

**URS DIN 01604 Rev 1**

# **Transit Operating Plan**

## **Durham-Orange Light Rail Transit Project**



**July 24, 2015**

The NEPA Preferred Alternative for the D-O LRT Project would generally follow NC 54, I-40, US 15-501, and the North Carolina Railroad (NCRR) Corridor in downtown Durham and east Durham. The alignment would begin at UNC Hospitals, parallel Fordham Boulevard, proceed east on NC 54, travel north on I-40, parallel US 15-501 before it turns east toward the Duke University campus along Erwin Road, and then follow the NCRR Corridor parallel to NC 147 through downtown Durham, before reaching its eastern terminus near Alston Avenue. The alignment would consist of at-grade alignment, fill and cut sections, and elevated structures. In two sections of the alignment, Little Creek and New Hope Creek, multiple Light Rail Alternatives are evaluated in the DEIS.

This technical report contains information for all alternatives analyzed in the DEIS. However, pursuant to MAP 21, the Moving Ahead for Progress in the 21<sup>st</sup> Century Act (P.L. 112-141), a NEPA Preferred Alternative has been developed, which recommends C2A in the Little Creek section of the alignment, NHC 2 in the New Hope Creek section of the alignment, the Trent/Flowers Drive station, and the Farrington Road Rail Operations and Maintenance Facility.





## Table of Contents

<b>1.</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Description of Study Corridor .....	1
1.2	Alternatives Considered.....	1
1.2.1	No-Build Alternative .....	1
1.2.2	Light Rail Alternatives .....	1
<b>2.</b>	<b>Legal and Regulatory Framework .....</b>	<b>2</b>
<b>3.</b>	<b>Methodology.....</b>	<b>2</b>
<b>4.</b>	<b>Affected Environment.....</b>	<b>2</b>
4.1	Triangle Transit .....	3
4.2	Durham Area Transportation Authority .....	6
4.3	Chapel Hill Transit.....	10
4.4	Duke Transit .....	14
<b>5.</b>	<b>Environmental Consequences.....</b>	<b>18</b>
5.1	No-Build Alternative .....	18
5.1.1	Triangle Transit Service Changes .....	19
5.1.2	DATA Service Changes .....	22
5.1.3	Chapel Hill Transit Service Changes .....	25
5.1.4	No-Build Alternative Service Requirements .....	29
5.2	Light Rail Alternatives.....	29
5.2.1	Description of Light Rail Alternatives.....	29
5.2.2	Stations .....	33
5.2.3	Proposed Service Plan.....	33
5.2.4	Light Rail Travel Time Estimates .....	34
5.2.5	Operating Requirements .....	35
5.3	Supporting Bus Service .....	40
5.3.1	Triangle Transit Service Changes .....	40
5.3.2	DATA Service Changes .....	42
5.3.3	Chapel Hill Transit Service Changes .....	46
5.3.4	Station Bus Connections .....	50
5.3.5	Bus Service Requirements .....	50
<b>6.</b>	<b>Mitigation.....</b>	<b>53</b>
6.1	No-Build Alternative .....	53
6.2	Light Rail Alternatives.....	53



### List of Tables

Table 4-1: Triangle Transit Route Characteristics (Corridor Routes Only) .....	5
Table 4-2: DATA Weekday Route Characteristics .....	9
Table 4-3: DATA Weekend Route Characteristics .....	10
Table 4-4: Chapel Hill Transit Route Characteristics (School Year).....	14
Table 4-5: Duke Transit Route Characteristics (School Year) .....	17
Table 5-1: Triangle Transit Routes under the No-Build Alternative (Corridor Routes Only) .....	21
Table 5-2: DATA Weekday Route under the No-Build Alternative .....	24
Table 5-3: DATA Weekend Routes under the No-Build Alternative .....	25
Table 5-4: Chapel Hill Transit Routes under the No-Build Alternative .....	28
Table 5-5: Estimates of No-Build Alternative Operating Statistics (Additional Annual <i>Incremental Change</i> <i>over Existing (Fall 2014)</i> ) .....	29
Table 5-6: Light Rail Alternatives Proposed Service Frequencies .....	33
Table 5-7: Light Rail Alternatives Travel Time Estimates (Assuming Trent/Flowers Drive Station in Segment E) .....	35
Table 5-8: Light Rail Alternatives Operating Requirements .....	37
Table 5-9: Triangle Transit Route Modifications under the Light Rail Alternatives .....	41
Table 5-10: DATA Weekday Route Modifications under the Light Rail Alternatives .....	44
Table 5-11: DATA Weekend Route Modifications under the Light Rail Alternatives.....	45
Table 5-12: CHT Route Modifications under the Light Rail Alternatives .....	49
Table 5-13: Supporting Bus Network Connections at Light Rail Transit Stations.....	51
Table 5-14: Estimates of Light Rail Alternatives Operating Statistics <i>Incremental Change over Existing</i> <i>(Fall 2014)</i> .....	53

### List of Figures

Figure 5-1: Overview of Light Rail Alternatives .....	32
---	----

### List of Appendices

Appendix A: LRT Station-to-Station Travel Time Estimates .....	A-1
Appendix B: Triangle Transit Estimates of Operating Statistics .....	B-1
Appendix C: DATA Estimates of Operating Statistics.....	C-1
Appendix D: Chapel Hill Transit Estimates of Operating Statistics.....	D-1
Appendix E: Individual Route Maps: Triangle Transit .....	E-1
Appendix F: Individual Route Maps: DATA.....	F-1
Appendix G: Individual Route Maps: Chapel Hill Transit .....	G-1
Appendix H: Individual Route Maps: Duke Transit .....	H-1



## Transit Operating Plan

### List of Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AA	alternatives analysis
BRT	bus rapid transit
CAMPO	Capital Area Metropolitan Planning Organization
CAT	Capital Area Transit
CHT	Chapel Hill Transit
C-Tran	Cary Transit
DATA	Durham Area Transit Authority
DBBS	Designing Better Bus Service
DCHC	Durham/Chapel Hill/Carrboro
DEIS	Draft Environmental Impact Statement
D-O	Durham-Orange
D-O LRT	Durham-Orange Light Rail Transit
DTCC	Durham Technical Community College
DUMC	Duke University Medical Center
FTA	Federal Transit Administration
I-40	Interstate 40
LPA	locally preferred alternative
LRT	light rail transit
Mphps	miles per hour per second
MPO	metropolitan planning organization
MTP	metropolitan transportation plan
NC	North Carolina
NCCU	North Carolina Central University
NCRR	North Carolina Railroad
NHC	New Hope Creek
OCC	Orange County Campus
ROMF	rail operations maintenance facility
RTC	regional transit center
UNC	University of North Carolina at Chapel Hill
US	United States
VA	Veteran Affairs



### 1. Introduction

Triangle Transit, in cooperation with the Federal Transit Administration (FTA), has prepared a Draft Environmental Impact Statement (DEIS) to evaluate a potential high-capacity transit improvement in the Triangle region, within the Durham-Orange (D-O) Corridor, between Chapel Hill and Durham. This report presents detailed descriptions of bus and rail operations plans for each alternative that has been defined for this project. This report begins with a brief description of existing transit services in the study area. The No-Build network is the basis on which the other project alternatives have been defined.

This report ends with a description of the proposed supporting background bus service for the Light Rail Alternatives. The supporting background bus service has been defined to be identical for the Light Rail Alternatives. Some parallel bus routes have been eliminated. Others have been modified to provide connections to light rail transit (LRT) service. There are also proposed new feeder routes. Operating requirements have been calculated for the supporting background bus service.

#### 1.1 Description of Study Corridor

The D-O Corridor is located within the Triangle region. It extends roughly 17 miles from southwest Chapel Hill to east Durham, and includes several educational, medical, and other key activity centers which generate a large number of trips each day. The land uses in the D-O Corridor are supported by a network of major highways including NC 54, I-40, US 15-501, Erwin Road, and NC 147. Additional detail regarding the study corridor is included in the *Durham-Orange Light Rail Transit Project DEIS*, chapters 1 and 2.

#### 1.2 Alternatives Considered

- No-Build Alternative
- Light Rail Alternatives

In addition to the Light Rail Alternatives, the DEIS considers a No-Build Alternative comprised of the existing and programmed transportation network improvements without the planned rail improvements and associated bus network modifications. Additional detail regarding the alternatives considered is included in the *Durham-Orange Light Rail Transit Project DEIS*, chapter 2.

##### 1.2.1 No-Build Alternative

The No-Build Alternative includes the existing and planned transportation programs and projects scheduled to be built and implemented before forecast year 2040 and contained in the 2040 Metropolitan Transportation Plan (MTP), excluding only the proposed Light Rail Alternatives, rail transit improvements and related bus transit modifications that would be associated with the proposed D-O LRT Project.

##### 1.2.2 Light Rail Alternatives

Through the Alternatives Analysis and Scoping process, a majority of the proposed D-O LRT Project alignment was identified. However, there are a few areas where different alternatives were retained for further evaluation. As a result, multiple alignments crossing Little Creek and New Hope Creek are evaluated in the DEIS.



## Transit Operating Plan

- Four potential crossings of Little Creek between Hamilton Road and the proposed Leigh Village Station (Alternatives C1, C1A, C2, and C2A)
- Three potential crossings of New Hope Creek and Sandy Creek between Patterson Place and South Square (Alternatives NHC LPA, NHC 1, and NHC 2)
- Station alternatives at Duke/VA Medical Centers (i.e., Duke Eye Center and Trent/Flowers Drive)
- Five proposed locations for the ROMF (i.e., Leigh Village ROMF, Farrington Road ROMF, Patterson Place ROMF, Cornwallis Road ROMF, and Alston Avenue ROMF)

The Light Rail Alternatives would generally follow North Carolina (NC) Highway 54 (NC 54), Interstate 40 (I-40), United States (US) 15-501, and the North Carolina Railroad (NCRR) Corridor in downtown Durham and east Durham. The alignment would begin in Chapel Hill at UNC Hospitals, parallel Fordham Boulevard, proceed eastward adjacent to NC 54, travel north along I-40, parallel US 15-501 before it would turn east toward Duke University and run within Erwin Road, and then follow the NCRR Corridor that parallels NC Highway 147 (NC 147) through downtown Durham, before reaching its eastern terminus in Durham near Alston Avenue. The alignment would consist of at-grade alignment, fill and cut sections, and elevated structures. A total of 17 stations are planned, and up to 5,100 parking spaces would be provided along the Light Rail Alternatives. In addition, a rail operations and maintenance facility (ROMF) would be constructed to accommodate the D-O LRT fleet.

Bus routes would be modified to feed into the D-O LRT stations, and headways would be adjusted to provide more frequent bus service and minimize transfer waiting times. These services would also connect light rail passengers with other area transportation hubs, including park-and-ride lots and transfer centers.

## 2. Legal and Regulatory Framework

There are no specific legal or regulatory requirements regarding transit service plans.

## 3. Methodology

The transit service plans for both the No Build and Light Rail Alternatives were developed in consultation with transit planners from Triangle Transit, Durham Area Transit Authority, and Chapel Hill Transit.

## 4. Affected Environment

As of fall 2014, the following four transit service providers presently serve the D-O Corridor:

- Triangle Transit
- Durham Area Transit Authority (DATA)
- Chapel Hill Transit (CHT)
- Duke Transit

Following are descriptions of each operator and the services they provide within the D-O Corridor.



### 4.1 Triangle Transit

Triangle Transit provides regional and express bus service in the Raleigh-Durham-Chapel Hill area. Triangle Transit presently operates 14 regional routes, 12 express routes, and 4 shuttle routes on weekdays. Six of the regional routes also operate on Saturdays and five routes now operate on Sundays. Some regional and express routes are operated by other local operators (e.g., Capital Area Transit [CAT] and DATA). Several of the routes connect at Triangle Transit's Regional Transit Center (RTC), located off of Slater Road, near I-40 and I-540. Fares are \$2.25 for regular Triangle Transit routes and \$3.00 for express routes. Regional passes (day pass and multi-day passes) are also available and can be used on other transit systems in the region (e.g., DATA, CAT, Cary Transit [C-Tran]).

Existing Triangle Transit routes that either operate entirely within the D-O Corridor or provide service to and from locations within the corridor are as follows:

- **Route 400: Durham-Patterson Place-Chapel Hill** – This route provides service from downtown Durham to Chapel Hill, and includes service to the Duke/VA Hospitals, South Square shopping center, New Hope Commons, UNC, and UNC Hospitals. This route operates at 30-minute frequencies in the peak periods, 60-minute frequencies in the midday and evening periods, with service until approximately 11:00 p.m. This route also operates on Saturdays and Sundays at 60-minute service frequencies.
- **Route 405: Durham-Chapel Hill** – This route provides service along the same general alignment as Route 400, but without the deviations to South Square shopping center and New Hope Commons. This route operates in the peak periods only at 30-minute service frequencies.
- **Route 420: Hillsborough-Chapel Hill** – Route 420 operates from Hillsborough to Chapel Hill, following Highway 86. This route includes a mid-route stop at the Durham Tech Orange County Campus (OCC) park-and-ride. Service frequencies are approximately 30 minutes in the peak periods, with a full 3 hour span of service in the peak direction and a more limited 1.5 hour span of service in the reverse peak direction (i.e., six peak direction, three reverse peak direction trips in each peak period).
- **Route 700: Durham-RTC** – This route provides service from the RTC in Research Triangle Park to downtown Durham, utilizing the Durham Freeway (Highway 147). This route includes a mid-route stop at DTCC (Durham Campus). Route 700 operates at 30-minute frequencies in the peak periods, 60-minute frequencies in the midday and evening periods, with service until approximately 11:00 p.m. This route also operates Saturdays and Sundays at 60-minute frequencies.
- **Route 800: Chapel Hill-Southpoint Mall-RTC** – Route 800 operates from Chapel Hill to the RTC in Research Triangle Park with a mid-route stop at Southpoint Mall. Midday and evening routing is via NC 54 and peak period routing is via I-40. Within Chapel Hill, this route includes stops on the UNC Campus and at the UNC Hospitals.

A new short turn route pattern has also been recently implemented on Route 800. The short turn pattern is between UNC Hospitals and Southpoint Mall and operates at 30-minute frequencies in the peak periods. The full route pattern operates at 30-minute frequencies in the peak periods, thus Route 800 provides a combined 15-minute peak period frequency west of Southpoint Mall.



## Transit Operating Plan

In addition, the full route pattern provides 60-minute frequencies in the midday and evening periods, with service until approximately 11:00 p.m. This route also operates Saturdays and Sundays at 60-minute frequencies.

- **Route 805: Chapel Hill-Woodcroft-RTC** – This route operates from Chapel Hill to the RTC in Research Triangle Park, with mid-route stops at the Woodcroft Shopping Center. Route 805 operates at 30-minute peak period frequencies. There are also three midday round trips that operate only between Chapel Hill and the Woodcroft Shopping Center.
- **Route CRX: Chapel Hill-Raleigh Express** – This route operates from Chapel Hill to downtown Raleigh. In Chapel Hill, this route makes a loop. In the morning, inbound buses enter Chapel Hill via Raleigh Road, loop around the UNC Hospitals, and then travel north on Martin Luther King Jr. Parkway to I-40. Routing is reversed in the p.m. This route includes a stop at the Eubanks Road park-and-ride lot near Martin Luther King Jr. Parkway and I-40 in Chapel Hill. Route CRX operates at 30-minute frequencies in the a.m. peak period (both directions of travel). Afternoon frequencies generally average 30-minutes, but the time between trips ranges from 20 to 45 minutes.
- **Route DRX: Durham-Raleigh Express** – This route operates from Durham to downtown Raleigh. Within Durham, this route includes stops at Duke/VA Hospitals, Duke University, and downtown Durham (Durham Station). From there, the route proceeds along NC 147 and I-40 to downtown Raleigh. Route DRX operates at 30-minute frequencies in the peak periods (both directions of travel).
- **Route RSX: Robertson Express** – The Robertson Express is a route that provides service between Duke University and UNC, from late August to early May. On weekdays, the RSX runs every 30 minutes between the Duke Chapel bus stop and the Morehead Planetarium; from 7:30 a.m. to 11:00 p.m. Saturday and Sunday service is provided hourly. Saturday service spans from 12:00 p.m. to 11:30 p.m., while on Sundays, service spans from 12:00 p.m. to 9:30 p.m. This route is funded by others.

Table 4-1 presents route characteristics for Triangle Transit routes that have been identified as corridor routes.



## Transit Operating Plan

**Table 4-1: Triangle Transit Route Characteristics (Corridor Routes Only)**

Day of Week	Route #	Route Name	Span of Service	Service Frequency			
				AM Pk	Midday	PM Pk	Eve.
Weekdays	400	Durham-Patterson Place-Chapel Hill	6:15 am-11:00 pm	30	60	30	60
	405	Durham-Chapel Hill	Peak Periods Only	30	n/a	30	n/a
	420	Hillsborough-Chapel Hill	Peak Periods Only	30	n/a	30	n/a
	700	Durham-RTC	6:00 am-10:00 pm	30	60	30	60
	800	Chapel Hill-Southpoint Mall-RTC	Peak Periods Only	30	n/a	30	n/a
		Chapel Hill-South Point Mall	Peak Periods Only	30	n/a	30	n/a
		Chapel Hill-Southpoint -RTC via NC54/Alston	Midday and Evening	n/a	60	n/a	60
	805	Chapel Hill-Woodcroft-RTC	Peak Periods Only	30	n/a	30	n/a
		UNC Hosp-Woodcroft	Midday Period Only	n/a	60	n/a	n/a
	CRX	Chapel Hill-Raleigh Express	Peak Periods Only	30	n/a	30	n/a
	DRX	Durham-Raleigh Express	Peak Periods Only	30	n/a	30	n/a
	RSX	Robertson Express	7:30 am-11:00 pm	30	30	30	60
Saturdays	400	Durham-Patterson Place-Chapel Hill	7:00 am-11:00 pm	60	60	60	60
	700	Durham-RTC	7:00 am-11:00 pm	60	60	60	60
	800	Chapel Hill-Southpoint Mall-RTC	6:45 am-11:20 pm	60	60	60	60
	RSX	Robertson Express	11:30 am-12:00 am	n/a	60	60	60
Sundays	400	Durham-Patterson Place-Chapel Hill	7:00 am-7:00 pm	60	60	60	n/a
	700	Durham-RTC	7:00 am-7:00 pm	60	60	60	n/a
	800	Chapel Hill-Southpoint Mall-RTC	6:45 am-7:20 pm	60	60	60	n/a
	RSX	Robertson Express	11:30 am-10:00 pm	n/a	60	60	60



### 4.2 Durham Area Transportation Authority

DATA provides local route service within the City of Durham. DATA presently operates 16 weekday, 16 Saturday, and 14 Sunday routes. Most weekday routes operate at 30-minute frequencies in the peak periods and 60-minute frequencies in the midday and evening periods, with service until about 12:00 midnight. Saturday service hours are approximately 90 percent of weekday hours (Saturday service almost mirrors weekday service). Sunday service hours are about 35 percent of weekday hours. The cash fare for a one-way ride is \$1.00. One-day and multiple day regional passes are also available and can be utilized on other public transit service providers in the region. The Bull City Connector is a special branded route that operates primarily along Main Street (parallel to the D-O Corridor). This route does not charge fares to passengers (the City of Durham and Duke University prepay fares for Bull City Connector passengers).

DATA's routes are structured in a radial manner. Except for Route 14, all routes operate to and from the Durham Station, located in downtown Durham and adjacent to the Light Rail Alternatives.

Given the nature of this project's alignment and DATA's existing radial route structure, all but one route has the potential to connect to the Light Rail Alternative. Routes that operate somewhat parallel to the Light Rail Alternatives between downtown Durham and Duke University are the Bull City Connector, Route 6, and Route 11. Routes that operate between South Square shopping center and downtown Durham are Routes 5 and 10.

- **Bull City Connector** – The Bull City Connector operates between the downtown Durham area and the Duke University/Medical Center area. Weekday service operates from approximately 6:30 a.m. to 10:00 p.m., Monday through Thursday. On Fridays, this route operates until midnight. Service frequencies are 20 minutes until 6:00 p.m., and 25 minutes after 6:00 p.m. Saturday service is from approximately 7:30 a.m. to midnight, with 25-minute service frequencies.
- **Route 1: Northgate Mall • North Pointe • Loehmans Plaza • Willowdale** – There are two operating patterns for Route 1. Route 1A serves North Pointe Shopping Center before continuing to Loehmans Plaza. Route 1B serves the Willowdale Shopping Center. Each route pattern (i.e., 1A and 1B) operates hourly, Monday through Saturday, for a combined 30-minute frequency on the common trunk portion of the route. In the evenings and on Sundays, the two route patterns are combined and labeled as Route 1. The evening Route 1 pattern operates until 12:30 a.m. on weekdays and Saturdays and until 7:30 p.m. on Sundays.

Per the Designing Better Bus Service (DBBS) Scenario 3 plan, DATA began operating a new route pattern (Route 1N) between Durham Station and Northgate Mall in October 2013. Route 1N operates at 30-minute frequencies from 12:00 p.m. to 6:00 p.m.

- **Route 2: East Durham • The Village • Angier Avenue** – There are two operating patterns for Route 2. Route 2A operates along Main Street and Angier Avenue, making a large end-of-line loop via East End Avenue, Highway 70, and Page Road/Angier Avenue. Route 2B operates along Main Street, but turns north to the Village Shopping Center and DATA Operations Facility. Each route pattern (i.e., 2A and 2B) operates hourly, Monday through Saturday.

In the evening, Route 2A becomes Route 2, but with slightly different routing in central Durham (Route 2 buses travel to/from Durham Station via Main Street and Chapel Hill Street instead of via Pettigrew Street). Route 2B is also modified in the evenings, with buses operating only north



## Transit Operating Plan

of Angier Avenue and Guthrie Street, with a transfer to Route 2 to continue to Durham Station. Weekday and Saturday evening service is provided until 12:30 a.m. and Sunday service until 7:30 p.m.

- **Route 3: The Village • Highway 98** – This route operates between Durham Station and Glenview Station. Monday through Saturday, buses run every 30 minutes throughout the day and hourly in the evening. Sunday service is hourly until 7:30 p.m.
- **Route 4: North Roxboro Road • Duke Regional Hospital • North Duke Crossing** – Route 4 operates between Durham Station and North Duke Crossing, and includes service to the Duke Regional Hospital. Route 4 operates Monday through Saturday at 30-minute frequencies during the day and 60-minute frequencies in the evening until 12:30 a.m. Hourly service is provided on Sundays until 7:30 p.m.
- **Route 5: Fayetteville Street • NCCU • Southpoint** – This route operates between Durham Station and Southpoint Mall via Fayetteville Road. Service operates every 30 minutes on weekdays and Saturdays, with hourly service at night until 12:30 a.m. Hourly service is provided on Sundays until 7:30 p.m. Route 5 is interlined with Route 14 in the evenings and on Sundays.

Per the DBBS Scenario 3 plan, DATA began operating a new route pattern (Route 5K) between Durham Station and Lowe's at Stratford Lakes Drive and Martin Luther King Jr. Parkway in October 2013. Route 5K operates at 30-minute frequencies from 12:15 p.m. to 6:00 p.m.

- **Route 6: Duke University/VA Hospital • American Village • Sparger Road** – Two operating patterns provide service during the peak and midday periods. Route 6 provides hourly service between Durham Station, the VA Hospital, and Forest Apartments at Constitution Drive. Route 6's alignment splits in the Duke Medical Center area, with outbound buses following Fulton Street, Shirley/Crest Streets, and Douglas Street, and inbound buses remaining on Erwin Road. Route 6 operates until 12:30 a.m. on Mondays through Saturdays and until 7:30 p.m. on Sundays. Route 6B operates hourly service between Durham Station, the VA Hospital, and the Bennett Pointe Shopping Center (Food Lion at Sparger Road). Thus, Routes 6 and 6B provide a combined 30-minute frequency on the trunk portion of the route. Route 6B operates from approximately 6:00 a.m. to 7:00 p.m. Monday through Saturday.
- **Route 7: Forest Hills • Weaver Street • Martin Luther King Jr. Parkway** – Route 7 provides service between Durham Station and the Walmart shopping center on Martin Luther King Jr. Parkway, west of Fayetteville Road. Route 7 operates at 30-minute frequencies on Mondays through Saturdays until 7:00 p.m., and then operates hourly in the evenings until 12:30 a.m. Hourly service is provided on Sundays between 6:30 a.m. and 7:30 p.m.
- **Route 8: Lawson Street • NCCU • DTCC** – Route 8 provides service from Durham Station to NCCU, DTCC, and the Employment Security Commission. Route 8 operates at 30-minute frequencies on weekdays and Saturdays until 7:00 p.m. and at 60-minute frequencies until about 12:30 a.m. Sunday service frequencies are hourly, with Sunday service ending at 7:30 p.m.
- **Route 9: Dearborn Drive • North Durham** – Route 9 has two weekday service patterns. Route 9A serves Duke Regional Hospital and continues to the Willowdale Shopping Center and Riverside High School. Route 9B serves Ben Franklin Boulevard/Pacific Avenue, with service continuing north along Roxboro Road to Tom Wilkerson Road and Northern High School. Both



## Transit Operating Plan

route patterns operate hourly during the day, resulting in a combined 30-minute frequency on the common trunk segment.

In the evenings and on Sundays, Route 9 is in operation, serving Foxfire Apartments at Wyldewood Road and New Castle Road, and Riverview Shopping Center at Roxboro and Seven Oaks Roads. Route 9 operates hourly in the evenings, with service until 12:30 a.m. on weekdays and Saturdays, and until 7:30 p.m. on Sundays.

- **Route 10: South Square • New Hope Commons** – Route 10 has the following weekday and Saturday service patterns. Route 10A provides service between Durham Station and New Hope Commons, with a mid-route deviation to James Street and Nation Avenue. Route 10A operates every 30 minutes, with every other trip making the mid-route deviation to James Street and Nation Avenue. Route 10B service operates at 30-minute intervals in the peak and 60-minutes in the midday between Durham Station and Emerald Pond Lane/Pickett Road. In the evening, Route 10B service is discontinued and Route 10 operates in accordance with the 10A service pattern until 12:30 a.m. Sunday service is similar to evening service except service is until 7:30 p.m. All evening and Sunday service includes a deviation to James Street and Nation Avenue.

Route 10 also includes a “10L” pattern that operates along Garrett Road during the peak periods when school is in session between Jordan High School and University Drive/Westgate Drive.

- **Route 11: Duke University/VA Hospital • Hillsborough Road** – Route 11 operates between Durham Station, the Duke Medical Center complex, and Hillsborough Road/Cole Mill Road. Weekday service operates at 30-minute frequencies until 7:00 p.m., with hourly service in the evenings. Saturday and Sunday service is hourly, with Sunday service ending at 7:30 p.m. Evening and Sunday service operates to the Food Lion at Sparger Road (when Route 6B is not operating).
- **Route 12: NC 54 and NC 55 • Woodcroft • Southpoint Circulator** – Route 12 operates between Durham Station and Triangle Square Shopping Center, located at NC 54 and NC 55. Route 12 is interlined with Route 14 during the day on Mondays through Saturdays. In the evenings and on Sundays, Route 12 is extended to cover a portion of Route 14’s alignment, covering Alston Avenue, T.W. Alexander, and NC 55, back to NC 54. Service operates hourly, with three supplemental trips inserted between 2:00 p.m. and 5:00 p.m. on weekdays. Route 12 operates until 12:30 a.m. on weekdays and Saturdays, and until 7:30 p.m. on Sundays.
- **Route 14: Southpoint Mall • NC 54 at Alston Avenue** – Route 14 is DATA’s only existing route that is not anchored at Durham Station. On weekdays and Saturdays (during the day) Route 14 is interlined with Route 12. Beginning at NC 54/NC 55, Route 14 follows NC 54, Alston Avenue, T.W. Alexander, NC 55, and then continues west on NC 54 to Fayetteville Road, Woodcroft Parkway, Hope Valley Road, and Renaissance Parkway to Southpoint Mall. Route 14 returns to NC 54 via Fayetteville Road. In the evenings and on Sundays, Route 14 is interlined with Route 5, using the following alignment. From Southpoint Mall, the route alignment follows Renaissance Parkway, Hope Valley Road, NC 54, NC 55, T.W. Alexander, and Alston Avenue back to NC 54. Service is hourly, with buses running until midnight on Mondays through Saturdays, and until 8:00 p.m. on Sundays.
- **Route 15: Brier Creek** – This route operates between Durham Station and the Brier Creek Shopping Center in Wake County. Buses operate hourly Monday through Saturday from 5:30 a.m. to 12:30 a.m. and on Sundays from 6:30 a.m. until 7:30 p.m.

- Route 16: The Village • Highway 98** – Two operating patterns presently provide service during the peak and midday periods. Route 16A provides hourly service between Durham Station, The Village, and Southern High School at Freeman Road/Clayton Road. Route 16B provides hourly service between Durham Station, the Village, and Ross Road/Chandler Road. The two route patterns provide a 30-minute frequency along the trunk portion of the route. In the evening, a Route 16 pattern covers the same areas as Routes 16A and 16B, except instead of two separate end-of-line loops, Route 16 makes one large end-of-line loop. Route 16 operates at 60-minute frequencies in the evenings until 12:30 a.m. and on Sundays until about 7:30 p.m.

Tables 4-2 and 4-3 present DATA route characteristics for weekday and weekend service, respectively.

**Table 4-2: DATA Weekday Route Characteristics**

Route #	Route Destination	Span of Service	Service Frequency			
			AM Pk	Midday	PM Pk	Eve.
BCC	Bull City Connector	6:20 am-12:00 am	20	20	20	25
1A	Via Hillendale & Loehmans Plaza	5:30 am-7:00 pm	60	60	60	n/a
1B	Via Guess Road & Horton Road	6:00 am-7:00 pm	60	60	60	n/a
1N	To Northgate Mall	12:00 pm-6:00 pm	n/a	30	30	n/a
1 Eve	Via Guess Road & Horton Road	7:00 pm-12:30 am	n/a	n/a	n/a	60
2A	Via Page Road & Angier Avenue	5:30 am-7:00 pm	60	60	60	n/a
2B	Via Raynor Street at the Village	6:00 am-7:00 pm	60	60	60	n/a
2B Eve	Angier/Guthrie Via Raynor St. at the Village	7:00 pm-12:30 am	n/a	n/a	n/a	60
2 Eve	Via Page Road at Angier Avenue	7:00 pm-12:30 am	n/a	n/a	n/a	60
3	Via Wal-Mart at Glenview Station	5:30 am-12:30 am	30	30	30	60
4	Via Horton Rd & Roxboro Road	5:30 am-12:30 am	30	30	30	60
5	Via Southpoint Mall	5:30 am-7:00 pm	30	30	30	n/a
5K	Via Stratford Lakes Drive/MLK	12:15 am-6:00 pm	n/a	30	30	n/a
5 Eve	Via Southpoint Mall	7:00 pm-12:30 am	n/a	n/a	n/a	60
6	Via Constitution Dr. at Forest Apts.	5:30 am-12:30 am	60	60	60	60
6B	Via Sparger Rd. at Food Lion	6:00 am-7:00 pm	60	60	60	n/a
7	Via Wal-Mart at MLK Jr. Pkwy.	5:30 am-12:30 am	30	30	30	60
8	Via Capps St. & S. Alston Ave.	5:30 am-7:00 pm	30	30	30	n/a
8 Eve	Via McDougald Terrace	7:00 pm-12:30 am	n/a	n/a	n/a	60
9A	Via Tom Wilkerson Rd. at Northern H.S.	6:00 am-7:00 pm	60	60	60	n/a
9B	Via Meriweather Dr. at Pickwick Trail	5:30 am-7:00 pm	60	60	60	n/a
9 Eve	Via Seven Oaks Rd & Roxboro Rd	7:00 pm-12:30 am	n/a	n/a	n/a	60
10A	Via New Hope Commons	5:30 am-7:00 pm	30	30	30	n/a
10B	Via Emerald Pond Lane & Pickett Rd.	6:00 am-7:00 pm	30	60	30	n/a
10 Eve	Via New Hope Commons	7:00 pm-12:30 am	n/a	n/a	n/a	60
10L	University Dr. & Westgate Via Jordan High School	Peak Periods Only	30	n/a	30	n/a
11	Via Hillsborough Rd & Cole Mill Rd.	5:30 am-12:30 am	30	30	30	n/a
11 Eve	Via Sparger Rd at Food Lion	7:00 pm-12:30 am	n/a	n/a	n/a	60
12	Via NC 54 & Alston Ave.	5:30 am-12:30 am	60	60	30	n/a
12 Eve	Via NC 55 & Sedwick Dr.	7:00 pm-12:30 am	n/a	n/a	n/a	60
14	NC 54 & Alston Ave. Via Southpoint Mall	5:30 am-12:30 am	60	60	60	60
15	Via Alexander Promenade at Wal-Mart	5:30 am-12:30 am	60	60	60	60
16A	Via Freeman Rd & Clayton Rd.	6:00 am-7:00 pm	60	60	60	n/a
16B	Via Rummel St. & Hwy 98	5:30 am-7:00 pm	60	60	60	n/a
16 Eve	Raynor St at the Village Via Freeman & Clayton Rd	7:00 pm-12:30 am	n/a	n/a	n/a	60

**Table 4-3: DATA Weekend Route Characteristics**

Weekends	Route #	Route Name	Span of Service	Service Frequency		
				AM	Mid/PM	Eve.
<b>Saturday</b>	BCC	Bull City Connector	6:20 am-12:00 am	20	20	20
	1A	Via Hillendale & Loehmans Plaza	5:30 am-7:00 pm	60	60	60
	1B	Via Guess Road & Horton Road	6:00 am-7:00 pm	60	60	60
	1 Eve	Via Guess Road & Horton Road	7:00 pm-12:30 am	n/a	n/a	60
	2A	Via Page Road & Angier Avenue	5:30 am-7:00 pm	60	60	60
	2B	Via Raynor Street at the Village	6:00 am-7:00 pm	60	60	60
	2B Eve	Angier/Guthrie Via Raynor St. at the Village	7:00 pm-12:30 am	n/a	n/a	60
	2 Eve	Via Page Road at Angier Avenue	7:00 pm-12:30 am	n/a	n/a	60
	3	Via Wal-Mart at Glenview Station	5:30 am-12:30 am	30	30	60
	4	Via Horton Rd & Roxboro Road	5:30 am-12:30 am	30	30	60
	5	Via Southpoint Mall	5:30 am-7:00 pm	30	30	n/a
	5 Eve	Via Southpoint Mall	7:00 pm-12:30 am	n/a	n/a	60
	6	Via Constitution Dr. at Forest Apts.	5:30 am-12:30 am	60	60	60
	6B	Via Sparger Rd. at Food Lion	6:00 am-7:00 pm	60	60	n/a
	7	Via Wal-Mart at MLK Jr. Pkwy.	5:30 am-12:30 am	30	30	60
	8	Via Capps St. & S. Alston Ave.	5:30 am-7:00 pm	30	30	n/a
	8 Eve	Via McDougald Terrace	7:00 pm-12:30 am	n/a	n/a	60
	9A	Via Tom Wilkerson Rd. at Northern H.S.	6:00 am-7:00 pm	60	60	60
	9B	Via Meriweather Dr. at Pickwick Trail	5:30 am-7:00 pm	60	60	60
	9 Eve	Via Seven Oaks Rd & Roxboro Rd	7:00 pm-12:30 am	n/a	n/a	60
	10A	Via New Hope Commons	5:30 am-7:00 pm	30	30	n/a
	10B	Via Emerald Pond Lane & Pickett Rd.	6:15 am-7:00 pm	30	60	n/a
	10 Eve	Via New Hope Commons	7:00 pm-12:30 am	n/a	n/a	60
	11	Via Hillsborough Rd & Cole Mill Rd.	5:30 am-12:30 am	60	60	n/a
	11 Eve	Via Sparger Rd at Food Lion	7:00 pm-12:30 am	n/a	n/a	60
	12	Via NC 54 & Alston Ave.	5:30 am-12:30 am	60	30	n/a
	12 Eve	Via NC 55 & Sedwick Dr.	7:00 pm-12:30 am	n/a	n/a	60
	14	NC 54 & AlsVian Ave. Via Southpoint Mall	5:30 am-12:30 am	60	60	60
	15	Via Alexander Promenade at Wal-Mart	5:30 am-12:30 am	60	60	60
	16A	Via Freeman Rd & Clayton Rd.	6:00 am-7:00 pm	60	60	60
	16B	Via Rummel St. & Hwy 98	5:30 am-7:00 pm	60	60	60
	16 Eve	Raynor St at the Village Via Freeman & Clayton Rd	7:00 pm-12:30 am	n/a	n/a	60
<b>Sunday</b>	1	Via Guess Road & Horton Road	6:30 am-7:30 pm	60	60	n/a
	2B	Raynor St at the Village to Angier & Guthrie	6:30 am-7:30 pm	60	60	n/a
	2	Via Page Road & Angier Avenue	6:30 am-7:30 pm	60	60	n/a
	3	Via Wal-Mart at Glenview Station	6:30 am-7:30 pm	60	60	n/a
	4	Via Horton Rd & Roxboro Rd	6:30 am-7:30 pm	60	60	n/a
	5	Via Southpoint Mall	6:30 am-7:30 pm	60	60	n/a
	6	Via Constitution Dr at Forest Apts	6:30 am-7:30 pm	60	60	n/a
	7	Via Wal-Mart at MLK Jr Pkwy	6:30 am-7:30 pm	60	60	n/a
	8	Via Capps St & S Alston Ave	6:30 am-7:30 pm	60	60	n/a
	9	Via Seven Oaks Rd & Roxboro Rd	6:30 am-7:30 pm	60	60	n/a
	10	Via New Hope Commons	7:00 am-7:30 pm	60	60	n/a
	11	Via Sparger Rd at Food Lion	6:30 am-7:30 pm	60	60	n/a
	12	Via NC 55 & Sedwick Dr.	6:30 am-7:30 pm	60	60	n/a
	14	NC 54 & Alston Ave to Southpoint Mall	6:00 am-8:00 pm	60	60	n/a
	15	Via Alexander Promenade at Wal-Mart	6:30 am-7:30 pm	60	60	n/a
	16	Raynor St at the Village to Freeman & Clayton Rd	6:30 am-7:30 pm	60	60	n/a

## 4.3 Chapel Hill Transit

CHT provides bus service within the Town of Chapel Hill, the Town of Carrboro, and the UNC campus. CHT presently operates 24 weekday routes, 8 Saturday routes, and 2 Sunday routes. All routes provide service to the UNC campus/UNC Hospital area. Weekday route frequencies vary from 5 to 60 minutes. Saturday service hours are approximately 10 percent of weekday service. Sunday service hours are approximately 4 percent of weekday hours. Select weekday routes do not operate when UNC is out of



## Transit Operating Plan

session. CHT does not charge passengers fares on its buses (All fares for CHT are prepaid by a combination of property taxes in the towns of Chapel Hill and Carrboro, and by payments from UNC).

