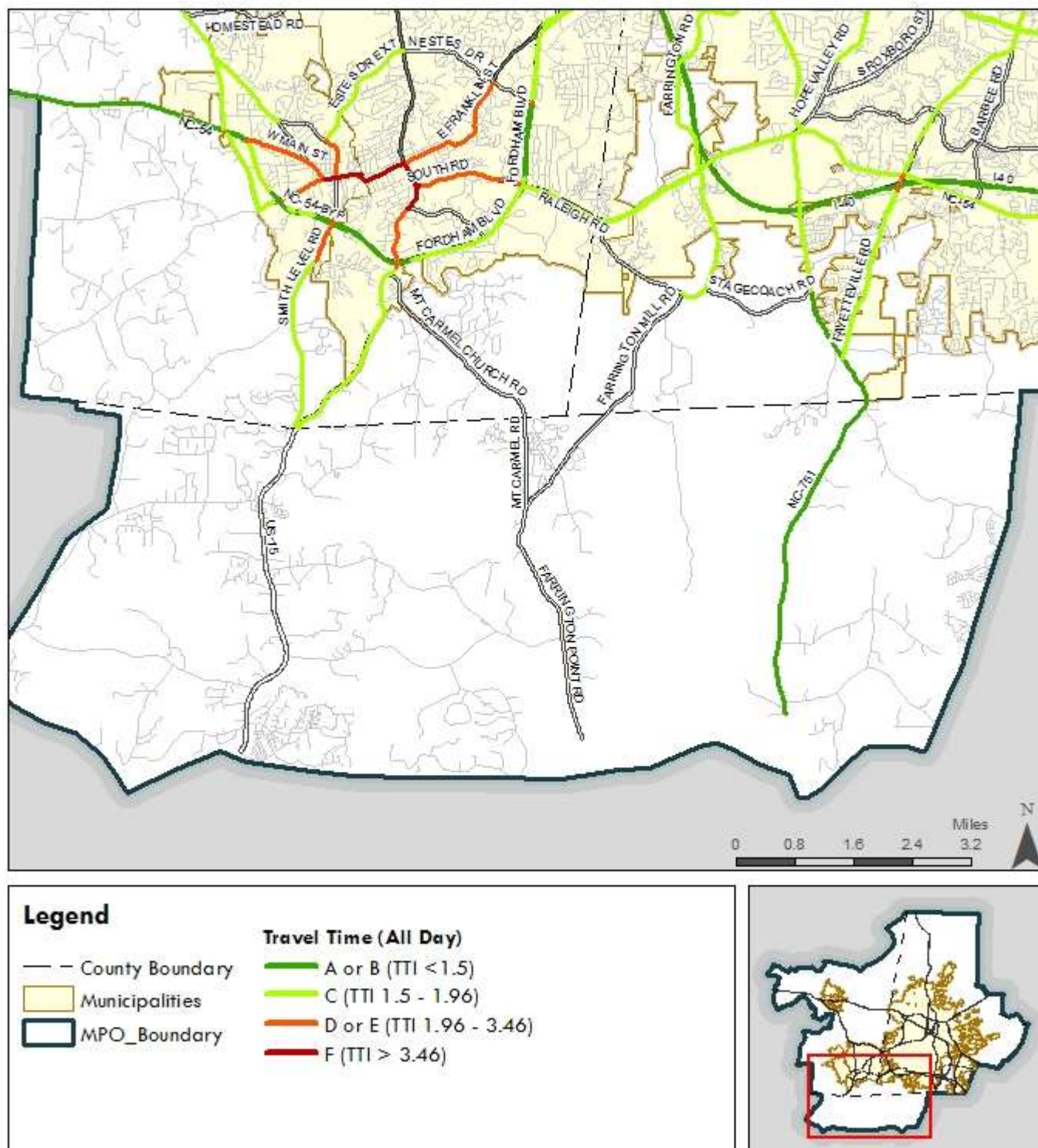


Figure 3-29. Travel Time Index (AM Peak) - Chatham County

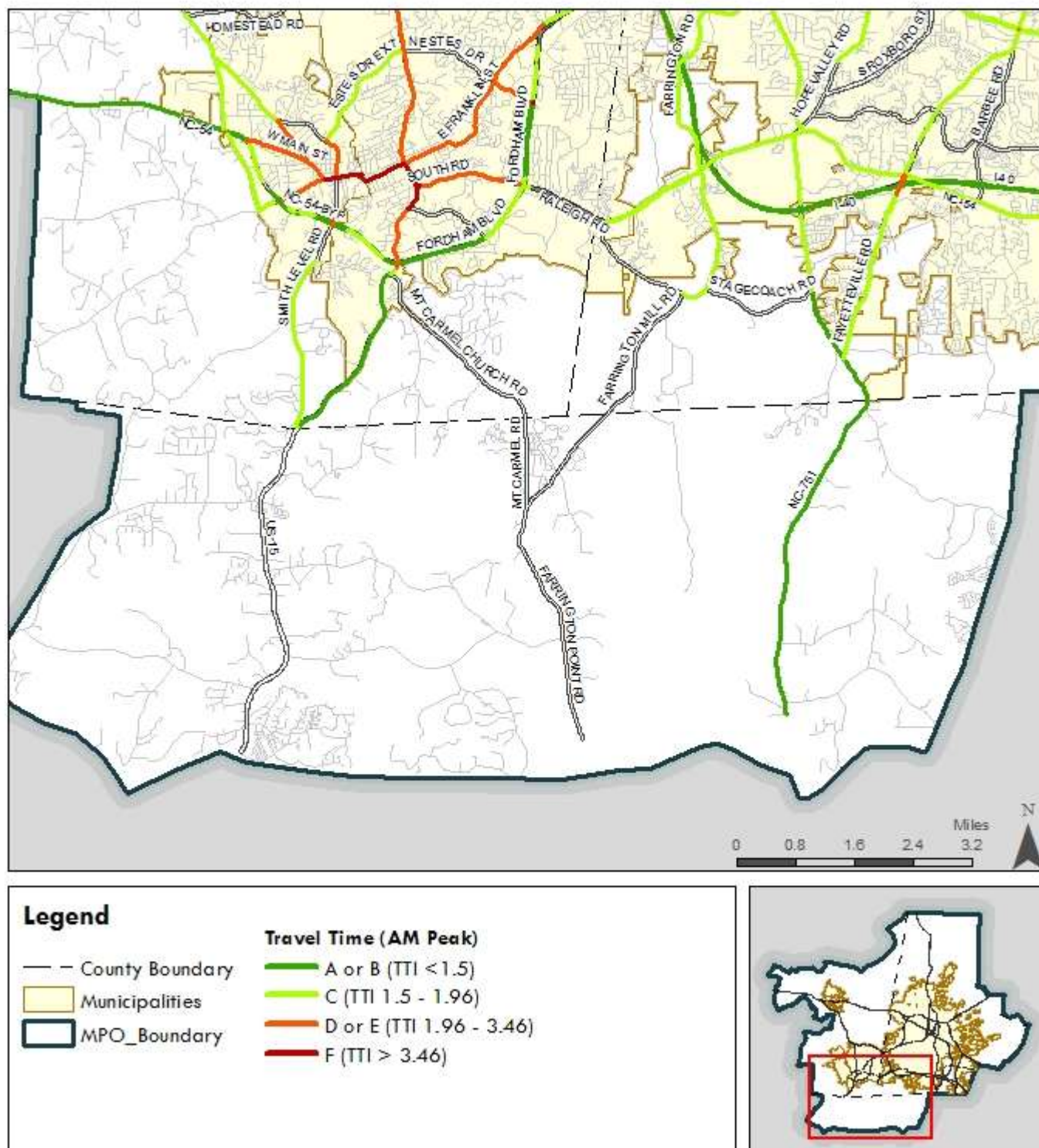


Figure 3-30. Travel Time Index (Noon Peak) - Chatham County

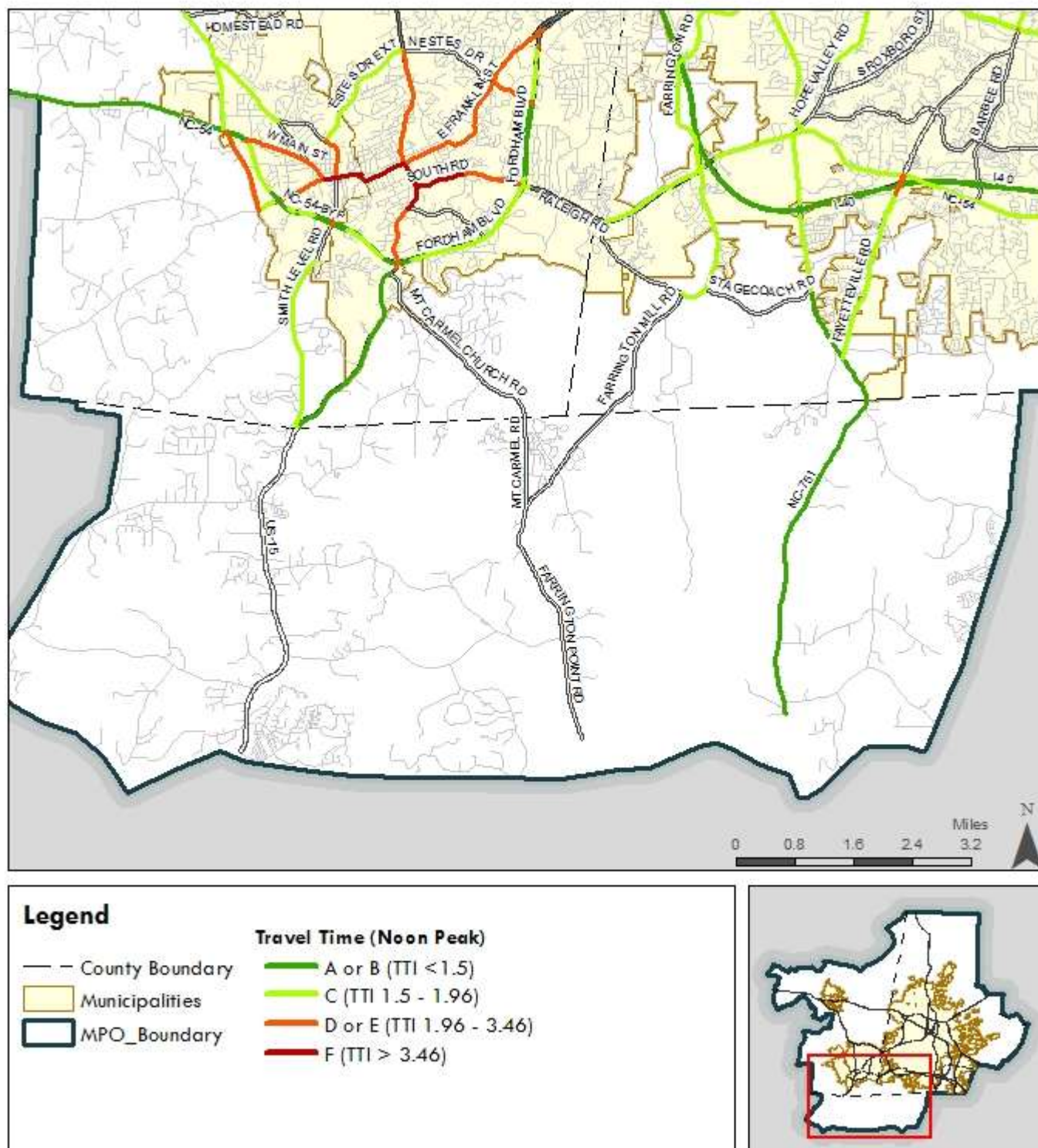
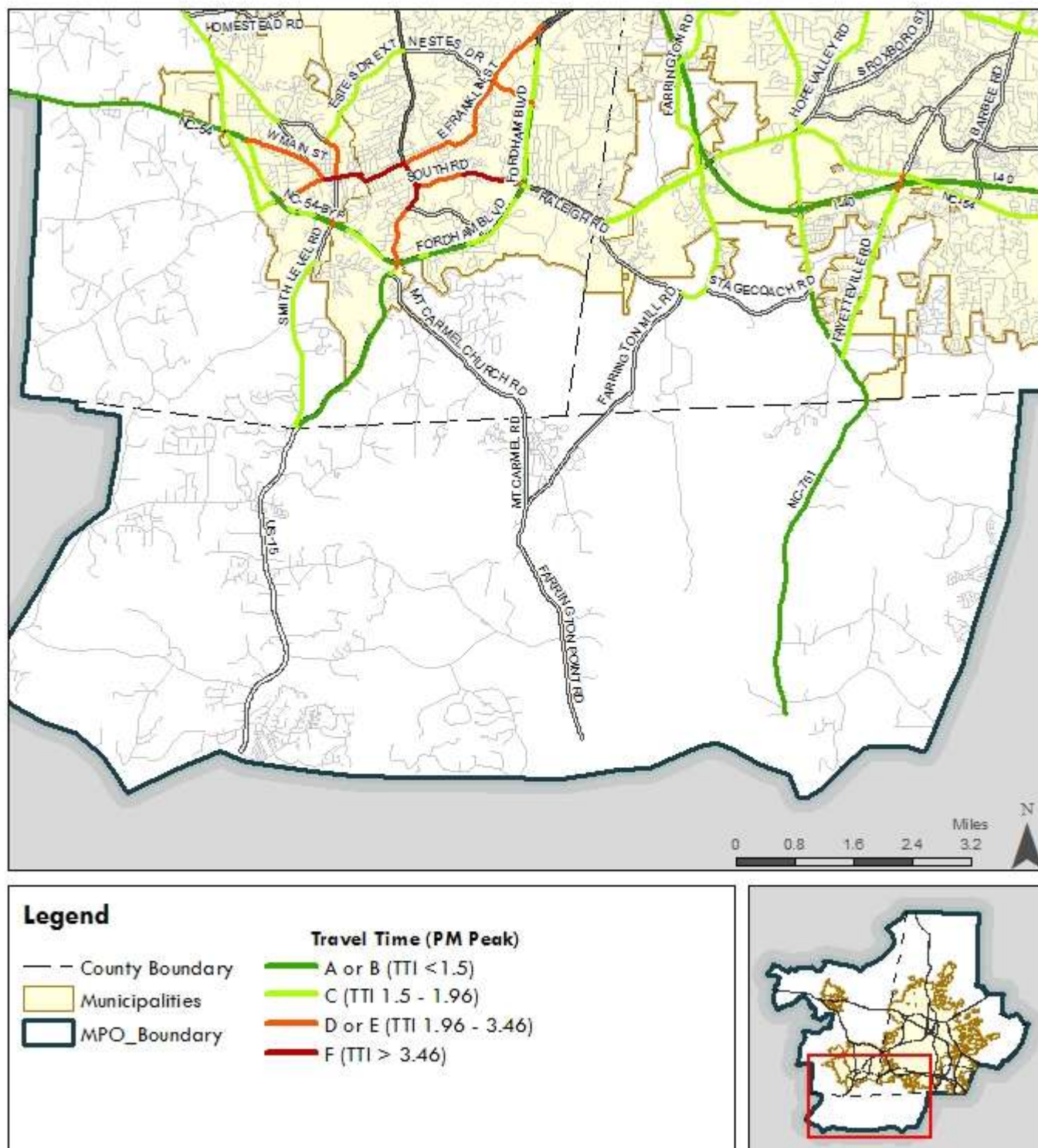


Figure 3-31. Travel Time Index (PM Peak) - Chatham County



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4. Vehicle Safety

WHAT IS IT?

Transportation policy in the United States places a strong emphasis on vehicular safety. The MPO tracks fatalities, injuries, and property damage resulting from vehicle collisions on the 95 regionally significant corridors included in the MPO's Congestion Management Plan (CMP). These data are collected by the North Carolina DOT through its Traffic Engineering Accident Analysis System (TEAAS). The data presented in this section cover a five year period from January 2008 through December 2012.

Why does it matter?

Motor vehicle accidents are the 10th leading cause of death in North Carolina, claiming more than 1,300 lives in 2012. They are the leading cause of death for people between ages 1 and 18.¹ The MPO can reduce crashes, injuries, and fatalities by improving areas with a high crash rate.

METHODOLOGY

Using the NCDOT TEAAS database, vehicle collision data for 36,926 collisions was collected on the 95 CMP corridors over the five-year period from 1 January 2008 to 31 December 2012. Because the CMP corridors are often paired and include interstates, major arterial facilities, secondary facilities, etc., they can serve as a representative sample of vehicle collisions in the many regions of the DCHC MPO and, therefore, be an indicator of safety on MPO facilities.

Assessments using vehicle collision data are usually done over a five-year period. Vehicle collision data is provided by county within the MPO, and includes severity and collision cost. It is important to note several caveats: 1) Data is not provided on smaller corridors, so this should be not be considered a thorough analysis on all regional roadways; 2) The number of collisions does not necessarily reflect the number of vehicles, or people, involved in the collisions; 3) Collision costs are used for comparison purposes, but it is important to note that collision costs are only estimates of damage and thus used here merely to augment collision-severity data.

SUMMARY

CONDITIONS UNCHANGED



KEY FINDINGS

Crash data analyzed for 95 primary corridors only

The number of collisions in the region increased each year between 2009 and 2012, but there have been no clear trends in the number of injuries or fatalities.

37,000 collisions with 70,000 vehicles from 2008-2012

105 total fatalities (0.3% of all collisions), and about 2,750 injuries per year

4 times as many collisions in Durham County as Orange and Chatham Counties combined.

- Many more CMP corridors in Durham County

About 75% of all collisions only caused property damage.

¹ North Carolina State Center for Health Statistics.

REGIONWIDE RESULTS

There were 36,926 collisions reported in the DCHC MPO between 2008 and 2012, with collision totals increasing each year from 2009-2012. Nearly 80% of all collisions occurred in Durham County, though this is partly a function of the larger number of road miles in the County relative to Orange and Chatham Counties. Over the five-year period, 105 people died in vehicle accidents.

About 2,700 people are injured in the region each year in motor vehicle accidents, while about 14,000 vehicles are damaged in the region each year in motor vehicle accidents.

The highest number of collisions occurred on I-40 (2,401), followed by NC-55 (1,951), Fayetteville St (1,893), and Roxboro St. (1,482).

It is not clear how much the increase in collisions has been caused by increases in traffic.

Table 4-1 summarizes vehicle collision data.

Table 4-1. Annual Vehicle Collisions - DCHC MPO

Year	Fatalities	Injuries	PDO*	Vehicles Involved	Collisions	Cost
2008	26	2,757	5,364	13,689	7,213	\$33,192,048
2009	18	2,710	5,329	13,569	7,130	\$34,821,009
2010	24	2,631	5,426	13,619	7,161	\$28,959,092
2011	20	2,809	5,773	14,570	7,611	\$31,492,101
2012	17	2,869	5,850	14,997	7,811	\$30,893,081
Totals	105	13,776	27,742	70,444	36,926	\$159,357,331

*Number of collisions which were property damage only

Figure 4-1. Collision Severity - DCHC MPO

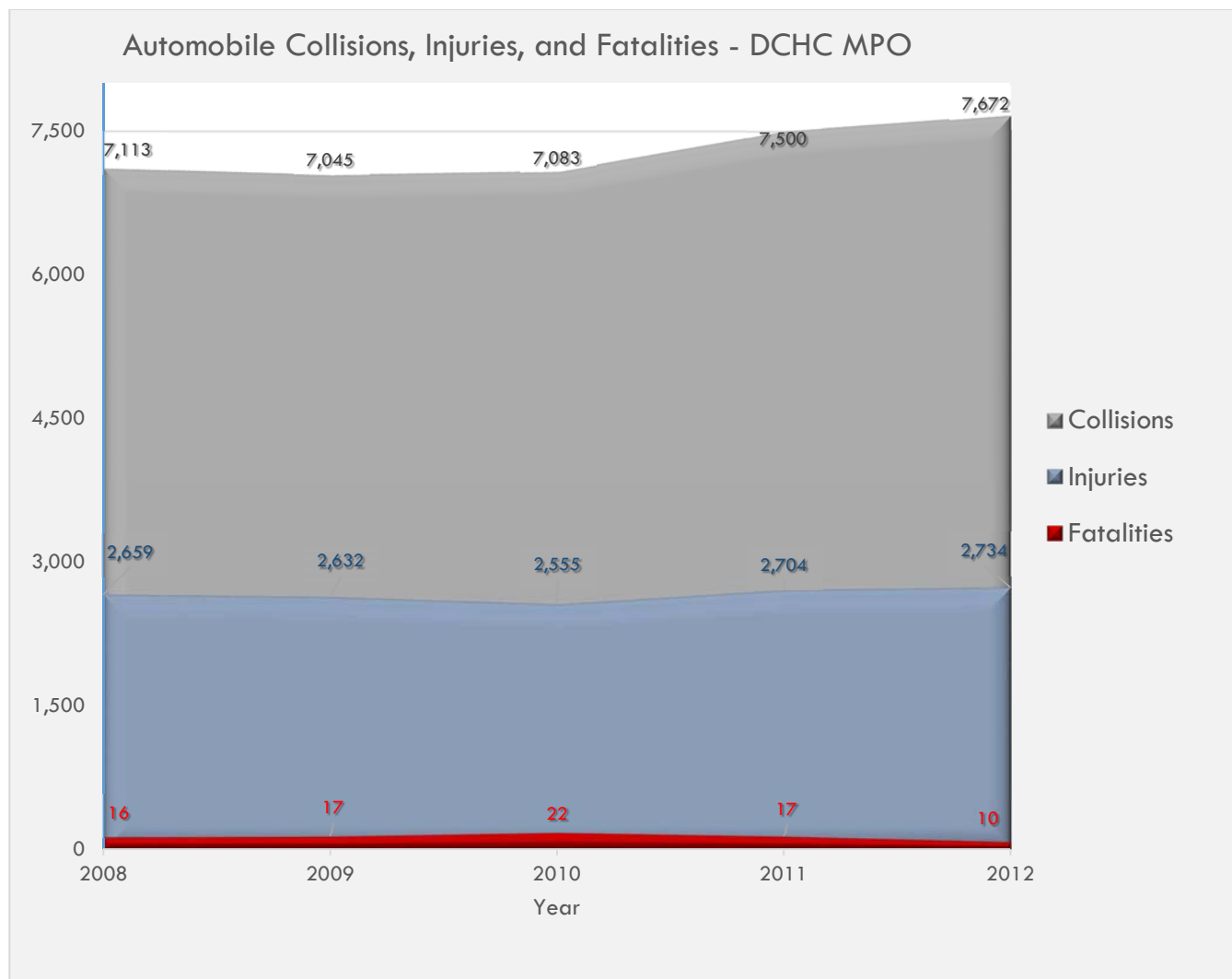


Figure 4-2 provides the location of all collision locations in the region, highlighting the wide prevalence of incidents. Every county and municipality in the region had at least one fatality.

Figure 4-2. Automobile Collision Locations and CMP Corridors- DCHC MPO

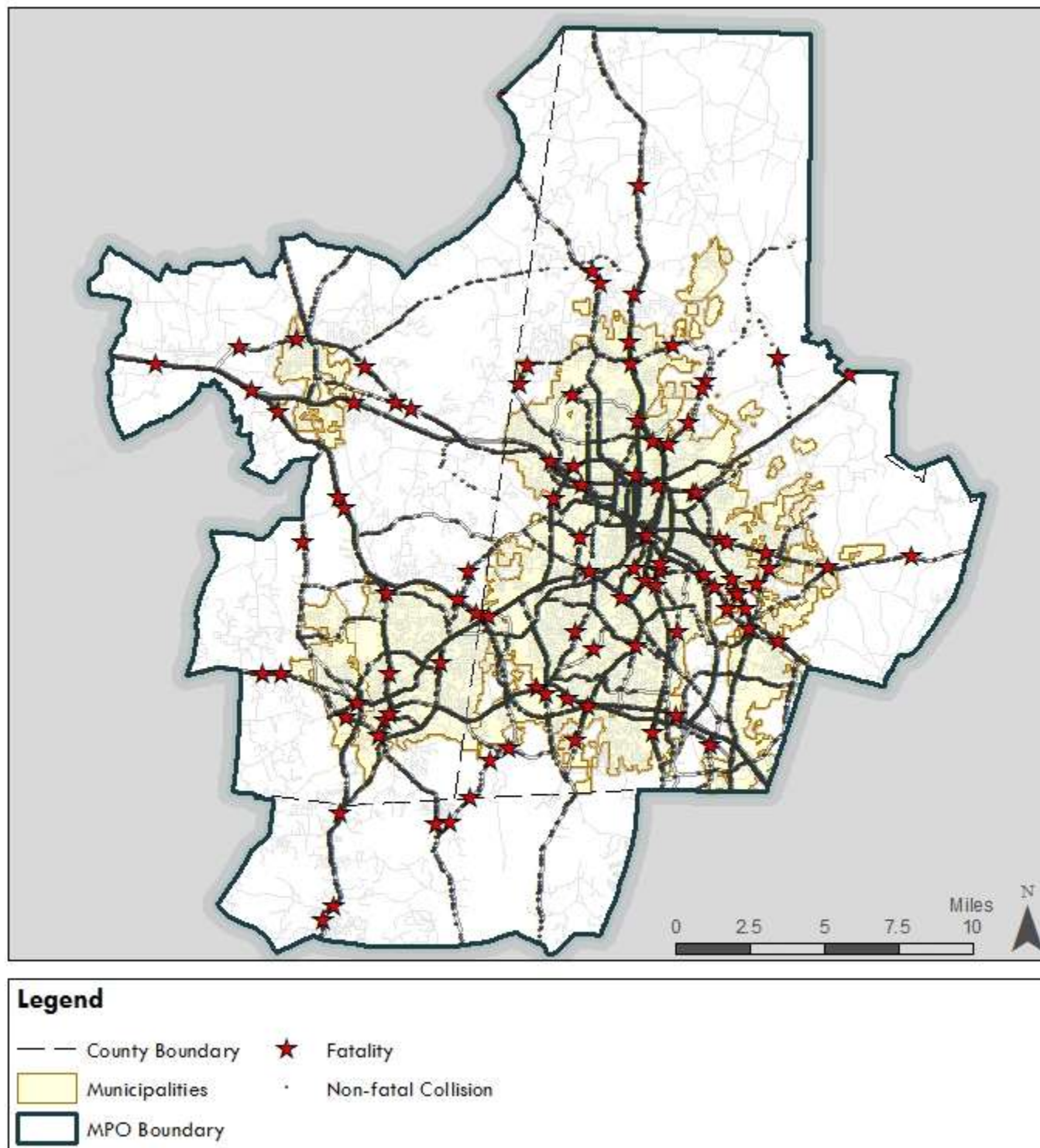
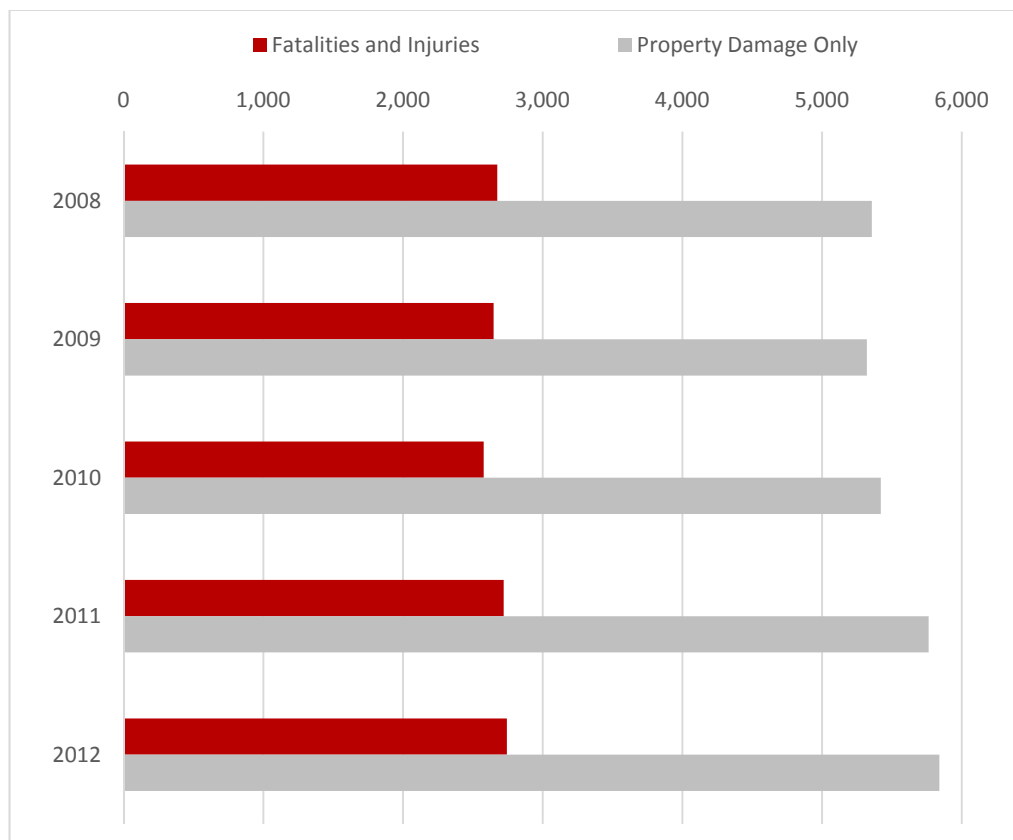


Figure 4-3. Annual Vehicle Collision Severity



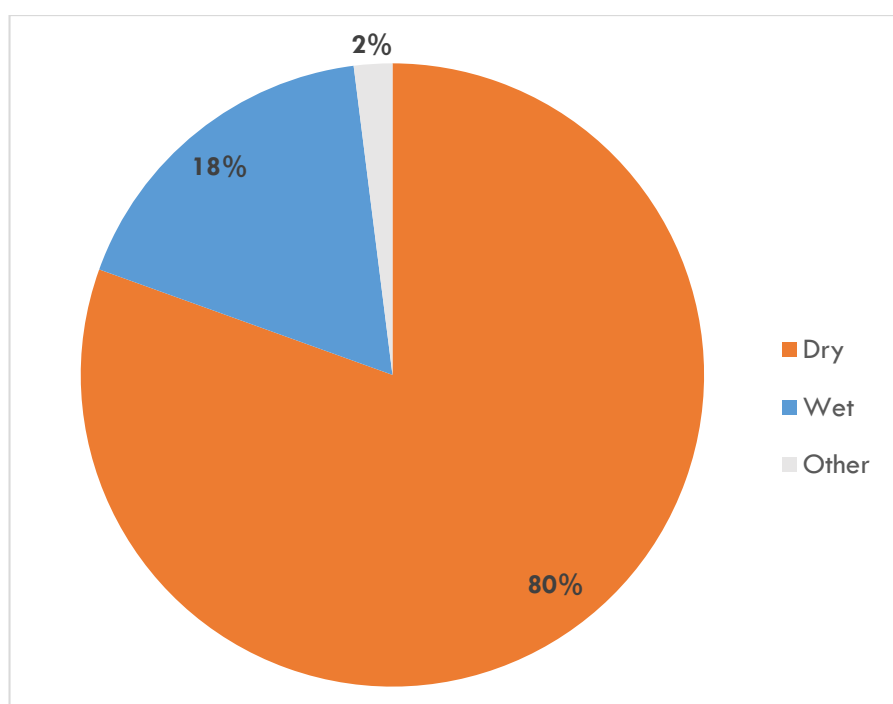
CMP corridors in the DCHC MPO, Jan 2008 to Dec 2012

Table 4-2. Total Vehicle Collisions, Severity, and Cost by County

County	Fatalities	Injuries	PDO*	Vehicles Involved	Collisions	Cost
Durham	72	11,003	22,025	56,682	29,229	\$124,523,742
Orange	28	2,590	5,323	12,970	7,181	\$32,574,204
Chatham	5	183	394	792	516	\$2,259,385
Totals	105	13,776	27,742	70,444	36,926	\$159,357,331

*Number of collisions which were property damage only

Figure 4-4. Roadway Conditions for Recorded Vehicle Collisions



“Other” category includes Water (standing, moving), Ice, Snow, Slush, Sand, Mud, Dirt, Gravel, Fuel, Oil, Other, and Unknown road conditions.

Figure 4-5. Light Conditions for Recorded Vehicle Collisions

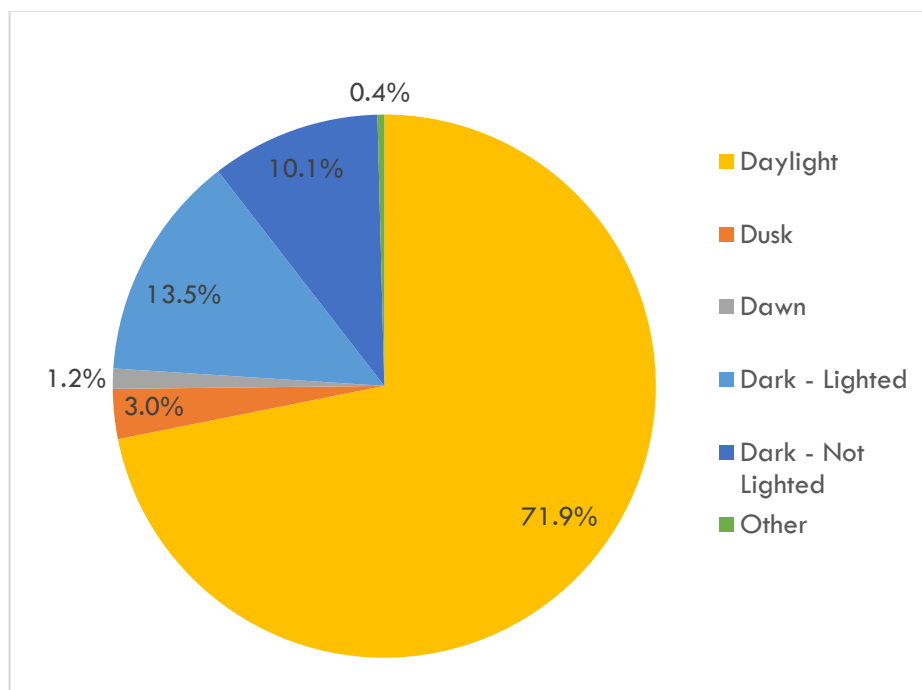
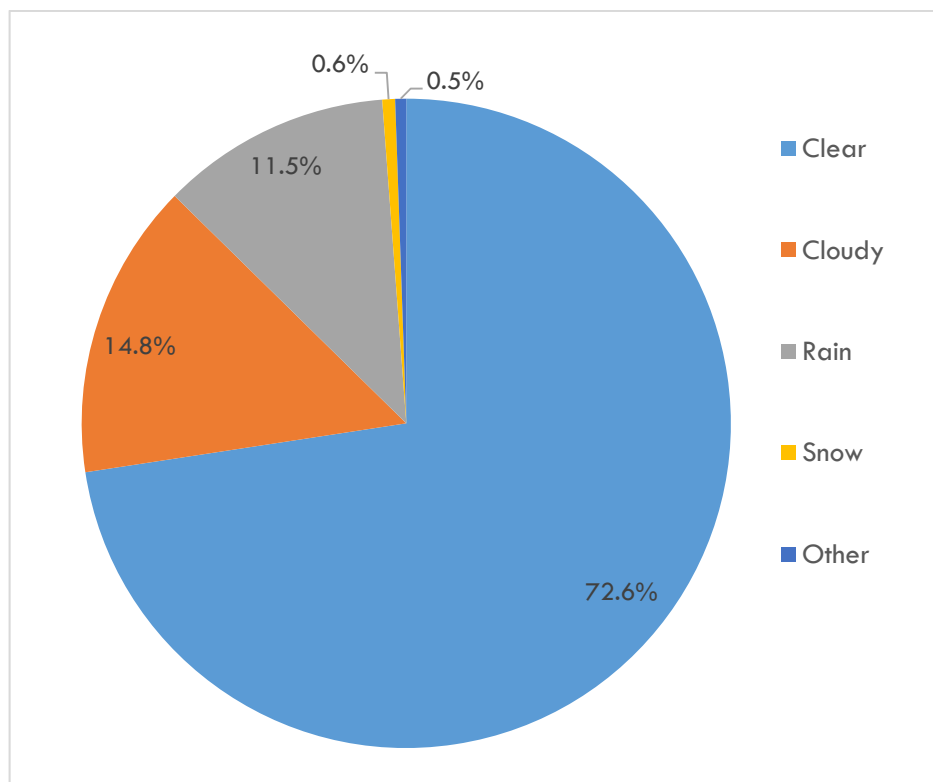


Figure 4-6. Weather Conditions for Recorded Vehicle Collisions



“Other” Category includes Fog, Smoke, Smog, Sleet, Hail, Freezing Rain/Drizzle, Severe Crosswinds, and Blowing Sand, Dirt, or Snow.

RESULTS BY GEOGRAPHY

The following provides detailed results on vehicle collision data summarized by county.

Durham County

Over 29,000 collisions were reported on 69 CMP corridors in Durham County. The CMP corridor information is shown in Figure 4-2.

Extrapolating to all roadways in the county, fatalities likely occurred to only about 0.1% of all users. About 75% of all collisions were property damage only (Table 4-3), and collisions occurred infrequently.

The data suggest that adverse road conditions had little effect on the safety of facilities in Durham County, as 80.7% of collisions occurred on dry roads, nor did the amount of lighting or adverse weather have much effect on the safety of DCHC MPO facilities, with 72.9% of collisions occurring during the daytime and 73.2% of collisions occurring during clear weather.

Table 4-3. Annual Vehicle Collisions, Severity, and Costs - Durham County

Year	Fatalities	Injuries	PDO*	Vehicles Involved	Collisions	Cost
2008	18	2,184	4,249	11,006	5,689	\$24,207,505
2009	15	2,128	4,173	10,811	5,571	\$28,023,548
2010	19	2,109	4,271	10,881	5,624	\$22,751,910
2011	9	2,287	4,602	11,765	6,068	\$25,023,054
2012	11	2,295	4,730	12,219	6,277	\$24,517,725
Totals	72	11,003	22,025	56,682	29,229	\$124,523,742

*Number of collisions which were property damage only

Figure 4-7. Collision Locations - North Durham

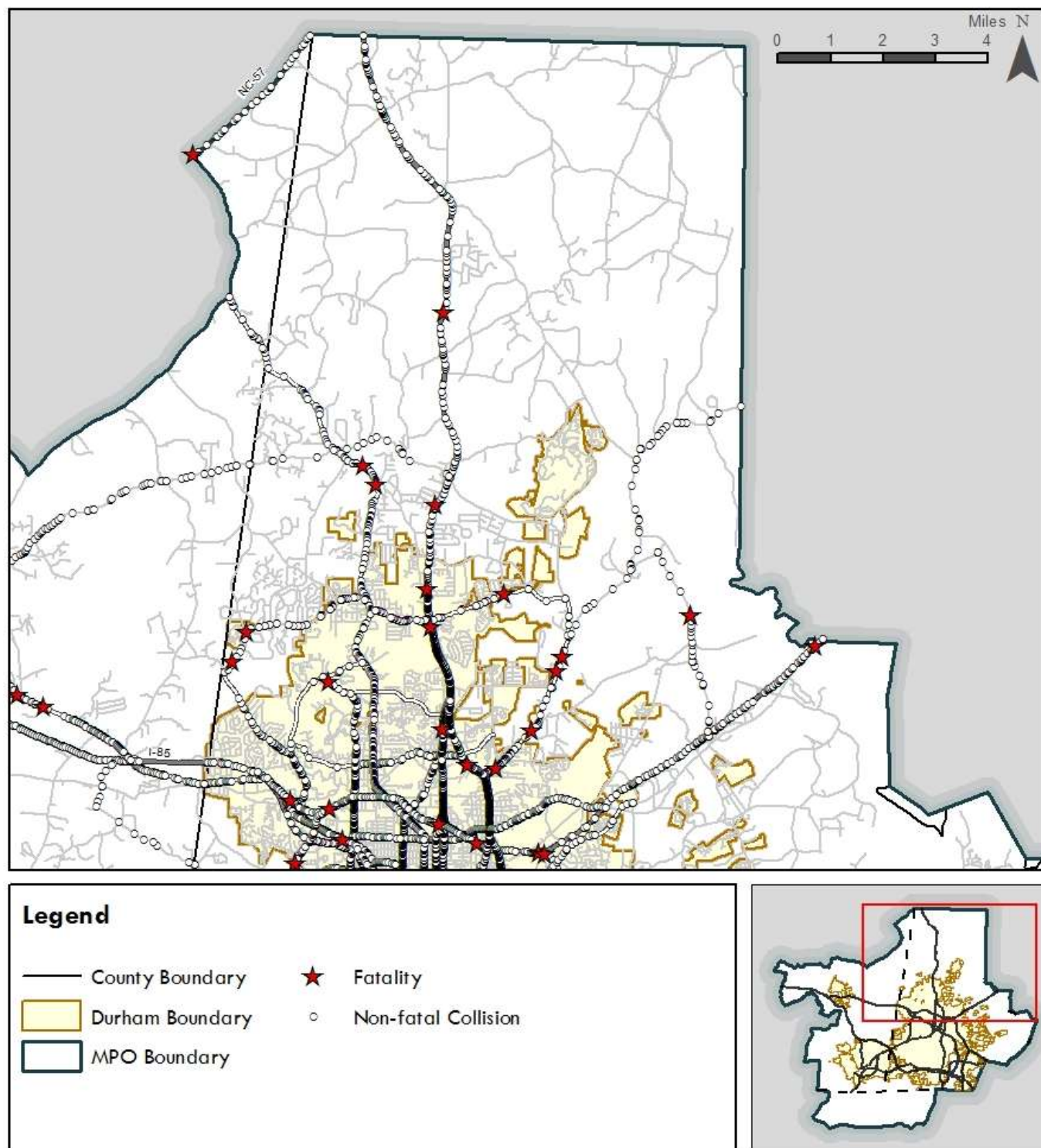


Figure 4-8. Collision Locations - Downtown Durham

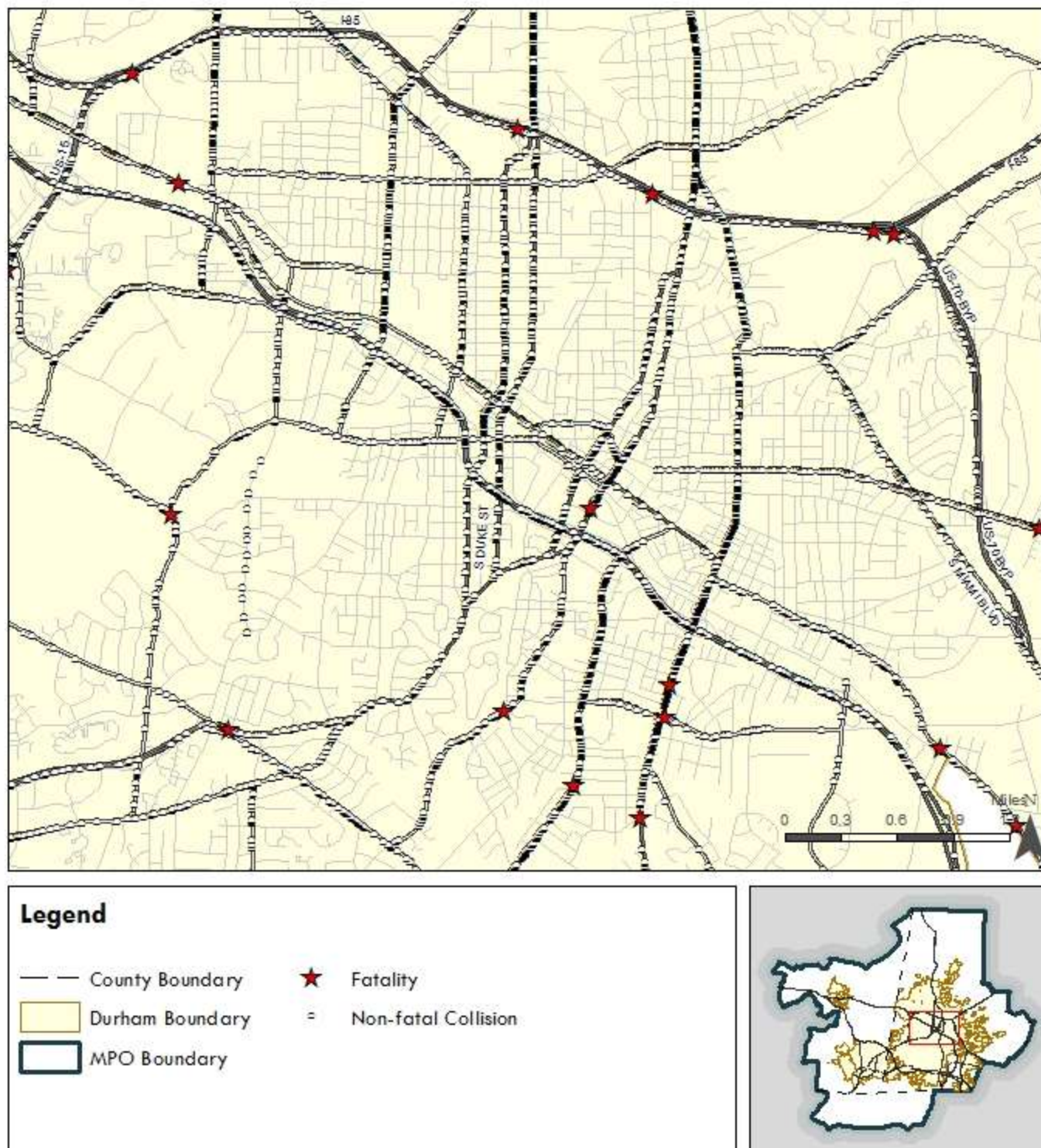
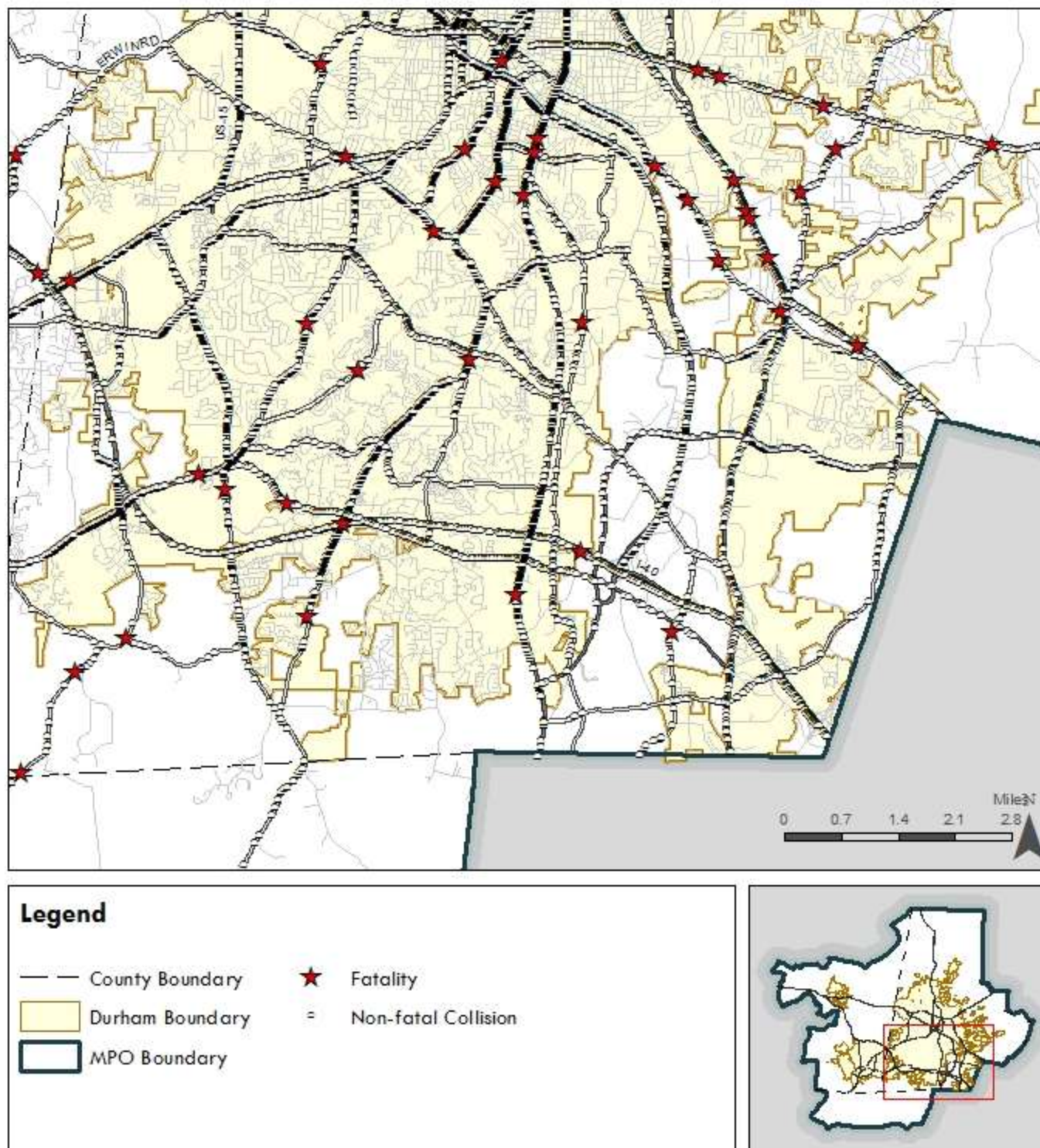


Figure 4-9. Collision Locations - South Durham



Orange County

Over 7,000 collisions, involving nearly 13,000 vehicles, were reported on 26 CMP corridors in Orange County. The CMP corridor information can be found in Figure 4-2. The number of collisions was much lower than in Durham County, which is to be expected because of the lower number of CMP corridors in Orange County. Extrapolating to all roadways in the County, fatalities are likely to occur to only about 0.05% of all users, about 75% of all collisions will be property damage only (Table 4-4) and collisions should occur very infrequently. Also, adverse road conditions had little effect on the safety of facilities in Orange County, as 79.5% of collisions occurred on dry roads, nor did the amount of adverse weather have much effect on the safety of DCHC MPO facilities, 70.2% of collisions occurring during clear weather. However, 18.1% of all collisions in Orange County occurred on dark, unlit roads.

Similarly to collisions in Durham County, there was not much variation in the number of collisions or costs of collisions among years, with the exception of high costs estimated for collisions in 2008 (Table 4-4). Neither was there a lot of variation in the numbers of injuries among years. (Table 4-4). For each year of these data, injuries and fatalities were reported in only about one-in-four collisions (Figure 4.6), similarly to Durham County and the MPO region as a whole. The number of fatalities, however, on CMP corridors in Orange County was more variable, peaking in 2011.

Among municipalities within the DCHC MPO boundary in Orange County, Chapel Hill exceeded Carrboro and Hillsborough for every statistic (Table 4-5). At this finer scale, as when comparing corridors themselves, there is more variation in the numbers of collisions involving injuries or fatalities (Figure 4.7).

Collisions on interstates 40 and 70 were responsible for some of the highest number of fatalities, with 9 and 5 respectively. Excluding interstate 40, collisions on Fordham Blvd., MLK Blvd., and Franklin St. resulted in the most injuries.

Finally, Hillsborough Rd, Jones Ferry Rd, and NC-157 had the highest proportion of collisions involving injuries or fatalities—with two-thirds of all collisions resulting in injuries on Hillsborough Rd.

Table 4-4. Annual Vehicle Collisions, Severity, and Cost - Orange County

Year	Fatalities	Injuries	PDO*	Vehicles Involved	Collisions	Cost
2008	7	533	1029	2,511	1,411	\$8,494,438
2009	3	538	1080	2,597	1,455	\$6,399,861
2010	2	497	1074	2,587	1,437	\$5,782,482
2011	11	483	1091	2,647	1,440	\$6,012,097
2012	5	539	1049	2,628	1,438	\$5,885,326
Totals	28	2,590	5,323	12,970	7,181	\$32,574,204

*Number of collisions which were property damage only

Table 4-5. Total Vehicle Collisions, Severity and Cost – Municipalities in Orange County

Municipality	Fatalities	Injuries	PDO*	Vehicles Involved	Collisions	Cost
Chapel Hill	6	1,197	2,129	6,081	2,990	\$14,989,789
Carrboro	2	234	299	948	482	\$1,672,587
Hillsborough	1	35	112	273	140	\$521,620
Totals	9	1,466	2,540	7,302	3,612	\$17,183,996

Figure 4-10. Collision Locations - Chapel Hill

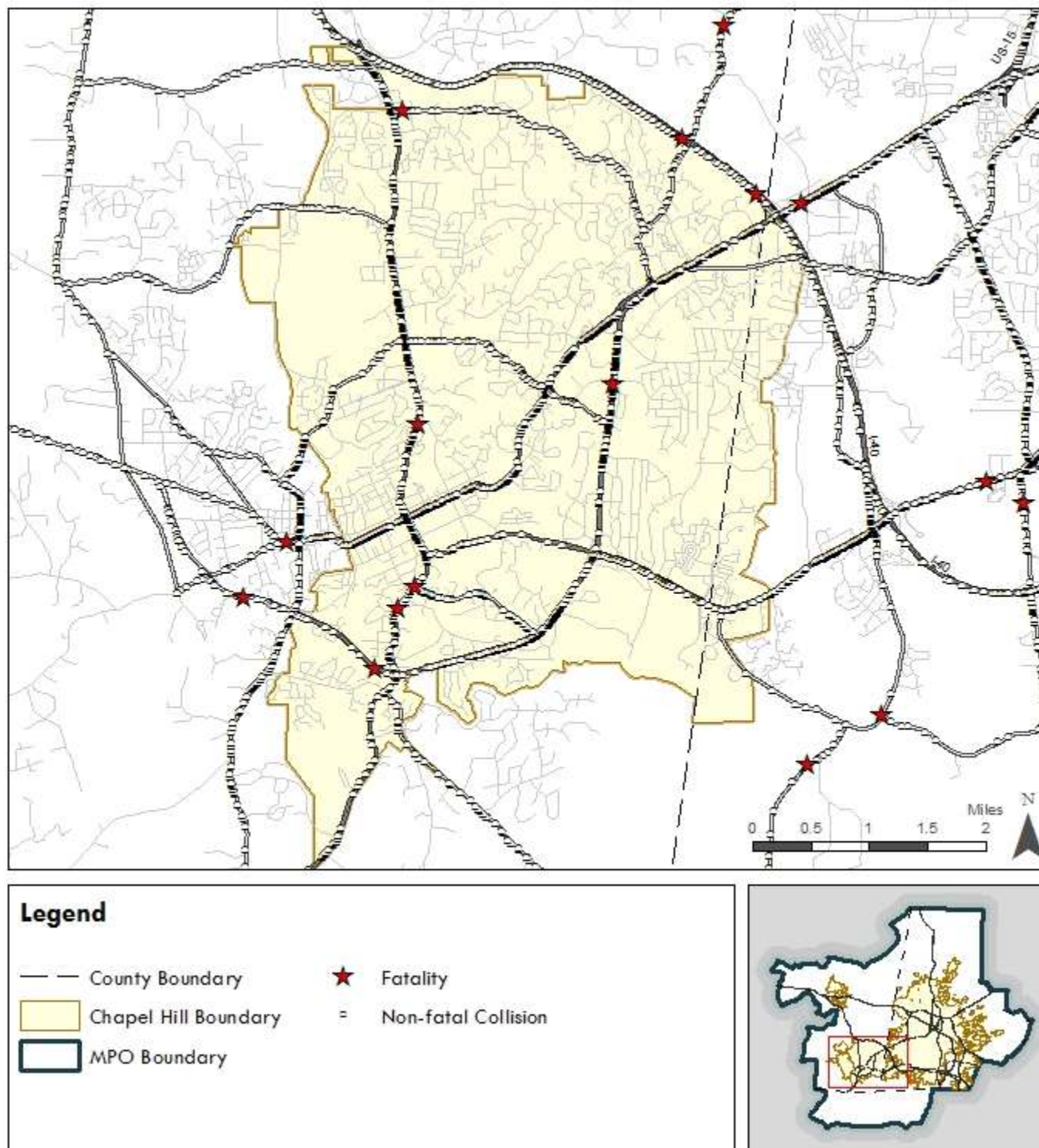


Figure 4-11. Collision Locations - Carrboro

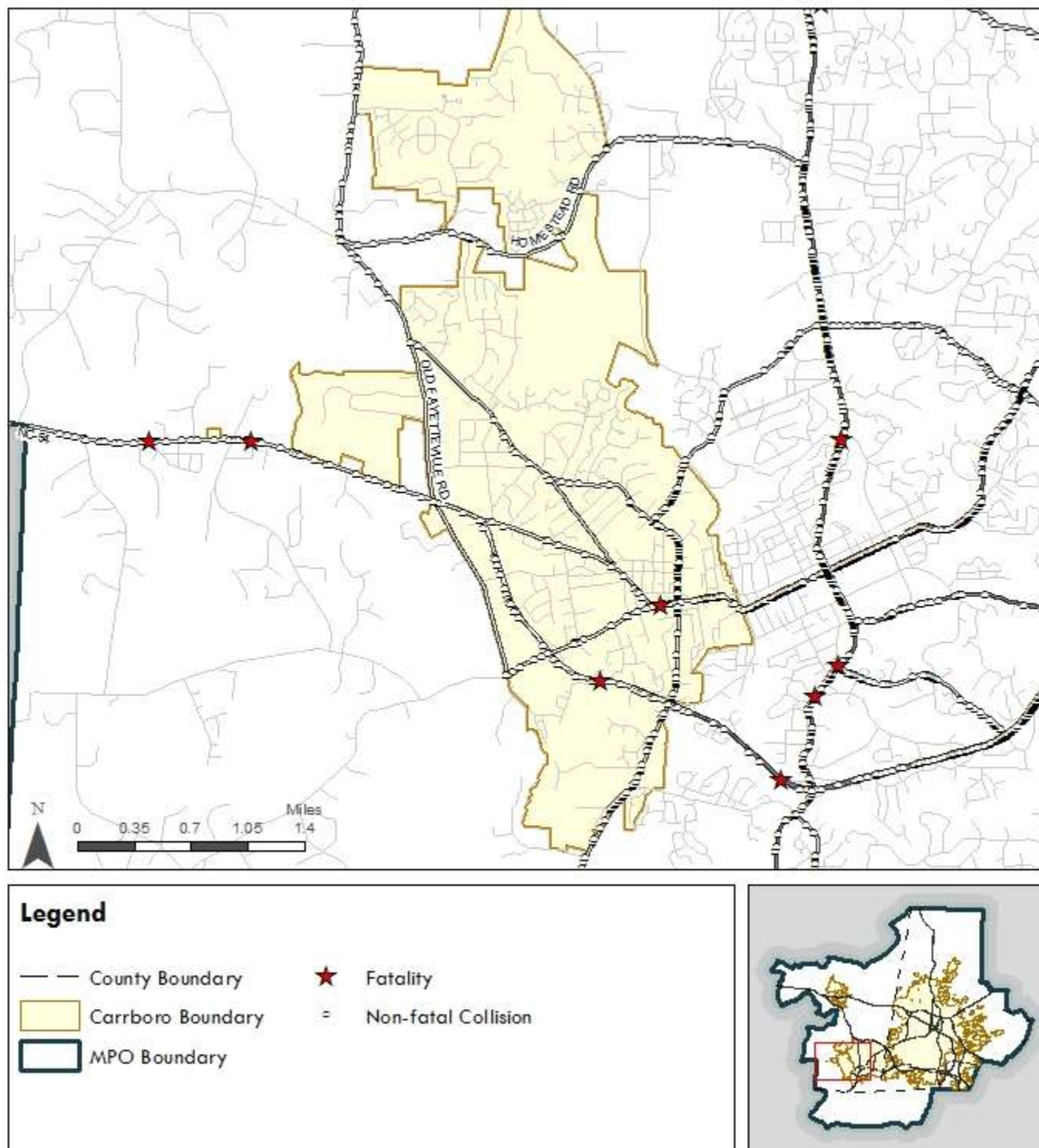
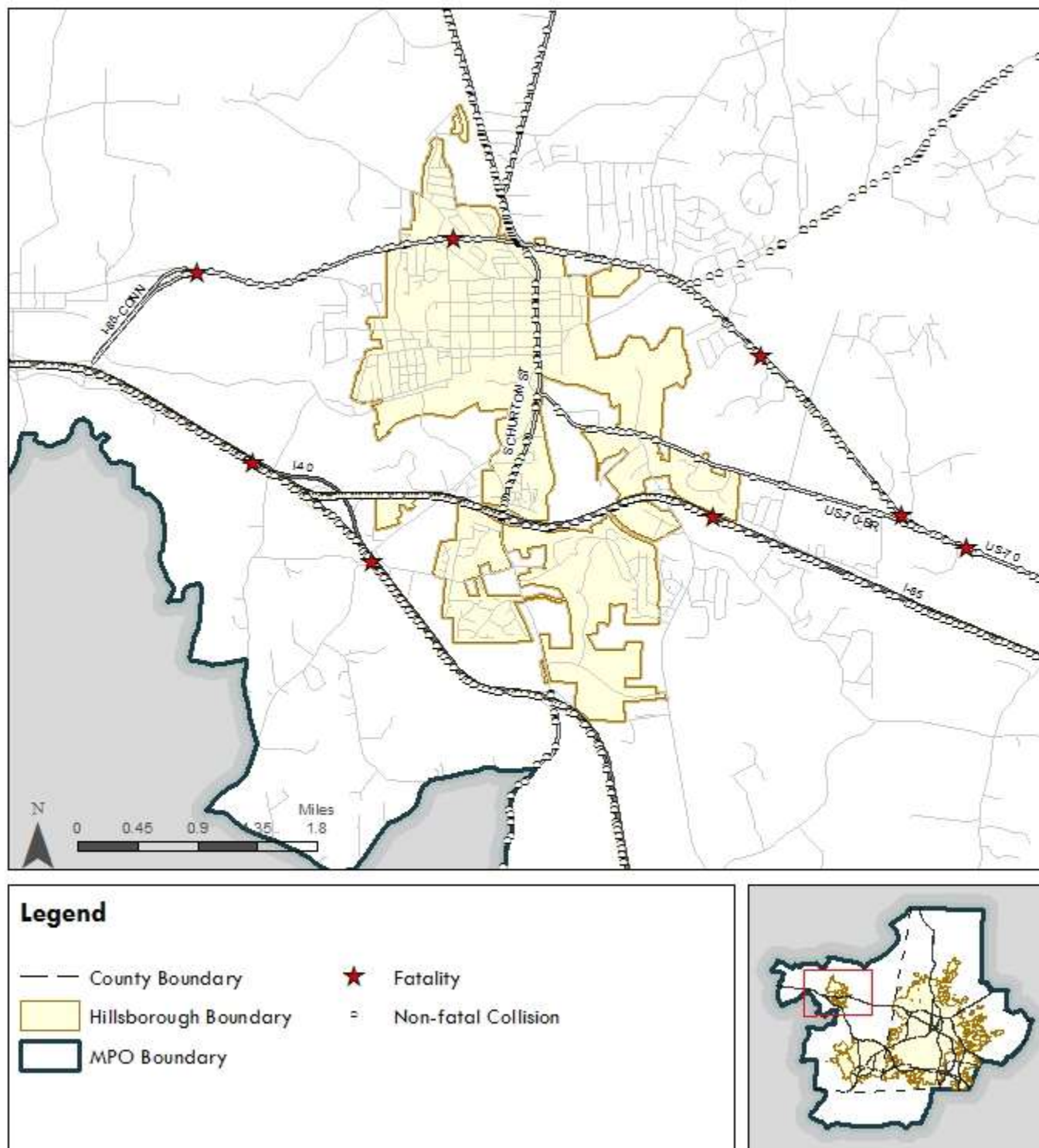


Figure 4-12. Collision Locations - Hillsborough



Chatham County

Five hundred-sixteen collisions were reported on three CMP corridors in Chatham County, with 792 vehicles involved. Raw data from collision reporting were much lower compared to Durham County, which is expected given the County's low number of CMP corridors. Similarly to collisions in Durham County, however, there was not much variation in the number of collisions among years (Table 4-6). Estimated costs dropped slightly in 2008 but subsequently increased.