CHT provides service to five park-and-ride lots located in the Chapel Hill/Pittsboro/Carrboro area. An additional six lots are available for use by CHT riders with a UNC park-and-ride permit. CHT charges \$2.00 per day to use their park-and-ride lots.

- **Route A: Martin Luther King Jr. Parkway/Northside** – This route provides services to Southern Human Services on the north side of Chapel Hill, UNC Hospitals and downtown Chapel Hill. Route A operates primarily along Martin Luther King Jr. Parkway, Hillsborough Street, and Raleigh Street to the UNC campus and UNC Hospitals area, continuing north along Columbia Street and eventually ending at Barclay Road. Existing service frequencies are 30 minutes during peak periods and 30 to 60 minutes during midday periods. Route A does not operate on the weekends.
- **Route CCX: Chatham County Express** – Route CCX provides service between the UNC Hospitals and campus area and the Chatham park-and-ride lot located at US 15-501 and Old Lystra Road. Route CCX operates at 15 minutes in the peak periods and 40 minutes during the midday, with service until 8:00 p.m.
- **Route CL: Colony Lake/Sage Road/UNC Hospital** – Route CL provides service along the Franklin Street corridor to US 15-501 and Sage Road/Old Durham Road. Three round trips are made in each peak period, resulting in approximately 70-minute peak period service frequencies (six round trips a day).
- **Route CM: Carrboro/Merritt Mill Road/Family Medicine** – This route provides service between the park-and-ride lot at Jones Ferry, UNC Hospitals, and the Family Medicine Center on Manning Drive. Service frequencies are generally 50 minutes during the day. In the evenings, Route CM is interlined with Route CW with 60-minute service. The CM also operates on Saturdays at 30 minute frequencies.
- **Route CPX: Carrboro Plaza Express** – Route CPX provides express service from the Carrboro Plaza park-and-ride (located near NC 4 and Old Fayetteville Road) to the UNC Hospitals area and downtown Chapel Hill. Service is provided in the peak periods every 15 minutes. The a.m. peak span of service is from 6:15 a.m. to 9:30 a.m. and the p.m. peak span of service is from 3:40 p.m. to 7:00 p.m.
- **Route CW: Carrboro/Weaver Street** – This route provides service between the UNC Hospitals area and Carrboro via Rosemary Street, Hillsborough Road, and Main Street, and serves two park-and-ride lots – Carrboro Plaza and Jones Ferry Road. Service frequencies are 30 minutes in the peak periods and 60 minutes in the midday. In the evenings, Route CW is interlined with Route CM with 60-minute service frequencies. Route CW also operates on Saturdays at approximately 60-minute frequencies.
- **Route D: Culbreth Road/Franklin Street/Eastowne** – This route currently provides service between the southwest Chapel Hill area (Culbreth Road), the UNC Hospitals area, the Franklin Street corridor, and the Eastowne area. Weekday service frequencies are 20 to 30 minutes during the peak periods and 20 to 50 minutes during the midday. Evening service frequencies are 60 minutes; Saturday service is also provided at 65-minute frequencies.





## Transit Operating Plan

- **Route DX: UNC/Old Durham/Old Sterling/Sage Road Express** – Route DX provides peak period non-stop service between the Eastowne area, downtown Chapel Hill, and UNC Hospitals area. Three round trips are made in the morning period and two round trips in the afternoon period (five daily round trips).
- **Route F: Colony Woods/Franklin Street/McDougle School** – This route provides east-west crosstown service between Carrboro, downtown Chapel Hill, and the Franklin Street corridor to Colony Woods. Peak frequencies are generally 30 to 50 minutes. Midday frequencies are generally 50 to 60 minutes. Route F also operates on Saturdays as a combined “F-G” route at 80-minute frequencies.
- **Route FCX: Friday Center Express** – Route FCX provides express service from the Friday Center park-and-ride lot to various UNC locations including the UNC Hospitals area. Route FCX operates from 5:15 a.m. to 10:16 a.m. in the mornings, with service as frequent as 5 minutes. In the afternoons, Route FCX operates from 1:55 p.m. to 8:22 p.m., with service as frequent as 10 minutes.
- **Route G: Booker Creek/UNC Hospital/Glen Lennox** – Route G operates from the Booker Creek Apartments in the Eastowne area to the park-and-ride lot on Martin Luther King Jr. Parkway, into downtown Chapel Hill and the UNC Hospitals area. The route continues east via Raleigh Road and north via US 15-501 to University Mall. Route G operates at approximately 50 to 55-minute frequencies. Route G also operates on Saturdays as a combined “F-G” route at 80-minute frequencies.
- **Route HS: High School/Airport Drive at Martin Luther King Jr. Parkway/Downtown** – Route HS provides service from Morris Grove Elementary to Chapel Hill High School, into downtown Chapel Hill. There are three morning trips, one midday and three afternoon round trips, with morning and afternoon service generally at 60-minute frequencies.
- **Route HU: UNC Hospitals/54 P&R/Hedrick Building**– This route provides express service from the Hedrick Building and the NC 54 park-and-ride lot to UNC Hospitals at Manning Drive. Service frequencies are generally 10 to 20 minutes in the peak periods and 40 minutes in the midday.
- **Route J: Carrboro/Downtown Chapel Hill/Jones Ferry Road** – Route J provides circular service between Carrboro, downtown Chapel Hill, and Smith Level Road. Service frequencies are generally 15 minutes in the peak periods, 20 minutes in the midday and 60 minutes in the evening. In addition, Route J operates as a combined “J-N” route on Saturdays at 75-minute frequencies.
- **Route JFX: Jones Ferry Road Express** – Route JFX provides express service between the Jones Ferry park-and-ride, the UNC Hospitals area, and downtown Chapel Hill. Service is provided during the peak periods with 15-minute service frequencies in both directions.
- **Route N: Estes Park, UNC Hospitals, Family Medicine** – This route provides service from the Estes Park Apartments in northwest Chapel Hill to the downtown area, UNC Hospitals area, and the UNC campus, with service ending at the Family Medicine Center along Manning Drive. Service frequencies are 30 minutes in the peak periods and 60 minutes in the midday. In addition, Route N operates as a combined “J-N” route on Saturdays at 75-minute frequencies.
- **Route NS: Eubanks Road/Southern Village** – This route currently provides service along Martin Luther King Jr. Parkway, between the park-and-ride lot at Eubanks Road, downtown Chapel Hill,



## Transit Operating Plan

and UNC Hospitals, then south along US 15-501 to the park-and-ride lot at Southern Village. Peak service frequencies are 10 minutes during weekdays. Midday buses run every 20 minutes and evening buses run every 45-60 minutes.

- **Route NU: RR Lot/UNC Hospitals** – This route provides service from the UNC park-and-ride lot on Estes Drive, along Martin Luther King Jr. Parkway to downtown Chapel Hill and the UNC Hospitals area. Peak period and midday service is generally 20 to 25 minutes. Evening service frequencies are generally 45 minutes. The NU route also operates on weekends at 45-minute frequencies between 11:30 a.m. and 11:17 p.m.
- **Route PX: Pittsboro to UNC Hospitals** – This route provides peak period service from the Pittsboro Lowes park-and-ride lot to the UNC Hospitals and campus area. Service is provided in conjunction with Chatham Transit Network. There are three morning trips and three evening trips.
- **Route S: UNC Campus/NC 54 East P&R** – This route provides service between the park-and-ride lot at NC 54, the UNC campus, and UNC Hospitals area. Existing service frequencies are generally 10 minutes in the peak periods and 15 to 35 minutes in the midday.
- **Route T: Martin Luther King Jr. Parkway/UNC Hospitals** – This route provides service primarily along Martin Luther King Jr. Parkway, between East Chapel Hill High School, downtown, and the UNC Hospitals area. Existing service frequencies are generally 35 to 40 minutes. Route T also operates hourly on Saturdays from 8:15 a.m. to 6:13 p.m.
- **Routes U and RU: Campus Shuttle – UNC/Downtown** – These routes provide circulator service around UNC and downtown Chapel Hill. Route U operates clockwise and Route RU operates counterclockwise. Service frequencies are 15 minutes throughout the day with a span of service from 7:00 a.m. to 8:22 p.m. Route U also operates on weekends at 25-minute frequencies between 10:30 a.m. and 7:00 p.m.
- **Route V: Carrboro Southern Village/Meadowmont** – Route V provides service between the park-and-ride lot in Southern Village, the UNC Hospitals area, and the Meadowmont area including the Friday Center park-and-ride lot. Service frequencies during peak periods are every 35 minutes and every 80 minutes during the midday.

Table 4-4 presents CHT route characteristics.



**Table 4-4: Chapel Hill Transit Route Characteristics (School Year)**

Day of Week	Route #	Route Name	Span of Service	Service Frequency			
				AM Pk	Midday	PM Pk	Eve.
Weekdays	A	MLK Jr. Blvd./Northside	6:26 am-7:09 pm	30	60	30	n/a
	CCX	Chatham County Express	6:00 am-7:58 pm	15	40	15	40
	CL	Colony Lake/Sage Road/UNC Hosp.	Peaks Only	70	n/a	70	n/a
	CM	Carrboro/Merritt Mill Rd/Family Medicine	6:10 am-9:30 pm	50	50	50	60
	CPX	Carrboro Plaza Express	Peaks Only	15	n/a	15	n/a
	CW	Carrboro/Weaver Street	7:20 am-9:19 pm	30	60	30	60
	D	Culbreth Rd/Franklin St/Eastowne	6:27 am-9:49 pm	20	45	20	60
	DX	UNC/Old Durham/Old Sterling/Sage Rd. Express	Peaks Only	50	n/a	50	n/a
	F	Colony Woods/Franklin St./McDougle School	6:55 am-8:40 pm	45	60	45	60
	FCX	Friday Center Express	5:15 am-8:22 pm	5	30	10	n/a
	G	Booker Crk/UNC Hosp./Glen Lennox	6:23 am-8:40 pm	50	50	50	50
	HS	High School/Airport Dr. at MLK/Downtown	Peaks Only	60	60	60	n/a
	HU	UNC Hosp./54 P&R/Hedrick Bldg.	5:20 am-10:43 pm	15	40	15	40
	J	Carrboro/Downtown Chapel Hill/Jones Ferry Rd.	6:25 am-11:56 pm	15	20	15	60
	JFX	Jones Ferry Rd. Express	Peaks Only	15	n/a	15	n/a
	N	Estes Park, UNC Hosp., Family Medicine	6:25 am-7:20 pm	30	60	30	n/a
	NS	Eubanks Road/Southern Village	5:40 am-10:38 pm	10	20	10	60
	NU	RR Lot/UNC Hospitals	7:05 am-10:40 pm	20	25	20	45
	PX	Pittsboro to UNC Hospitals	Peaks Only	60	n/a	60	n/a
	S	UNC Campus/NC 54 East P&R	6:20 am-7:38 pm	10	35	12	n/a
	T	MLK Jr. Blvd./UNC Hospitals	6:50 am-6:45 pm	35	35	35	n/a
	U	Campus Shuttle-UNC/Downtown	7:00 am-7:54 pm	15	15	15	n/a
	RU	Campus Shuttle-UNC/Downtown	7:00 am-7:54 pm	15	15	15	n/a
	V	Southern Village/Meadowmont	6:23 am-8:06 pm	35	80	35	n/a
Saturdays	CM	Carrboro/Merritt Mill Rd/Family Medicine	9:20 am-5:15 pm	n/a	30	30	n/a
	CW	Carrboro/Weaver Street	8:30 am-4:38 pm	n/a	60	60	n/a
	D	Culbreth Rd/Franklin St/Eastowne	9:05 am-5:05 pm	n/a	60	60	n/a
	FG	Colony Woods/Franklin St./UNC Hosp.	8:50 am-4:55 pm	n/a	80	80	n/a
	JN	Carrboro/Downtown Chapel Hill/UNC Hosp.	9:45 am-7:03 pm	n/a	75	75	n/a
	NU	RR Lot/UNC Hospitals	11:30 am-11:17 pm	n/a	45	45	45
	T	MLK Jr. Blvd./UNC Hospitals	8:15 am-6:13 pm	n/a	60	60	n/a
Sundays	U	Campus Shuttle-UNC/Downtown	10:38 am-7:08 pm	n/a	25	25	n/a
	NU	RR Lot/UNC Hospitals	11:30 am-11:17 pm	n/a	45	45	45

## 4.4 Duke Transit

Duke Parking and Transportation Services provides bus service within the Duke University campus and surrounding area. Duke presently operates more than 30 buses during the school year. Students, staff, faculty, and visitors can ride campus buses at no charge. There are six campus routes, and five “to and from” campus routes (LaSalle Loop, H-5, and PR-1). There are also Hospital shuttle routes that connect nearby surface and garage parking to the Hospital buildings (H-2, H-5, and H-6). Frequencies are as often as 10 minutes on some routes. Duke service, as of Fall 2013, was as follows.

- Route C1: East-West via Campus Drive** – This route provides service between the east and west campus areas. Buses run along Chapel Drive and Campus Drive between the west campus terminus at Chapel Drive near the Allen Building and the east campus terminus on Campus Drive near the Carr Building and the Nasher Museum of Art.

During the academic year, buses run every 10 minutes from 7:20 a.m. to 7:50 a.m., then every 5 minutes until 4:50 p.m. Buses return to a 10 minute headway between 4:55 p.m. and 7:55 p.m. Evening and late service extends from 7:55 p.m. to 3:45 a.m. with buses arriving and departing every 20 minutes. Saturday service is provided every 20 minutes from 8:15 a.m. to 4:02 a.m., while Sunday buses run every 20 minutes from 8:15 a.m. to 1:02 a.m.



## Transit Operating Plan

- **Route C1X: East-West Express** – This route provides express service between the east and west campus areas, utilizing the same alignment as Route C1. Buses only make one mid-route stop at Swift Avenue and Campus Drive. During the academic year, buses run every 10 minutes from 7:55 a.m. to 4:55 p.m.
- **Route CSW: Smith Warehouse** – Route CSW has a similar alignment to Route C1, with a deviation to Smith Warehouse. This route uses the west campus terminus at Chapel Drive near the Allen Building and the east campus terminus on Campus Drive near the Carr Building and the Nasher Museum of Art. Buses generally run along Chapel Drive and Campus Drive but at the east campus, the route deviates via Maxwell Avenue, Buchanan Boulevard, and Main Street. Service is provided every 20 minutes between 7:10 a.m. and 6:10 p.m.
- **Route C2: East-Central-West** – Route C2 circulates between the east and west campus areas. Eastbound buses depart from the west campus terminus at Chapel Drive near the Allen Building and run along Chapel Drive, Anderson Drive, Alexander Avenue, and Swift Avenue to the east campus terminus on Campus Drive near the Carr Building and the Nasher Museum of Art. Westbound buses use Campus Drive, Alexander Avenue, Anderson Drive, Duke University Drive, and Chapel Drive.

During the academic year, buses generally run every 10 minutes from 7:20 a.m. to 7:50 p.m. Additional service is provided Monday and Wednesday evenings every 10 minutes, from 8:00 p.m. to 2:00 a.m. Saturday service is provided every 30 minutes from 8:30 a.m. to 3:30 a.m., while Sunday buses run every 30 minutes from 8:30 a.m. to 12:30 a.m.

- **Route CCX: Central Campus Express** – Route CCX is similar to Route C2 but buses make fewer stops and only operate on Thursday and Friday evenings from 8:00 p.m. until 4:00 a.m.
- **Route C3: Class Change** – This route provides service between the East Campus Quad and Science Drive. The east campus terminus is on Campus Drive near the Carr Building and the Nasher Museum of Art. The west terminus is on Science Drive near the Gross Chemical Laboratory. Buses travel via Campus Drive, Chapel Drive, Duke University Road, Towerview Road, and Science Drive. Service is provided Monday through Friday from 8:15 a.m. to 4:22 p.m., with two buses departing approximately every 90 minutes.
- **Route H2: Hospital Loop** – Route H2 circulates between the Duke Ambulatory Surgery building, Duke University Medical Center, and areas north of the Durham Freeway along 15th Street and Hillsborough Road. Service is provided Monday through Friday from 5:30 a.m. to 9:30 p.m. Buses run every 12 minutes in the morning and evening peak periods and every 36 minutes during the midday period.
- **Route H5: Broad-Erwin** – Route H5 provides service between the Duke Center for Living, Duke University Medical Center, and east campus areas north of the Durham Freeway along Main Street and Broad Street. Service is provided Monday through Friday, every 15 minutes, from 7:15 a.m. to 6:12 p.m.
- **Route H6: Remote Lot-Hospital** – This route circulates between the Best Products park-and-ride lot near Sprunt Avenue and Research Drive near the William R. Perkins Library. Inbound buses run along LaSalle Street, Circuit Drive, and Research Drive. Outbound buses use Research Drive, Erwin Road, Fulton Street, and Sprunt Avenue. Service is provided Monday through Friday during morning and afternoon peak periods. Morning buses run every 12 minutes from 6:10



## Transit Operating Plan

a.m. to 10:10 a.m. Afternoon service starts at 2:55 p.m. with buses running every 12 minutes until 5:25 p.m. and continuing every 24 minutes until 8:12 p.m.

- **Route LL: LaSalle Loop** – The LaSalle Loop provides circulator service in the west campus area. From Research Drive near the William R. Perkins Library, buses run along Research Drive, Circuit Drive, Towerview Road, Morreene Road, Campus Walk Avenue, and then follow LaSalle Street to the Best Products park-and-ride lot near Sprunt Avenue and LaSalle Street. From the Best Products lot, inbound buses take Sprunt Avenue, Bellevue Avenue, Hillsborough Road, and then LaSalle Street to Circuit Drive and Research Drive. Buses run at 30 minute service frequencies from 7:00 a.m. to 11:00 p.m.
- **Route PR1: Bassett-Research** – This route provides service in the west campus area. The south terminus is on Scoreboard Lane near Wallace Wade Stadium. From there, buses take Science Drive, Towerview Road, and Circuit Road, ending the run at Research Drive near the William R. Perkins Library. Service is provided Monday through Friday from 5:30 a.m. to 8:40 p.m. and buses arrive and depart every 25 minutes.

Table 4-5 presents Duke Transit route characteristics.



## Transit Operating Plan

**Table 4-5: Duke Transit Route Characteristics (School Year)**

Day of Week	Route #	Route Name	Span of Service	Service Frequency			
				AM Pk	Midday	PM Pk	Eve.
Weekdays	C1	Campus: East-West	7:20 am-3:45 am	5/10	5	5	10/20
	C1X	Campus: East-West Express	7:55 am-4:55 pm	10	10	10	n/a
	CSW	Campus:Smith Warehouse	7:10 am-6:10 pm	20	20	20	n/a
	C2	Campus: East-Central-West	7:15 am-2:00 am	10	10	10	10/20
	CCX	Central Campus Express	8:00 pm-4:00 am;Thur-Fri	n/a	n/a	n/a	10/20
	C3	Campus:Class Change	8:15 am-4:22 pm	45	45	45	n/a
	H2	Hospital Loop	5:29 am-9:26 pm	12	36	12	n/a
	H5	Broad-Erwin	7:15 am-6:15 pm	15	15	15	n/a
	H6	Remote Lot - Hospital	6:10 am-8:12 pm	12	n/a	12	25
	LL	LaSalle Loop	7:00 am-11:00 pm	30	30	30	30
	PR1	Bassett - Research	5:30 am-8:40 pm	25	25	25	25
Saturdays	C1	Campus: East-West	8:15 am-4:00 am	20	20	20	20
	C2	Campus: East-Central-West	8:30 am-4:00 am	30	30	30	30
Sundays	C1	Campus: East-West	8:15 am-1:00 am	20	20	20	20
	C2	Campus: East-Central-West	8:30 am-1:00 am	30	30	30	30



### 5. Environmental Consequences

#### 5.1 No-Build Alternative

The Federal Transit Administration's (FTA's) guidance for the No-Build Alternative indicates that the transit and highway networks in this alternative can be defined in either of the following ways:

- An alternative that incorporates "planned" improvements that are included in the fiscally constrained long-range plan for which need, commitment, financing, and public and political support are identified and are reasonably expected to be implemented.
- A conservative definition that adds only "committed" improvements – typically those in the annual element of the Transportation Improvement Program or local capital programs – together with minor transit service expansions and/or adjustments that reflect a continuation of existing service policies into newly developed areas.<sup>1</sup>

For the D-O LRT Project, the definition of the No-Build Alternative began with the first approach noted above. The 2040 MTP was adopted by the Durham-Chapel Hill-Carrboro (DCHC) Metropolitan Planning Organization (MPO) and Capital Area Metropolitan Planning Organization (CAMPO). The MTP assumes significant expansion of the region's transit network with revenues from the planned sales tax referendum and vehicle registration fees; the MTP includes the D-O LRT Project in its transit network and regional commuter rail between Raleigh and Durham. The following modifications were made to the MTP transit network in defining this project's No-Build Alternative:

- The D-O LRT line was removed from the 2040 MTP network.
- The Raleigh-Durham commuter rail line was removed from the 2040 MTP network.
- Triangle Transit Routes 400A and 400B were included in the No-Build network. These routes are similar to the existing 400 and 405 that presently operate in the D-O Corridor (from downtown Durham to downtown Chapel Hill). They were not included in the 2040 network because the MTP network included light rail in this corridor.
- Existing Triangle Transit Routes 700 and the DRX were added back into the No-Build network. Both routes were not included in the 2040 MTP network because the network included commuter rail in this corridor.
- Triangle Transit began operating a short-turn pattern for Route 800 in 2013. The new pattern was added to the 2040 network.
- After consultation with Triangle Transit and CHT service planning staff, several Triangle Transit routes were also eliminated from the 2040 MTP network including the Butner-Durham Express, the New Hope-RTP Express, and Triangle Transit Circulators: Research Triangle, Southport, and Purple.

---

<sup>1</sup> FTA New Starts Baseline Alternative Review and Approval Procedures, FTA web site, [http://www.fta.dot.gov/12304\\_2589.html](http://www.fta.dot.gov/12304_2589.html)



## Transit Operating Plan

- The Bull City Connector was added into the No-Build Alternative. This is an existing local route that operates in Durham and was not included in the 2040 MTP network because it operates in parallel to the MTP's D-O LRT Project.
- The 2040 MTP network assumed several new feeder routes associated with the D-O LRT line. Since this No-Build network does not include this LRT line, these feeder routes were removed.
- Service improvements identified in Scenario 3 of DATA's DBBS plan were also assumed in the 2040 No-Build network. This plan was developed by DATA in May 2012 with service recommendations based across four fronts: Safety, Service Quality, Fiscal Responsibility, and Community Benefits. DATA has already implemented many of the service improvements identified in Scenarios 1 and 2 of the DBBS project.

Following are detailed descriptions of transit service improvements in the D-O Corridor that are included in the No-Build network. Descriptions are provided by operator and for those routes with proposed service modifications. Note that no changes have been proposed for Duke Transit services in the No-Build network. Thus, Duke Transit route descriptions are not included in this section.

### 5.1.1 Triangle Transit Service Changes

The No-Build transit network assumes some new and restructured transit service to Triangle Transit routes that operate within the D-O Corridor. It also assumes expanded Saturday service and the introduction of new Sunday service. Following are descriptions of proposed Triangle Transit routes in the No-Build network that operate within the D-O Corridor.

- **Route 400: Durham-New Hope Commons-Chapel Hill** – Triangle Transit service planners are considering combining the 400 and 405 as one route with two different route patterns. For purposes of this project, it is assumed the new route 405 would be eliminated and incorporated into new 400 service plans.

The 400A alignment would be similar to the existing route pattern; however, the deviation via Durham Drive, University Drive, and Westgate Drive would be eliminated. The 400A would continue serving the existing park-and-ride lot at Patterson Place but because US 15-501 will be grade-separated in the future (an improvement reflected in the travel demand model's 2040 highway network), the route would not be able to loop via Mount Moriah Road, McFarland Drive, and Witherspoon Boulevard. Instead, access to and from the park-and-ride lot would be exclusively via Durham Drive. Proposed peak and midday service frequencies for the 400A are 30 minutes, with 60-minute evening service. Proposed Saturday service frequencies are 30 minutes, with continued evening service. Sunday service remains at 60-minute frequencies.

The proposed 400B route pattern's southern terminus would differ from the 400A. Instead of serving the UNC Hospitals exclusively, the 400B would also serve the Town of Carrboro. Proposed routing is Franklin Street and Main Street over to the town of Carrboro, returning via NC 54 and Columbia Street. Morning trips would operate clockwise (serve UNC Hospitals first before going to Carrboro). Afternoon trips would operate counterclockwise. Route 400B would not deviate to serve the existing Patterson Place park-and-ride lot. Proposed weekday frequencies are 30 minutes in the peak periods only.

- **Route 405: Durham-Chapel Hill** – This route would be replaced by modified Route 400 service, as described above.



## Transit Operating Plan

- **Route 420: Hillsborough-Chapel Hill** – No changes are proposed to this route under the No-Build Alternative.
- **Route 700: Durham-RTC** – Per the DBBS Scenario 3 plan, peak service frequencies would be improved to 15 minutes. Saturday daytime frequencies would be improved to 30 minutes.
- **Route 800: Chapel Hill-Southpoint Mall-RTC** –Saturday daytime frequencies would be improved to 30-minutes.
- **Route 805: Chapel Hill-Woodcroft-RTC** – No changes are proposed to this route in the No-Build transit network.
- **Route CRX: Chapel Hill-Raleigh Express** – No changes are proposed to this route.
- **Route DRX: Durham-Raleigh Express** – No changes are proposed to this route.
- **Route RSX: Robertson Express** – No changes are proposed to this route.
- **Route MDX: Mebane-Durham Express** – The MDX is a proposed new route in the 2040 MTP network that provides peak period express service from Mebane and Hillsborough to Duke University and Durham. In the Duke area, the route would follow Hillsborough Road, LaSalle Street, Erwin Road, Fulton Street, and Elba Street to the Durham Freeway to downtown Durham. Proposed frequencies are 30 minutes in the peak periods.
- **Route RDX: Rougemont-Durham Express** – This is a proposed new route in the 2040 MTP network that would provide peak period express service from Rougemont to downtown Durham via US 15-501, Duke and Gregson Streets. It is proposed this route be modified to provide service to the Duke Medical Center area first, before ending in downtown Durham. Proposed routing from US 15-501 is west on I-85, exit at Morreene Road, north on Erwin Road, north on Fulton Street and east on Elba Street to the Durham Freeway and downtown Durham. Proposed frequencies are 30 minutes in the peak periods.

Table 5-1 presents proposed No-Build transit network service changes for just those Triangle Transit routes that operate in the D-O Corridor.

**Table 5-1: Triangle Transit Routes under the No-Build Alternative (Corridor Routes Only)**

Weekday	Route		Service Frequency			Change from Existing
			Peak	Midday	Evening	
<b>Mon-Fri</b>	400A	Durham-Patterson Place-Chapel Hill	30	30	60	Improve midday service from 60 to 30 minutes
	400B	Durham-Patterson Place-Carborro-Chapel Hill	30	n/a	n/a	New service replacing 405
	405	Durham-Chapel Hill	30	n/a	n/a	Replaced by New 400B
	420	Hillsborough-Chapel Hill	30	n/a	n/a	No change
	700	Durham-RTC	15	60	60	Improve peak service from 30 to 15 minutes
	800	Chapel Hill-Southpoint Mall-RTC	30	n/a	n/a	No change
		Chapel Hill-South Point Mall	30	n/a	n/a	No change
		Chapel Hill-Southpoint -RTC via NC54/Alston	n/a	60	60	No change
	805	Chapel Hill-Woodcroft-RTC	30	n/a	60	No change
		UNC Hosp-Woodcroft	n/a	60	n/a	No change
	CRX	Chapel Hill-Raleigh Express	30	n/a	n/a	No change
	DRX	Durham-Raleigh Express	30	n/a	n/a	No change
	RSX	Robertson Express	30	30	n/a	No change
<b>Weekends</b>	MDX	Mebane-Durham Express	30	n/a	n/a	New express route: Mebane to Durham
	RDX	Rougemont-Durham Express	30	n/a	n/a	New express route: Rougemont to Durham
Weekends	Route		Service Frequency			Change from Existing
			AM	Midday/PM	Evening	
<b>Saturday</b>	400A	Durham-Patterson Place-Chapel Hill	60	30	60	Improve midday service to 30-minutes
	700	Durham-RTC	60	30	60	Improve midday service to 30-minutes
	800	Chapel Hill-Southpoint Mall-RTC	60	30	60	Improve midday service to 30-minutes
	RSX	Robertson Express	n/a	60	60	No change
<b>Sunday</b>	400A	Durham-Patterson Place-Chapel Hill	n/a	60	n/a	No change
	700	Durham-RTC	n/a	60	n/a	No change
	800	Chapel Hill-Southpoint Mall-RTC	n/a	60	n/a	No change
	RSX	Robertson Express	n/a	60	60	No change



### 5.1.2 DATA Service Changes

In general, improvements under the No-Build Alternative reflect changes proposed under Scenario 3 of the DBBS plan. Other changes are based on discussions with DATA's service planning staff, including two new routes.

- **Bull City Connector** – Service frequencies in the p.m. peak period are improved to 15 minutes.
- **Route 1: Northgate Mall • North Pointe • Loehmans Plaza • Willowdale** – Per the DBBS Scenario 3 Plan, morning service is added to Route 1's short pattern (1N) under the No-Build Alternative. Route 1N buses would run every 30 minutes. It is also proposed that Sunday evening service be expanded until 9:00 p.m. under the No-Build Alternative.
- **Route 2: East Durham • The Village • Angier Avenue** – Per the DBBS Scenario 3 Plan, Sunday evening service is extended until 9:00 p.m. Note that the East End Connector Project may alter the existing alignment of Route 2, but the change is unrelated and expected to be insignificant in relation to this particular project.
- **Route 3: The Village • Highway 98** – No weekday or Saturday changes are proposed for this route in the No-Build transit network. Sunday evening service would be extended until 9:00 p.m.
- **Route 4: North Roxboro Road • Durham Regional Hospital • North Duke Crossing** – No changes to the existing route alignment or weekday/Saturday service frequencies are proposed. Sunday evening service, however, would be extended until 9:00 p.m.
- **Route 5: Fayetteville Street • NCCU • Southpoint** – Per the DBBS Scenario 3 plan, Sunday evening service would be extended until 9:00 p.m. The recently added short turn pattern (Route 5K) would also be expanded to include morning service under the No-Build Alternative at 30-minute frequencies. Thus, Routes 5A and 5K would provide a combined 15-minute frequency between downtown and Martin Luther King Jr. Parkway.
- **Route 6: Duke University/VA Hospital • American Village • Sparger Road** – Per the DBBS Scenario 3 plan, Sunday evening service would be extended until 9:00 p.m.
- **Route 7: Forest Hills • Weaver Street • Martin Luther King Jr. Parkway** – It is proposed this route be extended from the Walmart to University Drive, where connections to Route 10 can be made. Proposed routing is along Martin Luther King Jr. Parkway and University Drive, with return routing via Shannon Road. Sunday service would also be extended until 9:00 p.m. No changes are proposed to service frequencies.
- **Route 8: Lawson Street • NCCU • DTCC** – Sunday evening service would be extended until 9:00 p.m. No changes are proposed to the route alignment.
- **Route 9: Dearborn Drive • North Durham** – Per the DBBS Scenario 3 plan, Sunday evening service would be also extended until 9:00 p.m.
- **Route 10: South Square • New Hope Commons** – Per the DBBS Scenario 3 plan, Sunday evening service would be extended until 9:00 p.m. It is also proposed that service frequencies for the Route 10B operating pattern be improved from 60 to 30 minutes in both the peak and off-peak periods. The Route 10L pattern would be eliminated and replaced with proposed Route 52.