Neither was there a lot of variation in the numbers of injuries among years averaging about 35 per year on CMP corridors, except for a low point in 2009. For each year of these data, injuries and fatalities were reported in about one in three collisions. Only five fatalities were reported on CMP corridors.

The highest number of fatalities was reported on US-15. This corridor also had the highest number of injuries, followed by NC-751. This could be attributed to the greater length of US-15 moreso than the road's safety features.

Results suggest that adverse road conditions had little effect on the safety of facilities in Chatham County, as 84.3% of collisions occurred on dry roads. Adverse weather also had limited effect on safety, as 73.6% of collisions occurred during clear weather. While 58.5% of collisions occurred during the day, another 34.5% occurred on dark, unlit roads.

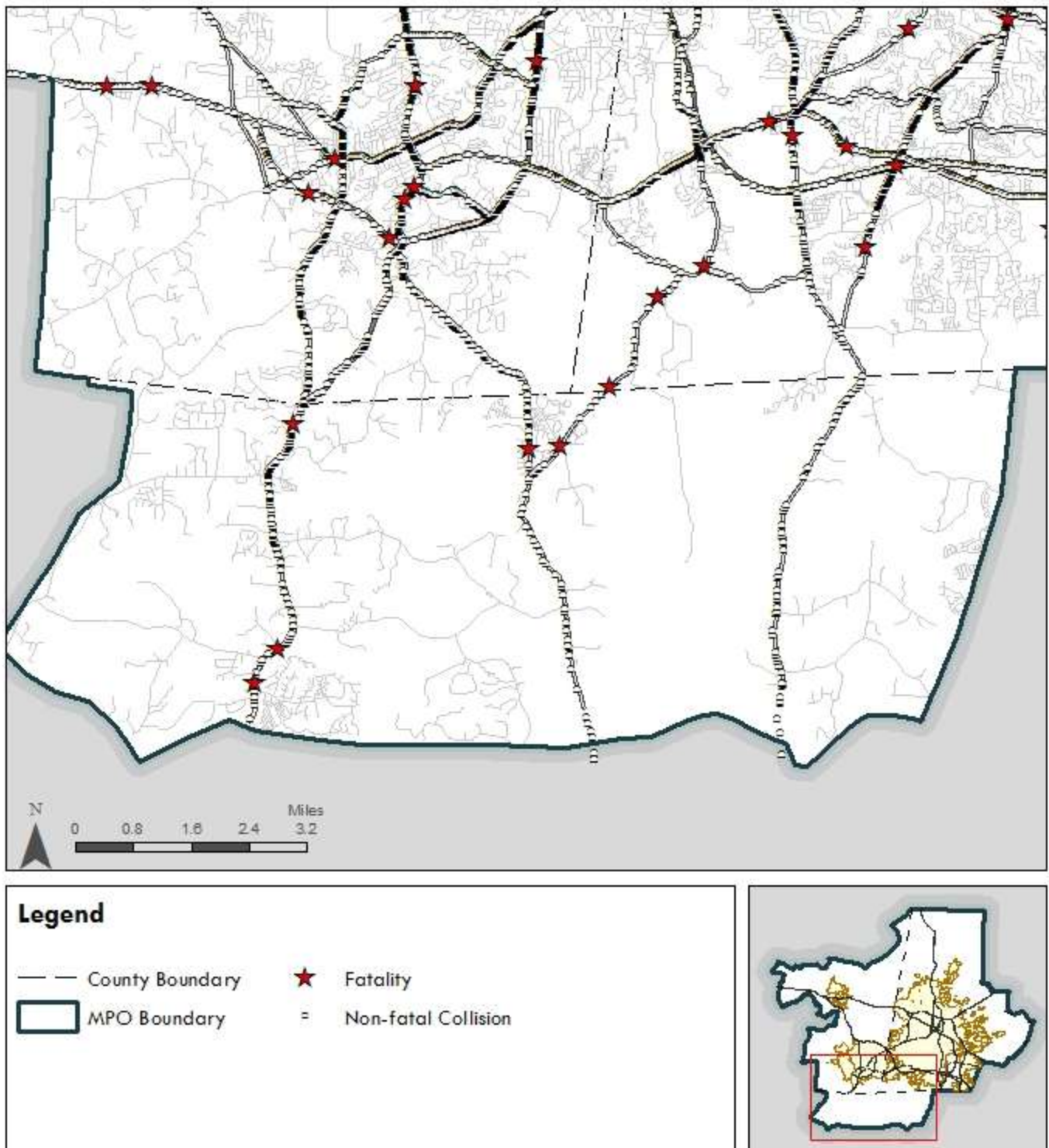
Given that CMP corridors in Chatham County included interstates, major arterial facilities, secondary facilities and facilities serving various land-use types, it was concluded that the CMP results could be generalized to facilities throughout the county. Over a five-year period, fatalities were thus likely to occur to about 0.5% of all users, about 75% of all collisions will be property damage only (Table 4-6) and collisions should occur very infrequently.

Table 4-6. Annual Vehicular Collisions, Severity, and Cost - Chatham County

Year	Fatalities	Injuries	PDO*	Vehicles Involved	Collisions	Cost
2007	1	40	86	172	113	\$490,105
2008	0	44	76	161	104	\$397,600
2009	3	25	81	151	100	\$424,700
2010	0	39	80	158	103	\$456,950
2011	1	35	71	150	96	\$490,030
Totals	5	183	394	792	516	\$2,259,385

*Number of collisions which were property damage only

Figure 4-13. Collision Locations - Chatham County



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5. Pedestrian Facilities

WHAT IS IT?

Pedestrian facilities describe infrastructure such as sidewalk, trails, and crosswalks that allow people to travel from place to place without using a vehicle. Pedestrian facilities are typically thought of as only serving walkers, but they also provide critical access for people with disabilities that rely on wheelchairs or other devices. Pedestrian facilities also support other modes of transportation by providing access to bus stops or a safe and clear route from a parking space to a store, office, school, or house.

The MPO collects data for sidewalk coverage and construction from each city and town in the region. It uses these data to track the miles of sidewalk added in each municipality since 2005.

Why does it matter?

Pedestrian facilities provide a basic level of access that, if properly designed, nearly anyone can use. Communities across the country are also coming to realize that pedestrian facilities are in high demand. More people are desiring a walkable neighborhood and improvements to pedestrian facilities have played a big role in the revitalization of many downtowns and neighborhoods. During much of the 20th century, federal transportation policy emphasized mobility for vehicles, and infrastructure such as sidewalks or trails were an afterthought. But for the last two decades, new federal programs have provided funds for pedestrian infrastructure and supported programs that make it easier to walk to school. In order to support the public's desire to walk more, MPOs must collect data and study where new infrastructure is needed.

METHODOLOGY

A crucial part of transportation evaluation must focus on facilities that aid pedestrian movement, as this mode of transportation is inextricably linked with all others. Sidewalks allow pedestrians a safer and easier alternative for exercise, are essential for downtown economies, connect people to their cars, and allow access to transit stops.

The prevalence of pedestrian facilities is the most straight-forward way to assess how well a municipality is doing in this regard. Geographic Information Systems (GIS) inventories of pedestrian facilities are maintained by the individual municipalities within the DCHC MPO, as well as by Chatham County. These inventories are updated for new sidewalk construction projects or as changes are made to existing sidewalks. From this GIS information, miles of sidewalk was derived for each municipality, yielding the miles of sidewalk added since 2005 as a measure of effectiveness for encouraging pedestrian activity and as a possible indicator of success for all transportation modes. Durham, Hillsborough, and Chatham County had sidewalk inventories back to only 2010, and therefore, the desired seven-year comparison cannot be made. Inventories for Chapel Hill and Carrboro date back to 2005.

SUMMARY

CONDITIONS IMPROVED



KEY FINDINGS

The DCHC region contains over 700 miles of sidewalk.

Miles of sidewalk increased 11.2 percent from 2005 to 2012.

Carrboro and Hillsborough had the highest rates of change.

Historic downtown areas and older neighborhoods currently have denser sidewalk networks than do more suburban and rural areas.

Durham has nearly 4X more sidewalk mileage than any other municipality.

Chapel Hill and Carrboro have a higher density of sidewalk miles than Durham or Hillsborough.

REGIONWIDE RESULTS

The region's cities and towns have about 715 miles of sidewalk, covering large stretches of the region. As the map below shows, downtowns and older neighborhoods within the four municipalities of Durham, Chapel Hill, Carrboro, and Hillsborough routinely provide sidewalks, while sidewalk provision is more sporadic on the outskirts of town.

Durham provides 74% of the total sidewalk mileage in the region, and Chapel Hill provides another 19%. However, sidewalk density is higher in Chapel Hill and Carrboro than in Durham.

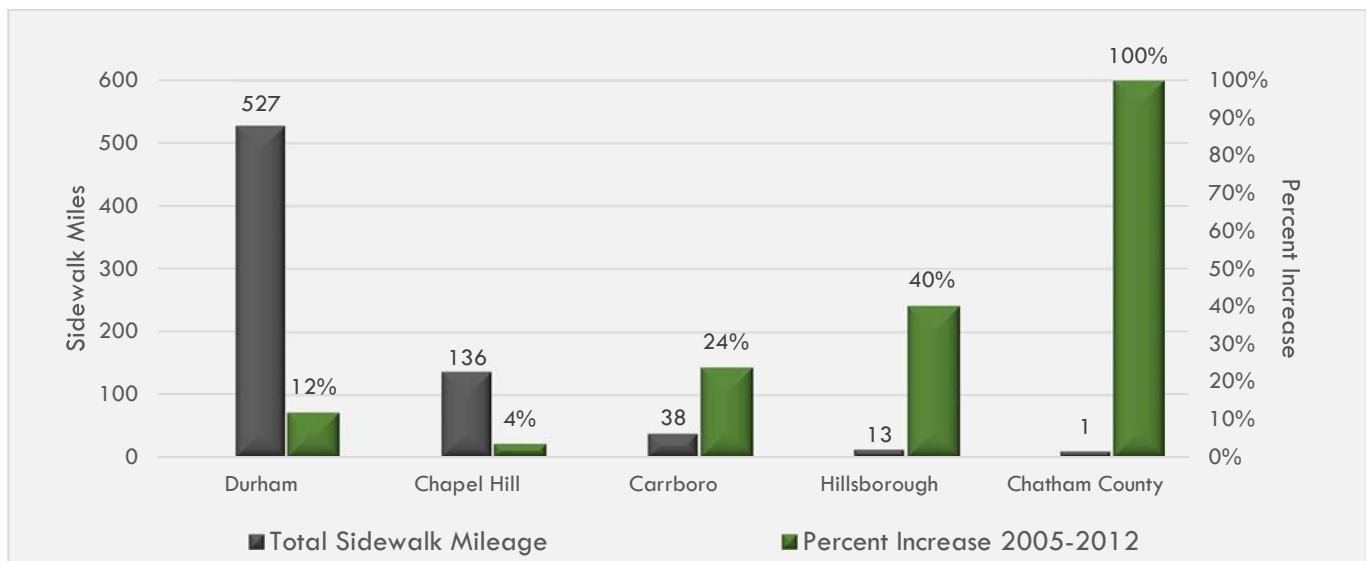
Total sidewalk mileage increased 11.42 percent from 2005 to 2012. Carrboro and Hillsborough had the highest rates of sidewalk change, with a clear emphasis on improving connections between previously disconnected areas of sidewalk.

It is noted that this growth in sidewalk mileage does not take into consideration the growth in roadway mileage that may have occurred from 2005 to 2012.

Table 5-1. Sidewalk Mileage - DCHC MPO

Municipality	Before 2005 ²	As of 2012	Change over time	
			Absolute(miles)	Percent
Durham	470.8	527.4	56.6	12.02%
Chapel Hill	131.5	136.3	4.8	3.66%
Carrboro	30.6	37.9	7.4	24.06%
Hillsborough	9.1	12.7	3.7	40.38%
Chatham County	-	0.8	0.8	n/a
Totals	642.0	715.1	73.3	11.42%

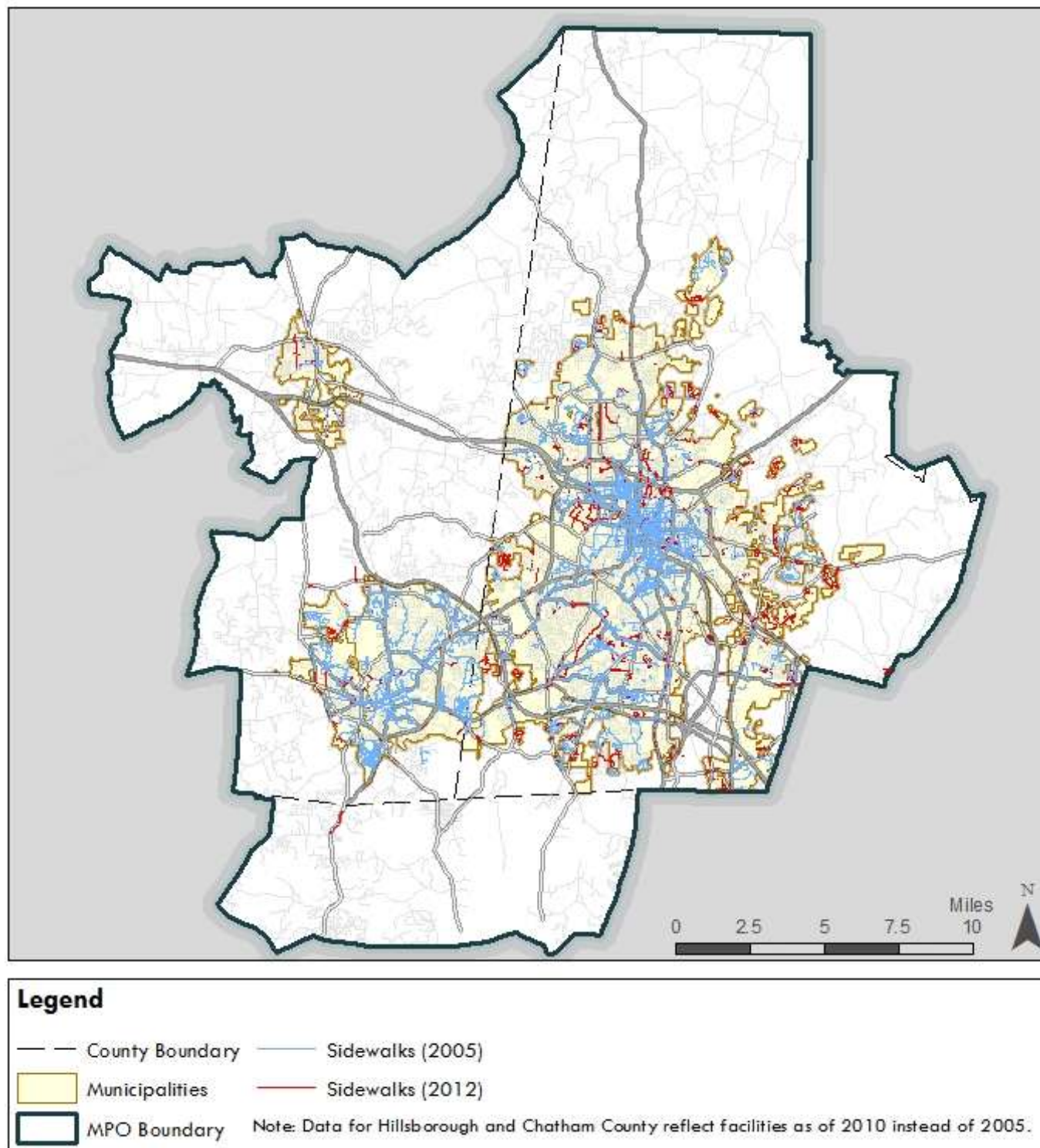
Figure 5-1. 2012 Total Sidewalk Mileage and Percent Increase



² In some instances, sidewalk mileage was only available from 2010 instead of 2005

The data may suggest not much is being done to add sidewalks. However, the data does not distinguish how much sidewalk there **should** be, only how many miles of sidewalk were already present and then added. Also, these inventories were strictly for the municipalities themselves and may not include sidewalks added outside their limits. Where fine-scale additions of sidewalk mileage should be made are beyond the scope of this report.

Figure 5-2. Additional Sidewalk Infrastructure - DCHC MPO



RESULTS BY GEOGRAPHY

The following provides detailed results on miles of sidewalk summarized by municipality and Chatham County.

Durham

As of 2012, 527.4 miles of sidewalk exist within the City of Durham. This represents an increase of 12.02% from 2010.

Table 5-2. Sidewalk Mileage - Durham

As of 2010	As of 2012	Change over time	
		Absolute (miles)	Percent
470.8	527.4	56.6	12.02%

Figure 5-3. Pedestrian Facilities - North Durham

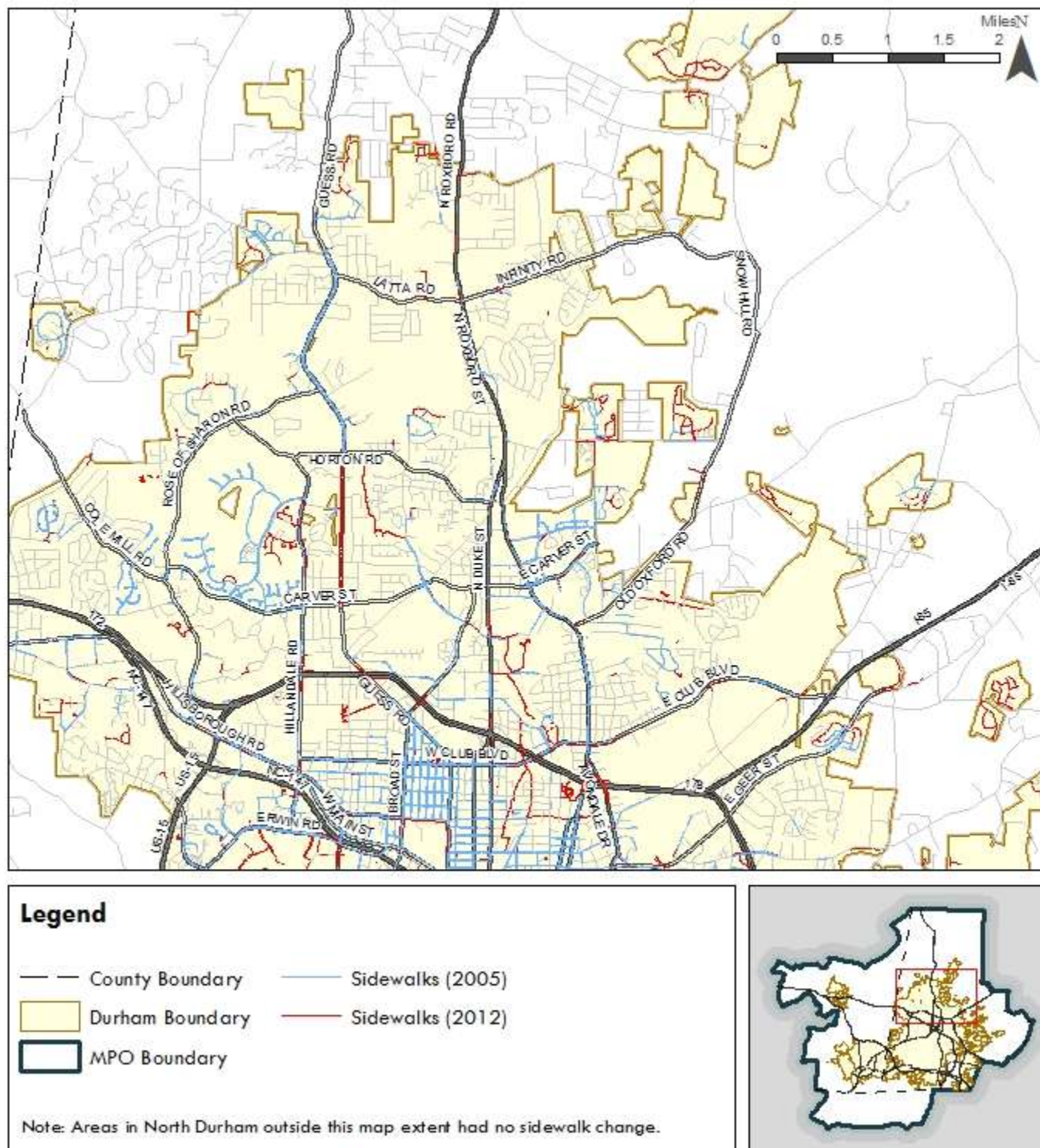


Figure 5-4. Pedestrian Facilities - Downtown Durham

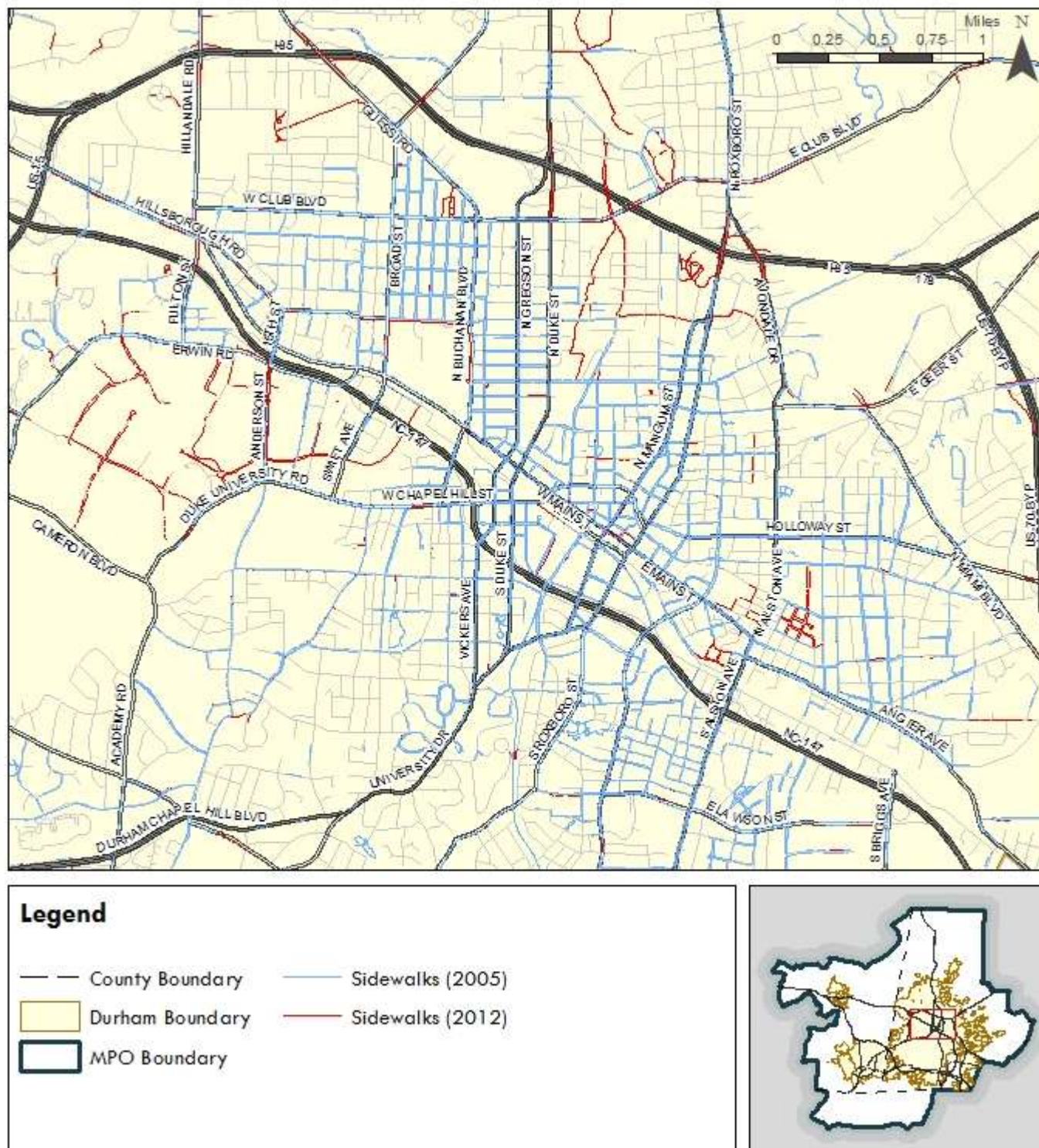
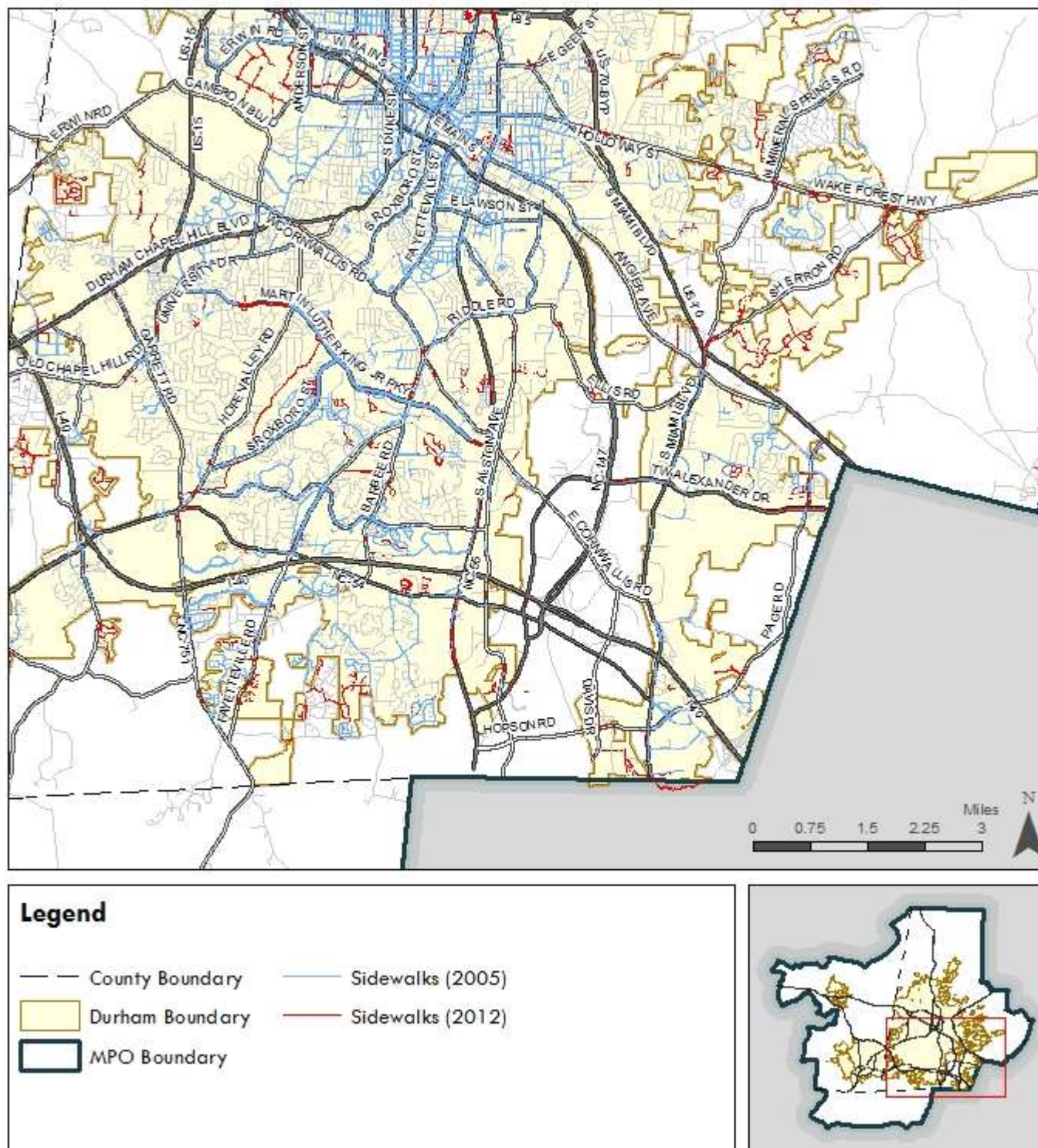


Figure 5-5. Pedestrian Facilities - South Durham



Chapel Hill and Chatham County

As of 2012, 136.3 miles of sidewalk exist in the Town of Chapel Hill. This represents a 3.7% increase from 2005.

Table 5-3. Sidewalk Mileage - Chapel Hill

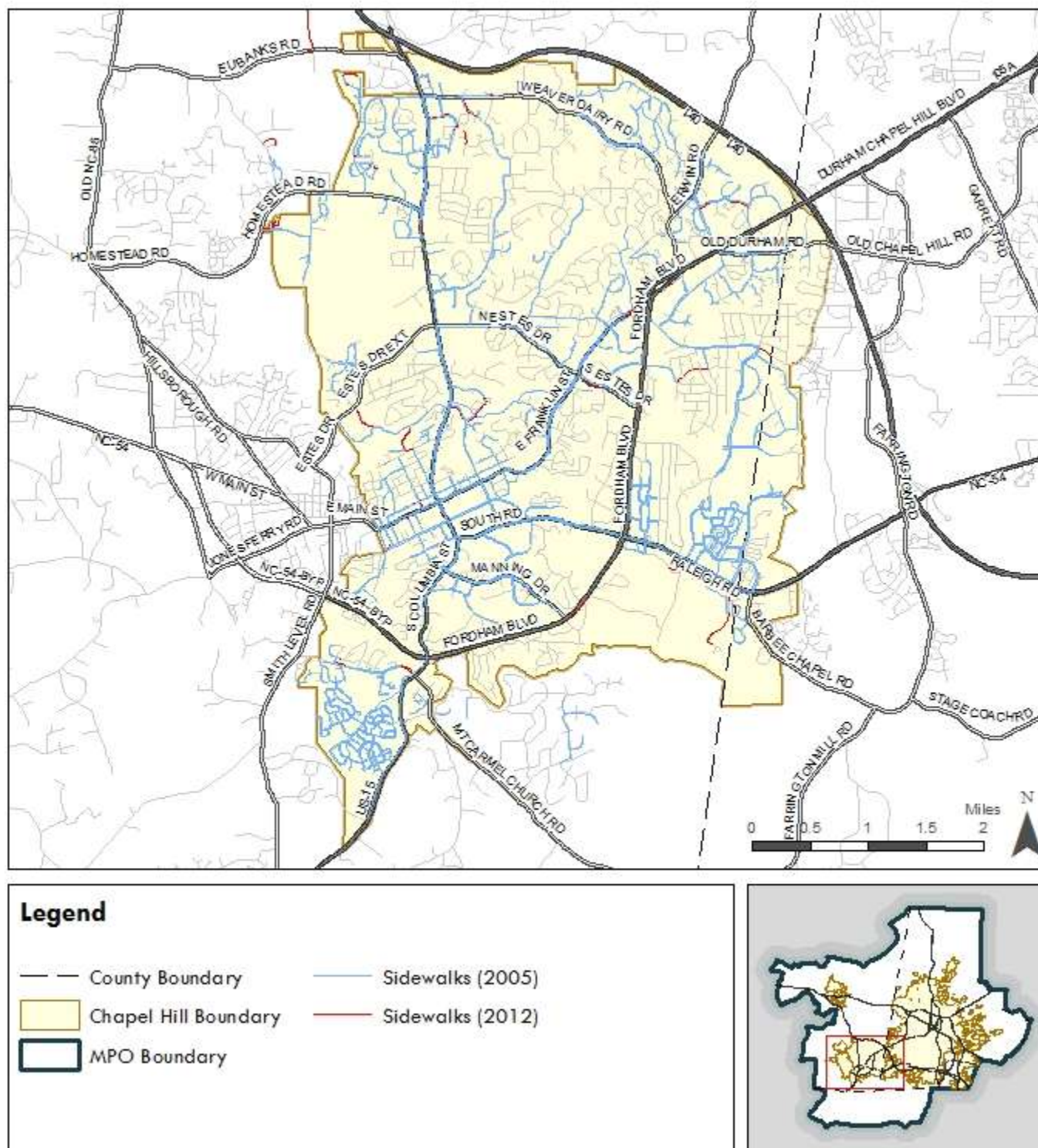
Change over time			
As of 2005	As of 2012	Absolute (miles)	Percent
131.5	136.3	4.8	3.7%

Chatham County added its first sidewalk mileage between 2010 and 2012, a 0.8 mile stretch along US 15.

Table 5-4. Sidewalk Mileage - Chatham County

Change over time			
As of 2010	As of 2012	Absolute (miles)	Percent
-	0.8	0.8	n/a

Figure 5-6. Pedestrian Facilities - Chapel Hill



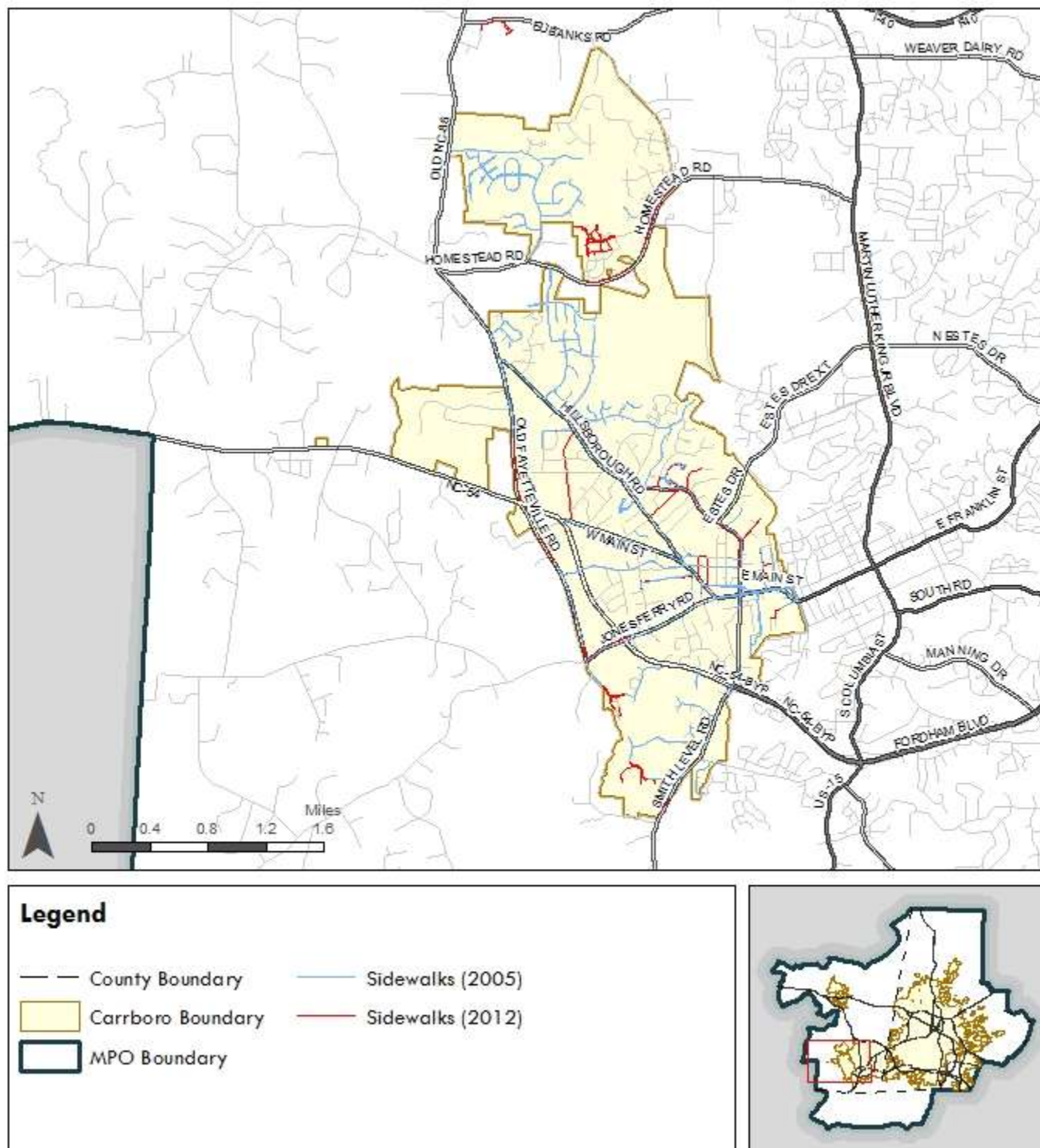
Carrboro

As of 2012, 37.9 miles of sidewalk exist within the Town of Carrboro. This represents a 24.1% increase from 2005.

Table 5-5. Sidewalk Mileage - Carrboro

As of 2005	As of 2012	Change over time	
		Absolute (miles)	Percent
30.6	37.9	7.4	24.1%

Figure 5-7. Pedestrian Facilities - Carrboro



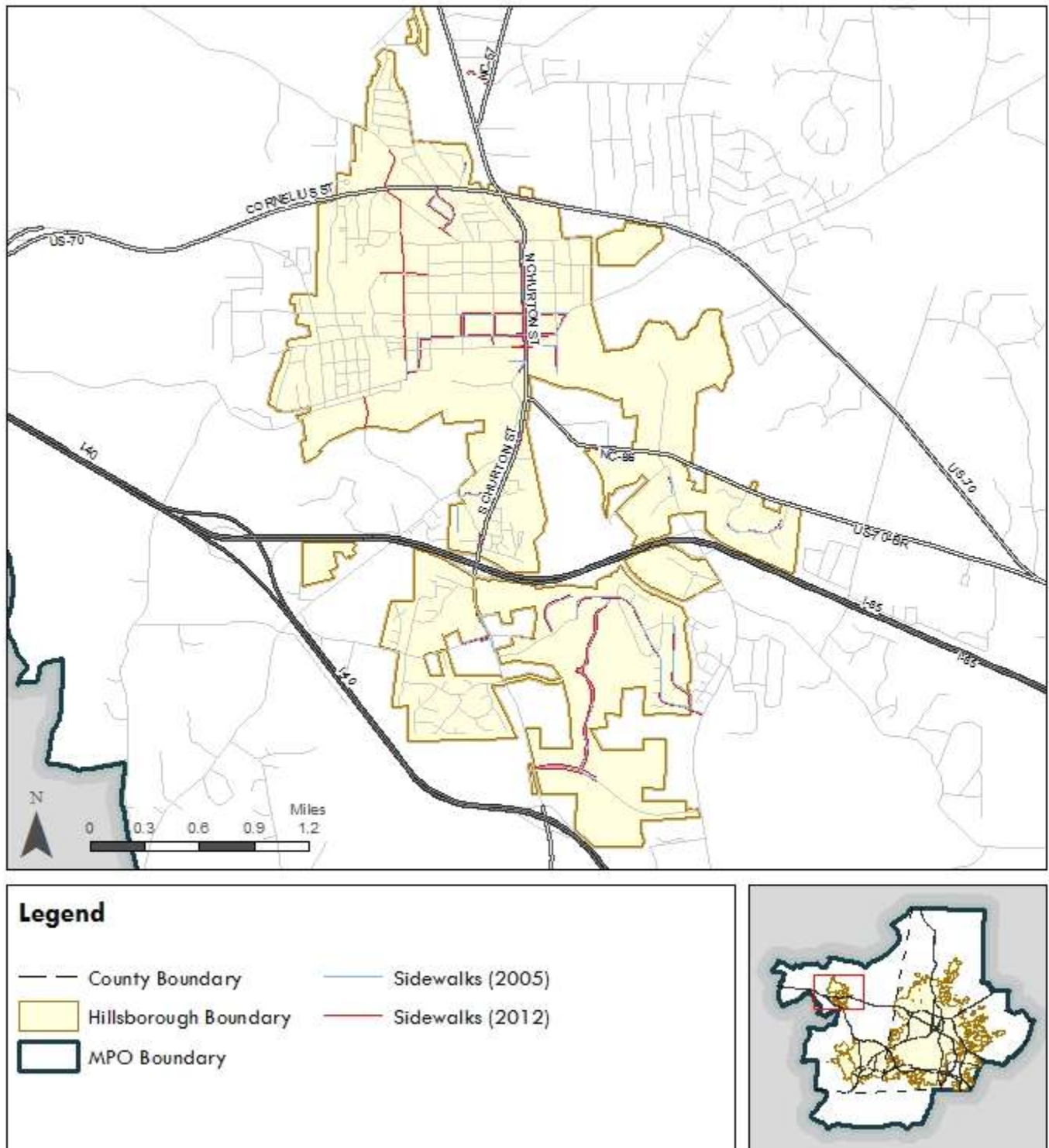
Hillsborough

As of 2012, 12.7 miles of sidewalk exist within the Town of Hillsborough, an increase of 40.4% in miles of added sidewalk in the past two years.

Table 5-6. Sidewalk Mileage - Hillsborough

As of 2010	As of 2012	Change over time	
		Absolute (miles)	Percent
9.1	12.7	3.7	40.4%

Figure 5-8. Pedestrian Facilities - Hillsborough



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6. Pedestrian Activity

WHAT IS IT?

The location of a pedestrian facility greatly influences its use. Sidewalks near markets, shops, housing communities, transit stops and parking facilities can be a surprising stimulus to all modes of transportation as well as for the economy and individual health. If pedestrian facilities are properly designed and maintained, their design will encourage more use and people will want to walk more. When land use or other transportation facilities are maintained to the same level, an all-round benefit can be observed. For instance, more, better-designed sidewalks to a parking garage just outside of a downtown area may relieve automobile congestion within downtown; more pedestrian activity downtown may benefit local, small businesses and promote exercise; less automobile congestion may encourage more bicyclist activity; sidewalks to transit stops will encourage higher transit ridership and so on. The easiest way to assess how current DCHC MPO pedestrian facilities are performing is to record the pedestrian activity.

The MPO counted pedestrians at 274 locations in 2011 and 2012. Unlike vehicle traffic counts, pedestrian counts are labor intensive, requiring a person to observe a location for several hours. The MPO reported pedestrian volume at each location for the morning peak travel period (7:00 to 9:00 AM), midday (11:00 AM to 1:00 PM), and the evening peak travel period (4:00 to 6:00 PM).

Why does it matter?

Tracking pedestrian volumes over time recognizes the importance of pedestrian facilities and allows the MPO to track changes in use over time. The data also help the MPO evaluate and compare potential investments in pedestrian facilities. Moreover, the MPO can use the data to learn how facility design and land use affect pedestrian activity.

METHODOLOGY

Pedestrian activity was measured as a head-count of pedestrians observed at a count location. Counts were performed on Tuesdays, Wednesdays and Thursdays (some conducted on Saturdays where indicated) over a consecutive 12-hour period (6:00 AM to 6:00 PM), from September to November 2011. As only 98 12-hour counts, including fifteen UNC-CH counts, were conducted, count data was augmented with pedestrian counts collected during turning movement counts (TMC's) and pedestrian screenline counts performed from September to November 2011 and March to June 2012.

SUMMARY:

CHANGES UNKNOWN, BUT
CONDITIONS LIKELY IMPROVING



KEY FINDINGS

Pedestrian counts in the region are affected by the presence of pedestrian facilities and density of the surrounding land uses.

The areas with the most pedestrian activity are in or around UNC, Duke Hospital, NCCU, and the region's downtown cores.

Highest pedestrian count in 2011/2012: 6,986 (South Rd and Stadium Dr, Chapel Hill).

Sixteen locations (5.8%) recorded pedestrian volumes over 1,000.

Many high-volume locations identified in 2005 were not re-counted in 2011/2012.

More count locations are needed in the future to get a better picture of pedestrian activity throughout the region.

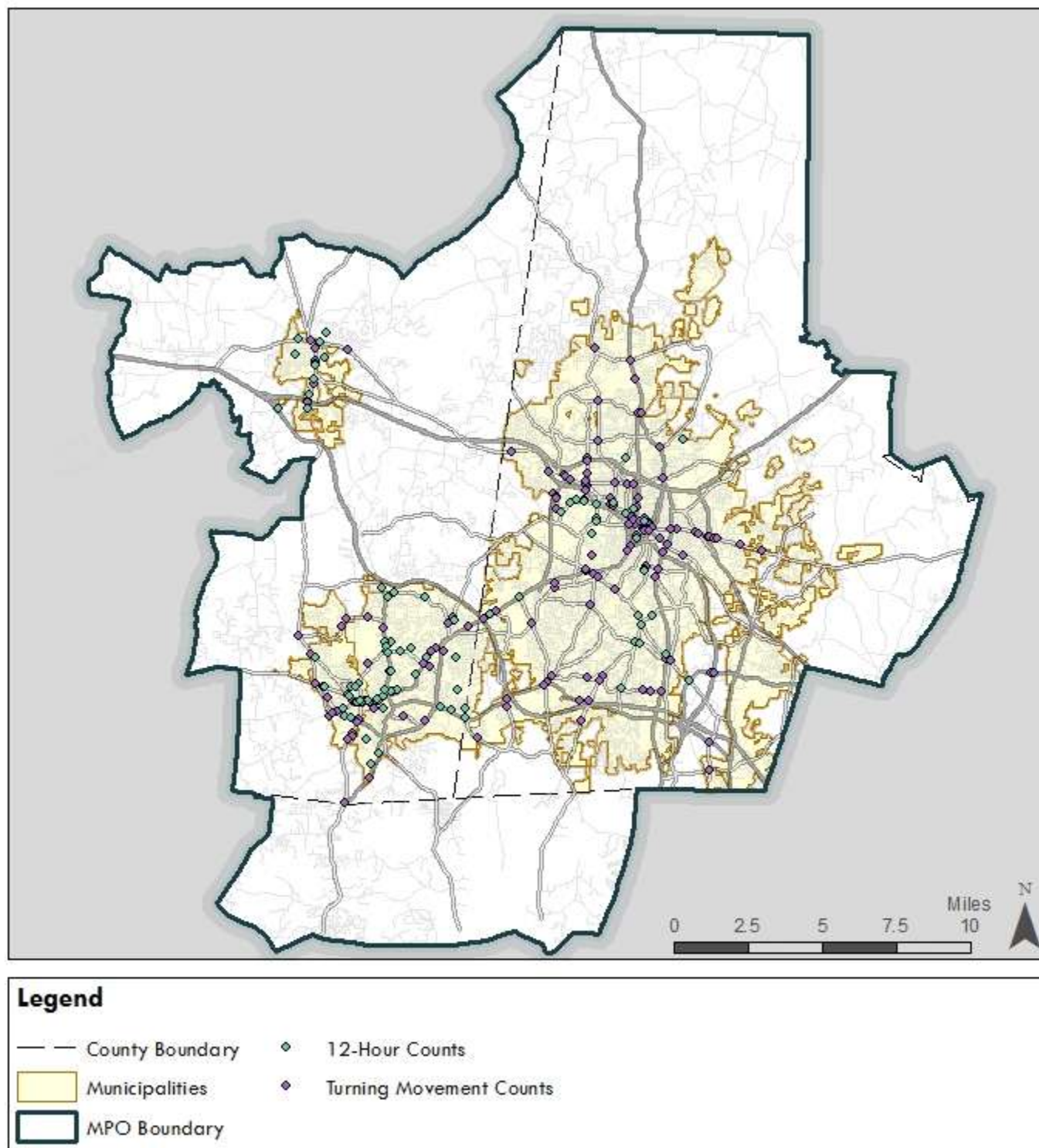
During TMC's and 12-hour counts, pedestrians were counted as they used a crosswalk at an intersection or crossed traffic at an intersection (or within 50 feet of an intersection), regardless of how many times, or from how many directions, they crossed traffic. For example, if a pedestrian crossed northbound, then westbound traffic she would be counted twice. These counts intersections, or crosswalks between intersections, provided excellent data for the pedestrian facilities available at intersections (e.g., crosswalks, pedestrian crossing lights, sidewalks, etc.).

To properly evaluate pedestrian facilities in the DCHC MPO, pedestrian activity **along** a pedestrian facility was also counted. Pedestrians were counted as they walked along the facility on both sides of a segment, passing the line-of-sight of the observer.

A 12-hour count of pedestrian activity is thought to possibly elucidate different times of day when pedestrians may be more active; however, because only 98 12-hour counts were conducted, data was standardized to the three peak periods of automobile traffic. There are limitations to the applicability of peak-period pedestrian data, but this data collection effort was bolstered by presenting 12-hour data collected from previous years, when available, as a comparison. More historical data are available in the Town of Chapel Hill and Town of Carrboro Mobility Report Cards from 2005.

Despite the presence of historical data, generalizations could not be made for any one area, as activity was highly variable among counts. These data provide only a snap-shot of pedestrian daily activity, and more data over the coming years are needed to provide a better idea of pedestrian activity.

Figure 6-1. Count Locations - DCHC MPO



REGIONWIDE RESULTS

Only 18.6% of counts conducted in the DCHC MPO, from September to November 2011 and March to June 2012, recorded a six-peakhour period pedestrian volume over 250. Sixteen counts (5.8%) exceed 1,000 pedestrians; all such counts were in downtown Durham and Chapel Hill or near Duke and UNC hospitals. More research is needed at many more locations and employing screenline counts to more accurately portray the pedestrian activity in the DCHC MPO.

The counts make it clear that the presence of pedestrian facilities and density of the surrounding land uses affect the pedestrian counts.

Based on these data and the miles of sidewalks in Hillsborough and surrounding areas (pg. 5-12), it is concluded that pedestrian facilities are meeting the needs of pedestrian activity in the area. However, more data from future collection efforts is needed to conclude if facilities are having a positive effect on pedestrian volume.

Of the 274 counts performed during 2011 and 2012, pedestrian activity ranged from 6,986 (South Rd and Stadium Drive, Chapel Hill) to zero for the three peak travel periods - the morning peak (7:00 to 9:00 AM), midday (11:00 AM to 1:00 PM), and the evening peak (4:00 to 6:00 PM). The twenty counts with the highest daily pedestrian activity were sprinkled around the DCHC MPO, with most occurring around UNC, NCCU, Duke Hospital, and the downtown cores of Durham, Chapel Hill, and Carrboro. (Table 6-1).

One may notice some disparities between data collected during a TMC count and data collected during a 12-hour count for the same location. It is important to remember how variable pedestrian activity may be. Although attempts were made to standardize all collection efforts for weather and time-of-year, small, unpredictable events may encourage or discourage pedestrian activity on that day of counting, especially from data collected at intersections. That is why it is important that more data collection efforts in the future be directed towards screenline counts to more accurately ascertain pedestrian activity and facility use.

Figure 6-2. Pedestrian Activity - DCHC MPO

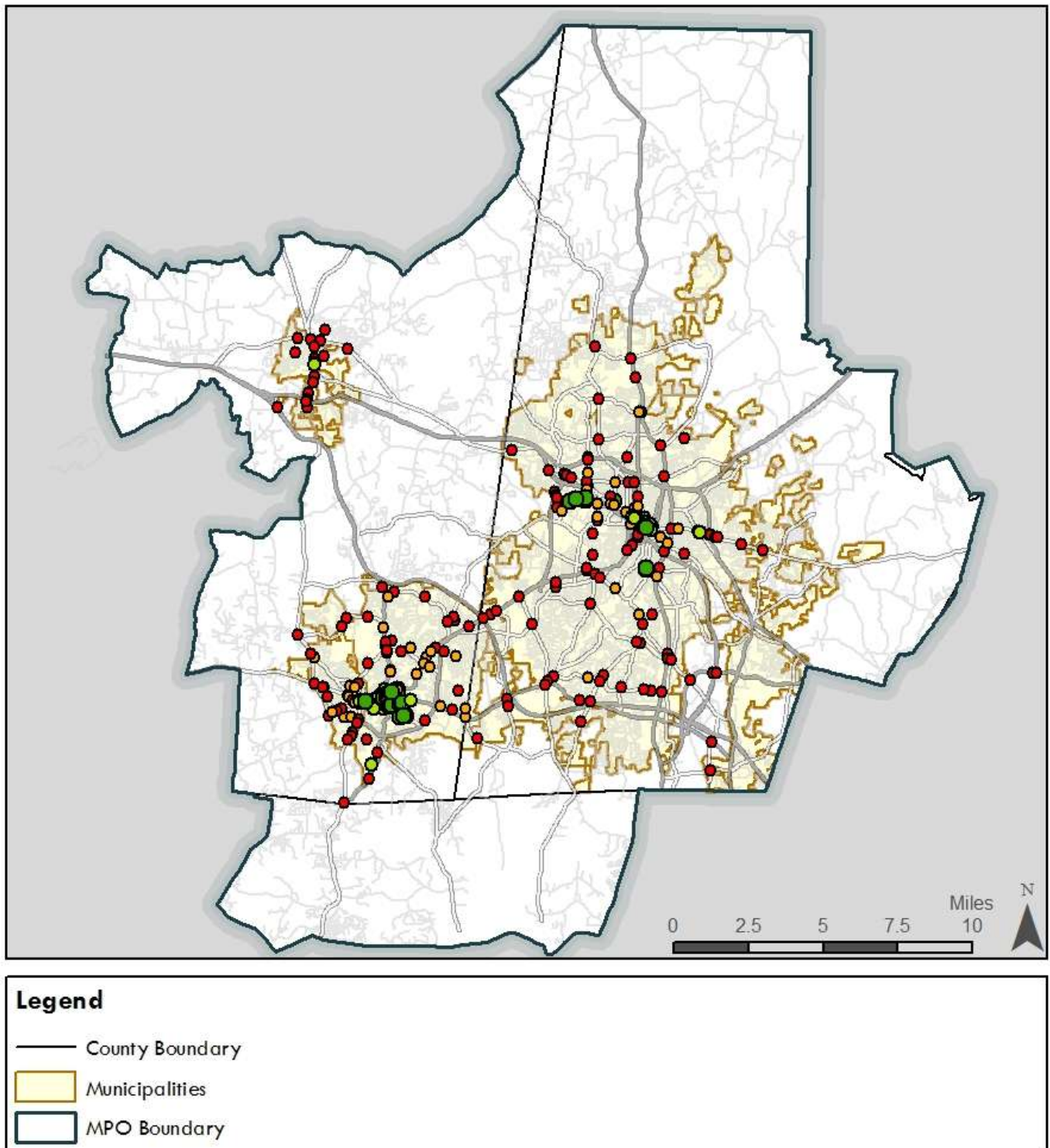


Table 6-1. Top 20 Six-Peakhour Period Pedestrian Volume - DCHC MPO

Jurisdiction	Count Location	Pedestrian Vol.
Chapel Hill	SOUTH RD AND STADIUM DR	6,986
Chapel Hill	FRANKLIN ST AND COLUMBIA ST	6,245
Chapel Hill	COLUMBIA ST AND FRATERNITY COURT	4,125
Chapel Hill	FRANKLIN ST AND OLD FRATERNITY ROW	3,609
Chapel Hill	FRANKLIN ST AND HENDERSON ST	3,364
Chapel Hill	SOUTH RD AND RALEIGH ST	3,160
Chapel Hill	MANNING DR AND RIDGE RD	3,118
Chapel Hill	MANNING DR AND W OF PAUL HARDIN DR	2,612
Chapel Hill	COLUMBIA ST AND SOUTH RD	2,173
Durham	ERWIN RD AND FULTON RD	2,135
Chapel Hill	CAMERON AVE AND PITTSBORO ST	1,615
Durham	ERWIN RD AND FULTON ST	1,605
Chapel Hill	PITTSBORO ST AND MCCAULEY ST	1,402
Durham	MAIN ST BTWN ROXBORO AND CHURCH	1,327
Durham	ERWIN RD AND RESEARCH DR	1,240
Durham	ERWIN RD AND DOUGLAS ST	1,083
Durham	BROAD ST AND PERRY ST	856
Chapel Hill	FRANKLIN ST AND HILLSBOROUGH RD	852
Carrboro	MAIN ST BTWN GREEENBORO ST AND WEAVER ST	799
Durham	FAYETTEVILLE RD AND BRANT ST	796

Represents six-hour volume data for pedestrians during three peak periods (AM [7:00 to 9:00], noon [11:00 to 13:00] and PM [16:00 to 18:00]).

RESULTS BY GEOGRAPHY

The following provides detailed results on pedestrian volume summarized by key cities and their surrounding vicinities.

Durham

A total of 146 counts were taken in Durham. Although 86% of counts recorded fewer than 250 pedestrians, 5 locations in downtown Durham and near Duke Hospital recorded a daily volume of over 1,000 pedestrians.

KEY DATA RESULTS (Sept-Nov 2011, Mar-June 2012)

Number of counts: 146

- 119 TMC's and 27 12-hour counts

High-volume pedestrian locations

- Downtown (Mangum St and Main St)
- Duke Hospital (Erwin Rd)
- NCCU (Fayetteville Rd)

Range of pedestrian activity

- Highest: 2,135 (Erwin Rd and Fulton Rd)

No. of counts with fewer than 250 daily pedestrians

- 126 (86.3%)

No. of counts with more than 1,000 daily pedestrians

- 5 (mostly on Erwin Rd and courthouse on Main St.)

Table 6-2. Six-Peakhour Period Pedestrian Volume - Durham (from 12-Hour Count Data)

	Count Location	Pedestrian Vol.
Anderson St	ANDERSON ST AND CAMPUS DR	220
	ANDERSON ST AND DUKE UNIVERSITY RD	129
	ANDERSON ST AND MOREHEAD AVE	65
American Tobacco Trail	AMERICAN TOBACCO TRAIL (ATT) AND MOREHEAD AVE	74
	ATT AND CORNWALLIS RD	46
	ATT AND MLK PKWY	96
	ATT AND MOREHEAD	155
	ATT AND RIDDLE RD	17
	ATT AND UNIVERSITY DR	115
	ATT AND WOODCROFT PKWY	173
	ATT S OF MLK @ FAYETTEVILLE	49
Broad St	BROAD ST AND MURRAY AVE	81
	BROAD ST AND PERRY ST	856
	BROAD ST BTWN GREEN ST AND MARKHAM AVE	214
Cornwallis Rd	CORNWALLIS RD AND TW ALEXANDER DR	49
	CORNWALLIS RD E OF TW ALEXANDER DR	105
Dearborn Dr	DEARBORN DR AND MARTIN ST	33
Durham-Chapel Hill Blvd	DURHAM-CHAPEL HILL BLVD AND GARRETT RD	44
	DURHAM-CHAPEL HILL BLVD AND MT MORIAH RD	28
Erwin Rd	ERWIN RD AND ANDERSON ST	216
	ERWIN RD AND DOUGLAS ST	1,083
	ERWIN RD AND FULTON ST	1,605
	ERWIN RD AND LASALLE ST	607
	ERWIN RD AND MORRENE RD	137
Fayetteville St	FAYETTEVILLE ST AND COOK RD	18
	FAYETTEVILLE ST AND FORMOSA AVE	710

	Count Location	Pedestrian Vol.
	FAYETTEVILLE ST AND MLK PKWY	121
Foster St	FOSTER ST AND GREAT JONES ST	314
Gregson St	GREGSON ST AND MINERVA AVE	178
Main St	MAIN ST AND BUCHANAN BLVD	173
	MAIN ST BTWN ROXBORO AND CHURCH	1,327
NC Hwy 55	NC 55 AND CORNWALLIS RD	155
R Kelly Bryant Bridge	R KELLY BRYANT BRIDGE/LAKELAND AVE	55
Third Fork Crk Trail	ROXBORO ST AT THIRD FORK CREEK TRAIL	65
Woodcroft Pkwy	WOODCROFT PKWY AND BARBEE RD	50

Recorded during 12-hour counts from September to November 2011.

All data are presented as pedestrian activity during only the main peak periods of traffic activity: AM (7:00-9:00), noon (11:00-13:00) and PM (16:00-18:00) peak periods.

Table 6-3. Six-Peakhour Period Pedestrian Volume - Durham (from TMC Data)

	Count Location	Pedestrian Vol.
Alston Ave	ALSTON AVE AND CECIL ST	115
	ALSTON AVE AND CORNWALLIS RD	6
	ALSTON AVE AND GANN ST	43
	ALSTON AVE AND HOLLOWAY ST	74
	ALSTON AVE AND LAWSON ST	1
	ALSTON AVE AND MAIN ST	223
Anderson St	ANDERSON ST AND CAMPUS DR	166
	ANDERSON ST AND CHAPEL HILL RD	4
	ANDERSON ST AND DUKE UNIVERSITY RD	80
	ANDERSON ST AND MOREHEAD AVE	68
Angier Ave	ANGIER AVE AND DRIVER ST	84
Blackwell St	BLACKWELL ST AND JACKIE ROBINSON DR	1
	BLACKWELL ST AND PETTIGREW ST	412
Broad St	BROAD ST AND W.CLUB BLVD	158
Carpenter Fletcher Rd	CARPENTER FLETCHER RD AND BEND DR	6
	CARPENTER FLETCHER RD AND WOODCROFT PKWY	9
Chapel Hill St	CHAPEL HILL ST AND PETTIGREW ST	0
Club Blvd	CLUB BLVD AND BUCHANAN BLVD	54
	CLUB BLVD AND GREGSON ST	46
Cornwallis Rd	CORNWALLIS RD AND CHAPEL HILL RD (W SIGNAL)	8
	CORNWALLIS RD AND CHAPEL HILL RD (WO SIGNAL)	49
	CORNWALLIS RD AND NC 55	16
	CORNWALLIS RD AND S ROXBORO ST	148
	CORNWALLIS RD AND TW ALEXANDER	32
	CORNWALLIS RD AND UNIVERSITY DR	2
Davis Dr	DAVIS DR AND HOPSON RD	18
Duke St	DUKE AND MARKHAM AVE	23
	DUKE ST AND HORTON RD	135
	DUKE ST AND MAIN ST	323
	DUKE ST AND UNIVERSITY DR	71
	DUKE ST AND W TRINITY AVE	120
Durham-Chapel Hill Blvd	DURHAM-CHAPEL HILL AND GARRETT RD	55
	DURHAM-CHAPEL HILL BLVD AND MT MORIAH RD	19
	DURHAM-CHAPEL HILL BLVD AND SW DURHAM DR	3
Erwin Rd	ERWIN RD AND ANDERSON ST	221
	ERWIN RD AND FULTON RD	2,135
	ERWIN RD AND LASALLE ST	778
	ERWIN RD AND MORRENE RD	169

	Count Location	Pedestrian Vol.
	ERWIN RD AND RESEARCH DR	1,240
	FAYETTEVILLE RD AND BRANT ST	796
	FAYETTEVILLE RD AND GENEVA DR	32
Fayetteville Rd	FAYETTEVILLE RD AND NC 54	22
	FAYETTEVILLE RD AND RENAISSANCE PKWY	25
	FAYETTEVILLE ST AND COOK RD	105
	FAYETTEVILLE ST AND LAWSON ST	181
Foster St	FOSTER ST AND HUNT ST	113
	FOSTER ST AND MORGAN ST	327
Fulton St	FULTON ST AND ELBA ST	700
Garrett Rd	GARRETT RD AND OLD CHAPEL HILL RD	42
Gregson St	GREGSON ST AND CHAPEL HILL ST	108
	GREGSON ST AND W MORGAN ST	71
	GUESS RD AND CARVER ST	33
Guess Rd	GUESS RD AND HORTON RD	25
	GUESS RD AND UMSTEAD RD	0
	HILLANDALE RD AND CLUB BLVD	6
	HILLANDALE RD AND CREST DR	17
Hillandale Rd	HILLANDALE RD AND OF US 15-501 NB RAMPS	16
	HILLANDALE RD AND SPRUNT AVE	203
	HILLANDALE RD AND US 15-501 SB RAMPS	20
	HILLANDALE RD-FULTON ST AND NC-147	111
	HILLSBOROUGH RD (US 70 BUS) AND US 15-501	16
Hillsborough Rd	HILLSBOROUGH RD AND LASALLE ST	20
	HILLSBOROUGH RD AND MAIN ST	6
	HILLSBOROUGH RD AND MARKHAM AVE AND 9TH ST	9
Hillsborough Rd	HILLSBOROUGH RD AND SPARGER RD	7
	HILLSBOROUGH RD AND US 15-501 SB	28
	HOLLOWAY ST AND ALSTON AVE	72
	HOLLOWAY ST AND CLAYTON RD	4
	HOLLOWAY ST AND HOOVER RD	47
	HOLLOWAY ST AND HYDE PARK AVE	158
	HOLLOWAY ST AND JUNCTION RD	2
Holloway St	HOLLOWAY ST AND LYNN RD	1
	HOLLOWAY ST AND MIAMI BLVD	277
	HOLLOWAY ST AND RAYNOR ST	93
	HOLLOWAY ST AND ROXBORO ST	189
	HOLLOWAY ST AND US 70 BUS EB	41
	HOLLOWAY ST AND US 70 BUS WB RAMP	53
Hope Valley Rd	HOPE VALLEY RD AND GARRETT RD	100

	Count Location	Pedestrian Vol.
	HOPE VALLEY RD AND W CORNWALLIS RD	29
	HOPE VALLEY RD AND WOODCROFT PKWY	11
	MAIN ST AND BUCHANAN BLVD	121
	MAIN ST AND FAYETTEVILLE ST	194
	MAIN ST AND GREGSON ST	326
Main St	MAIN ST AND MORRIS ST	397
	MAIN ST AND NINTH ST	146
	MAIN ST AND ROXBORO ST	292
	MAIN ST AND SWIFT AVE	131
	MANGUM ST AND CHAPEL HILL ST	487
	MANGUM ST AND MAIN ST	564
Mangum St	MANGUM ST AND MORGAN	192
	MANGUM ST AND PARRISH ST	1
	MANGUM ST AND PETTIGREW	100
	MANGUM ST AND RAMSEUR ST	116
	FAYETTEVILLE ST AND MLK JR PKWY	92
MLK Pkwy	MLK PKWY AND HOPE VALLEY RD	14
Morgan St	MORGAN ST AND MORRIS AVE	233
	MORREENE RD AND CAMPUS WALK AVE	6
Morreene Rd	MORREENE RD AND MORDECAI ST	78
	MORREENE RD AND NEAL RD	1
Morreene Rd	MORREENE RD AND US 15-501 NB (WO SIGNAL)	17
	MORREENE RD AND US 15-501 SB (W SIGNAL)	10
	NC 54 AND DAVIS DR	29
NC Hwy 54	NC 54 AND NC 751	3
	NC 54 AND ROLLINGWOOD DR	22
	NC 55 AND CARPENTER FLETCHER RD	1
NC Hwy 55	NC 55 AND MLK PKWY	15
	ROXBORO AND CLUB BLVD	67
	ROXBORO ST AND HORTON ST	21
Roxboro St	ROXBORO ST AND LATTA RD	20
	ROXBORO ST AND OLD OXFORD RD	20
	ROXBORO ST AND SEVEN OAKS RD	1
Shannon Rd	SHANNON RD AND AUTO DR	34
	TW ALEXANDER DR AND NC 147 INTERCHANGE E RAMP	15
TW Alexander Dr	TW ALEXANDER DR AND NC 147 INTERCHANGE W RAMP	14
	UNIVERSITY DR AND SHANNON RD	54
University Dr	UNIVERSITY DR AND VICKERS AVE	21
Woodcroft Pkwy	WOODCROFT PKWY AND BARBEE RD	36

Count Location	Pedestrian Vol.
WOODCROFT PKWY AND FAYETTEVILLE RD	27
WOODCROFY PKWY AND HIGHGATE DR	176

Recorded during turning movement counts from Sept-Nov 2011 and March-June 2012
 These data are presented as pedestrian activity during AM (7:00-9:00), noon (11:00-13:00) and PM (16:00-18:00) peak traffic periods.

Figure 6-3. Pedestrian Activity - North Durham

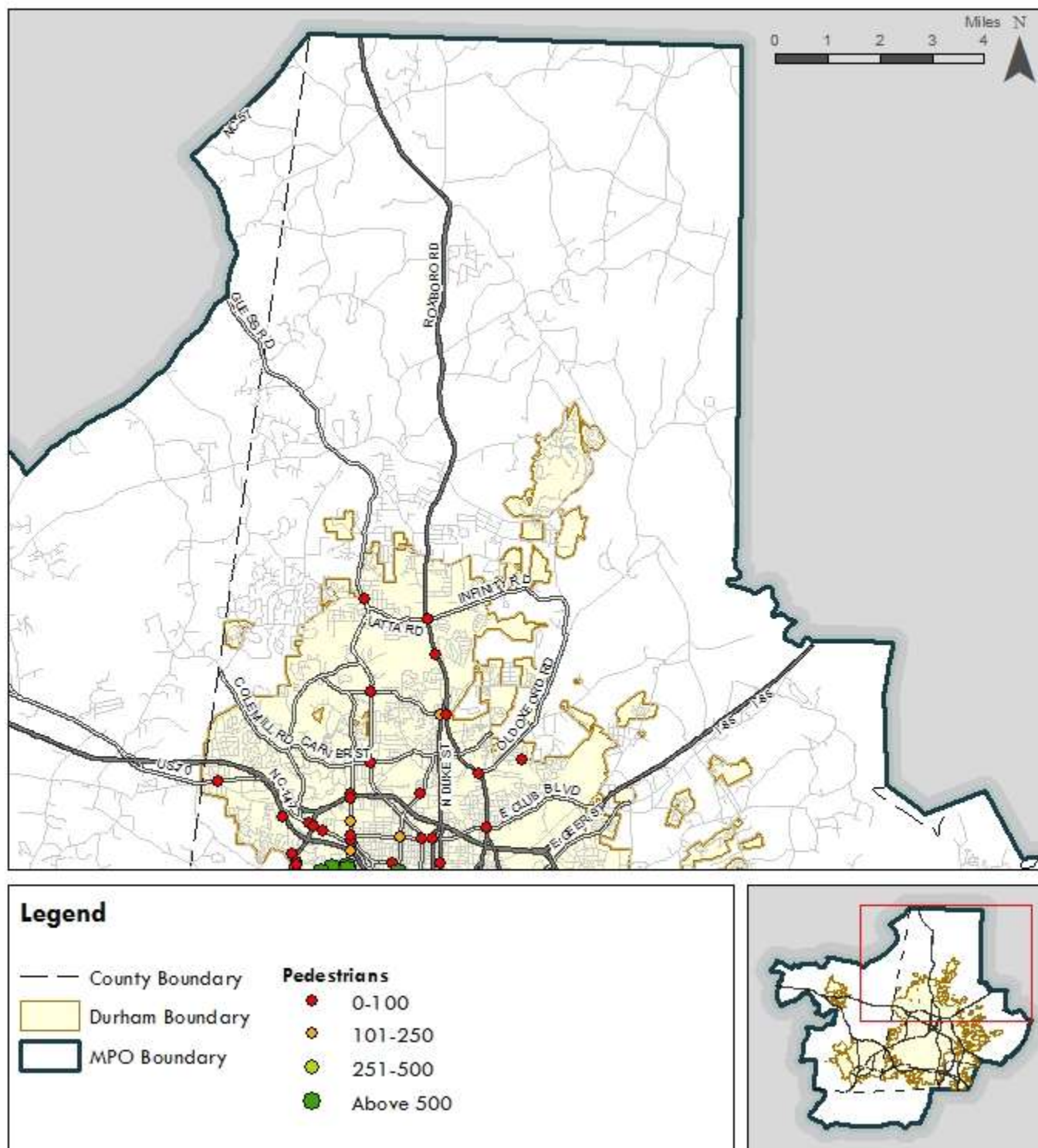


Figure 6-4. Pedestrian Activity - Downtown Durham

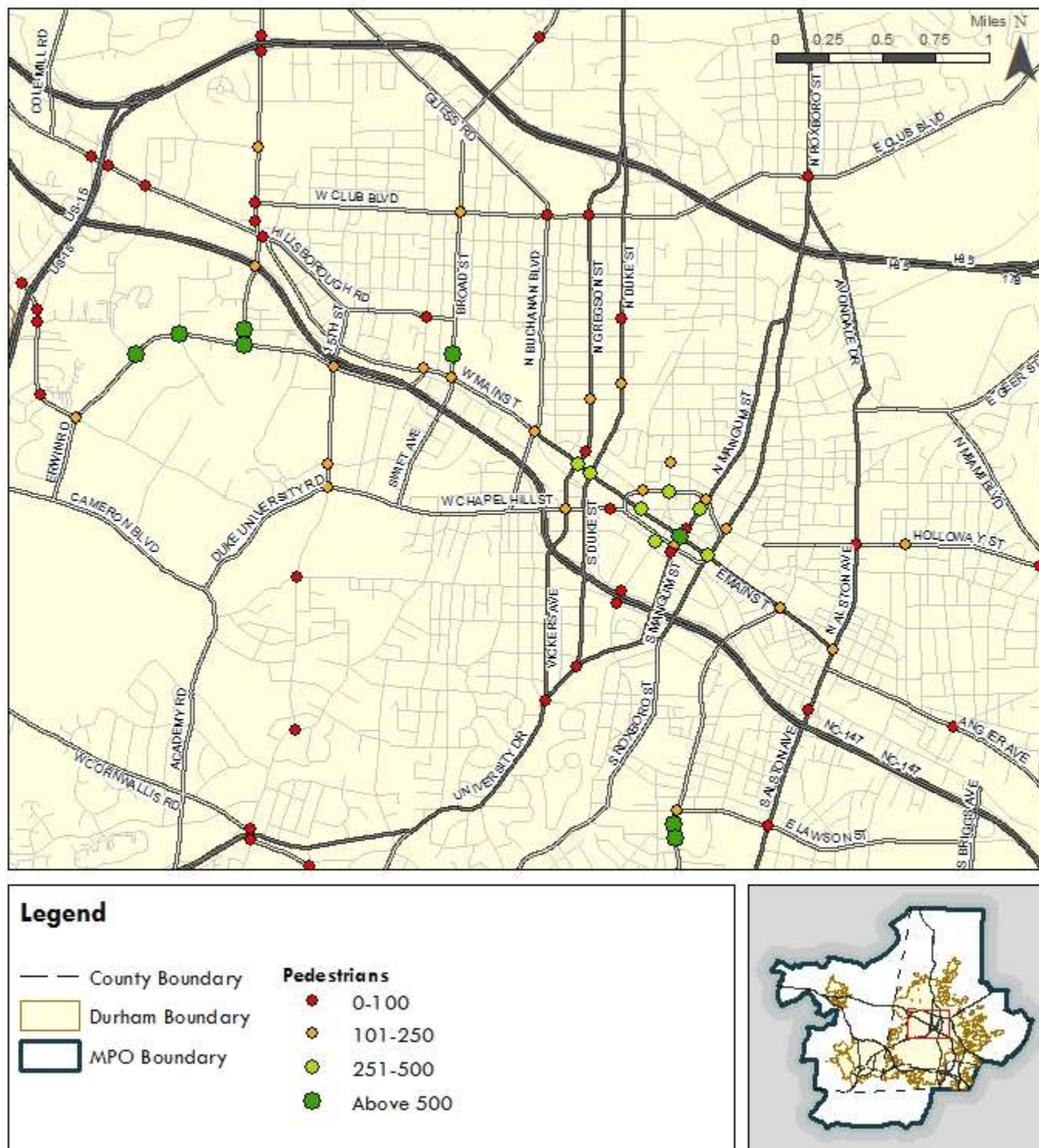
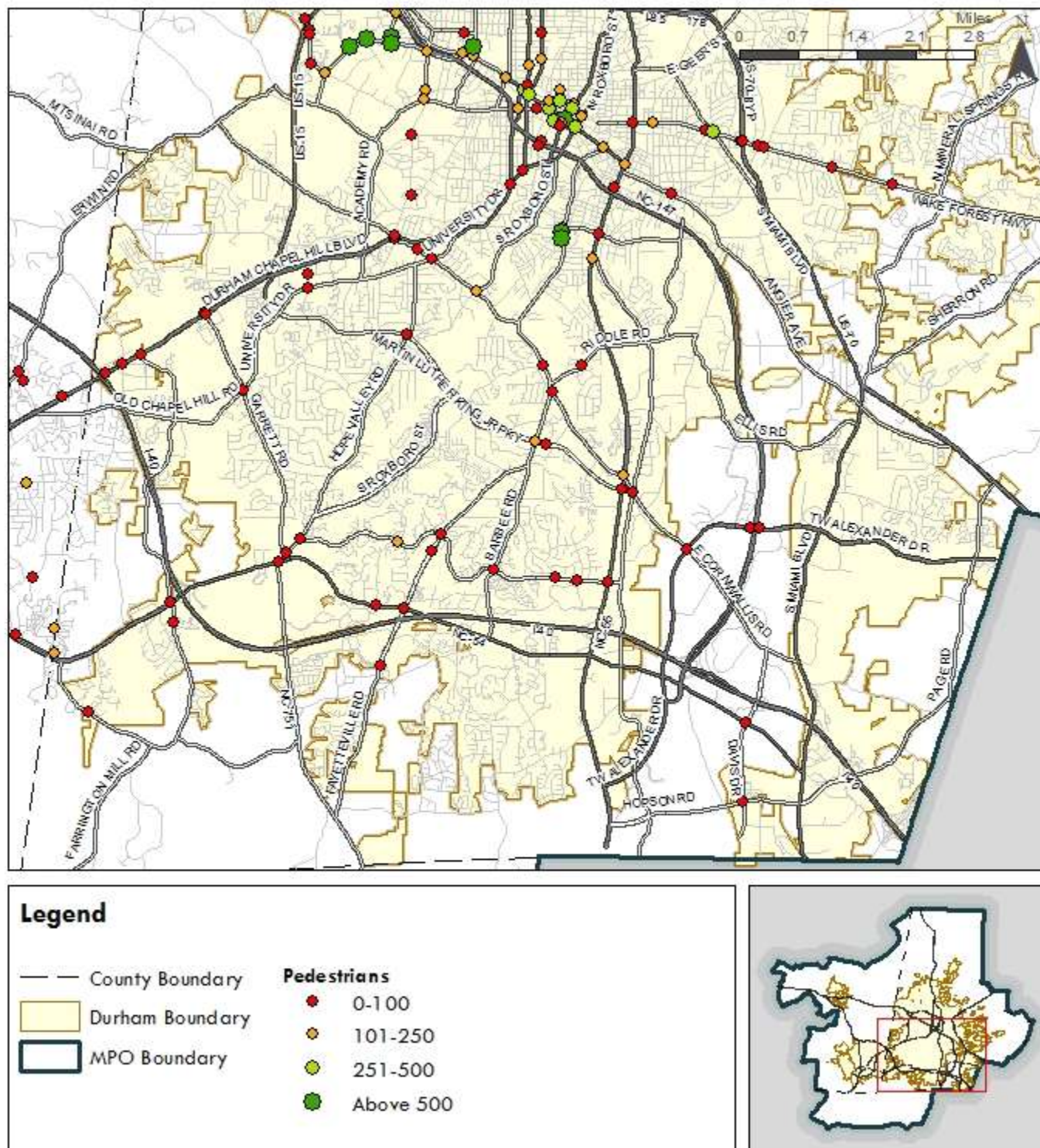


Figure 6-5. Pedestrian Activity - South Durham



Recorded during pedestrian counts from Sept-Nov 2011 and March-June 2012

Chapel Hill

A total of 70 counts were performed in Chapel Hill. Only twenty-two (31.4%) of counts recorded a daily pedestrian volume of more than 250; most of these are on or near UNC campus.

KEY DATA RESULTS (Sept-Nov 2011, Mar-June 2012)

Number of counts: 70

- 27 TMC's, and 43 12-hour counts

High-volume pedestrian locations

- UNC (South Rd)
- Downtown Chapel Hill (Franklin St, Columbia St)

Range of pedestrian activity (based on 6-hour data)

- Highest: 6,986 (South Rd and Stadium Dr)
- Lowest: 5 (NC 54 and Farrington Rd)

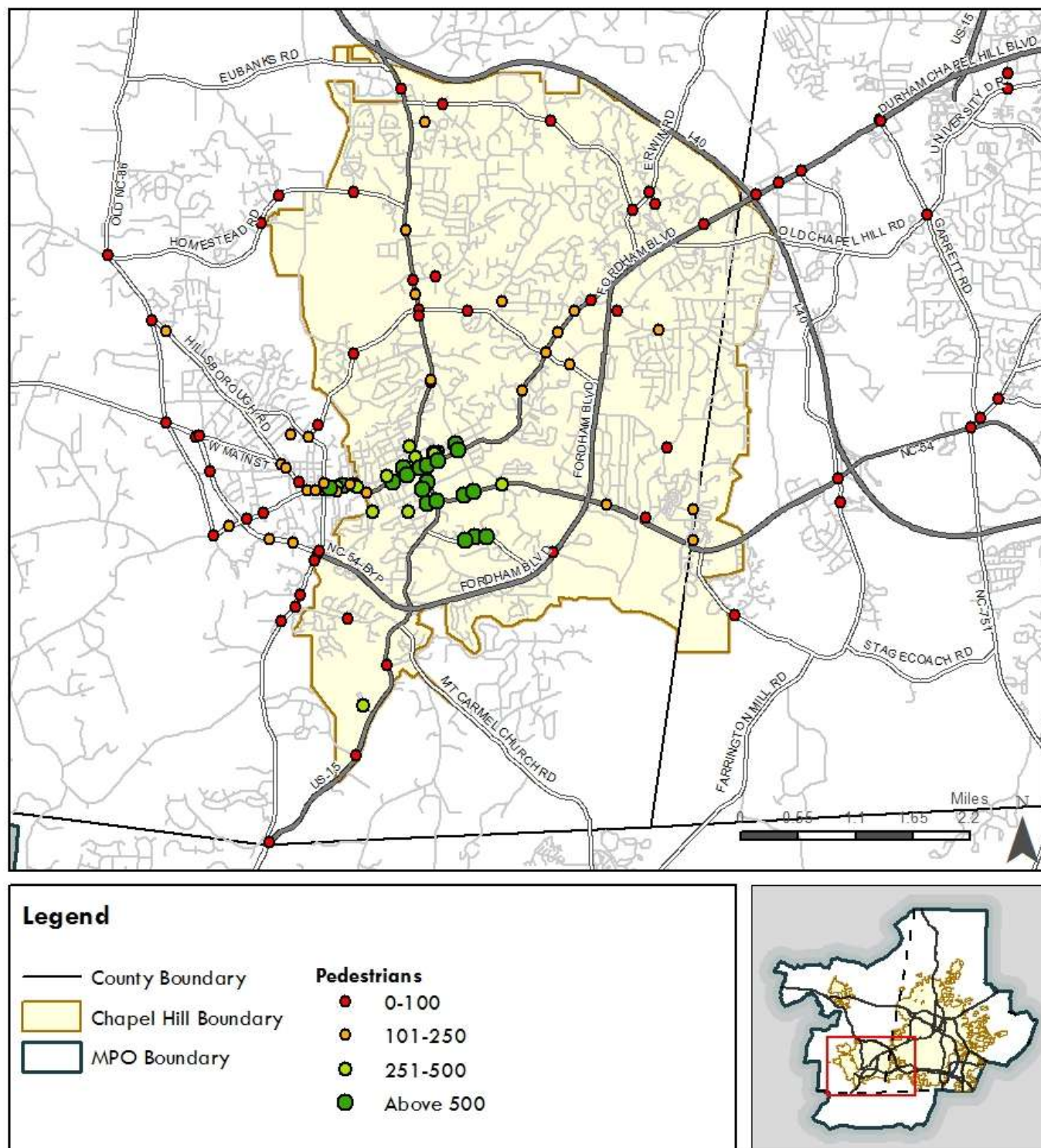
No. of counts with fewer than 250 pedestrians

- 48 (68.6%)

No. of counts with fewer than 100 pedestrians

- 30 (42.9%)

Figure 6-6. Pedestrian Activity - Chapel Hill



Counts were collected Sept-Nov 2011 and March-June 2012

Table 6-4. Six-Peakhour Period Pedestrian Volume - Chapel Hill (from 12-Hour Count Data)

	Count Location	Pedestrians volume
BOLIN CREEK TRAIL	MLK BLVD AND BOLIN CREEK TRAIL	170
	FRANKLIN ST AND BOLIN CREEK TRAIL	137
BURNING TREE DR	BURNING TREE DR AND PINEHURST DR	72
CAMERON AVE	CAMERON AVE AND PITTSBORO ST	1,615
COLUMBIA ST	COLUMBIA ST AND FRATERNITY COURT	4,125
	COLUMBIA ST AND SOUTH RD	2,173
	COLUMBIA ST NORTH OF ROSEMARY ST	483
CURTIS RD	CURTIS RD AND ELLIOT RD	173
EPHESUS CHURCH RD	EPHESUS CHURCH RD AND CHURCHILL DR	157
ESTES DR	ESTES DR AND CASWELL RD	38
	ESTES DR AND GREENSBORO ST	181
FRANKLIN ST	FRANKLIN ST AND CHURCH ST	595
	FRANKLIN ST AND COLUMBIA ST	6,245
	FRANKLIN ST AND ELIZABETH ST	107
	FRANKLIN ST AND HENDERSON ST	3,364
	FRANKLIN ST AND HILLSBOROUGH RD	852
	FRANKLIN ST AND KENAN ST	673
	FRANKLIN ST AND OLD FRATERNITY ROW	3,609
MANNING DR	MANNING DR AND RIDGE RD	3,118
	MANNING DR AND W OF PAUL HARDIN DR	2,612
MCCAULEY ST	MCCAULEY ST AND RANSOM ST	491
MEADOWMONT LN	MEADOWMONT LN AND SPRUNT LN	119
	MEADOWMONT LN AND VILLAGE CROSSING DR	116
MLK BLVD	MLK BLVD AND CROSSWALK	404
	MLK BLVD AND PERKINS DR	51
	MLK BLVD AND SHADOW DR	218
	MLK BLVD AND YMCA DRIVEWAY	84
NC 54	NC 54 AND HAMILTON RD	148
PINEHURST DR	PINEHURST DR AND MEADOWMONT BIKE PATH	47
PINEY MOUNTAIN RD	PINEY MOUNTAIN RD AND WOODSHIRE LN	40
PITTSBORO ST	PITTSBORO ST AND MCCAULEY ST	1,402
ROSEMARY ST	ROSEMARY ST AND CHURCH ST	795
	ROSEMARY ST AND HENDERSON ST	276
	ROSEMARY ST AND HILLSBOROUGH ST	710
	ROSEMARY ST AND PARKING LOT	470
SAGE RD	SAGE RD AND OLD STERLING DR	65
SOUTH RD	SOUTH RD AND COUNTRY CLUB RD	366
	SOUTH RD AND RALEIGH ST	3,160
	SOUTH RD AND STADIUM DR	6,986
US 15-501	US 15-501 AND BENNETT RD	26
WEAVER DAIRY RD	WEAVER DAIRY RD AND DRIVEWAY	52
	WEAVER DAIRY RD AND SUNRISE LN	10
WESTMINSTER DR	WESTMINSTER DR AND BANKS DR	147

Data was collected Sept-Nov 2011 during peak traffic periods: AM (7:00-9:00), noon (11:00-13:00) and PM (16:00-18:00) peak traffic periods.

Table 6-5. Six-Peakhour Period Pedestrian Volume - Chapel Hill (from TMC Data)

	Count Location	Pedestrians
BARBEE CHAPEL RD.	BARBEE CHAPEL RD. AND DOWNING CREEK PKWY	29
EPHESUS CHURCH RD	EPHESUS CHURCH RD AND LEGION RD	78
ESTES DR	ESTES DR AND SEAWELL SCHOOL RD	14
	ESTES DR AND FRANKLIN ST	173
	ESTES DR AND WILLOW DR	134
FARRINGTON RD	FARRINGTON RD AND FARMINGTON DR	38
FORDHAM BLVD	FORDHAM BLVD AND OLD MASON FARM RD	23
FRANKLIN ST	FRANKLIN ST AND MERRITT MILL RD	172
	FRANKLIN ST AND EASTGATE SHOPPING CENTER	6
	FRANKLIN ST AND ELLIOTT RD	129
HOMESTEAD RD	HOMESTEAD RD AND OLD NC 86	7
	HOMESTEAD RD AND WEAVER DAIRY RD	33
	HOMESTEAD RD AND HIGH SCHOOL RD	51
	HOMESTEAD RD AND ROGERS RD	17
MLK BLVD	MLK BLVD AT UMSTEAD DR	243
	MLK BLVD AND PINEY MOUNTAIN RD	69
	MLK BLVD AND NORTHFIELD DR	180
	MLK BLVD AND ESTES DR	58
NC 54	NC 54 AND FARRINGTON RD	5
ROSEMARY ST	ROSEMARY ST AND ROBERSON ST	168
SAGE RD	SAGE RD AND ERWIN RD	32
US 15-501	US 15-501 AND SMITH LEVEL RD	32
	US 15-501 AND I-40 WB OFF ON RAMP	22
	US 15-501 AND I-40 EB OFFON RAMP	41
	US 15-501 AND DOGWOOD ACRES DR	14
	US 15-501 AND WEST EASTOWNE DR	6
WEAVER DAIRY RD	WEAVER DAIRY RD AND ERWIN RD	32

Data collected Sept- Nov 2011 and March-June 2012 during peak periods: AM (7:00-9:00), noon (11:00-13:00) and PM (16:00-18:00)

Carrboro

A total of 39 counts were recorded in Carrboro. Most counts (79.5%) recorded a daily pedestrian activity of less than 250. Most of the highest counts occurred on Main St.

KEY DATA RESULTS (Sept-Nov 2011, Mar-June 2012)

Number of counts: 39 counts recorded

- 18 (12 hour counts, fall 2011)
- 21 TMC's (fall of 2011 and spring of 2012)

High-volume pedestrian locations

- Downtown Carrboro (Main St)

Range of pedestrian activity (based on 6-hour data)

- Highest: 799 (Crosswalk on Main St between Greensboro and Weaver St)

Number of counts with fewer than 250 daily pedestrians

- 31 (80%)

Number of counts with fewer than 100 daily pedestrians

- 18 (46%)

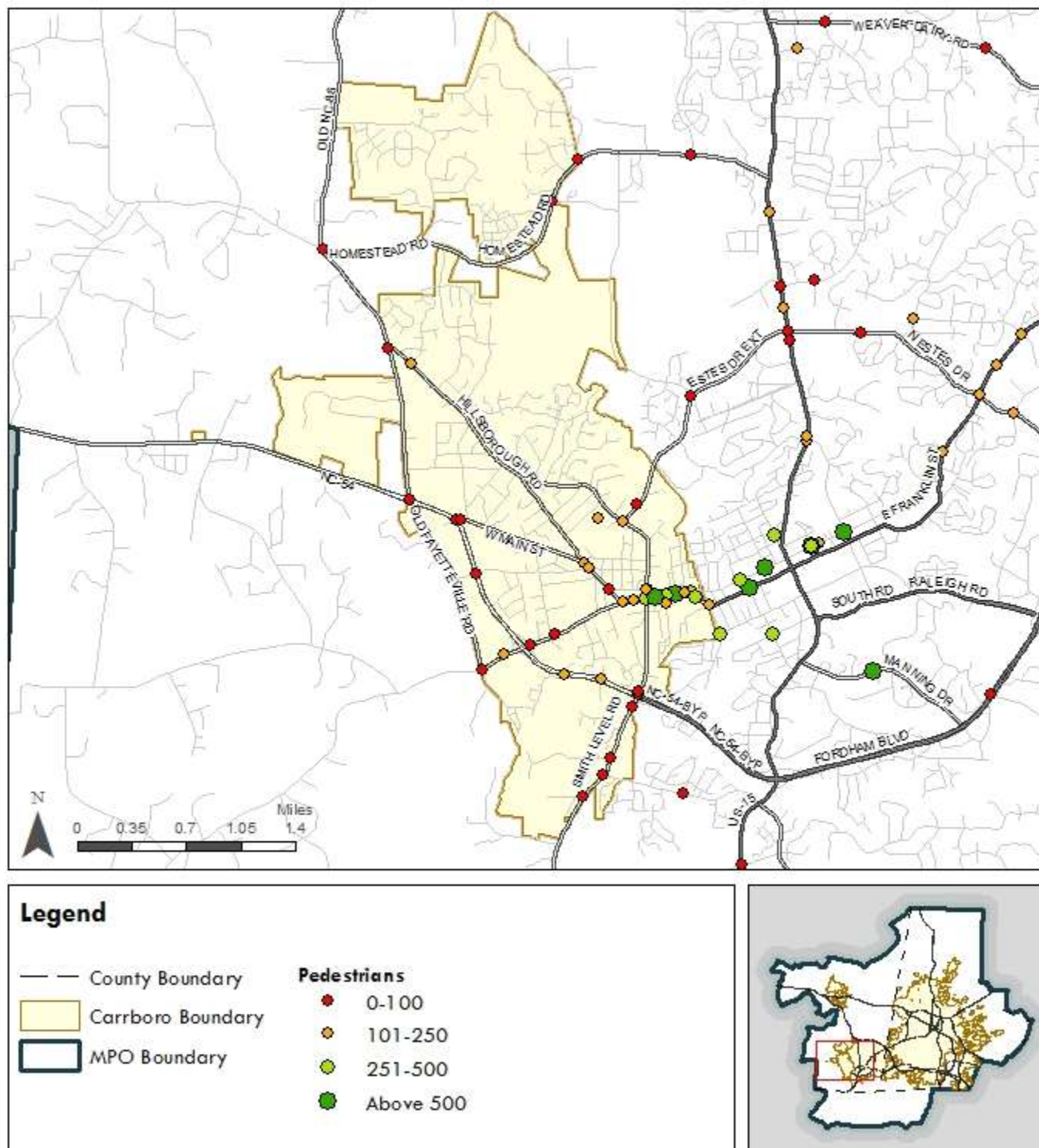
Table 6-6. Six-Peakhour Period Pedestrian Volume - Carrboro

	Count Location	Pedestrian Vol.
Culbreth Rd	CULBRETH RD WEST OF ADAMS WAY	51
Greensboro St	ESTES DR AND GREENSBORO ST	181
	ESTES DR BTWN GREENSBORO AND HILLCREST	11
	GREENSBORO ST AND WEAVER ST	197
	GREENSBORO ST AND SU ANN CT BIKEPATH	163
Hillsborough Rd	HILLSBOROUGH RD CROSSING AT MCDOUGLE MIDDLE SCHOOL	183
Jones Ferry Rd	JONES FERRY RD BTWN BARNES ST AND DAVIE ST	42
Libba Cotton Greenway	LIBBA COTTON BIKE PATH AND ROBERSON ST	165
Main St	MAIN ST CROSSING BTWN GREENSBORO ST AND WEAVER ST	799
	MAIN ST AND HILLSBOROUGH RD	113
	MAIN ST AND JAMES ST	80
	MAIN ST AND POPLAR AVE	116
	MAIN ST BTWN JONES FERRY RD AND GREENSBORO ST	148
	MAIN ST BTWN LLOYD ST AND ROSEMARY ST	209
	MAIN ST BTWN ROSEMARY AND MERRITT MILL	350
NC Hwy 54 Bypass	NC 54 BYPASS AND ABBEY LN	133
	NC 54 BYPASS AND WESTBROOK DR	143
Greensboro St	GREENSBORO ST AND ESTES DR	153
	GREENSBORO ST AND MERRITT MILL RD	55
Old NC Hwy 86	GREENSBORO ST AND WEAVER ST	228
Old NC Hwy 86	HILLSBOROUGH RD AND OLD FAYETTEVILLE RD	51
	HOMESTEAD RD AND OLD NC 86	7
Jones Ferry Rd	JONES FERRY RD AND NC 54 NB RAMPS	80
	JONES FERRY RD AND NC 54 SB RAMPS	0
	JONES FERRY RD AND OLD FAYETTEVILLE RD	48
	JONES FERRY RD AND WILLOW CREEK CTR	105
Main St	MAIN ST AND GREENSBORO ST	491
	MAIN ST AND JONES FERRY RD	180
	MAIN ST AND LLOYD ST	543
	MAIN ST AND NC 54 BYPASS	7
	MAIN ST AND ROSEMARY ST	274
	MAIN ST AND ROBERSON ST	335

	Count Location	Pedestrian Vol.
	MAIN ST AND WEAVER ST	92
Merritt Mill Rd	MERRITT MILL RD AND CAMERON RD	395
NC Hwy 54	NC 54 AND OLD FAYETTEVILLE RD	42
	NC 54 AND POPLAR AVE	0
Smith Level Rd	SMITH LEVEL RD AND BPW CLUB RD AND	38
	SMITH LEVEL RD AND CULBRETH RD	10
	SMITH LEVEL RD AND NC 54 SB RAMP	32
	SMITH LEVEL RD AND PUBLIC WORKS DR	31
	SMITH LEVEL RD AND ROCK HAVEN RD	9

Recorded during 12-hour pedestrian counts and turning movement counts, Sept–Nov 2011 during peak traffic periods during AM (7:00-9:00), noon (11:00-13:00) and PM (16:00-18:00)

Figure 6-7. Pedestrian Activity - Carrboro



Counts were collected Sept-Nov 2011 and March-June 2012

Hillsborough

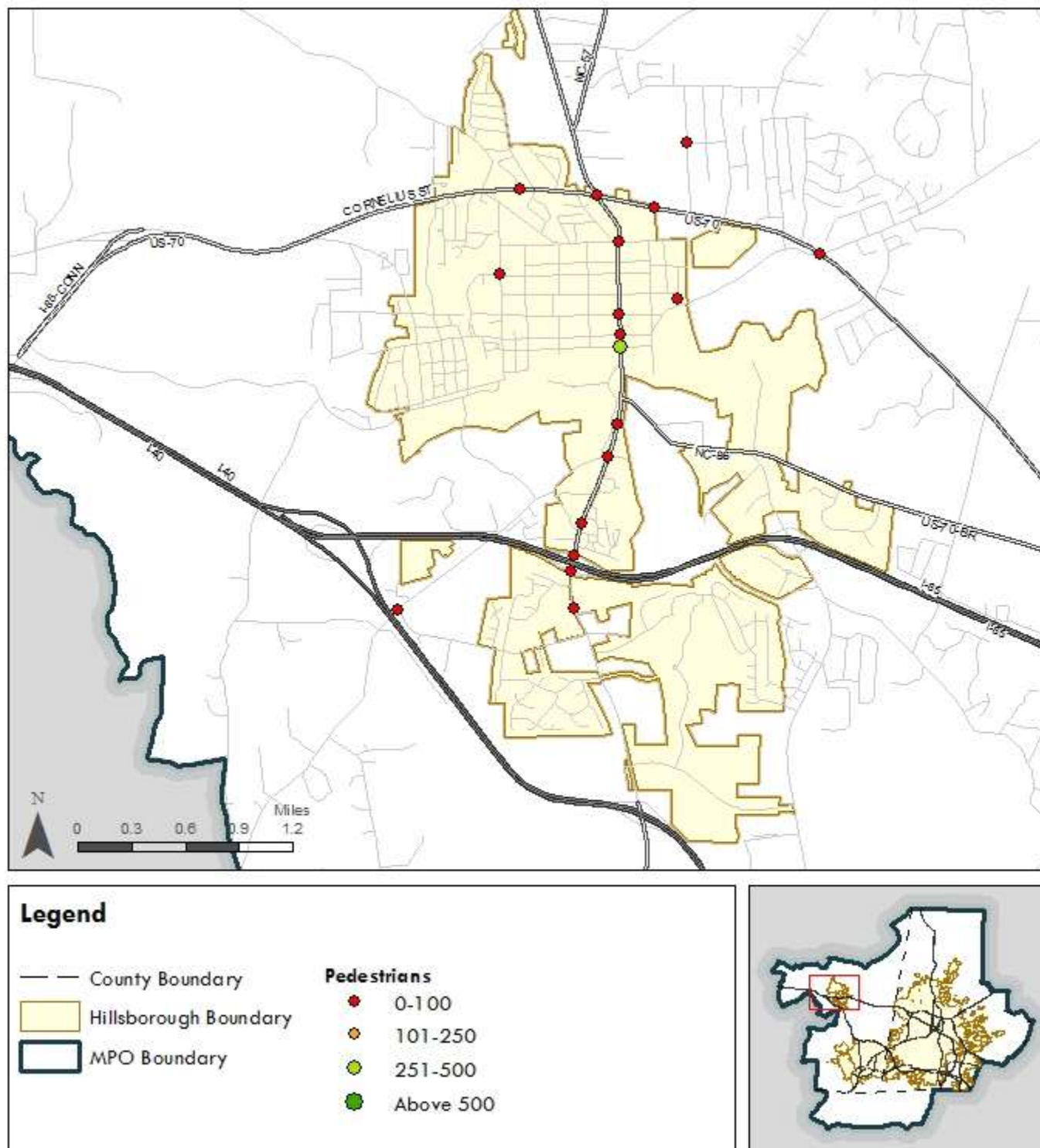
A total of 19 counts were recorded in Hillsborough. Most counts (95%) recorded fewer than 250 pedestrians. the highest pedestrian volumes was at the intersection of Churton St and Margaret Ln.

Table 6-7. Six-Peakhour Period Pedestrian Volume - Hillsborough

Count Location	Pedestrian Vol.
HILL ST AND CORNELIUS ST	0
NASH ST AND UNION ST	38
ORANGE GROVE RD AND OAKDALE DR	8
ORANGE HIGH SCH RD BTWN HAROLD LATTA RD AND US 70	4
CHURTON ST AND MARGARET LN	345
CHURTON ST BTWN US 70 AND ORANGE GROVE RD	5
CHURTON ST BTWN WINDMILL ST AND MAYO ST	16
CHURTON ST BTWN CARDINAL DR AND CLARENCE WALTERS RD	7
THOMAS RUFFIN ST BTWN ST MARYS AND QUEEN ST	16
US 70 BTWN CHURTON AND ORANGE HIGH SCH	10
CHURTON ST AND I-85 SOUTH RAMP	11
CHURTON ST AND I-85 NORTH RAMP	1
CHURTON ST AND ORANGE GROVE	1
CHURTON ST AND US 70 BUS	0
CHURTON ST AND EXCHANGE PARK LN	3
CHURTON ST AND KING ST	93
CHURTON ST AND TYRON	40
CHURTON ST AND CORBIN ST	8
US 70 AND ST MARYS	1

Turning movement counts (TMC's) recorded Sept-Nov 2011 during peak traffic periods: AM (7:00-9:00), noon (11:00-13:00) and PM (16:00-18:00)

Figure 6-8. Pedestrian Activity - Hillsborough





7. Bicycle Facilities

WHAT IS IT?

Bicycle facilities are infrastructure that enable people to ride bikes for commuting, exercise, or recreation. Well designed and maintained bicycle facilities are known to attract bicyclists. Bike lanes and multi-use paths, such as the American Tobacco Trail in Durham, are examples of bicycle facilities that are found in the region.

Why does it matter?

As with pedestrian facilities, communities across the nation are realizing that bicycle facilities are desirable features that can make a neighborhood more attractive, give people options other than driving, provide opportunities for exercise, and support stronger economies. The MPO measures bicycle facilities in order to track expansion over time and progress towards expanding bicycle networks and closing gaps.

METHODOLOGY

Data was acquired through inventories maintained by each municipality as ArcMap shape files. Simple comparisons of total facility mileage were done using ArcMap. Since the data is limited to only the network itself, amenities such as bike racks, facility parking or restrooms are not quantified in this report.

Analysis was focused on two types of bicycle facility: multi-use paths, composed of off-road facilities open to bicycle use such as greenways and trails; and bicycle lanes, composed of roadway facilities where a lane for bicycles was marked. Similar to the analysis of pedestrian facilities, miles of each facility type were compared between 2012 and 2005.

SUMMARY:

CONDITIONS IMPROVED



KEY FINDINGS

The DCHC region had about 64 miles of bicycle lanes and 67 miles of multi-use paths in 2012.

Bicycle lane mileage increased by 84% between 2005 and 2012; multi-use path mileage increased by 19%.

Durham, Chapel Hill, Carrboro, and Chatham County all added at least 3 miles of new bicycle facilities since 2005.

Hillsborough did not report any new bicycle facilities.

REGIONWIDE RESULTS

The region increased its bicycle lane mileage by at least 84 percent between 2005 and 2012. Additionally, multi-use path mileage was increased by 19 percent in that same time. Durham leads the region in adding bicycle lanes, increasing its mileage by 132 percent since 2005. Durham had a larger absolute increase though, adding 17.7 miles compared to 3.2 for Chapel Hill. It is noted that this growth in bicycle lane and multi-use path mileage does not take into consideration the growth in roadway mileage that may have occurred from 2005 to 2012.

Durham added 5.9 miles of multi-use trail. The city's American Tobacco Trail is one of the region's best assets, now extending more than 20 miles from downtown Durham through fast growing southern neighborhoods and over I 40 to the Streets at Southpoint Mall area.

All together, the region had about 64 miles of bicycle lanes and 67 miles of multi-use paths in 2012.

Table 7-1. Bicycle Lane Centerline Mileage - DCHC MPO

Municipality	As of 2005	As of 2012	Change over time	
			Absolute(miles)	Percent
Durham	13.4	31.1	17.7	132%
Chapel Hill	8.9	12.1	3.2	36%
Carrboro	12.5	15.5	3.0	24%
Hillsborough	-	-	-	n/a
Chatham County	-	5.5	5.5	n/a
Totals	34.8	64.2	29.4	84%

Table 7-2. Multi-use Path Centerline Mileage - DCHC MPO

Municipality	As of 2005	As of 2012	Change over time	
			Absolute(miles)	Percent
Durham	25.4	31.3	5.9	23%
Chapel Hill	14.5	17.3	2.8	19%
Carrboro	1.7	3.8	2.1	124%
Hillsborough	4.5	4.5	-	n/a
Chatham County	9.7	9.7	-	n/a
Totals	55.8	66.6	10.8	19%

Figure 7-1. Bicycle Facility Mileage and Percent Increase

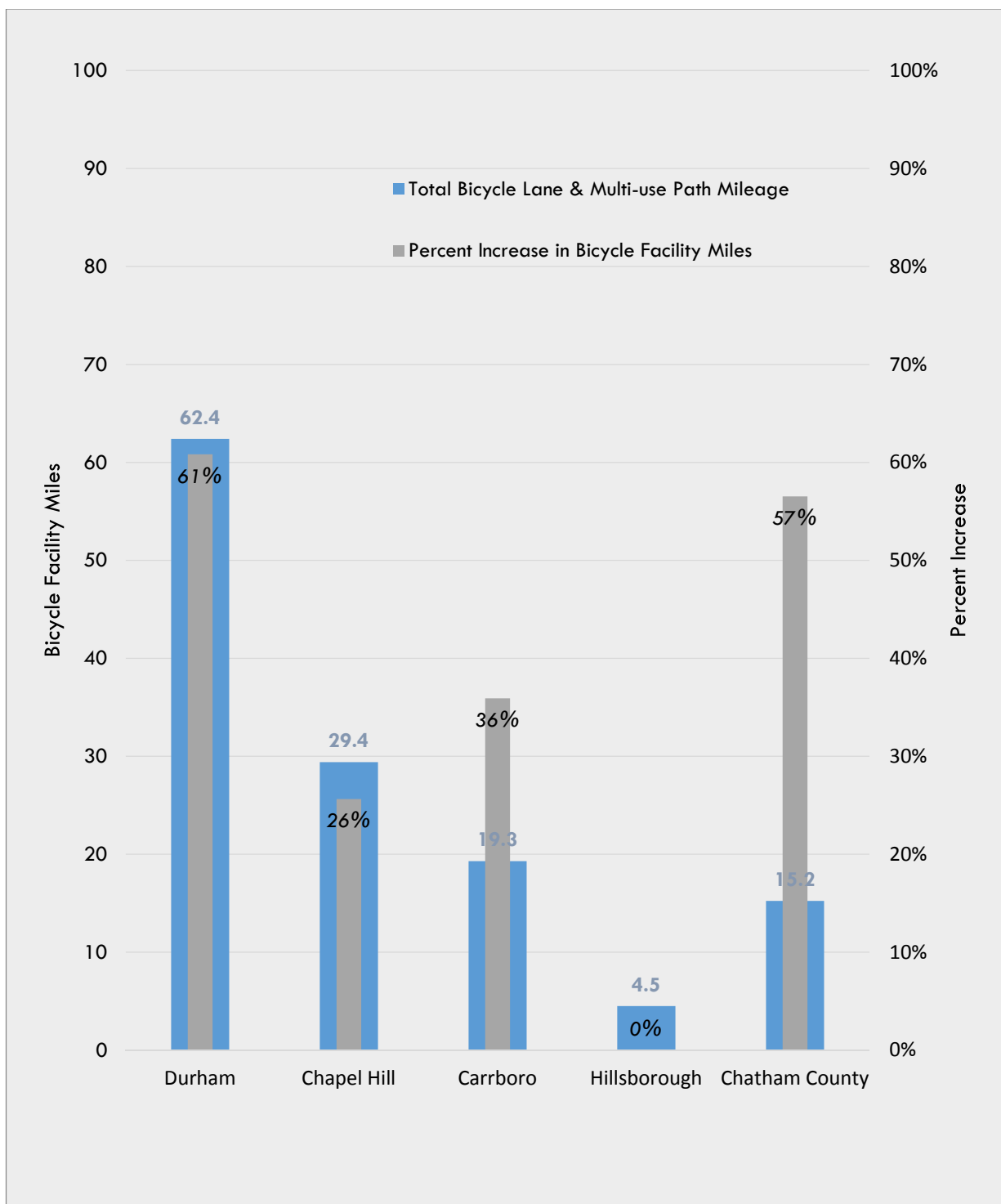
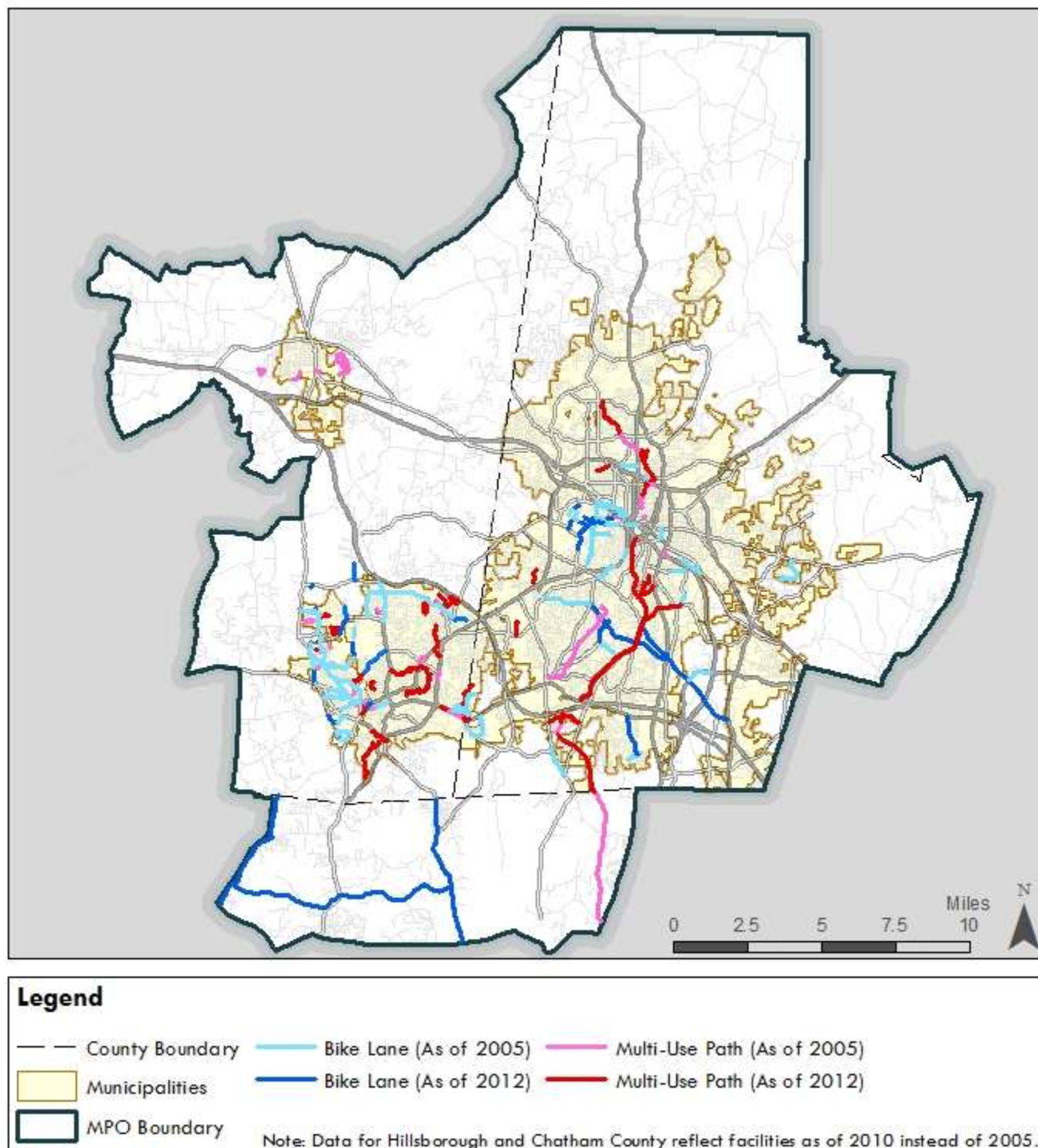


Figure 7-2. New Bicycle Facilities - DCHC MPO



RESULTS BY GEOGRAPHY

The following provides detailed results on bicycle facilities summarized by the MPO's four municipalities and Chatham County.