- **Route 11: Duke University • VA Hospital • Hillsborough Road** – Under the Light Rail Alternatives, Route 11 would be modified to facilitate more of a crosstown operating pattern. It is proposed that this route's eastern terminus be located at Roxboro Road and Foushee Street. Outbound buses would utilize Roxboro Street, Avondale Drive, and Foushee Street as the eastern turnaround location. From Foushee Street, westbound buses would follow Roxboro Street and turn east at Club Boulevard. They would continue on Club Boulevard and turn south at Broad Street to and travel to Hillandale Road where the route pattern would be identical to current operations (Erwin Road, LaSalle Street, Hillsborough Road). No changes are proposed to existing service frequencies (30 minutes). Per the DBBS Scenario 3 plan, Sunday evening service would be also extended until 9:00 p.m.
- **Route 12: NC 55 and NC 54 • Woodcroft • Southpoint Circulator** – Per DBBS plan, weekday service frequencies would be improved from 60 to 30 minutes. Sunday evening service would also be extended until 9:00 p.m.
- **Route 14: Southpoint Mall • NC 54 at Alston Avenue** – It is proposed that Route 14 service frequencies be improved to 30 minutes (in conjunction with proposed Route 12 service frequency improvements). Sunday evening service would also be extended until 9:00 p.m.
- **Route 15: Brier Creek** – Service on this route was recently expanded to hourly service. The only proposed change is expanding Sunday evening service until 9:00 p.m.
- **Route 16: The Village • Highway 98** – Per the DBBS Scenario 3 plan, Sunday evening service would be extended until 9:00 p.m.
- **Route 30: Duke Medical Center-North Duke Mall** – This is a proposed new crosstown route that connects Duke Medical Center with Durham Regional Hospital. This route would be interlined with the proposed Route 52. From Durham Regional Hospital, the proposed routing is Olympic Avenue, Stadium Drive, Carver Street, Hillandale Road and Fulton Street, to Shirley Street, Crest Street, and Douglas Street. This route would continue as Route 52 from Erwin Road. Proposed frequencies are 30 minutes peak/60 minutes midday on weekdays, with 60 minute service frequencies on weekday evenings and Saturdays. No Sunday service is proposed.
- **Route 52: Duke Medical Center • Southpoint** – This is a proposed new crosstown route that would connect Duke Medical Center, South Square Shopping Center, and the Southpoint Mall area. This route would be interlined with the aforementioned Route 52. From the Southpoint Mall, this route would follow Fayetteville Road, NC 54, Garrett Road, Shannon Road, University Drive, Academy Road, Duke University Road, Chapel Drive, Flowers Drive, Trent Drive to Erwin Road. This route would turn west on Erwin Road and at Douglas Street and would be interlined with Route 30. Proposed service frequencies are 30 minutes peak/60 minutes midday on weekdays, with 60 minute service frequencies on weekday evenings and Saturdays. No Sunday service is proposed.

Tables 5-2 and 5-3 present the respective weekday and weekend service changes as proposed for all DATA routes under the No-Build Alternative.

**Table 5-2: DATA Weekday Route under the No-Build Alternative**

Route		Service Frequency			Change from Existing
		Peak	Midday	Evening	
BCC	Bull City Connector	20/15	20	25	PM peak frequencies improved to 15-min.
1A	Via Hillendale & Loehmans Plaza	60	60	n/a	No change
1B	Via Guess Road & Horton Road	60	60	n/a	No change
1N	Via Northgate Mall	30	30	n/a	Add morning service
1 Eve	Via Guess Road & Horton Road	n/a	n/a	60	No change
2A	Via Page Road & Angier Avenue	60	60	n/a	No change
2B	Via Raynor Street at the Village	60	60	n/a	No change
2B Eve	Angier/Guthrie Via Raynor St. at the Village	n/a	n/a	60	No change
2 Eve	Via Page Road at Angier Avenue	n/a	n/a	60	No change
3	Via Wal-Mart at Glenview Station	30	30	60	No change
4	Via Horton Rd & Roxboro Road	30	30	60	No change
5A	Via Southpoint Mall	30	30	n/a	No change
5K	Via MLK Jr. Pkwy	30	n/a	n/a	Add morning service
5 Eve	Via Southpoint Mall	n/a	n/a	60	No change
6	Via Constitution Dr. at Forest Apts.	60	60	60	No change
6B	Via Sparger Rd. at Food Lion	60	60	n/a	No change
7	Via Wal-Mart at MLK Jr. Pkwy. and University Dr.	30	30	60	Route extended to University Drive
8	Via Capps St. & S. Alston Ave.	30	30	n/a	No change
8 Eve	Via Capps St. & S. Alston Ave.	n/a	n/a	60	No change
9A	Via Tom Wilkerson Rd. at Northern H.S.	60	60	n/a	No change
9B	Via Meriweather Dr. at Pickwick Trail	60	60	n/a	No change
9 Eve	Via Seven Oaks Rd & Roxboro Rd	n/a	n/a	60	No change
10A	Via New Hope Commons	30	30	n/a	No change
10B	Via Emerald Pond Lane & Pickett Rd.	30	30	n/a	Improve midday freq. to 30-minutes
10 Eve	Via New Hope Commons	n/a	n/a	60	No change
10L	University Dr. & Westgate Via Jordan High School	n/a	n/a	n/a	Service Eliminated
11	Roxboro to Hillsborough Rd & Cole Mill Rd.	30	30	n/a	Reroute as crosstown to Roxboro Road
11 Eve	Roxboro to Sparger Rd at Food Lion	n/a	n/a	60	Reroute as crosstown to Roxboro Road
12	Via NC 54 & Alston Ave.	30	30	n/a	Improve peak and midday service from 60 to 30 minutes
12 Eve	Via NC 55 & Sedwick Dr.	n/a	n/a	60	No change
14	NC 54 & Alston Ave. Via Southpoint Mall	30	30	60	Improve peak and midday service from 60 to 30 minutes
15	Via Alexander Promenade at Wal-Mart	60	60	60	No change
16A	Via Freeman Rd & Clayton Rd.	60	60	n/a	No change
16B	Via Rummel St. & Hwy 98	60	60	n/a	No change
16 Eve	Raynor St at the Village Via Freeman & Clayton Rd	n/a	n/a	60	No change
30	Duke Medical Center-Durham Reg. Hospital	30	60	n/a	New crosstown service
52	Duke Medical Center-Southpoint	30	60	n/a	New crosstown service

**Table 5-3: DATA Weekend Routes under the No-Build Alternative**

Weekends	Route #	Route Name	Service Frequency			Change from Existing
			AM	Midday/PM	Evening	
Saturday	BCC	Bull City Connector	20	20	20	No change
	1A	Via Hillendale & Loehmans Plaza	60	60	60	No change
	1B	Via Guess Road & Horton Road	60	60	60	No change
	1 Eve	Via Guess Road & Horton Road	n/a	n/a	60	No change
	2A	Via Page Road & Angier Avenue	60	60	60	No change
	2B	Via Raynor Street at the Village	60	60	60	No change
	2B Eve	Angier/Guthrie Via Raynor St. at the Village	n/a	n/a	60	No change
	2 Eve	Via Page Road at Angier Avenue	n/a	n/a	60	No change
	3	Via Wal-Mart at Glenview Station	30	30	60	No change
	4	Via Horton Rd & Roxboro Road	30	30	60	No change
	5	Via Southpoint Mall	30	30	n/a	No change
	5 Eve	Via Southpoint Mall	n/a	n/a	60	No change
	6	Via Constitution Dr. at Forest Apts.	60	60	60	No change
	6B	Via Sparger Rd. at Food Lion	60	60	n/a	No change
	7	Via Wal-Mart at MLK Jr. Pkwy.	30	30	60	Route extended to University Drive
	8	Via Capps St. & S. Alston Ave.	30	30	n/a	No change
	8 Eve	Via McDougald Terrace	n/a	n/a	60	No change
	9A	Via Tom Wilkerson Rd. at Northern H.S.	60	60	60	No change
	9B	Via Meriweather Dr. at Pickwick Trail	60	60	60	No change
	9 Eve	Via Seven Oaks Rd & Roxboro Rd	n/a	n/a	60	No change
	10A	Via New Hope Commons	30	30	n/a	No change
	10B	Via Emerald Pond Lane & Pickett Rd.	30	30	n/a	Improve midday freq. to 30-minutes
	10 Eve	Via New Hope Commons	n/a	n/a	60	No change
	11	Roxboro to Hillsborough Rd & Cole Mill Rd.	60	60	n/a	Reroute as crosstown to Roxboro Road
	11 Eve	Roxboro to Sparger Rd at Food Lion	n/a	n/a	60	Reroute as crosstown to Roxboro Road
	12	Via NC 54 & Alston Ave.	60	30	n/a	No change
	12 Eve	Via NC 55 & Sedwick Dr.	n/a	n/a	60	No change
	14	NC 54 & AlstVian Ave. Via Southpoint Mall	60	60	60	No change
	15	Via Alexander Promenade at Wal-Mart	60	60	60	No change
	16A	Via Freeman Rd & Clayton Rd.	60	60	60	No change
	16B	Via Rummel St. & Hwy 98	60	60	60	No change
	16 Eve	Raynor St at the Village Via Freeman & Clayton Rd	n/a	n/a	60	No change
	30	Duke Medical Center-Durham Reg. Hospital	60	60	n/a	New Saturday service
	52	Duke Medical Center-Southpoint	60	60	n/a	New Saturday service
Sunday	1	Via Guess Road & Horton Road	60	60	60	Expanded Sunday service
	2B	Raynor St at the Village to Angier & Guthrie	60	60	60	Expanded Sunday service
	2	Via Page Road & Angier Avenue	60	60	60	Expanded Sunday service
	3	Via Wal-Mart at Glenview Station	60	60	60	Expanded Sunday service
	4	Via Horton Rd & Roxboro Rd	60	60	60	Expanded Sunday service
	5	Via Southpoint Mall	60	60	60	Expanded Sunday service
	6	Via Constitution Dr at Forest Apts	60	60	60	Expanded Sunday service
	7	Via Wal-Mart at MLK Jr Pkwy	60	60	60	Expanded Sunday service
	8	Via Capps St & S Alston Ave	60	60	60	Expanded Sunday service
	9	Via Seven Oaks Rd & Roxboro Rd	60	60	60	Expanded Sunday service
	10	Via New Hope Commons	60	60	60	Expanded Sunday service
	11	Roxboro to Sparger Rd at Food Lion	60	60	60	Expanded Sunday service, reroute to Roxboro Road
	12	Via NC 55 & Sedwick Dr.	60	60	60	Expanded Sunday service
	14	NC 54 & Alston Ave to Southpoint Mall	60	60	60	Expanded Sunday service
	15	Via Alexander Promenade at Wal-Mart	60	60	60	Expanded Sunday service
	16	Raynor St at the Village to Freeman & Clayton Rd	60	60	60	Expanded Sunday service

## 5.1.3 Chapel Hill Transit Service Changes

Service improvements assumed for CHT routes are described below. Many of the service changes include expanded evening and weekend service. Also included is a new Bus Rapid Transit (BRT) line that would operate to and from Chapel Hill primarily along Martin Luther King Jr. Parkway. Service improvements would include:

- **Route A: Martin Luther King Jr. Parkway/Northside** – It is proposed that Route A service frequencies be improved to 15 minutes during the peak period and 45 minutes during the midday periods.
- **Route CCX: Chatham County Express** – No changes are proposed for the CCX route in the No-Build transit network.



## Transit Operating Plan

- **Route CL: Colony Lake/Sage Road/UNC Hospital** – It is proposed that this route’s alignment be modified in conjunction with proposed Route D alignment changes. From Franklin Street, the alignment would follow Ephesus Church Road, Legion Road, Standish Drive, Old Durham Road, and Old Chapel Hill Road to Mount Moriah Road and the New Hope Commons shopping center. Proposed weekday service frequencies are 20 minutes peak, 20 minutes midday, with 60 minute evening service. It is also proposed Saturday service continue to be provided at 40 minute daytime and 60 minute evening frequencies. Sunday service is also proposed at 60 minute frequencies.
- **Route CPX: Carrboro Plaza Express** – No changes are proposed for the CCX route in the No-Build transit network.
- **Route CM: Carrboro/Merritt Mill Road/Family Medicine** – No weekday changes are proposed for this route under the No-Build Alternative. It is proposed that Saturday service be extended into the early evening period.
- **Route CW: Carrboro/Waver Street** – No weekday changes are proposed for this route under the No-Build Alternative. It is proposed Saturday service be extended into the early evening period.
- **Route D: Culbreth Road/Franklin St/Eastowne** – In conjunction with route alignment changes to the CL, it is proposed that the north end of Route D’s alignment be modified. Outbound buses would follow Franklin Street to the U-turn at Fordham Boulevard, then travel back to Erwin Road and then take Dobbins Drive, Cosgrove Avenue, Sage Road, Coleridge Drive, Old Sterling Drive, and Eastowne Drive to the easternmost intersection of Eastowne Drive and US 15-501. Inbound buses would travel on US 15-501 to Eastowne Drive, then turn left at Old Sterling Drive, follow Coleridge Drive and Sage Drive, back to Cosgrove Avenue and Dobbins Drive, to Franklin Street. The 2040 MTP reflects weekday service frequency improvements to 20 minutes in the peak periods and 40 minutes in the midday period. Evening service is also suggested at 60 minute frequencies.
- **Route DX: UNC/Old Durham/Old Sterling/Sage Road Express** – No changes are proposed for the No-Build Alternative.
- **Route F: Colony Woods/Franklin Street/McDougle School** – No weekday changes are proposed for Route F under the No-Build Alternative. Route F would also operate on Saturdays as a combined “F-G” route and daytime service frequencies would be improved from 80 minutes to 40 minutes. Saturday evening service would be added at 80-minute frequencies. Sunday service is also proposed at 80-minute frequencies.
- **Route FCX: Friday Center Express** – No changes are proposed for the No-Build Alternative.
- **Route G: Booker Crk/UNC Hospital/Glen Lennox** – No weekday changes are proposed to this route. As noted previously, Saturday frequencies on the F-G are proposed to be improved from 80 to 40 minutes during the daytime, with 80-minute frequencies in the evenings. Sunday service is proposed at 80-minute frequencies.
- **Route HS: High School/Airport Drive at Martin Luther King Jr. Parkway/Downtown** – No changes are proposed for this route under the No-Build Alternative.
- **Route HU: UNC Hospitals/54 P&R/Hedrick Building Express** – No changes are proposed for this route under the No-Build Alternative.



## Transit Operating Plan

- **Route J: Carrboro/Downtown Chapel Hill/Jones Ferry Road** – No weekday changes are proposed for this route under the No-Build Alternative. Expanded Saturday evening services are proposed. New Sunday service is also proposed at 75-minute frequencies.
- **Route JFX: Jones Ferry Road Express** – No changes are proposed for this route under the No-Build Alternative.
- **Route N: Estes Park, UNC Hospitals, Family Medicine** – As noted for Route J, no weekday changes are proposed for this route under the No-Build Alternative. It is proposed that Saturday frequencies on Route J-N be improved from 75 to 45 minutes during the day, with 90 minute evening service. Sunday service is also proposed at 90-minute frequencies.
- **Route NS: Eubanks Road/Southern Village** – This route would be eliminated under the No-Build Alternative in lieu of the proposed BRT along Martin Luther King Jr. Parkway described below and other comparable services.
- **Route NU: RR Lot/UNC Hospitals** – No changes are proposed for this route under the No-Build Alternative.
- **Route PX: Pittsboro - UNC Hospitals** – No service changes are proposed for this route under the No-Build Alternative.
- **Route S: UNC Campus/NC 54 East P&R** – No changes are proposed for the No-Build Alternative.
- **Route T: Martin Luther King Jr. Parkway/UNC Hospitals** – This route is modified in conjunction with proposed BRT service along Martin Luther King Jr. Parkway. The revised alignment from East Chapel Hill High School would be west on Weaver Dairy Road to the Southern Human Services on Homestead Road. Proposed weekday frequencies are 30 minutes all-day, with the continuance of Saturday service at 60-minute frequencies. Proposed Saturday frequencies are 30 minutes.
- **Routes U and RU: Campus Shuttle-UNC/Downtown** – Under the No-Build Alternative, Routes U and RU would be merged into a single route pattern with bi-directional operations. From the intersection of Franklin Street and Columbia Street, clockwise buses would travel along Franklin Street, turn right at Raleigh Street, then left at South Road to Country Club Road, right onto Ridge Road and then left on Manning Drive, right at Skipper Bowles Drive and then loop back to Manning Drive, turn left and follow Manning Drive and Columbia Street to Franklin Street. Counterclockwise buses would travel west on Franklin Street and then turn south on Pittsboro Street to Manning Drive. From there, buses would operate in reverse to the clockwise routing. This route would operate at 15 minute service frequencies during peak and midday service periods. On weekends, Saturday service would be extended into the evening. Proposed weekend service frequencies would be 25 minutes (same as existing).
- **Route V: Southern Village/Meadowmont** – No changes are proposed for the No-Build Alternative.
- **Chapel Hill Bus Rapid Transit** – The 2040 MTP transit network includes a BRT route on Martin Luther King Jr. Parkway between the park-and-ride lot on Eubanks Road and the UNC Hospitals area. BRT vehicles would run on weekdays every 5 minutes during peak periods, every 15 minutes during the midday and 20 minutes in the evenings. Proposed Saturday service frequencies are 15 minutes during the day and 20 minutes in the evening. Proposed Sunday





## Transit Operating Plan

service is 20 minutes during the day and in the evening. Note that the Town of Chapel Hill is presently studying enhanced bus service in the Martin Luther King Jr. Parkway and US 15-501 South corridor. For purposes of the D-O LRT Project, the transit network is consistent with the 2040 MTP transit network.

Table 5-4 presents proposed No-Build transit network service changes for CHT routes.

**Table 5-4: Chapel Hill Transit Routes under the No-Build Alternative**

Weekdays	Route	Service Frequency			Change from Existing
		Peak	Midday	Evening	
<b>Mon-Fri</b>	A	15	45	n/a	Improve peak and midday service frequencies
	CCX	15	40	40	No change
	CL	20	20	60	Route realignment, improve midday, add evening service
	CM	50	50	60	No change
	CPX	15	n/a	n/a	No change
	CW	30	60	60	No change
	D	20	40	60	Route realignment, add midday and evening service
	DX	50	n/a	n/a	No change
	F	45	60	60	No change
	FCX	5-10	30	n/a	No change
	G	50	50	50	No change
	HS	60	60	n/a	No change
	HU	15	40	40	No change
	J	15	20	60	No change
	JFX	15	n/a	n/a	No change
	N	30	60	n/a	No change
	NS	n/a	n/a	n/a	Route replaced by New BRT service
	NU	20	25	45	No change
	PX	60	n/a	n/a	No change
	S	10	35	n/a	No change
	T	30	30	n/a	Route realigned in lieu of New BRT service
	U	15	15	n/a	Combined with RU
	RU	n/a	n/a	n/a	Combined with U
	V	35	80	n/a	No change
	BRT	5	15	20	New premium service along MLK Boulevard

Weekends	Route	Service Frequency			Change from Existing
		AM	Midday/PM	Evening	
<b>Saturday</b>	CM	n/a	30	30	Expanded Saturday service
	CW	n/a	60	60	Expanded Saturday service
	CL	n/a	40	60	Expanded Saturday service
	FG	n/a	40	80	Expanded Saturday service
	JN	n/a	75	75	Expanded Saturday service
	NU	n/a	45	45	No change
	T	n/a	30	30	Expanded Saturday service
	U	n/a	25	25	Expanded Saturday service
	BRT	n/a	15	20	New premium service along MLK Boulevard
<b>Sunday</b>	CL	n/a	60	n/a	New Sunday Service
	FG	n/a	80	n/a	New Sunday Service
	JN	n/a	75	n/a	New Sunday Service
	NU	n/a	45	45	No change
	U	n/a	25	25	No change
	BRT	n/a	20	20	New premium service along MLK Boulevard



## Transit Operating Plan

### 5.1.4 No-Build Alternative Service Requirements

Route level operating statistics were calculated for each service provider in the D-O Corridor. Weekday, Saturday, and Sunday route statistics were calculated based on proposed frequency and alignment changes, estimated route travel times and distances. Appendices A through C provide estimates for weekday, Saturday, and Sunday operating statistics under the No-Build Alternative for Triangle Transit, DATA, and CHT. Additional peak buses, revenue bus-hours, and bus-miles stemming from improvements under the No-Build Alternative are summarized in Table 5-5.

**Table 5-5: Estimates of No-Build Alternative Operating Statistics (Additional Annual Incremental Change over Existing (Fall 2014))**

Operator	Day of Week	Additional Peak Buses	Add'l. Annual Rev. Bus-Hrs.	Add'l. Annual Rev. Bus-Mi's.
<b>Triangle Transit</b>	Weekdays	11	17,595	320,433
	Saturdays	5	2,470	39,125
	<u>Sundays</u>	<u>5</u>	<u>3,480</u>	<u>57,211</u>
	Annual Total	n/a	23,545	416,769
<b>DATA</b>	Weekdays	7	31,493	400,975
	Saturdays	5	3,381	35,331
	<u>Sundays</u>	<u>0</u>	<u>2,016</u>	<u>26,072</u>
	Annual Total	n/a	36,889	462,378
<b>CHT</b>	Weekdays	7	21,688	274,538
	Saturdays	5	3,252	43,961
	<u>Sundays</u>	<u>5</u>	<u>2,791</u>	<u>40,562</u>
	Annual Total	n/a	27,731	359,061

## 5.2 Light Rail Alternatives

The Light Rail Alternatives consist of light rail service from UNC Hospitals in Chapel Hill to Alston Avenue in Durham. As was noted in chapter 1, 17 stations are proposed along an approximate 17 mile alignment. Following are descriptions of the alignment by segment, station locations, estimated light rail travel times, the proposed service plan, and estimated operating requirements.

### 5.2.1 Description of Light Rail Alternatives

A description of the Light Rail Alternatives is provided below by subarea, beginning in Chapel Hill at UNC Hospitals. This description reflects the Light Rail Alternatives presented in the February 2015 *Basis for Engineering Design* plan and profile drawings.

- UNC Hospitals to Hamilton Road** – This portion of the alignment is labeled as Segments A and B of the project's plan and profile drawings. The alignment would begin in Chapel Hill at UNC Hospitals on the southern portion of the UNC campus, near the UNC Dogwood Parking Deck, southwest of the proposed realigned intersection of East Drive and Mason Farm Road. The alignment would continue through Odum Village to Mason Farm Road, where it would parallel





## Transit Operating Plan

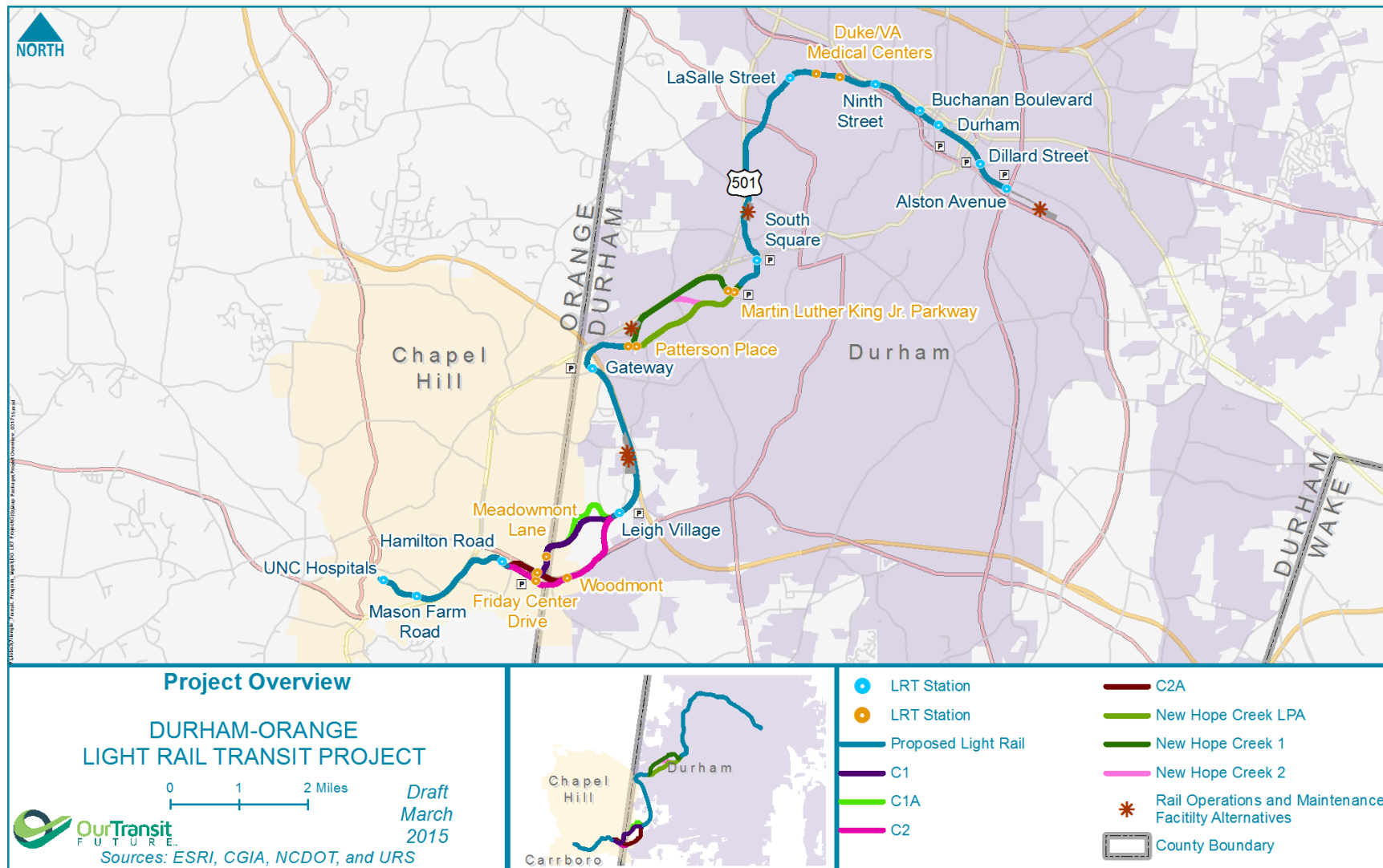
Mason Farm Road and the west side of Fordham Boulevard (US 15-501, NC 54). The alignment would transition to the east side of Fordham Boulevard, near Old Mason Farm Road, and follow the edge of the Finley Golf Course to Prestwick Road, where the Hamilton Road Station is proposed.

- **Hamilton Road to Leigh Village** – Four Light Rail Alternatives are being considered for this segment labeled Segment C in the project’s plan and profile drawings.
  - *Alternative C1* would continue east along Prestwick Road and along the edge of the Finley Golf Course to the existing Friday Center parking lot where a station is proposed. The alignment would turn northeast along Meadowmont Lane, with a station proposed at Meadowmont Lane and Barbee Chapel Road. The alignment would cross Meadowmont Lane at Green Cedar Lane and then cross through existing undeveloped land to the proposed Leigh Village Station.
  - *Alternative C1A* would follow the same alignment as Alternative C1 to Green Cedar Lane. The alignment would then follow a more circuitous alignment through undeveloped land to the proposed Leigh Village Station.
  - *Alternative C2* would continue east along Prestwick Road, and along the edge of the Finley Golf Course to the existing Friday Center parking lot where a station is proposed. The alignment would continue east, eventually running adjacent to Raleigh Road (NC 54, just east of Barbee Chapel Road). The Woodmont Station is proposed east of Barbee Chapel Road. The alignment would continue along Raleigh Road, transitioning to the north side of Raleigh Road just east of Downing Creek Parkway. The alignment would turn at George King Road and travel across existing undeveloped land to the proposed Leigh Village Station.
  - *Alternative C2A* would follow a similar alignment as Alternative C2, with the exception that the alignment would transition to the south side of NC 54 immediately, just past Finley Golf Course Road. Both the Friday Center Drive and Woodmont Stations are adjacent to Raleigh Road. The alignment east of Woodmont Station is the same as described for Alternative C2.
- **Leigh Village to Patterson Place** – This section of the alignment is labeled as Segment D in the project’s plan and profile drawings. From Leigh Village, the alignment would parallel the west side of I-440, turning away from the interstate at Old Chapel Hill Road. The Gateway Station is proposed near Old Chapel Hill Road and Pope Road. The alignment would then cross over I-40 and follow McFarland Drive. A station is proposed at Patterson Place, east of Witherspoon Boulevard. The location of the station varies depending on the Light Rail Alternative in the next segment.
- **Patterson Place to Martin Luther King Jr. Parkway** – Three alternatives are being considered for this segment, which is also called the New Hope Creek section within Segment D.
  - *NHC LPA* would cross Durham Drive and travel through existing undeveloped land, crossing Garrett Road. The alignment would eventually transition to a median alignment along University Drive at Ivy Creek Boulevard. The Martin Luther King Jr. Parkway Station is proposed just north of Martin Luther King Jr. Drive.
  - *NHC 1* would turn north from McFarland Drive at Sayward Drive and cross existing undeveloped land to Durham-Chapel Hill Boulevard (US 15-301). The alignment would run adjacent to Durham-Chapel Hill Boulevard to Martin Luther King Jr. Parkway (crossing over

- Martin Luther King Jr. Parkway) with a station near University Drive. The alignment would turn at University Drive and transition to the median of University Drive.
- *NHC 2* would turn north from McFarland Drive at Sayward Drive and cross existing undeveloped land to Durham-Chapel Hill Boulevard (same as NHC 1). The alignment would veer from Durham-Chapel Hill Boulevard at Garrett Road, traveling through more existing undeveloped land until it reaches the intersection of Ivy Creek Road and University Drive. The alignment would transition to the median of University Drive, with a station immediately past Martin Luther King Jr. Parkway (same location as NHC LPA).
  - **Martin Luther King Jr. Parkway to Erwin Road** – This section of the alignment is labeled as Segment D in the project’s plan and profile drawings. From Martin Luther King Jr. Parkway, the alignment would continue east in the median of University Drive. The alignment would turn north at Shannon Road, running along the east side of Shannon Road. The South Square Station is proposed just before Durham-Chapel Hill Boulevard. The alignment would cross Durham-Chapel Hill Boulevard and continue north across Pickett Road, eventually paralleling US 15-501. Prior to Cameron Boulevard the alignment would cross through existing undeveloped land, where it would transition to the median of Erwin Road, beginning at Cameron Boulevard.
  - **Erwin Road to Ninth Street** – This section of the alignment is Segment E in the project’s plan and profile drawings. The alignment would be in the median of Erwin Road until it approaches the Durham Freeway (Highway 147). The alignment would then transition across Durham Freeway to the south side of the NCRR railroad tracks. A station is proposed at LaSalle Street. A second Erwin Road Station is proposed at either the Duke Eye Center or at Trent/Flowers Drive. There is also a station proposed at Ninth Street at the north end of this segment.
  - **Ninth Street to Alston Avenue** – This section of the alignment is labeled as Segment F in the project’s plan and profile drawings. The alignment would continue along Pettigrew Street, south of the NCRR railroad tracks to the proposed Alston Avenue Station, just west of Alston Avenue. Additional stations are proposed at Buchanan Boulevard, Durham, and Dillard Street.

Figure 5-1 depicts the Light Rail Alternatives.

Figure 5-1: Overview of Light Rail Alternatives





## Transit Operating Plan

### 5.2.2 Stations

The Light Rail Alternatives would include 17 stations at the following locations:

- UNC Hospitals
- Mason Farm Road
- Hamilton Road
- Friday Center \*
- Meadowmont Lane (C1/C1A) or Woodmont (C2/C2A)
- Leigh Village\*
- Gateway\*
- Patterson Place
- Martin Luther King Jr. Parkway\*
- South Square\*
- LaSalle Street
- Duke/VA Medical Center (Duke Eye Center or Trent/Flowers Drive)
- Ninth Street
- Buchanan Boulevard
- Durham \*
- Dillard Street\*
- Alston Avenue\*

(Note: Stations with “\*” indicate stops with park-and-ride facilities.)

### 5.2.3 Proposed Service Plan

Operating hours for the new light rail service are generally from 5:30 a.m. to 12:00 midnight on weekdays and Saturdays, and 6:30 a.m. to 12:00 midnight on Sundays. Light rail service frequencies by time period are noted in Table 5-6.

**Table 5-6: Light Rail Alternatives Proposed Service Frequencies**

Day of Week	5:30-9:00 a.m.	9:00 a.m.-3:30 p.m.	3:30-7:00 p.m.	7:00 p.m.-Midnight
Weekdays	10 minutes	20 minutes	10 minutes	20 minutes
Saturdays	20 minutes	20 minutes	20 minutes	30 minutes
Sundays	30 minutes*	20 minutes	20 minutes	30 minutes

Note: Sunday Service would begin at 6:30 a.m.



### 5.2.4 Light Rail Travel Time Estimates

Station-to-station rail travel times have been updated from the prior work done in the AA. The new travel time estimates reflect current project plans (alignment drawings dated May 2014, and updated in the downtown Durham section in March 2015) and take into consideration horizontal curves, vertical grades, and operating environment (exclusive right-of-way versus mixed traffic). Travel times were calculated for both directions of travel. A 20 second dwell time was assumed for each station stop. A 3.0 mile per hour per second (mphps) acceleration and deceleration rate was used. Travel time estimates were then adjusted slightly to be consistent with estimates being generated separately for power load distribution calculations. Potential delays when crossing at-grade intersections were estimated with the identification of intersections likely to be gated, or have partial or full priority given to light rail service.

As noted in Section 5.2.1, four alignments are being considered in Segment C (Hamilton to Leigh Village), three alignments are being considered within Segment D's New Hope Creek section (Patterson Place to Martin Luther King Jr. Parkway), and two station alternatives are being considered in Segment E (Trent/Flowers Drive versus Duke Eye Center). Thus, there are 24 potential travel time estimates that can be defined through the various combinations of alignment/station alternatives. Travel times were developed for each alternative and are presented in Appendix A. Table 5-7 presents a summary of end-to-end calculations for each alternative, assuming a Trent/Flowers Drive Station in Segment E. There is minimal difference in travel times in Segment E with the two station alternatives (Trent /Flowers Drive vs. Duke Eye Center).

Eastbound travel time estimates are generally 1 to 1.5 minutes longer than westbound travel time estimates. This is primarily due to alignment curves associated with the eastbound tracks before/after each station platform in Segment F (Ninth Street to Alston Avenue). Within Segment C, Alternative C1A has the longest travel time estimate and Alternative C2A has the shortest travel time estimate. Within Segment D, NHC 1 has the shortest travel time and NHC 2 has the longest time.

**Table 5-7: Light Rail Alternatives Travel Time Estimates  
(Assuming Trent/Flowers Drive Station in Segment E)**

Scenario	Alignment Distance	Eastbound Time	Westbound Time
C1-NHC LPA	16.76	0:43:12	0:42:00
C1A-NHC LPA	17.01	0:44:00	0:42:45
C2-NHC LPA	16.93	0:43:30	0:42:03
C2A-NHC LPA	16.90	0:43:13	0:41:53
C1-NHC 1	17.07	0:42:59	0:41:58
C1A-NHC 1	17.32	0:43:47	0:42:43
C2-NHC 1	17.25	0:43:16	0:42:01
C2A-NHC 1	17.21	0:42:59	0:41:51
C1-NHC 2	16.99	0:43:29	0:42:35
C1A-NHC 2	17.24	0:44:17	0:43:21
C2-NHC 2	17.17	0:43:47	0:42:39
C2A-NHC 2	17.14	0:43:30	0:42:29

Note: Duke Eye Center Station Alternative is estimated to have travel times in each direction that are 9 seconds less than the times shown in the table.

### 5.2.5 Operating Requirements

Travel time differences are relatively minor between the 24 combinations of alignment/station alternatives. Overall, the maximum travel time difference is approximately 1.5 minutes between the fastest and slowest alignment options.

When determining train requirements, it is desirable to provide at least 15 percent layover/recovery at the ends-of-line. For this project, a 110 minute (1 hour, 50 minute) train cycle time is recommended for all alignment/station alternatives when operating at either the proposed 10 minute peak period frequency. A 120-minute cycle is recommended for all other time periods. This provides a layover/recovery time that typically exceeds 20 percent for all time periods and for all alternatives. The resulting train requirement is 11 trains in service during the peak periods and 6 trains in service during the midday period. Thirty minute frequencies have been proposed on the weekends during the early and late operating periods. A 120 minute cycle time is required during this time period (4 trains in service).