Durham

Each bicycle facility type increased mileage over the past two years. Total bicycle facility mileage in Durham is now 62 miles, up nearly 24 miles from 2005. Most new bicycle mileage was added in either Downtown or South Durham. North Durham has only one facility, a multi-use path, at this time.

Table 7-3. Bicycle Facility Centerline Mileage - Durham

Facilities	As of 2005	As of 2012	Change over time	
			Absolute (miles)	Percent
Bicycle Lanes	13.4	31.1	17.7	132%
Multi-use Paths	25.4	31.3	5.9	23%
Total	38.8	62.4	23.6	61%

Figure 7-3. Bicycle Facilities - North Durham

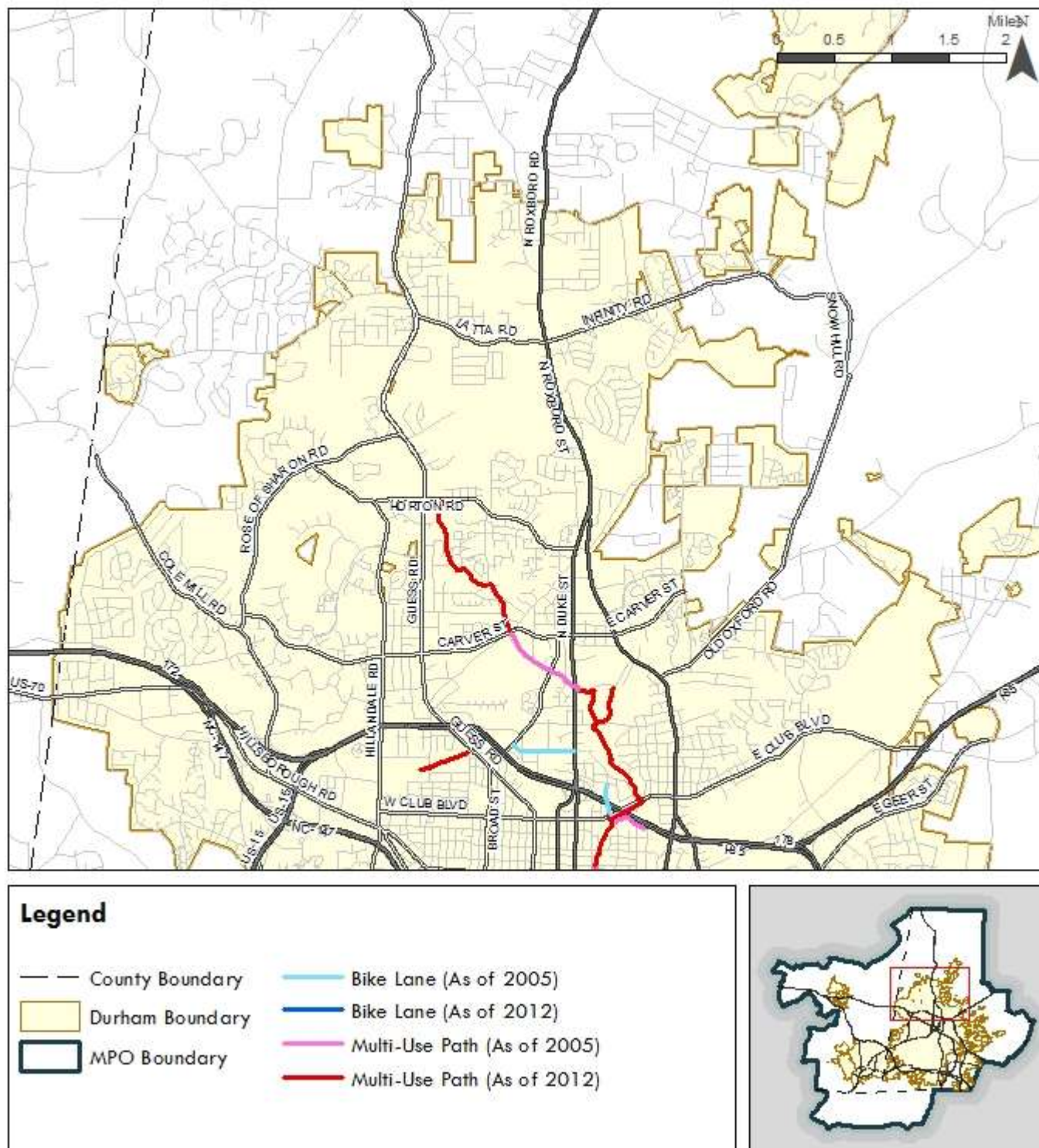


Figure 7-4. Bicyclist Facilities - Downtown Durham

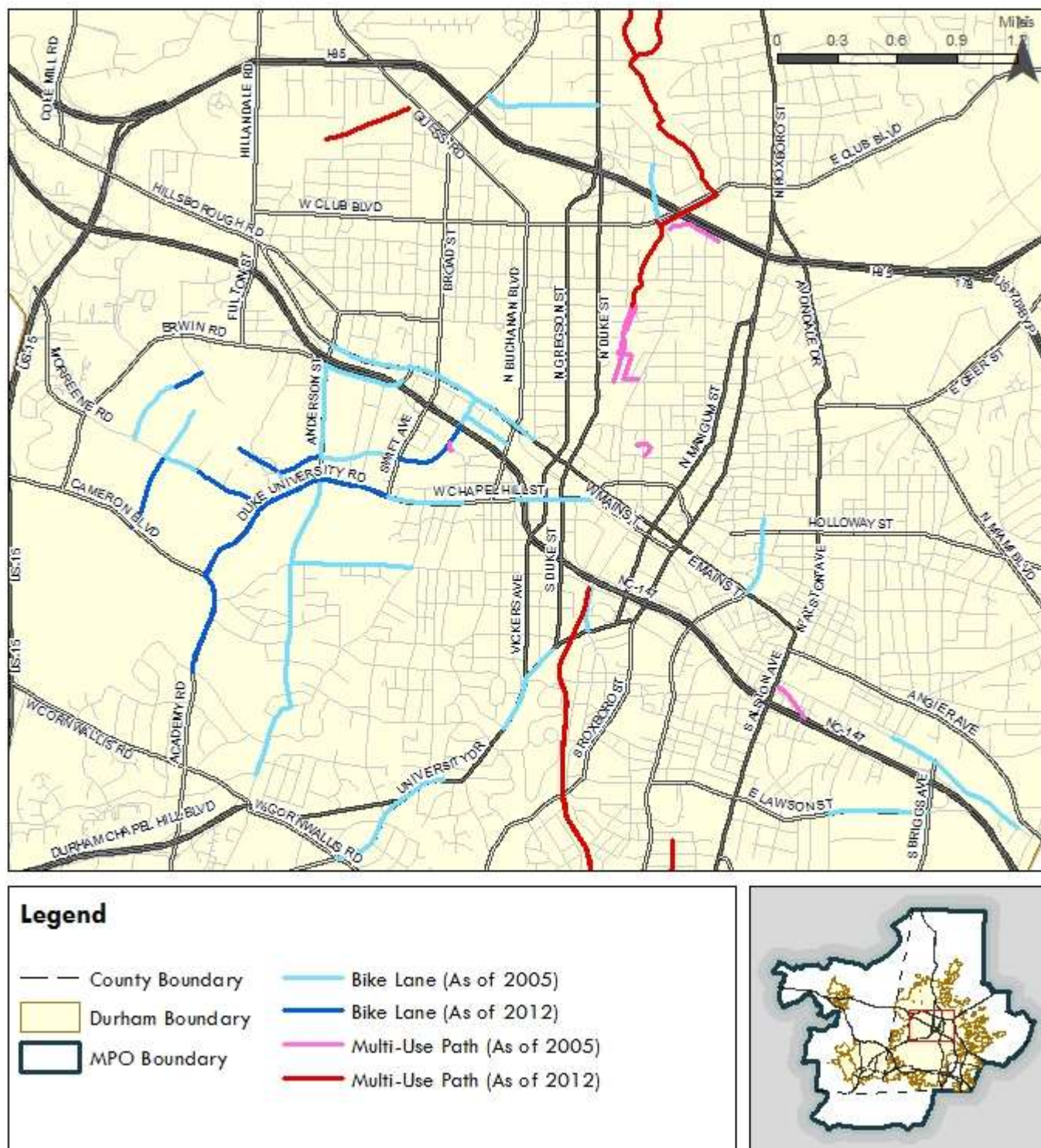
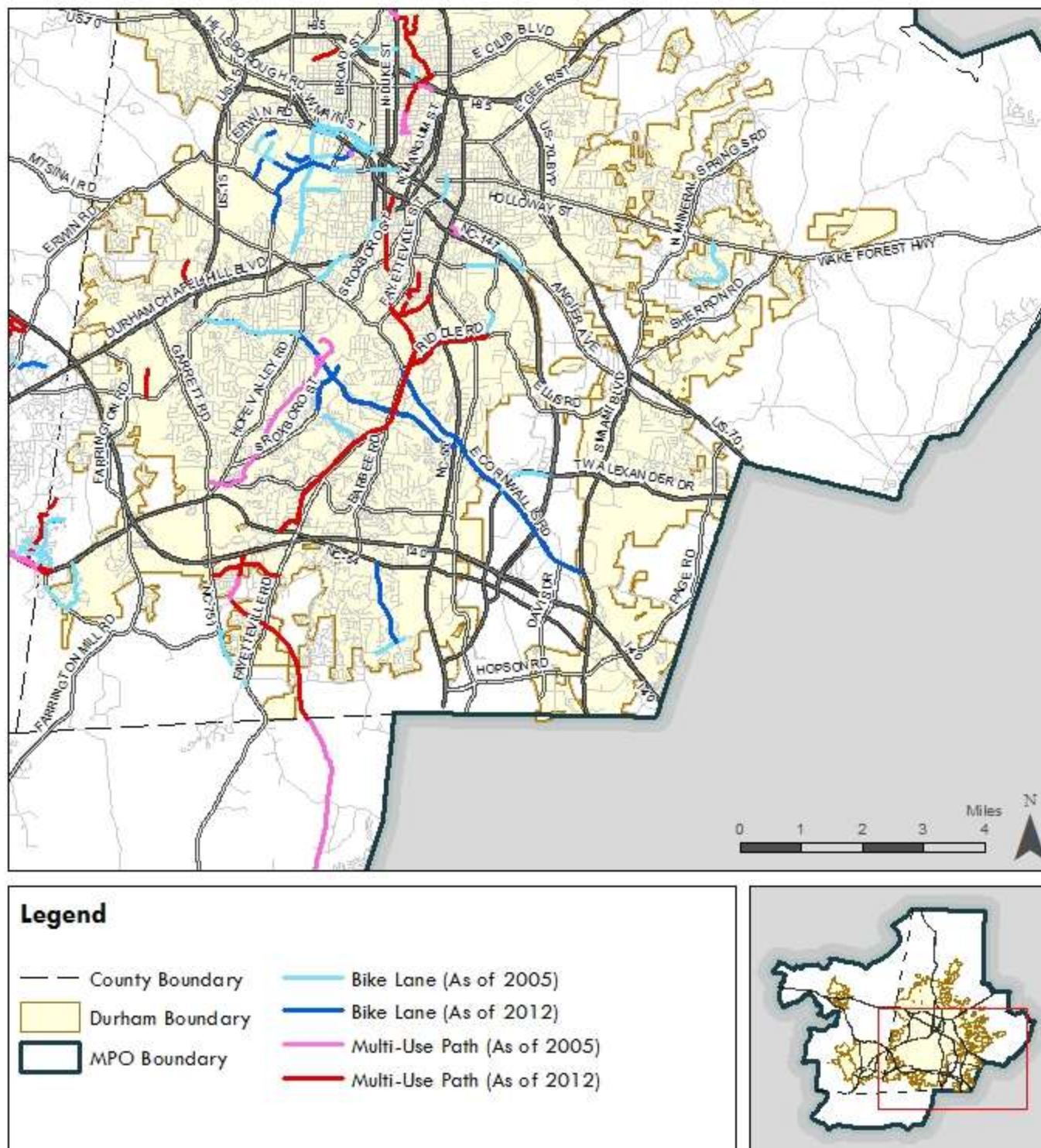


Figure 7-5. Bicyclist Facilities - South Durham



Chapel Hill and Chatham County

Miles of both bicycle lanes and multi-use paths increased in Chapel Hill between 2005 and 2012. Overall, there are 29.4 miles of bicycle facilities, up 26% from 2005. Bicycle lanes in particular were a focus of growth, increasing over 3.2 miles to 12.1 miles. New facilities were more routinely sited outside of downtown, supplementing facilities in downtown, around the hospitals, and on major arterials.

Table 7-4. Bicycle Facility Centerline Mileage - Chapel Hill

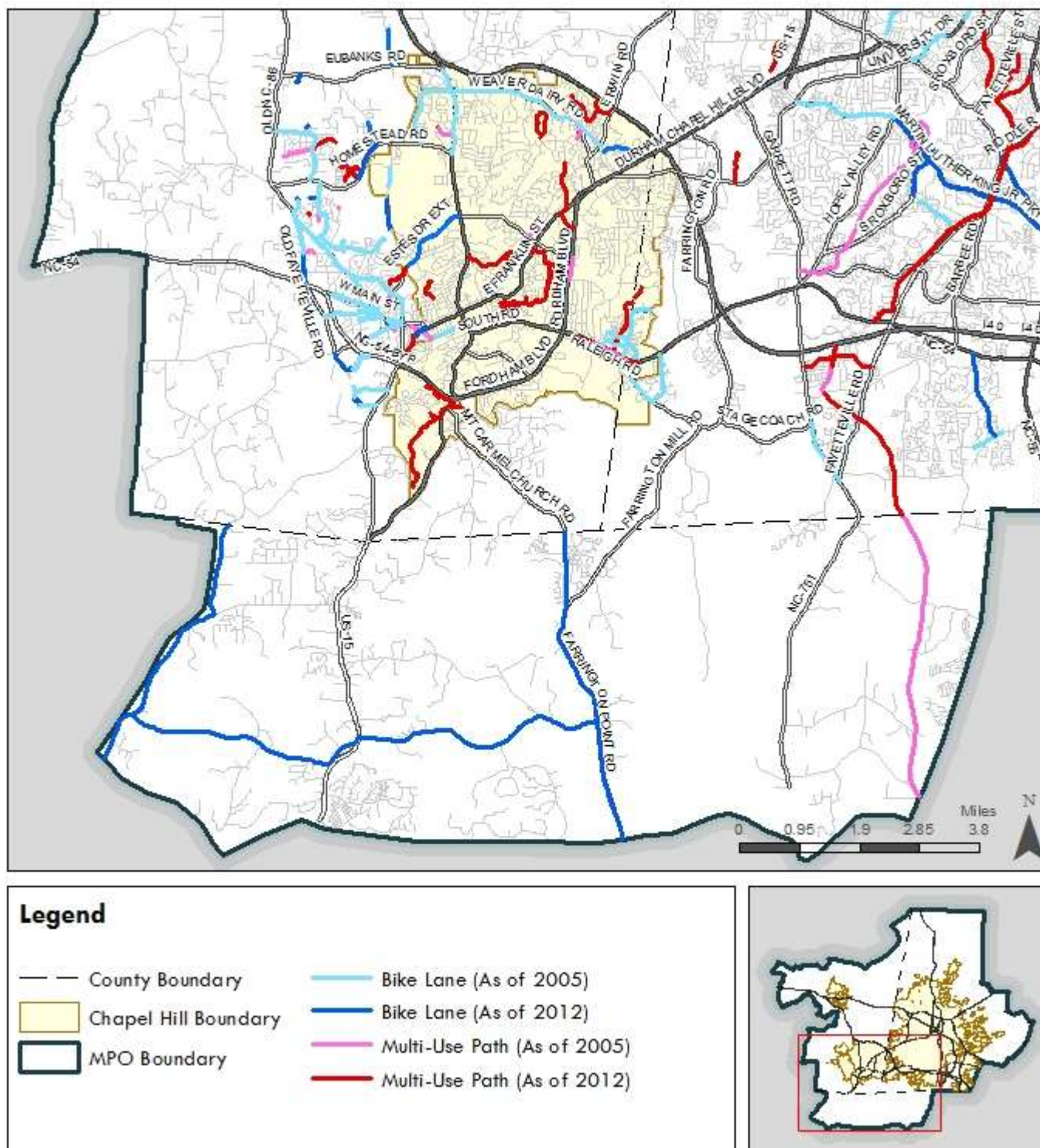
Facilities	As of 2005	As of 2012	Change over time	
			Absolute (miles)	Percent
Bicycle Lanes	8.9	12.1	3.2	36%
Multi-use Paths	14.5	17.3	2.8	19%
Totals	23.4	29.4	6.0	26%

For Chatham County, not much data was available for multi-use paths and no baseline data was available for bicycle lanes. Mileage of multi-use paths did not grow from 2010 to 2012. The American Tobacco Trail is Chatham County's only multi-use path and has recently been paved, but has been its current length for many years. Bicycle lanes were added on a few roads, including Mt Carmel Church and Jack Bennett Roads.

Table 7-5. Bicycle Facility Centerline Mileage - Chatham County

Facilities	As of 2010	As of 2012	Change over time	
			Absolute (miles)	Percent
Bicycle Lanes	-	5.5	-	n/a
Multi-use Paths	9.7	9.7	0.0	0%
Totals	9.7	15.2	0.0	n/a

Figure 7-6. Bicycle Facilities - Chapel Hill



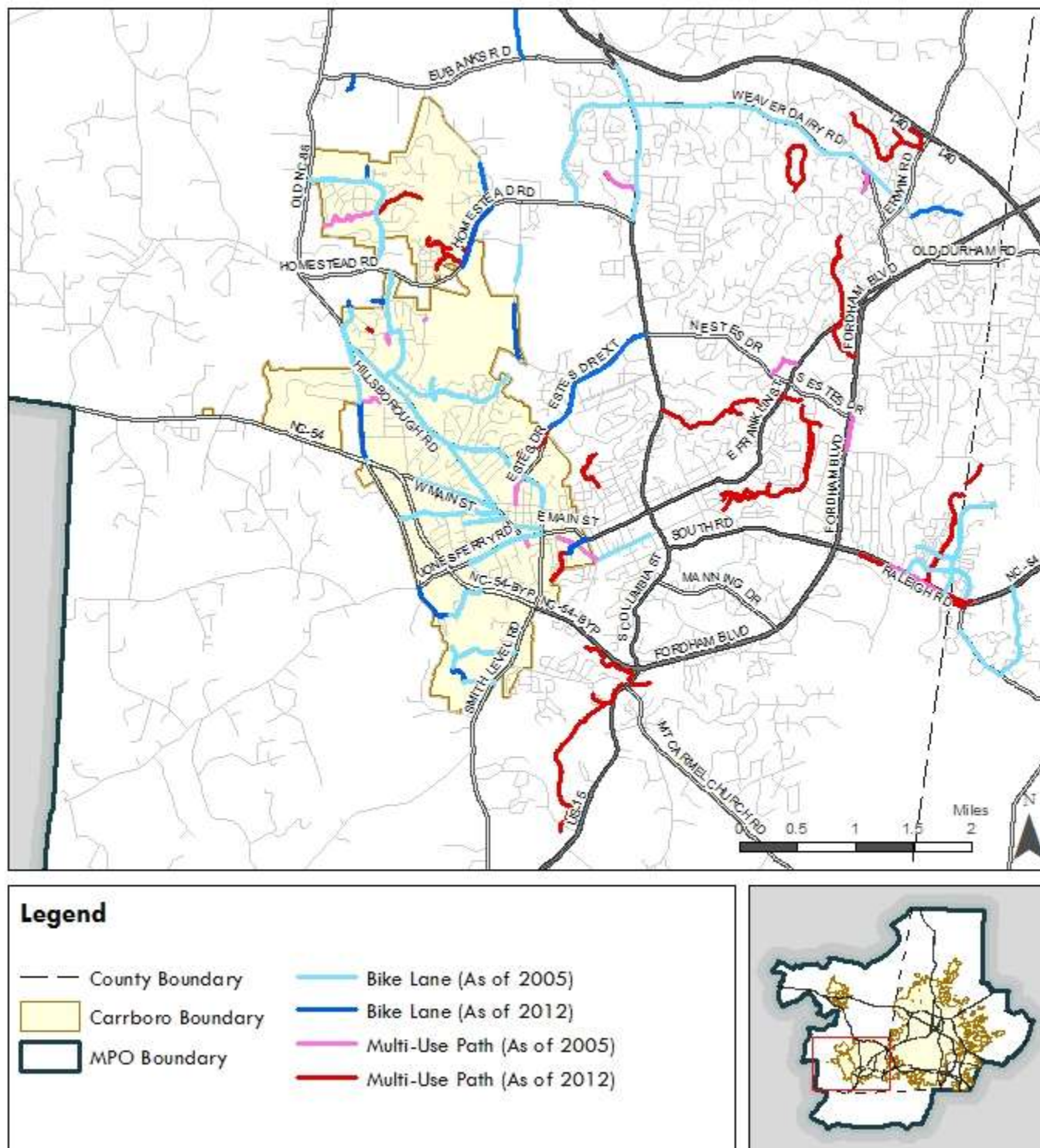
Carrboro

Bicycle lanes and multi-use paths grew 36% in Carrboro between 2005 and 2012. There are 15.5 miles of bicycle lanes, up 24% from 2005 and 3.8 miles of multi-use paths, added 2.1 miles from 2005. New lane mileage has connected existing bicycle networks, as well as introduced new links, particularly on the edges of town.

Table 7-6. Bicycle Facility Centerline Mileage - Carrboro

Facilities	As of 2005	As of 2012	Change over time	
			Absolute (miles)	Percent
Bicycle Lanes	12.5	15.5	3.0	24%
Multi-use Paths	1.7	3.8	2.1	124%
Totals	14.2	19.3	5.1	36%

Figure 7-7. Bicycle Facilities - Carrboro



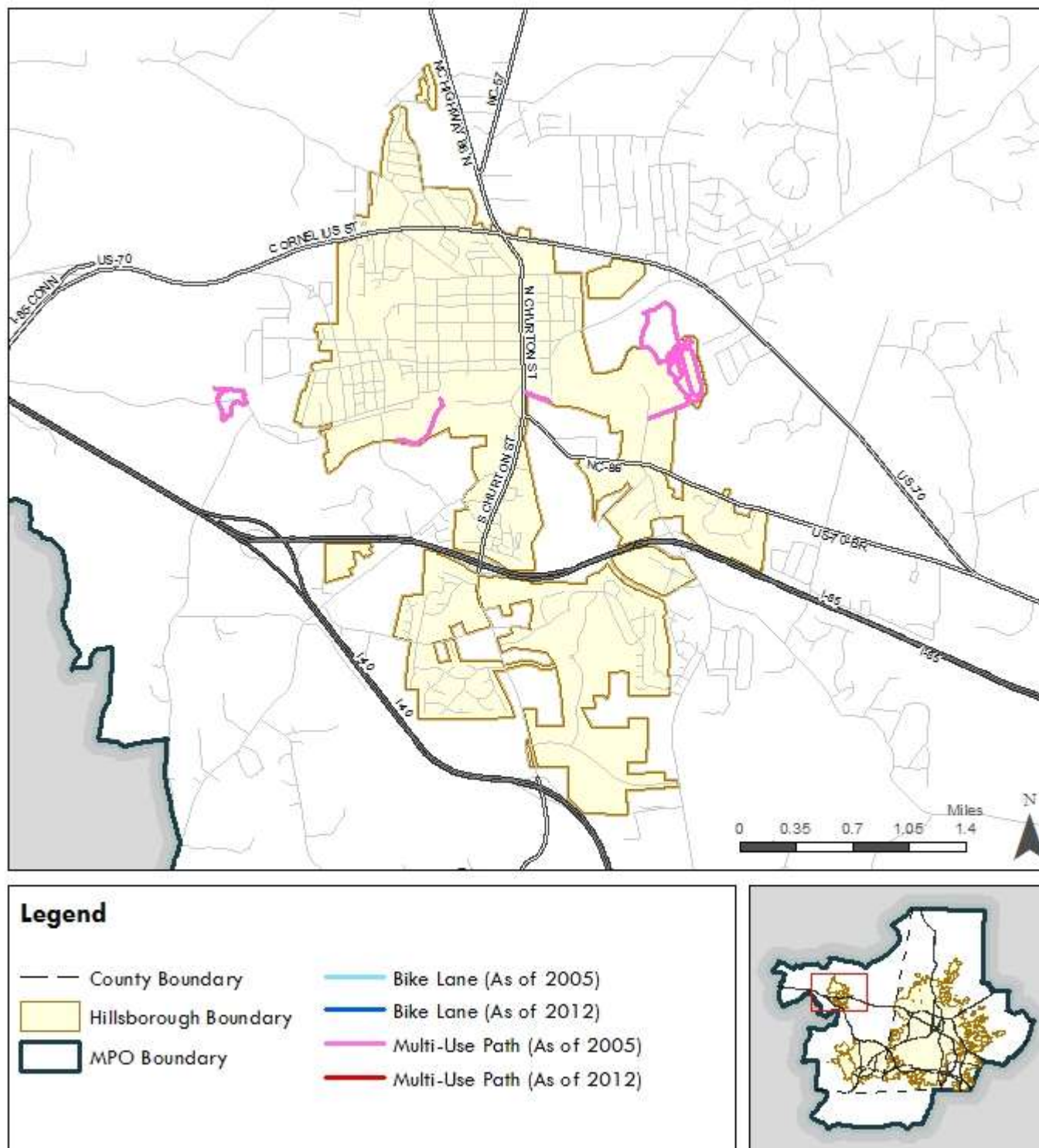
Hillsborough

Data was only available for multi-use paths in Hillsborough, which haven't changed over the past two years. Much of the path network exists in and around the historic Occoneechee Speedway, which has been converted to a trail.

Table 7-7. Bicycle Facility Centerline Mileage - Hillsborough

Facility	As of 2010	As of 2012	Change over time	
			Absolute (miles)	Percent
Multi-use Paths	4.5	4.5	-	n/a

Figure 7-8. Bicycle Facilities - Hillsborough





8. Bicyclist Activity

WHAT IS IT?

The MPO conducted bicyclist counts for a 12-hour period on a Tuesday, Wednesday, or Thursday, similar to how pedestrian counts are conducted. In order to supplement these counts, the MPO also collected data on bicyclists during turning movement counts at intersections. All told, the MPO counted bicyclists at 274 locations between September 2011 and June 2012.

Why does it matter?

The MPO counts bicyclists to assess how well existing facilities are performing, while also providing valuable data that can be used to evaluate future bicycle projects. Collecting activity data along a facility can garner some understanding of popular facilities, time-of-day changes, and necessary improvements. Generally, there are three ingredients necessary to promote bicyclist activity: presence of facilities, design of facilities, and land use. Bicycle lanes on less automobile congested roads, multi-use paths near or between parks, facilities situated or designed for commuting, and multi-use paths in rural areas can be stimuli to increased use of bicycles which could be a benefit to the local economy and, certainly, to individual health.

Moreover, if bicycle facilities are properly designed and maintained, this will encourage more use and people will want to ride more. When automobile and transit facilities are managed to encourage bicyclist activity, an all-round benefit can be observed.

METHODOLOGY

The easiest way to assess how current DCHC MPO bicycle facilities are performing is to analyze bicyclist activity. Bicyclist activity was measured as a head-count of bicyclists observed at a count location. Counts were performed on Tuesdays, Wednesdays and Thursdays (some conducted on Saturdays where indicated) over a consecutive 12-hour period (6:00 AM to 6:00 PM), from September to November 2011. As only 83 12-hour counts, including fifteen UNC-CH counts, were conducted, count data was augmented with bicyclist counts collected during turning movement counts (TMC's) and screenline counts performed from September to November 2011 and March to June 2012. It is noted that fifteen 12-hour UNC-CH counts were analyzed additionally.

SUMMARY:

CHANGE UNKNOWN



KEY FINDINGS

0.5% of all travel on the region's 95 primary corridors was done by bicycle.

10 highest bicycle counts are in Chapel Hill and Carrboro.

Highest Counts per City:

- **Carrboro:** 816 (Merritt Mill & Cameron Rd)
- **Chapel Hill:** 402 (Cameron & Pittsboro)
- **Durham:** 192 (Fayetteville & Cook)
- **Hillsborough:** 10 (Churton & Corbin)

Many high-volume bicycle routes connect universities and downtowns to dense residential areas.

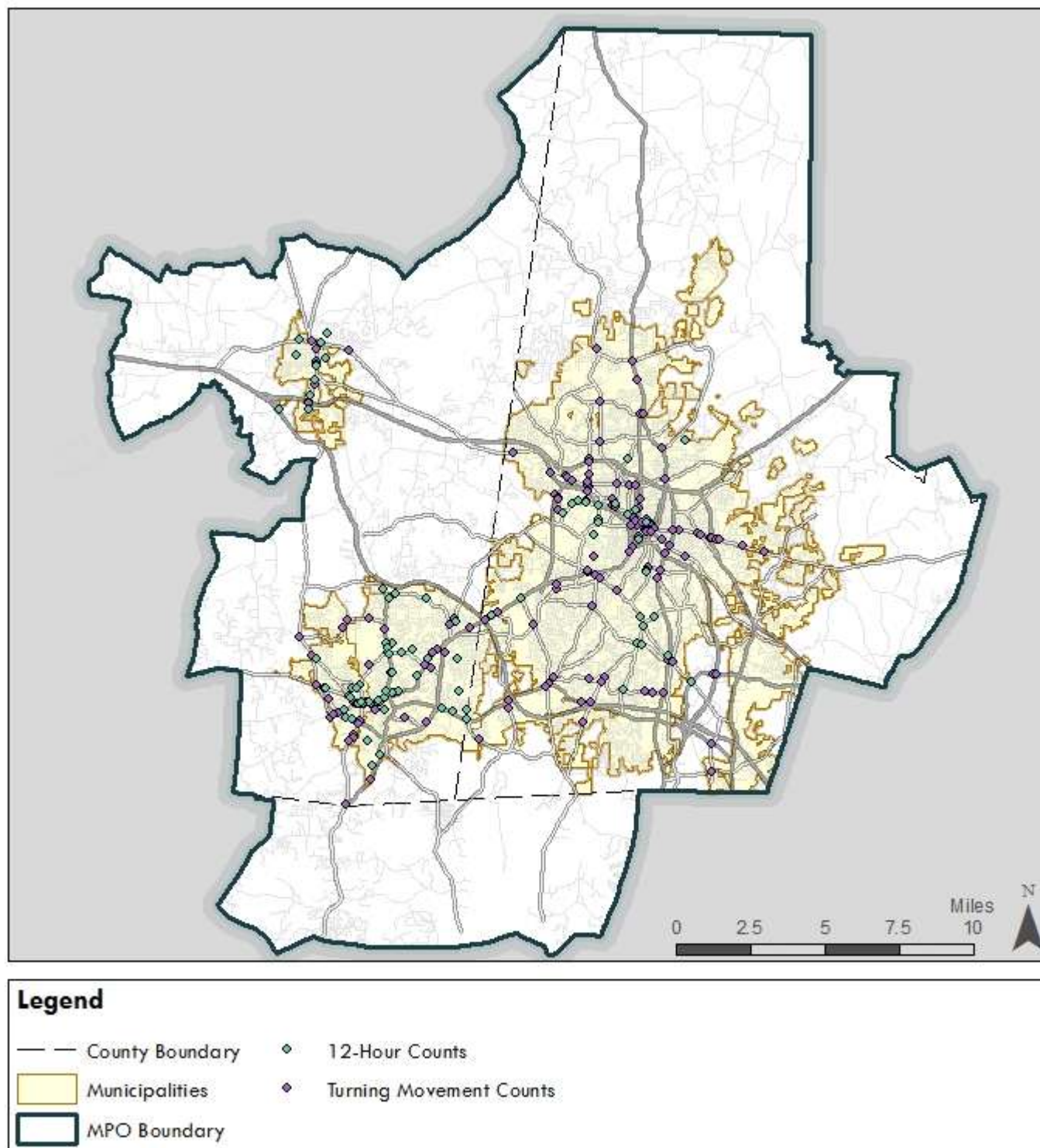
No 2005 data were available, so activity change is difficult to measure. Large increase in facilities points to possible activity increases.

More count locations are needed in the future to better understand regional bicyclist activity.

During TMC's and 12-hour counts, bicyclists were counted as they used either automobile, pedestrian or bicycle facilities at intersections or crosswalks between intersections. These counts provided excellent data for the facilities available at intersections (e.g., bicycle lanes, sidewalks, crossing lights, etc.). To properly evaluate bicycle facilities in the DCHC MPO, bicyclist activity **along** a facility was also counted; that is counting bicyclists on sidewalks, using bicycle lanes or using multi-use paths between intersections. These are screenline counts, and they provide the best data for evaluating bicyclist activity along available facilities, not just at an intersection.

One may notice some disparities between data collected during a TMC count and data collected during a 12-hour count for the same location. It is important to remember how variable bicyclist activity may be. And, although data was standardized for weather and time-of-year, small, unpredictable events may encourage or discourage bicyclist activity on that day of counting, especially from data collected at intersections. That is why it is important that future data collection efforts be directed towards screenline counts to more accurately ascertain bicyclist activity and evaluate bicycle facility performance.

Figure 8-1. Bicyclist Count Locations - DCHC MPO



Eighty-three 12-hour counts and nine screenline counts were performed. These counts were analyzed based on three two-hour peak periods throughout the day (AM [7:00 to 9:00], noon [11:00 AM to 1:00 PM] and PM [4:00 to 6:00])

184 turning movement counts were added to augment estimates of pedestrian activity

REGIONWIDE RESULTS

Two hundred seventy-four counts were done to monitor bicyclist activity within the DCHC MPO. Most of those counts (90.5%) recorded fewer than 100 bicyclists, and only eight (2.9%) recorded a six-peakhour activity of over 250 bicyclists (five locations in Chapel Hill and three in Carrboro). More counts are needed to provide a better idea of bicyclist activity in the DCHC MPO, with more of a focus on screenline techniques which allow for more generalizations of bicyclist activity to bicycle facilities present

Activity ranged from 816 cyclists at Merritt Mill Rd and Cameron Ave to zero cyclists at 45 count locations (16.4%). The 20 highest numbers from these counts were scattered around the DCHC MPO, with most occurring around the Town of Carrboro, the American Tobacco Trail and the Town of Chapel Hill (Table 8-1). Carrboro and Durham had the most mid-range counts of bicyclist activity, between 100 and 250 daily. No count in Hillsborough recorded more than 10 bicyclists.

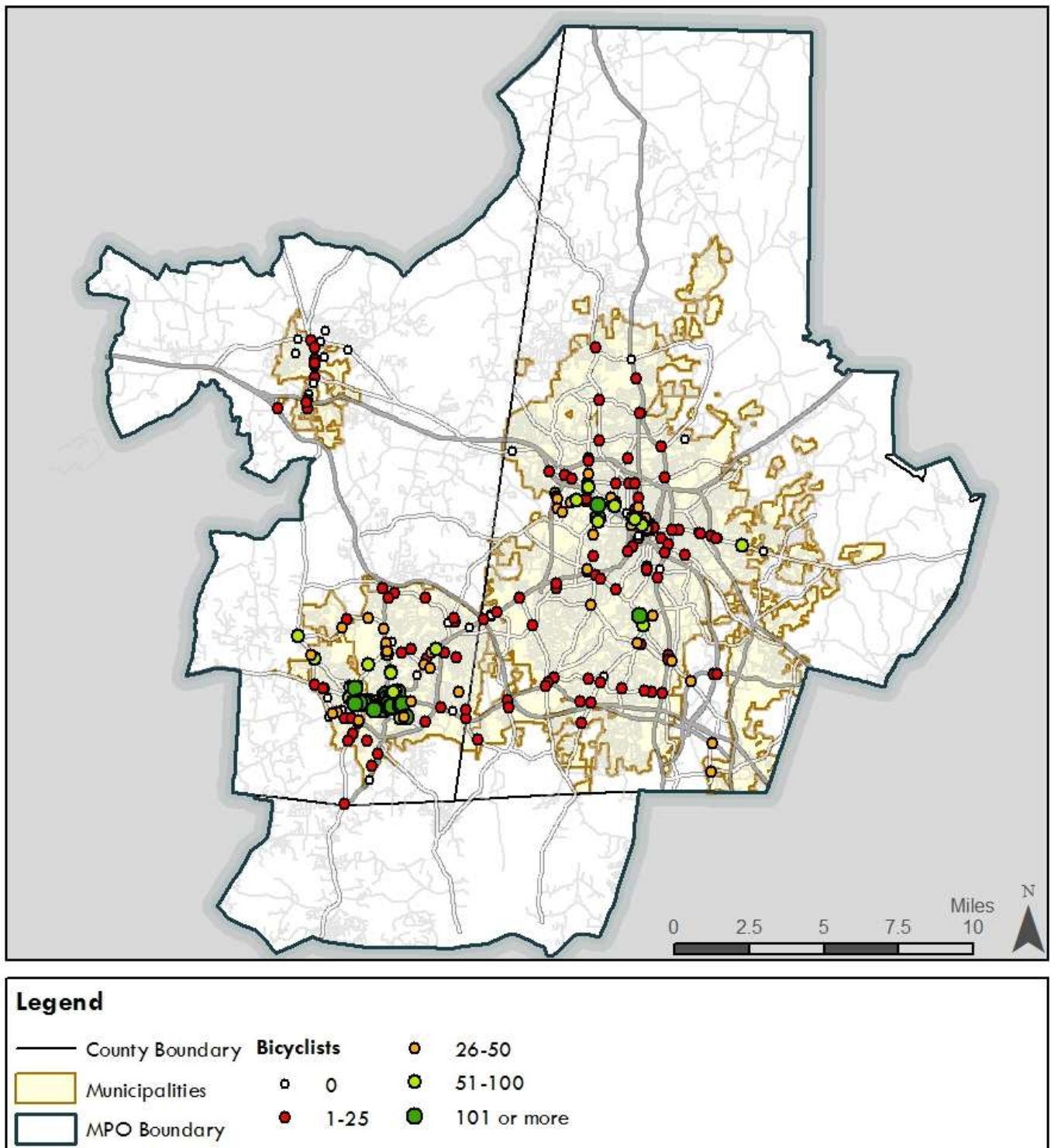
Most of the 135 counts included from 2005 (and earlier) were performed in and around UNC and the Town of Carrboro—and many of these locations were not revisited for data collection during 2011 or 2012. Among those historical counts, bicyclist activity ranged from 690 (Weaver St between Oak St and Lindsey St in 2005) to zero (Ephesus Church Rd and Pope Rd in 2005). Because of a lack of repeat data for many of these locations, direct comparisons are not available.

Table 8-1. Top 20 Six-Peakhour Period Bicyclists Volumes

Jurisdiction	Count Location	Bicyclist Vol.
Carrboro	MERRITT MILL RD AND CAMERON RD	816
Chapel Hill	CAMERON AVE AND PITTSBORO ST	402
Carrboro	LIBBA COTTON BIKE PATH AND ROBERSON ST	340
Chapel Hill	MCCAULEY ST AND RANSOM ST	326
Chapel Hill	SOUTH RD AND RALEIGH ST	322
Chapel Hill	PITTSBORO ST AND MCCAULEY ST	298
Chapel Hill	FRANKLIN ST AND COLUMBIA ST	297
Carrboro	MAIN ST AND JONES FERRY RD	259
Chapel Hill	COLUMBIA ST AND SOUTH RD	241
Carrboro	MAIN ST AND LLOYD ST	240
Carrboro	MAIN ST AND GREENSBORO ST	228
Carrboro	MAIN ST AND WEAVER ROBESON STS	196
Chapel Hill	COLUMBIA ST AND FRATERNITY COURT	194
Durham	FAYETTEVILLE ST AND COOK RD	192
Chapel Hill	MANNING DR AND RIDGE RD	183
Chapel Hill	FRANKLIN ST AND HENDERSON ST	177
Carrboro	GREENSBORO ST AND WEAVER ST	154
Chapel Hill	SOUTH RD AND STADIUM DR	153
Durham	ERWIN RD AND ANDERSON ST	150
Chapel Hill	ESTES DR AND GREENSBORO ST	147

These data represent six-hour volume data for bicyclists during three peak periods (AM [7:00 to 9:00], noon [11:00 to 13:00] and PM [16:00 to 18:00]).

Figure 8-2. Bicyclist Activity - DCHC MPO



RESULTS BY GEOGRAPHY

The following provides detailed results on bicyclist activity summarized by the four municipalities and Chatham County.

Durham

Out of the 146 locations counted in Durham, 19 (13%) failed to count any bicyclists. More than half (63.7%) recorded a six-peakhour activity of 20 or fewer bicyclists. Only five locations recorded 100 or more bicyclists. These counts were located on Erwin Rd, near Duke University and at Hillside High School.

KEY DATA RESULTS (Sep – Nov 2011 and Mar - Jun 2012)

Number of counts: 146

- 119 TMC's and 27 12-hour counts

Range of bicylist activity

- 192 (Fayetteville St and Cook Rd)

No. of counts with fewer than 100 bicylists

- 141 (96.6%)

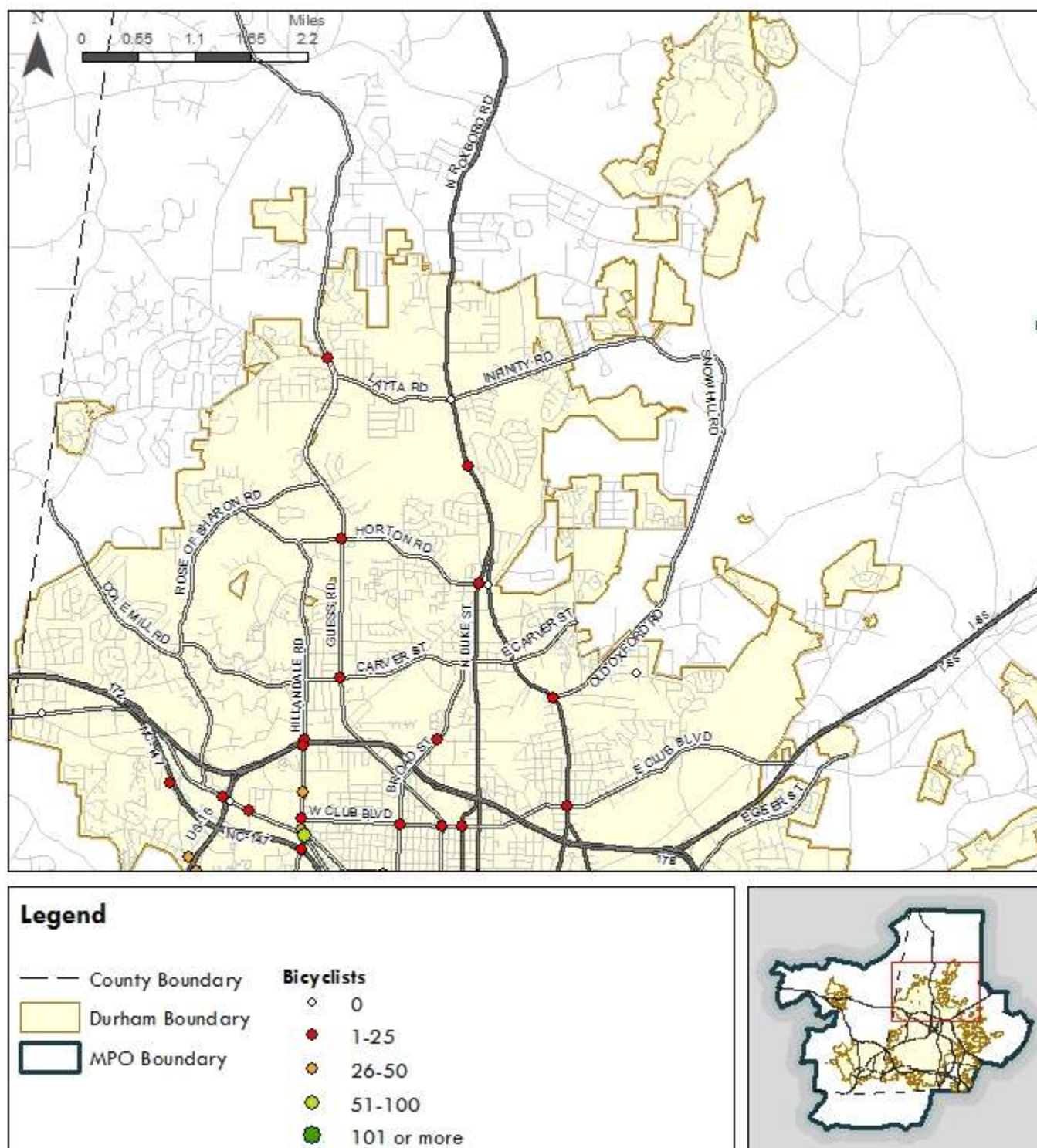
No. of counts with 20 or less bicylists

- 93 (63.7%)

No. of counts with 100 or more bicyclists

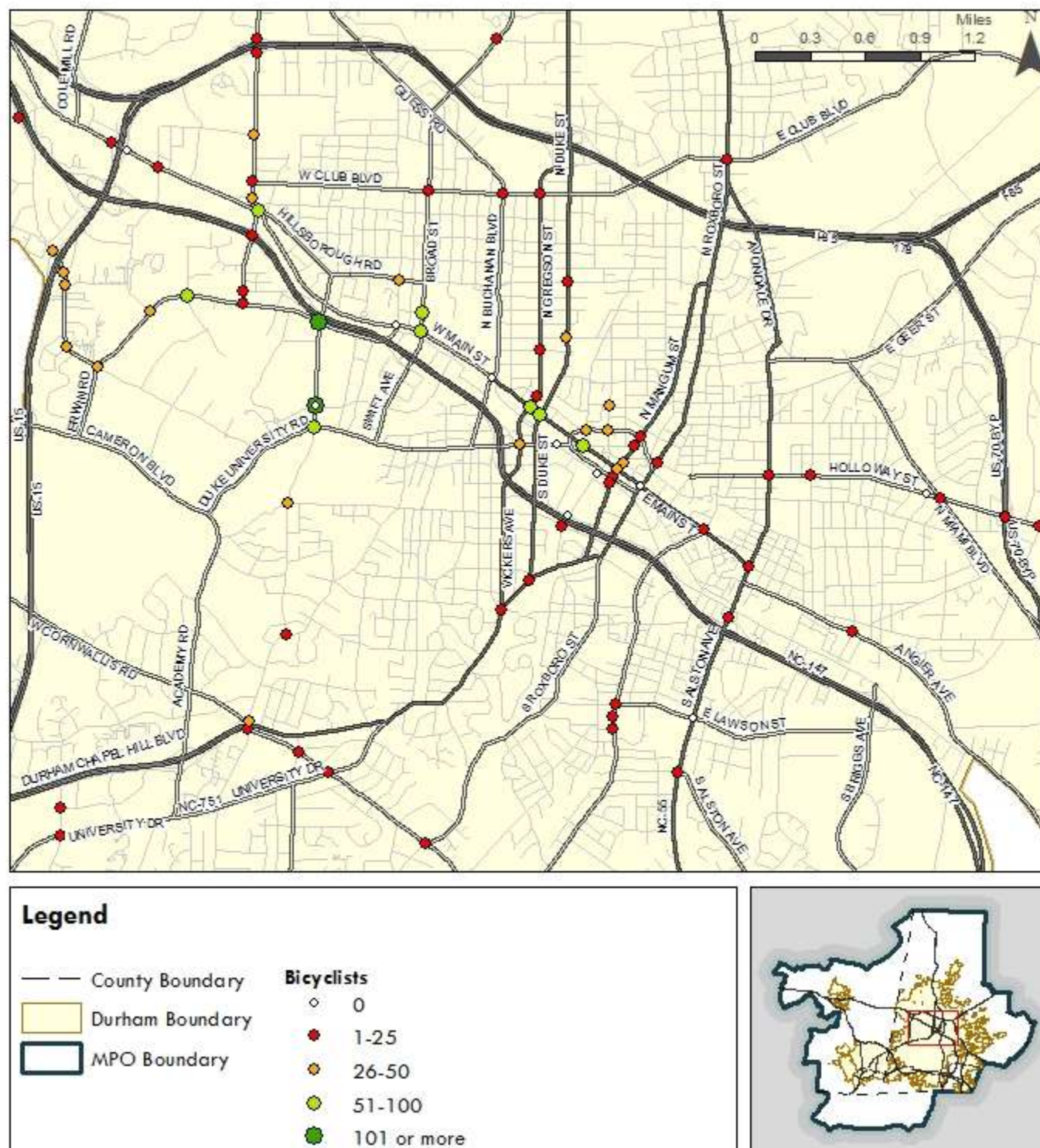
- 5 (3.4%) counts at Erwin Rd, near Duke University and Hillside High School

Figure 8-3. Bicyclist Activity - North Durham



Counts taken Sept-Nov 2011 and March-June 2012

Figure 8-4. Bicyclist Activity - Downtown Durham



Counts taken Sept-Nov 2011 and March-June 2012

Figure 8-5. Bicyclist Activity - South Durham

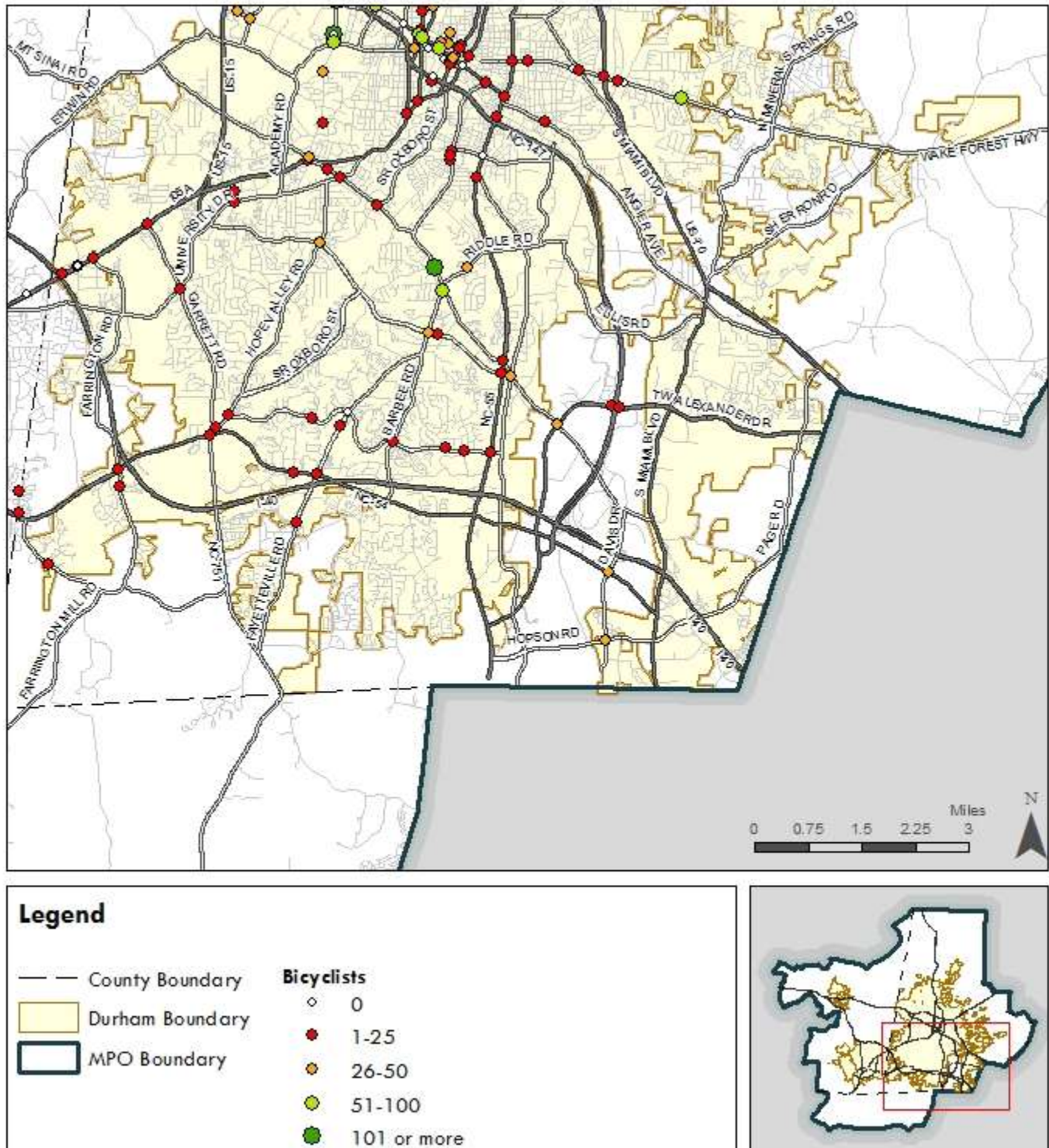


Table 8-2. Six-Peakhour Period Bicyclist Volumes - Durham

	Count Location	Bicyclist Volume
ALSTON AVE	ALSTON AVE AND CORNWALLIS RD	33
	ALSTON AVE AND HOLLOWAY ST	13
	ALSTON AVE AND MAIN ST	12
	ALSTON AVE AND GANN ST	5
	ALSTON AVE AND CECIL ST	2
	ALSTON AVE AND LAWSON ST	0
AMERICAN TOBACCO TRAIL (ATT)	AMERICAN TOBACCO TRAIL (ATT) AND MOREHEAD AVE	3
	ATT AND CORNWALLIS RD	54
	ATT AND RIDDLE RD	28
	ATT AND MLK PKWY	10
	ATT AND UNIVERSITY DR	117
	ATT AND MOREHEAD	116
	ATT AND WOODCROFT PKWY	92
	ATT S OF MLK @ FAYETTEVILLE	89
ANDERSON ST	ANDERSON ST AND CAMPUS DR	128
	ANDERSON ST AND DUKE UNIVERSITY RD	61
	ANDERSON ST AND MOREHEAD AVE	27
	ANDERSON ST AND CHAPEL HILL RD	14
ANGIER AVE	ANGIER AVE AND DRIVER ST	19
BLACKWELL ST	BLACKWELL ST AND PETTIGREW ST	0
	BLACKWELL ST AND JACKIE ROBINSON DR	0
BROAD ST	BROAD ST AND PERRY ST	53
	BROAD ST AND MURRAY AVE	20
	BROAD ST AND W.CLUB BLVD	18
BROAD ST BTWN GREEN ST	BROAD ST BTWN GREEN ST AND MARKHAM AVE	21
CARPENTER FLETCHER RD	CARPENTER FLETCHER RD AND WOODCROFT PKWY	12
	CARPENTER FLETCHER RD AND BEND DR	7
CHAPEL HILL ST	CHAPEL HILL ST AND PETTIGREW ST	0
CLUB BLVD	CLUB BLVD AND BUCHANAN BLVD	13
	CLUB BLVD AND GREGSON ST	9
CORNWALLIS RD	CORNWALLIS RD*	16
	CORNWALLIS RD AND CHAPEL HILL RD (WO SIGNAL)	36
	CORNWALLIS RD AND TW ALEXANDER	30
	CORNWALLIS RD AND CHAPEL HILL RD (W SIGNAL)	20
	CORNWALLIS RD AND NC 55	17
	CORNWALLIS RD AND UNIVERSITY DR	12
	CORNWALLIS RD AND S ROXBORO ST	7
	CORNWALLIS RD E OF TW ALEXANDER DR	11
DAVIS DR	DAVIS DR AND HOPSON RD	44
DEARBORN DR	DEARBORN DR AND MARTIN ST	0
DUKE ST	DUKE AND MARKHAM AVE	16
	DUKE ST AND MAIN ST	63
	DUKE ST AND W TRINITY AVE	42
	DUKE ST AND UNIVERSITY DR	14
	DUKE ST AND HORTON RD	3
DURHAM-CHAPEL HILL BLVD	DURHAM-CHAPEL HILL AND GARRETT RD	1
	DURHAM-CHAPEL HILL BLVD AND MT MORIAH RD	2
	DURHAM-CHAPEL HILL BLVD AND I-40 WB RAMP	1
	DURHAM-CHAPEL HILL BLVD AND GARRETT RD	0
	DURHAM-CHAPEL HILL BLVD AND I-40 EB RAMP	0
	DURHAM-CHAPEL HILL BLVD AND SW DURHAM DR	3

	Count Location	Bicyclist Volume
ERWIN RD	ERWIN RD AND ANDERSON ST	150
	ERWIN RD AND MORRENE RD	30
	ERWIN RD AND DOUGLAS ST	19
	ERWIN RD AND FULTON ST	13
	ERWIN RD AND LASALLE ST	37
	ERWIN RD AND RESEARCH DR	58
	ERWIN RD AND FULTON RD	24
FAYETTEVILLE RD	FAYETTEVILLE RD AND BRANT ST	13
	FAYETTEVILLE RD AND RENAISSANCE PKWY	9
	FAYETTEVILLE RD AND NC54	8
	FAYETTEVILLE RD AND GENEVA DR	5
	FAYETTEVILLE ST AND MLK PKWY	37
	FAYETTEVILLE ST AND FORMOSA AVE	7
	FAYETTEVILLE ST AND COOK RD	192
	FAYETTEVILLE ST AND MLK JR PKWY	45
	FAYETTEVILLE ST AND LAWSON ST	21
FOSTER ST	FOSTER ST AND GREAT JONES ST	28
	FOSTER ST AND MORGAN ST	46
	FOSTER ST AND HUNT ST	41
FULTON ST	FULTON ST AND ELBA ST	24
GARRETT RD	GARRETT RD AND OLD CHAPEL HILL RD	14
GREGSON ST	GREGSON ST AND MINERVA AVE	1
	GREGSON ST AND CHAPEL HILL ST	38
	GREGSON ST AND W MORGAN ST	14
GUESS RD	GUESS RD AND UMSTEAD RD	7
	GUESS RD AND CARVER ST	3
	GUESS RD AND HORTON RD	3
HILLANDALE	HILLANDALE RD AND SPRUNT AVE	33
	HILLANDALE RD AND CREST DR	26
	HILLANDALE RD-FULTON ST AND NC-147	25
	HILLANDALE RD AND CLUB BLVD	20
	HILLANDALE RD AND US 15-501 SB RAMPS	15
	HILLANDALE RD AND OF US 15-501 NB RAMPS	12
HILLSBOROUGH RD	HILLSBOROUGH RD AND MAIN ST	84
	HILLSBOROUGH RD AND MARKHAM AVE AND 9TH ST	32
	HILLSBOROUGH RD AND LASALLE ST	18
	HILLSBOROUGH RD AND US 15-501 SB	10
	HILLSBOROUGH RD AND SPARGER RD	0
	HILLSBOROUGH RD (US 70 BUS) AND US 15-501	0
HOLLOWAY ST	HOLLOWAY ST AND LYNN RD	83
	HOLLOWAY ST AND ROXBORO ST	21
	HOLLOWAY ST AND ALSTON AVE	10
	HOLLOWAY ST AND HYDE PARK AVE	9
	HOLLOWAY ST AND HOOVER RD	7
	HOLLOWAY ST AND US 70 BUS EB	4
	HOLLOWAY ST AND RAYNOR ST	0
	HOLLOWAY ST AND US 70 BUS WB RAMP	0
	HOLLOWAY ST AND CLAYTON RD	0
HOPE VALLEY RD	HOLLOWAY ST AND JUNCTION RD	0
	HOPE VALLEY RD AND W CORNWALLIS RD	10
	HOPE VALLEY RD AND WOODCROFT PKWY	9
	HOPE VALLEY RD AND GARRETT RD	5

	Count Location	Bicyclist Volume
MAIN ST	MAIN ST AND BUCHANAN BLVD	0
	MAIN ST AND MORRIS ST	83
	MAIN ST AND SWIFT AVE	61
	MAIN ST AND GREGSON ST	56
	MAIN ST AND FAYETTEVILLE ST	17
	MAIN ST AND ROXBORO ST	0
	MAIN ST AND NINTH ST	0
	MAIN ST BTWN ROXBORO AND CHURCH	34
MANGUM ST	MANGUM ST AND PARRISH ST	48
	MANGUM ST AND MAIN ST	27
	MANGUM ST AND CHAPEL HILL ST	16
	MANGUM ST AND PETTIGREW	15
	MANGUM ST AND MORGAN	10
	MANGUM ST AND RAMSEUR ST	8
MIAMI BLVD	MIAMI BLVD AND HOLLOWAY ST	4
MLK PKWY	MLK PKWY AND HOPE VALLEY RD	29
MORGAN ST	MORGAN ST AND MORRIS AVE	26
MORRENE RD	MORRENE RD AND CAMPUS WALK AVE	39
	MORRENE RD AND MORDECAI ST	37
	MORRENE RD AND US 15-501 NB (WO SIGNAL)	35
	MORRENE RD AND US 15-501 SB (W SIGNAL)	30
	MORRENE RD AND NEAL RD	20
NC 54	NC 54 AND DAVIS DR	28
	NC 54 AND ROLLINGWOOD DR	12
	NC 54 AND NC 751	5
NC 55	NC 55 AND CORNWALLIS RD	3
	NC 55 AND CARPENTER FLETCHER RD	2
	NC-55 AND MLK PKWY	5
R KELLY BRYANT BRIDGE/LAKEL	R KELLY BRYANT BRIDGE/LAKELAND AVE	3
ROXBORO ST	ROXBORO AND CLUB BLVD	9
	ROXBORO ST AT THIRD FORK CREEK TRAIL	35
	ROXBORO ST AND SEVEN OAKS RD	2
	ROXBORO ST AND OLD OXFORD RD	1
	ROXBORO ST AND HORTON ST	0
	ROXBORO ST AND LATTI RD	0
SHANNON RD	SHANNON RD AND AUTO DR	2
TW ALEXANDER DR	TW ALEXANDER DR AND NC 147 INTERCHANGE W RAMP	3
	TW ALEXANDER DR AND NC 147 INTERCHANGE E RAMP	1
UNIVERSITY DR	UNIVERSITY DR AND VICKERS AVE	7
	UNIVERSITY DR AND SHANNON RD	5
WOODCROFT PKWY	WOODCROFT PKWY AND BARBEE RD	1
	WOODCROFT PKWY AND FAYETTEVILLE RD	0
	WOODCROFT PKWY AND HIGHGATE DR	22

Turning Movement Counts (TMC's), 12-hour counts and screenline counts performed during main peak periods: AM (7:00-9:00), noon (11:00-13:00) and PM (16:00-18:00). Counts taken Sept-Nov 2011 and March-June 2012.