Current ridership forecasts indicate that three of the six trains in the peak hour should operate as two-car trains to meet peak hour ridership demand projections. The remaining trains could operate as one-car trains. The peak load point is projected to occur between the Hamilton Road and Friday Center stations. An equal mix of one and two-car trains in the peak hour is estimated to generate an average load factor of less than 1.25 per car regardless of the alternative. The load factor is the maximum ridership in a rail car divided by the number of seats Table 5-8 presents estimated operating requirements for all Light Rail Alternatives being considered (the operating tables in Table 4-3 apply to both Trent/Flowers Drive and Duke Eye Center Station alternatives). As shown in this table, there is no



## Transit Operating Plan

difference in vehicle requirements or train-hours. Only car-miles vary slightly between the other Light Rail Alternatives.



## Transit Operating Plan

**Table 5-8: Light Rail Alternatives Operating Requirements**

**Alignment C1-NHC LPA: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.**

		Time	Distance		Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To	(minutes)	(miles)	Day	AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	42.60	16.76	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	764,600	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0			83,700	5,000	5,000	4.0	6.0	6.0	4.0
				Sun	30	20	20	30	1.0	1.0	1.0	1.0			89,400	5,300	5,300	4.0	6.0	6.0	4.0
TOTALS													14	17	937,700	48,300	53,700				

**Alignment C1A-NHC LPA: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.**

		Time	Distance		Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To	(minutes)	(miles)	Day	AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	43.38	17.02	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	776,500	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0		85,000	5,000	5,000	4.0	6.0	6.0	4.0	
				Sun	30	20	20	30	1.0	1.0	1.0	1.0		90,800	5,300	5,300	4.0	6.0	6.0	4.0	
TOTALS													14	17	952,300	48,300	53,700				

**Alignment C2-NHC LPA: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.**

		Time (minutes)	Distance (miles)	Day	Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To				AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	42.77	16.94	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	772,800	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0			84,600	5,000	5,000	4.0	6.0	6.0	4.0
				Sun	30	20	20	30	1.0	1.0	1.0	1.0			90,400	5,300	5,300	4.0	6.0	6.0	4.0
TOTALS													14	17	947,800	48,300	53,700				

**Alignment C2A-NHC LPA: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.**

		Time	Distance		Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To	(minutes)	(miles)	Day	AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	42.55	16.91	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	771,500	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0		84,400	5,000	5,000	4.0	6.0	6.0	4.0	
				Sun	30	20	20	30	1.0	1.0	1.0	1.0		90,200	5,300	5,300	4.0	6.0	6.0	4.0	
TOTALS													14	17	946,100	48,300	53,700				





## Transit Operating Plan

### Alignment C1-D NHC 1: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.

		Time	Distance		Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To	(minutes)	(miles)	Day	AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	42.47	17.07	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	778,800	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0			85,200	5,000	5,000	4.0	6.0	6.0	4.0
				Sun	30	20	20	30	1.0	1.0	1.0	1.0			91,100	5,300	5,300	4.0	6.0	6.0	4.0
TOTALS													14	17	955,100	48,300	53,700				

### Alignment C1A-D NHC 1: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.

		Time	Distance		Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To	(minutes)	(miles)	Day	AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	43.30	17.33	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	790,600	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0			86,500	5,000	5,000	4.0	6.0	6.0	4.0
				Sun	30	20	20	30	1.0	1.0	1.0	1.0			92,500	5,300	5,300	4.0	6.0	6.0	4.0
TOTALS													14	17	969,600	48,300	53,700				

### Alignment C2-D NHC 1: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.

		Time	Distance		Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To	(minutes)	(miles)	Day	AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	42.65	17.25	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	787,000	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0		86,100	5,000	5,000	4.0	6.0	6.0	4.0	
				Sun	30	20	20	30	1.0	1.0	1.0	1.0		92,000	5,300	5,300	4.0	6.0	6.0	4.0	
TOTALS													14	17	965,100	48,300	53,700				

### Alignment C2A-D NHC 1: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.

		Time	Distance		Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To	(minutes)	(miles)	Day	AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	42.42	17.22	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	785,600	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0			86,000	5,000	5,000	4.0	6.0	6.0	4.0
				Sun	30	20	20	30	1.0	1.0	1.0	1.0			91,900	5,300	5,300	4.0	6.0	6.0	4.0
TOTALS													14	17	963,500	48,300	53,700				



## Transit Operating Plan

### Alignment C1-D NHC 2: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.

		Time	Distance		Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To	(minutes)	(miles)	Day	AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	43.03	17.00	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	775,600	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0			84,900	5,000	5,000	4.0	6.0	6.0	4.0
				Sun	30	20	20	30	1.0	1.0	1.0	1.0			90,700	5,300	5,300	4.0	6.0	6.0	4.0
TOTALS													14	17	951,200	48,300	53,700				

### Alignment C1A-D NHC 2: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.

		Time	Distance		Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To	(minutes)	(miles)	Day	AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	43.82	17.25	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	787,000	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0		86,100	5,000	5,000	4.0	6.0	6.0	4.0	
				Sun	30	20	20	30	1.0	1.0	1.0	1.0		92,000	5,300	5,300	4.0	6.0	6.0	4.0	
TOTALS													14	17	965,100	48,300	53,700				

### Alignment C2: D NHC 2: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.

		Time	Distance		Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To	(minutes)	(miles)	Day	AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	43.22	17.17	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	783,300	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0		85,700	5,000	5,000	4.0	6.0	6.0	4.0	
				Sun	30	20	20	30	1.0	1.0	1.0	1.0		91,600	5,300	5,300	4.0	6.0	6.0	4.0	
TOTALS													14	17	960,600	48,300	53,700				

### Alignment C2A: D NHC 2: Every Other Train is 2-Car Train in Peak Hour, Peak Dir.

		Time	Distance		Frequency (Min.)				Train Consist				Vehicles		Annual			Train Requirements			
From	To	(minutes)	(miles)	Day	AM	Mid	PM	Eve	AM	Mid	PM	Eve	Peak	Total	Car-Miles	Train-Hrs	Car-Hrs	AM	Mid	PM	Eve
Alston Ave.	UNC Hospitals	42.98	17.14	M-F	10	20	10	20	1.27	1.0	1.27	1.0	14	17	782,000	38,000	43,400	11.0	6.0	11.0	6.0
				Sat	30	20	20	30	1.0	1.0	1.0	1.0			85,600	5,000	5,000	4.0	6.0	6.0	4.0
				Sun	30	20	20	30	1.0	1.0	1.0	1.0			91,500	5,300	5,300	4.0	6.0	6.0	4.0
TOTALS													14	17	959,100	48,300	53,700				

### 5.3 Supporting Bus Service

With the introduction of light rail service in the D-O Corridor, several changes would be proposed for Triangle Transit, DATA, and CHT routes in the corridor. Duke Transit routes also operate in the transit corridor. However, no changes are proposed to Duke Transit routes. Changes can be categorized as follows:

- Elimination of competing bus service
- Modifications to the background bus network
- Introduction of new feeder bus routes

Proposed changes to the bus network for all rail alignment alternatives would be the same, and are described in the following paragraphs.

#### 5.3.1 Triangle Transit Service Changes

Proposed changes to Triangle Transit corridor routes (from the No-Build Alternative) are listed in Table 5-9, and are described below.

- **Routes 400A/B: Durham-New Hope-Chapel Hill** – Routes 400A and 400B would be eliminated in the Light Rail Alternatives.
- **Route 405** – Route 405 would be eliminated under the No-Build Alternative.
- **Route 420: Hillsborough-Chapel Hill** – No changes are proposed for this route under the Light Rail Alternatives.
- **Route 700: Durham-RTC** – No changes are proposed for this route under the Light Rail Alternatives.
- **Route 800: Chapel Hill-Southpoint Mall-RTC** – The short turn pattern in the No-Build Alternative would be eliminated and replaced with proposed feeder route services between Leigh Village and Southpoint Mall.
- **Route 805: Chapel Hill-Woodcroft-RTC** – No changes are proposed for this route under the Light Rail Alternatives.
- **Route CRX: Chapel Hill-Raleigh Express** – No changes are proposed for this route under the Light Rail Alternatives.
- **Route DRX: Durham-Raleigh Express** – No changes are proposed for this route under the Light Rail Alternatives.
- **Route RDX: Rougemont-Durham Express** – No changes are proposed for this route under the Light Rail Alternatives.
- **Route RSX: Roberston Express** – No changes are proposed for this route under the Light Rail Alternatives.
- **Route MDX: Mebane-Durham Express** – No changes are proposed for this route under the Light Rail Alternatives.

**Table 5-9: Triangle Transit Route Modifications under the Light Rail Alternatives**

Weekdays	Route		Service Frequency			Change from No-Build
			Peak	Midday	Evening	
<b>Mon-Fri</b>	400A	Durham-New Hope-Chapel Hill	n/a	n/a	n/a	Route eliminated from network
	400B	Durham-New Hope-Carborro-Chapel Hill	n/a	n/a	n/a	Route eliminated from network
	405	Durham-Chapel Hill	30	n/a	n/a	Route eliminated in No Build
	420	Hillsborough-Chapel Hill	30	n/a	n/a	No change
	700	Durham-RTC	15	60	60	No change
	800	Chapel Hill-Southpoint Mall-RTC	30	n/a	n/a	No change
		Chapel Hill-South Point Mall	n/a	n/a	n/a	Route pattern eliminated - replaced by feeder serv.
		Chapel Hill-Southpoint -RTC via NC54/Alston	n/a	60	60	
	805	Chapel Hill-Woodcroft-RTC	30	n/a	n/a	No change
		UNC Hosp-Woodcroft	n/a	60	n/a	No change
	CRX	Chapel Hill-Raleigh Express	30	n/a	n/a	No change
	DRX	Durham-Raleigh Express	30	n/a	n/a	No change
<b>Weekends</b>	RSX	Robertson Express	30	30	n/a	No change
	MDX	Mebane-Durham Express	30	n/a	n/a	No change
	RDX	Rougemont-Durham Express	30	n/a	n/a	No change
Weekends	Route		Service Frequency			Change from No-Build
			AM	Midday/PM	Evening	
<b>Saturday</b>	700	Durham-RTC	60	30	60	No change
	800	Chapel Hill-Southpoint Mall-RTC	60	30	60	No change
	RSX	Robertson Express	n/a	60	60	No change
<b>Sunday</b>	700	Durham-RTC	n/a	60	n/a	No change
	800	Chapel Hill-Southpoint Mall-RTC	n/a	60	n/a	No change
	RSX	Robertson Express	n/a	60	60	No change

### 5.3.2 DATA Service Changes

Several service and frequency changes are proposed to DATA routes to improve connectivity to the proposed premium transit service under the Light Rail Alternatives. Three new routes are also proposed. Table 5-10 lists weekday DATA routes and proposed service changes, and Table 5-11 lists proposed DATA service on weekends. Descriptions of proposed changes are provided below:

- **Bull City Connector** – This route would be eliminated from the transit network.
- **Route 2: East Durham • The Village • Angier Avenue** – No changes are proposed from the No-Build Alternative to daytime service. In the evenings, existing truncated Route 2B service would be eliminated and replaced with a proposed new route described below (New Route 53).
- **Route 5: Fayetteville Street • NCCU • Southpoint** – It is proposed this route's southern terminus be modified to begin and end at Southpoint Mall. New routes described below provide service coverage on segments where Route 5 service is proposed for elimination. In addition, the existing evening Route 5 operating pattern would be replaced by Route 5A and evening service under the Light Rail Alternatives would be improved from 60 minutes to 30 minutes.
- **Route 10: South Square • New Hope Commons** – Under the Light Rail Alternatives, Route 10A and the 10 Evening would make stops at Martin Luther King Jr. Parkway, Patterson Place, and the Gateway stations. Route 10B would include stops at the South Square and Martin Luther King Jr. Parkway stations. Deviations from existing route alignments are not required.
- **Route 12: NC 55 and NC 54 • Woodcroft • Southpoint Circulator** – It is proposed this route's alignment be modified and no longer serve Durham Station. Instead, from Alston Avenue and Lawson Street, Route 12 would continue to operate north on Alston Avenue, with connecting service to the Alston Avenue Station (via an on-street stop). Route 12 would continue to operate north on Alston Avenue to Club Boulevard and Northgate Mall. The existing separate evening operating pattern (12 Evening) would be replaced by the realigned Route 12. In addition, Route 12 would no longer be interlined with Route 14.
- **Route 14: Southpoint Mall • NC 54 at Alston Avenue** – It is proposed this route no longer be interlined with Routes 5 and 12. Route 14 would be modified to operate to/from Leigh Village Station. The east end of the alignment would be modified to make a loop using NC 54, NC 55, Sedwick Road, and Revere Road back to NC 54. From NC 54 and Fayetteville Road, the alignment would follow Fayetteville Road into the Southpoint Mall, and then continue along Renaissance Parkway, Hope Valley Road, and NC 54 to Leigh Village Station. Proposed frequencies are 30 minutes during the day Mondays through Saturdays and 60 minutes in the evenings and on weekends.
- **Route 16: The Village • Highway 98** – No changes are proposed from the No-Build Alternative for daytime service. In the evenings, existing truncated Route 16 service would be eliminated and all Route 16 trips would travel to and from Durham Station.
- **New Route 53: Holloway Street • Twin Lakes • NCCU** – This is a proposed new feeder route that would provide service to the Alston Avenue Station. In the Hidden Hollow area, this route would operate in a loop along Lynn Road, Gibson Road, Mineral Springs Road, and Wake Forest Highway. The route would then follow Holloway Street where it then would follow the existing Route 2B alignment to Alston Avenue. The route would travel south on Alston to the Alston



## Transit Operating Plan

Avenue Station with a street stop on Alston Avenue. The route would continue south to the NCCU campus, making a small loop via Cecil Street, Fayetteville Street, and Lawson Street, back to Alston Avenue. Thirty-minute service frequencies are proposed, with 60-minute frequencies in the evenings and on Saturdays. No Sunday service is proposed. This route, combined with Route 12, would provide 15-minute transit service along portions of Alston Avenue.

- **New Route 54: Leigh Village • Woodcroft • Triangle Square** – This is a proposed feeder route that would provide service to Leigh Village Station. The eastern end of this alignment would mimic existing Route 14, with a loop alignment via Alston, T.W. Alexander, and NC 55. The alignment then would follow NC 54, turn north on Fayetteville Road, turn west on Woodcroft Parkway and south on Hope Valley Road/NC 54 to Leigh Village Station. Proposed frequencies are 30 minutes all-day (including evenings) on Mondays through Saturdays, with 60-minute service frequencies on Sundays.
- **New Route 55: Gateway • Leigh Village • Southpoint** – This is a proposed feeder route that would provide service between the Gateway and Leigh Village stations and Southpoint. Proposed routing from Gateway is Old Durham Road, Mount Moriah Road, McFarland Drive, Witherspoon Road, Southwest Durham Drive, and Farmington Road to Leigh Village Station. The route then would follow the proposed Route 14 alignment to Southpoint Mall. Proposed frequencies are 30 minutes all-day on Mondays through Saturdays, with no evening or Sunday service. This route, in conjunction with Route 14, would provide a combined 15-minute service frequency between Leigh Village and Southpoint Mall.

**Table 5-10: DATA Weekday Route Modifications under the Light Rail Alternatives**

Route		Service Frequency			Change from No Build
		Peak	Midday	Evening	
BCC	Bull City Connector	n/a	n/a	n/a	Route eliminated from network
1A	Via Hillendale & Loehmans Plaza	60	60	n/a	No change
1B	Via Guess Road & Horton Road	60	60	n/a	No change
1N	Via Northgate Mall	30	30	n/a	No change
1 Eve	Via Guess Road & Horton Road	n/a	n/a	60	No change
2A	Via Page Road & Angier Avenue	60	60	n/a	No change
2B	Via Raynor Street at the Village	60	60	n/a	No change
2B Eve	Angier/Guthrie Via Raynor St. at the Village	n/a	n/a	n/a	Route is replaced by New Route 53: Holloway Street • Twin Lakes • NCCU
2 Eve	Via Page Road at Angier Avenue	n/a	n/a	60	No change
3	Via Wal-Mart at Glenview Station	30	30	60	No change
4	Via Horton Rd & Roxboro Road	30	30	60	No change
5A	To Southpoint Mall	30	30	30	Add 30-minute evening service, Terminate at Southpoint Mall
5K	Via MLK Jr. Pkwy	30	30	30	No change
5 Eve	Via Southpoint Mall	n/a	n/a	n/a	Service replaced by 5A
6	Via Constitution Dr. at Forest Apts.	60	60	60	No change
6B	Via Sparger Rd. at Food Lion	60	60	n/a	No change
7	Via Wal-Mart at MLK Jr. Pkwy. and University Dr.	30	30	60	No change
8	Via Capps St. & S. Alston Ave.	30	30	n/a	No change
8 Eve	Via Capps St. & S. Alston Ave.	n/a	n/a	60	No change
9A	Via Tom Wilkerson Rd. at Northern H.S.	60	60	n/a	No change
9B	Via Meriweather Dr. at Pickwick Trail	60	60	n/a	No change
9 Eve	Via Seven Oaks Rd & Roxboro Rd	n/a	n/a	60	No change
10A	To Gateway	30	30	n/a	Route modified to begin/end at Gateway
10B	Via Emerald Pond Lane & Pickett Rd.	30	30	n/a	No change
10 Eve	To Gateway	n/a	n/a	60	Route modified to begin/end at Gateway
11	Roxboro to Hillsborough Rd & Cole Mill Rd.	30	30	n/a	No change
11 Eve	Roxboro to Sparger Rd at Food Lion	n/a	n/a	60	No change
12	NC 54 & Alston to Northgate Mall	30	30	60	Route realigned
12 Eve	Via NC 55 & Sedwick Dr.	n/a	n/a	n/a	Eliminated in realignment
14	Leigh Village to NC 54 & Alston Ave.	30	30	60	Route realigned
15	Via Alexander Promenade at Wal-Mart	60	60	60	No change
16A	Via Freeman Rd & Clayton Rd.	60	60	60	Add evening service
16B	Via Rummel St. & Hwy 98	60	60	n/a	No change
16 Eve	Raynor St at the Village Via Freeman & Clayton Rd	n/a	n/a	n/a	Route pattern eliminated
30	Duke Medical Center-Durham Reg. Hospital	30	60	n/a	No change
52	Duke Medical Center-Southpoint	30	60	n/a	No change
New 53	Holloway St.-Twin Lakes-NCCU	30	30	60	New Route
New 54	Leigh Village-Woodcroft-Triangle Sq.	30	30	n/a	New Route
New 55	Gateway-Leigh Village-Southpoint Mall	30	30	n/a	New Route

**Table 5-11: DATA Weekend Route Modifications under the Light Rail Alternatives**

Weekends	Route #	Route Name	Service Frequency			Change from No Build
			AM	Midday/PM	Evening	
Saturday	BCC	Bull City Connector	n/a	n/a	n/a	Route eliminated from network
	1A	Via Hillendale & Loehmans Plaza	60	60	n/a	No change
	1B	Via Guess Road & Horton Road	60	60	n/a	No change
	1 Eve	Via Guess Road & Horton Road	n/a	n/a	60	No change
	2A	Via Page Road & Angier Avenue	60	60	n/a	No change
	2B	Via Raynor Street at the Village	60	60	n/a	No change
	2B Eve	Angier/Guthrie Via Raynor St. at the Village	n/a	n/a	n/a	Route is replaced by New Route: Holloway Street • Twin Lakes • NCCU
	2 Eve	Via Page Road at Angier Avenue	n/a	n/a	60	No change
	3	Via Wal-Mart at Glenview Station	30	30	60	No change
	4	Via Horton Rd & Roxboro Road	30	30	60	No change
	5	Via Southpoint Mall	30	30	30	Add 30-min. evening service. Terminate at Southpoint Mall
	5 Eve	Via Southpoint Mall	n/a	n/a	n/a	Service replaced by 5A
	6	Via Constitution Dr. at Forest Apts.	60	60	60	No change
	6B	Via Sparger Rd. at Food Lion	60	60	n/a	No change
	7	Via Wal-Mart at MLK Jr. Pkwy.	30	30	60	No change
	8	Via Capps St. & S. Alston Ave.	30	30	n/a	No change
	8 Eve	Via McDougald Terrace	n/a	n/a	60	No change
	9A	Via Tom Wilkerson Rd. at Northern H.S.	60	60	n/a	No change
	9B	Via Meriweather Dr. at Pickwick Trail	60	60	n/a	No change
	9 Eve	Via Seven Oaks Rd & Roxboro Rd	n/a	n/a	60	No change
	10A	To Gateway	30	30	n/a	Route modified to begin/end at Gateway.
	10B	Via Emerald Pond Lane & Pickett Rd.	30	30	n/a	No change
	10 Eve	To Gateway	n/a	n/a	60	Route modified to begin/end at Gateway.
	11	Via Hillsborough Rd & Cole Mill Rd.	30	30	n/a	No change
	11 Eve	Via Sparger Rd at Food Lion	n/a	n/a	60	No change
	12	Via NC 54 & Alston Ave.	30	30	60	Route realigned
	12 Eve	Via NC 55 & Sedwick Dr.	n/a	n/a	n/a	Eliminated in realignment
	14	NC 54 & AlsVian Ave. Via Southpoint Mall	30	30	60	Route realigned
	15	Via Alexander Promenade at Wal-Mart	60	60	60	No change
	16A	Via Freeman Rd & Clayton Rd.	60	60	n/a	Add evening service.
	16B	Via Rummel St. & Hwy 98	60	60	n/a	No change
	16 Eve	Raynor St at the Village Via Freeman & Clayton Rd	n/a	n/a	60	Route pattern eliminated.
	30	Duke Medical Center-Durham Reg. Hospital	30	60	n/a	No change
	52	Duke Medical Center-Southpoint	30	60	n/a	No change
	53 New	Holloway St.-Twin Lakes-NCCU	60	30	60	New Route
	54 New	Leigh Village-Woodcroft-Triangle Sq.	30	30	n/a	New Route
	55 New	Gateway-Leigh Village-Southpoint Mall	30	30	n/a	New Route
Sunday	1	Via Guess Road & Horton Road	60	60	60	No change
	2B	Raynor St at the Village to Angier & Guthrie	n/a	n/a	n/a	Eliminated
	2	Via Page Road & Angier Avenue	60	60	60	No change
	3	Via Wal-Mart at Glenview Station	60	60	60	No change
	4	Via Horton Rd & Roxboro Rd	60	60	60	No change
	5	Via Southpoint Mall	60	60	60	No change
	6	Via Constitution Dr at Forest Apts	60	60	60	No change
	7	Via Wal-Mart at MLK Jr Pkwy	60	60	60	No change
	8	Via Capps St & S Alston Ave	60	60	60	No change
	9	Via Seven Oaks Rd & Roxboro Rd	60	60	60	No change
	10	To Gateway	60	60	60	Route modified to begin/end at Gateway
	11	Via Sparger Rd at Food Lion	60	60	60	No change
	12	Via NC 55 & Sedwick Dr.	60	60	60	No change
	14	NC 54 & Alston Ave to Southpoint Mall	60	60	60	No change
	15	Via Alexander Promenade at Wal-Mart	60	60	60	No change
	16	Durham Station to Freeman & Clayton Rd	60	60	60	Route modified to begin/end at Durham Sta.





### 5.3.3 Chapel Hill Transit Service Changes

Several route modifications are proposed to CHT routes to improve connectivity to the proposed premium transit service under the Light Rail Alternatives. Table 5-12 lists CHT routes and proposed service modifications. Proposed route changes to CHT are as follows:

- **Route CL: Colony Lake/Sage Road/UNC Hospitals** - Route CL would connect to the Gateway Station with the alignment changes previously described under the No-Build Alternative. Route CL would also connect at UNC Hospitals with no change required to the current alignment in this area. Southbound routing would follow Pittsboro Street, Columbia Street, the proposed realigned Mason Farm Road and William Blythe Drive, East Street, and Manning Drive back to Columbia Street.
- **Route CM: Carrboro/Merritt Mill Road/Family Medicine** – It is proposed that this route’s alignment be modified to include a stop at the UNC Hospitals Station. From Manning Drive, eastbound buses would turn south on West Drive, east on the realigned William Blythe Drive and north on East Drive, back to Manning Drive. Westbound buses would make the reverse movement.

Note that West Drive is currently one-way southbound, and as such, the aforementioned route pattern assumes West Drive would be modified to accommodate two-way bus traffic flow. If this is not possible, then westbound buses would need to connect to the UNC Hospitals Station via East Street, the proposed realigned William Blythe Drive and Mason Farm Road to Columbia Street. No changes are proposed to weekday No-Build service frequencies. New Sunday service is also proposed at 70-minute frequencies.

- **Route CW: Carrboro/Weaver Street** – It is proposed that this route’s alignment be modified to directly serve the UNC Hospitals Station. From Columbia Street, buses would turn east on the realigned Mason Farm Road, north/east on the realigned William Blythe Drive and north on East Drive to Manning Drive, then west on Manning Drive, back to Columbia Street. No changes are proposed to the No-Build weekday service frequencies. New Sunday service is also proposed at 70-minute frequencies.
- **Route D: Culbreth Road/Franklin Street/Eastowne** – Route D would be extended to connect to the Gateway Station. The end-of-line loop described under the No-Build Alternative would be extended. From Dobbins Drive and Eastowne Drive, Route D would follow Eastowne Drive, Lakeview Drive, and Old Chapel Hill Road to the Gateway Station. Inbound buses would follow the same alignment to Eastowne Drive and Old Sterling Drive, where it would pick up the inbound alignment described under the No-Build Alternative. Route D also would connect to LRT at the UNC Hospitals Station. From Pittsboro/Columbia Streets, Route D buses would turn east on the realigned Mason Farm Road, north/east on the realigned William Blythe Drive and north on East Drive to Manning Drive, then west on Manning Drive, back to Columbia Street. No changes are proposed to the No-Build service frequencies.
- **Route DX: UNC/Old Durham/Old Sterling/Sage Road Express** – With service modifications to Route D and Route CL, it is proposed that this route be eliminated in the Light Rail Alternative’s transit network.



## Transit Operating Plan

- **Route F: Colony Woods/Franklin Street/McDougle School** – It is proposed that this route be extended to Gateway Station. From Ephesus Church Road, Route F would follow Pope Road to Old Chapel Hill Road and the Gateway Station. No changes are proposed to service frequencies.
- **Route FCX: Friday Center Express** – Route would be eliminated from the transit network.
- **Route G: Booker Creek/UNC Hospitals/Glen Lennox** – It is proposed that the current deviation to UNC Hospitals be eliminated. Route G would follow Raleigh Road and then turn north on Columbia Street. Reverse direction buses would follow Columbia Street to Cameron Avenue to Raleigh Road. No changes are proposed to No-Build service frequencies.
- **Route HU: UNC Hospitals/54 Park-and-Ride/Hendrick Building** – Route would be eliminated from the transit network. NC 54 parking would be replaced with parking at the Leigh Village Station.
- **Route J: Carrboro/Downtown Chapel Hill/Jones Ferry Road** – Because of Route J's high ridership, it is proposed that this route's alignment be modified to directly serve the UNC Hospitals Station. Buses operating counterclockwise would follow Pittsboro Street, Manning Drive, East Drive, the realigned William Blythe Drive, and the realigned Mason Farm Road to Columbia Street. Buses operating clockwise would follow Columbia Street, the realigned Mason Farm Road, the realigned William Blythe Drive, East Drive and Manning Drive back to Columbia Street. No changes are proposed to service frequencies.
- **Route NU: R Lot/UNC Hospitals** – It is proposed that this route's alignment be modified to directly serve the UNC Hospitals Station. From Manning Drive, buses would turn south on East Drive, west on the realigned William Blythe Drive, north on West Drive, back to Manning Drive and Columbia Street. No changes are proposed to service frequencies.

Note that West Drive is currently one-way southbound, and as such, the aforementioned route pattern assumes West Drive would be modified to accommodate two-way bus traffic flow. If this is not possible, then westbound buses would need to connect to the UNC Hospitals Station via East Street, the proposed realigned William Blythe Drive and Mason Farm Road to Columbia Street.

- **Route PX: Pittsboro/UNC Hospitals** – It is proposed that this route's alignment be modified to directly serve the UNC Hospitals Station. From Columbia Drive, buses would turn east on the realigned Mason Farm Road, north/west on the realigned William Blythe Drive, north on East Drive and east on Manning Drive to the current route alignment. No changes are proposed to service frequencies.
- **Route S: UNC Campus/NC 54 East Park-and-Ride** – Route S would be eliminated from the transit network under the Light Rail Alternatives.
- **Route T: Martin Luther King Jr. Parkway/UNC Hospitals** – This route would be extended beyond East Chapel Hill High School to the Gateway Station. Proposed routing is east on Weaver Dairy Road, north on Erwin Road, south on Sage Road, and east on Old Durham Road to the Gateway Station. No changes are proposed to daytime service frequencies. Additional 30 minute weekday evening service is proposed.
- **Routes U and RU: Campus Shuttle – UNC/Downtown** – It is proposed that this route stop at the UNC Hospitals Station. Buses running in a clockwise pattern would turn south on East Drive from



## Transit Operating Plan

Manning Drive, west on the realigned William Blythe Drive, north on West Drive, back to Manning Drive. Buses running counterclockwise would make the reverse movement. No changes are proposed to service frequencies.

Note that West Drive is currently one-way southbound, and as such, the aforementioned route pattern assumes West Drive would be modified to accommodate two-way bus traffic flow. If this is not possible, then westbound buses would need to connect to the UNC Hospitals Station via East Street, the proposed realigned William Blythe Drive and Mason Farm Road to Columbia Street.

- **Route V: Carrboro Southern Village/Meadowmont** – Routing would be modified to provide a connection to the UNC Hospitals Station. From Manning Drive, buses would turn south on East Drive, west on the realigned William Blythe Drive, west on the realigned Mason Farm Road and south on Columbia Drive. Northbound routing would make the reverse movement. This route would also provide a connection to the Friday Center Station and the Hamilton Road Station.
- **Chapel Hill Bus Rapid Transit** – Under the Light Rail Alternatives, it is proposed that this route stop at the UNC Hospitals Station. Proposed routing from Columbia Street is east on the realigned Mason Farm Road, north/east on the realigned William Blythe Drive, north on East Drive, and west on Manning Drive back to Columbia Street. No changes are proposed to No-Build service frequencies (5 minutes peak and 15 minutes midday).
- **New Chapel Hill Route 54** – This route is presently in the 2040 MTP transit network. Westbound (inbound) buses would begin at the Hamilton Road Station and operate along Raleigh Road, South Road, cross Columbia Street and turn left at Pittsboro Street, then travel to Cameron Avenue and start their outbound run via Columbia Street, South Road and Raleigh Road. The 2040 MTP has this route coded at 10 minute peak and 20 minute midday service frequencies. It is proposed that this route remain in the transit network.
- **New Jones Ferry – UNC Hospitals Shuttle** – This is a proposed new feeder bus route that would operate between the UNC Hospitals and the Jones Ferry Road park-and-ride lot. This route would use NC 54 and Columbia Street to travel between these two locations. Proposed weekday frequencies are 15 minutes in the peak periods and 30 minutes in the midday with 60 minute evening service.

**Table 5-12: CHT Route Modifications under the Light Rail Alternatives**

Weekdays	Route	Service Frequency			Change from No Build
		Peak	Midday	Evening	
<b>Mon-Fri</b>	A	15	45	n/a	No change
	CCX	15	40	40	No change
	CL	20	20	60	Route modified to begin/end at Gateway and to connect to UNC Hospitals Sta.
	CM	50	50	60	Route modified to connect to UNC Hospitals Sta.
	CPX	15	n/a	n/a	No change
	CW	30	60	60	Route modified to connect to UNC Hospitals Sta.
	D	20	40	60	Route modified to begin/end at Gateway and to connect to UNC Hospitals Sta.
	DX	n/a	n/a	n/a	Route is eliminated
	F	45	60	60	Alignment extended to Gateway Station
	FCX	n/a	n/a	n/a	Route is eliminated
	G	50	50	50	Eliminate deviation to UNC Hospitals area
	HS	60	60	n/a	No change
	HU	15	40	40	Route is eliminated
	J	15	20	60	Route modified to connect to UNC Hospitals Sta.
	JFX	15	n/a	n/a	No change
	N	30	60	n/a	No change
	NU	20	25	45	Route modified to connect to UNC Hospitals Sta.
	PX	60	n/a	n/a	Route modified to connect to UNC Hospitals Sta.
	S	n/a	n/a	n/a	Route is eliminated
	T	30	30	30	No Build route extended to Gateway Station; Add evening service
	U&RU	15	15	n/a	Route modified to connect to UNC Hospitals Sta.
	V	35	80	n/a	Route modified to connect to UNC Hospitals Sta.
	CHT 54	10	20	60	New Route
	CHT JF	15	30	60	New Route
	BRT	5	15	20	Route modified to connect to UNC Hospitals Sta.

Weekends	Route	Service Frequency			Change from No Build
		AM	Midday/PM	Evening	
<b>Saturday</b>	CM	n/a	30	30	Route modified to connect to UNC Hospitals Sta.
	CW	n/a	60	60	Route modified to connect to UNC Hospitals Sta.
	CL	n/a	40	60	Route modified to begin/end at Gateway and to connect to UNC Hospitals Sta.
	FG	n/a	40	80	Alignment extended to Gateway Station
	JN	n/a	75	75	Route modified to connect to UNC Hospitals Sta.
	NU	n/a	45	45	Route modified to connect to UNC Hospitals Sta.
	T	n/a	30	30	Realigned route extended to Gateway Station
	U&RU	n/a	25	25	Route modified to connect to UNC Hospitals Sta.
	BRT	n/a	15	20	Route modified to connect to UNC Hospitals Sta.
<b>Sunday</b>	CL	n/a	60	n/a	Route modified to begin/end at Gateway and to connect to UNC Hospitals Sta.
	CM	n/a	70	n/a	New Sunday service, realign to connect to UNC Hospitals Sta.
	CW	n/a	70	n/a	New Sunday service, realign to connect to UNC Hospitals Sta.
	FG	n/a	80	n/a	Alignment extended to Gateway Station
	JN	n/a	75	n/a	Route modified to connect to UNC Hospitals Sta.
	NU	n/a	45	45	Route modified to connect to UNC Hospitals Sta.
	U&RU	n/a	25	25	Route modified to connect to UNC Hospitals Sta.
	BRT	n/a	15	20	Route modified to connect to UNC Hospitals Sta.



### 5.3.4 Station Bus Connections

As noted in prior sections, many existing bus routes will connect to LRT stations with little or no changes to route alignments. Table 5-13 summarizes activity in terms of bus routes, weekday service frequencies, and buses per hour.

### 5.3.5 Bus Service Requirements

Operating requirements were calculated for each service provider in the same manner that was used for calculating No-Build Alternative operating requirements. Route level operating statistics were calculated for each service provider in the D-O Corridor. Weekday, Saturday, and Sunday route statistics were calculated based on proposed frequency and alignment changes, estimated route travel times, and distances. Appendices A through D present weekday, Saturday, and Sunday operating statistics for the Light Rail Alternatives for Triangle Transit, DATA, and CHT. Estimates of peak buses, revenue bus-hours, and bus-miles are summarized in Table 5-14.