Chapel Hill

Out of the 70 count locations in Chapel Hill, 10 (14%) failed to count any bicyclists. More than half (54%) recorded a six-peakhour activity of 30 or fewer bicyclists. Thirteen locations recorded 100 or more bicyclists. These counts were located on McCauley St, Estes Dr and near UNC-CH.

KEY DATA RESULTS (Sep – Nov 2011 and Mar -Jun 2012)

Number of counts: 70

- 27 TMC's, 43 12-hour counts

Range of bicyclist activity

- 402 (Cameron Ave and Pittsboro St)

No. of counts with fewer than 100 bicyclists

- 57 (81%)

No. of counts with 30 or less bicyclists

- 38 (54%)

No. of counts with 100 or more bicyclists

- 13 (19%) counts at McCauley St, Estes Dr and UNC-CH

Figure 8-6. Bicyclist Activity - Chapel Hill

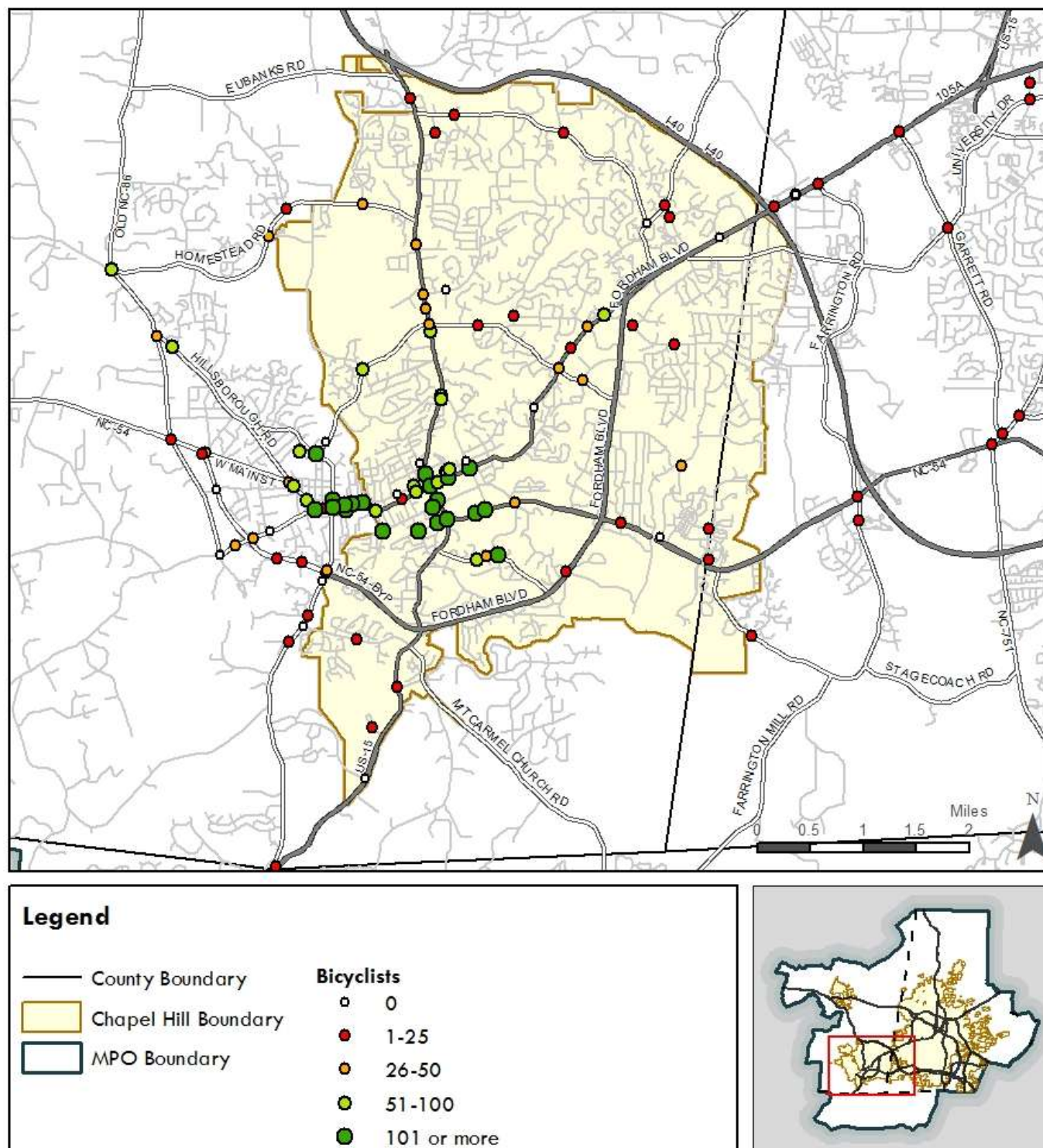


Table 8-3. Six-Peakhour Period Bicyclist Volumes - Chapel Hill

Count Location		Bicyclist volume
From 12-hour Count Data		
BOLIN CREEK TRAIL	MLK BLVD AND BOLIN CREEK TRAIL	76
	FRANKLIN ST AND BOLIN CREEK TRAIL	0
BURNING TREE DR	BURNING TREE DR AND PINEHURST DR	27
CAMERON AVE	CAMERON AVE AND PITTSBORO ST	402
COLUMBIA ST	COLUMBIA ST AND FRATERNITY COURT	194
	COLUMBIA ST AND SOUTH RD	241
	COLUMBIA ST NORTH OF ROSEMARY ST	103
CURTIS RD	CURTIS RD AND ELLIOT RD	6
EPHESUS CHURCH RD	EPHESUS CHURCH RD AND CHURCHILL DR	7
ESTES DR	ESTES DR AND CASWELL RD	15
	ESTES DR AND GREENSBORO ST	147
FRANKLIN ST	FRANKLIN ST AND CHURCH ST	88
	FRANKLIN ST AND COLUMBIA ST	297
	FRANKLIN ST AND ELIZABETH ST	4
	FRANKLIN ST AND HENDERSON ST	177
	FRANKLIN ST AND HILLSBOROUGH RD	108
	FRANKLIN ST AND KENAN ST	24
	FRANKLIN ST AND OLD FRATERNITY ROW	85
MANNING DR	MANNING DR AND RIDGE RD	183
	MANNING DR AND W OF PAUL HARDIN DR	85
MCCAULEY ST	MCCAULEY ST AND RANSOM ST	326
MEADOWMONT LN	MEADOWMONT LN AND SPRUNT LN	15
	MEADOWMONT LN AND VILLAGE CROSSING DR	4
MLK BLVD	MLK BLVD AND CROSSWALK	0
	MLK BLVD AND PERKINS DR	3
	MLK BLVD AND SHADOW DR	29
	MLK BLVD AND YMCA DRIVEWAY	52
NC 54	NC 54 AND HAMILTON RD	15
PINEHURST DR	PINEHURST DR AND MEADOWMONT BIKE PATH	0
PINEY MOUNTAIN RD	PINEY MOUNTAIN RD AND WOODSHIRE LN	0
PITTSBORO ST	PITTSBORO ST AND MCCAULEY ST	298
ROSEMARY ST	ROSEMARY ST AND CHURCH ST	64
	ROSEMARY ST AND HENDERSON ST	21
	ROSEMARY ST AND HILLSBOROUGH ST	0
	ROSEMARY ST AND PARKING LOT	0
SAGE RD	SAGE RD AND OLD STERLING DR	8
SOUTH RD	SOUTH RD AND COUNTRY CLUB RD	48
	SOUTH RD AND RALEIGH ST	322
	SOUTH RD AND STADIUM DR	153
US 15-501	US 15-501 AND BENNETT RD	4
WEAVER DAIRY RD	WEAVER DAIRY RD AND DRIVEWAY	6
	WEAVER DAIRY RD AND SUNRISE LN	2
WESTMINSTER DR	WESTMINSTER DR AND BANKS DR	11

Count Location		Bicyclist volume
From TMC Count Data		
BARBEE CHAPEL RD.	BARBEE CHAPEL RD. AND DOWNING CREEK PKWY	6
EPHESUS CHURCH RD	EPHESUS CHURCH RD AND LEGION RD	16
ESTES DR	ESTES DR AND SEAWELL SCHOOL RD	53
	ESTES DR AND FRANKLIN ST	31
	ESTES DR AND WILLOW DR	27
FARRINGTON RD	FARRINGTON RD AND FARMINGTON DR	4
FORDHAM BLVD	FORDHAM BLVD AND OLD MASON FARM RD	11
FRANKLIN ST	FRANKLIN ST AND MERRITT MILL RD	92
	FRANKLIN ST AND EASTGATE SHOPPING CENTER	58
	FRANKLIN ST AND ELLIOTT RD	42
HOMESTEAD RD	HOMESTEAD RD AND OLD NC 86	79
	HOMESTEAD RD AND WEAVER DAIRY RD	35
	HOMESTEAD RD AND HIGH SCHOOL RD	31
	HOMESTEAD RD AND ROGERS RD	15
MLK BLVD	MLK BLVD AT UMSTEAD DR	73
	MLK BLVD AND PINEY MOUNTAIN RD	45
	MLK BLVD AND NORTHFIELD DR	34
	MLK BLVD AND ESTES DR	29
NC 54	NC 54 AND FARRINGTON RD	7
ROSEMARY ST	ROSEMARY ST AND ROBERSON ST	84
SAGE RD	SAGE RD AND ERWIN RD	5
US 15-501	US 15-501 AND SMITH LEVEL RD	6
	US 15-501 AND I-40 WB OFF ON RAMP	1
	US 15-501 AND I-40 EB OFFON RAMP	0
	US 15-501 AND DOGWOOD ACRES DR	0
	US 15-501 AND WEST EASTOWNE DR	0
WEAVER DAIRY RD	WEAVER DAIRY RD AND ERWIN RD	0

Data was collected Sept-Nov 2011 during peak traffic periods: AM (7:00-9:00), noon (11:00-13:00) and PM (16:00-18:00) peak traffic periods.

Carrboro

Out of the 39 counts performed in Carrboro, 7 (18%) failed to count any bicyclists. More than half (51%) recorded a six-peakhour period activity of 30 or fewer bicyclists. Eight locations recorded 100 or more bicyclists. These counts were located on Merritt Mill Rd, Libba Cotton Bike Path, Main St and Greensboro St.

KEY DATA RESULTS (Sep – Nov 2011 and Mar - Jun 2012)

Number of counts: 39

- 21 TMC's, 18 12-hour counts

Range of bicylist activity

- 816 (Merritt Mill Rd and Cameron Ave)
- 0 (7 counts or 17.9%)

No. of counts with fewer than 100 bicylists

- 31 (79.5%)

No. of counts with 20 or less bicylists

- 15 (38.5%)

No. of counts between 100 -250 bicylists

- 5 (12.8%)

No. of counts with 250 or more bicylists

- 3 (7.7%) counts at Merritt Mill Rd and Cameron Ave, Libba Cotton Greenway at Roberson St; and Main St and Jones Ferry Rd

Figure 8-7. Bicyclist Activity - Carrboro

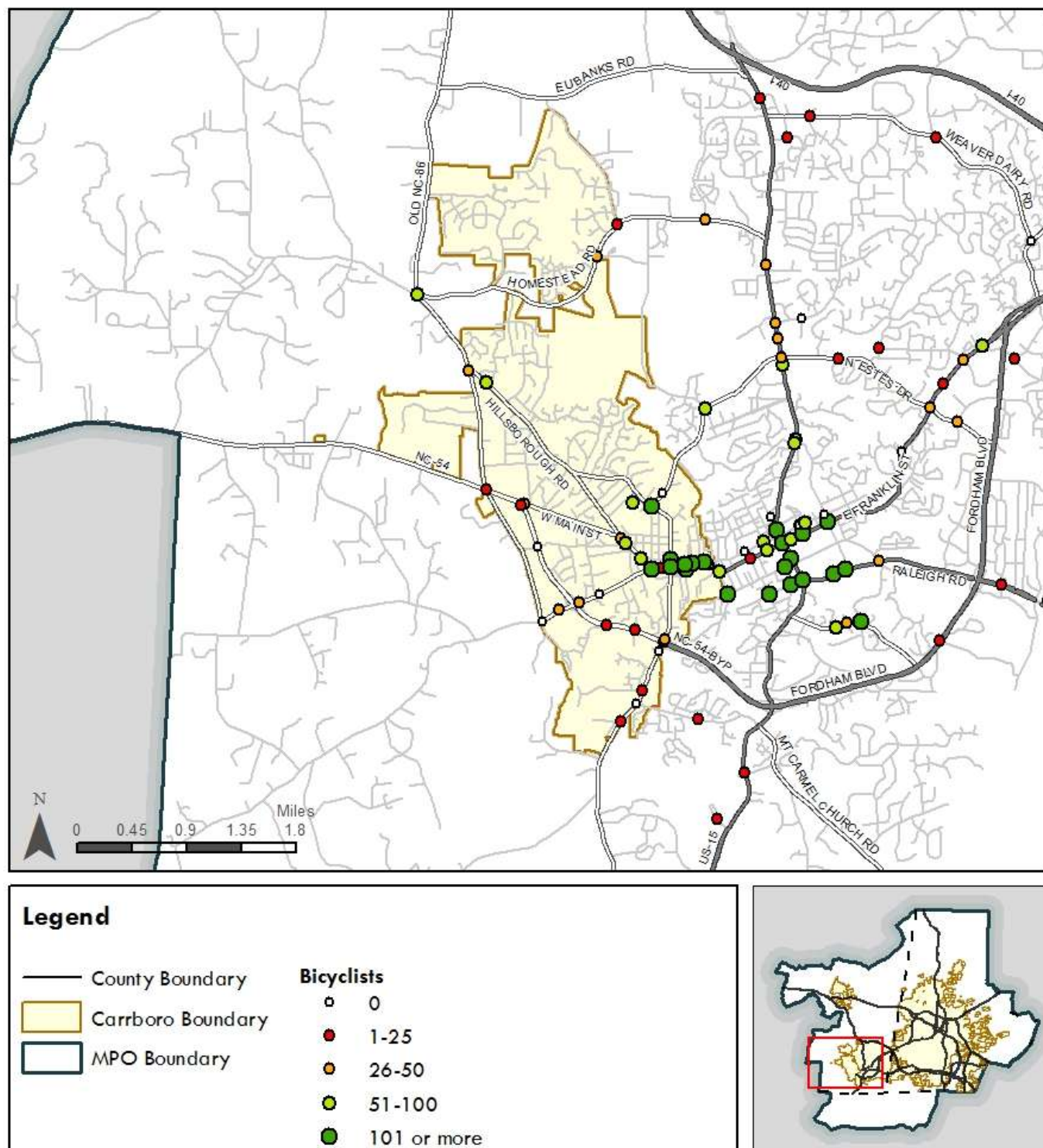


Table 8-4. Six-Peakhour Period Bicyclist Volumes - Carrboro

Count Location		Bicycle Volume
<i>From 12 hour count data</i>		
CULBRETH RD	CULBRETH RD WEST OF ADAMS WY	11
ESTES DR	ESTES DR BTWN GREENSBORO AND HILLCREST	0
GREENSBORO ST	GREENSBORO ST AND WEAVER ST	154
	GREENSBORO ST AND BIKEPATH	61
HILLSBOROUGH RD	HILLSBOROUGH RD AND CROSSWALK	81
JONES FERRY RD	JONES FERRY RD BTWN BARNES ST AND DAVIE ST	0
LIBBA COTTON BIKE PATH	LIBBA COTTON BIKE PATH AND ROBERSON ST	340
MAIN ST	MAIN ST AND HILLSBOROUGH RD	39
	MAIN ST AND JAMES ST	29
	MAIN ST AND POPLAR AVE	66
	MAIN ST BTWN GREENSBORO ST AND WEAVER ST	83
	MAIN ST BTWN JONES FERRY RD AND GREENSBORO ST	15
	MAIN ST BTWN LLOYD ST AND ROSEMARY ST	38
	MAIN ST BTWN ROSEMARY AND MERRITT MILL	47
	MARKET ST AND ABERDEEN DR	1
MLK BLVD	MLK BLVD AND HILLSBOROUGH ST	34
NC 54 BYPASS	NC 54 BYPASS AND ABBEY LN	4
	NC 54 BYPASS AND WESTBROOK DR	13
<i>From TMC count data</i>		
GREENSBORO ST	GREENSBORO ST AND MERRITT MILL RD	34
HILLSBOROUGH RD	HILLSBOROUGH RD AND OLD FAYETTEVILLE RD	30
JONES FERRY RD	JONES FERRY RD AND NC 54 NB RAMPS	40
	JONES FERRY RD AND NC 54 SB RAMPS	0
	JONES FERRY RD AND OLD FAYETTEVILLE RD	0
	JONES FERRY RD AND WILLOW CREEK SHOPPING CENTER	29
	MAIN ST AND GREENSBORO ST	228
MAIN ST	MAIN ST AND JONES FERRY RD	259
	MAIN ST AND LLOYD ST	240
	MAIN ST AND NC 54 BYPASS	9
	MAIN ST AND ROSEMARY ST	143
	MAIN ST AND WEAVER ROBESON STS	196
	MAIN ST AND WEAVER ST	83
MERRITT MILL RD	MERRITT MILL RD AND CAMERON RD	816
NC 54	NC 54 AND OLD FAYETTEVILLE RD	21
	NC 54 AND POPLAR AVE	0
SMITH LEVEL RD	SMITH LEVEL RD AND BPW CLUB RD AND	3
	SMITH LEVEL RD AND CULBRETH RD	0
	SMITH LEVEL RD AND NC 54 SB RAMP	23
	SMITH LEVEL RD AND PUBLIC WORKS DR	0
	SMITH LEVEL RD AND ROCK HAVEN RD	7

These data are presented as bicyclist activity during the main peak periods of traffic activity: AM (7:00-9:00), noon (11:00 AM-1:00 PM) and PM (4:00-6:00).

Hillsborough

Out of the 19 located counted in Hillsborough, about half (47.4%) failed to count any bicyclists, and no counts exceeded 10 bicyclists. Most counts were focused on Churton St. Future counts should explore bicyclist activity on local multi-use paths and areas away from busy Churton St.

KEY DATA RESULTS (Sep – Nov 2011 and Mar - Jun 2012)

Number of counts: 19

- 9 TMC's, 10 12-hour counts

Range of bicylist activity

- 10 (Churton St and Corbin St)

Figure 8-8. Bicyclist Activity - Hillsborough

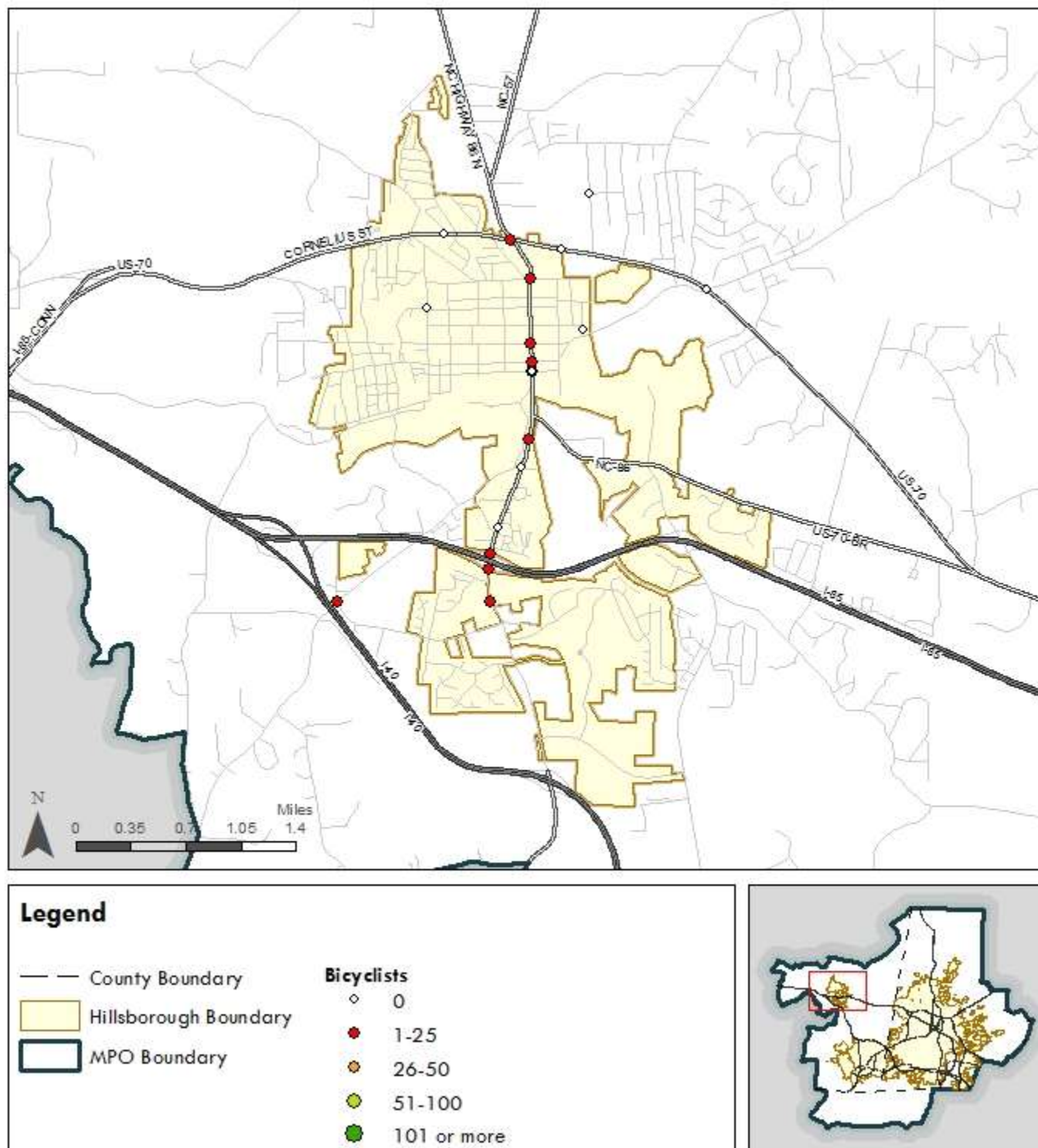


Table 8-5. Six-Peakhour Period Bicyclist Volumes - Hillsborough

Count Location	Bicyclist Vol.
<i>From 12-hour count data</i>	
HILL ST AND CORNELIUS ST	0
NASH ST AND UNION ST	0
ORANGE GROVE RD AND OAKDALE DR	1
ORANGE HIGH SCH RD BTWN HAROLD LATTA RD AND US 70	0
CHURTON ST AND MARGARET LN	5
CHURTON ST BTWN US 70 AND ORANGE GROVE RD	10
CHURTON ST BTWN WINDMILL ST AND MAYO ST	0
CHURTON ST BTWN CARDINAL DR AND CLARENCE WALTERS RD	1
THOMAS RUFFIN ST BTWN ST MARYS AND QUEEN ST	0
US 70 BTWN CHURTON AND ORANGE HIGH SCH	0
<i>From TMC count data</i>	
CHURTON ST AND I-85 SOUTH RAMP	2
CHURTON ST AND I-85 NORTH RAMP	0
CHURTON ST AND ORANGE GROVE	0
CHURTON ST AND US 70 BUS	1
CHURTON ST AND EXCHANGE PARK LN	8
CHURTON ST AND KING ST	6
CHURTON ST AND TYRON	3
CHURTON ST AND CORBIN ST	10
US 70 AND ST MARYS	0

These data are presented as bicycle activity during AM (7:00-9:00), noon (11:00-13:00) and PM (16:00-18:00) peak traffic periods.



9. Pedestrian and Bicyclist Safety

WHAT IS IT?

The MPO tracks fatalities and injuries from collisions between vehicles and pedestrians or bicyclists on the 95 regionally-significant corridors included in the MPO's Congestion Management Plan (CMP). The data cover the five-year period of January 1, 2008 to December 31, 2012.

Why does it matter?

The MPO can reduce crashes, injuries, and fatalities by improving areas with a high crash rate. Therefore, the MPO collects data to identify locations in need of safety improvements, detect locations for new pedestrian and bicycle facilities, and assure citizens that facilities are safe.

METHODOLOGY

Pedestrian and bicyclist safety was assessed using vehicle-collision data involving pedestrians or bicyclists from 1 January 2008 to 31 December 2012 using NCDOT's Traffic Engineering Accident Analysis System (TEASS). Data were available for Congestion Management Process (CMP) corridors in the DCHC MPO.

As with vehicle safety (see Chapter 4, pg.4-1), because the CMP corridors are often paired and include interstates, major arterial facilities, secondary facilities, etc., they were deemed a reliable, representative sample of all vehicle facilities within the MPO.

SUMMARY

CONDITIONS WORSENERD



KEY FINDINGS

Collision data collected on 95 regionally-significant corridors.

513 crashes involving bicycles or pedestrians occurred on those corridors during the five-year period.

- 346 pedestrian collisions
 - 93% of collisions reported injury
 - 21 pedestrian fatalities
- 167 bicycle collisions
 - 90% of collisions reported injury
 - 2 bicyclist fatalities

42 percent of the reported crashes were in Downtown Durham, though more fatalities were recorded on South Durham roadways

There are no clear trends in crashes, injuries, or fatalities over the five-year period.

Collected data were sufficient to spot system-level trends, but they only capture a portion of the total crashes in the region.

REGIONWIDE RESULTS

In the five-year period ending 2012, 513 pedestrian or bicyclist collisions were recorded. Of these, 346 (67.4%) involved pedestrians, with 21 resulting in a fatality. The remaining 167 collisions (32.6%) involved bicyclists and resulted in 2 fatalities. Pedestrians, bicyclists, and drivers are all included in the number of injuries, and collisions may involve more than one pedestrian or bicyclist. Therefore, the number of injuries may exceed the number of accidents. A pedestrian or bicyclist was much more likely to be injured than not, with 93% of pedestrian collisions and 90% of bicycle collisions reporting at least one injury.

Fatalities were highest in 2008, but have been increasing every year from 2010-2012 (Table 9-1). Pedestrian injuries have also increased during the same period. However, injuries involving bicyclists remain fairly consistent and are lower than those for pedestrians (Table 9-1).

Regionally, South Durham had the highest number of fatalities, followed by Chapel Hill (Table 9-3; Table 9-5). The highest number of total injuries were recorded in Downtown Durham. This trend followed for injuries to bicyclists and pedestrians (Tables 9-3 and 9-5).

Table 9-1. Annual Pedestrian and Bicyclist Collisions

Year	Fatalities	Injuries	No Injuries	Collisions
2008	10	98	8	100
2009	1	78	8	85
2010	2	76	6	78
2011	3	105	10	111
2012	7	135	10	139
Total	23	492	42	513

Figure 9-1. Annual Pedestrian Collision Severity

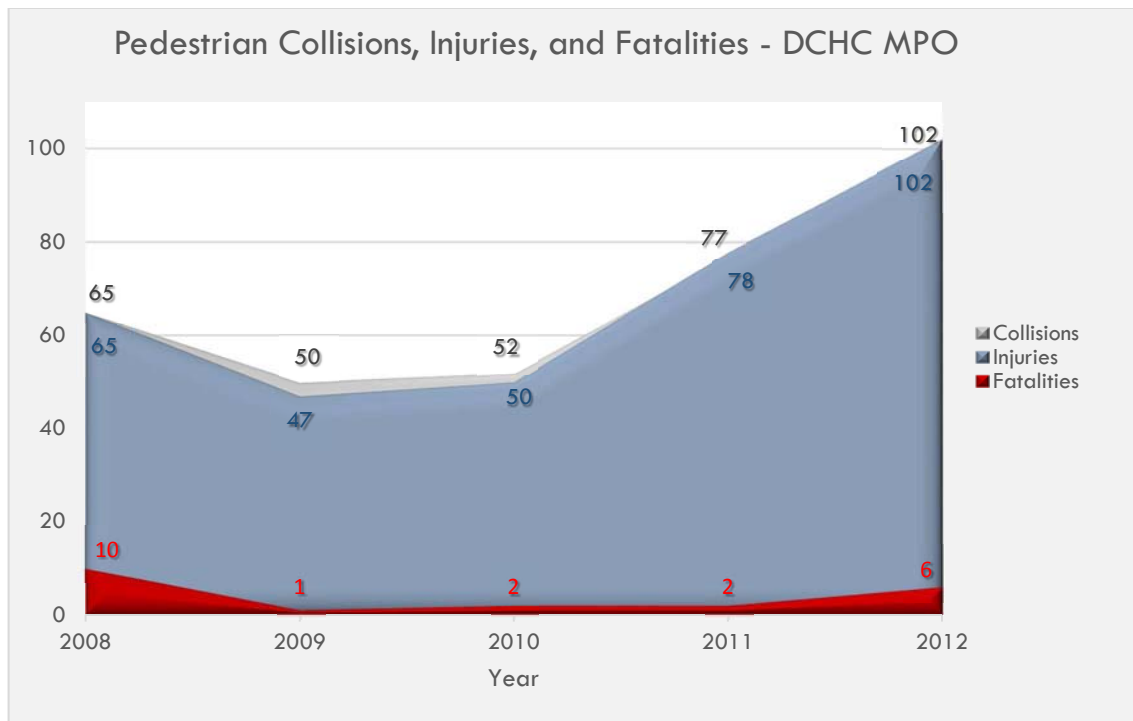


Table 9-2. Pedestrian Collisions - DCHC MPO

Year	Fatalities	Injuries	No Injuries	Collisions
2008	10	65	4	65
2009	1	47	4	50
2010	2	50	6	52
2011	2	78	4	77
2012	6	102	7	102
Total	21	342	25	346

Table 9-3. Total Pedestrian Collision Severity and Cost

Region	Fatalities	Injuries	No Injuries	Collisions	Costs
North Durham	1	32	2	34	\$19,400
Downtown Durham	2	155	13	155	\$112,451
South Durham	8	70	5	72	\$59,580
Chapel Hill	5	42	1	44	\$30,750
Carrboro	1	22	0	23	\$8,076
Hillsborough	1	0	2	3	\$2,500
Chatham County	2	1	0	2	\$7,500
Orange County (Unincorporated)	1	20	2	13	\$54,100
Total	21	342	25	346	\$294,357

Figure 9-2. Annual Bicyclist Collision Severity

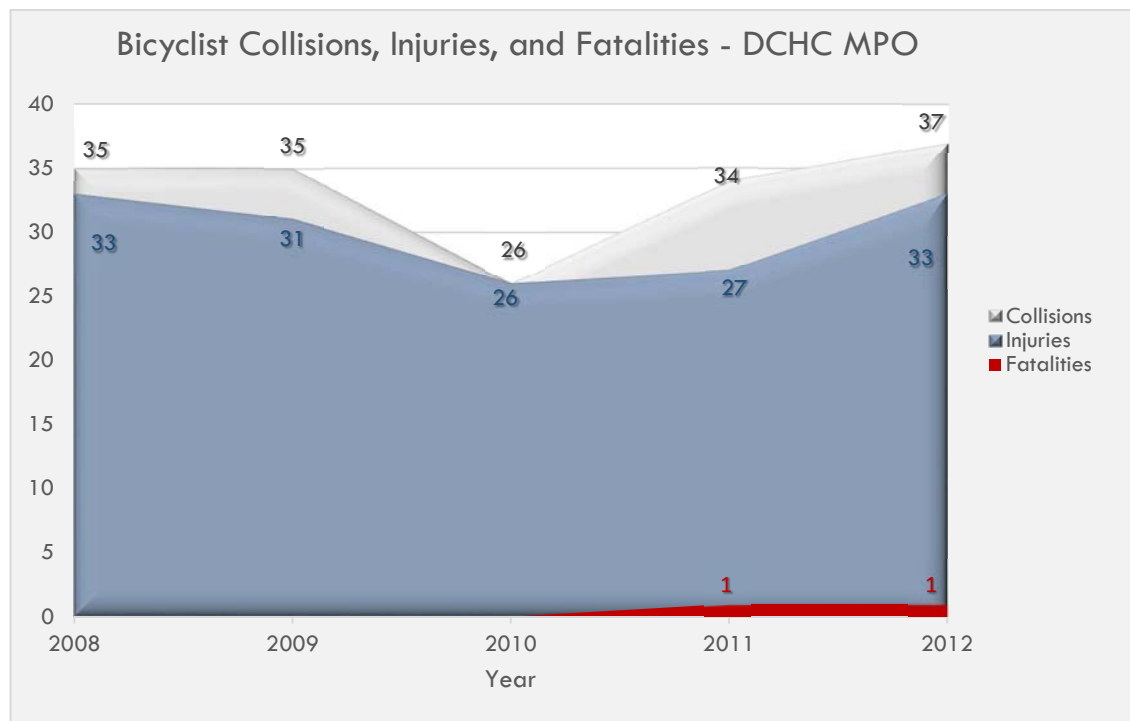


Table 9-4. Bicyclist Collisions - DCHC MPO

Year	Fatalities	Injuries	No Injuries	Collisions
2008	0	33	4	35
2009	0	31	4	35
2010	0	26	0	26
2011	1	27	6	34
2012	1	33	3	37
Total	2	150	17	167

Table 9-5. Total Bicyclist Collision Severity and Cost

Region	Fatalities	Injuries	No Injuries	Collisions	Costs
North Durham	0	13	1	14	\$8,600
Downtown Durham	0	49	11	60	\$30,425
South Durham	0	29	1	29	\$371,459
Chapel Hill	0	35	1	36	\$12,850
Carrboro	1	16	2	19	\$6,101
Hillsborough	0	0	0	0	\$0
Chatham County	0	2	0	1	\$100
Orange County (Unincorporated)	1	6	1	8	\$3,700
Totals	2	150	17	167	\$433,226

Figure 9-3. Pedestrian Collisions - DCHC MPO

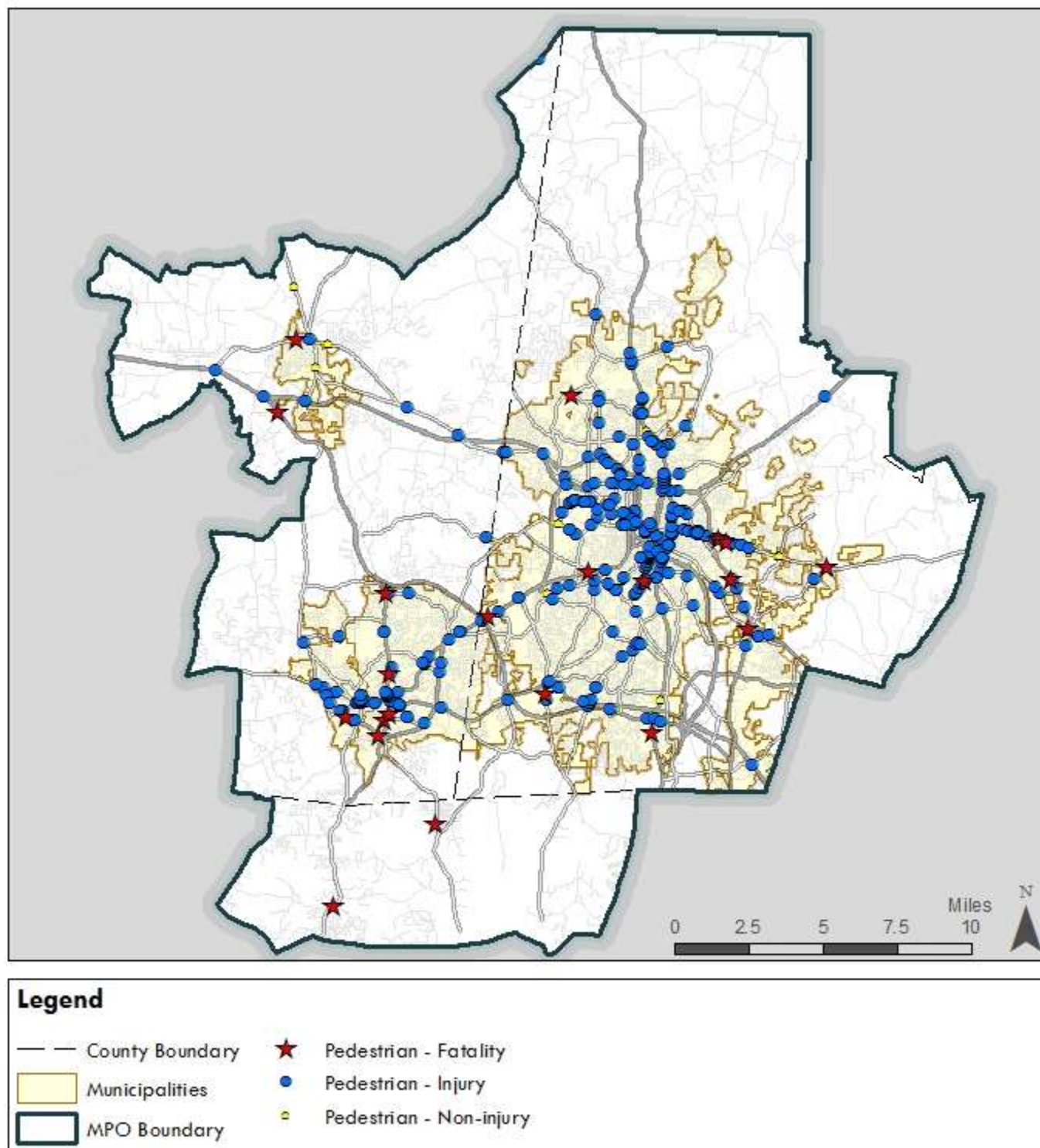


Figure 9-4. Bicyclist Collisions - DCHC MPO

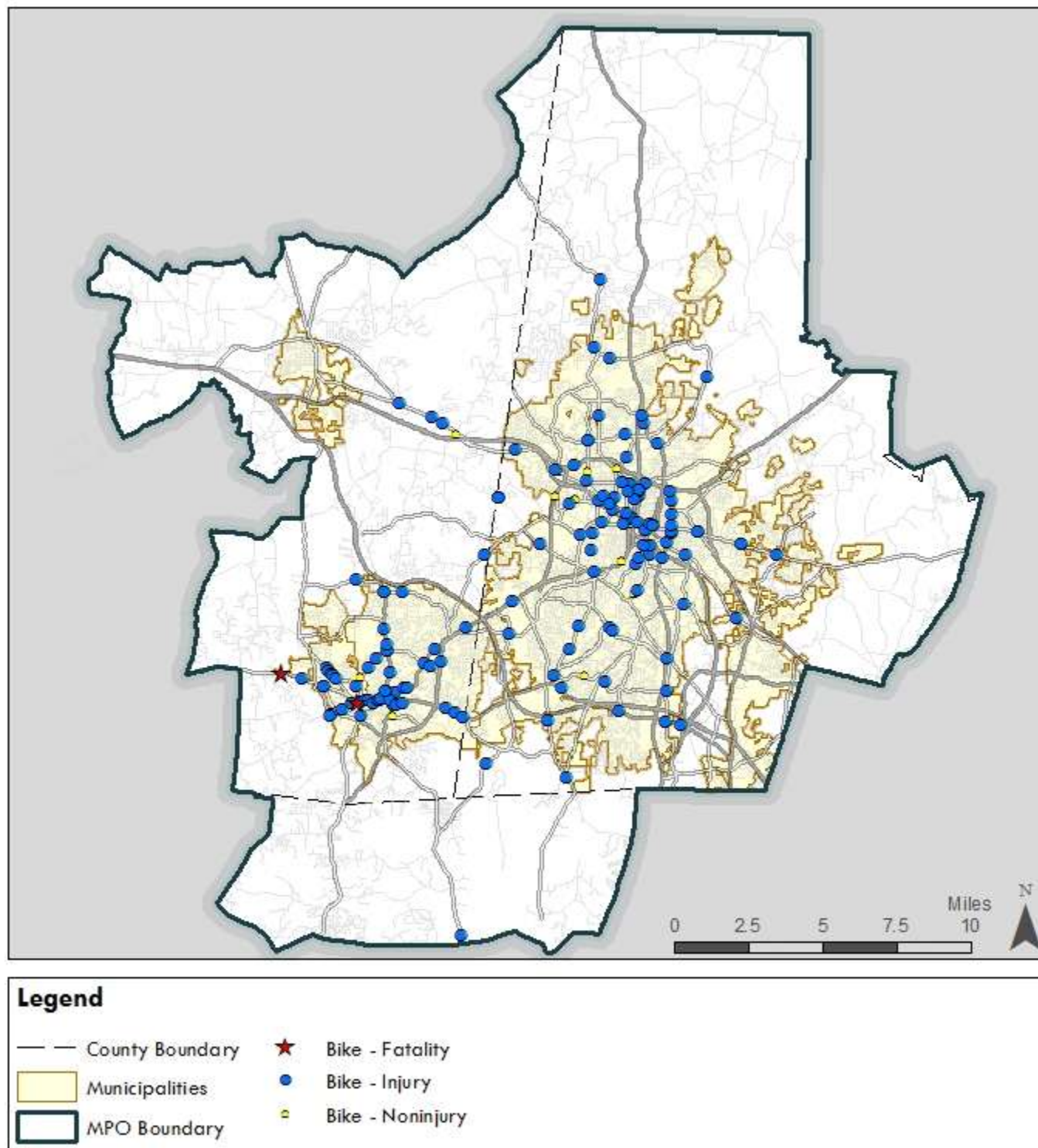


Figure 9-5. Annual Pedestrian and Bicyclist Collision Severity

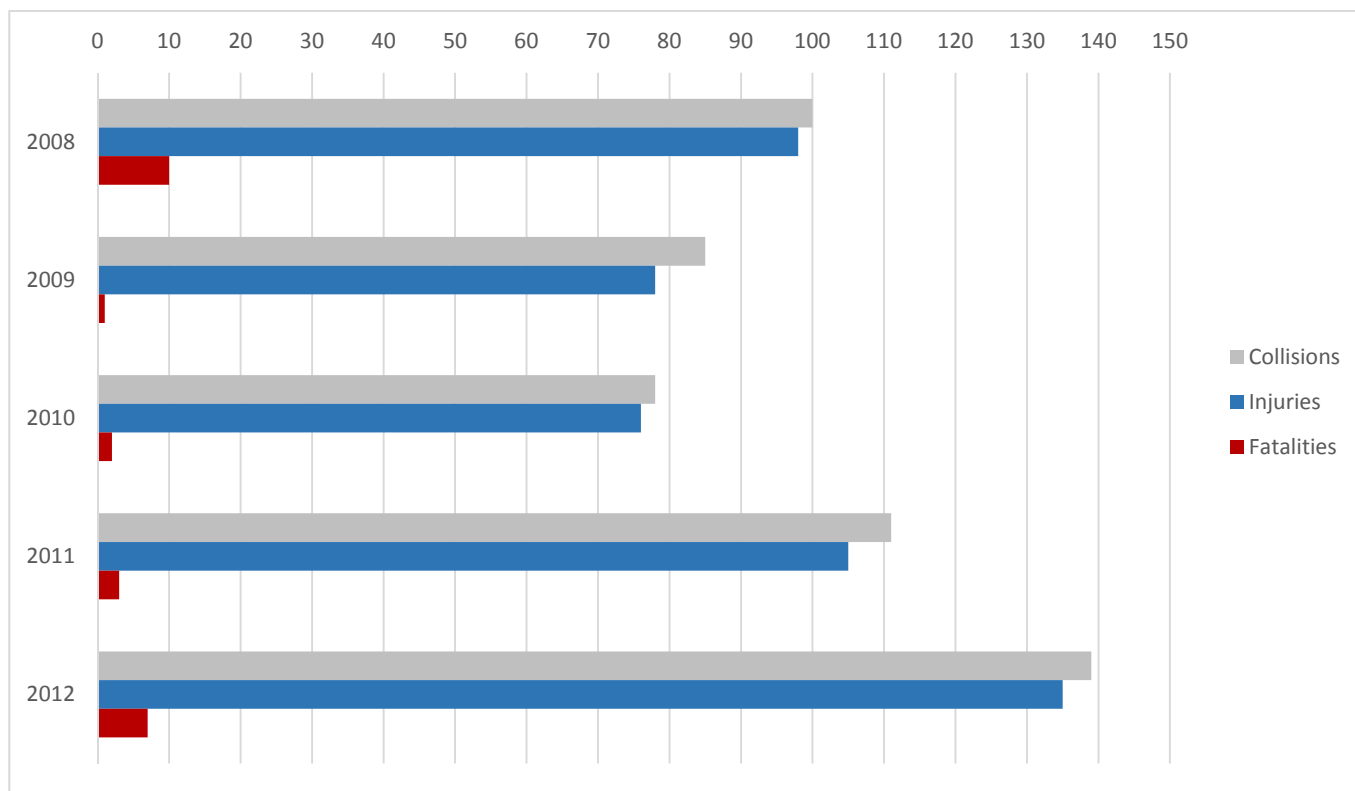


Figure 9-6. Pedestrian and Bicyclist Collision Severity

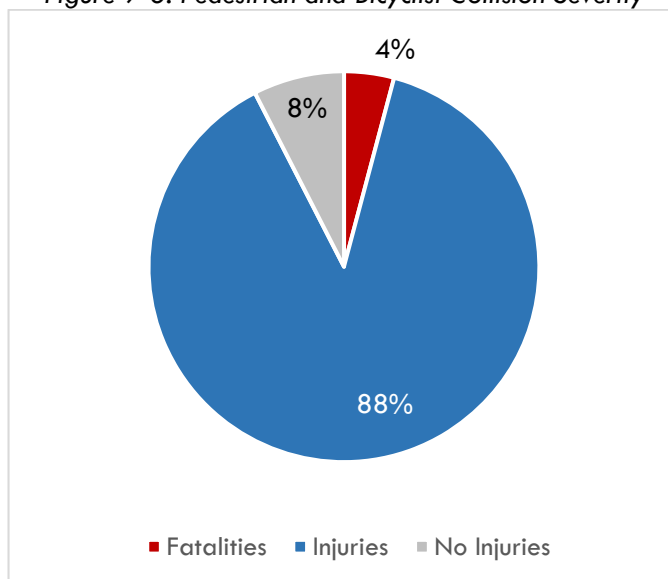


Table 9-6. Total Pedestrian and Bicyclist Collision Severity and Cost

Region	Fatalities	Injuries	No Injuries	Collisions	Costs
North Durham	1	45	3	48	\$28,000
Downtown Durham	2	204	24	215	\$142,876
South Durham	8	99	6	101	\$431,030
Chapel Hill	5	77	2	80	\$43,600
Carrboro	2	38	2	42	\$14,177
Hillsborough	1	0	2	3	\$2,500
Chatham County	2	3	0	3	\$7,600
Orange County (Unincorporated)	2	26	3	21	\$57,800
Total	23	492	42	513	\$727,583

Figure 9-7. Pedestrian and Bicyclist Collisions and Severity by Sub-Region

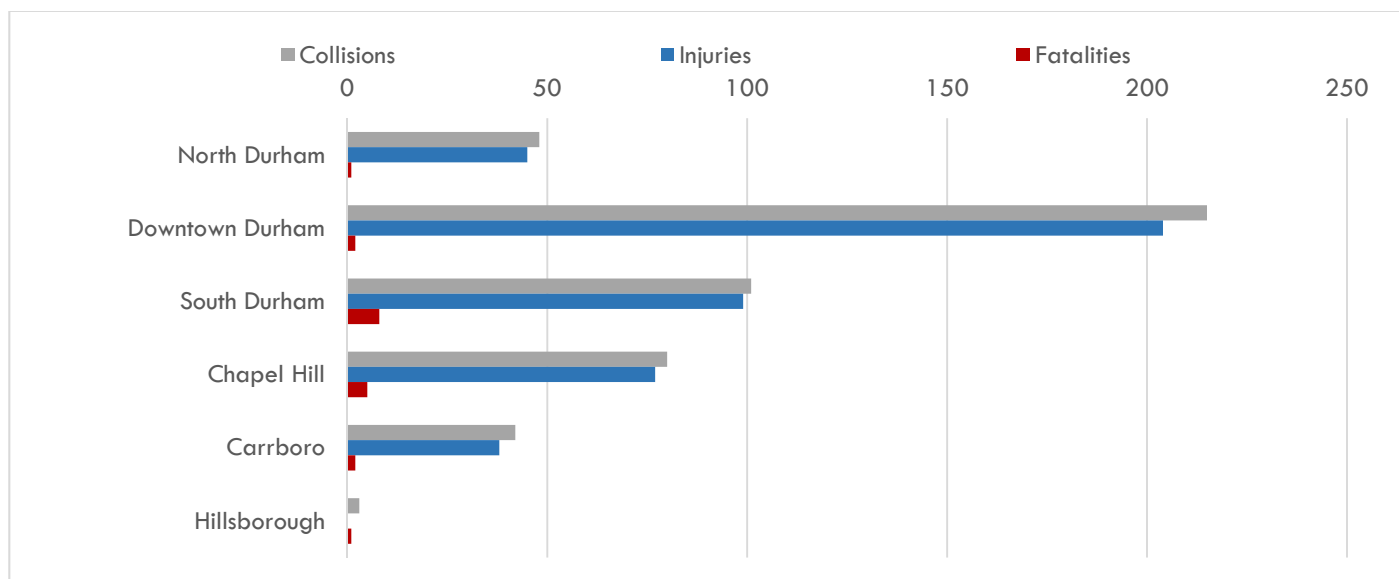
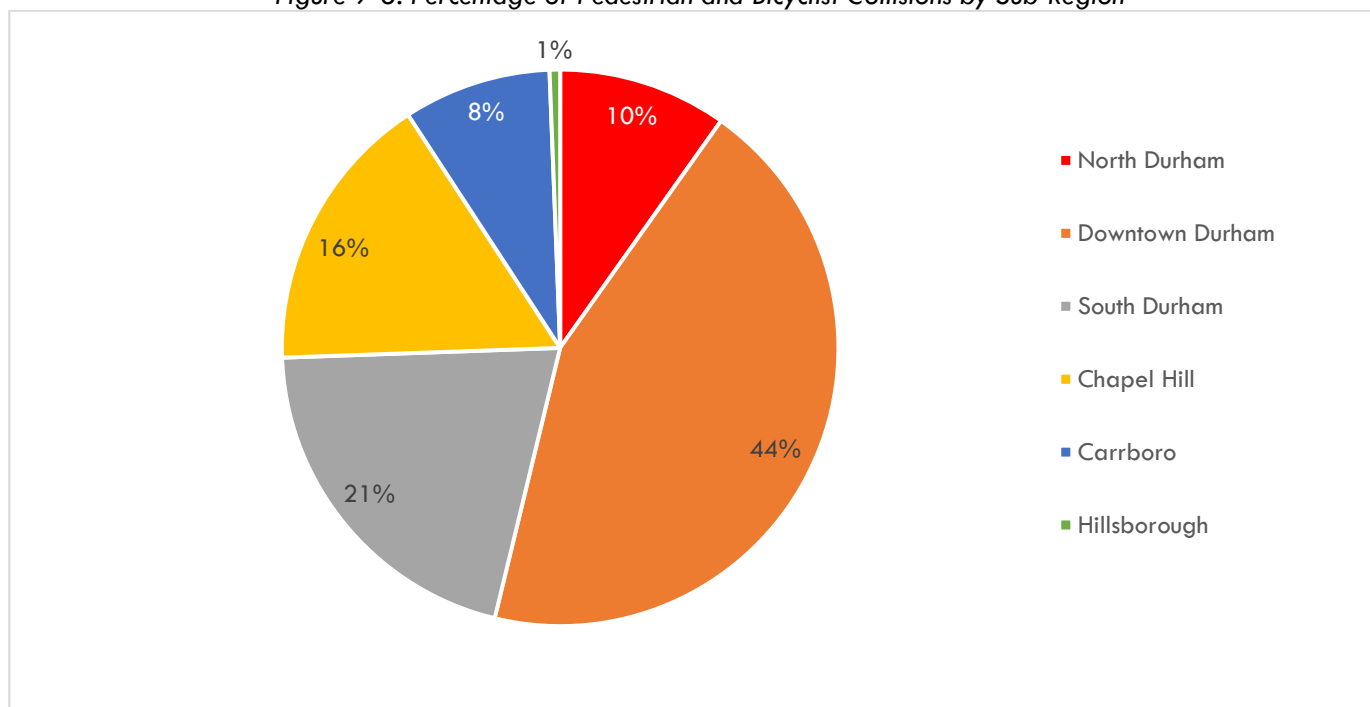


Figure 9-8. Percentage of Pedestrian and Bicyclist Collisions by Sub-Region



RESULTS BY GEOGRAPHY

The following provides detailed results on pedestrian and bicyclist safety summarized by sub region.

Durham

North Durham

In North Durham, 48 collisions were recorded involving pedestrians or bicyclists. One fatality was reported from these collisions. Only three of these collisions reported no injuries.

- As with data for the entire DCHC MPO, collisions often involved more than one pedestrian or bicyclist.
- Total collisions didn't vary much among years. However, in 2012 collisions involving pedestrians rose sharply from the year before.
- Bicyclist collisions have generally been declining.
- 34 (70.8%) collisions involved pedestrians.