**Table 5-13: Supporting Bus Network Connections at Light Rail Transit Stations**

Station	Operator	Route Name	Weekday Service Frequency		Buses per Hour	
			Peak	Off-Peak	Peak	Off-Peak
Alston Avenue	DATA	12	30	30	4.0	4.0
		New 53	30	30	4.0	4.0
Station Total:					8.0	8.0
Dillard Street	n/a	2A & 2B	30	30	4.0	4.0
Station Total:					n/a	n/a
Durham Station	Triangle Transit	700	15	60	4.0	1.0
		DRX	30	n/a	4.0	n/a
		MDX	30	n/a	2.0	n/a
		RDX	30	n/a	2.0	n/a
	DATA	1A,1B & 1N	15	15	4.0	4.0
		2A & 2B	30	30	2.0	2.0
		3	30	30	2.0	2.0
		4	30	30	2.0	2.0
		5A & 5K	15	15	4.0	4.0
		6 & 6B	30	30	2.0	2.0
		7	30	30	2.0	2.0
		8	30	30	2.0	2.0
		9A & 9B	30	30	2.0	2.0
		10A & 10B	15	15	4.0	4.0
		15	60	60	1.0	1.0
		16A & 16B	30	30	2.0	2.0
Station Total:					41.0	30.0
Buchanan Blvd.	Duke	CSW	20	20	6.0	6.0
Station Total:					6.0	6.0
Ninth Street	Duke	H5	15	15	8.0	8.0
Station Total:					8.0	8.0
Trent Street	Triangle Transit	MDX	30	n/a	2.0	n/a
		RDX	30	n/a	2.0	n/a
	DATA	6 & 6B	30	30	4.0	4.0
		11	30	30	4.0	4.0
		30	30	60	2.0	1.0
		52	30	60	2.0	1.0
	Duke	H2	12	36	10.0	3.3
		H5	15	15	8.0	8.0
		H6	12	12	10.0	10.0
Station Total:					44.0	31.3
LaSalle Street	Triangle Transit	DRX	30	n/a	2.0	n/a
		MDX	30	n/a	2.0	n/a
		RDX	30	n/a	2.0	n/a
	DATA	6 & 6B	30	30	4.0	4.0
		11	30	30	4.0	4.0
	Duke	La Salle Loop	30	30	2.0	2.0
		H5	15	15	8.0	8.0
		H6	12	12	10.0	10.0
Station Total:					34.0	28.0

Station	Operator	Route Name	Weekday Service Frequency		Buses per Hour	
			Peak	Off-Peak	Peak	Off-Peak
South Square	Data	10B	30	30	2.0	2.0
Station Total:					2.0	2.0
Martin Luther King Jr. Pkwy.	DATA	7	30	30	2.0	2.0
		10A	30	30	4.0	4.0
		10B	30	30	2.0	2.0
		52	30	60	4.0	2.0
Station Total:					12.0	10.0
Patterson Place	DATA	10A	30	30	4.0	4.0
		New 55	30	30	4.0	4.0
Station Total:					8.0	8.0
Gateway	DATA	10A	30	30	2.0	2.0
		New 55	30	30	2.0	2.0
	CHT	CL	20	20	3.0	3.0
		D	20	40	3.0	1.5
		F	45	60	1.3	1.0
		T	30	30	2.0	2.0
Station Total:					13.3	11.5
Leigh Village	DATA	14	30	30	2.0	2.0
		New 54	30	30	2.0	2.0
		New 55	30	30	4.0	4.0
Station Total:					8.0	8.0
Meadowmont (C1 align. Option)	CHT	V	35	80	1.7	0.8
Station Total:					1.7	0.8
Friday Center Dr.	CHT	V	35	80	1.7	0.8
Station Total:					1.7	0.8
Hamilton Rd.	CHT	New NC 54	10	20	6.0	3.0
Station Total:					6.0	3.0
Mason Farm Rd.	CHT	New JF	15	30	4.0	2.0
Station Total:					4.0	2.0
UNC Hospitals	Triangle Transit	420	30	n/a	2.0	n/a
		800	30	60	2.0	1.0
		805	30	n/a	2.0	n/a
		RSX	30	30	2.0	2.0
	CHT	CL	20	20	3.0	3.0
		CM	50	50	2.4	2.4
		CW	30	60	2.0	1.0
		D	20	40	3.0	1.5
		J	15	20	8.0	6.0
		N	30	60	2.0	1.0
		NU	20	25	3.0	2.4
		PX	60	n/a	1.0	n/a
		U&RU	15	15	8.0	8.0
		V	35	80	3.4	1.5
		New MLK BRT	5	15	12.0	4.0
Station Total:					55.8	33.8



## Transit Operating Plan

**Table 5-14: Estimates of Light Rail Alternatives Operating Statistics**  
*Incremental Change over Existing (Fall 2014)*

Operator	Day of Week	Additional Peak Buses	Add'l. Annual Rev. Bus-Hrs.	Add'l. Annual Rev. Bus-Mi's.
<b>Triangle Transit</b>	Weekdays	1	-7,905	-54,213
	Saturdays	1	-182	-655
	<u>Sundays</u>	<u>2</u>	<u>1,392</u>	<u>24,534</u>
	Annual Total	n/a	-6,695	-30,334
<b>DATA</b>	Weekdays	11	51,489	651,461
	Saturdays	10	7,631	85,647
	<u>Sundays</u>	<u>0</u>	<u>2,016</u>	<u>22,044</u>
	Annual Total	n/a	61,135	759,152
<b>CHT</b>	Weekdays	-1	15,248	161,670
	Saturdays	6	3,720	49,306
	<u>Sundays</u>	<u>5</u>	<u>3,265</u>	<u>47,998</u>
	Annual Total	n/a	22,233	258,974

## 6. Mitigation

Mitigation measures for the No-Build and the Light Rail Alternatives are described in the following sections.

### 6.1 No-Build Alternative

Under the No-Build Alternative, there would be no anticipated impacts to public transit. As such, project-related mitigation would not be warranted.

As described in *Durham-Orange Light Rail Transit DEIS* chapter 2, Alternatives Considered, the No-Build Alternative includes other transportation projects that are presumed to be constructed – even if the proposed D-O LRT Project is not built. The sponsor(s) of those projects will perform environmental studies to establish mitigation requirements as required by law.

### 6.2 Light Rail Alternatives

All the Light Rail Alternatives would result in increased access to transit. As a result, mitigation measures are not warranted.





## Appendices

# Appendices

**APPENDIX A**  
**LIGHT RAIL TRANSIT**  
**STATION-TO-STATION TRAVEL TIME ESTIMATES**

C1-NHC LPA-Trent		EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
Station	Distance		Travel Time			Distance		Travel Time	
	Incremental	Total	Incremental	Total		Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00		16.76		0:42:00	
	0.56		0:01:49			0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49		16.20		0:40:12	
	1.52		0:03:01			1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50		14.68		0:37:11	
	0.56		0:01:43			0.56		0:01:42	
Friday Center Drive Station (A)		2.64		0:06:33		14.12		0:35:29	
	0.33		0:01:16			0.33		0:01:13	
Meadowmont Lane Station		2.97		0:07:49		13.78		0:34:16	
	1.37		0:03:11			1.37		0:03:20	
Leigh Village Station		4.34		0:11:00		12.42		0:30:56	
	2.36		0:03:37			2.36		0:03:29	
Gateway Station		6.71		0:14:37		10.05		0:27:27	
	1.00		0:02:29			1.00		0:02:34	
Patterson Place Station		7.70		0:17:05		9.06		0:24:53	
	1.69		0:03:58			1.69		0:03:53	
MLK Jr. Parkway Station		9.40		0:21:03		7.36		0:21:00	
	0.64		0:02:34			0.64		0:02:21	
South Square Station		10.04		0:23:36		6.72		0:18:39	
	3.01		0:05:49			2.94		0:05:28	
LaSalle Street Station		13.05		0:29:25		3.78		0:13:11	
	0.73		0:02:46			0.80		0:03:03	
Trent Drive Station		13.78		0:32:12		2.98		0:10:09	
	0.58		0:01:58			0.58		0:01:47	
Ninth Street Station		14.36		0:34:09		2.40		0:08:21	
	0.75		0:02:16			0.75		0:02:19	
Buchanan Boulevard Station		15.11		0:36:25		1.65		0:06:02	
	0.46		0:01:50			0.46		0:01:36	
Durham Station		15.57		0:38:15		1.19		0:04:26	
	0.73		0:03:01			0.73		0:02:34	
Dillard Street Station		16.30		0:41:16		0.46		0:01:52	
	0.46		0:01:56			0.46		0:01:52	
Alston Avenue Station		16.76		0:43:12		0.00		0:00:00	

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*

C1A-NHC LPA-Trent		EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
Station	Distance		Travel Time			Distance		Travel Time	
	Incremental	Total	Incremental	Total		Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00		17.01		0:42:45	
	0.56		0:01:49			0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49		16.45		0:40:57	
	1.52		0:03:01			1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50		14.93		0:37:56	
	0.56		0:01:42			0.56		0:01:42	
Friday Center Drive Station (A)		2.64		0:06:32		14.37		0:36:15	
	0.33		0:01:15			0.33		0:01:47	
Meadowmont Lane Station		2.97		0:07:46		14.04		0:34:28	
	1.62		0:04:02			1.62		0:03:32	
Leigh Village Station		4.59		0:11:48		12.42		0:30:56	
	2.36		0:03:37			2.36		0:03:29	
Gateway Station		6.96		0:15:25		10.05		0:27:27	
	1.00		0:02:29			1.00		0:02:34	
Patterson Place Station		7.95		0:17:53		9.06		0:24:53	
	1.69		0:03:58			1.69		0:03:53	
MLK Jr. Parkway Station		9.65		0:21:51		7.36		0:21:00	
	0.64		0:02:34			0.64		0:02:21	
South Square Station		10.29		0:24:24		6.72		0:18:39	
	3.01		0:05:49			2.94		0:05:28	
LaSalle Street Station		13.30		0:30:13		3.78		0:13:11	
	0.73		0:02:46			0.80		0:03:03	
Trent Drive Station		14.03		0:33:00		2.98		0:10:09	
	0.58		0:01:58			0.58		0:01:47	
Ninth Street Station		14.61		0:34:57		2.40		0:08:21	
	0.75		0:02:16			0.75		0:02:19	
Buchanan Boulevard Station		15.36		0:37:13		1.65		0:06:02	
	0.46		0:01:50			0.46		0:01:36	
Durham Station		15.82		0:39:03		1.19		0:04:26	
	0.73		0:03:01			0.73		0:02:34	
Dillard Street Station		16.55		0:42:04		0.46		0:01:52	
	0.46		0:01:56			0.46		0:01:52	
Alston Avenue Station		17.01		0:44:00		0.00		0:00:00	

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*

C2-NHC LPA-Trent		EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
Station	Distance		Travel Time			Distance		Travel Time	
	Incremental	Total	Incremental	Total		Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00		16.93		0:42:03	
	0.56		0:01:49			0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49		16.38		0:40:15	
	1.52		0:03:01			1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50		14.85		0:37:14	
	0.58		0:01:43			0.58		0:01:43	
Friday Center Drive Station		2.66		0:06:32		14.27		0:35:31	
	0.51		0:01:50			0.51		0:01:53	
Woodmont Station		3.17		0:08:23		13.77		0:33:38	
	1.34		0:02:50			1.34		0:02:42	
Leigh Village Station		4.51		0:11:13		12.42		0:30:56	
	2.37		0:03:41			2.37		0:03:29	
Gateway Station		6.88		0:14:54		10.05		0:27:27	
	1.00		0:02:29			1.00		0:02:34	
Patterson Place Station		7.88		0:17:23		9.06		0:24:53	
	1.69		0:03:58			1.69		0:03:53	
MLK Jr. Parkway Station		9.57		0:21:20		7.36		0:21:00	
	0.64		0:02:33			0.64		0:02:21	
South Square Station		10.21		0:23:54		6.72		0:18:39	
	3.01		0:05:49			2.94		0:05:28	
LaSalle Street Station		13.22		0:29:43		3.78		0:13:11	
	0.73		0:02:46			0.80		0:03:03	
Trent Drive Station		13.96		0:32:29		2.98		0:10:09	
	0.58		0:01:58			0.58		0:01:47	
Ninth Street Station		14.53		0:34:27		2.40		0:08:21	
	0.75		0:02:16			0.75		0:02:19	
Buchanan Boulevard Station		15.28		0:36:43		1.65		0:06:02	
	0.46		0:01:50			0.46		0:01:36	
Durham Station		15.74		0:38:33		1.19		0:04:26	
	0.73		0:03:01			0.73		0:02:34	
Dillard Street Station		16.47		0:41:34		0.46		0:01:52	
	0.46		0:01:56			0.46		0:01:52	
Alston Avenue Station		16.93		0:43:30		0.00		0:00:00	

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*

C2A-NHC LPA		EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
Station	Distance		Travel Time			Distance		Travel Time	
	Incremental	Total	Incremental	Total		Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00		16.90		0:41:53	
	0.56		0:01:49			0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49		16.34		0:40:05	
	1.52		0:03:01			1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50		14.82		0:37:04	
	0.58		0:01:45			0.58		0:01:44	
Friday Center Drive Station		2.67		0:06:35		14.24		0:35:20	
	0.47		0:01:31			0.47		0:01:43	
Woodmont Station		3.14		0:08:06		13.77		0:33:38	
	1.34		0:02:50			1.34		0:02:42	
Leigh Village Station		4.48		0:10:56		12.42		0:30:56	
	2.37		0:03:41			2.37		0:03:29	
Gateway Station		6.85		0:14:37		10.05		0:27:27	
	1.00		0:02:29			1.00		0:02:34	
Patterson Place Station		7.85		0:17:06		9.06		0:24:53	
	1.69		0:03:58			1.69		0:03:53	
MLK Jr. Parkway Station		9.54		0:21:03		7.36		0:21:00	
	0.64		0:02:34			0.64		0:02:21	
South Square Station		10.18		0:23:37		6.72		0:18:39	
	3.01		0:05:49			2.94		0:05:28	
LaSalle Street Station		13.19		0:29:26		3.78		0:13:11	
	0.73		0:02:46			0.80		0:03:03	
Trent Drive Station		13.92		0:32:12		2.98		0:10:09	
	0.58		0:01:58			0.58		0:01:47	
Ninth Street Station		14.50		0:34:10		2.40		0:08:21	
	0.75		0:02:16			0.75		0:02:19	
Buchanan Boulevard Station		15.25		0:36:26		1.65		0:06:02	
	0.46		0:01:50			0.46		0:01:36	
Durham Station		15.71		0:38:16		1.19		0:04:26	
	0.73		0:03:01			0.73		0:02:34	
Dillard Street Station		16.44		0:41:17		0.46		0:01:52	
	0.46		0:01:56			0.46		0:01:52	
Alston Avenue Station		16.90		0:43:13		0.00		0:00:00	

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*

C1-NHC 1-Trent		EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
Station	Distance		Travel Time			Distance		Travel Time	
	Incremental	Total	Incremental	Total		Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00		17.07		0:41:58	
	0.56		0:01:49			0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49		16.51		0:40:10	
	1.52		0:03:01			1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50		14.99		0:37:09	
	0.56		0:01:43			0.56		0:01:42	
Friday Center Drive Station (A)		2.64		0:06:33		14.43		0:35:27	
	0.33		0:01:16			0.33		0:01:13	
Meadowmont Lane Station		2.97		0:07:49		14.10		0:34:14	
	1.37		0:03:11			1.37		0:03:20	
Leigh Village Station		4.34		0:11:00		12.73		0:30:54	
	2.36		0:03:37			2.36		0:03:29	
Gateway Station		6.71		0:14:37		10.36		0:27:25	
	0.87		0:02:09			0.87		0:02:10	
Patterson Place Station		7.57		0:16:45		9.50		0:25:15	
	2.03		0:03:39			2.03		0:03:43	
MLK Jr. Parkway Station		9.61		0:20:24		7.47		0:21:33	
	0.74		0:02:54			0.74		0:02:53	
South Square Station		10.35		0:23:19		6.72		0:18:39	
	3.01		0:05:53			2.94		0:05:28	
LaSalle Street Station		13.36		0:29:12		3.78		0:13:11	
	0.73		0:02:46			0.80		0:03:03	
Trent Drive Station		14.09		0:31:58		2.98		0:10:09	
	0.58		0:01:58			0.58		0:01:47	
Ninth Street Station		14.67		0:33:56		2.40		0:08:21	
	0.75		0:02:16			0.75		0:02:19	
Buchanan Boulevard Station		15.42		0:36:12		1.65		0:06:02	
	0.46		0:01:50			0.46		0:01:36	
Durham Station		15.88		0:38:02		1.19		0:04:26	
	0.73		0:03:01			0.73		0:02:34	
Dillard Street Station		16.61		0:41:03		0.46		0:01:52	
	0.46		0:01:56			0.46		0:01:52	
Alston Avenue Station		17.07		0:42:59		0.00		0:00:00	

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*



C1A-NHC 1-Trent		EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
Station	Distance		Travel Time			Distance		Travel Time	
	Incremental	Total	Incremental	Total		Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00		17.32		0:42:43	
	0.56		0:01:49	0:01:49		0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49		16.76		0:40:56	
	1.52		0:03:01	0:03:01		1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50		15.24		0:37:55	
	0.56		0:01:42	0:01:42		0.56		0:01:42	
Friday Center Drive Station (A)		2.64		0:06:32		14.68		0:36:13	
	0.33		0:01:15	0:01:15		0.33		0:01:47	
Meadowmont Lane Station		2.97		0:07:46		14.35		0:34:26	
	1.62		0:04:02	0:04:02		1.62		0:03:32	
Leigh Village Station		4.59		0:11:48		12.73		0:30:54	
	2.36		0:03:37	0:03:37		2.36		0:03:29	
Gateway Station		6.96		0:15:25		10.36		0:27:25	
	0.87		0:02:09	0:02:09		0.87		0:02:10	
Patterson Place Station		7.83		0:17:33		9.50		0:25:15	
	2.03		0:03:39	0:03:39		2.03		0:03:43	
MLK Jr. Parkway Station		9.86		0:21:12		7.47		0:21:33	
	0.74		0:02:54	0:02:54		0.74		0:02:53	
South Square Station		10.60		0:24:07		6.72		0:18:39	
	3.01		0:05:53	0:05:53		2.94		0:05:28	
LaSalle Street Station		13.61		0:30:00		3.78		0:13:11	
	0.73		0:02:46	0:02:46		0.80		0:03:03	
Trent Drive Station		14.34		0:32:46		2.98		0:10:09	
	0.58		0:01:58	0:01:58		0.58		0:01:47	
Ninth Street Station		14.92		0:34:44		2.40		0:08:21	
	0.75		0:02:16	0:02:16		0.75		0:02:19	
Buchanan Boulevard Station		15.67		0:37:00		1.65		0:06:02	
	0.46		0:01:50	0:01:50		0.46		0:01:36	
Durham Station		16.13		0:38:50		1.19		0:04:26	
	0.73		0:03:01	0:03:01		0.73		0:02:34	
Dillard Street Station		16.86		0:41:51		0.46		0:01:52	
	0.46		0:01:56	0:01:56		0.46		0:01:52	
Alston Avenue Station		17.32		0:43:47		0.00		0:00:00	

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*

C2-NHC 1-Trent		EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
Station	Distance		Travel Time			Distance		Travel Time	
	Incremental	Total	Incremental	Total		Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00		17.25		0:42:01	
	0.56		0:01:49			0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49		16.69		0:40:14	
	1.52		0:03:01			1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50		15.16		0:37:13	
	0.58		0:01:43			0.58		0:01:43	
Friday Center Drive Station		2.66		0:06:32		14.58		0:35:30	
	0.51		0:01:50			0.51		0:01:53	
Woodmont Station		3.17		0:08:23		14.08		0:33:36	
	1.34		0:02:50			1.34		0:02:42	
Leigh Village Station		4.51		0:11:13		12.73		0:30:54	
	2.37		0:03:41			2.37		0:03:29	
Gateway Station		6.88		0:14:54		10.36		0:27:25	
	0.87		0:02:09			0.87		0:02:10	
Patterson Place Station		7.75		0:17:03		9.50		0:25:15	
	2.03		0:03:39			2.03		0:03:43	
MLK Jr. Parkway Station		9.78		0:20:42		7.47		0:21:33	
	0.74		0:02:54			0.74		0:02:53	
South Square Station		10.52		0:23:36		6.72		0:18:39	
	3.01		0:05:53			2.94		0:05:28	
LaSalle Street Station		13.54		0:29:29		3.78		0:13:11	
	0.73		0:02:46			0.80		0:03:03	
Trent Drive Station		14.27		0:32:16		2.98		0:10:09	
	0.58		0:01:58			0.58		0:01:47	
Ninth Street Station		14.85		0:34:13		2.40		0:08:21	
	0.75		0:02:16			0.75		0:02:19	
Buchanan Boulevard Station		15.59		0:36:29		1.65		0:06:02	
	0.46		0:01:50			0.46		0:01:36	
Durham Station		16.05		0:38:19		1.19		0:04:26	
	0.73		0:03:01			0.73		0:02:34	
Dillard Street Station		16.78		0:41:20		0.46		0:01:52	
	0.46		0:01:56			0.46		0:01:52	
Alston Avenue Station		17.25		0:43:16		0.00		0:00:00	

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*

C2A-NHC 1 Station	EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
	Distance		Travel Time		Distance		Travel Time	
	Incremental	Total	Incremental	Total	Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00		17.21		0:41:51
	0.56		0:01:49		0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49		16.66		0:40:04
	1.52		0:03:01		1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50		15.13		0:37:03
	0.58		0:01:45		0.58		0:01:44	
Friday Center Drive Station		2.67		0:06:35		14.55		0:35:19
	0.47		0:01:31		0.47		0:01:43	
Woodmont Station		3.14		0:08:06		14.08		0:33:36
	1.34		0:02:50		1.34		0:02:42	
Leigh Village Station		4.48		0:10:56		12.73		0:30:54
	2.37		0:03:41		2.37		0:03:29	
Gateway Station		6.85		0:14:37		10.36		0:27:25
	0.87		0:02:09		0.87		0:02:10	
Patterson Place Station		7.72		0:16:46		9.50		0:25:15
	2.03		0:03:39		2.03		0:03:43	
MLK Jr. Parkway Station		9.75		0:20:25		7.47		0:21:33
	0.74		0:02:54		0.74		0:02:53	
South Square Station		10.49		0:23:19		6.72		0:18:39
	3.01		0:05:53		2.94		0:05:28	
LaSalle Street Station		13.50		0:29:12		3.78		0:13:11
	0.73		0:02:46		0.80		0:03:03	
Trent Drive Station		14.24		0:31:59		2.98		0:10:09
	0.58		0:01:58		0.58		0:01:47	
Ninth Street Station		14.81		0:33:56		2.40		0:08:21
	0.75		0:02:16		0.75		0:02:19	
Buchanan Boulevard Station		15.56		0:36:12		1.65		0:06:02
	0.46		0:01:50		0.46		0:01:36	
Durham Station		16.02		0:38:02		1.19		0:04:26
	0.73		0:03:01		0.73		0:02:34	
Dillard Street Station		16.75		0:41:03		0.46		0:01:52
	0.46		0:01:56		0.46		0:01:52	
Alston Avenue Station		17.21		0:42:59		0.00		0:00:00

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*

C1-NHC 2-Trent		EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
Station	Distance		Travel Time			Distance		Travel Time	
	Incremental	Total	Incremental	Total		Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00			16.99		0:42:35
	0.56		0:01:49			0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49			16.43		0:40:48
	1.52		0:03:01			1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50			14.91		0:37:47
	0.56		0:01:43			0.56		0:01:42	
Friday Center Drive Station (A)		2.64		0:06:33			14.35		0:36:05
	0.33		0:01:16			0.33		0:01:13	
Meadowmont Lane Station		2.97		0:07:49			14.02		0:34:52
	1.37		0:03:11			1.37		0:03:20	
Leigh Village Station		4.34		0:11:00			12.65		0:31:32
	2.36		0:03:37			2.36		0:03:29	
Gateway Station		6.71		0:14:37			10.28		0:28:03
	0.90		0:02:12			0.90		0:02:31	
Patterson Place Station		7.61		0:16:48			9.38		0:25:32
	2.02		0:04:30			2.02		0:04:32	
MLK Jr. Parkway Station		9.63		0:21:18			7.36		0:21:00
	0.64		0:02:31			0.64		0:02:21	
South Square Station		10.27		0:23:49			6.72		0:18:39
	3.01		0:05:53			2.94		0:05:28	
LaSalle Street Station		13.28		0:29:42			3.78		0:13:11
	0.73		0:02:46			0.80		0:03:03	
Trent Drive Station		14.01		0:32:29			2.98		0:10:09
	0.58		0:01:58			0.58		0:01:47	
Ninth Street Station		14.59		0:34:26			2.40		0:08:21
	0.75		0:02:16			0.75		0:02:19	
Buchanan Boulevard Station		15.34		0:36:42			1.65		0:06:02
	0.46		0:01:50			0.46		0:01:36	
Durham Station		15.80		0:38:32			1.19		0:04:26
	0.73		0:03:01			0.73		0:02:34	
Dillard Street Station		16.53		0:41:33			0.46		0:01:52
	0.46		0:01:56			0.46		0:01:52	
Alston Avenue Station		16.99		0:43:29			0.00		0:00:00

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*

C1A-NHC 2-Trent		EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
Station	Distance		Travel Time			Distance		Travel Time	
	Incremental	Total	Incremental	Total		Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00		17.24		0:43:21	
	0.56		0:01:49	0:01:49		0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49		16.68		0:41:33	
	1.52		0:03:01	0:04:50		1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50		15.16		0:38:32	
	0.56		0:01:42	0:06:32		0.56		0:01:42	
Friday Center Drive Station (A)		2.64		0:06:32		14.60		0:36:50	
	0.33		0:01:15	0:07:46		0.33		0:01:47	
Meadowmont Lane Station		2.97		0:07:46		14.27		0:35:04	
	1.62		0:04:02	0:11:48		1.62		0:03:32	
Leigh Village Station		4.59		0:11:48		12.65		0:31:32	
	2.36		0:03:37	0:15:25		2.36		0:03:29	
Gateway Station		6.96		0:15:25		10.28		0:28:03	
	0.90		0:02:12	0:17:36		0.90		0:02:31	
Patterson Place Station		7.86		0:17:36		9.38		0:25:32	
	2.02		0:04:30	0:22:06		2.02		0:04:32	
MLK Jr. Parkway Station		9.88		0:22:06		7.36		0:21:00	
	0.64		0:02:31	0:24:37		0.64		0:02:21	
South Square Station		10.52		0:24:37		6.72		0:18:39	
	3.01		0:05:53	0:30:30		2.94		0:05:28	
LaSalle Street Station		13.53		0:30:30		3.78		0:13:11	
	0.73		0:02:46	0:33:17		0.80		0:03:03	
Trent Drive Station		14.27		0:33:17		2.98		0:10:09	
	0.58		0:01:58	0:35:14		0.58		0:01:47	
Ninth Street Station		14.84		0:35:14		2.40		0:08:21	
	0.75		0:02:16	0:37:30		0.75		0:02:19	
Buchanan Boulevard Station		15.59		0:37:30		1.65		0:06:02	
	0.46		0:01:50	0:39:20		0.46		0:01:36	
Durham Station		16.05		0:39:20		1.19		0:04:26	
	0.73		0:03:01	0:42:21		0.73		0:02:34	
Dillard Street Station		16.78		0:42:21		0.46		0:01:52	
	0.46		0:01:56	0:44:17		0.46		0:01:52	
Alston Avenue Station		17.24		0:44:17		0.00		0:00:00	

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*

C2-NHC 2-Trent		EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
Station	Distance		Travel Time			Distance		Travel Time	
	Incremental	Total	Incremental	Total		Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00		17.17		0:42:39	
	0.56		0:01:49			0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49		16.61		0:40:51	
	1.52		0:03:01			1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50		15.08		0:37:50	
	0.58		0:01:43			0.58		0:01:43	
Friday Center Drive Station		2.66		0:06:32		14.50		0:36:07	
	0.51		0:01:50			0.51		0:01:53	
Woodmont Station		3.17		0:08:23		14.00		0:34:14	
	1.34		0:02:50			1.34		0:02:42	
Leigh Village Station		4.51		0:11:13		12.66		0:31:32	
	2.37		0:03:41			2.37		0:03:29	
Gateway Station		6.88		0:14:54		10.28		0:28:03	
	0.90		0:02:12			0.90		0:02:31	
Patterson Place Station		7.79		0:17:06		9.38		0:25:32	
	2.02		0:04:30			2.02		0:04:32	
MLK Jr. Parkway Station		9.81		0:21:35		7.36		0:21:00	
	0.64		0:02:31			0.64		0:02:21	
South Square Station		10.45		0:24:07		6.72		0:18:39	
	3.01		0:05:53			2.94		0:05:28	
LaSalle Street Station		13.46		0:30:00		3.78		0:13:11	
	0.73		0:02:46			0.80		0:03:03	
Trent Drive Station		14.19		0:32:46		2.98		0:10:09	
	0.58		0:01:58			0.58		0:01:47	
Ninth Street Station		14.77		0:34:44		2.40		0:08:21	
	0.75		0:02:16			0.75		0:02:19	
Buchanan Boulevard Station		15.52		0:37:00		1.65		0:06:02	
	0.46		0:01:50			0.46		0:01:36	
Durham Station		15.97		0:38:50		1.19		0:04:26	
	0.73		0:03:01			0.73		0:02:34	
Dillard Street Station		16.70		0:41:51		0.46		0:01:52	
	0.46		0:01:56			0.46		0:01:52	
Alston Avenue Station		17.17		0:43:47		0.00		0:00:00	

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*

C2A-NHC 2		EASTBOUND (READ DOWN)				WESTBOUND (READ UP)			
Station	Distance		Travel Time			Distance		Travel Time	
	Incremental	Total	Incremental	Total		Incremental	Total	Incremental	Total
UNC Hospitals Station		0.00		0:00:00		17.14		0:42:29	
	0.56		0:01:49			0.56		0:01:48	
Mason Farm Road Station		0.56		0:01:49		16.58		0:40:41	
	1.52		0:03:01			1.52		0:03:01	
Hamilton Road Station		2.08		0:04:50		15.05		0:37:40	
	0.58		0:01:45			0.58		0:01:44	
Friday Center Drive Station		2.67		0:06:35		14.47		0:35:56	
	0.47		0:01:31			0.47		0:01:43	
Woodmont Station		3.14		0:08:06		14.00		0:34:14	
	1.34		0:02:50			1.34		0:02:42	
Leigh Village Station		4.48		0:10:56		12.66		0:31:32	
	2.37		0:03:41			2.37		0:03:29	
Gateway Station		6.85		0:14:37		10.28		0:28:03	
	0.90		0:02:12			0.90		0:02:31	
Patterson Place Station		7.76		0:16:49		9.38		0:25:32	
	2.02		0:04:30			2.02		0:04:32	
MLK Jr. Parkway Station		9.78		0:21:18		7.36		0:21:00	
	0.64		0:02:31			0.64		0:02:21	
South Square Station		10.42		0:23:50		6.72		0:18:39	
	3.01		0:05:53			2.94		0:05:28	
LaSalle Street Station		13.43		0:29:43		3.78		0:13:11	
	0.73		0:02:46			0.80		0:03:03	
Trent Drive Station		14.16		0:32:29		2.98		0:10:09	
	0.58		0:01:58			0.58		0:01:47	
Ninth Street Station		14.74		0:34:27		2.40		0:08:21	
	0.75		0:02:16			0.75		0:02:19	
Buchanan Boulevard Station		15.48		0:36:43		1.65		0:06:02	
	0.46		0:01:50			0.46		0:01:36	
Durham Station		15.94		0:38:33		1.19		0:04:26	
	0.73		0:03:01			0.73		0:02:34	
Dillard Street Station		16.67		0:41:34		0.46		0:01:52	
	0.46		0:01:56			0.46		0:01:52	
Alston Avenue Station		17.14		0:43:30		0.00		0:00:00	

*Note: Duke Eye Center Station Option is estimated to reduce the eastbound and westbound travel times by 9 seconds in each direction.*

**APPENDIX B**  
**TRIANGLE TRANSIT**  
**ESTIMATES OF OPERATING STATISTICS**



## TRIANGLE TRANSIT (TT)

### Summary of Service Statistics (Corridor Routes Only)

Alternative	Day of Week	Pk. Buses	Daily Rev. Hours	Daily Rev. Miles	Annualization Factor	Annual Rev. Hours	Change from Existing	Annual Rev. Miles	Change from Existing
<b>Existing</b>	Weekday	31	245.0	4,730	255	62,475	n/a	1,206,099	n/a
	Saturday	5	80.0	1,430	52	4,160	n/a	74,381	n/a
	Sunday	0	0.0	0	58	0	n/a	0	n/a
						<b>66,635</b>	<b>n/a</b>	<b>1,280,480</b>	<b>n/a</b>
<b>No-Build</b>	Weekday	42	314.0	5,986	255	80,070	17,595	1,526,532	320,433
	Saturday	10	127.5	2,183	52	6,630	2,470	113,506	39,125
	Sunday	5	60.0	986	58	3,480	3,480	57,211	57,211
						<b>90,180</b>	<b>23,545</b>	<b>1,697,249</b>	<b>416,769</b>
<b>Baseline &amp; Build</b>	Weekday	32	214.0	4,517	255	54,570	-7,905	1,151,886	-54,213
	Saturday	6	76.5	1,418	52	3,978	-182	73,726	-655
	Sunday	2	24.0	423	58	1,392	1,392	24,534	24,534
						<b>59,940</b>	<b>-6,695</b>	<b>1,250,146</b>	<b>-30,334</b>

*Note: "Existing" statistics represent spreadsheet-calculated estimates based on existing published schedules and do not exactly match with NTD totals. Existing statistics calculated only for the purpose of determining the incremental change in peak buses, bus-hours, and bus-miles for each project alternative*

**Existing Service**  
**Weekday Bus Routes**

Route #	Route Name	Round Trip?	Span of Service	Service Frequency					Peak Period Cycle Time			One-Way	Average Weekday			Bus Requirements			
				AM Pk	Midday	PM Pk	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	AM Pk	Midday	PM Pk	Evening
400	Durham-Patterson Place-Chapel Hill	N	6:00 am-10:00 pm	30	60	30	60	46	55.0	10	120	16.9	42.2	46.0	777.4	4.00	2.00	4.00	2.00
405	Durham-Chapel Hill	N	Peak Periods Only	30	n/a	30	n/a	28	45.0	30	120	13.9	21.0	28.0	389.2	4.00	0.00	4.00	0.00
420	Hillsborough-Chapel Hill	N	Peak Periods Only	30	n/a	30	n/a	20	45.0	30	120	13.9	15.0	20.0	278.0	4.00	0.00	4.00	0.00
700	Durham-RTC	N	6:00 am-10:00 pm	30	60	30	60	46	25.0	10	60	12.0	19.2	23.0	552.0	2.00	1.00	2.00	1.00
800	Chapel Hill-Southpoint Mall-RTC	N	Peak Periods Only	30	n/a	30	n/a	28	40.0	10	90	15.8	18.7	21.0	442.4	3.00	0.00	3.00	0.00
	Chapel Hill-Southpoint Mall	N	Peak Periods Only	30	n/a	30	n/a	28	25.0	10	60	7.5	11.7	14.0	210.0	2.00	0.00	2.00	0.00
	Chapel Hill-Southpoint -RTC via NC54/Alston	N	Midday and Evening	n/a	60	n/a	60	18	n/a	n/a	n/a	15.8	15.0	18.0	284.4	0.00	2.00	0.00	2.00
805	Chapel Hill-Woodcroft-RTC	N	Peak Periods Only	30	n/a	30	n/a	28	50.0	20	120	14.8	23.3	28.0	414.4	4.00	0.00	4.00	0.00
	UNC Hosp-Woodcroft	N	Midday Only	n/a	60	n/a	n/a	6	n/s	n/s	n/s	6.8	2.5	3.0	40.8	0.00	1.00	0.00	0.00
CRX	Chapel Hill-Raleigh Express	N	Peak Periods Only	30	n/a	30	n/a	24	55.0	10	120	32.3	22.0	24.0	775.2	4.00	0.00	4.00	0.00
DRX	Durham-Raleigh Express	N	Peak Periods Only	30	n/a	30	n/a	20	55.0	10	120	28.3	18.3	20.0	566.0	4.00	0.00	4.00	0.00
<b>TOTALS</b>								<b>292</b>					<b>209</b>	<b>245</b>	<b>4,730</b>	<b>31.0</b>	<b>6.0</b>	<b>31.0</b>	<b>5.0</b>

**No-Build Alternative**  
**Weekday Bus Routes**

Route #	Route Name	Round Trip?	Span of Service	Service Frequency					Peak Period Cycle Time			One-Way	Average Weekday			Bus Requirements			
				AM Pk	Midday	PM Pk	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	AM Pk	Midday	PM Pk	Evening
400a	Durham-Patterson Pl-Chapel Hill	N	6:00 am-10:00 pm	30	30	30	60	58	55.0	10	120	15.0	53.2	58.0	870.0	4.00	4.00	4.00	2.00
400b	Durham-Chapel Hill-Carrboro	N	Peak Periods Only	30	n/a	30	n/a	28	45.0	30	120	13.9	21.0	28.0	389.2	4.00	0.00	4.00	0.00
420	Hillsborough-Chapel Hill	N	Peak Periods Only	30	n/a	30	n/a	20	45.0	30	120	13.9	15.0	20.0	278.0	4.00	0.00	4.00	0.00
700	Durham-RTC	N	6:00 am-10:00 pm	15	60	15	60	74	25.0	10	60	12.0	30.8	37.0	888.0	4.00	1.00	4.00	1.00
800	Chapel Hill-Southpoint Mall-RTC	N	Peak Periods Only	30	n/a	30	n/a	28	45.0	30	120	15.8	21.0	28.0	442.4	4.00	0.00	4.00	0.00
	Chapel Hill-Southpoint Mall	N	Peak Periods Only	30	n/a	30	n/a	28	25.0	10	60	7.5	11.7	14.0	210.0	2.00	0.00	2.00	0.00
	Chapel Hill-Southpoint -RTC via NC54/Alston	N	Midday and Evening	n/a	60	n/a	60	18	n/a	n/a	n/a	15.8	15.0	18.0	284.4	0.00	2.00	0.00	2.00
805	Chapel Hill-Woodcroft-RTC	N	Peak Periods Only	30	n/a	30	n/a	28	50.0	20	120	14.8	23.3	28.0	414.4	4.00	0.00	4.00	0.00
	UNC Hosp-Woodcroft	N	Midday Only	n/a	60	n/a	n/a	6	n/s	n/s	n/s	6.8	2.5	3.0	40.8	0.00	1.00	0.00	0.00
CRX	Chapel Hill-Raleigh Express	N	Peak Periods Only	30	n/a	30	n/a	24	55.0	10	120	32.3	22.0	24.0	775.2	4.00	0.00	4.00	0.00
DRX	Durham-Raleigh Express	N	Peak Periods Only	30	n/a	30	n/a	20	55.0	10	120	28.3	18.3	20.0	566.0	4.00	0.00	4.00	0.00
MDX	Mebane-Duke-Durham	N	Peak Periods Only	30	n/a	30	n/a	18	55.0	10	120	23.5	16.5	18.0	423.0	4.00	0.00	4.00	0.00
RDX	Rougemont-Duke-Durham	N	Peak Periods Only	30	n/a	30	n/a	18	55.0	10	120	22.5	16.5	18.0	405.0	4.00	0.00	4.00	0.00
<b>TOTALS</b>								<b>368</b>					<b>267</b>	<b>314</b>	<b>5,986</b>	<b>42.0</b>	<b>8.0</b>	<b>42.0</b>	<b>5.0</b>

Cells in red reflect a change from Existing.