Table 9-7. Annual Pedestrian and Bicyclist Collisions, Severity, and Cost - North Durham

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	11	0	11	\$4,850
2009	0	6	1	7	\$3,800
2010	0	9	1	9	\$5,000
2011	0	9	0	9	\$3,500
2012	1	10	1	12	\$10,850
Totals	1	45	3	48	\$28,000

Table 9-8. Annual Pedestrian Collisions, Severity, and Cost - North Durham

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	6	0	6	\$2,000
2009	0	4	0	4	\$2,000
2010	0	7	1	7	\$3,800
2011	0	6	0	6	\$1,750
2012	1	9	1	11	\$9,850
Totals	1	32	2	34	\$19,400

Table 9-9. Annual Bicyclist Collisions, Severity, and Cost - North Durham

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	5	0	5	\$2,850
2009	0	2	1	3	\$1,800
2010	0	2	0	2	\$1,200
2011	0	3	0	3	\$1,750
2012	0	1	0	1	\$1,000
Totals	0	13	1	14	\$8,600

Figure 9-9. Pedestrian Collision Locations - North Durham

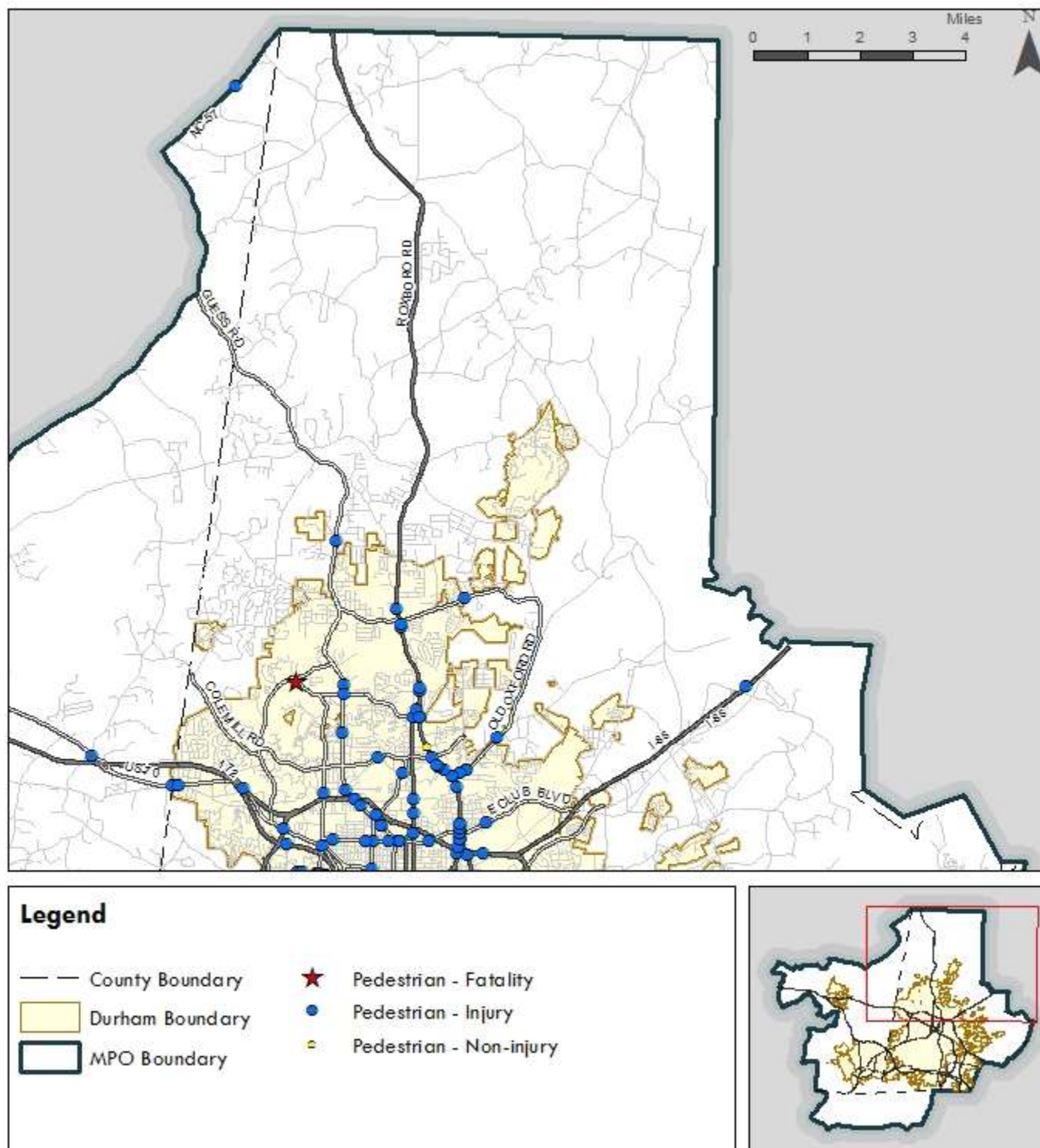
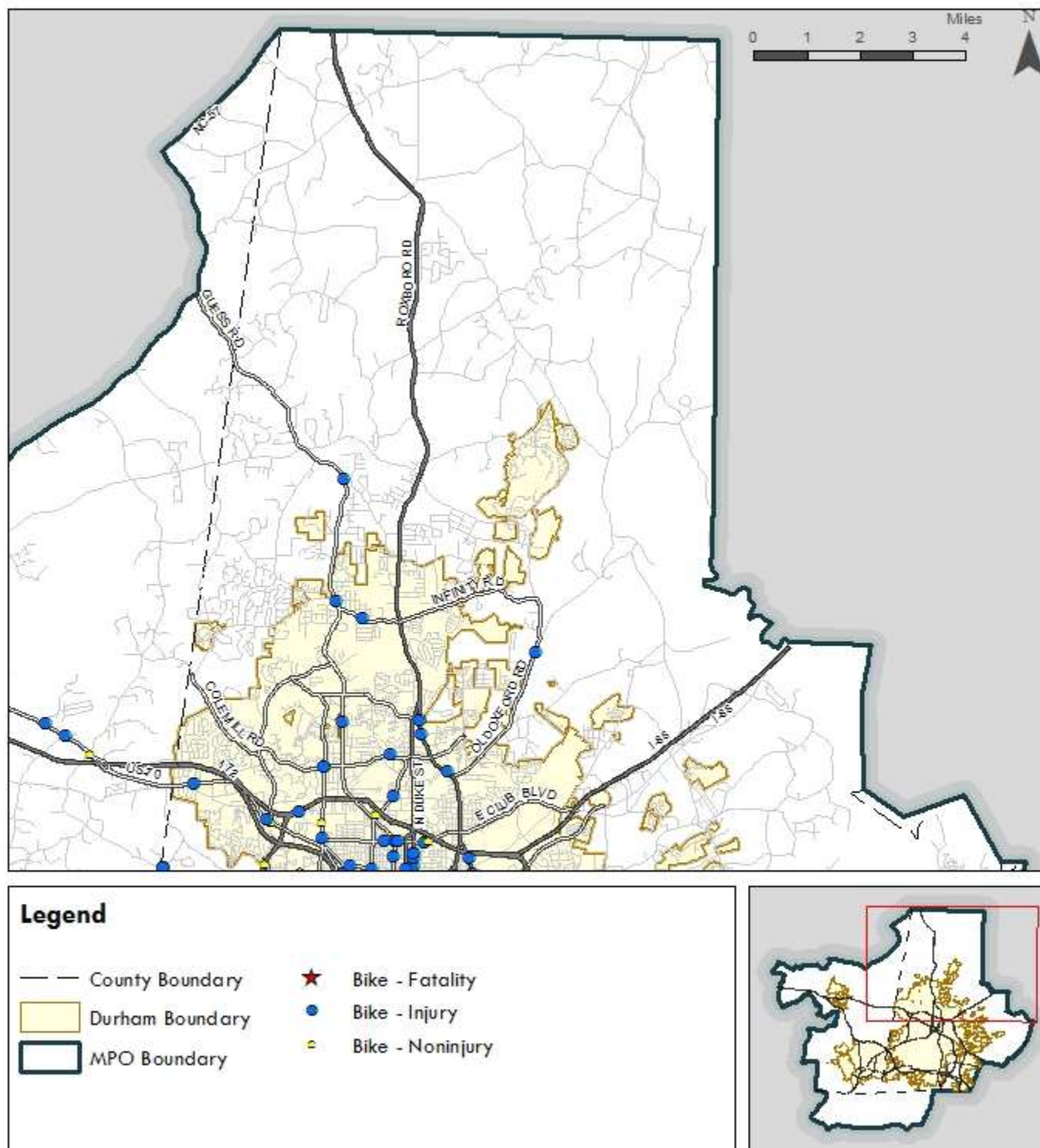


Figure 9-10. Bicyclist Collisions - North Durham



Downtown Durham

Downtown Durham recorded 215 collisions involving pedestrians or bicyclists. Two resulted in fatalities, both pedestrians.

- 155 (72.1%) involved pedestrians .
- 11.1% of collisions reported no injuries.
- As with data for the entire DCHC MPO, collisions often involved more than one pedestrian or bicyclist.
- Total collisions have been increasing, largely due to an increase in pedestrian collisions. Bicyclist collisions vary from year to year.

Table 9-10. Annual Pedestrian and Bicyclist Collisions, Severity, and Cost - Downtown Durham

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	1	36	5	38	\$34,350
2009	0	39	4	43	\$18,300
2010	1	26	4	31	\$40,800
2011	0	43	6	46	\$11,450
2012	0	60	5	57	\$37,976
Totals	2	204	24	215	\$142,876

Table 9-11. Annual Pedestrian Collisions - Downtown Durham

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	1	29	3	29	\$29,150
2009	0	25	2	27	\$12,300
2010	1	19	4	24	\$36,300
2011	0	36	1	34	\$7,200
2012	0	46	3	41	\$27,501
Totals	2	155	13	155	\$112,451

Table 9-12. Annual Bicyclist Collisions - Downtown Durham

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	7	2	9	\$5,200
2009	0	14	2	16	\$6,000
2010	0	7	0	7	\$4,500
2011	0	7	5	12	\$4,250
2012	0	14	2	16	\$10,475
Totals	0	49	11	60	\$30,425

Figure 9-11. Pedestrian Collision Locations - Downtown Durham

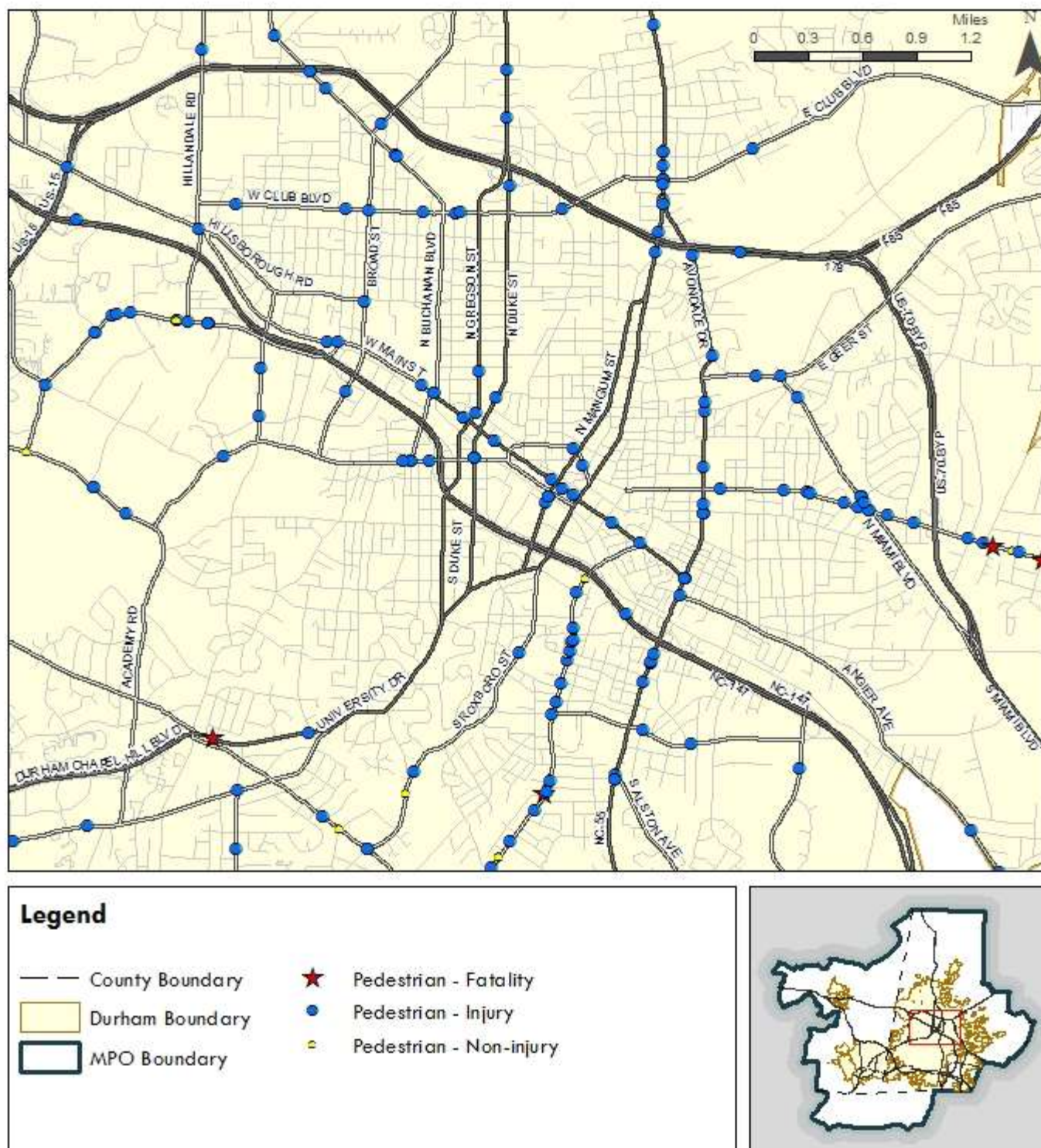
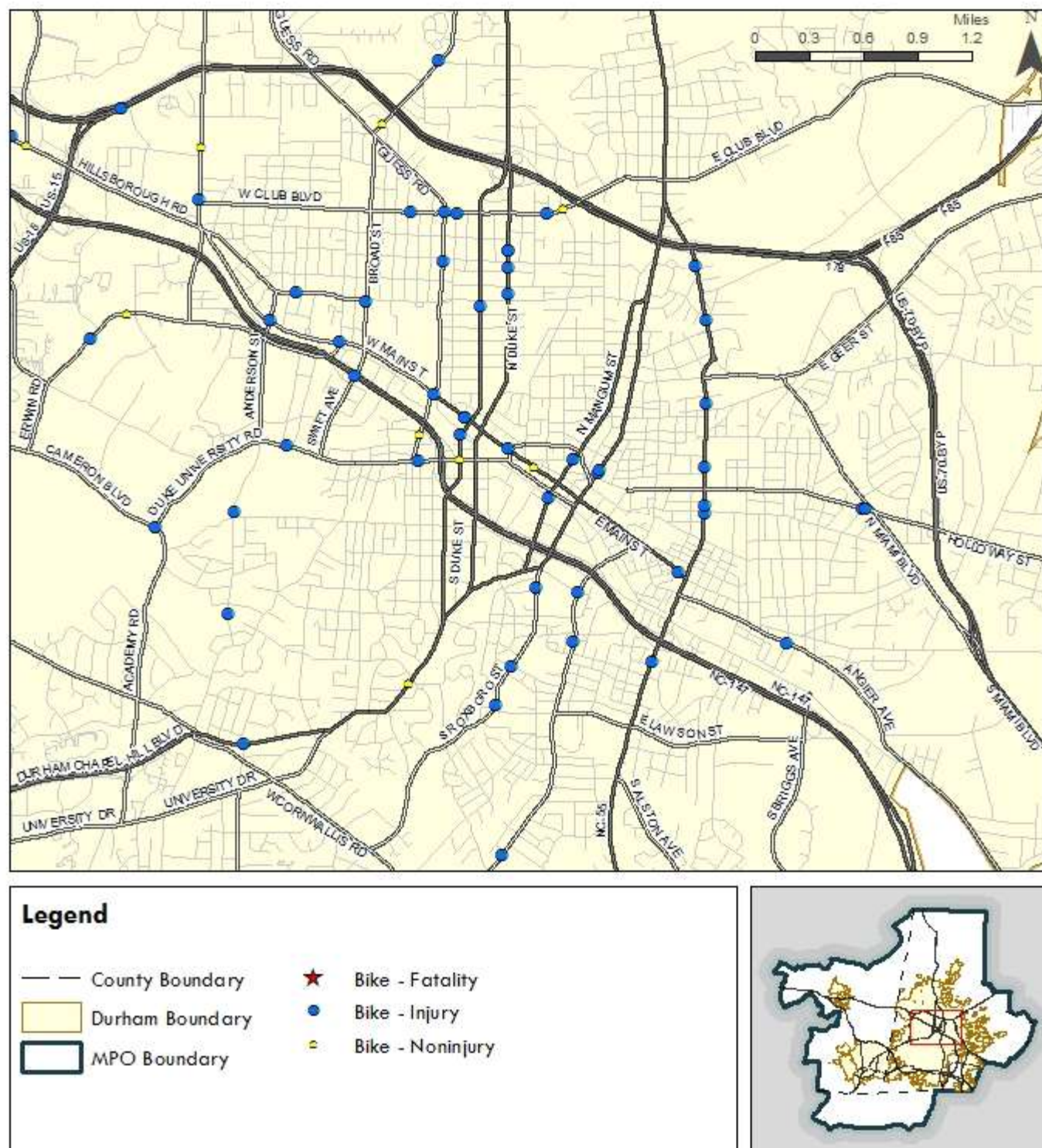


Figure 9-12. Bicyclist Collision Locations - Downtown Durham



South Durham

South Durham reported 101 collisions involving pedestrians or bicyclists. Eight fatalities were reported, all involving pedestrians.

- 72 (71.3%) involved pedestrians
- 6 collisions (5.9%) reported no injuries.

No fatalities were reported from collisions involving bicyclists. As with data for the entire DCHC MPO, collisions often involved more than one pedestrian or bicyclist.

Total collisions have not changed drastically, though they have been increasing since 2010. No clear trends emerged in the bicycle collision data. More often than not, pedestrians and bicyclists were injured in collisions. Annual bicyclist injuries were fairly consistent, with the exception of 2011.

Table 9-13. Annual Pedestrian and Bicyclist Collisions, Severity, and Cost - South Durham

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	3	19	0	17	\$15,030
2009	1	16	1	16	\$362,200
2010	1	10	0	11	\$5,450
2011	1	29	3	29	\$22,450
2012	2	25	2	28	\$25,900
Totals	8	99	6	101	\$431,030

Table 9-14. Annual Pedestrian Collisions, Severity, and Cost - South Durham

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	3	14	0	13	\$8,930
2009	1	10	1	10	\$8,300
2010	1	5	0	6	\$4,500
2011	1	19	3	19	\$17,550
2012	2	22	1	24	\$20,300
Totals	8	70	5	72	\$59,580

Table 9-15. Annual Bicyclist Collisions, Severity, and Cost - South Durham

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	5	0	4	\$6,100
2009	0	6	0	6	\$353,900
2010	0	5	0	5	\$950
2011	0	10	0	10	\$4,900
2012	0	3	1	4	\$5,600
Totals	0	29	1	29	\$371,450

Figure 9-13. Pedestrian Collision Locations - South Durham

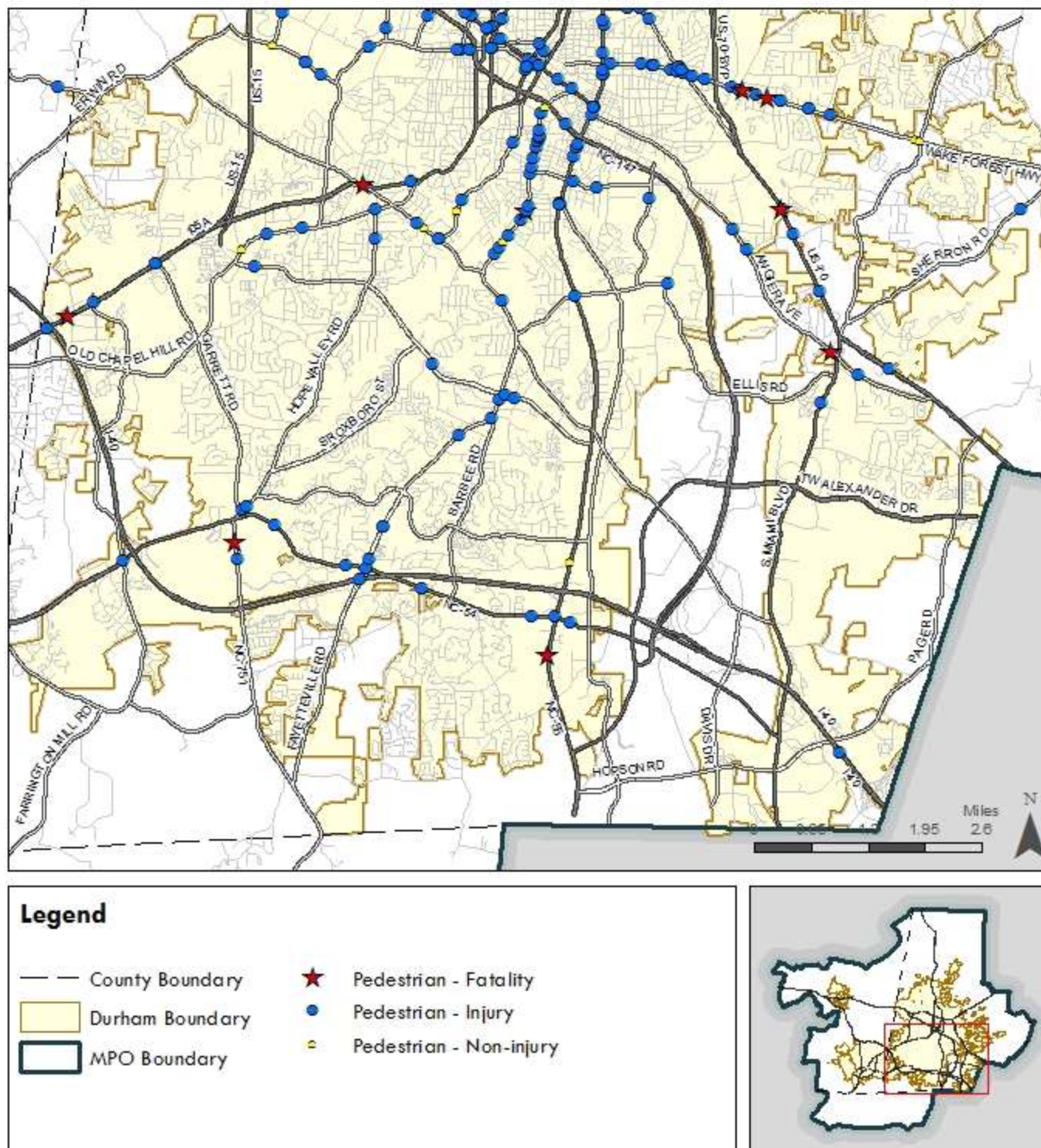
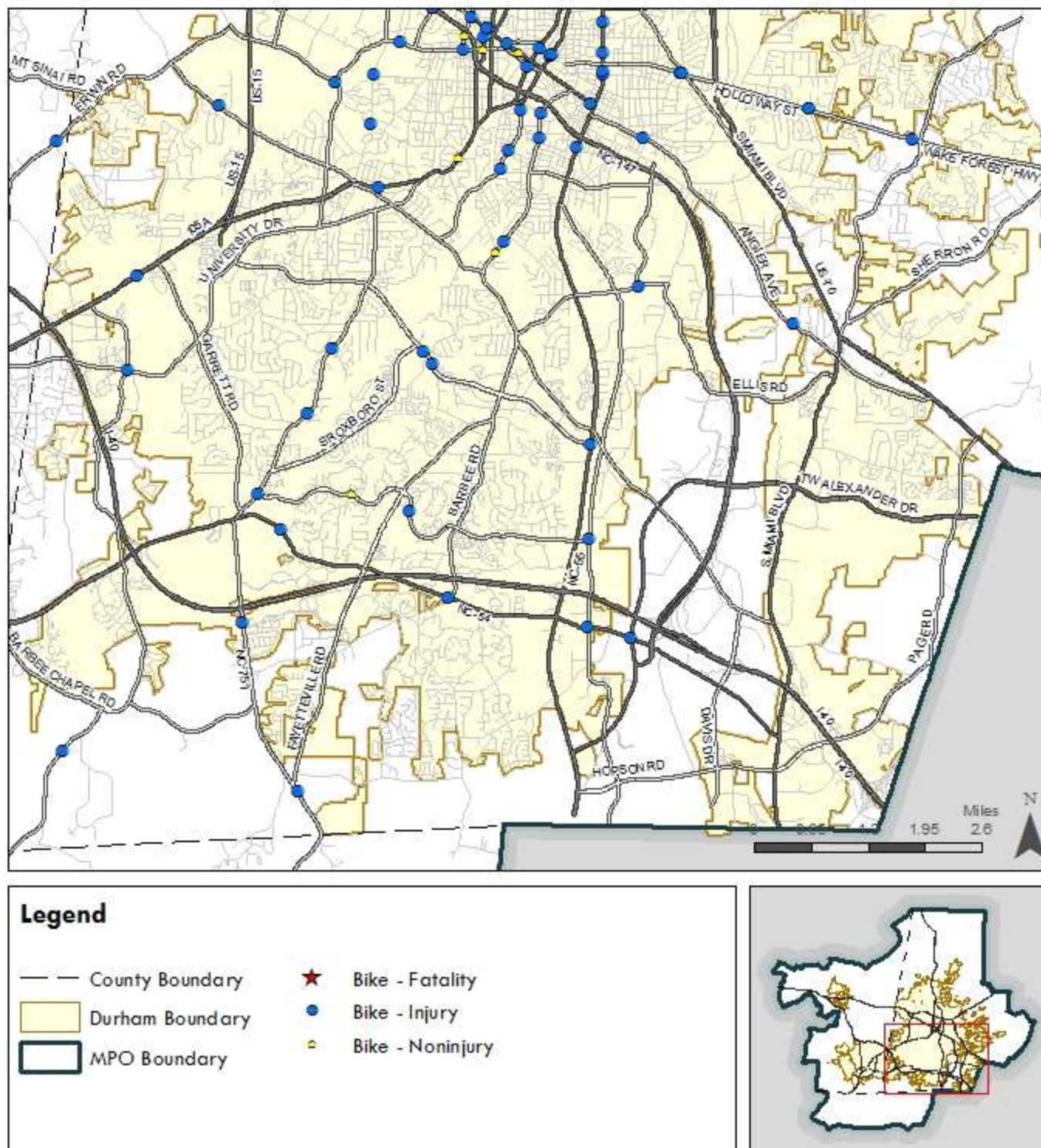


Figure 9-14. Bicyclist Collision Locations - South Durham



Chapel Hill

There were 80 pedestrian or bicyclist collisions in Chapel Hill. Five collisions resulted in fatalities, all involving pedestrians, and all in 2008.

- 44 collisions (55.0%) involved pedestrians and, of those, five resulted in a fatality
- 98% of collisions reported at least one injury
- No fatalities were reported from collisions involving bicyclists.
- Both pedestrian and bicyclist collisions have been increasing since 2009.

Table 9-16. Annual Pedestrian and Bicyclist Collisions, Severity, and Cost - Chapel Hill

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	5	19	0	20	\$27,000
2009	0	10	1	11	\$4,200
2010	0	12	0	12	\$4,050
2011	0	14	1	15	\$2,000
2012	0	22	0	22	\$6,350
Totals	5	77	2	80	\$43,600

Table 9-17. Annual Pedestrian Collisions, Severity, and Cost - Chapel Hill

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	5	9	0	10	\$23,600
2009	0	6	1	7	\$2,900
2010	0	5	0	5	\$500
2011	0	9	0	9	\$400
2012	0	13	0	13	\$3,350
Totals	5	42	1	44	\$30,750

Table 9-18. Annual Bicyclist Collisions, Severity, and Cost - Chapel Hill

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	10	0	10	\$3,400
2009	0	4	0	4	\$1,300
2010	0	7	0	7	\$3,550
2011	0	5	1	6	\$1,600
2012	0	9	0	9	\$3,000
Totals	0	35	1	36	\$12,850

Figure 9-15. Pedestrian Collision Locations - Chapel Hill

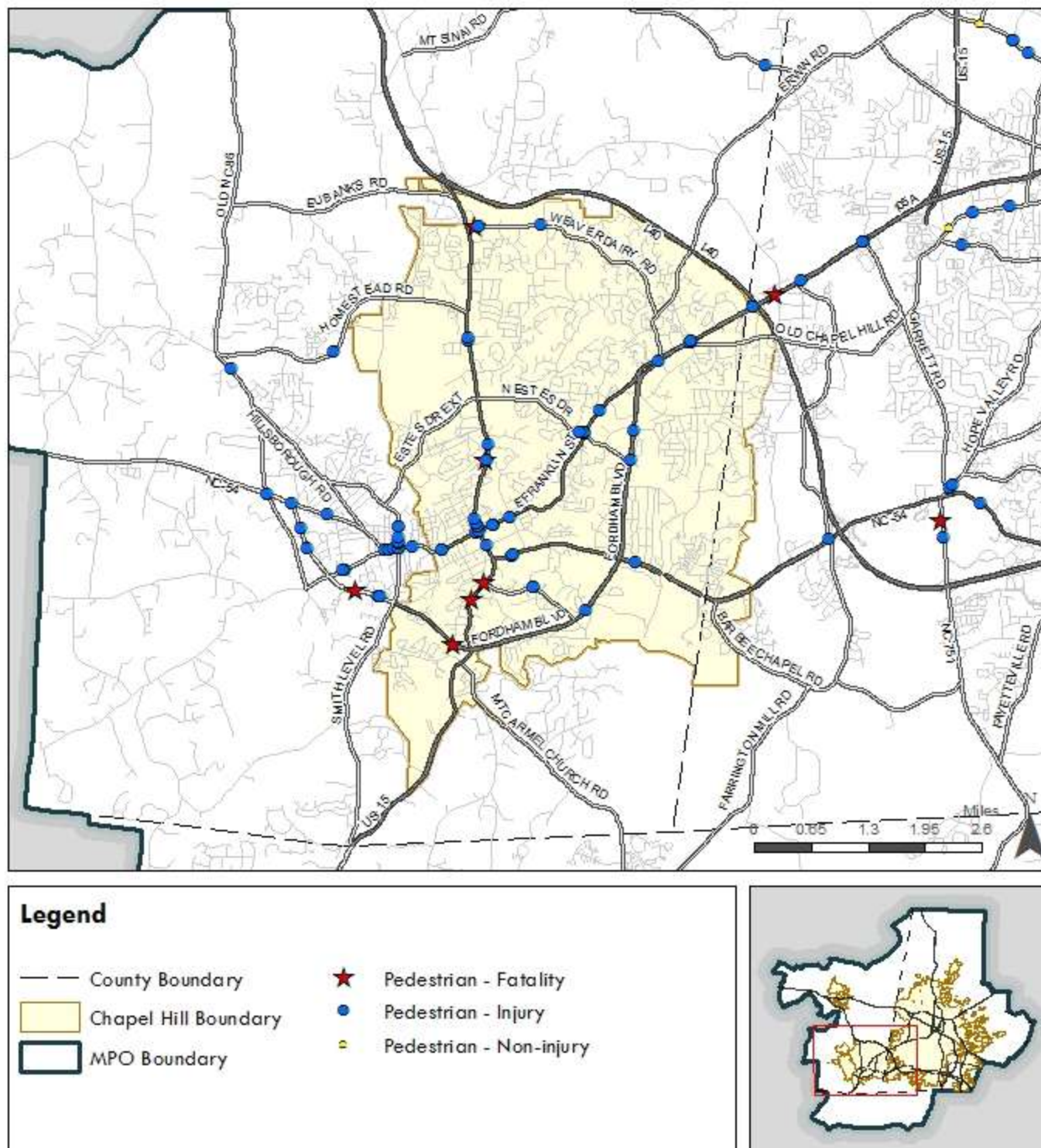
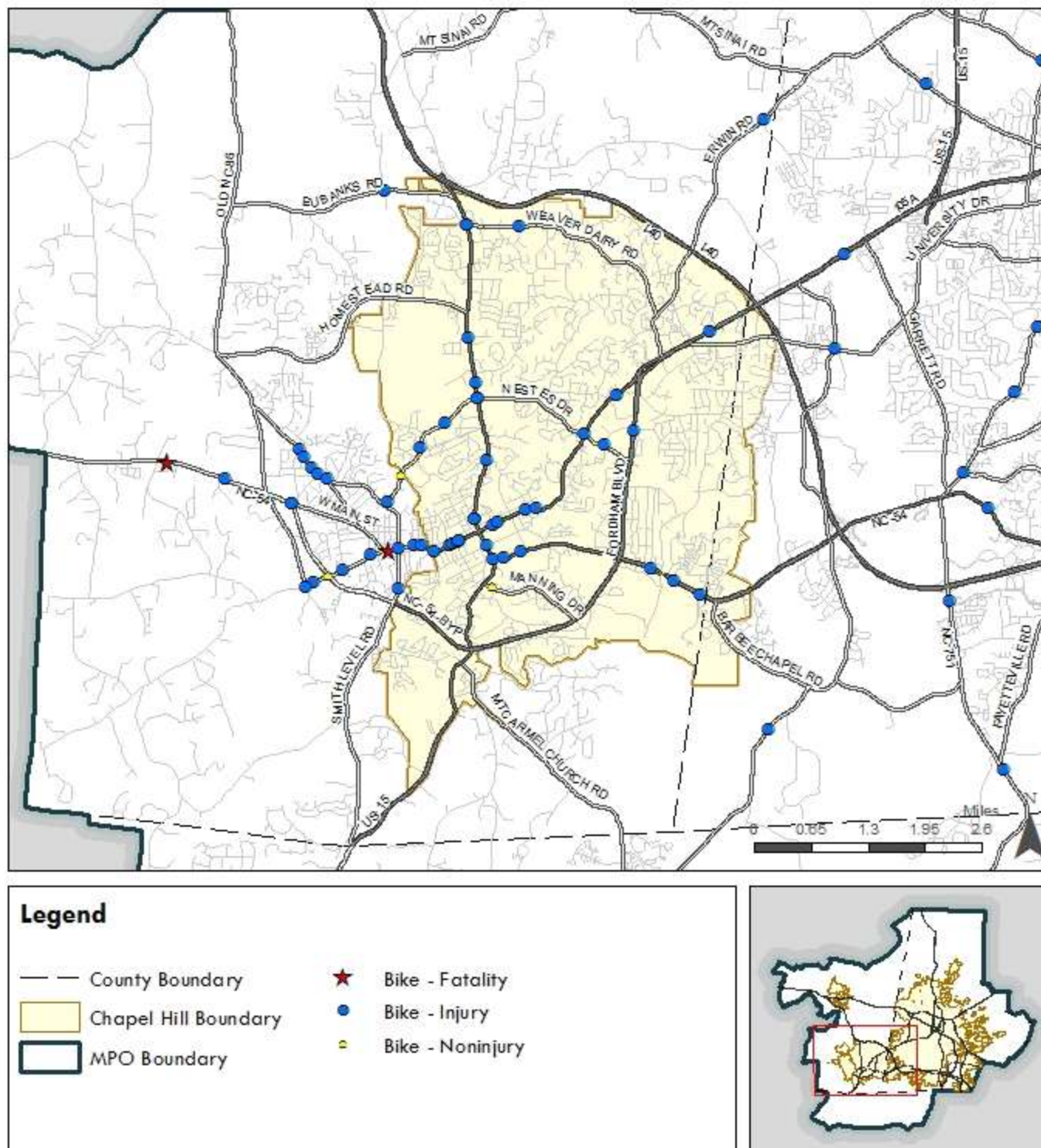


Figure 9-16. Bicyclist Collision Locations - Chapel Hill



Carrboro

In Carrboro, there were 42 pedestrian or bicyclist collisions on CMP corridors. One pedestrian and one bicyclist were killed.

- 23 collisions (54.8%) involved pedestrians and, of those, one resulted in a fatality
- Only 2 collisions (4.8%) reported no injuries.
- Annual total collisions were consistent, though the second half of the period experienced more pedestrian collisions and fewer bicyclist collisions.

Table 9-19. Annual Pedestrian and Bicyclist Collisions, Severity, and Cost - Carrboro

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	7	1	8	\$3,500
2009	0	6	1	7	\$2,200
2010	0	9	0	9	\$2,975
2011	1	8	0	9	\$2,800
2012	1	8	0	9	\$2,702
Total	2	38	2	42	\$14,177

Table 9-20. Annual Pedestrian Collisions, Severity, and Cost - Carrboro

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	3	0	3	\$1,100
2009	0	2	0	2	\$400
2010	0	7	0	7	\$2,875
2011	0	6	0	6	\$2,000
2012	1	4	0	5	\$1,701
Total	1	22	0	23	\$8,076

Table 9-21. Annual Bicyclist Collisions, Severity, and Cost - Carrboro

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	4	1	5	\$2,400
2009	0	4	1	5	\$1,800
2010	0	2	0	2	\$100
2011	1	2	0	3	\$800
2012	0	4	0	4	\$1,001
Total	1	16	2	19	\$6,101

Figure 9-17. Pedestrian Collision Locations - Carrboro

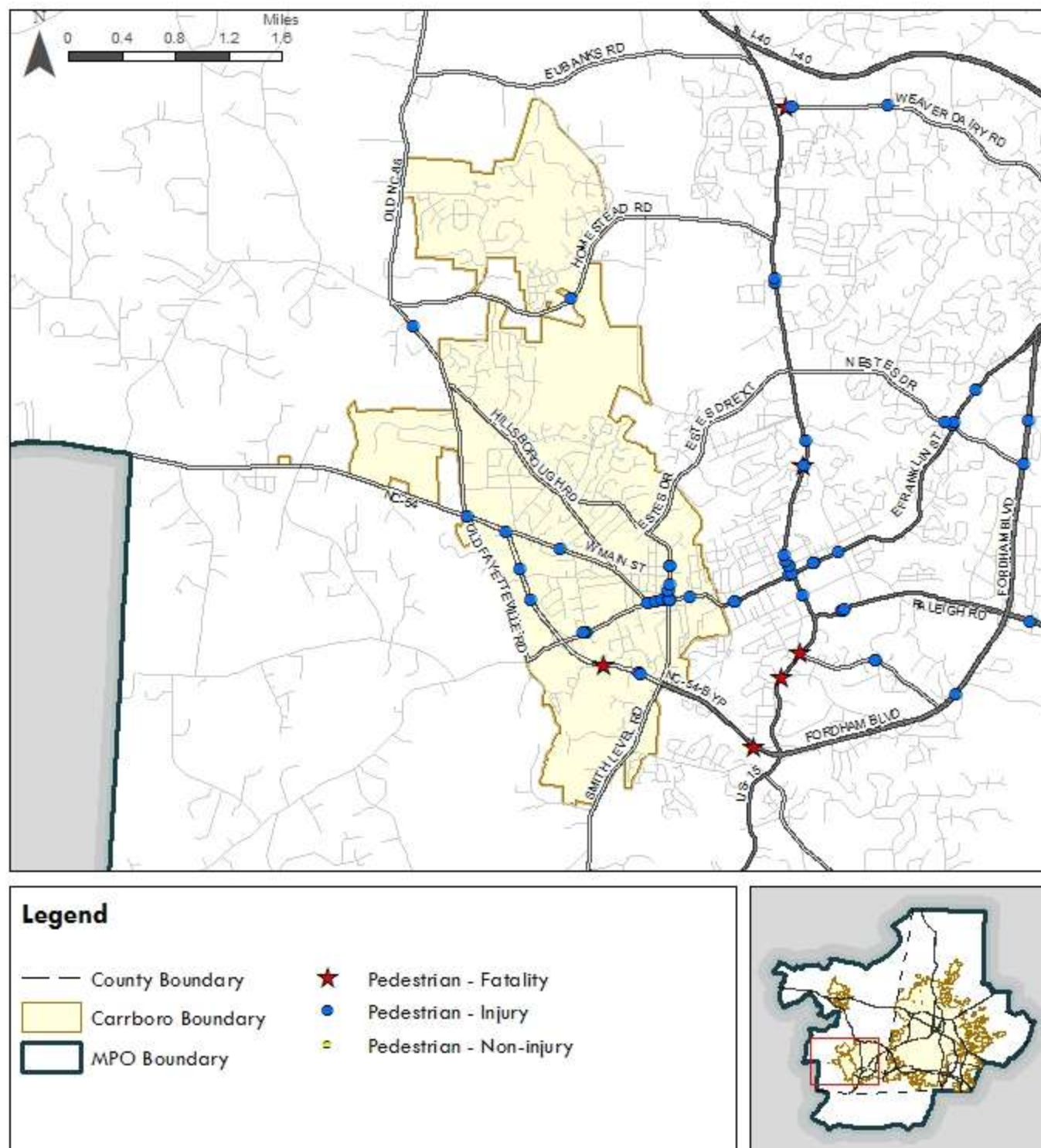
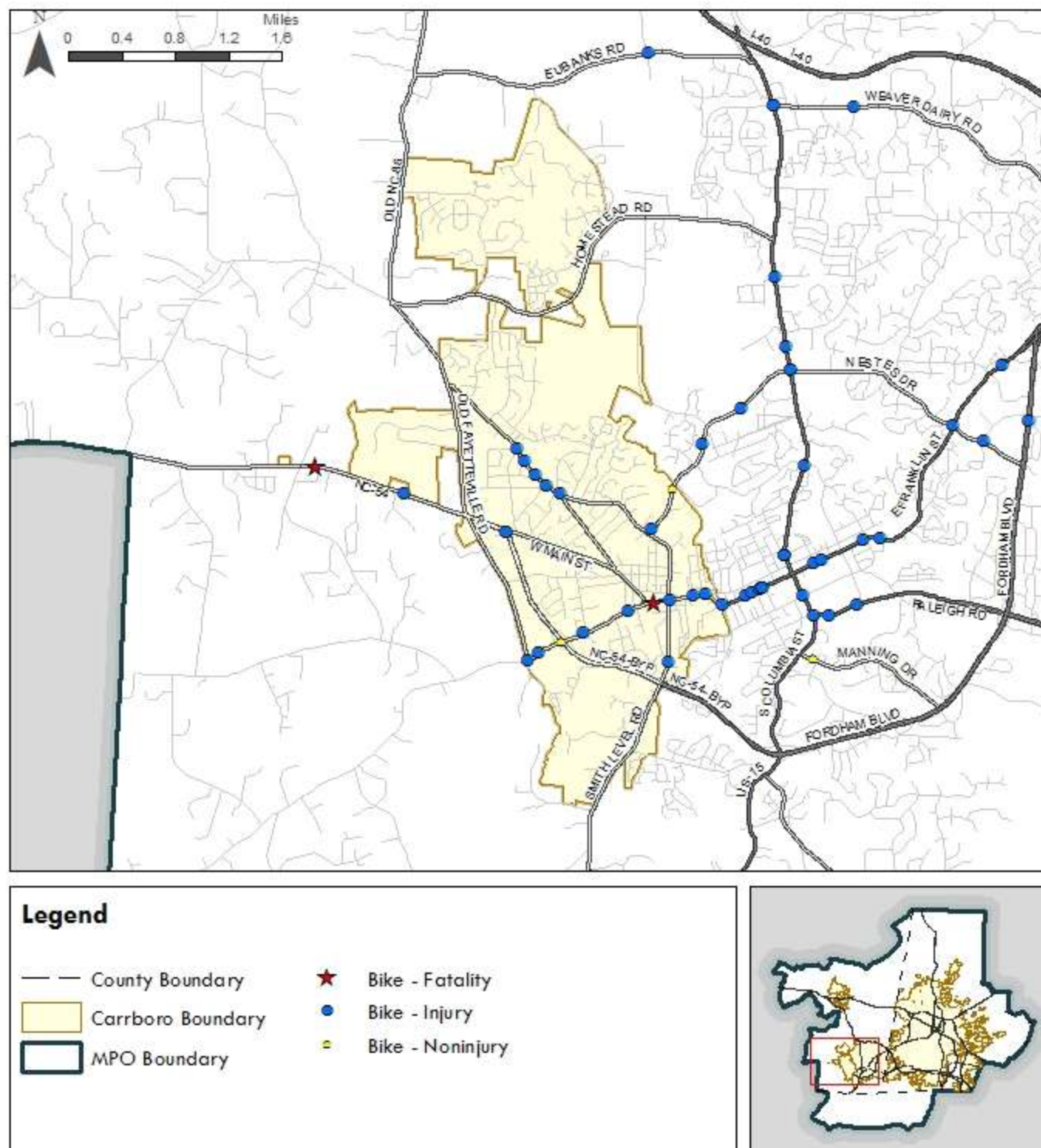


Figure 9-18. Bicyclist Collision Locations - Carrboro



Hillsborough

In Hillsborough, 3 collisions were reported, all involving pedestrians. One of these resulted in a fatality, though the other two resulted in no injuries.

- No collisions were reported in 2008, 2009, or 2011.
- No bicyclist collisions were reported during the 5-year period.

Table 9-22. Annual Pedestrian Collisions, Severity, and Cost - Hillsborough

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	0	0	0	\$0
2009	0	0	0	0	\$0
2010	0	0	1	1	\$0
2011	0	0	0	0	\$0
2012	1	0	1	2	\$2,500
Total	1	0	2	3	\$2,500

Figure 9-19. Pedestrian Collision Locations - Hillsborough

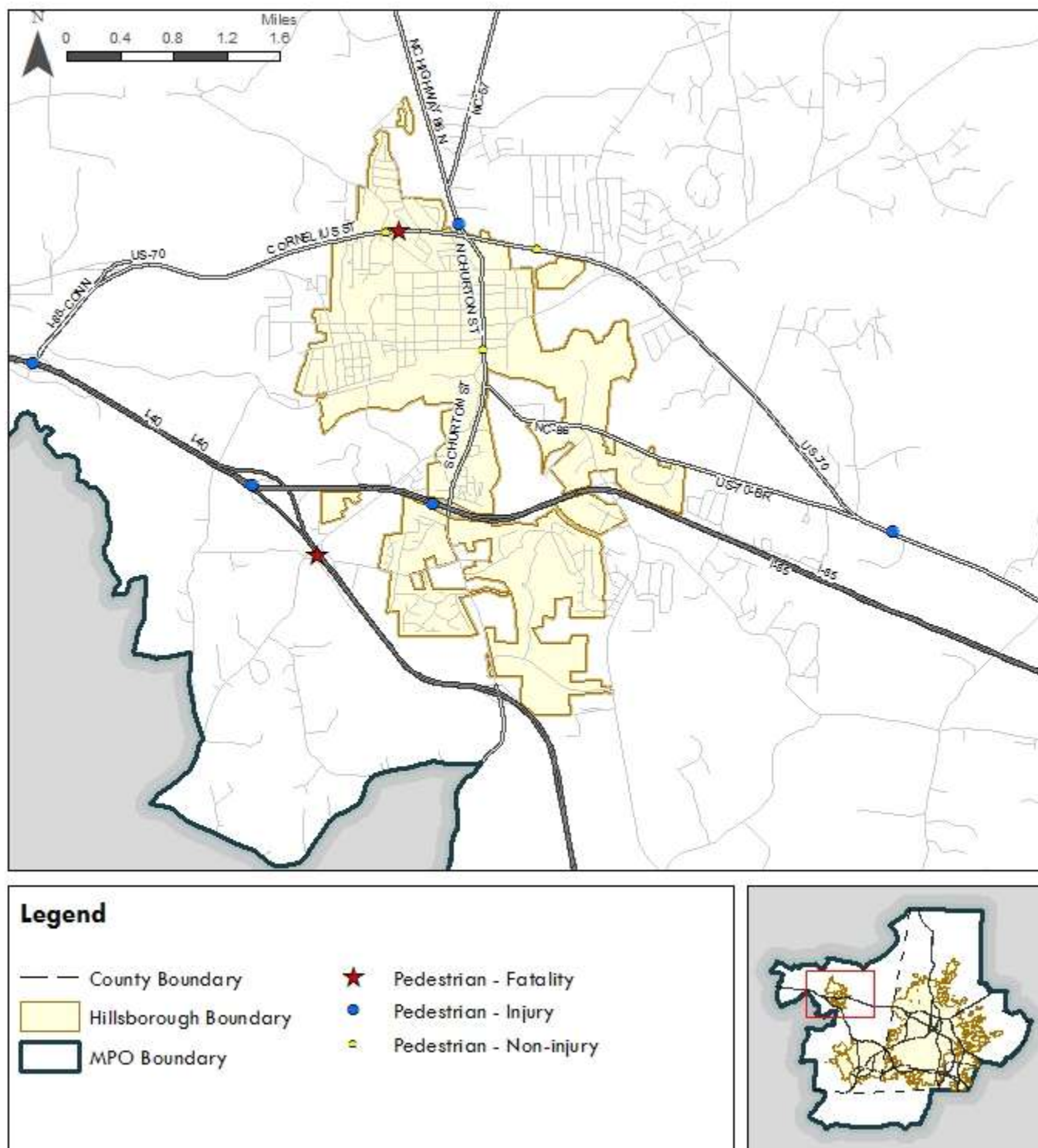
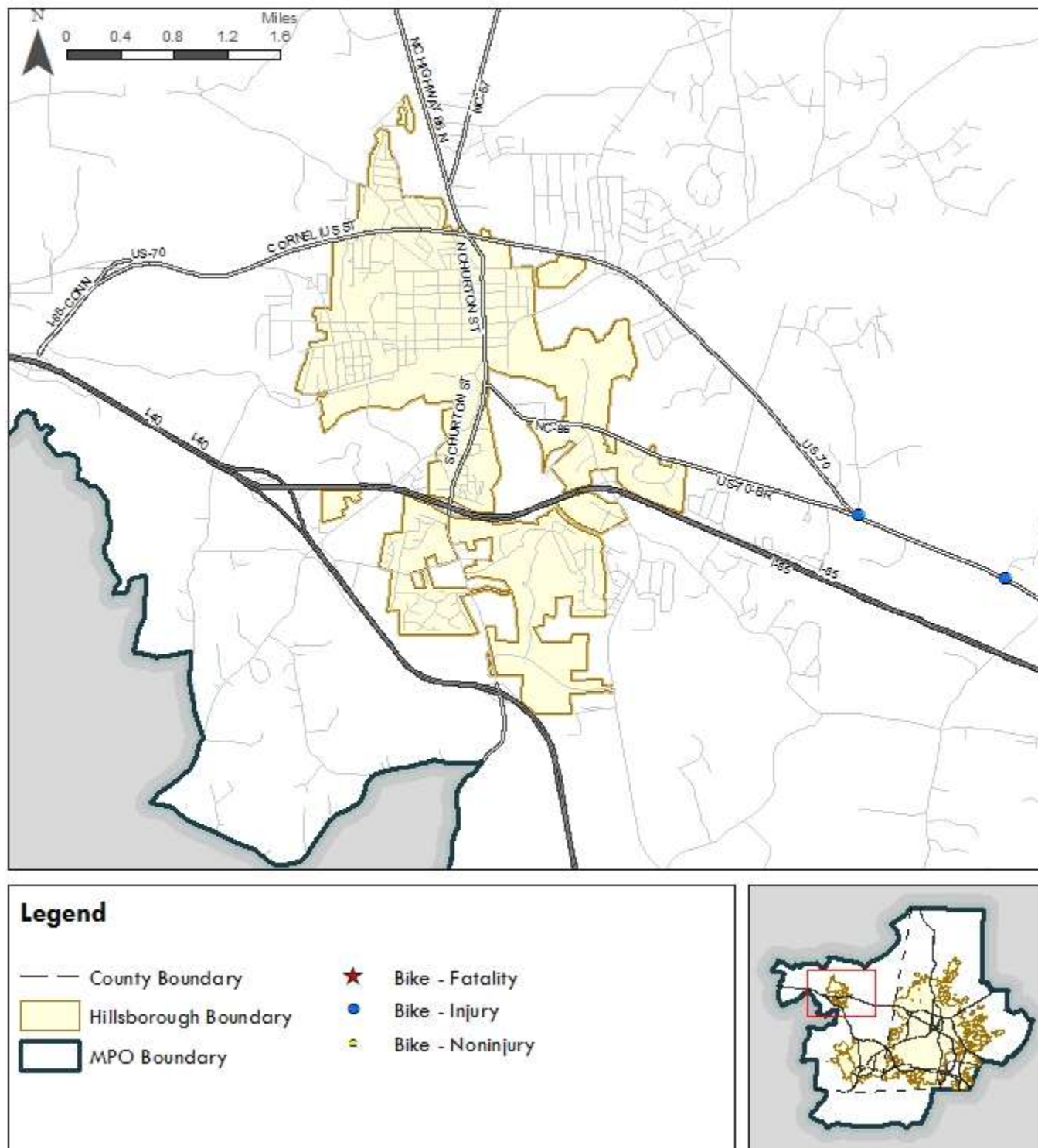


Figure 9-20. Bicyclist Collision Locations - Hillsborough



Unincorporated Orange County

Unincorporated Orange County includes any area within the County that falls outside the boundaries of Chapel Hill, Carrboro, or Hillsborough. In this area, 24 pedestrian or bicyclist collisions were reported, resulting in 3 fatalities.

- 16 collisions (66.7%) involved pedestrians and, of those, two resulted in a fatality.
- 8 collisions involved bicyclists, one of which resulted in a fatality.
- 3 collisions (12.5%) reported no injuries.
- Collisions with both bicyclists and pedestrians increased markedly in 2012.

Table 9-23. Annual Pedestrian and Bicyclist Collisions, Severity, and Cost - Unincorporated Orange County

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	4	2	4	\$15,600
2009	0	1	0	1	\$0
2010	0	10	0	5	\$10,500
2011	1	2	0	3	\$9,500
2012	2	11	1	11	\$31,700
Totals	3	28	3	24	\$67,300

Table 9-24. Annual Pedestrian Collisions, Severity, and Cost - Unincorporated Orange County

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	4	1	3	\$15,600
2009	0	0	0	0	\$0
2010	0	7	0	2	\$9,000
2011	1	2	0	3	\$9,500
2012	1	9	1	8	\$29,500
Totals	2	22	2	16	\$63,600

Table 9-25. Annual Bicyclist Collisions, Severity, and Cost - Unincorporated Orange County

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	0	1	1	\$0
2009	0	1	0	1	\$0
2010	0	3	0	3	\$1,500
2011	0	0	0	0	\$0
2012	1	2	0	3	\$2,200
Totals	1	6	1	8	\$3,700

See Chapel Hill, Carrboro, and Hillsborough sections for maps of collisions in unincorporated Orange County.

Chatham County

In Chatham County, 3 pedestrian or bicyclist collisions were reported, resulting in 2 fatalities.

- 2 collisions (66.7%) involved pedestrians and, of those, two resulted in a fatality.
- 1 collision involved a bicyclist.
- All collisions reported injuries.
- Collisions occurred in 2008 and 2012.

Table 9-26. Annual Pedestrian and Bicyclist Collisions, Severity, and Cost - Chatham County

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	1	2	0	2	\$5,100
2009	0	0	0	0	\$0
2010	0	0	0	0	\$0
2011	0	0	0	0	\$0
2012	1	1	0	1	\$2,500
Totals	2	3	0	3	\$7,600

Table 9-27. Annual Pedestrian Collisions, Severity, and Cost - Chatham County

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	1	0	0	1	\$5,000
2009	0	0	0	0	\$0
2010	0	0	0	0	\$0
2011	0	0	0	0	\$0
2012	1	1	0	1	\$2,500
Totals	2	1	0	2	\$7,500

Table 9-28. Annual Bicyclist Collisions, Severity, and Cost - Chatham County

Year	Fatalities	Injuries	No Injuries	Collisions	Costs
2008	0	2	0	1	\$100
2009	0	0	0	0	\$0
2010	0	0	0	0	\$0
2011	0	0	0	0	\$0
2012	0	0	0	0	\$0
Totals	0	2	0	1	\$100

Figure 9-21. Pedestrian Collision Locations - Chatham County

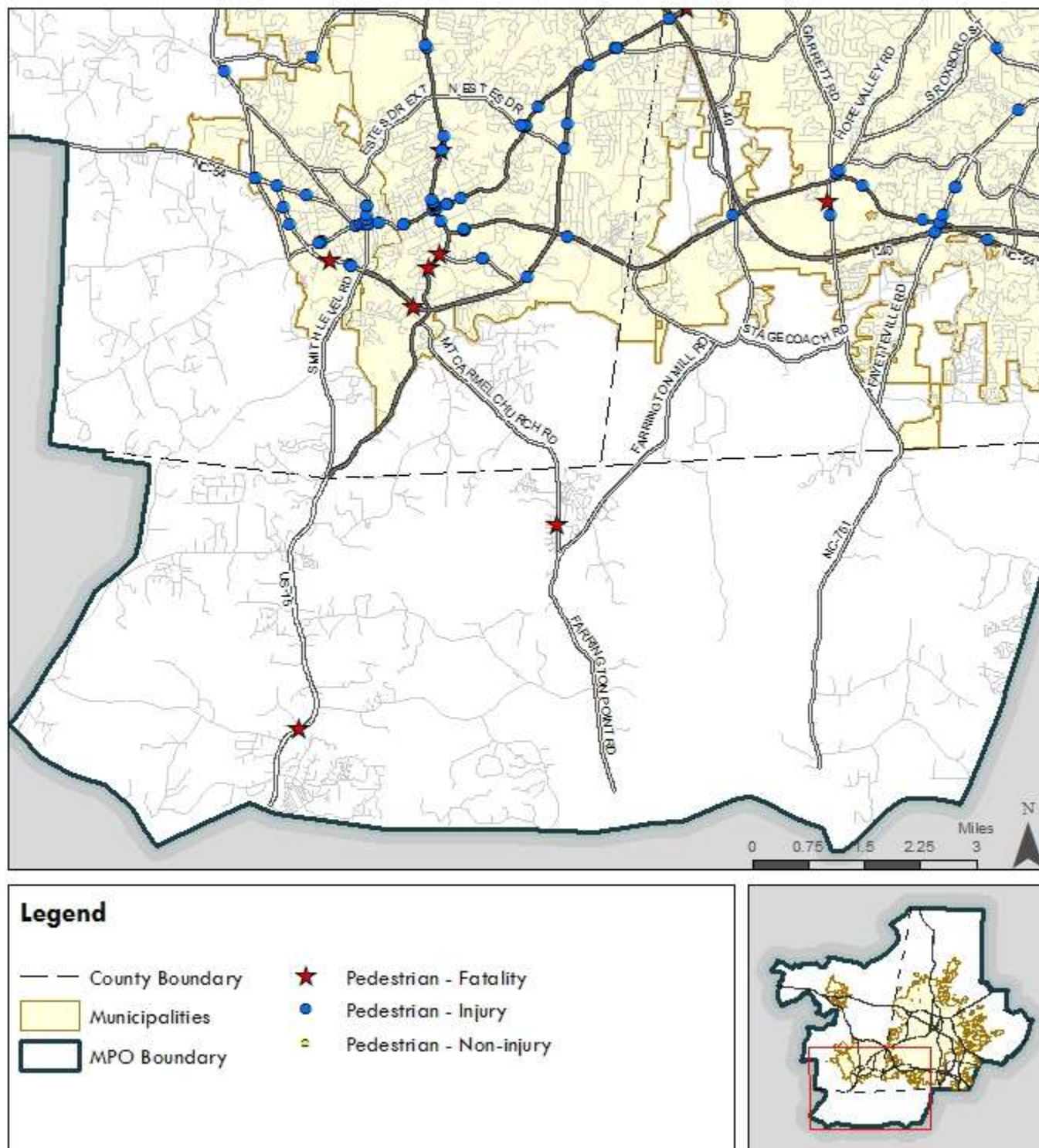
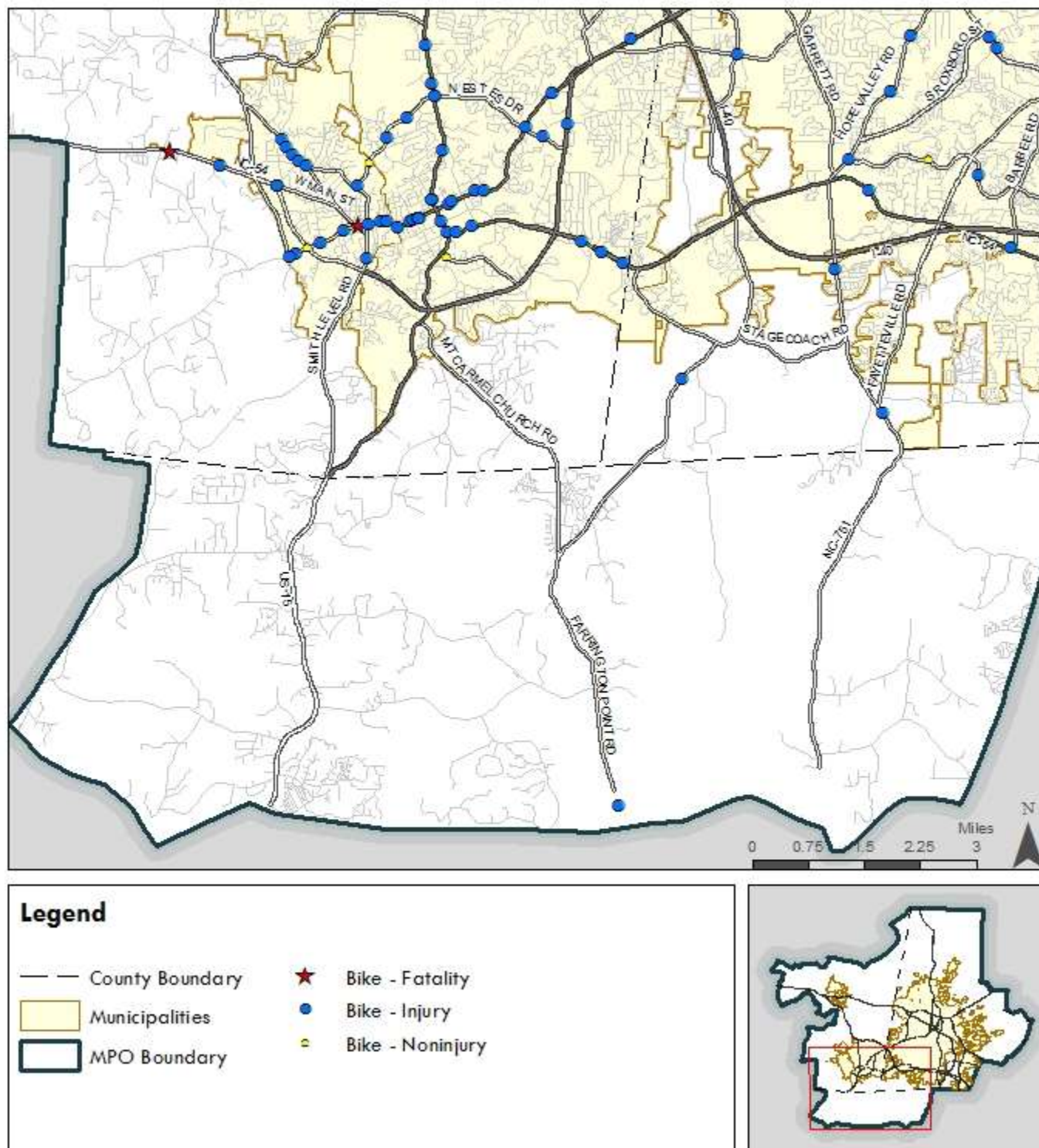


Figure 9-22. Bicyclist Collision Locations - Chatham County



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10. Transit Services

WHAT IS IT?