**Build Alternative**  
**Weekday Bus Routes**

Route #	Route Name	Round Trip?	Span of Service	Service Frequency					Peak Period Cycle Time			One-Way	Average Weekday			Bus Requirements			
				AM Pk	Midday	PM Pk	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	AM Pk	Midday	PM Pk	Evening
420	Hillsborough-Chapel Hill	N	Peak Periods Only	30	n/a	30	n/a	20	45.0	30	120	13.9	15.0	20.0	278.0	4.00	0.00	4.00	0.00
700	Durham-RTC	N	6:00 am-10:00 pm	15	60	15	60	74	25.0	10	60	12.0	30.8	37.0	888.0	4.00	1.00	4.00	1.00
800	Chapel Hill-Southpoint Mall-RTC	N	Peak Periods Only	30	n/a	30	n/a	28	45.0	30	120	15.8	21.0	28.0	442.4	4.00	0.00	4.00	0.00
	Chapel Hill-Southpoint -RTC via NC54/Alston	N	Midday and Evening	n/a	60	n/a	60	18	n/a	n/a	n/a	15.8	15.0	18.0	284.4	0.00	2.00	0.00	2.00
805	Chapel Hill-Woodcroft-RTC	N	Peak Periods Only	30	n/a	30	n/a	28	50.0	20	120	14.8	23.3	28.0	414.4	4.00	0.00	4.00	0.00
	UNC Hosp-Woodcroft	N	Midday Only	n/a	60	n/a	n/a	6	n/s	n/s	n/s	6.8	2.5	3.0	40.8	0.00	1.00	0.00	0.00
CRX	Chapel Hill-Raleigh Express	N	Peak Periods Only	30	n/a	30	n/a	24	55.0	10	120	32.3	22.0	24.0	775.2	4.00	0.00	4.00	0.00
DRX	Durham-Raleigh Express	N	Peak Periods Only	30	n/a	30	n/a	20	55.0	10	120	28.3	18.3	20.0	566.0	4.00	0.00	4.00	0.00
MDX	Mebane-Duke-Durham	N	Peak Periods Only	30	n/a	30	n/a	18	55.0	10	120	23.5	16.5	18.0	423.0	4.00	0.00	4.00	0.00
RDX	Rougemont-Duke-Durham	N	Peak Periods Only	30	n/a	30	n/a	18	55.0	10	120	22.5	16.5	18.0	405.0	4.00	0.00	4.00	0.00
<b>TOTALS</b>								<b>254</b>					<b>181</b>	<b>214</b>	<b>4,517</b>	<b>32.0</b>	<b>4.0</b>	<b>32.0</b>	<b>3.0</b>

Cells in red reflect a change from No-Build.

**Existing Service**  
**Saturday Bus Routes**

Route #	Route Name	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
		AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
400	Durham-New Hope-Chapel Hill	60	60	60	32	55.0	10	120	16.9	29.3	32.0	540.8	2.0	2.0
700	Durham-RTC	60	60	60	32	31.0	28	90	12.0	16.4	22.0	384.0	1.5	1.0
800	Chapel Hill-Southpoint Mall-RTC	60	60	60	32	45.0	0	90	15.8	24.0	26.0	505.6	1.5	2.0
					96					69.7	80.0	1,430.4	5.0	5.0

**No-Build Alternative**  
**Saturday Bus Routes**

Route #	Route Name	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
		AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
400a	Durham-Patterson Pl.-Chapel Hill	60	30	60	51	55.0	10	120	15.0	46.8	51.0	765.0	4.0	2.0
700	Durham-RTC	60	30	60	51	31.0	28	90	12.0	26.2	36.3	612.0	3.0	1.0
800	Chapel Hill-Southpoint Mall-RTC	60	30	60	51	45.0	0	90	15.8	38.3	40.3	805.8	3.0	2.0
					153					111.2	127.5	2,182.8	10.0	5.0

Cells in red reflect a change from Existing.

**Build Alternative**  
**Saturday Bus Routes**

Route #	Route Name	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
		AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
700	Durham-RTC	60	30	60	51	31.0	28	90	12.0	26.2	36.3	612.0	3.0	1.0
800	Chapel Hill-Southpoint Mall-RTC	60	30	60	51	45.0	0	90	15.8	38.3	40.3	805.8	3.0	2.0
					102					64.5	76.5	1,417.8	6.0	3.0

Cells in red reflect a change from No-Build.

**No-Build Alternative  
Sunday Bus Routes**

Route #	Route Name	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
		AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
400a	Durham-Patterson Pl.-Chapel Hill	n/a	60	n/a	24	55.0	10.0	120	15.0	22.0	24.0	360.0	2.0	0.0
700	Durham-RTC	n/a	60	n/a	24	30.0	0.0	60	12.0	12.0	12.0	288.0	1.0	0.0
800	Chapel Hill-Southpoint Mall-RTC	n/a	60	n/a	24	45.0	30.0	120	14.1	18.0	24.0	338.4	2.0	0.0
					72					52.0	60.0	986.4	5.0	0.0

Cells in red reflect a change from Existing.

**Build Alternative  
Sunday Bus Routes**

Route #	Route Name	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
		AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
700	Durham-RTC	n/a	60	n/a	30	30.0	0.0	60	12.0	12.0	12.0	360.0	1.0	0.0
800		n/a	60	n/a	30	45.0	30.0	120	14.1	18.0	24.0	423.0	2.0	0.0
					30					18.0	24.0	423.0	2.0	0.0

Cells in red reflect a change from No-Build.

**APPENDIX C**

**DURHAM AREA TRANSIT AUTHORITY**

**ESTIMATES OF OPERATING STATISTICS**

**Durham Area Transit Authority  
Summary of Service Statistics**

Alternative	Day of Week	Daily Pk. Buses	Daily Rev. Hrs.	Daily Rev. Miles	Annual Rev. Hours	Change from Existing	Annual Rev. Miles	Change from Existing
<b>Existing</b>	Weekday	41	597	8,210	152,129	n/a	2,093,544	n/a
	Saturday	35	565	7,814	29,393	n/a	406,312	n/a
	Sunday	17	220	3,295	12,775	n/a	191,124	n/a
					<b>194,296</b>	<b>n/a</b>	<b>2,690,979</b>	<b>n/a</b>
<b>No-Build</b>	Weekday	48	720	9,782	183,621	31,493	2,494,518	400,975
	Saturday	40	630	8,493	32,774	3,381	441,644	35,331
	Sunday	17	255	3,745	14,790	2,016	217,196	26,072
					<b>231,185</b>	<b>36,889</b>	<b>3,153,357</b>	<b>462,378</b>
<b>Build</b>	Weekday	52	799	10,765	203,618	51,489	2,745,005	651,461
	Saturday	45	712	9,461	37,024	7,631	491,959	85,647
	Sunday	17	255	3,675	14,790	2,016	213,167	22,044
					<b>255,432</b>	<b>61,135</b>	<b>3,450,131</b>	<b>759,152</b>

*Note: "Existing" statistics represent spreadsheet-calculated estimates based on existing published schedules and do not exactly match with NTD totals. Existing statistics calculated only for the purpose of determining the incremental change in peak buses, bus-hours and bus-miles for each project alternative.*

Existing Service  
Weekday Bus Routes

Route #	Route Destination	Span of Service	Service Frequency				Daily Trips	Peak Period Cycle Time				One-Way Distance (Miles)	Average Weekday			Bus Requirements			
			AM Pk	Midday	PM Pk	Eve.		Time (Min.)	Layover Time	% Layover	Cycle Time		In-Serv. Hours	Rev. Hrs.	Rev. Miles	AM Pk	Midday	PM Pk	Evening
BCC	Bull City Connector	6:20 am-12:00 am	20	20	20	25	98	27.5	5	8%	60	5.3	43.7	46.6	519.4	3.00	3.00	3.00	2.00
1A	To Hillendale & Loehmans Plaza	5:30 am-12:30 am	60	60	60	n/a	27	27.5	5	8%	60	7.2	12.4	13.5	193.1	1.00	1.00	1.00	0.00
1B	To Guess Road & Horton Road		60	60	60	n/a	27	25.0	10	17%	60	6.4	11.3	13.5	171.5	1.00	1.00	1.00	0.00
1N	To Northgate Mall		n/a	30	30	n/a	24	12.0	6	20%	30	2.2	4.8	6.0	52.8	0.00	1.00	1.00	0.00
1 Eve	To Guess Road & Horton Road		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	5.6	4.6	5.0	55.5	0.00	0.00	0.00	1.00
2A	To Page Road & Angier Avenue	5:30 am-12:30 am	60	60	60	n/a	27	27.5	5	8%	60	6.7	12.4	13.5	181.6	1.00	1.00	1.00	0.00
2B	to Raynor Street @ the Village		60	60	60	n/a	27	25.0	10	17%	60	4.0	11.3	13.5	107.1	1.00	1.00	1.00	0.00
2B Eve	Angier/Guthrie to Raynor St. @ the Village		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	5.7	4.6	5.0	56.9	0.00	0.00	0.00	1.00
2 Eve	To Page Road @ Angier Avenue		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	7.2	2.1	2.5	71.8	0.00	0.00	0.00	0.50
3	To Wal-Mart @ Glenview Station	5:30 am-12:30 am	30	30	30	60	64	27.5	5	8%	60	6.0	29.3	32.0	380.8	2.00	2.00	2.00	1.00
4	To Horton Rd & Roxboro Road	5:30 am-12:30 am	30	30	30	60	64	27.5	5	8%	60	8.1	29.3	32.0	518.4	2.00	2.00	2.00	1.00
5	To Southpoint Mall	5:30 am-12:30 am	30	30	30	n/a	54	40.0	10	11%	90	10.0	36.0	40.5	537.3	3.00	3.00	3.00	0.00
5K	To MLK Jr. Pkwy		n/a	30	30	n/a	24	25.0	10	17%	60	5.2	10.0	12.0	124.8	0.00	2.00	2.00	0.00
5 Eve	To Southpoint Mall		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	8.2	5.8	6.3	81.5	0.00	0.00	0.00	1.25
6	To Constitution Dr. @ Forest Apts.		60	60	60	60	37	27.5	5	8%	60	5.9	15.8	18.5	217.6	1.00	1.00	1.00	1.00
6B	To Sparger Rd. @ Food Lion	5:30 am-12:30 am	60	60	60	n/a	27	27.5	5	8%	60	7.3	11.9	13.5	197.6	1.00	1.00	1.00	0.00
7	To Wal-Mart @ MLK Jr. Pkwy.	5:30 am-12:30 am	30	30	30	60	64	27.5	5	8%	60	8.1	29.3	32.0	518.4	2.00	2.00	2.00	1.00
8	To Capps St. & S. Alston Ave.	5:30 am-12:30 am	30	30	30	n/a	54	26.5	7	12%	60	5.9	23.9	27.0	318.6	2.00	2.00	2.00	0.00
8 Eve	To Capps St. & S. Alston Ave.		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	6.1	4.4	5.0	61.0	0.00	0.00	0.00	1.00
9A	To Tom Wilkerson Rd. @ Northern H.S.	5:30 am-12:30 am	60	60	60	n/a	27	55.0	10	8%	120	13.2	24.8	27.0	356.0	2.00	2.00	2.00	0.00
9B	To Meriweather Dr. @ Pickwick Trail		60	60	60	n/a	27	52.5	15	13%	120	13.0	23.6	27.0	349.7	2.00	2.00	2.00	0.00
9 Eve	To Seven Oaks Rd & Roxboro Rd		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	11.1	9.0	10.0	111.0	0.00	0.00	0.00	2.00
10A	To New Hope Commons	5:30 am-12:30 am	30	30	30	n/a	54	40.0	10	11%	90	10.8	36.0	40.5	580.5	3.00	3.00	3.00	0.00
10B	To Emerald Pond Lane & Pickett Rd.		30	60	30	n/a	38	25.0	10	17%	60	6.3	15.8	19.0	237.5	2.00	1.00	2.00	0.00
10 Eve	To New Hope Commons		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	10.8	6.7	10.0	107.5	0.00	0.00	0.00	2.00
10L	University Dr. & Westgate to Jordan High School		30	n/a	30	n/a	20	10.0	10	33%	30	3.2	3.3	5.0	63.0	1.00	0.00	1.00	0.00
11	To Hillsborough Rd & Cole Mill Rd.	5:30 am-12:30 am	30	30	30	n/a	54	27.5	5	8%	60	5.6	24.8	27.0	299.7	2.00	2.00	2.00	0.00
11 Eve	To Sparger Rd @ Food Lion		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	7.5	4.6	5.0	74.5	0.00	0.00	0.00	1.00
12	To NC 54 & Alston Ave.	5:30 am-12:30 am	60	60	30	n/a	35	26.0	8	13%	60	9.2	15.2	17.5	322.0	1.00	1.00	2.00	0.00
12 Eve	To NC 55 & Sedwick Dr.		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	10.7	4.7	5.0	107.0	0.00	0.00	0.00	1.00
14	NC 54 & Alston Ave. to Southpoint Mall	5:30 am-12:30 am	60	60	60	60	37	29.0	2	3%	60	8.9	16.4	17.3	327.5	1.00	1.00	1.00	0.75
15	To Alexander Promenade @ Wal-Mart	5:30 am-12:30 am	60	60	60	60	38	27.5	5	8%	60	14.6	17.4	19.0	554.8	1.00	1.00	1.00	1.00
16A	To Freeman Rd & Clayton Rd.	5:30 am-12:30 am	60	60	60	n/a	27	27.5	5	8%	60	6.6	12.4	13.5	176.9	1.00	1.00	1.00	0.00
16B	To Rummel St. & Hwy 98		60	60	60	n/a	27	27.5	5	8%	60	5.0	12.4	13.5	135.0	1.00	1.00	1.00	0.00
16 Eve	Raiyorn St @ the Village to Freeman & Clayton Rd		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	4.2	2.1	2.5	42.0	0.00	0.00	0.00	0.50
<b>TOTALS</b>							<b>1102</b>						<b>532</b>	<b>597</b>	<b>8,210</b>	<b>37.0</b>	<b>38.0</b>	<b>41.0</b>	<b>19.0</b>

**No-Build Alternative  
Weekday Bus Routes**

Route #	Route Destination	Span of Service	Service Frequency				Daily Trips	Peak Period Cycle Time				One-Way Distance (Miles)	Average Weekday			Bus Requirements			
			AM Pk	Midday	PM Pk	Eve.		Time (Min.)	Layover Time	% Layover	Cycle Time		In-Serv. Hours	Rev. Hrs.	Rev. Miles	AM Pk	Midday	PM Pk	Evening
BCC	Bull City Connector	6:23 am-12:00 am	20	20	15	25	104	27.5	5	8%	60	5.3	46.5	49.6	551.2	3.00	3.00	4.00	2.00
1A	To Hillendale & Loehmans Plaza	5:30 am-12:30 am	60	60	60	n/a	27	27.5	5	8%	60	7.2	12.4	13.5	193.1	1.00	1.00	1.00	0.00
1B	To Guess Road & Horton Road		60	60	60	n/a	27	25.0	10	17%	60	6.4	11.3	13.5	171.5	1.00	1.00	1.00	0.00
1N	To Northgate Mall		30	30	30	n/a	54	12.0	6	20%	30	2.2	10.8	13.5	118.8	1.00	1.00	1.00	0.00
1 Eve	To Guess Road & Horton Road		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	5.6	4.6	5.0	55.5	0.00	0.00	0.00	1.00
2A	To Page Road & Angier Avenue	5:30 am-12:30 am	60	60	60	n/a	27	27.5	5	8%	60	6.7	12.4	13.5	181.6	1.00	1.00	1.00	0.00
2B	To Raynor Street @ the Village		60	60	60	n/a	27	25.0	10	17%	60	4.0	11.3	13.5	107.1	1.00	1.00	1.00	0.00
2B Eve	Angier/Guthrie to Raynor St. @ the Village		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	5.7	4.6	5.0	56.9	0.00	0.00	0.00	1.00
2 Eve	To Page Road @ Angier Avenue		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	7.2	2.1	2.5	71.8	0.00	0.00	0.00	0.50
3	To Wal-Mart @ Glenview Station	5:30 am-12:30 am	30	30	30	60	64	27.5	5	8%	60	6.0	29.3	32.0	380.8	2.00	2.00	2.00	1.00
4	To Horton Rd & Roxboro Road	5:30 am-12:30 am	30	30	30	60	64	27.5	5	8%	60	8.1	29.3	32.0	518.4	2.00	2.00	2.00	1.00
5	To Southpoint Mall	5:30 am-12:30 am	30	30	30	n/a	54	40.0	10	11%	90	10.0	36.0	40.5	537.3	3.00	3.00	3.00	0.00
5K	To MLK Jr. Pkwy		30	30	30	n/a	54	25.0	10	17%	60	5.2	22.5	27.0	280.8	2.00	2.00	2.00	0.00
5 Eve	To Southpoint Mall		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	8.2	5.8	6.3	81.5	0.00	0.00	0.00	1.25
6	To Constitution Dr. @ Forest Apts.	5:30 am-12:30 am	60	60	60	60	37	27.5	5	8%	60	5.9	15.8	18.5	217.6	1.00	1.00	1.00	1.00
6B	To Sparger Rd. @ Food Lion		60	60	60	n/a	27	27.5	5	8%	60	7.3	11.9	13.5	197.6	1.00	1.00	1.00	0.00
7	To Wal-Mart @ MLK Jr. Pkwy. and University Dr.	5:30 am-12:30 am	30	30	30	60	64	40.5	9	10%	90	10.9	43.2	50.5	697.6	3.00	3.00	3.00	2.00
8	To Capps St. & S. Alston Ave.	5:30 am-12:30 am	30	30	30	n/a	54	26.5	7	12%	60	5.9	23.9	27.0	318.6	2.00	2.00	2.00	0.00
8 Eve	To Capps St. & S. Alston Ave.		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	6.1	4.4	5.0	61.0	0.00	0.00	0.00	1.00
9A	To Tom Wilkerson Rd. @ Northern H.S.	5:30 am-12:30 am	60	60	60	n/a	27	55.0	10	8%	120	13.2	24.8	27.0	356.0	2.00	2.00	2.00	0.00
9B	To Meriweather Dr. @ Pickwick Trail		60	60	60	n/a	27	52.5	15	13%	120	13.0	23.6	27.0	349.7	2.00	2.00	2.00	0.00
9 Eve	To Seven Oaks Rd & Roxboro Rd		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	11.1	9.0	10.0	111.0	0.00	0.00	0.00	2.00
10A	To New Hope Commons	5:30 am-12:30 am	30	30	30	n/a	54	40.0	10	11%	90	10.8	36.0	40.5	580.5	3.00	3.00	3.00	0.00
10B	To Emerald Pond Lane & Pickett Rd.		30	30	30	n/a	50	25.0	10	17%	60	6.3	20.8	25.0	312.5	2.00	2.00	2.00	0.00
10 Eve	To New Hope Commons		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	10.8	6.7	10.0	107.5	0.00	0.00	0.00	2.00
11	Roxboro to Hillsborough Rd & Cole Mill Rd.	5:30 am-12:30 am	30	30	30	n/a	54	27.5	5	8%	60	5.7	24.8	27.0	307.8	2.00	2.00	2.00	0.00
11 Eve	Roxboro to Sparger Rd @ Food Lion		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	7.5	4.6	5.0	74.5	0.00	0.00	0.00	1.00
12	To NC 54 & Alston Ave.	5:30 am-12:30 am	30	30	30	n/a	54	26.0	8	13%	60	9.2	23.4	27.0	496.8	2.00	2.00	2.00	0.00
12 Eve	To NC 55 & Sedwick Dr.		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	10.7	4.7	5.0	107.0	0.00	0.00	0.00	1.00
14	NC 54 & Alston Ave. to Southpoint Mall	5:30 am-12:30 am	30	30	30	60	64	29.0	2	3%	60	8.9	29.4	30.8	566.4	2.00	2.00	2.00	0.75
15	To Alexander Promenade @ Wal-Mart	6:15 am-10:15 am	60	60	60	60	38	27.5	5	8%	60	14.6	17.4	19.0	554.8	1.00	1.00	1.00	1.00
16A	To Freeman Rd & Clayton Rd.	5:30 am-12:30 am	60	60	60	n/a	27	27.5	5	8%	60	6.6	12.4	13.5	176.9	1.00	1.00	1.00	0.00
16B	To Rummel St. & Hwy 98		60	60	60	n/a	27	27.5	5	8%	60	5.0	12.4	13.5	135.0	1.00	1.00	1.00	0.00
16 Eve	Raiyorn St @ the Village to Freeman & Clayton Rd		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	4.2	2.1	2.5	42.0	0.00	0.00	0.00	0.50
30	Duke Medical Center-Durham Reg. Hospital	5:30 am-12:30 am	30	60	30	n/a	42	20.0	5	11%	45	5.0	14.0	17.3	210.0	1.50	1.00	1.50	0.00
52	Duke Medical Center-Southpoint	5:30 am-12:30 am	30	60	30	n/a	42	45.0	15	14%	105	11.8	31.5	38.3	495.6	3.50	2.00	3.50	0.00
<b>TOTALS</b>							1290						635	720	9,782	47.0	45.0	48.0	20.0

Cells in red reflect a change from Existing.



**Build Alternative  
Weekday Bus Routes**

Route #	Route Destination	Span of Service	Service Frequency					Daily Trips	Peak Period Cycle Time				One-Way	Average Weekday				Bus Requirements			
			AM Pk	Midday	PM Pk	Eve.	Time (Min.)		Layover Time	% Layover	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	AM Pk	Midday	PM Pk	Evening		
1A	To Hillendale & Loehmans Plaza	5:30 am-12:30 am	60	60	60	n/a	27	27.5	5	8%	60	7.2	12.4	13.5	193.1	1.00	1.00	1.00	0.00		
1B	To Guess Road & Horton Road		60	60	60	n/a	27	25.0	10	17%	60	6.4	11.3	13.5	171.5	1.00	1.00	1.00	0.00		
1N	To Northgate Mall		30	30	30	n/a	54	12.0	6	20%	30	2.2	10.8	13.5	118.8	1.00	1.00	1.00	0.00		
1 Eve	To Guess Road & Horton Road		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	5.6	4.6	5.0	55.5	0.00	0.00	0.00	1.00		
2A	To Page Road & Angier Avenue	5:30 am-12:30 am	60	60	60	n/a	27	27.5	5	8%	60	6.7	12.4	13.5	181.6	1.00	1.00	1.00	0.00		
2B	To Raynor Street @ the Village		60	60	60	n/a	27	25.0	10	17%	60	4.0	11.3	13.5	107.1	1.00	1.00	1.00	0.00		
2 Eve	To Page Road @ Angier Avenue		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	7.2	4.6	5.0	71.8	0.00	0.00	0.00	1.00		
3	To Wal-Mart @ Glenview Station	5:30 am-12:30 am	30	30	30	60	64	27.5	5	8%	60	6.0	29.3	32.0	380.8	2.00	2.00	2.00	1.00		
4	To Horton Rd & Roxboro Road	5:30 am-12:30 am	30	30	30	60	64	27.5	5	8%	60	8.1	29.3	32.0	518.4	2.00	2.00	2.00	1.00		
5A	To Southpoint Mall	5:30 am-12:30 am	30	30	30	30	74	40.0	10	11%	90	10.0	49.3	55.5	736.3	3.00	3.00	3.00	3.00		
5K	To MLK Jr. Pkwy	Peaks Only	30	30	30	n/a	54	25.0	10	17%	60	5.2	22.5	27.0	280.8	2.00	2.00	2.00	0.00		
6	To Constitution Dr. @ Forest Apts.	5:30 am-12:30 am	60	60	60	60	37	27.5	5	8%	60	5.9	15.8	18.5	217.6	1.00	1.00	1.00	1.00		
6B	To Sparger Rd. @ Food Lion		60	60	60	n/a	27	27.5	5	8%	60	7.3	11.9	13.5	197.6	1.00	1.00	1.00	0.00		
7	To Wal-Mart @ MLK Jr. Pkwy. and University Dr.	5:30 am-12:30 am	30	30	30	60	64	40.5	9	10%	90	10.9	43.2	50.5	697.6	3.00	3.00	3.00	2.00		
8	To Capps St. & S. Alston Ave.	5:30 am-12:30 am	30	30	30	n/a	54	26.5	7	12%	60	5.9	23.9	27.0	318.6	2.00	2.00	2.00	0.00		
8 Eve	To Capps St. & S. Alston Ave.		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	6.1	4.4	5.0	61.0	0.00	0.00	0.00	1.00		
9A	To Tom Wilkerson Rd. @ Northern H.S.	5:30 am-12:30 am	60	60	60	n/a	27	55.0	10	8%	120	13.2	24.8	27.0	356.0	2.00	2.00	2.00	0.00		
9B	To Meriweather Dr. @ Pickwick Trail		60	60	60	n/a	27	52.5	15	13%	120	13.0	23.6	27.0	349.7	2.00	2.00	2.00	0.00		
9 Eve	To Seven Oaks Rd & Roxboro Rd		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	11.1	9.0	10.0	111.0	0.00	0.00	0.00	2.00		
10A	To Gateway	5:30 am-12:30 am	30	30	30	n/a	54	40.0	10	11%	90	10.8	36.0	40.5	580.5	3.00	3.00	3.00	0.00		
10B	To Emerald Pond Lane & Pickett Rd.		30	30	30	n/a	50	25.0	10	17%	60	6.3	20.8	25.0	312.5	2.00	2.00	2.00	0.00		
10 Eve	To Gateway		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	10.8	6.7	10.0	107.5	0.00	0.00	0.00	2.00		
11	Roxboro to Hillsborough Rd & Cole Mill Rd.	5:30 am-12:30 am	30	30	30	n/a	54	27.5	5	8%	60	5.7	24.8	27.0	307.8	2.00	2.00	2.00	0.00		
11 Eve	Roxboro to Sparger Rd @ Food Lion		n/a	n/a	n/a	60	10	n/a	n/a	n/a	n/a	7.5	4.6	5.0	74.5	0.00	0.00	0.00	1.00		
12	NC 54 & Alston to Northgate Mall	5:30 am-12:30 am	30	30	30	60	64	41.0	8	9%	90	11.2	43.7	50.5	716.8	3.00	3.00	3.00	2.00		
14	Leigh Village to NC 54 & Alston Ave.	5:30 am-12:30 am	30	30	30	60	64	29.0	2	3%	60	8.1	30.3	32.0	515.2	2.00	2.00	2.00	1.00		
15	To Alexander Promenade @ Wal-Mart	6:15 am-10:15 am	60	60	60	60	38	27.5	5	8%	60	14.6	17.4	19.0	554.8	1.00	1.00	1.00	1.00		
16A	To Freeman Rd & Clayton Rd.	5:30 am-12:30 am	60	60	60	60	37	27.5	5	8%	60	6.6	17.0	18.5	242.4	1.00	1.00	1.00	1.00		
16B	To Rummel St. & Hwy 98		60	60	60	n/a	27	27.5	5	8%	60	5.0	12.4	13.5	135.0	1.00	1.00	1.00	0.00		
30	Duke Medical Center-Durham Reg. Hospital	5:30 am-12:30 am	30	60	30	n/a	42	20.0	5	11%	45	5.0	14.0	17.3	210.0	1.50	1.00	1.50	0.00		
52	Duke Medical Center-Southpoint	5:30 am-12:30 am	30	60	30	n/a	42	45.0	15	14%	105	11.8	31.5	38.3	495.6	3.50	2.00	3.50	0.00		
53 (new)	Holloway St.-Twin Lakes-NCCU	5:30 am-12:30 am	30	30	30	60	64	27.5	5	8%	60	7.0	29.3	32.0	448.0	2.00	2.00	2.00	1.00		
54 (new)	Leigh Village-Woodcroft-Triangle Sq.	5:30 am-12:30 am	30	30	30	n/a	54	40.0	10	11%	90	9.5	36.0	40.5	513.0	3.00	3.00	3.00	0.00		
55 (new)	Gateway-Leigh Village-Southpoint Mall	5:30 am-7:30 am	30	30	30	n/a	54	28.0	4	7%	60	7.9	25.2	27.0	426.6	2.00	2.00	2.00	0.00		
TOTALS							1358						704	799	10,765	52.0	50.0	52.0	22.0		

Cells in red reflect a change from No-Build.

**Existing Service**  
**Saturday Bus Routes**

Route #	Route Name	Span of Service	Serv. Freq.			Daily Trips	Base Period			One-Way Distance (Miles)	Average Saturday			Bus Requirements	
			AM	Mid/PM	Eve.		Time (Min.)	Layover Time	Cycle Time		In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
BCC	Bull City Connector	6:20 am-12:00 am	20	20	20	105	25.0	10	60	5.3	43.8	52.5	556.5	3.0	3.0
1A	To Hillendale & Loehmans Plaza	5:30 am-12:30 am	60	60	60	27	27.5	5	60	7.2	12.4	13.5	193.1	1.0	0.0
1B	To Guess Road & Horton Road		60	60	60	27	25.0	10	60	6.4	11.3	13.5	171.5	1.0	0.0
1 Eve	To Guess Road & Horton Road		n/a	n/a	60	10	n/a	n/a	n/a	5.6	4.6	5.0	55.5	0.0	1.0
2A	To Page Road & Angier Avenue	5:30 am-12:30 am	60	60	60	27	27.5	5	60	6.7	12.4	13.5	181.6	1.0	0.0
2B	To Raynor Street @ the Village		60	60	60	27	25.0	10	60	4.0	11.3	13.5	107.1	1.0	0.0
2B Eve	Angier/Guthrie to Raynor St. @ the Village		n/a	n/a	60	10	n/a	n/a	n/a	2.8	4.6	5.0	28.5	0.0	1.0
2 Eve	To Page Road & Angier Avenue		n/a	n/a	60	9	n/a	n/a	n/a	7.2	1.9	2.3	64.6	0.0	0.5
3	To Wal-Mart @ Glenview Station	5:30 am-12:30 am	30	30	60	64	27.5	5	60	6.0	29.3	32.0	380.8	2.0	1.0
4	To Horton Rd & Roxboro Road	5:30 am-12:30 am	30	30	60	64	27.5	5	60	8.1	29.3	32.0	518.4	2.0	1.0
5	To Southpoint Mall	5:30 am-12:30 am	30	30	n/a	54	40.0	10	90	10.0	36.0	40.5	537.3	3.0	0.0
5 Eve	To Southpoint Mall		n/a	n/a	60	10	n/a	n/a	n/a	8.2	5.8	6.3	81.5	0.0	1.25
6	To Constitution Dr. @ Forest Apts.	5:30 am-12:30 am	60	60	60	37	25.0	10	60	5.9	15.2	18.5	217.6	1.0	1.0
6B	To Sparger Rd. @ Food Lion		60	60	n/a	27	25.0	10	60	7.3	11.3	13.5	197.6	1.0	0.0
7	To Wal-Mart @ MLK Jr. Pkwy.	5:30 am-12:30 am	30	30	60	64	27.5	5	60	8.1	29.3	32.0	518.4	2.0	1.0
8	To Capps St. & S. Alston Ave.	5:30 am-12:30 am	30	30	n/a	54	26.5	7	60	5.9	23.9	27.0	318.6	2.0	0.0
8 Eve	To Capps St. & S. Alston Ave.		n/a	n/a	60	10	n/a	n/a	n/a	6.1	4.4	5.0	61.0	0.0	1.0
9A	To Tom Wilkerson Rd. @ Northern H.S.	5:30 am-12:30 am	60	60	60	27	55.0	10	120	13.2	24.8	27.0	356.0	2.0	0.0
9B	To Meriweather Dr. @ Pickwick Trail		60	60	60	27	52.5	15	120	13.0	23.6	27.0	349.7	2.0	0.0
9 Eve	To Seven Oaks Rd & Roxboro Rd		n/a	n/a	60	10	n/a	n/a	n/a	11.1	9.0	10.0	111.0	0.0	2.0
10A	To New Hope Commons	5:30 am-12:30 am	30	30	n/a	54	40.0	10	90	10.8	36.0	40.5	580.5	3.0	0.0
10B	To Emerald Pond Lane & Pickett Rd.		30	60	n/a	38	25.0	10	60	6.3	15.8	19.0	239.4	1.0	0.0
10 Eve	To New Hope Commons		n/a	n/a	60	10	n/a	n/a	n/a	10.8	6.7	10.0	107.5	0.0	2.0
11	To Hillsborough Rd & Cole Mill Rd.	5:30 am-12:30 am	60	60	n/a	27	27.5	5	60	5.6	12.4	13.5	149.9	1.0	0.0
11 Eve	To Sparger Rd @ Food Lion		n/a	n/a	60	10	n/a	n/a	n/a	7.5	4.6	5.0	74.5	0.0	1.0
12	To NC 54 & Alston Ave.	5:30 am-12:30 am	60	30	n/a	34	26.0	8	60	9.2	14.7	17.0	312.8	2.0	0.0
12 Eve	To NC 55 & Sedwick Dr.		n/a	n/a	60	10	n/a	n/a	n/a	10.7	4.7	5.0	107.0	0.0	1.0
14	NC 54 & Alston Ave. to Southpoint Mall	5:30 am-12:30 am	60	60	60	37	29.0	2	60	8.9	16.4	17.3	327.5	1.0	0.75
15	To Alexander Promenade @ Wal-Mart	6:15 am-10:15 am	60	60	60	38	27.5	5	60	14.6	17.4	19.0	554.8	1.0	1.0
16A	To Freeman Rd & Clayton Rd.	5:30 am-12:30 am	60	60	60	27	27.5	5	60	6.6	12.4	13.5	176.9	1.0	0.0
16B	To Rummel St. & Hwy 98		60	60	60	27	27.5	5	60	5.0	12.4	13.5	135.0	1.0	0.0
16 Eve	Raiyonr St @ the Village to Freeman & Clayton Rd		n/a	n/a	60	10	n/a	n/a	n/a	4.2	2.1	2.5	42.0	0.0	0.5
<b>TOTALS</b>						<b>1012</b>					<b>499</b>	<b>565</b>	<b>7814</b>	<b>35.0</b>	<b>20.0</b>

**No-Build Alternative  
Saturday Bus Routes**

Route #	Route Name	Span of Service	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
			AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
BCC	Bull City Connector	6:23 am-12:00 am	20	20	20	105	25.0	10	60	5.3	43.8	52.5	556.5	3.0	3.0
1A	To Hillendale & Loehmans Plaza	5:30 am-12:30 am	60	60	60	27	27.5	5	60	7.2	12.4	13.5	193.1	1.0	0.0
1B	To Guess Road & Horton Road		60	60	60	27	25.0	10	60	6.4	11.3	13.5	171.5	1.0	0.0
1 Eve	To Guess Road & Horton Road		n/a	n/a	60	10	n/a	n/a	n/a	5.6	4.6	5.0	55.5	0.0	1.0
2A	To Page Road & Angier Avenue	5:30 am-12:30 am	60	60	60	27	27.5	5	60	6.7	12.4	13.5	181.6	1.0	0.0
2B	To Raynor Street @ the Village		60	60	60	27	25.0	10	60	4.0	11.3	13.5	107.1	1.0	0.0
2B Eve	Angier/Guthrie to Raynor St. @ the Village		n/a	n/a	60	10	n/a	n/a	n/a	2.8	4.6	5.0	28.5	0.0	1.0
2 Eve	To Page Road & Angier Avenue		n/a	n/a	60	9	n/a	n/a	n/a	7.2	1.9	2.3	64.6	0.0	0.5
3	To Wal-Mart @ Glenview Station	5:30 am-12:30 am	30	30	60	64	27.5	5	60	6.0	29.3	32.0	380.8	2.0	1.0
4	To Horton Rd & Roxboro Road	5:30 am-12:30 am	30	30	60	64	27.5	5	60	8.1	29.3	32.0	518.4	2.0	1.0
5	To Southpoint Mall	5:30 am-12:30 am	30	30	n/a	54	40.0	10	90	10.0	36.0	40.5	537.3	3.0	0.0
5 Eve	To Southpoint Mall		n/a	n/a	60	10	n/a	n/a	n/a	8.2	5.8	6.3	81.5	0.0	1.25
6	To Constitution Dr. @ Forest Apts.	5:30 am-12:30 am	60	60	60	37	25.0	10	60	5.9	15.2	18.5	217.6	1.0	1.0
6B	To Sparger Rd. @ Food Lion		60	60	n/a	27	25.0	10	60	7.3	11.3	13.5	197.6	1.0	0.0
7	To Wal-Mart @ MLK Jr. Pkwy. and University Dr.	5:30 am-12:30 am	30	30	60	64	40.5	9	90	10.9	43.2	50.5	697.6	3.0	2.0
8	To Capps St. & S. Alston Ave.	5:30 am-12:30 am	30	30	n/a	54	26.5	7	60	5.9	23.9	27.0	318.6	2.0	0.0
8 Eve	To Capps St. & S. Alston Ave.		n/a	n/a	60	10	n/a	n/a	n/a	6.1	4.4	5.0	61.0	0.0	1.0
9A	To Tom Wilkerson Rd. @ Northern H.S.	5:30 am-12:30 am	60	60	60	27	55.0	10	120	13.2	24.8	27.0	356.0	2.0	0.0
9B	To Meriweather Dr. @ Pickwick Trail		60	60	60	27	52.5	15	120	13.0	23.6	27.0	349.7	2.0	0.0
9 Eve	To Seven Oaks Rd & Roxboro Rd		n/a	n/a	60	10	n/a	n/a	n/a	11.1	9.0	10.0	111.0	0.0	2.0
10A	To New Hope Commons	5:30 am-12:30 am	30	30	n/a	54	40.0	10	90	10.8	36.0	40.5	580.5	3.0	0.0
10B	To Emerald Pond Lane & Pickett Rd.		30	30	n/a	50	25.0	10	60	6.3	20.8	25.0	315.0	2.0	0.0
10 Eve	To New Hope Commons		n/a	n/a	60	10	n/a	n/a	n/a	7.5	6.7	10.0	74.5	0.0	2.0
11	Roxboro to Hillsborough Rd & Cole Mill Rd.	5:30 am-12:30 am	60	60	n/a	27	27.5	5	60	5.7	12.4	13.5	153.9	1.0	0.0
11 Eve	Roxboro to Sparger Rd @ Food Lion		n/a	n/a	60	10	n/a	n/a	n/a	7.5	4.6	5.0	74.5	0.0	1.0
12	To NC 54 & Alston Ave.	5:30 am-12:30 am	60	30	n/a	34	26.0	8	60	9.2	14.7	17.0	312.8	2.0	0.0
12 Eve	To NC 55 & Sedwick Dr.		n/a	n/a	60	10	n/a	n/a	n/a	10.7	4.7	5.0	107.0	0.0	1.0
14	NC 54 & Alston Ave. to Southpoint Mall	5:30 am-12:30 am	60	60	60	37	29.0	2	60	8.9	16.4	17.3	327.5	1.0	0.75
15	To Alexander Promenade @ Wal-Mart	6:15 am-10:15 am	60	60	60	38	27.5	5	60	14.6	17.4	19.0	554.8	1.0	1.0
16A	To Freeman Rd & Clayton Rd.	5:30 am-12:30 am	60	60	60	27	27.5	5	60	6.6	12.4	13.5	176.9	1.0	0.0
16B	To Rummel St. & Hwy 98		60	60	60	27	27.5	5	60	5.0	12.4	13.5	135.0	1.0	0.0
16 Eve	Raiyomr St @ the Village to Freeman & Clayton Rd		n/a	n/a	60	10	n/a	n/a	n/a	4.2	2.1	2.5	42.0	0.0	0.5
30	Duke Medical Center-Durham Reg. Hospital	5:30 am-12:30 am	60	60	n/a	27	20.0	20	60	5.0	9.0	13.5	135.0	1.0	0.0
52	Duke Medical Center-Southpoint	5:30 am-12:30 am	60	60	n/a	27	45.0	30	120	11.8	20.3	27.0	318.6	2.0	0.0
<b>TOTALS</b>											548	630	8493	40.0	21.0

Cells in red reflect a change from Existing.

**Build Alternative**  
**Saturday Bus Routes**

Route #	Route Name	Span of Service	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
			AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
1A	To Hillendale & Loehmans Plaza	5:30 am-12:30 am	60	60	60	27	27.5	5	60	7.2	12.4	13.5	193.1	1.0	0.0
1B	To Guess Road & Horton Road		60	60	60	27	25.0	10	60	6.4	11.3	13.5	171.5	1.0	0.0
1 Eve	To Guess Road & Horton Road		n/a	n/a	60	10	n/a	n/a	n/a	5.6	4.6	5.0	55.5	0.0	1.0
2A	To Page Road & Angier Avenue	5:30 am-12:30 am	60	60	60	27	27.5	5	60	6.7	12.4	13.5	181.6	1.0	0.0
2B	To Raynor Street @ the Village		60	60	60	27	25.0	10	60	4.0	11.3	13.5	107.1	1.0	0.0
2 Eve	To Page Road & Angier Avenue		n/a	n/a	60	9	n/a	n/a	n/a	7.2	4.1	4.5	64.6	0.0	1.0
3	To Wal-Mart @ Glenview Station	5:30 am-12:30 am	30	30	60	64	27.5	5	60	6.0	29.3	32.0	380.8	2.0	1.0
4	To Horton Rd & Roxboro Road	5:30 am-12:30 am	30	30	60	64	27.5	5	60	8.1	29.3	32.0	518.4	2.0	1.0
5	To Southpoint Mall	5:30 am-12:30 am	30	30	30	74	40.0	10	90	10.0	49.3	55.5	736.3	3.0	3.0
6	To Constitution Dr. @ Forest Apts.	5:30 am-12:30 am	60	60	60	37	25.0	10	60	5.9	15.2	18.5	217.6	1.0	1.0
6B	To Sparger Rd. @ Food Lion		60	60	n/a	27	25.0	10	60	7.3	11.3	13.5	197.6	1.0	0.0
7	To Wal-Mart @ MLK Jr. Pkwy. and University Dr.	5:30 am-12:30 am	30	30	60	64	40.5	39	120	10.9	43.2	64.0	697.6	4.0	2.0
8	To Capps St. & S. Alston Ave.	5:30 am-12:30 am	30	30	n/a	54	26.5	7	60	5.9	23.9	27.0	318.6	2.0	0.0
8 Eve	To Capps St. & S. Alston Ave.		n/a	n/a	60	10	n/a	n/a	n/a	6.1	4.4	5.0	61.0	0.0	1.0
9A	To Tom Wilkerson Rd. @ Northern H.S.	5:30 am-12:30 am	60	60	60	27	55.0	10	120	13.2	24.8	27.0	356.0	2.0	0.0
9B	To Meriweather Dr. @ Pickwick Trail		60	60	60	27	52.5	15	120	13.0	23.6	27.0	349.7	2.0	0.0
9 Eve	To Seven Oaks Rd & Roxboro Rd		n/a	n/a	60	10	n/a	n/a	n/a	11.1	9.0	10.0	111.0	0.0	2.0
10A	To Gateway	5:30 am-12:30 am	30	30	n/a	54	40.0	10	90	10.8	36.0	40.5	580.5	3.0	0.0
10B	To Emerald Pond Lane & Pickett Rd.		30	30	n/a	50	25.0	10	60	6.3	20.8	25.0	315.0	2.0	0.0
10 Eve	To Gateway		n/a	n/a	60	10	n/a	n/a	n/a	10.8	6.7	10.0	107.5	0.0	2.0
11	Roxboro to Hillsborough Rd & Cole Mill Rd.	5:30 am-12:30 am	60	60	n/a	27	27.5	5	60	5.7	12.4	13.5	153.9	1.0	0.0
11 Eve	Roxboro to Sparger Rd @ Food Lion		n/a	n/a	60	10	n/a	n/a	n/a	7.5	4.6	5.0	74.5	0.0	1.0
12	NC 54 & Alston to Northgate Mall	5:30 am-12:30 am	60	30	60	44	41.0	8	90	11.2	30.1	35.5	492.8	3.0	2.0
14	Leigh Village to NC 54 & Alston Ave.	5:30 am-12:30 am	60	60	60	37	29.0	2	60	8.1	17.2	18.5	299.7	1.0	1.00
15	To Alexander Promenade @ Wal-Mart	6:15 am-10:15 am	60	60	60	38	27.5	5	60	14.6	17.4	19.0	554.8	1.0	1.0
16A	To Freeman Rd & Clayton Rd.	5:30 am-12:30 am	60	60	60	37	27.5	5	60	6.6	17.0	18.5	242.4	1.0	1.0
16B	To Rummel St. & Hwy 98		60	60	60	27	27.5	5	60	5.0	12.4	13.5	135.0	1.0	0.0
30	Duke Medical Center-Durham Reg. Hospital	5:30 am-12:30 am	60	60	n/a	27	20.0	20	60	5.0	9.0	13.5	135.0	1.0	0.0
52	Duke Medical Center-Southpoint	5:30 am-12:30 am	60	60	n/a	27	45.0	30	120	11.8	20.3	27.0	318.6	2.0	0.0
53 (new)	Holloway St.-Twin Lakes-NCCU	5:30 am-12:30 am	60	60	60	37	27.5	5	60	7.0	17.0	18.5	259.0	1.0	1.0
54 (new)	Leigh Village-Woodcroft-Triangle Sq.	5:30 am-12:30 am	30	30	30	74	40.0	10	90	9.5	49.3	55.5	703.0	3.0	3.0
55 (new)	Gateway-Leigh Village-Southpoint	5:30 am-7:30 am	60	30	n/a	47	28.0	4	60	7.9	21.9	23.5	371.3	2.0	0.0
<b>TOTALS</b>						<b>919</b>					<b>611</b>	<b>712</b>	<b>9461</b>	<b>45.0</b>	<b>25.0</b>

Cells in red reflect a change from No-Build.

**Existing Service**  
**Sunday Bus Routes**

Route #	Route Name	Span of Service	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
			AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
1	To Guess Rd & Horton Rd	6:30 am-7:30 pm	60	60	n/a	26	27.5	5	60	5.6	11.9	13.0	144.3	1.0	0.0
2B	Raynor St @ the Village to Angier & Guthrie	6:30 am-7:30 pm	60	60	n/a	25	25.0	10	60	4.0	10.4	12.5	99.1	1.0	0.0
2	To Page Rd & Angier Ave		60	60	n/a	26	12.5	5	30	7.2	5.4	6.5	186.7	0.5	0.0
3	To Wal-Mart @ Glenview Station	6:30 am-7:30 pm	60	60	n/a	26	27.5	5	60	6.0	11.9	13.0	154.7	1.0	0.0
4	To Horton Rd & Roxboro Rd	6:30 am-7:30 pm	60	60	n/a	26	27.5	5	60	8.1	11.9	13.0	210.6	1.0	0.0
5	To Southpoint Mall	6:30 am-7:30 pm	60	60	n/a	26	35.0	5	75	8.2	15.2	16.3	211.9	1.25	0.0
6	To Constitution Dr @ Forest Apts	6:30 am-7:30 pm	60	60	n/a	26	27.5	5	60	5.9	11.9	13.0	152.9	1.0	0.0
7	To Wal-Mart @ MLK Jr Pkwy	6:30 am-7:30 pm	60	60	n/a	26	27.5	5	60	8.1	11.9	13.0	210.6	1.0	0.0
8	To Capps St & S Alston Ave	6:30 am-7:30 pm	60	60	n/a	26	26.5	7	60	6.1	11.5	13.0	158.6	1.0	0.0
9	To Seven Oaks Rd & Roxboro Rd	6:30 am-7:30 pm	60	60	n/a	26	54.0	12	120	11.1	23.4	26.0	288.6	2.0	0.0
10	To New Hope Commons	7:00 am-7:30 pm	60	60	n/a	25	40.0	40	120	10.8	16.7	25.0	268.8	2.0	0.0
11	To Sparger Rd @ Food Lion	6:30 am-7:30 pm	60	60	n/a	26	27.5	5	60	7.5	11.9	13.0	193.7	1.0	0.0
12	To NC 55 & Sedwick Dr.	6:30 am-7:30 pm	60	60	n/a	26	28.0	4	60	10.7	12.1	13.0	278.2	1.0	0.0
14	NC 54 & Alston Ave to Southpoint Mall	6:00 am-8:00 pm	60	60	n/a	28	20.0	5	45	8.9	9.3	10.5	247.8	0.75	0.0
15	To Alexander Promenade @ Wal-Mart	6:30 am-7:30 pm	60	60	n/a	26	27.5	5	60	14.6	11.9	13.0	379.6	1.00	0.0
16	Raiyornr St @ the Village to Freeman & Clayton Rd	6:30 am-7:30 pm	60	60	n/a	26	12.5	5	30	4.2	5.4	6.5	109.2	0.50	0.0
						416					193	220	3,295	17.0	0.0

**No-Build Alternative**  
**Sunday Bus Routes**

Route #	Route Name	Span of Service	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
			AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
1	To Guess Rd & Horton Rd	6:30 am-9:30 pm	60	60	60	30	27.5	5	60	5.6	13.8	15.0	166.5	1.0	1.0
2B	Raynor St @ the Village to Angier & Guthrie	6:30 am-9:30 pm	60	60	60	30	25.0	10	60	4.0	12.5	15.0	119.0	1.0	1.0
2	To Page Rd & Angier Ave		60	60	60	30	12.5	5	30	7.2	6.3	7.5	215.4	0.5	0.5
3	To Wal-Mart @ Glenview Station	6:30 am-9:30 pm	60	60	60	30	27.5	5	60	6.0	13.8	15.0	178.5	1.0	1.0
4	To Horton Rd & Roxboro Rd	6:30 am-9:30 pm	60	60	60	30	27.5	5	60	8.1	13.8	15.0	243.0	1.0	1.0
5	To Southpoint Mall	6:30 am-9:30 pm	60	60	60	30	35.0	5	75	8.2	17.5	18.8	244.5	1.25	1.3
6	To Constitution Dr @ Forest Apts	6:30 am-9:30 pm	60	60	60	30	27.5	5	60	5.9	13.8	15.0	176.4	1.0	1.0
7	Durham Station to South Square	6:30 am-9:30 pm	60	60	60	30	24.0	12	60	6.3	12.0	15.0	189.0	1.0	1.0
8	To Capps St & S Alston Ave	6:30 am-9:30 pm	60	60	60	30	26.5	7	60	6.1	13.3	15.0	183.0	1.0	1.0
9	To Seven Oaks Rd & Roxboro Rd	6:30 am-9:30 pm	60	60	60	30	54.0	12	120	11.1	27.0	30.0	333.0	2.0	2.0
10	To New Hope Commons	6:30 am-9:30 pm	60	60	60	30	40.0	40	120	10.8	20.0	30.0	322.5	2.0	2.0
11	Roxboro to Sparger Rd @ Food Lion	6:30 am-9:30 pm	60	60	60	30	27.5	5	60	7.5	13.8	15.0	223.5	1.0	1.0
12	To NC 55 & Sedwick Dr.	6:30 am-9:30 pm	60	60	60	30	28.0	4	60	10.7	14.0	15.0	321.0	1.0	1.0
14	NC 54 & Alston Ave to Southpoint Mall	6:00 am-9:30 pm	60	60	60	30	20.0	5	45	8.9	10.0	11.3	265.5	0.75	0.8
15	To Alexander Promenade @ Wal-Mart	6:00 am-9:30 pm	60	60	60	30	27.5	5	60	14.6	13.8	15.0	438.0	1.00	1.0
16	Raiyornr St @ the Village to Freeman & Clayton Rd	6:30 am-9:30 pm	60	60	60	30	12.5	5	30	4.2	6.3	7.5	126.0	0.50	0.5
						480					221	255	3,745	17.0	17.0

Cells in red reflect a change from Existing.

**Build Alternative**  
**Sunday Bus Routes**

Route #	Route Name	Span of Service	Serv. Freq.				Base Period			One-Way Distance (Miles)	Average Saturday			Bus Requirements	
			AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time		In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
1	To Guess Rd & Horton Rd	6:30 am-9:30 pm	60	60	60	30	27.5	5	60	5.6	13.8	15.0	166.5	1.0	1.0
2	To Page Rd & Angier Ave	6:30 am-9:30 pm	60	60	60	30	25.0	10	60	7.2	12.5	15.0	215.4	1.0	1.0
3	To Wal-Mart @ Glenview Station	6:30 am-9:30 pm	60	60	60	30	27.5	5	60	6.0	13.8	15.0	178.5	1.0	1.0
4	To Horton Rd & Roxboro Rd	6:30 am-9:30 pm	60	60	60	30	27.5	5	60	8.1	13.8	15.0	243.0	1.0	1.0
5	To Southpoint Mall	6:30 am-9:30 pm	60	60	60	30	35.0	5	75	8.2	17.5	18.8	244.5	1.25	1.25
6	To Constitution Dr @ Forest Apts	6:30 am-9:30 pm	60	60	60	30	27.5	5	60	5.9	13.8	15.0	176.4	1.0	1.0
7	Durham Station to South Square	6:30 am-9:30 pm	60	60	60	30	24.0	12	60	6.3	12.0	15.0	189.0	1.0	1.0
8	To Capps St & S Alston Ave	6:30 am-9:30 pm	60	60	60	30	26.5	7	60	6.1	13.3	15.0	183.0	1.0	1.0
9	To Seven Oaks Rd & Roxboro Rd	6:30 am-9:30 pm	60	60	60	30	54.0	12	120	11.1	27.0	30.0	333.0	2.0	2.0
10	To Gateway	6:30 am-9:30 pm	60	60	60	30	40.0	40	120	10.8	20.0	30.0	322.5	2.0	2.0
11	To Sparger Rd @ Food Lion	6:30 am-9:30 pm	60	60	60	30	27.5	5	60	7.5	13.8	15.0	223.5	1.0	1.0
12	Roxboro to Sparger Rd @ Food Lion	6:30 am-9:30 pm	60	60	60	30	28.0	4	60	10.7	14.0	15.0	321.0	1.0	1.0
14	NC 54 & Alston Ave to Southpoint Mall	6:00 am-9:30 pm	60	60	60	30	20.0	5	45	8.1	10.0	11.3	243.0	0.75	0.75
15	To Alexander Promenade @ Wal-Mart	6:00 am-9:30 pm	60	60	60	30	27.5	5	60	14.6	13.8	15.0	438.0	1.00	1.0
16	Durham Station to Freeman & Clayton Rd	6:30 am-9:30 pm	60	60	60	30	27.5	5	60	6.6	13.8	15.0	198.0	1.00	1.0
						450					223	255	3,675	17.0	17.0

Cells in red reflect a change from No-Build.

**APPENDIX D**  
**CHAPEL HILL TRANSIT**  
**ESTIMATES OF OPERATING STATISTICS**

**Chapel Hill Transit**  
**Summary of Service Statistics**

Alternative	Day of Week	Daily Pk. Buses	Daily Rev. Hrs.	Daily Rev. Miles	Annual Rev. Hours	Change from Existing	Annual Rev. Miles	Change from Existing
<b>Existing</b>	Weekday	63	606	6,928	151,617	n/a	1,732,043	n/a
	Saturday	8	70	812	3,621	n/a	42,208	n/a
	Sunday	2	22	211	1,249	n/a	12,250	n/a
					<b>156,487</b>	<b>n/a</b>	<b>1,786,501</b>	<b>n/a</b>
<b>No-Build</b>	Weekday	70	693.2	8,026	173,304	21,688	2,006,580	274,538
	Saturday	13	132.2	1,657	6,873	3,252	86,169	43,961
	Sunday	7	69.7	911	4,041	2,791	52,812	40,562
					<b>184,218</b>	<b>27,731</b>	<b>2,145,561</b>	<b>359,061</b>
<b>Build</b>	Weekday	62	667.5	7,575	166,865	15,248	1,893,713	161,670
	Saturday	14	141.2	1,760	7,341	3,720	91,515	49,306
	Sunday	8	77.8	1,039	4,514	3,265	60,248	47,998
					<b>178,720</b>	<b>22,233</b>	<b>2,045,475</b>	<b>258,974</b>

*Note: "Existing" statistics represent spreadsheet-calculated estimates based on existing published schedules and do not exactly match with NTD totals. Existing statistics calculated only for the purpose of determining the incremental change in peak buses, bus-hours and bus-miles for each project alternative.*



Existing Service

Weekday Bus Routes

Route #	Route Name	Span of Service	Service Frequency					Peak Period Cycle Time				One-Way	Average Weekday			Bus Requirements			
			AM Pk	Midday	PM Pk	Eve.	Daily Trips	Time (Min.)	Layover Time	% Layover	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	AM Pk	Midday	PM Pk	Evening
A	MLK Jr. Blvd./Northside	6:26 am-7:09 pm	30	60	30	n/a	42	41.0	8	9%	90	7.8	28.7	32.5	327.6	3.0	2.0	3.0	0.0
CCX	Chatham County Express	6:00 am-7:58 pm	15	40	15	40	69	19.0	7	16%	45	5.5	21.9	25.0	379.5	3.0	1.0	3.0	1.0
CL	Colony Lake/Sage Road/UNC Hosp.	Peaks Only	70	n/a	70	n/a	12	33.0	4	6%	70	6.0	6.6	7.0	71.4	1.0	0.0	1.0	0.0
CM	Carrboro/Merritt Mill Rd/Family Medicine	6:10 am-9:30 pm	50	50	50	60	37	20.0	10	20%	50	4.5	12.3	15.9	166.5	1.0	1.0	1.0	1.0
CPX	Carrboro Plaza Express	Peaks Only	15	n/a	15	n/a	48	12.0	6	20%	30	4.4	9.6	12.0	211.2	2.0	0.0	2.0	0.0
CW	Carrboro/Weaver Street	7:20 am-9:19 pm	30	60	30	60	40	24.0	12	20%	60	5.8	16.0	20.0	230.0	2.0	1.0	2.0	1.0
D	Culbreth Rd/Franklin St/Eastowne	6:27 am-9:49 pm	20	45	20	60	62	39.0	2	3%	80	8.2	39.4	41.5	510.0	4.0	2.0	4.0	1.0
DX	UNC/Old Durham/Old Sterling/Sage Rd. Express	Peaks Only	50	n/a	50	n/a	10	24.0	2	4%	50	5.5	4.0	4.2	55.0	1.0	0.0	1.0	0.0
F	Colony Woods/Franklin St/McDougle School	6:50 am-8:38 pm	45	60	45	60	32	50.0	35	26%	135	8.8	26.7	34.0	280.0	3.0	2.0	3.0	2.0
FCX	Friday Center Express	5:15 am-8:22 pm	5	30	10	n/a	132	13.0	4	13%	30	3.3	28.6	33.0	435.6	6.0	1.0	3.0	0.0
G	Booker Crk/UNC Hosp./Glen Lennox	6:23 am-8:40 pm	50	50	50	50	34	47.0	6	6%	100	10.0	26.6	28.3	340.0	2.0	2.0	2.0	2.0
HS	High School/Airport Dr. at MLK/Downtown	Peaks Only	60	60	60	n/a	14	25.0	10	17%	60	6.1	5.8	7.0	85.4	1.0	1.0	1.0	0.0
HU	UNC Hosp./54 P&R/Hedrick Bldg.	5:20 am-10:43 pm	15	40	15	40	80	18.0	9	20%	45	4.8	24.0	28.7	384.0	3.0	1.0	3.0	1.0
J	Carrboro/Downtown Chapel Hill/Jones Ferry Rd.	6:25 am-11:56 pm	15	20	15	60	100	30.0	15	20%	75	5.9	49.3	63.0	585.0	5.0	4.0	5.0	1.0
JFX	Jones Ferry Rd. Express	Peaks Only	15	n/a	15	n/a	56	12.0	6	20%	30	3.5	11.2	14.0	196.0	2.0	0.0	2.0	0.0
N	Estes Park, UNC Hosp., Family Medicine	6:25 am-7:20 pm	30	60	30	n/a	38	25.0	10	17%	60	4.0	15.8	19.0	152.0	2.0	1.0	2.0	0.0
NS	Eubanks Road/Southern Village	5:40 am-10:38 pm	10	20	10	60	108	32.0	6	9%	70	7.9	56.8	65.0	853.2	7.0	4.0	7.0	1.0
NU	RR Lot/UNC Hospitals	7:05 am-10:40 pm	20	25	20	45	71	19.0	2	5%	40	3.6	22.5	26.1	252.1	2.0	2.0	2.0	1.0
PX	Pittsboro to UNC Hospitals	Peaks Only	60	n/a	60	n/a	12	28.0	4	7%	60	15.6	5.6	6.0	186.6	1.0	0.0	1.0	0.0
S	UNC Campus/NC 54 East P&R	6:20 am-7:38 pm	10	35	12	n/a	97	16.0	4	11%	36	3.6	25.9	28.9	350.2	4.0	1.0	3.0	0.0
T	MLK Jr. Blvd./UNC Hospitals	6:50 am-6:45 pm	35	35	35	n/a	39	30.0	10	14%	70	6.6	19.5	22.8	257.4	2.0	2.0	2.0	0.0
U	Campus Shuttle-UNC/Downtown	7:00 am-7:54 pm	15	15	15	n/a	52	24.0	6	20%	30	3.6	20.8	26.0	187.2	2.0	2.0	2.0	0.0
RU	Campus Shuttle-UNC/Downtown	7:00 am-7:54 pm	15	15	15	n/a	52	22.0	8	27%	30	4.0	19.1	26.0	208.0	2.0	2.0	2.0	0.0
V	Southern Village/Meadowmont	6:23 am-8:06 pm	35	80	35	n/a	34	33.0	4	6%	70	6.6	18.7	20.6	224.4	2.0	1.0	2.0	0.0
<b>TOTALS</b>							<b>1271</b>						<b>515</b>	<b>606</b>	<b>6,928</b>	<b>63.0</b>	<b>33.0</b>	<b>59.0</b>	<b>12.0</b>

**No-Build Alternative  
Weekday Bus Routes**

Route #	Route Name	Span of Service	Service Frequency					Peak Period Cycle Time				One-Way	Average Weekday			Bus Requirements			
			AM Pk	Midday	PM Pk	Eve.	Daily Trips	Time (Min.)	Layover Time	% Layover	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	AM Pk	Midday	PM Pk	Evening
A	MLK Jr. Blvd./Northside	6:26 am-7:09 pm	15	45	15	n/a	82	41.0	8	9%	90	7.8	56.0	61.5	639.6	6.0	2.0	6.0	0.0
CCX	Chatham County Express	6:00 am-7:58 pm	15	40	15	40	69	19.0	7	16%	45	5.5	21.9	25.0	379.5	3.0	1.0	3.0	1.0
CL	New Hope/Legion Rd/UNC Hosp.	6:00 am-9:00 pm	20	20	20	60	78	32.0	16	20%	80	6.9	41.6	52.5	538.2	4.0	4.0	4.0	1.5
CM	Carrboro/Merritt Mill Rd/Family Medicine	6:10 am-9:30 pm	50	50	50	60	37	20.0	10	20%	50	4.5	12.3	15.9	166.5	1.0	1.0	1.0	1.0
CPX	Carrboro Plaza Express	Peaks Only	15	n/a	15	n/a	48	12.0	6	20%	30	4.4	9.6	12.0	211.2	2.0	0.0	2.0	0.0
CW	Carrboro/Weaver Street	7:20 am-9:19 pm	30	60	30	60	40	24.0	12	20%	60	5.8	16.0	20.0	230.0	2.0	1.0	2.0	1.0
D	Old Sterling/Sage/UNC Hosp.	6:27 am-9:49 pm	20	40	20	60	63	36.0	8	10%	80	7.5	37.8	42.5	472.5	4.0	2.0	4.0	1.5
DX	UNC/Old Durham/Old Sterling/Sage Rd. Express	Peaks Only	50	n/a	50	n/a	10	24.0	2	4%	50	5.5	4.0	4.2	55.0	1.0	0.0	1.0	0.0
F	Colony Woods/Franklin St./McDougle School	6:50 am-8:38 pm	45	60	45	60	32	50.0	35	26%	135	8.8	26.7	34.0	280.0	3.0	2.0	3.0	2.0
FCX	Friday Center Express	5:15 am-8:22 pm	5	30	10	n/a	132	13.0	4	13%	30	3.3	28.6	33.0	435.6	6.0	1.0	3.0	0.0
G	Booker Crk/UNC Hosp./Glen Lennox	6:23 am-8:40 pm	50	50	50	50	34	47.0	6	6%	100	10.0	26.6	28.3	340.0	2.0	2.0	2.0	2.0
HS	High School/Airport Dr. at MLK/Downtown	Peaks Only	60	60	60	n/a	14	25.0	10	17%	60	6.1	5.8	7.0	85.4	1.0	1.0	1.0	0.0
HU	UNC Hosp./54 P&R/Hedrick Bldg.	5:20 am-10:43 pm	15	40	15	40	80	18.0	9	20%	45	4.8	24.0	28.7	384.0	3.0	1.0	3.0	1.0
J	Carrboro/Downtown Chapel Hill/Jones Ferry Rd.	6:25 am-11:56 pm	15	20	15	60	100	30.0	15	20%	75	5.9	49.3	63.0	585.0	5.0	4.0	5.0	1.0
JFX	Jones Ferry Rd. Express	Peaks Only	15	n/a	15	n/a	56	12.0	6	20%	30	3.5	11.2	14.0	196.0	2.0	0.0	2.0	0.0
N	Estes Park, UNC Hosp., Family Medicine	6:25 am-7:20 pm	30	60	30	n/a	38	25.0	10	17%	60	4.0	15.8	19.0	152.0	2.0	1.0	2.0	0.0
NU	RR Lot/UNC Hospitals	7:05 am-10:40 pm	20	25	20	45	71	19.0	2	5%	40	3.6	22.5	26.1	252.1	2.0	2.0	2.0	1.0
PX	Pittsboro to UNC Hospitals	Peaks Only	60	n/a	60	n/a	12	28.0	4	7%	60	15.6	5.6	6.0	186.6	1.0	0.0	1.0	0.0
S	UNC Campus/NC 54 East P&R	6:20 am-7:38 pm	10	35	12	n/a	97	16.0	4	11%	36	3.6	25.9	28.9	350.2	4.0	1.0	3.0	0.0
T	Chapel Hill H.S. to Southern Human Services	6:50 am-6:45 pm	30	30	30	n/a	48	14.0	2	7%	30	3.3	11.2	12.0	158.4	1.0	1.0	1.0	0.0
U/RU	Campus Shuttle-UNC/Downtown	7:00 am-7:54 pm	15	15	15	n/a	104	24.0	12	20%	60	4.0	41.6	52.0	416.0	4.0	4.0	4.0	0.0
V	Southern Village/Meadowmont	6:23 am-8:06 pm	35	80	35	n/a	34	33.0	4	6%	70	6.6	18.7	20.6	224.4	2.0	1.0	2.0	0.0
BRT	Bus Rapid Transit	6:00 am-9:00 pm	5	15	5	20	226	20.0	5	11%	45	5.7	75.3	87.0	1288.2	9.0	3.0	9.0	3.0
<b>TOTALS</b>							1505						588	693	8,026	70.0	35.0	66.0	16.0

Cells with red text reflect a change from Existing.