The MPO region has five fixed route transit service providers: Durham Area Transit Authority (DATA), Chapel Hill Transit (CHT), Duke University Transit, Orange Public Transportation (OPT) and the Triangle Transit Authority (TTA). Transit services can follow a fixed route and schedule, or they can operate on an as-needed basis. The latter type of service includes demand-response and paratransit, the latter provided for people with disabilities.

Why does it matter?

Many people in the DCHC region rely on transit, in addition to pedestrian and bicycle facilities, to access their daily needs. The location of routes, service frequency, and the hours of service are all important factors that influence transit mobility and transportation equity for the region.

METHODOLOGY

Transit service includes fixed route buses—buses which follow established routes and schedules—and demand-service buses. Fixed route transit provides information that can be used to evaluate transit performance. These data include number of stops, number of fixed routes, annual miles traveled in-service, annual hours in-service and number of buses used by each agency. Paratransit performance is evaluated by annual service miles, annual service hours and number of buses per agency.

Data was provided by each transit agency operating fixed route services. Only those routes that run at least partially inside the DCHC boundary were included in the evaluation, and all routes included in the evaluation were included in their entirety.

SUMMARY

CONDITION CHANGE UNKNOWN



KEY FINDINGS

The region has 92 fixed bus routes with a little more than 2,300 stops.

Each year the 252 buses that serve these routes and stops travel about 7.4 million miles.

The region also have 86 buses that provide less than 2.4 million miles paratransit services.

Duke University Transit and Chapel Hill Transit are both fare-free.

No data was collected for 2005, so changes in transit service provision is unknown.

REGIONWIDE RESULTS

The region has 92 fixed bus routes with a little more than 2,300 stops. Most agencies within the DCHC MPO cover a large area and provide services to at least two municipalities. Stops for each agency are frequently placed and easily accessible. Each year the 252 buses that serve these routes and stops travel about 7.4 million miles. The region also has 86 buses that provide less than 2.4 million miles paratransit services.

Fares for DATA and TTA (one-way) are at or below national averages, and those for CHT, OPT and Duke University transit are free (except PX on CHT and Mid-Day Shuttle on OPT). Weekday transit service began at least by 6:00am and ended by midnight or before for most transit agencies; Duke transit services began by 7:00am or a little after and continued to the early-morning hours (Table 10.1). For more information on schedules and fares for each agency please visit www.gotriangle.org and the Duke University parking and transportation website. DATA provided more service miles and service hours (including paratransit hours) in the DCHC MPO, followed closely by CHT and TTA (Table 10.2; Figures 10.1 and 10.2). CHT provided the most buses for fixed services, but DATA provided the most buses towards paratransit service (Table 10.3).

Table 10-1. Transit Service Hours of Operation and Fares by Agency

Agency	Weekday		Saturday		Sunday		Fares
	Begin	End	Begin	End	Begin	End	
Durham Area Transit Authority (DATA)	5:30	0:30	5:30	0:30	6:30	19:30	\$1.00
Duke Transit*	7:00	4:00	8:00	4:00	8:00	1:00	FREE
Chapel Hill Transit	5:15	02:33	8:05	02:33	10:30	23:32	FREE
Orange Public Transportation (OPT)	8:00	17:00	-	-	-	-	FREE
Triangle Transit Authority (TTA)	6:00	22:20	7:00	18:00	n/a	n/a	\$2.00

*Hours vary by route

Table 10-2. Transit Service Availability by Transit Agency

Agency	Durham Area Transit Authority	Duke Transit*	Chapel Hill Transit	Orange Public Transportation**	Triangle Transit Authority***	Totals
Stops	1,062	109	585	45	523	2,303
Fixed Routes	28	11	32	2	19	92
Annual Service Miles	3,980,475	911,992	2,098,326	125,832	2,635,470	9,752,095
Fixed route	2,565,904	724,466	1,774,251	65,016	2,242,226	7,371,863
Demand Response	1,414,571	187,526	324,075	60,816	393,244	2,380,232
Annual Service Hours	274,975	88,772	181,403	6,238	126,776	678,164
Fixed route	190,583	65,086	155,977	2,838	109,588	524,072
Demand Response	84,392	23,686	25,426	3,400	17,188	154,092

*FY2012 data

**Services within Durham Urbanized Area (UZA)

***Includes all of TTA service area, not just MPO

Table 10-3. Transit Service Bus Availability by Transit Agency

Agency	Fixed Route Buses	Paratransit Buses
Durham Area Transit Authority (DATA)	63	48
Duke Transit	21	2
Chapel Hill Transit	98	19
Orange Public Transportation (OPT)	2	6
Triangle Transit Authority (TTA)	64	15
Totals	252	86

Figure 10-1. Annual Service Miles and Number of Buses by Transit Agency

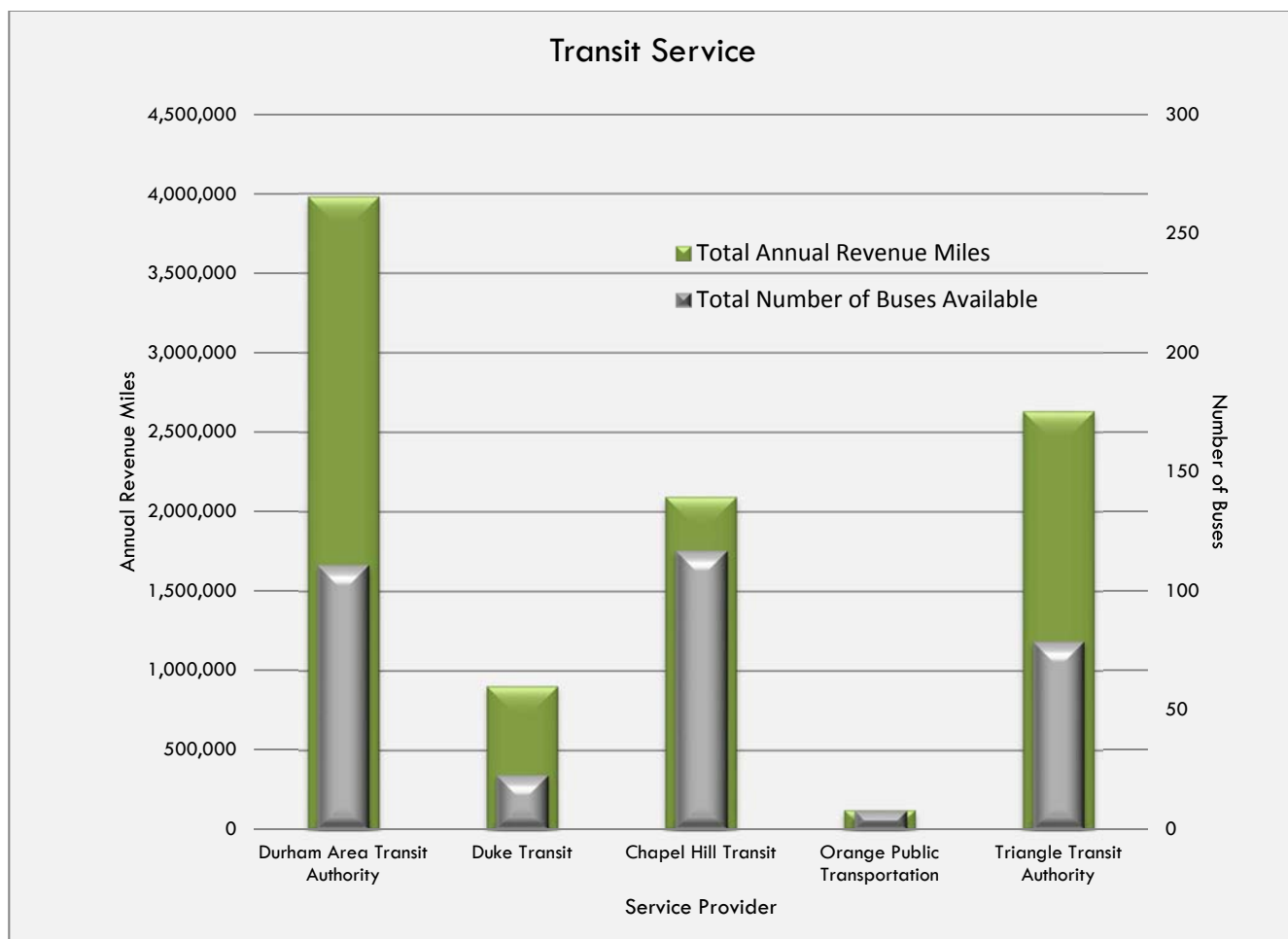


Figure 10-2. Proportion of Total Annual Service Miles by Transit Agency

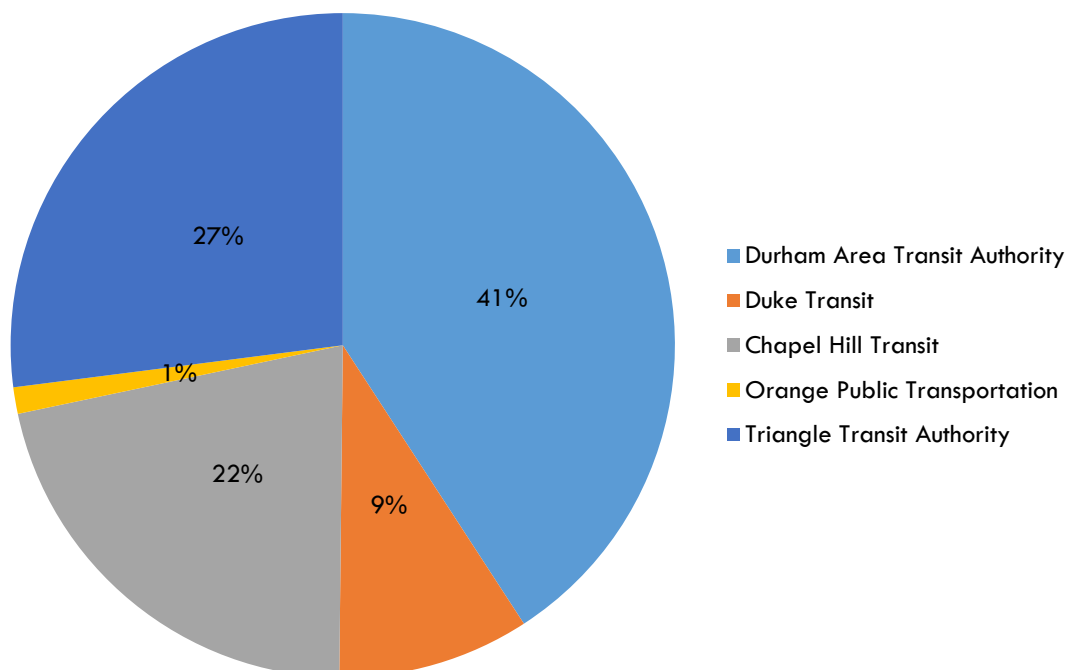


Figure 10-3. Proportion of Total Annual Service Hours by Transit Agency

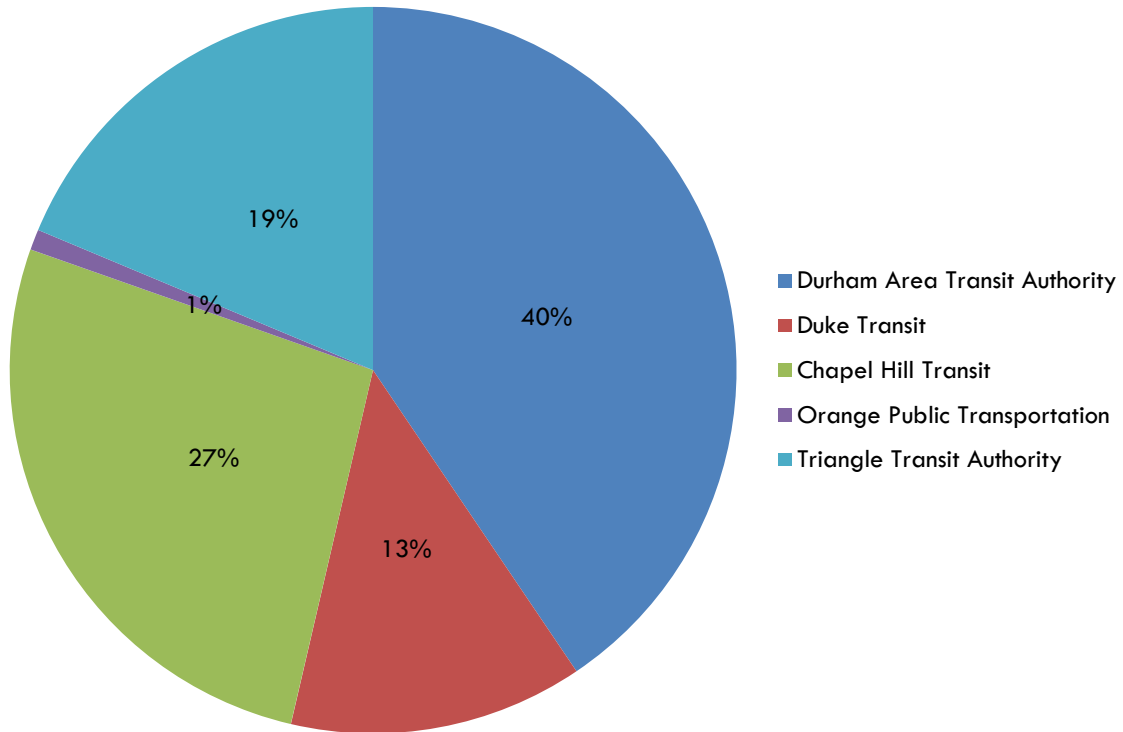
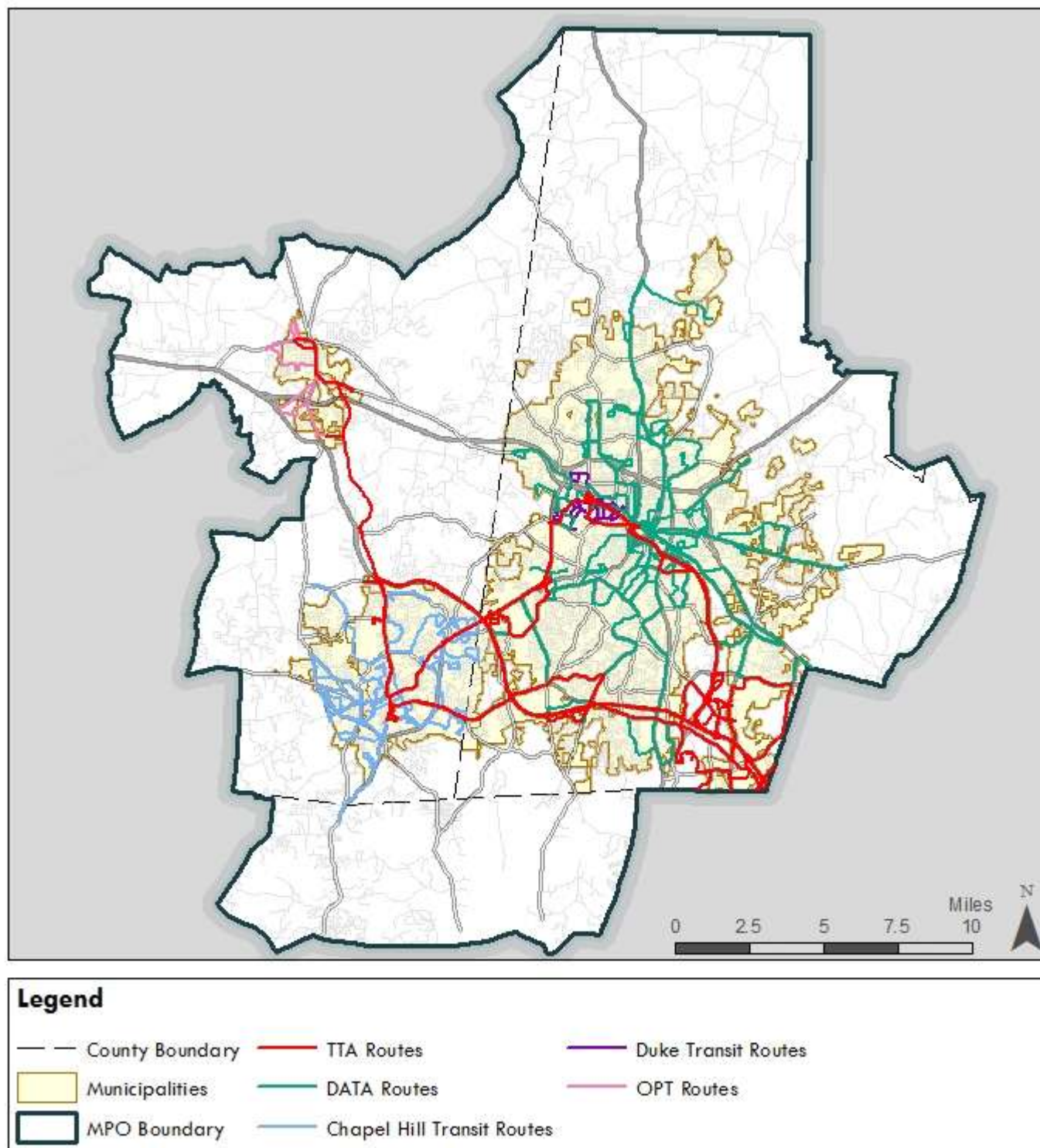


Figure 10-4. Transit Service Coverage - DCHC MPO



RESULTS BY GEOGRAPHY

The following provides detailed results on transit services summarized by municipality.

Durham

Durham appears to have plenty of transit options operating over reasonable hours and for most of the year. Paratransit service options are ample, particularly from the Durham Area Transit Authority (DATA). The paratransit service is provided within Durham County.

DATA provides transit service, fixed route and paratransit, throughout the City of Durham to Research Triangle Park (RTP) and Raleigh-Durham International Airport (RDU). Service is heavier in and around downtown, and relatively lighter in North and South Durham. The paratransit service is provided within Durham County.

Duke University Transit routes are mainly in and around campus, but many of their students and faculty use DATA and Triangle Transit (TTA) transit services. Similarly, DATA, TTA and Duke University transit services share routes and stops around the city.

Figure 10-5. Transit Service Coverage - North Durham

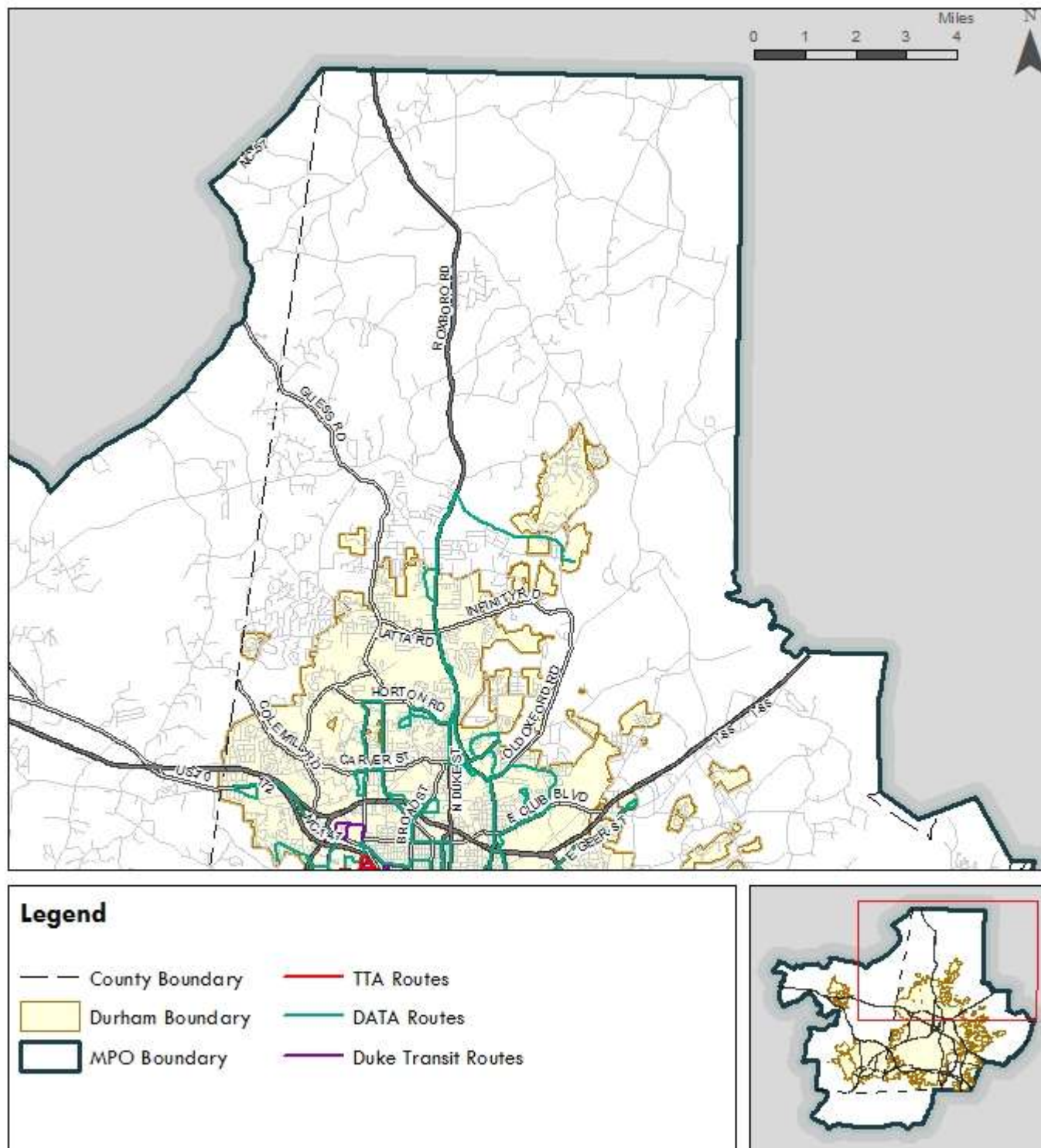


Figure 10-6. Transit Service Coverage - Downtown Durham

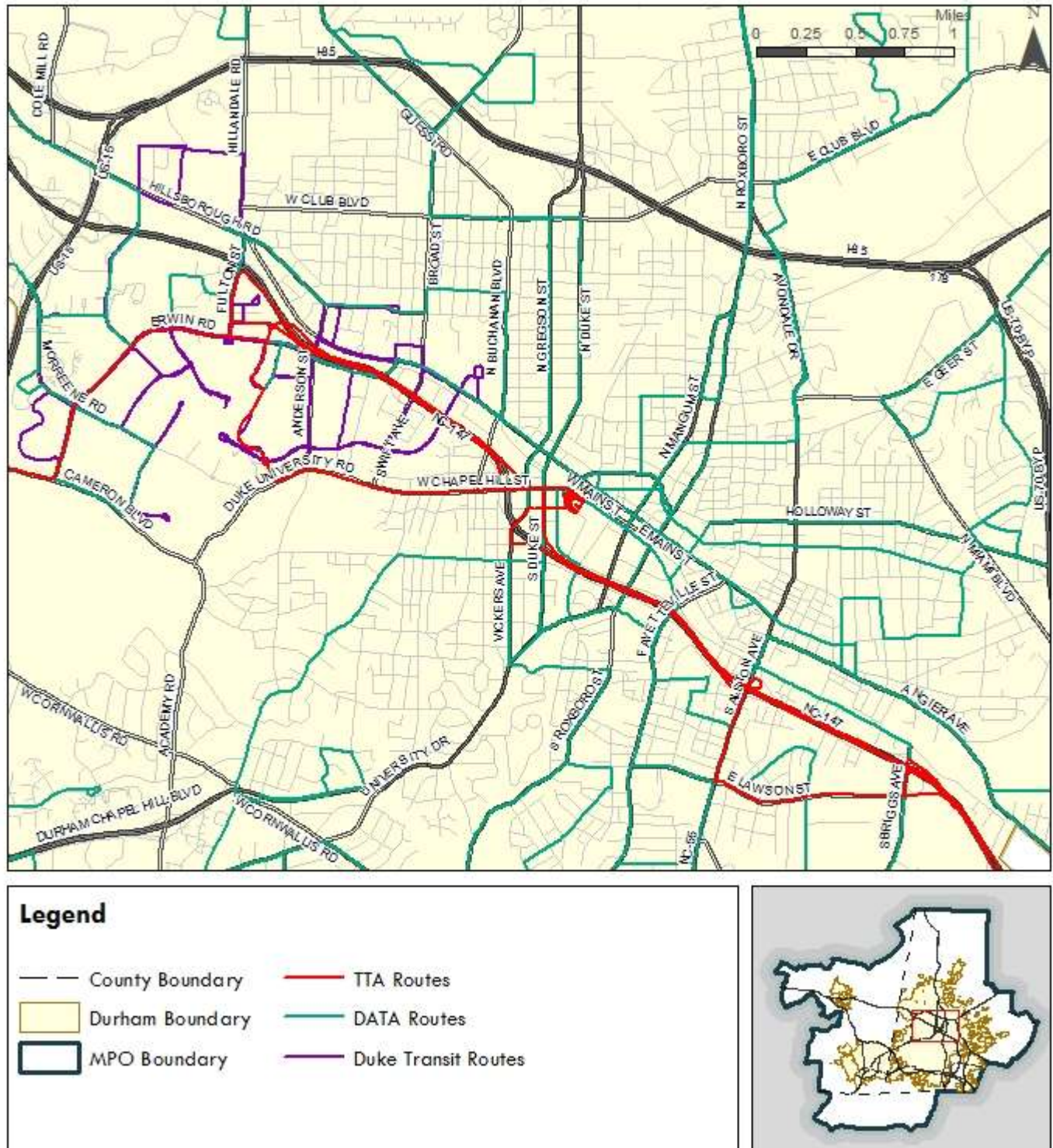
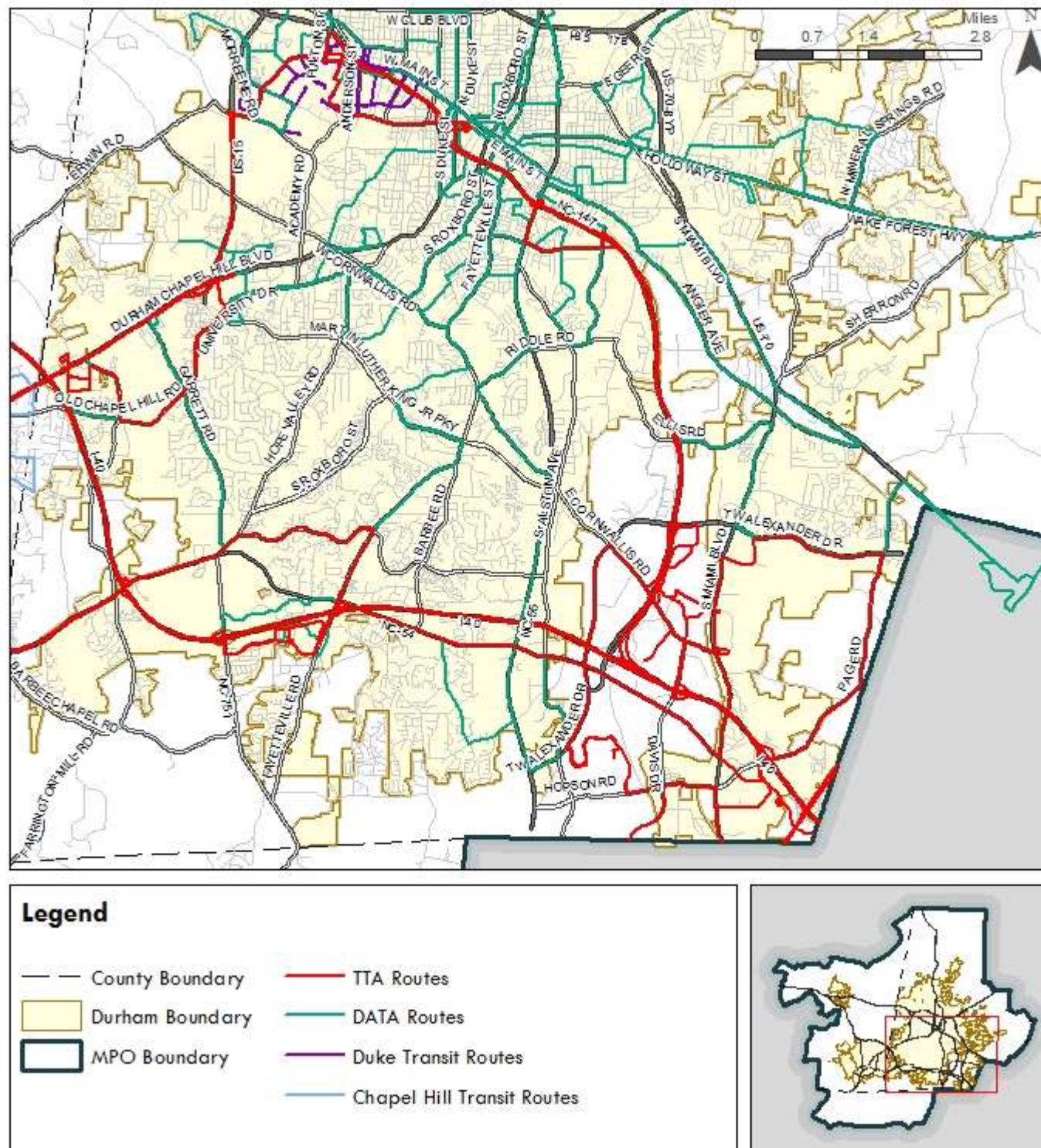


Figure 10-7. Transit Service Coverage - South Durham



Transit Service by Agency

Durham Area Transit Authority (DATA)

DATA transit services began at 5:30 AM and ended at 12:30 AM Mondays through Saturdays; Sunday service began at 6:30 AM and ends at 7:30 PM. Paratransit services, known as DATA ACCESS, were available on demand. DATA buses traveled about four million miles on 28 fixed routes and operate constantly throughout the year, with Christmas Day the only day without services (Table 10.4). Table 10.5 provides scheduled service miles and hours by route.

Table 10-4. FY 2013 Performance Measures - DATA

	Fixed Route	DATA ACCESS	Total
Annual Service Miles	2,565,904	1,414,571	3,980,475
Annual Service Hours	190,583	84,392	274,975
Number of Vehicles	63	48	111

Table 10-5. FY 2013 Service Miles and Hours by Fixed Route – DATA*

Route	Annual Revenue Miles	Annual Revenue Hours
1	140,977	10,553
2	153,590	11,170
3	123,651	10,455
4	119,299	10,546
5	169,407	14,945
6	132,687	12,203
7	240,991	15,689
8	123,900	11,108
9	188,422	16,452
10	226,360	18,446
11	143,183	10,042
12	145,886	7,338
13	50,444	3,296
14	52,694	2,849
15	74,030	2,716
16	101,662	8,150
16B	6,696	461
17	63,733	3,230
18 (BCC)	148,418	13,688
Tripper	2,441	136
Totals	2,408,471	183,473

*The service information is accurate as of the beginning of FY2013, but changed throughout the year.

Duke University Transit

Duke University Transit services began at 7:00 or 8:00 AM and ended at 4:00 AM Mondays through Saturdays; Sunday service began at 8:00 AM and ended at 1:00 AM. Service schedules were highly variable among routes. Nine fixed routes were available. Paratransit services were available on demand. Tables 10.6, 10.7 and 10.8 summarize transit service availability from Duke University.

Table 10-6. FY 2012 Performance Measures - Duke University Transit

	Fixed Route	Demand Response	Total
Annual Service Miles	724,466	187,526	911,992
Annual Service Hours	65,086	23,686	88,772
Number of Vehicles	21	2	23

Table 10-7. Weekday Duke University Transit Service Miles by Route

Route	Annual Service Miles	Buses (School Year)	Buses (Summer)
C1	144,058	5	2
C2	192,076	3	-
H1	57,720	2	2
H3	45,240	2	2
H5	81,120	3	3
H6	48,100	2	2
PR1	37,440	1	1
LaSalle Loop	41,600	1	1
Robertson	77,112	2	-
Totals	724,466	21	13

Table 10-8. Weekend Duke University Transit Bus Availability

Route	Buses by Route (School Year)	Buses by Route (Summer)
C1	1	-
C2	2	2
Robertson	1	-

Triangle Transit (TTA)

TTA transit services began at 6:00 AM and ended at 10:20 PM Mondays through Fridays. Saturday service began at 7:00 AM and ended at 6:00 PM; there was no Sunday service. TTA offers 18 fixed routes within the DCHC MPO and shares many routes with DATA, CHT and Duke University. Paratransit services were available on demand. TTA doesn't track individual paratransit trips, so those data represent all paratransit services by the TTA (Table 10.9).

Table 10-9. FY 2013 Performance Measures - TTA

	Fixed Route	Paratransit*	Total
Annual Service Miles	2,242,226	393,244	2,635,470
Annual Service Hours	109,588	17,188	126,776
Number of Vehicles	61	11	72

*Includes all of TTA service area, not just MPO

Table 10-10. FY 2013 Service Miles and Hours by Fixed Route - TTA

	Route	Annual Revenue Miles	Annual Revenue Hours
42	Shuttle 42	26,250	1,167
46	Shuttle 46	25,505	1,183
47	Shuttle 47	25,250	1,185
49	Shuttle 49	22,270	1,155
100	Raleigh-Airport-RTC	205,368	11,040
105	Raleigh-RTC	93,639	4,630
201	North Raleigh-RTC	46,940	1,975
301	Raleigh-Cary-RTC	136,489	7,438
311	Apex-EPA-RTC	110,810	5,013
400	Durham-New Hope Commons-Chapel Hill	198,930	11,925
405	Durham-Chapel Hill	97,591	5,505
420	Hillsborough-Chapel Hill	73,283	3,458
700	Durham-RTC	142,250	6,847
800	Chapel Hill-Southpoint-RTC	179,204	9,804
805	Chapel Hill-Woodcroft-RTC	122,580	7,545
CRX	Chapel Hill-Raleigh Express	193,645	6,195
DRX	Durham-Raleigh Express	148,349	5,283
RSX	Robertson Express	45,271	2,111
	Totals	1,867,374	93,459

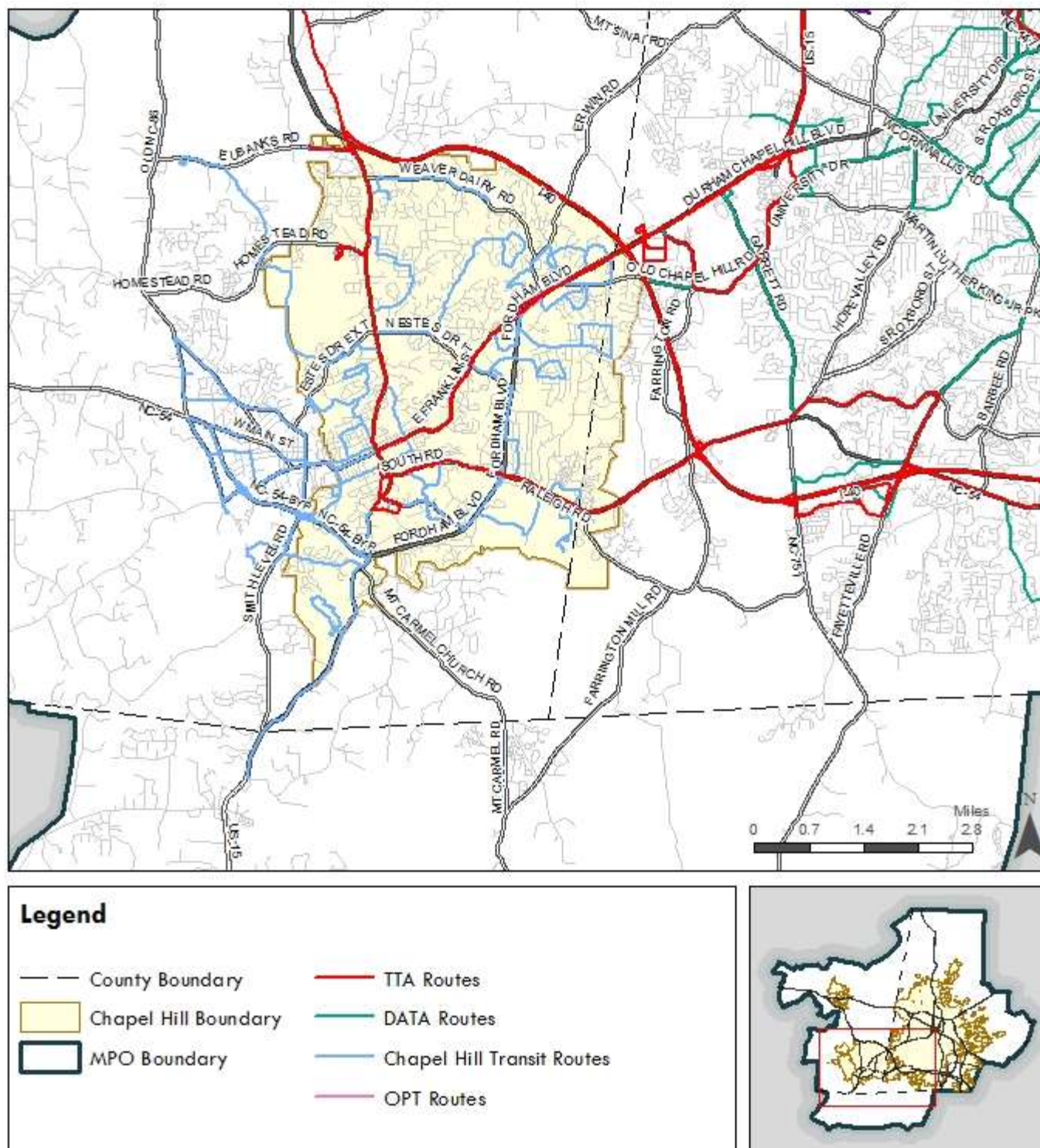
Table 10-11. Service Miles and Hours on Saturday Routes – TTA

	Route	Annual Revenue Miles	Annual Revenue Hours
100	Raleigh-Airport-RTC	24,403	1,326
400	Durham-New Hope Commons-Chapel Hill	22,493	1,306
700	Durham-RTC	15,950	656
800	Chapel Hill-Southpoint-RTC	20,704	1,283
RSX	Robertson Express	3,541	184
	Totals	87,091	4,755

Chapel Hill

Chapel Hill receives transit coverage from Chapel Hill Transit (CHT) and Triangle Transit (TTA). CHT provides transit service, fixed route and paratransit, throughout Chapel Hill and Carrboro. The route to Hillsborough is provided by TTA, which contracts with CHT to operate the service. All CHT routes are free to the public except PX (Pittsboro Express) which costs \$3.00 for a one-way fare. Some DATA routes are also close by. DATA routes approach the Durham/Orange County line, near Chapel Hill.

Figure 10-8. Transit Service Coverage - Chapel Hill and Chatham County



Transit Service by Agency

Chapel Hill Transit (CHT)

CHT provides transit service to Chapel Hill, Carrboro, and the University of North Carolina area and offers 29 fixed routes. Transit services began at 6:00 AM and ended at 11:00 PM Mondays through Fridays, 8:00 AM to 11:00 PM on Saturdays and 11:30 AM to 11:00 PM on Sundays. Safe Ride services ended at 2:30 AM on Thursdays, Fridays and Saturdays. Paratransit services were available on demand. For data on TTA and DATA in or near Chapel Hill, please see the subchapter on Durham.

Table 10-12. FY 2013 Service Miles and Hours - CHT

	Fixed Route	Paratransit*	Total
Annual Service Miles	1,774,251	324,075	2,098,326
Annual Service Hours	155,977	25,426	181,403
Number of Vehicles	76	14	90

Table 10-13. FY 2013 Service Miles and Hours by Fixed Route – CHT

Weekday Route	School Year Miles	Summer Miles	Annual Service Miles
A - MLK Jr Blvd/Northside (1)	63,785	13,250	77,035
CL - Colony Lake (2)	19,945	2,730	22,675
CM - Carrboro/ Merritt Mill Rd (3)	36,096	7,606	43,702
CW - Carrboro/Weaver St (6)	36,215	7,672	43,887
D - Culbreth Rd/ Franklin St (7)	91,728	21,146	112,874
F - Colony Woods/Franklin St (8)	59,914	7,969	67,883
FCX - Friday Center Express (9)	90,602	18,685	109,287
G - Booker Creek/ UNC Hospitals (10)	62,443	14,182	76,624
HS - High School/Downtown (11)	23,248	3,985	27,233
HU - UNC Hospital/ 54 P&R/ (12)	74,176	15,088	89,264
J - Carrboro/Downtown Chapel Hill (13)	116,806	28,160	144,966
JFX - Jones Ferry Road Express (14)	41,375	10,368	51,743
N - Estes PK/UNCH/Family Medicine (16)	36,527	6,582	43,109
NS - Eubanks Rd/Southern Village (17)	155,585	36,275	191,859
NU - PR Lot/UNC Hospital (18)	49,406	10,553	59,960
RU - Reverse Shuttle (19)	42,528	8,911	51,439
S - South Campus/NC 54 P&R (20)	81,258	14,967	96,225
T - MLK Jr Blvd/UNC Hospital (21)	52,500	11,093	63,593
U - Campus Shuttle (23)	37,025	7,957	44,982
V - Southern Village/Meadowmont (24)	48,390	10,227	58,617
SAFE G - Safe Ride G (30)	8,066	0	8,066
SAFE J - Safe Ride J (31)	9,550	0	9,550
SAFE T - Safe Ride T (32)	8,978	0	8,978
CEXP - Carrboro Plaza Express (36)	38,797	7,162	45,959
CCX - Chatham County Express (37)	72,056	14,263	86,319
DX - D Express (38)	7,911	1,767	9,678
PX - Pittsboro Express (39)	23,096	5,935	29,031
Total	1,388,005	286,531	1,674,537

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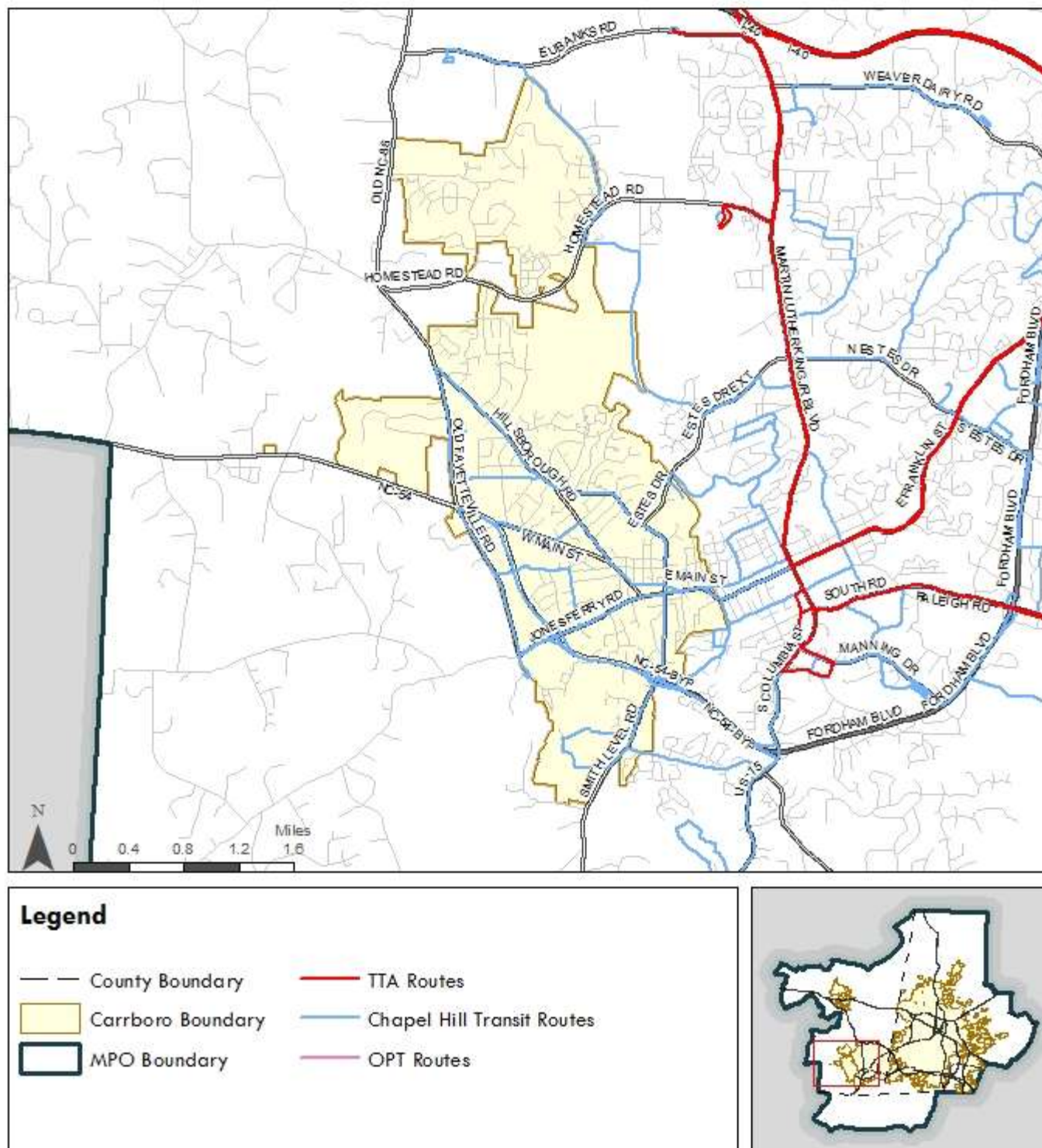
Table 10-14. Service Miles and Hours on Weekend Routes – CHT

Weekend Route	School Year Miles	Summer Miles	Annual Service Miles
CM - Weekend (3)	2,080	390	2,470
CW - Weekend (6)	2,832	531	3,363
D - Weekend (7)	4,403	826	5,229
NU - Saturday (18)	5,840	224	6,064
T - Weekend (21)	6,543	1,428	7,971
U - Saturday (23)	4,359	152	4,511
FG - Weekend (27)	2,768	779	3,547
JN - Weekend (28)	3,429	964	4,394
NU - Sunday	3,815	224	4,039
U - Sunday	2,590	152	2,743
Total	38,660	5,671	44,330

Carrboro

Public transit in Carrboro is covered by Chapel Hill Transit (CHT). Triangle Transit (TTA) services are available in nearby Chapel Hill. Chapel Hill Transit (CHT) provides transit service, fixed route and paratransit, throughout the Town of Carrboro.

Figure 10-9. Transit Service Coverage - Carrboro



Transit Service by Agency

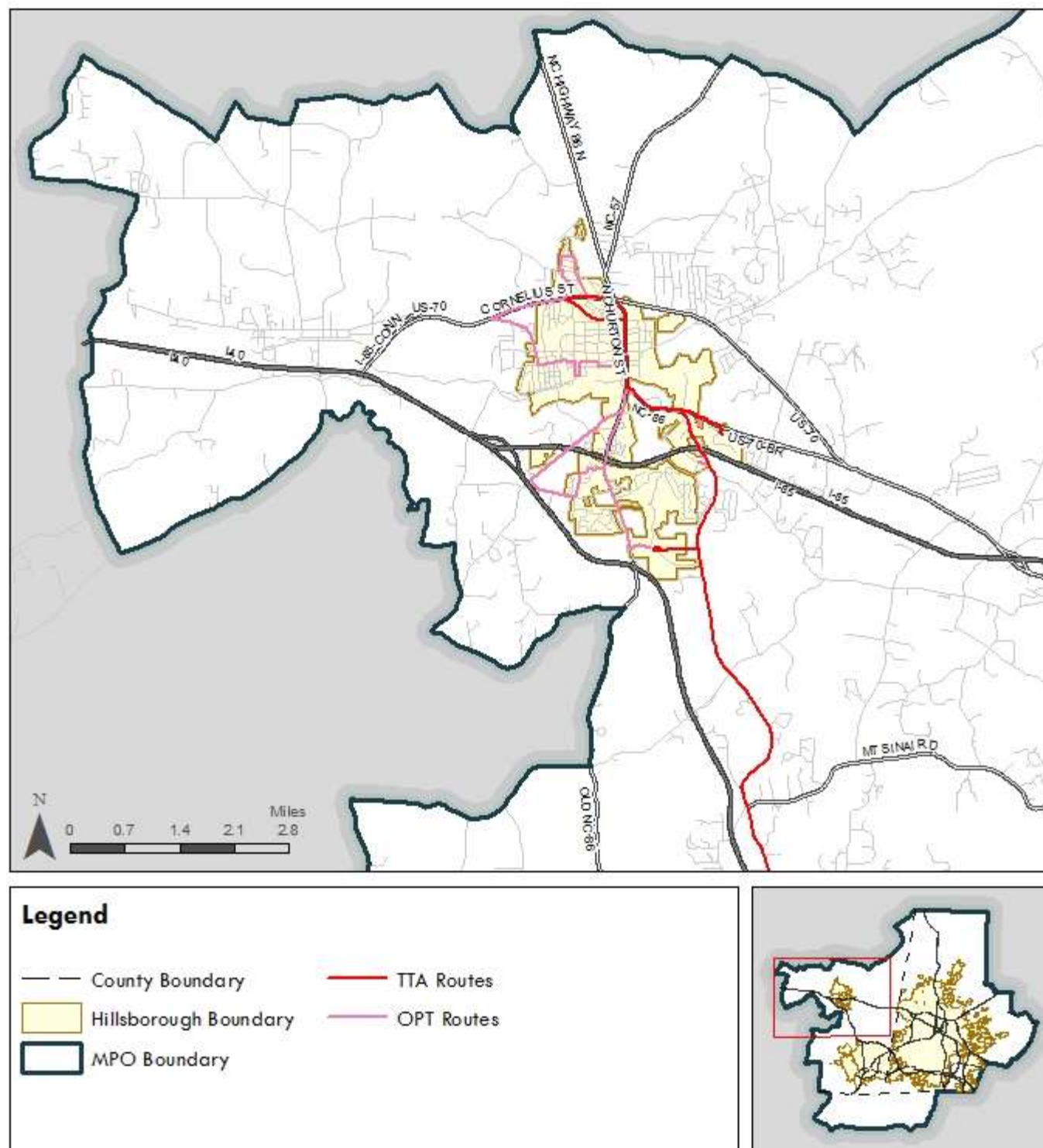
Chapel Hill Transit (CHT)

CHT provides transit service to Chapel Hill, Carrboro, and the University of North Carolina area and offers 29 fixed routes. Transit services began at 6:00 AM and ended at 11:00 PM Mondays through Fridays, 8:00 AM to 11:00 PM on Saturdays and 11:30 AM to 11:00 PM on Sundays. Safe Ride services ended at 2:30 AM on Thursdays, Fridays and Saturdays. Paratransit services were available on demand. For data on CHT, please see the subchapter on Chapel Hill.

Hillsborough

Hillsborough receives transit coverage from Orange Public Transportation (OPT) and Triangle Transit (TTA). OPT provides transit service, fixed route and paratransit, around Hillsborough. Both OPT and TTA provide one fixed route from Hillsborough to Chapel Hill.

Figure 10-10. Transit Service Coverage - Hillsborough



Transit Services by Agency

Orange Public Transportation (OPT)

OPT provides transit services to Hillsborough, Chapel Hill and the University of North Carolina area and offers two fixed routes (Hillsborough Circulator and Mid-Day Shuttle (Route 420)). The Hillsborough Circulator service started at 8:00 AM and ended at 5:00 PM Mondays through Fridays. There was no weekend service. The Mid-Day Shuttle –Route 420 provided two shuttle services a weekday, started at 10:00 AM and 1:00 PM. Paratransit services were available on demand. The demand-response services OPT provides includes transportation for Medicaid clients to medical appointments, general public dial-a-ride demand-response service, senior center shuttle service, medical appointment transportation for persons 60+ and disabled populations, and service provided to transport persons with developmental disabilities to employment.

Table 10-15. FY 2013 Service Miles and Hours – OPT

		Fixed Route	Paratransit	Total
Systemwide Service	Annual Service Miles	65,016	276,437	341,453
	Annual Service Hours	2,838	15,455	18,293
	Number of Vehicles	2	6	8
Service Within Durham UZA	Annual Service Miles	65,016	60,816	125,832
	Annual Service Hours	2,838	3,400	6,238
	Number of Vehicles	2	6	8

Triangle Transit (TTA)

TTA transit services operate between 6:00 AM and 9:15 AM and between 3:40 PM and 6:55 PM Mondays through Fridays. There was no weekend service. TTA's one fixed route from Hillsborough to Chapel Hill (Route 420) covered 73,286 revenue service miles over 3,458 hours during the 2013 fiscal year. Paratransit services were available on demand, but as TTA does not track individual paratransit trips, there is no available data specific to Hillsborough.

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11. Transit Ridership

WHAT IS IT?

Ridership measures the number of times a trip is made using public transit. It is transit's version of traffic volume. As such, it is among the most important measures that transit agencies track.

Why does it matter?

Transportation planners use these data for each route or bus stop to make service improvements. The ridership for a route may determine what type of equipment the agency uses. For example, high ridership may cause an agency to add buses, use larger buses, or eventually even upgrade the route to an entirely different type of transit, such as light rail. Ridership data also help planners identify new routes or alter other routes in order to better serve a community's transit needs.

METHODOLOGY

The most common and easiest way to evaluate transit services is to measure the number of riders using each agency's services (by route, if possible) to produce an annual average of transit ridership. This is done by counting the number of people boarding and exiting a bus at each stop along each transit route. Counts are done on weekdays in the fall, then extrapolated to produce an average annual number of trips (annual ridership) for each route provided by a transit agency. Producing an average number is very similar to the average annual daily traffic discussed in Chapter 1 – Vehicular Activity and Level of Service; it yields a reliable estimate of riders which accounts for seasonal, weekly and meteorological variations.

SUMMARY

CONDITION IMPROVING

KEY FINDINGS

The region's five transit agencies carried about 18 million riders in 2013.

Paratransit handled about 300,000 passengers

Ridership increased between 2012 and 2013:

- DATA ridership increased by 2%
- TTA ridership by than 24%
- Chapel Hill Transit ridership had little change

Chapel Hill Transit had the highest ridership with 6.9 million riders

The Duke University bus between East and West campus was the highest-ridership route, at 1.3 million riders.

REGIONWIDE RESULTS

The region's five transit agencies carried about 18.3 million riders in 2013. Paratransit handled about 300,000 passengers in 2013.

Transit plays a key role in the region in helping people access the Duke and UNC campuses.

- The Duke University bus between the East and West campuses had the highest ridership of any route in the region, with about 1.3 million riders per year. The campuses are among the densest centers of activity in the region.
- Chapel Hill Transit's J route had the highest ridership in the system. It connects Carrboro with the UNC campus.

Chapel Hill Transit had the highest ridership with 6.96 million riders, but Chapel Hill Transit is also fare-free for all users. Additionally, demand for transit in Chapel Hill is bolstered by purposefully limited parking in and around UNC, the primary destination for Chapel Hill transit users.

Chapel Hill Transit carries 38 percent of the region's riders while only providing only 23 percent of the service miles. This is likely because the bus system is fare-free for all users, and service can be consolidated around a limited number of high-traffic destinations, such as downtown and UNC campus.

Ridership data was collected for FY 2012 and 2013. DATA ridership increased by 2 percent and TTA ridership by more than 24 percent between 2012 and 2013. Chapel Hill Transit ridership had little change between the two years.

Figure 11-1. Ridership Changes FY 2012-2013

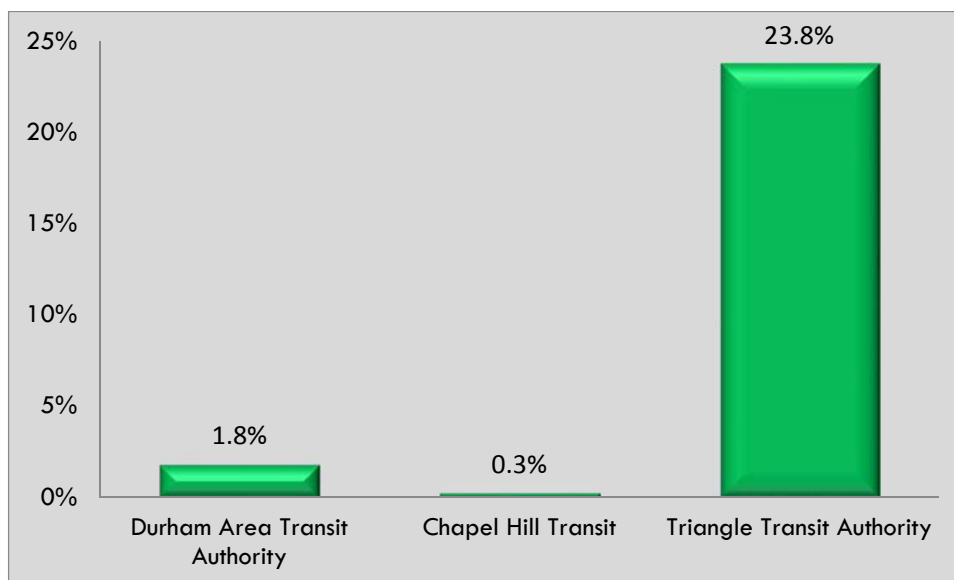
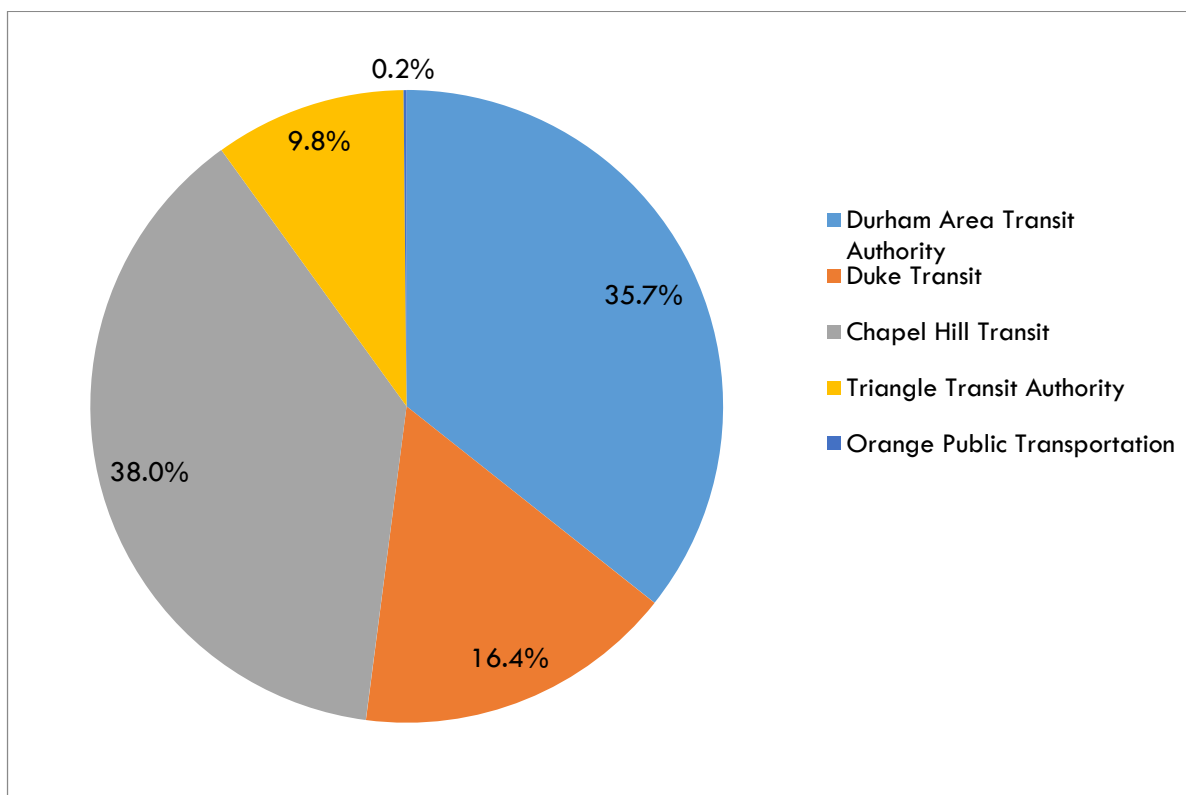


Table 11-1. FY 2013 Transit Ridership by Transit Agency

Agency	Fixed-Route Ridership	Demand Ridership	Annual Ridership	Service Area Population	Riders per Capita
Durham Area Transit Authority (DATA)	6,356,458	183,820	6,540,278	240,017	27.25
Duke Transit	3,004,177	2,314	3,006,491	25,851	116.3
Chapel Hill Transit	6,895,848	65,566	6,961,414	80,218	86.78
Triangle Transit Authority (TTA)	1,769,200	28,326	1,797,526	n/a	n/a
OPT*	15,806	14,186	29,992	n/a	n/a
Totals	18,041,489	294,212	18,335,701	n/a	n/a

*Services within Durham UZA

Figure 11-2. Annual Ridership by Transit Agency



RESULTS BY AGENCY

The following provides detailed results on transit ridership summarized by agency.

Durham Area Transit Authority (DATA)

Total average ridership data was obtained from DATA for FY 2013. Ridership increased for fixed-route and demand services over the last year, but much more of an increase occurred for demand-response services. (Table 11.2)

- DATA offers 20 fixed routes and a demand service called DATA access
- Four routes (20%) had an annual ridership above 500,000; 9 (45%) had annual ridership of over 400,000 people annually
- Ridership increased for fixed-route and demand services over the last year, but, as one would expect, much more of an increase occurred for demand-response services.
- Many DATA routes are concentrated in downtown and extend out to popular shopping centers, residential areas and to Duke University
- Routes to Woodcroft Pkwy (#10), South Square Mall (#5), Holloway Street (#3) and Bull City Connector (#18) had the most ridership;
- The Hwy 54 & 55 (#14), Neal Middle School (#16B) and Tripper (-) routes were the bottom three in annual ridership

Table 11-2. FY 2011, 2012 and 2013 Annual Transit Ridership – DATA

Ridership	FY2011 (a)	FY2012 (b)	FY2013 (c)	% Change (c/b)
Fixed Route Passenger Trips	5,646,870	6,314,044	6,356,458	0.7%
Demand Response	107,912	113,046	183,820	62.6%
Total Ridership	5,754,782	6,427,090	6,540,278	1.8%

Table 11-3. FY 2013 Transit Ridership for Fixed Routes - DATA

	Route*	Annual Ridership
1	Northgate Mall & North Pointe	466,408
2	East Durham & Hwy 70	389,032
3	Holloway Street & The Village	593,451
4	Durham Regional Hospital & N Roxboro Road	408,531
5	Fayetteville Street & South Square	595,570
6	Duke University & VA Hospital	442,981
7	Fayetteville Road & Streets at Southpoint	465,966
8	McDougald Terrace & Durham Tech	377,703
9	Dearborn Drive & Durham Regional Hospital	477,764
10	Woodcroft Pkwy & New Hope Commons	599,890
11	Duke University & Hillsborough Road	300,837
12	Hwy 55 & Hwy 54	271,385
13	Durham Tech & The Village	59,457
14	Hwy 54 & 55 - Woodcroft / Streets at Southpoint Circulator	13,467
15	Brier Creek	36,860
16	Hwy 98/The Village	275,313
16B	Neal Middle School/Southern High School	1,000
17	Snow Hill Road & Horton Road	52,977
18	Bull City Connector	529,637
-	Tripper	730
	Totals	6,358,959

*The route information is accurate as of the beginning of FY2013, but changed throughout the year.

Duke University Transit

Total average ridership data was obtained from Duke University Transit for FY 2012. Duke University offers 10 fixed routes and a demand service.

- The C1 route had the highest ridership of any route from any transit service in the entire MPO.
- DATA and TTA transit services are easily accessible from Duke Campuses.
- Ridership of fixed-route services was quite high over the last year, but demand services were very low.
- The C1 route travelling from East Campus along Campus Drive to Duke Chapel had the highest annual ridership, followed by C2 which travels a similar route to C1.

Table 11-4. FY 2012 Annual Ridership - Duke University Transit

Ridership Totals	FY2012
Fixed Route Passenger Trips	3,004,177
Demand Response	2,314
Total Ridership	3,006,491

Table 11-5. Ridership by Route - Duke University Transit

Route	Annual Ridership
C1	1,313,249
C2	622,921
H1	173,446
H3	262,235
H5	63,421
H6	178,432
PR1	43,649
LaSalle Loop	240,020
Robertson	106,804
Demand Response	2,314
Totals	3,006,491

Chapel Hill Transit (CHT)

Total average ridership data was obtained from CHT for FY2013.

- CHT offers 29 fixed routes and a demand-response service.
- Total ridership remained almost the same between fiscal years (Table 11.6).
- Fixed route passenger trips were effectively unchanged, with a 0.3% decrease in weekday ridership partially offset by a 12.4% increase on weekends

Table 11-6. FY 2013 Annual Ridership – CHT

Ridership	FY2011 (a)	FY2012 (b)	FY2013 (c)	% Change (c/b)
Fixed Route Passenger Trips	7,136,127	6,881,691	6,895,848	0.21%
Demand Response	64,621	62,375	65,566	5.12%
Total Ridership	7,200,748	6,944,066	6,961,414	0.25%

Table 11-7. Annual Ridership by Weekday Fixed Route – CHT

Weekday Route	FY2011 (a)	FY2012 (b)	FY2013 (c)	% Change (c/b)
A - MLK Jr Blvd/Northside (1)	274,296	263,829	288,181	9%
CL - Colony Lake (2)	53,500	39,041	43,566	12%
CM - Carrboro/ Merritt Mill Rd (3)	141,373	151,733	151,319	0%
CW - Carrboro/Weaver St (6)	178,778	182,754	196,248	7%
D - Culbreth Rd/ Franklin St (7)	433,282	465,156	458,130	-2%
F - Colony Woods/Franklin St (8)	250,176	239,241	229,773	-4%
FCX - Friday Center Express (9)	395,470	443,086	437,449	-1%
G - Booker Creek/ UNC Hospitals (10)	251,767	206,519	192,308	-7%
HS - High School/Downtown (11)	46,208	35,936	33,652	-6%
HU - UNC Hospital/ 54 P&R/ (12)	182,783	140,560	135,209	-4%
J - Carrboro/Downtown Chapel Hill (13)	968,627	944,396	907,784	-4%
JFX - Jones Ferry Road Express (14)	184,031	197,064	197,166	0%
N - Estes PK/UNCH/Family Medicine (16)	149,087	122,621	134,352	10%
NS - Eubanks Rd/Southern Village (17)	817,151	859,867	833,427	-3%
NU - PR Lot/UNC Hospital (18)	259,835	251,873	300,880	19%
RU - Reverse Shuttle (19)	361,095	344,451	323,804	-6%
S - South Campus/NC 54 P&R (20)	424,129	460,967	473,202	3%
T - MLK Jr Blvd/UNC Hospital (21)	271,927	275,979	266,130	-4%
U - Campus Shuttle (23)	429,709	414,332	441,346	7%
V - Southern Village/Meadowmont (24)	179,359	165,067	143,372	-13%
SAFE G - Safe Ride G (30)	2,405	2,724	3,055	12%
SAFE J - Safe Ride J (31)	5,853	6,226	7,793	25%
SAFE T - Safe Ride T (32)	13,116	10,426	12,377	19%
CEXP - Carrboro Plaza Express (36)	140,478	151,063	151,476	0%
CCX - Chatham County Express (37)	155,921	139,581	132,192	-5%
DX - D Express (38)	42,432	37,746	31,165	-17%
PX - Pittsboro Express (39)	19,577	20,042	26,998	35%
Total Ridership	6,632,365	6,572,280	6,552,354	-0.30%

Table 11-8. Annual Ridership by Weekend Fixed Route - CHT

Weekend Route	FY2011	FY2012	FY2013	% Change
CM - Weekend (3)	4,293	4,240	4,215	-1%
CW - Weekend (6)	9,478	9,913	10,464	6%
D - Weekend (7)	17,592	19,632	18,144	-8%
NU - Saturday (18)	14,731	17,817	20,760	17%
T - Weekend (21)	14,017	16,445	17,209	5%
U - Saturday (23)	17,613	19,285	27,023	40%
FG - Weekend (27)	11,320	9,687	10,122	4%
JN - Weekend (28)	13,258	11,769	11,558	-2%
NU - Sunday (18)	19,110	16,763	20,978	25%
U - Sunday (23)	15,327	18,670	21,628	16%
Total Ridership	136,739	144,221	162,103	12.4%

Triangle Transit Authority (TTA)

Total average ridership was obtained from TTA data for the past three fiscal years (Table 11-9). Ridership data by route was available for the 2013 fiscal year (Table 11-10). This data was not exclusive to the DCHC MPO, however, so some routes may overestimate ridership within the MPO.

- TTA offers 18 fixed routes and a demand service within the DCHC MPO
- Across both transit services offered by TTA, ridership increased by 24% between the 2012 and 2013 fiscal years
 - Fixed-route ridership increased by more than 24% from the last fiscal year
 - Demand-response services showed a 3% decreased (Table 11-9)
- Ridership was more than 1.8 million
- Nearly half of TTA routes (n = 9) had an annual ridership of over 100,000 (Table 11-10)
- The Durham-New Hope Commons-Chapel Hill (#400) and Chapel Hill-Southpoint Mall-RTC (#800) routes had annual ridership over 160,000, followed closely by #100 and #700 routes

Table 11-9. FY 2013 Annual Ridership – TTA

Ridership *	FY2011 (a)	FY2012 (b)	FY2013 (c)	% Change (c/b)
Fixed Route Passenger Trips	1,287,157	1,423,245	1,769,200	24.31%
Demand Response	29,132	29,170	28,326	-2.89%
Total Ridership	1,316,289	1,452,415	1,797,526	23.76%

*Vanpool service is not included.

Table 11-10. Annual Ridership by Route – TTA

	Route	Annual Weekday Ridership	Annual Saturday Ridership
42	Shuttle 42	8,971	-
46	Shuttle 46	9,154	-
47	Shuttle 47	13,386	-
49	Shuttle 49	14,276	-
100	Raleigh-Airport-RTC	157,707	21,272
105	Raleigh-RTC	80,811	-
201	North Raleigh-RTC	21,347	-
301	Raleigh-Cary-RTC	107,633	-
311	Apex-EPA-RTC	32,787	-
400	Durham-New Hope Commons-Chapel Hill	199,008	22,381
405	Durham-Chapel Hill	128,635	-
420	Hillsborough-Chapel Hill	46,309	-
700	Durham-RTC	157,110	11,719
800	Chapel Hill-Southpoint-RTC	167,794	18,979
805	Chapel Hill-Woodcroft-RTC	114,839	-
CRX	Chapel Hill-Raleigh Express	117,180	-
DRX	Durham-Raleigh Express	121,004	-
RSX	Robertson Express	28,923	1,882
	Totals	1,526,874	76,233

Orange Public Transportation (OPT)

Total average ridership was obtained from OPT data for the 2013 fiscal year (Table 11-11). Ridership data by route was not available for the 2013 fiscal year.

- OPT offers 2 fixed routes and a demand service within the DCHC MPO and Orange County
- Across both transit services offered by OPT, about 30,000 passengers were handled within the Durham Urbanized Area (UZA).

Table 11-11. FY 2013 Annual Ridership – OPT

Ridership	FY 2013 - Systemwide	FY2013 – Within MPO
Fixed Route Passenger Trips	15,806	15,806
Demand Response	64,483	14,186
Total Ridership	80,289	29,992



12. Multimodal Mobility and Throughput

WHAT IS IT?

The measures presented to this point each focus on a particular mode (vehicles, pedestrians, bicycles, and transit). In order to gain a better understanding of how people are traveling through the region's key corridors, the MPO estimated the number of people using each mode based on the counts described in the preceding sections.

Why does it matter?

Transportation is evolving from a past in which planners focused more on mobility for automobiles to a future in which planners are focused on mobility for people. By studying multi-modal mobility, the MPO is recognizing the importance of all modes and collecting data that can help the MPO prioritize projects that make corridors better for all users. For example, poor vehicular level of service may suggest the need for roadway improvements, if nothing else is known about a corridor. But if that corridor also has significant bicycle or pedestrian volumes, then this level of service does not need to be improved. The fuller the picture obtained of transportation corridors in the region, the better equipped DCHC is to accurately identify and address transportation needs.

METHODOLOGY

Performance was evaluated using the 95 Congestion Management Process (CMP) corridors in the MPO, from 7:00 AM to 6:00 PM on only Tuesdays, Wednesdays and Thursdays. Because CMP corridors included facilities ranging from interstates to secondary roads, the corridor served as a standard for all facilities in the DCHC MPO.

Data for automobile users was taken from AADT counts and multiplied by a constant called the average daily auto occupancy which is 1.344 persons/vehicle. We used rider boardings and alightings at transit stops to provide numbers of users for this mode. Pedestrian and bicyclist user data were taken from 12-hour counts, turning movement counts (TMC's) and screenline counts. Generally, data comes from the 2012 and 2013 fiscal years, though some AADT locations used 2011 data.

To more easily illustrate the numbers of users for all 95 CMP corridors, corridors were grouped by county.

SUMMARY

CONDITION CHANGES UNKNOWN

KEY FINDINGS



Automobiles account for 93 percent of travelers on the region's CMP corridors:

- Orange County :90% automobile
- Durham: 94% automobile
- Chatham County: 99%+ automobile

Some corridors were much less auto-dependent:

- E Main St (Durham): 51% auto
- Erwin Rd (Durham): 56% auto
- Manning Dr (Chapel Hill) 73% auto
- Main St (Carrboro): 57% auto

REGIONWIDE RESULTS

Despite growth in transit, bicycle, and pedestrian travel in the region, people in automobiles represented about 93 % of travelers on the region's busiest corridors. Chapel Hill had the best balance among modes. Only 85% of people were traveling in automobiles on the city's busiest corridors. Corridors near the region's major universities tend to have a greater balance between modes, but automobiles still carry the majority of users on nearly every corridor.

Four corridors in the region had more than 25% of travelers using non-auto modes: 2 in Durham (Erwin Rd/Cameron Blvd and E Main St), 1 in Chapel Hill (Manning Dr), 1 in Carrboro (Main St). Conversely, 25 corridors were used exclusively by automobiles, with at least one such corridor in every county.

Results from this chapter underscore the importance of a multimodal approach to transportation engineering and planning. While for all counties, corridor use was nearly entirely by automobile (94 to 99%), finer-scale differences—among municipalities in Orange County, for instance—uncover large differences in user needs (as with much higher numbers of bicyclists in Carrboro, or very much higher numbers of transit users in Chapel Hill). Looking at individual corridors provides further differentiation, such as at the intersection of Erwin Road and Cameron Boulevard, where data showed only 56% of users were in automobiles.

Figure 12-3 shows those DCHC corridors where at least 25% of all travel is done by transit, bicycle or on foot.

Figure 12-1. Proportions of Users across All Transportation Modes by County

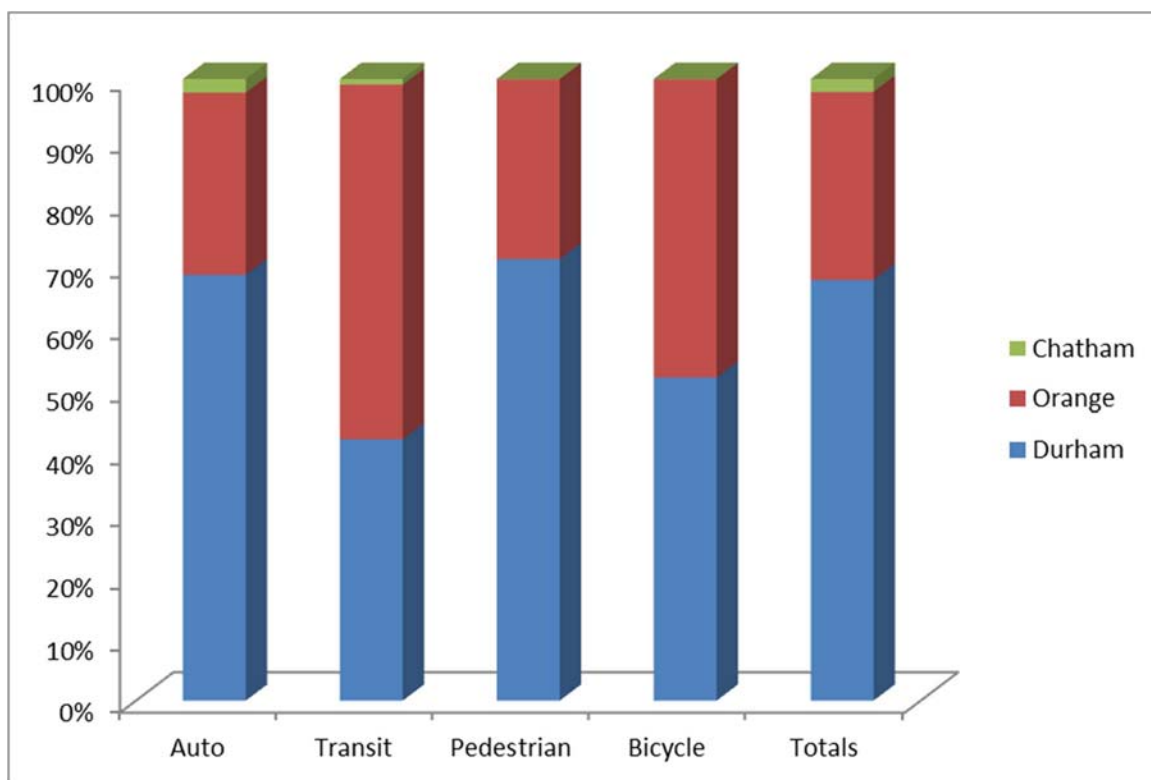


Table 12-1. Number of Users by Transportation Mode

County	Mode				Totals
	Auto	Transit	Pedestrian	Bicycle	
Durham	969,938	19,079	34,085	4,859	1,027,961
Orange	415,756	25,844	13,902	4,491	459,993
Chatham	34,550	434	32	6	35,022
Totals	1,420,244	45,357	48,019	9,356	1,522,976

Figure 12-2. Proportions of Users for Each Transportation Mode

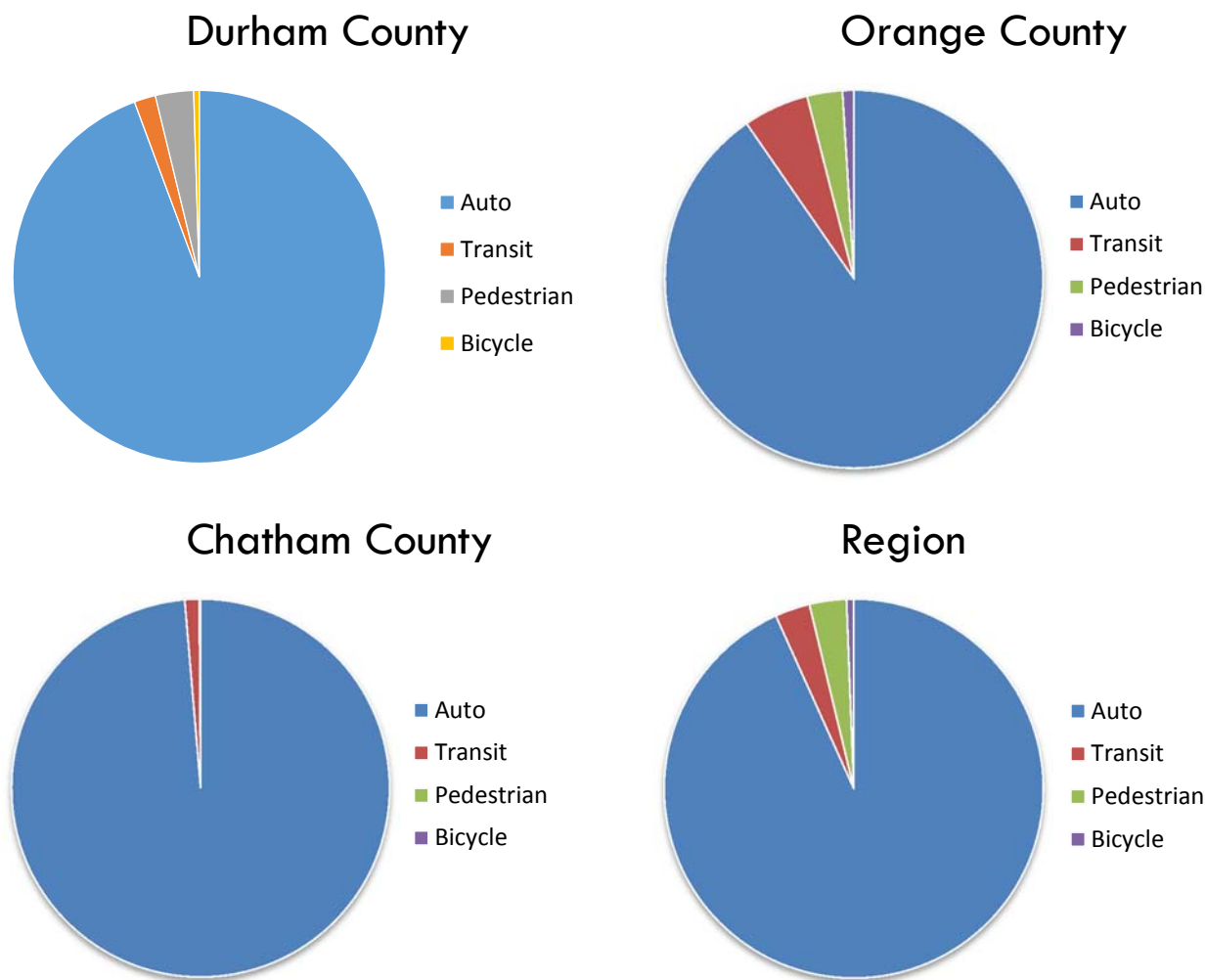


Table 12-2. CMP Corridors with Highest Total Users

Municipality	Corridor	From (A)	To (B)	Total Users	Mode Users			
					Auto	Transit	Pedestrian	Bicycle
Durham	US 70	I-85	Wake County Line	39,364	39,212	152	-	-
Chapel Hill	Fordham Blvd (North and South) / NC 54 Bypass	Franklin St / US 15-501 Merger	Smith Level Rd / Greensboro St	37,895	37,456	350	55	34
Chapel Hill	Franklin St	I-40	Merritt Mill Rd	31,833	26,473	3,665	1,444	251
Chapel Hill	NC 54 / Raleigh Rd / South Rd	Little John Rd	S Columbia St	29,963	26,078	3,722	148	15
Chapel Hill	MLK Blvd	I-40	Franklin St	28,951	22,069	4,675	1,807	400
Durham	Durham-Chapel Hill Blvd	University Dr	I-40 Exit 270	27,153	26,881	53	212	7
Durham	Erwin Rd / Cameron Blvd	W Main St	US 15-501 Byp	24,196	13,601	1,021	8,898	676
Durham	US 15-501	Smith Level Rd	Weathersfield Rd/Chatham County Line	23,992	23,520	434	32	6
Durham	Hillandale Rd/Fulton St	Rose of Sharon Rd	Erwin Rd	23,020	17,690	325	4,813	192
Durham	S Miami Blvd	Durham / Wake County Line	US 70	22,787	22,755	32	-	-

Excluding major highways and interstates

Table 12-3. CMP Corridors with Highest Number of Automobile Users

Municipality	Corridor	From (A)	To (B)	Total Users	Mode Users			
					Auto	Transit	Pedestrian	Bicycle
Durham	US 70	I-85	Wake County Line	39,364	39,212	152	0	0
Chapel Hill	Fordham Blvd / NC 54 Bypass	Franklin St / US 15-501 Merger	Smith Level Rd / Greensboro St	37,895	37,456	350	55	34
Durham	Chapel Hill Blvd	University Dr	I-40 Exit 270	27,153	26,881	53	212	7
Chapel Hill	Franklin St	I-40	Merritt Mill Rd	31,833	26,473	3,665	1,444	251
Chapel Hill	NC 54 / Raleigh Rd / South Rd	Little John Rd	S Columbia St	29,963	26,078	3,722	148	15
Durham	S Miami Blvd	Durham County / Wake County Line	US 70	22,787	22,755	32	0	0
Chapel Hill	MLK Blvd	I-40	Franklin St	28,951	22,069	4,675	1,807	400
Durham	NC 55/Alston Ave/Avondale Dr	N Roxboro Rd	Durham / Wake County Line	21,018	19,468	848	643	59
Durham	Duke St/US 501 North	University Dr	Durham / Person County Line	19,626	18,322	471	693	140
Durham	NC 54	South Miami Blvd.	Little John Rd	18,814	18,113	560	81	60

Excluding major highways and interstates

Table 12-4. CMP Corridors with Highest Transit Ridership

Municipality	Corridor	From (A)	To (B)	Total Users	Mode Users			
					Auto	Transit	Pedes-trian	Bicycle
Chapel Hill	S Columbia St / US 15-501 S	Smith Level Rd	Franklin St	21,186	16,256	4,848	72	10
Chapel Hill	MLK Blvd	I-40	Franklin St	28,951	22,069	4,675	1,807	400
Chapel Hill	Manning Dr	S Columbia St	Fordham Blvd	19,402	14,112	3,821	1,426	43
Chapel Hill	NC 54 / Raleigh Rd / South Rd	Little John Rd	S Columbia St	29,963	26,078	3,722	148	15
Chapel Hill	Franklin St	I-40	Merritt Mill Rd	31,833	26,473	3,665	1,444	251
Durham	E Main St	N BUCHANAN BLVD	NC 55 / Alston Ave	13,114	6,633	2,635	3,617	229
Durham	Fayetteville St / Fayetteville Rd	E Main St	NC 751	21,363	16,711	1,998	2,296	358
Durham	US 70/Hillsborough Rd/Markham Ave	Broad St	I-85 Exit 170	13,626	12,183	1,213	86	144
Durham	Erwin Rd / Cameron Blvd	W Main St	US 15-501 Byp	24,196	13,601	1,021	8,898	676
Durham	Holloway St/NC 98	N Dillard St	Durham / Wake County Line	16,888	15,138	956	660	134

Excluding major highways and interstates

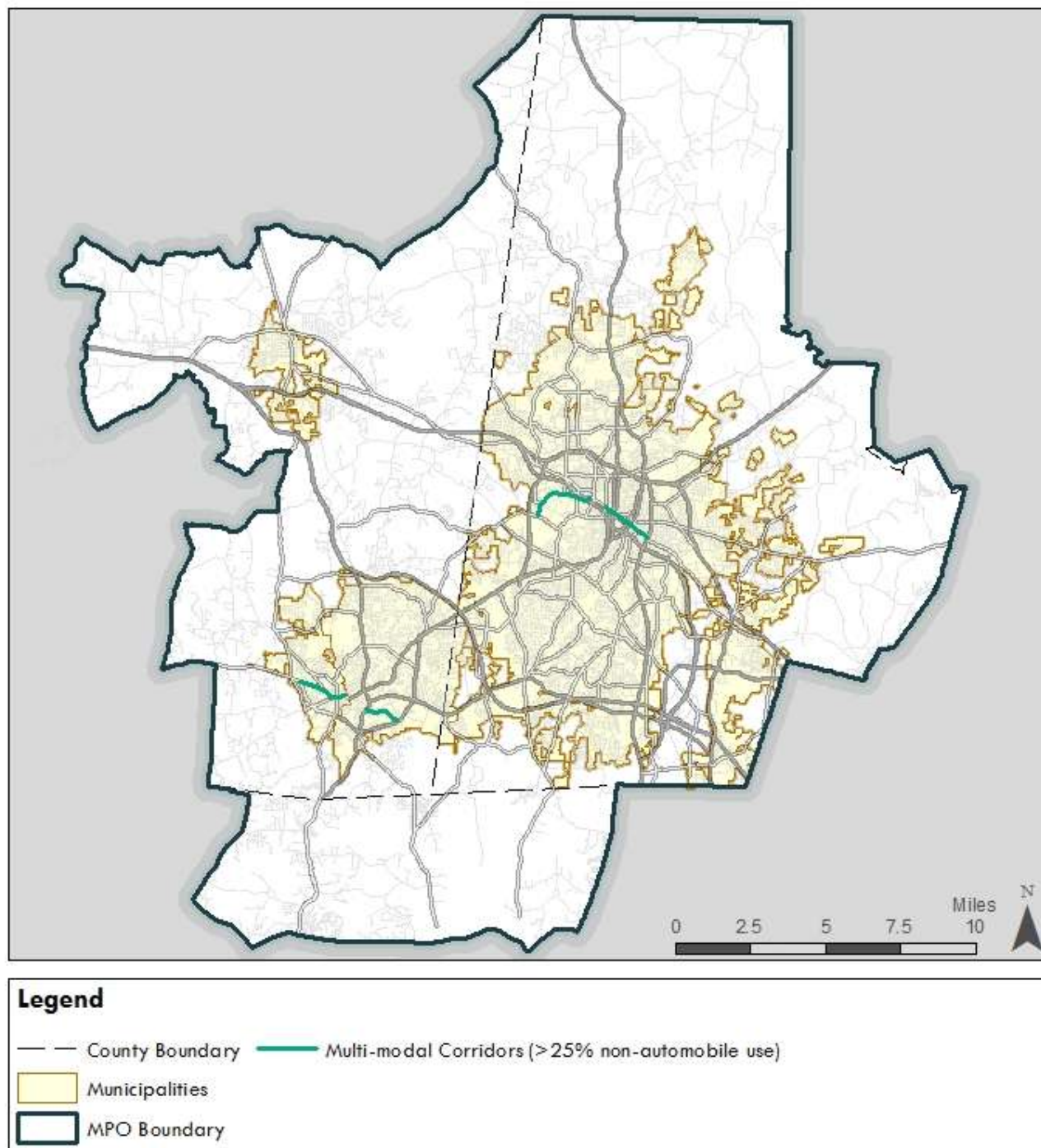
Table 12-5. CMP Corridors with Highest Pedestrian Counts

Municipality	Corridor	From (A)	To (B)	Total Users	Mode Users			
					Auto	Transit	Pedestrian	Bicycle
Durham	Erwin Rd / Cameron Blvd	W Main St	US 15-501 Byp	24,196	13,601	1,021	8,898	676
Durham	Hillandale Rd/Fulton St	Rose of Sharon Rd	Erwin Rd	23,020	17,690	325	4,813	192
Carrboro	Main St	NC 54	Merritt Mill Rd	14,665	8,328	953	3,909	1,475
Durham	E Main St	N BUCHANAN BLVD	NC 55 / Alston Ave	13,114	6,633	2,635	3,617	229
Durham	Fayetteville St / Fayetteville Rd	E Main St	NC 751	21,363	16,711	1,998	2,296	358
Chapel Hill	MLK Blvd	I-40	Franklin St	28,951	22,069	4,675	1,807	400
Carrboro	Smith Level Rd / Greensboro St	US 15-501	Hillsborough Rd	14,387	11,217	634	1,620	916
Durham	Mangum St	Roxboro Rd @ Markham Ave	Lakewood Ave @ University Dr	8,979	7,235	160	1,460	124
Chapel Hill	Franklin St	I-40	Merritt Mill Rd	31,833	26,473	3,665	1,444	251
Durham	Broad St / Swift Ave	Duke University Rd	W Carver St	13,053	11,184	256	1,440	173

Table 12-6. CMP Corridors with Highest Bicyclists Counts

Municipality	Corridor	From (A)	To (B)	Total Users	Mode Users			
					Auto	Transit	Pedestrian	Bicycle
Carrboro	Smith Level Rd / Greensboro St	US 15-501	Hillsborough Rd	14,387	11,217	634	1,620	916
Durham	Erwin Rd / Cameron Blvd	W Main St	US 15-501 Byp	24,196	13,601	1,021	8,898	676
Chapel Hill	MLK Blvd	I-40	Franklin St	28,951	22,069	4,675	1,807	400
Durham	Fayetteville St / Fayetteville Rd	E Main St	NC 751	21,363	16,711	1,998	2,296	358
Carrboro	Jones Ferry Rd	Old Fayetteville Rd	Main St/Stone St	10,953	9,220	787	603	343
Durham	Anderson St/Fifteenth St	DUKE UNIVERSITY RD	Hillsborough Rd	10,279	8,561	814	565	339
Carrboro	Estes Dr Ext	Greensboro St	Village Dr	13,784	13,171	-	345	268
Chapel Hill	Franklin St	I-40	Merritt Mill Rd	31,833	26,473	3,665	1,444	251
Durham	Morreene Rd	US 15	ERWIN RD	8,790	7,715	359	468	248
Carrboro	Smith Level Rd / Greensboro St	US 15-501	Hillsborough Rd	14,387	11,217	634	1,620	916

Figure 12-3. Multimodal Corridors - DCHC MPO



RESULTS BY GEOGRAPHY

The following provides detailed results on the number of users by transportation mode summarized by county.

Notes on Methodology

Data for all modes on some corridors could not be collected.

Durham County

There are 67 CMP corridors in Durham County. Automobile users accounted for 60% or more of total users on 97% of all corridors. Transit users consist of 9% or more of total user numbers on 2 corridors (3%). Pedestrians contribute 10% or more to total users on 7 corridors (10%). Bicyclists contribute 3% or more of total users on 2 corridors (3%).

KEY DATA RESULTS

Number of CMP Corridors: 67

Auto users:

- 94% of all users use autos
- Account of 60% or more of total users on most corridors (65 corridors, 97%)

Transit users:

- Accounted for 9% or more of total users on 2 corridors (3%) - Fayetteville St and Hillsborough Rd
- More than 5% of total corridor users on 9 corridors (13%)

Pedestrians:

- Accounted for 10% or more of total users on 7 corridors (10%)
- Erwin Rd / Cameron Blvd highest numbers (37% of total users were pedestrians); E Main St and Hillandale Rd were second and third, respectively.

Bicyclists:

- Accounted for 3% or more of total users on 2 corridors (3%)
- Anderson St accounted for 36% of all bicyclist users

Table 12-7. CMP Corridor Volume by Mode - Durham County

Corridor	Endpoints	Total Users	Mode							
			Auto		Transit		Pedestrian		Bicycle	
			Users	% Total	Users	% Total	Users	% Total	Users	% Total
Academy Rd/Cameron Blvd/NC 751	Erwin Rd to University Dr	8,185	8,185	100%	0	0%	0	0%	0	0%
Anderson St/Fifteenth St	Duke University Rd to Hillsborough Rd	10,279	8,561	83%	814	8%	565	5%	339	3%
Angier Ave	US 70 to Alston Ave	5,916	5,517	93%	296	5%	84	1%	19	0%
Briggs Ave	Riddle Rd to Pettigrew St	7,544	7,480	99%	64	1%	0	0%	0	0%
Broad St / Swift Ave	Duke University Rd to W Carver St	13,053	11,184	86%	256	2%	1,440	11%	173	1%
Carver St	Danube Ln to Rose Of Sharon Rd	7,194	7,043	98%	115	2%	33	0%	3	0%
Chapel Hill Blvd	University Dr to I-40 Exit 270	27,153	26,881	99%	53	0%	212	1%	7	0%
Club Blvd	N Buchanan Blvd to N Roxboro St	11,115	10,426	94%	491	4%	167	2%	31	0%
Cole Mill Rd	Hillsborough Rd to Umstead Rd	13,266	13,266	100%	0	0%	0	0%	0	0%
E Cornwallis Rd	Miami Blvd to Fayetteville Rd	9,215	8,701	94%	164	2%	205	2%	145	2%
Davis Dr	Cornwallis Rd to Wake County Line	17,023	16,878	99%	26	0%	47	0%	72	0%
Duke St/US 501 North	University Dr to Durham County / Person County Line	19,626	18,322	93%	471	2%	693	4%	140	1%
Erwin Rd / Cameron Blvd	W Main St to US 15-501 Bypass	24,196	13,601	56%	1,021	4%	8,898	37%	676	3%
Fayetteville St / Fayetteville Rd	E Main St to NC 751	21,363	16,711	78%	1,998	9%	2,296	11%	358	2%
Gregson St/Vickers Ave	I-85 to University Dr	9,703	8,731	90%	97	1%	750	8%	125	1%
Guess Rd / Buchanan Blvd	W Chapel Hill St to Durham County / Orange County Line	15,563	14,827	95%	304	2%	406	3%	26	0%
Hillandale Rd/Fulton St	Rose Of Sharon Rd to Erwin Rd	23,020	17,690	77%	325	1%	4,813	21%	192	1%
US 70/Hillsborough Rd/Markham Ave	Broad St to I-85 Exit 170	13,626	12,183	89%	1,213	9%	86	1%	144	1%
Holloway St/NC 98	N Dillard St to Durham County / Wake County Line	16,888	15,138	90%	956	6%	660	4%	134	1%
Infinity Rd/Latta Rd	Guess Rd to Old Oxford Road	5,627	5,607	100%	0	0%	20	0%	0	0%
E Lawson St	Fayetteville St to Briggs Ave	1,085	n/a	-	882	81%	182	17%	21	2%
E Main St	N Buchanan Blvd to NC 55 / Alston Ave	13,114	6,633	51%	2,635	20%	3,617	28%	229	2%
Mangum St	Roxboro Rd @ Markham Ave to Lakewood Ave @ University Dr	8,979	7,235	81%	160	2%	1,460	16%	124	1%
S Miami Blvd	Durham County / Wake County Line to US 70	22,787	22,755	100%	32	0%	0	0%	0	0%
MLK Pkwy	NC 55 to University Dr	16,743	16,115	96%	164	1%	338	2%	126	1%
NC 147	T.W. Alexander Dr to I-85 Exit 172	56,780	56,582	100%	198	0%	0	0%	0	0%
NC 54	South Miami Blvd. to Little John Rd	18,814	18,113	96%	560	3%	81	0%	60	0%

DCHC MPO MOBILITY REPORT CARD



CHAPTER TWELVE

Corridor	Endpoints	Total Users	Mode							
			Auto		Transit		Pedestrian		Bicycle	
			Users	% Total	Users	% Total	Users	% Total	Users	% Total
NC 55/Alston Ave/Avondale Dr	N Roxboro Rd to Durham County / Wake County Line	21,018	19,468	93%	848	4%	643	3%	59	0%
NC 751/Hope Valley Rd	University Dr to Durham / Chatham County Line	12,878	12,662	98%	9	0%	154	1%	53	0%
Old Oxford Rd	N Roxboro Rd to Snow Hill Rd	10,433	10,368	99%	44	0%	20	0%	1	0%
Page Rd/Hopson Rd	US 70 to NC 55	7,945	7,879	99%	4	0%	18	0%	44	1%
N Roxboro Rd	E Lakewood Ave to N Duke St / US 501 N	16,941	15,497	91%	824	5%	589	3%	31	0%
T. W. Alexander Dr	NC 55 to Wind River Pky	15,466	15,260	99%	46	0%	110	1%	50	0%
University Dr/Lakewood Ave	Durham Chapel Hill Blvd to S Roxboro St	13,537	13,280	98%	144	1%	92	1%	21	0%
US 15-501 Byp	I-85 Exit 174 to MLK Pkwy	45,136	45,136	100%	0	0%	0	0%	0	0%
US 70	I-85 to Wake County Line	39,364	39,212	100%	152	0%	0	0%	0	0%
Downtown Loop	W Main St @ S Great Jones St to W Main St and N Great Jones St	6,060	4,720	78%	40	1%	1,182	20%	118	2%
W Chapel Hill St/Duke University Rd	W Ramseur St to Cameron Blvd	12,085	10,945	91%	549	5%	391	3%	200	2%
W Cornwallis Rd	Erwin Rd to Fayetteville St	6,611	6,183	94%	107	2%	236	4%	85	1%
Erwin Rd/NC 751	N Fordham Blvd to US 15-501 Bypass	10,253	10,184	99%	0	0%	64	1%	5	0%
Umstead Rd	Cole Mill Rd to Guess Rd	6,993	6,986	100%	0	0%	0	0%	7	0%
Rose of Sharon Rd	Cole Mill Rd to Guess Rd	4,453	4,453	100%	0	0%	0	0%	0	0%
Sherron Rd	S Mineral Springs Rd to Wake Forest Hwy	10,516	10,516	100%	0	0%	0	0%	0	0%
S Alston Ave	NC 55 to Durham/Wake County Line	5,513	5,278	96%	79	1%	121	2%	35	1%
Woodcroft Pkwy/Carpenter Fletcher Rd	Hope Valley Rd to S Alston Ave	7,327	6,492	89%	195	3%	489	7%	151	2%
Garrett Rd	US 15-501 to Hope Valley Rd	16,438	16,070	98%	107	1%	241	1%	20	0%
Farrington Rd	Stagecoach Rd to NC 54	12,284	12,230	100%	0	0%	43	0%	11	0%
Barbee Chapel Rd/Farrington Rd/Stagecoach Rd	NC 54 (West) to NC 751	8,997	8,962	100%	0	0%	29	0%	6	0%
Riddle Rd/Ellis Rd	Fayetteville St to S Miami Blvd	8,291	8,203	99%	43	1%	17	0%	28	0%
Miami Blvd	E Geer St to S Miami/US 70 jct	8,869	8,467	95%	121	1%	277	3%	4	0%
Anderson St	Chapel Hill Rd to Duke University Rd	657	n/a	-	0	0%	420	64%	237	36%
W Club Blvd	Hillandale Rd to N Buchanan Blvd	3,930	3,575	91%	86	2%	218	6%	51	1%
E Club Blvd	N Roxboro St to I-85 North Onramp	8,983	8,750	97%	157	2%	67	1%	9	0%
W Main St	Hillsborough Rd to N Buchanan Blvd	9,565	8,674	91%	169	2%	577	6%	145	2%
Mineral Springs Rd	US 70 to Fletchers Chapel Rd/Stallings Rd	9,098	9,036	99%	62	1%	0	0%	0	0%
Old Oxford Hwy/Old Oxford Rd	Snow Hill Rd to Durham County / Granville County Line	5,175	5,175	100%	0	0%	0	0%	0	0%

DCHC MPO MOBILITY REPORT CARD



CHAPTER TWELVE

Corridor	Endpoints	Total Users	Mode							
			Auto		Transit		Pedestrian		Bicycle	
			Users	% Total	Users	% Total	Users	% Total	Users	% Total
S Roxboro Rd	Cornwallis Rd to E Lakewood Ave	7,473	7,037	94%	281	4%	148	2%	7	0%
W Cornwallis Rd/Mt Herman Church Rd	US 70 to Erwin Rd	1,317	1,317	100%	0	0%	0	0%	0	0%
Horton Rd	Hillandale Rd to N Duke St	13,509	13,171	97%	172	1%	160	1%	6	0%
Morreene Rd	US 15 to Erwin Rd	8,790	7,715	88%	359	4%	468	5%	248	3%
S Roxboro St	Hope Valley Rd to MLK Pkwy	6,780	6,680	99%	0	0%	65	1%	35	1%
Barbee Rd	NC 54 to Fayetteville Rd	7,494	7,401	99%	0	0%	86	1%	7	0%
E Geer St	N Alston Ave to Glenn School Rd/Junction Rd	6,702	6,344	95%	358	5%	0	0%	0	0%
Farrington Rd/SW Durham Pkwy	NC 54 to Durham Chapel Hill Blvd	9,222	9,157	99%	47	1%	8	0%	10	0%
St. Mary's Road/Mason Road	US 70 Bypass to US 501/N Roxboro Rd	1,695	1,694	100%	0	0%	1	0%	0	0%
University Dr/Old Chapel Hill Rd/Old Durham Rd	Durham-Chapel Hill Blvd (Durham) to Durham-Chapel Hill Blvd (Chapel Hill)	13,846	12,936	93%	781	6%	98	1%	31	0%
Red Mill Rd/Teknika Parkway	Old Oxford Hwy to I-85	8,591	8,591	100%	0	0%	0	0%	0	0%
I-40	US 15-501 to Exit 283	123,349	123,349	100%	0	0%	0	0%	0	0%
I-85	Exit 172 to Exit 186	56,520	56,520	100%	0	0%	0	0%	0	0%

Orange County

There are 26 CMP corridors in Orange County. Of the three municipalities, Chapel Hill was the largest contributor of automobile and transit users on CMP corridors.

Automobile users accounted for 60% or more of total users on 96% of all corridors. Transit users contributed 10% or more of transit users on 5 corridors (19%). Pedestrians contribute 10% or more to total users on 2 corridors (8%). Proportion of pedestrian users on all Orange County CMP corridors was same as those for Durham County and all CMP corridors combined (Table 12.8). Bicyclists contribute 10% or more to total users on 1 corridor (4%). Carrboro far exceeded the other municipalities in numbers of bicyclists and also had the majority of pedestrian users (Table 12.9; Figure 12.4).

KEY DATA RESULTS

Number of CMP Corridors: 26

Auto users:

- 90% of all users use autos
- Account of 60% or more of total users on most corridors (25 corridors, 96%)

Transit users:

- Accounted for 10% or more of total users on 5 corridors (19%)

Pedestrians:

- Accounted for 10% or more of total users on 2 corridor (8%)
- Accounted for less than 5% of total users on 7 corridors (27%)

Bicyclists:

- Counted on 19 corridors and accounted for 10% or more of total users on 1 corridor (4%)

Table 12-8. CMP Corridor Volumes by Mode - Orange County

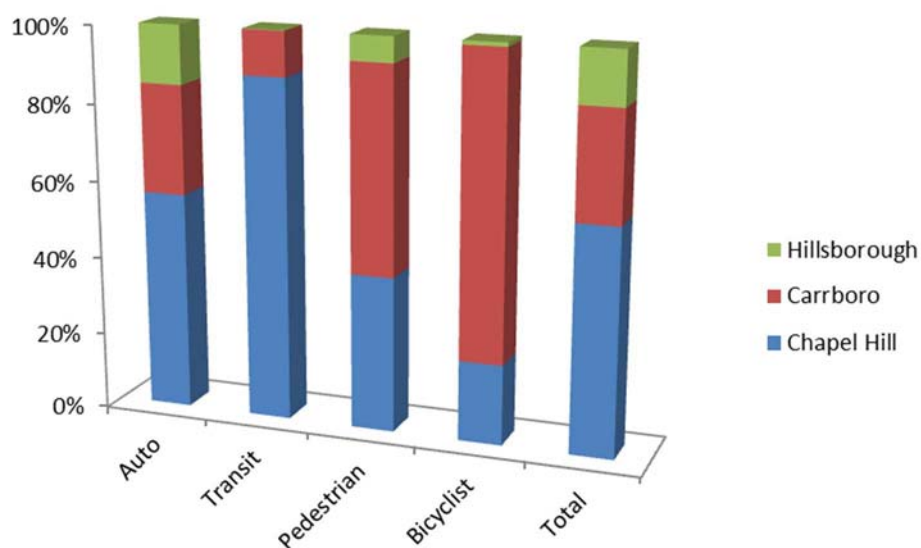
Corridor	Endpoints	Total Users	Mode							
			Auto		Transit		Pedestrian		Bicycle	
			Users	% Total	Users	% Total	Users	% Total	Users	% Total
Mt Carmel Church Rd	US 15-501 to Old Farrington Rd/Farrington Point Rd.	8,687	8,687	100%	0	0%	0	0%	0	0%
Mt Sinai Rd	Erwin Rd to NC 86	1,349	1,349	100%	0	0%	0	0%	0	0%
Franklin St	I-40 to Merritt Mill Rd	31,833	26,473	83%	3,665	12%	1,444	5%	251	1%
Fordham Blvd (North and South) / NC 54 Bypass	Franklin St / US 15-501 Merger to Smith Level Rd / Greensboro St	37,895	37,456	99%	350	1%	55	0%	34	0%
S Columbia St / US 15-501 S	Smith Level Rd to Franklin St	21,186	16,256	77%	4,848	23%	72	0%	10	0%
Weaver Dairy Rd	MLK Blvd to Erwin Rd	11,160	10,819	97%	239	2%	94	1%	8	0%
MLK Blvd	I-40 to Franklin St	28,951	22,069	76%	4,675	16%	1,807	6%	400	1%
Estes Dr	Village Drive to Fordham Blvd	14,510	13,489	93%	340	2%	511	4%	170	1%
NC 54 / Raleigh Rd / South Rd	Little John Rd to S Columbia St	29,963	26,078	87%	3,722	12%	148	0%	15	0%
Manning Dr	S Columbia St to Fordham Blvd	19,402	14,112	73%	3,821	20%	1,426	7%	43	0%
Estes Dr Ext	Greensboro St to Village Dr	13,784	13,171	96%	0	0%	345	3%	268	2%
Eubanks Rd	MLK Blvd to Old NC 86	6,647	6,052	91%	595	9%	0	0%	0	0%
Hillsborough Rd	Old Nc 86/Old Fayetteville Rd to Main St	3,846	3,261	85%	88	2%	347	9%	150	4%
Homestead Rd	MLK Blvd to Old NC 86	8,116	7,709	95%	139	2%	108	1%	160	2%
Jones Ferry Rd	Old Fayetteville Rd to Main St/Stone St	10,953	9,220	84%	787	7%	603	6%	343	3%
Main St	NC 54 to Merritt Mill Rd	14,665	8,328	57%	953	6%	3,909	27%	1,475	10%
NC 54 Bypass / NC 54 W	Smith Level Rd to Dodsons Crossroads	18,480	17,562	95%	491	3%	357	2%	70	0%
Old NC 86 / Old Fayetteville Rd/Old Chapel Hill-Hillsborough Rd	I-40 to Jones Ferry Rd	6,762	6,052	90%	432	6%	148	2%	130	2%
Smith Level Rd / Greensboro St	US 15-501 to Hillsborough Rd	14,387	11,217	78%	634	4%	1,620	11%	916	6%
Churton St	I-85 to US 70	15,785	14,777	94%	65	0%	897	6%	46	0%
US 70 Bus/NC-86	US 70 Bypass (East) to S Churton St.	4,955	4,955	100%	0	0%	0	0%	0	0%
US 70 Bus/US 70 / I-85 US 70 Connect	I-85 Exit 170 to I-85/I-40 Exit 161	9,939	9,927	100%	0	0%	11	0%	1	0%
NC 86 N	US 70 Bypass to Person County Line	11,679	11,678	100%	0	0%	0	0%	1	0%
NC 57	NC 86 N to Person County Line	3,418	3,418	100%	0	0%	0	0%	0	0%
I-40	Alamance County / Orange County Line to US 15-501	73,382	73,382	100%	0	0%	0	0%	0	0%
I-85	I-40 / I-85 to Exit 172	38,259	38,259	100%	0	0%	0	0%	0	0%

Table 12-9. Volumes by Mode in Orange County Municipalities

Municipalities	Mode				Total
	Auto	Transit	Pedestrian	Bicycle	
Chapel Hill	176,788	21,660	5,557	931	204,936
Carrboro	82,572	4,119	7,437	3,512	97,640
Hillsborough	44,755	65	908	48	45,776
Totals	304,115	25,844	13,902	4,491	348,352

I-40 and I-85 data were excluded from comparisons among municipalities

Figure 12-4. Proportions of Transportation Mode Use - Orange County



Data for I-40 and I-85 were not included for comparisons among municipalities.

Chatham County

There were three CMP corridors in Chatham County (US 15-501 South from Smith Level Rd to Weathersfield Rd; Farrington Mill Rd/Farrington Point Rd from Barbee Chapel Rd, and NC 751 / Hope Valley Rd from Cash Hill Drive). All tabulated data are shown in the Table 12.10.

In Chatham County, **automobile users accounted for nearly 100% of total users**. This a much higher percentage compared with other counties or all CMP corridors combined. Only US 15-501 South had any recorded transit, pedestrian or bicyclist users.

Table 12-10. Chatham County CMP Corridor Volumes by Mode

Corridor	Endpoints	Total Users	Mode							
			Auto		Transit		Pedestrian		Bicycle	
			Users	% Total	Users	% Total	Users	% Total	Users	% Total
US 15-501	Smith Level Rd to Weathersfield Rd	23,992	23,520	98%	434	1.8%	32	0.1%	6	0.0%
Farrington Mill / Old Farrington Point Rd	Barbee Chapel Rd to Chatham County Line	3,902	3,902	100%	0	0.0%	0	0.0%	0	0.0%
NC 751/Hope Valley Rd	Cash Hill Drive to Durham / Chatham County Line	7,128	7,128	100%	0	0.0%	0	0.0%	0	0.0%

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13. Conclusion

This document, the DCHC MPO's first-ever Mobility Report Card, is a multimodal transportation evaluation, examining in equal measure vehicular, transit, bicycle, and pedestrian travel. The report looks at the state of the region in 2012, and compares it to previous years.

Twelve key indicators have been evaluated in this Report Card. The findings are summarized by the icons below. Those shown in green were found to have improved over time, those in red to have degraded, and those in black are unchanged (or unknown).



Because many indicators did not have consistent historical data that could be used for comparative analysis, this report can be viewed as a benchmarking tool as much as an analytical tool. However, several useful findings were uncovered.

- Travel is up overall
- Travel volume is increasing faster than capacity, leading to more congestion
- Bicycle and pedestrian infrastructure is increasing rapidly throughout the region
- The region is likely more multi-modal than in previous years, but to what extent is still unknown
- Continued – and more robust - data collection is essential for advancing this report card as a tool for improved planning priorities.

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