**Build Alternative  
Weekday Bus Routes**

Route #	Route Name	Span of Service	Service Frequency					Peak Period Cycle Time				One-Way Distance (Miles)	Average Weekday			Bus Requirements			
			AM Pk	Midday	PM Pk	Eve.	Daily Trips	Time (Min.)	Layover Time	% Layover	Cycle Time		In-Serv. Hours	Rev. Hrs.	Rev. Miles	AM Pk	Midday	PM Pk	Evening
A	MLK Jr. Blvd./Northside	6:26 am-7:09 pm	15	45	15	n/a	82	41.0	8	9%	90	7.8	56.0	61.5	639.6	6.0	2.0	6.0	0.0
CCX	Chatham County Express	6:00 am-7:58 pm	15	40	15	40	69	19.0	7	16%	45	5.5	21.9	25.0	379.5	3.0	1.0	3.0	1.0
CL	New Hope/Legion Road/UNC Hosp.	6:00 am-9:00 pm	20	20	20	60	78	32.0	16	20%	80	6.9	41.6	52.5	538.2	4.0	4.0	4.0	1.5
CM	Carrboro/Merritt Mill Rd/Family Medicine	6:10 am-9:30 pm	50	50	50	60	37	20.0	10	20%	50	4.7	12.3	15.9	173.9	1.0	1.0	1.0	1.0
CPX	Carrboro Plaza Express	Peaks Only	15	n/a	15	n/a	48	12.0	6	20%	30	4.4	9.6	12.0	211.2	2.0	0.0	2.0	0.0
CW	Carrboro/Weaver Street	7:20 am-9:19 pm	30	60	30	60	40	24.0	12	20%	60	6.1	16.0	20.0	244.0	2.0	1.0	2.0	1.0
D	Culbreth Rd/Franklin St/Gateway/New Hope	6:27 am-9:49 pm	20	40	20	60	63	38.0	4	5%	80	8.0	39.9	42.5	504.0	4.0	2.0	4.0	1.5
F	Colony Woods/Franklin St/McDougle School	6:50 am-8:38 pm	45	60	45	60	32	55.0	25	19%	135	9.8	29.3	34.0	312.0	3.0	2.0	3.0	2.0
G	Booker Crk/UNC Hosp./Glen Lennox	6:23 am-8:40 pm	50	50	50	50	34	40.0	20	20%	100	8.0	22.7	28.3	272.0	2.0	2.0	2.0	2.0
HS	High School/Airport Dr. at MLK/Downtown	Peaks Only	60	60	60	n/a	14	25.0	10	17%	60	6.1	5.8	7.0	85.4	1.0	1.0	1.0	0.0
J	Carrboro/Downtown Chapel Hill/Jones Ferry Rd.	6:25 am-11:56 pm	15	20	15	60	100	30.0	15	20%	75	6.2	49.3	63.0	620.0	5.0	4.0	5.0	1.0
JFX	Jones Ferry Rd. Express	Peaks Only	15	n/a	15	n/a	56	12.0	6	20%	30	3.5	11.2	14.0	196.0	2.0	0.0	2.0	0.0
N	Estes Park, UNC Hosp., Family Medicine	6:25 am-7:20 pm	30	60	30	n/a	38	25.0	10	17%	60	4.0	15.8	19.0	152.0	2.0	1.0	2.0	0.0
NU	RR Lot/UNC Hospitals	7:05 am-10:40 pm	20	25	20	45	71	19.0	2	5%	40	3.8	22.5	26.1	266.3	2.0	2.0	2.0	1.0
PX	Pittsboro to UNC Hospitals	Peaks Only	60	n/a	60	n/a	12	28.0	4	7%	60	15.6	5.6	6.0	186.6	1.0	0.0	1.0	0.0
T	Gateway to Southern Human Services	6:50 am-10:00 pm	30	30	30	30	60	20.0	20	33%	60	6.1	20.0	30.0	363.0	2.0	2.0	2.0	2.0
U/RU	Campus Shuttle-UNC/Downtown	7:00 am-7:54 pm	15	15	15	n/a	104	24.0	12	20%	60	4.2	41.6	52.0	436.8	4.0	4.0	4.0	0.0
V	Southern Village/Meadowmont	6:23 am-8:06 pm	35	80	35	n/a	34	33.0	4	6%	70	6.6	18.7	20.6	224.4	2.0	1.0	2.0	0.0
54	Chapel Hill 54	6:00 am-9:00 pm	10	20	10	60	114	11.0	8	27%	30	1.9	20.9	31.5	216.6	3.0	2.0	3.0	0.5
JF	Jones Ferry	6:00 am-9:00 pm	15	30	15	60	78	12.0	6	20%	30	3.4	15.6	19.5	265.2	2.0	1.0	2.0	0.5
BRT	Bus Rapid Transit	6:00 am-9:00 pm	5	15	5	20	226	20.0	5	11%	45	5.7	75.3	87.0	1288.2	9.0	3.0	9.0	3.0
<b>TOTALS</b>							1390						552	667	7,575	62.0	36.0	62.0	18.0

Cells with red text reflect a change from No-Build.

**Existing Service**  
**Saturday Bus Routes**

Route #	Route Name	Span of Service	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
			AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
CM	Carrboro/Merritt Mill Rd/Family Medicine	8:50 am-5:50 pm	n/a	30	n/a	36	10.0	10	30	4.1	6.0	9.0	147.6	1.0	0.0
CW	Carrboro/Weaver Street	8:30 am-5:48 pm	n/a	60	n/a	18	24.0	12	60	5.1	7.2	9.0	91.8	1.0	0.0
D	Culbreth Rd/Franklin St/Eastowne	9:05 am-5:05 pm	n/a	65	n/a	13	27.0	11	65	5.9	5.9	7.0	76.1	1.0	0.0
FG	Colony Woods/Franklin St./UNC Hosp.	8:50 am-4:55 pm	n/a	80	n/a	12	35.0	10	80	8.0	7.0	8.0	95.4	1.0	0.0
JN	Carrboro/Downtown Chapel Hill/UNC Hosp.	9:45 am-7:03 pm	n/a	75	n/a	13	33.0	9	75	6.4	7.2	8.1	82.6	1.0	0.0
NU	RR Lot/UNC Hospitals	11:30 am-11:17 pm	n/a	45	45	33	16.0	13	45	4.0	8.8	12.4	132.0	1.0	1.0
T	MLK Jr. Blvd./UNC Hospitals	8:15 am-6:13 pm	n/a	60	n/a	18	25.0	10	60	7.0	7.5	9.0	125.1	1.0	0.0
U	Campus Shuttle-UNC/Downtown	10:38 am-7:08 pm	n/a	25	n/a	17	18.0	7	25	3.6	5.1	7.1	61.2	1.0	0.0
						160					55	70	812	8.0	1.0

**No-Build Alternative**  
**Saturday Bus Routes**

Route #	Route Name	Span of Service	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
			AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
CM	Carrboro/Merritt Mill Rd/Family Medicine	8:50 am-7:50 pm	n/a	30	30	44	10.0	10	30	4.1	7.3	11.0	180.4	1.0	1.0
CW	Carrboro/Weaver Street	8:30 am-7:48 pm	n/a	60	60	22	24.0	12	60	5.1	8.8	11.0	112.2	1.0	1.0
CL	New Hope/Legion Rd/UNC Hosp.	9:05 am-7:05 pm	n/a	40	60	25	32.0	16	80	6.9	13.2	16.0	172.5	2.0	1.0
FG	Colony Woods/Franklin St./UNC Hosp.	8:50 am-6:55 pm	n/a	40	80	27	35.0	10	80	8.0	15.8	18.0	214.7	2.0	1.0
JN	Carrboro/Downtown Chapel Hill/UNC Hosp.	9:45 am-9:03 pm	n/a	75	75	17	33.0	9	75	6.4	9.4	10.6	108.0	1.0	1.0
NU	RR Lot/UNC Hospitals	11:30 am-11:17 pm	n/a	45	45	33	16.0	13	45	4.0	8.8	12.4	132.0	1.0	1.0
T	Chapel Hill H.S. to Southern Human Services	8:15 am-8:13 pm	n/a	30	30	44	14.0	2	30	3.3	10.3	11.0	145.2	1.0	1.0
U	Campus Shuttle-UNC/Downtown	10:38 am-9:08 pm	n/a	25	25	22	18.0	7	25	3.6	6.6	9.2	79.2	1.0	1.0
BRT	Bus Rapid Transit	8:00 am-8:00 pm	n/a	15	20	90	15.0	15	45	5.7	22.5	33.0	513.0	3.0	2.0
						324					103	132	1,657	13.0	10.0

Cells with red text reflect a change from Existing.

**Build Alternative**  
**Saturday Bus Routes**

Route #	Route Name	Span of Service	Serv. Freq.				Base Period			One-Way	Average Saturday			Bus Requirements	
			AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
CM	Carrboro/Merritt Mill Rd/Family Medicine	8:50 am-7:50 pm	n/a	30	30	44	10.0	10	30	4.1	7.3	11.0	180.4	1.0	1.0
CW	Carrboro/Weaver Street	8:30 am-7:48 pm	n/a	60	60	18	24.0	12	60	5.1	7.2	9.0	91.8	1.0	1.0
CL	New Hope/Legion Rd/UNC Hosp.	9:05 am-7:05 pm	n/a	40	60	25	32.0	16	80	6.9	13.2	16.0	172.5	2.0	1.0
FG	Colony Woods/Franklin St./UNC Hosp.	8:50 am-6:55 pm	n/a	40	80	27	35.0	10	80	8.0	15.8	18.0	214.7	2.0	1.0
JN	Carrboro/Downtown Chapel Hill/UNC Hosp.	9:45 am-9:03 pm	n/a	75	75	17	33.0	9	75	6.4	9.4	10.6	108.0	1.0	1.0
NU	RR Lot/UNC Hospitals	11:30 am-11:17 pm	n/a	45	45	33	16.0	13	45	4.0	8.8	12.4	132.0	1.0	1.0
T	Gateway to Southern Human Services	8:15 am-8:13 pm	n/a	30	30	44	20.0	20	60	6.1	14.7	22.0	268.4	2.0	2.0
U	Campus Shuttle-UNC/Downtown	10:38 am-9:08 pm	n/a	25	25	22	18.0	7	25	3.6	6.6	9.2	79.2	1.0	1.0
BRT	Bus Rapid Transit	8:00 am-8:00 pm	n/a	15	20	90	15.0	15	45	5.7	22.5	33.0	513.0	3.0	2.0
						320					105	141	1,760	14.0	11.0

Cells with red text reflect a change from No-Build.

## Existing Service

### Sunday Bus Routes

Route #	Route Name	Span of Service	Serv. Freq.				Base Period			One-Way	Average Sunday			Bus Requirements	
			AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
NU	RR Lot/UNC Hospitals	11:30 am-11:17 pm	n/a	45	45	33	16.0	13	45	4.0	8.8	12.4	132.0	1.0	1.0
U	Campus Shuttle-UNC/Downtown	10:38 am-7:08 pm	n/a	25	25	22	18.0	7	25	3.6	6.6	9.2	79.2	1.0	1.0
						55					15	22	211	2.0	2.0

## No-Build Alternative

### Sunday Bus Routes

Route #	Route Name	Span of Service	Serv. Freq.				Base Period			One-Way	Average Sunday			Bus Requirements	
			AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
CL	New Hope/Legion Rd/UNC Hosp.	9:00 am-5:00 pm	n/a	60	n/a	16	30.0	0	60	6.9	8.0	8.0	110.4	1.0	0.0
FG	Colony Woods/Franklin St./UNC Hosp.	9:00 am-5:00 pm	n/a	80	n/a	12	35.0	10	80	8.0	7.0	8.0	96.0	1.0	0.0
JN	Carrboro/Downtown Chapel Hill/UNC Hosp.	9:00 am-5:00 pm	n/a	75	n/a	13	33.0	9	75	6.4	7.2	8.1	82.6	1.0	0.0
NU	RR Lot/UNC Hospitals	11:30 am-11:17 pm	n/a	45	45	33	16.0	13	45	4.0	8.8	12.4	132.0	1.0	1.0
U	Campus Shuttle-UNC/Downtown	10:38 am-7:08 pm	n/a	25	25	22	18.0	7	25	3.6	6.6	9.2	79.2	1.0	1.0
BRT	Bus Rapid Transit	8:00 am-8:00 pm	n/a	20	20	72	15.0	10	40	5.7	18.0	24.0	410.4	2.0	2.0
						168					56	70	911	7.0	4.0

Cells with red text reflect a change from Existing.

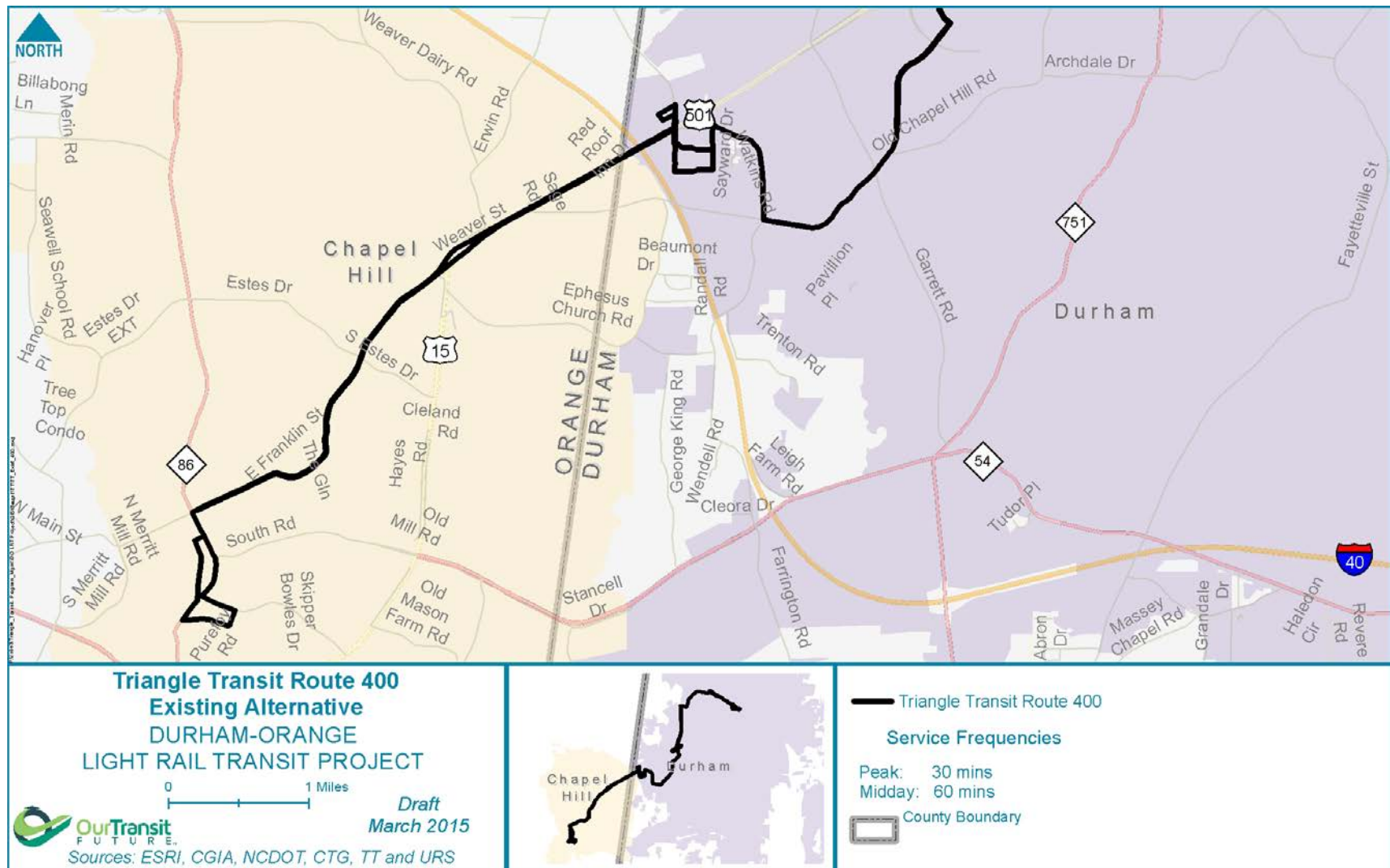
## Build Alternative

### Sunday Bus Routes

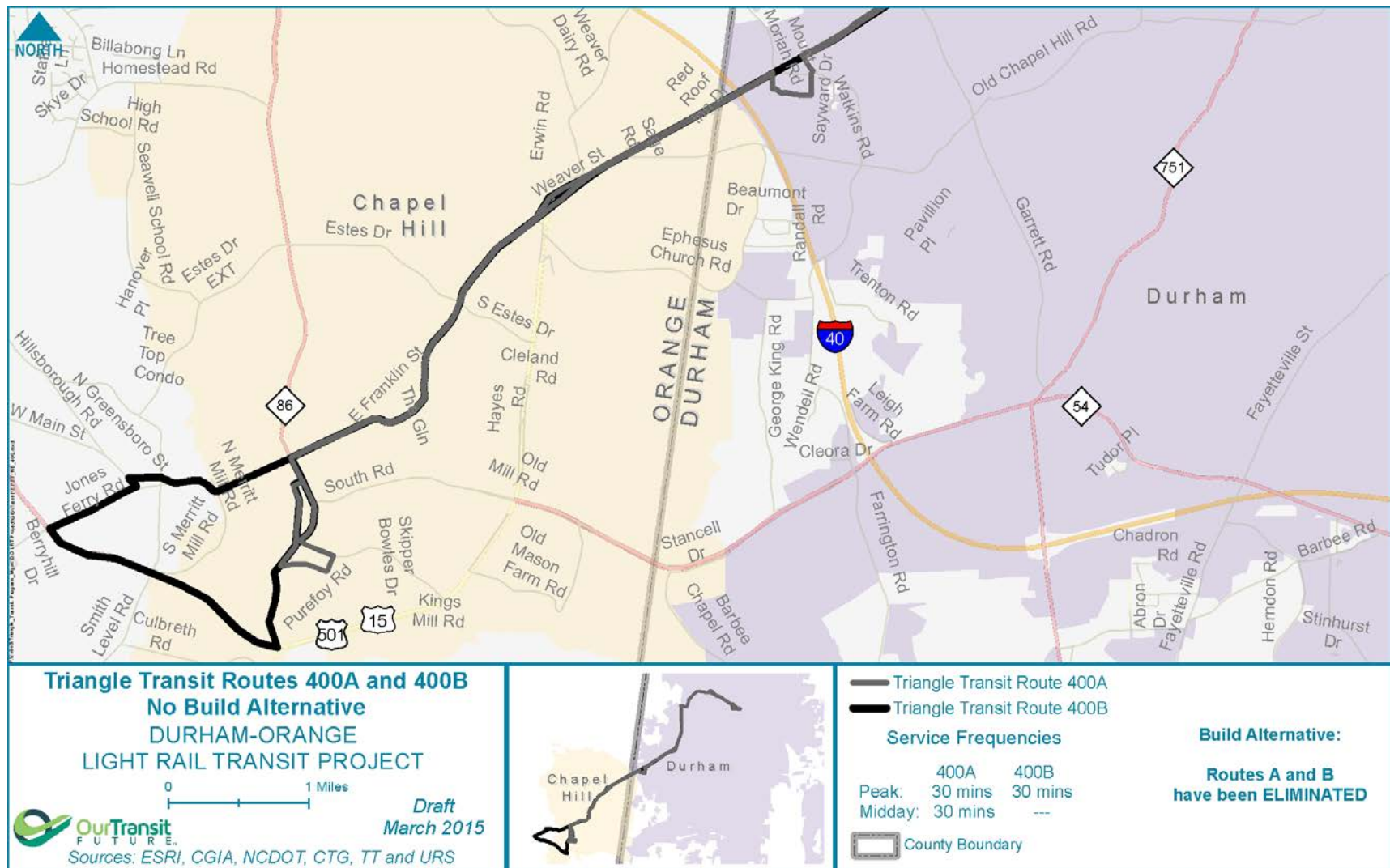
Route #	Route Name	Span of Service	Serv. Freq.				Base Period			One-Way	Average Sunday			Bus Requirements	
			AM	Mid/PM	Eve.	Daily Trips	Time (Min.)	Layover Time	Cycle Time	Distance (Miles)	In-Serv. Hours	Rev. Hrs.	Rev. Miles	Midday	Eve.
CL	New Hope/Legion Rd/UNC Hosp.	9:00 am-5:00 pm	n/a	60	n/a	16	30.0	0	60	6.9	8.0	8.0	110.4	1.0	0.0
CM	Carrboro/Merritt Mill Rd/Family Medicine	9:00 am-5:00 pm	n/a	70	n/a	14	10.0	10	30	4.1	2.3	3.5	57.4	0.4	0.0
CW	Carrboro/Weaver Street	9:00 am-5:00 pm	n/a	70	n/a	14	18.0	4	40	5.1	4.2	4.7	71.4	0.6	0.0
FG	Colony Woods/Franklin St./UNC Hosp.	9:00 am-5:00 pm	n/a	80	n/a	12	35.0	10	80	8.0	7.0	8.0	95.4	1.0	0.0
JN	Carrboro/Downtown Chapel Hill/UNC Hosp.	9:00 am-5:00 pm	n/a	75	n/a	13	33.0	9	75	6.4	7.2	8.1	82.6	1.0	0.0
NU	RR Lot/UNC Hospitals	11:30 am-11:17 pm	n/a	45	45	33	16.0	13	45	4.0	8.8	12.4	132.0	1.0	1.0
U	Campus Shuttle-UNC/Downtown	10:38 am-7:08 pm	n/a	25	25	22	18.0	7	25	3.6	6.6	9.2	79.2	1.0	1.0
BRT	Bus Rapid Transit	8:00 am-8:00 pm	n/a	20	20	72	15.0	10	40	5.7	18.0	24.0	410.4	2.0	2.0
						196					62	78	1,039	8.0	4.0

Cells with red text reflect a change from No-Build.

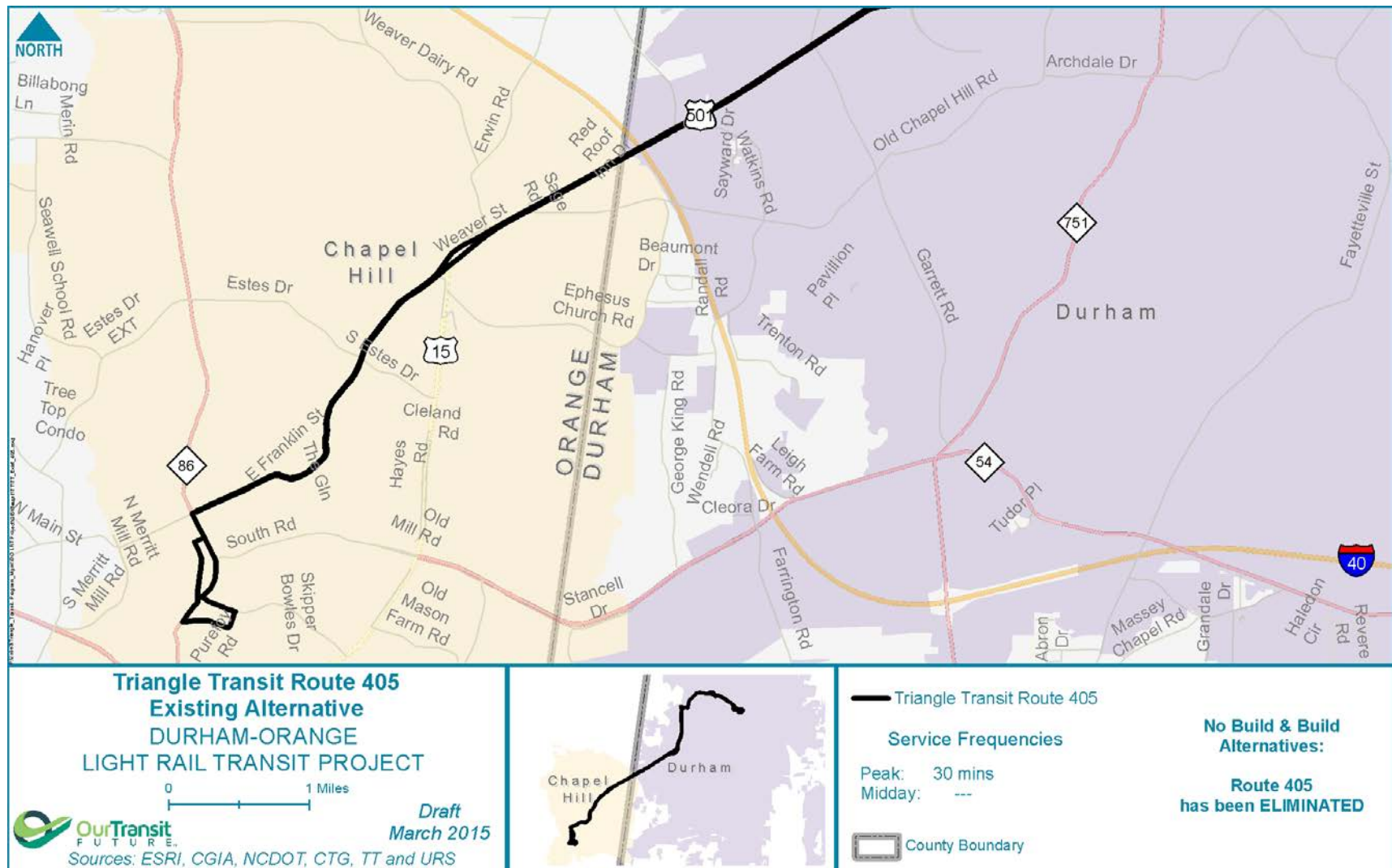
**APPENDIX E**  
**INDIVIDUAL ROUTE MAPS**  
**TRIANGLE TRANSIT**  
**(Weekday Peak and Midday Period Routes Only)**

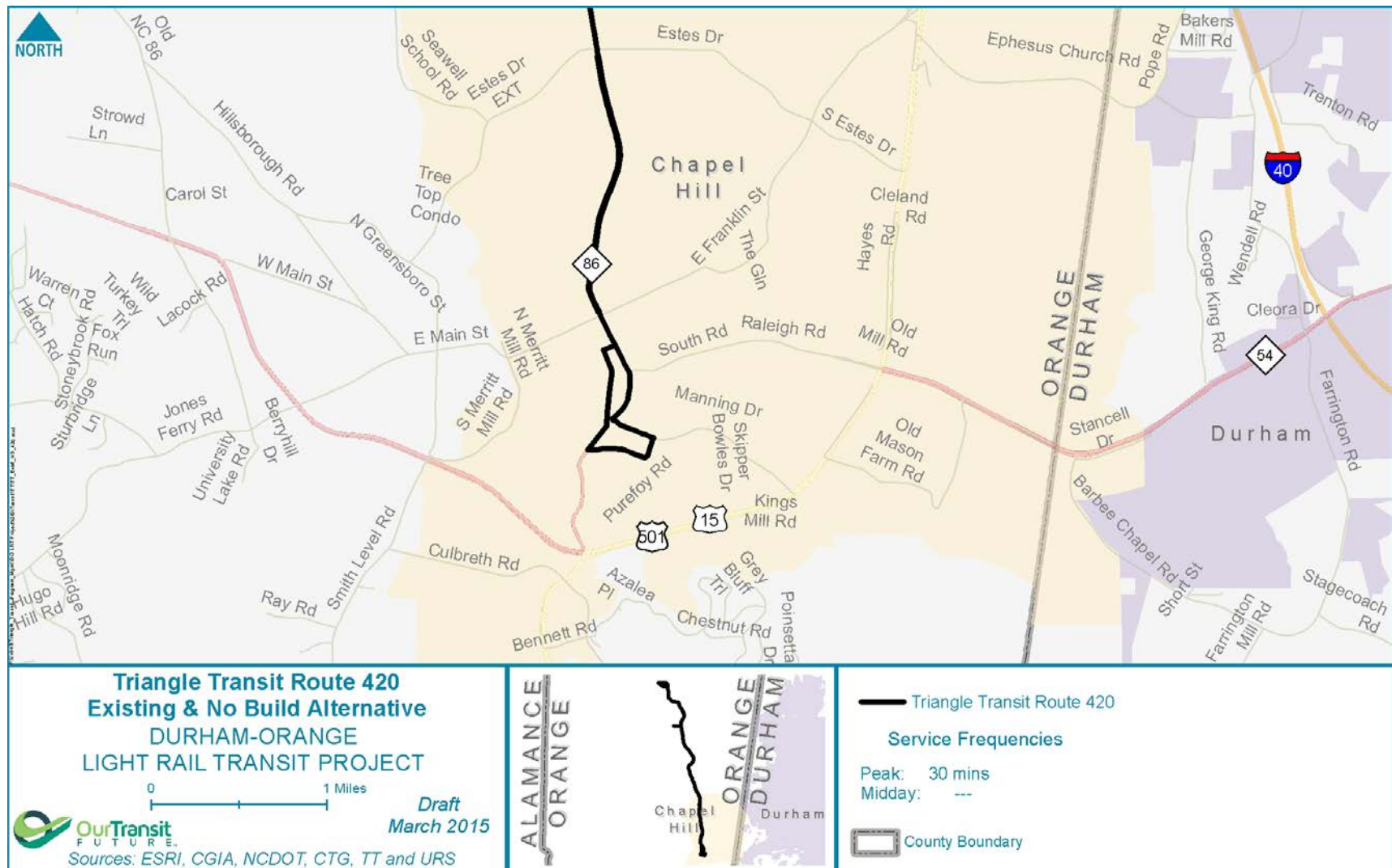






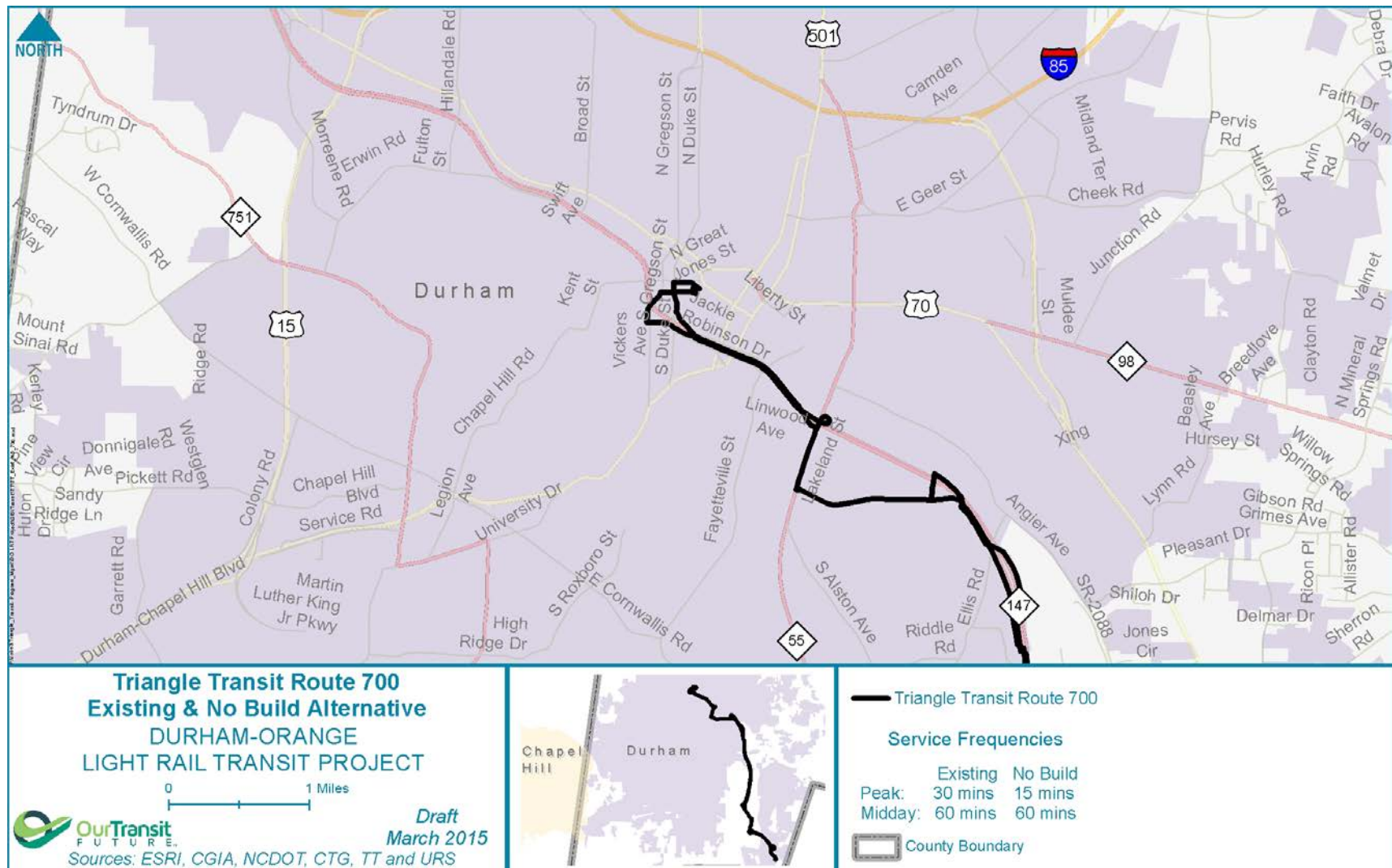




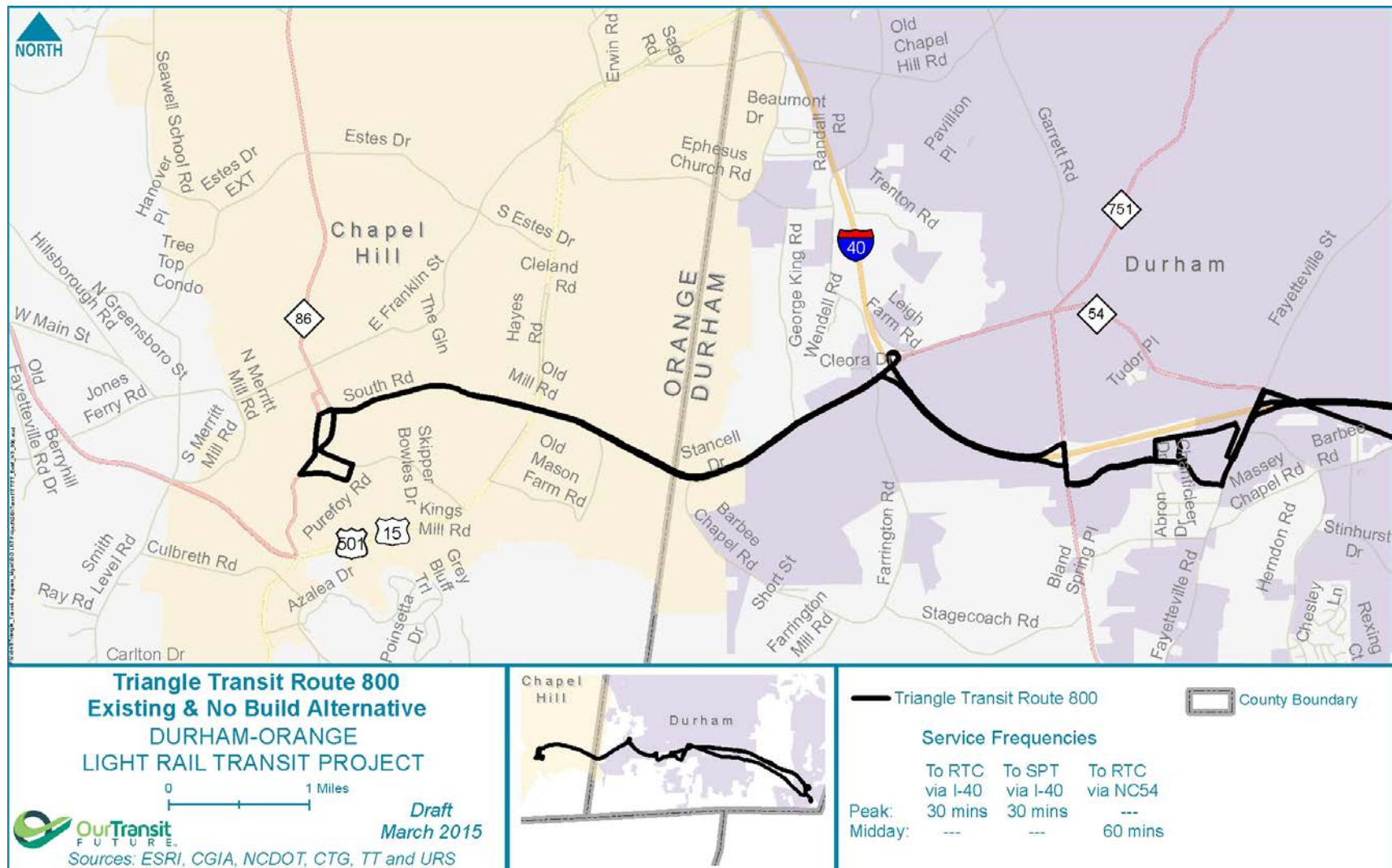




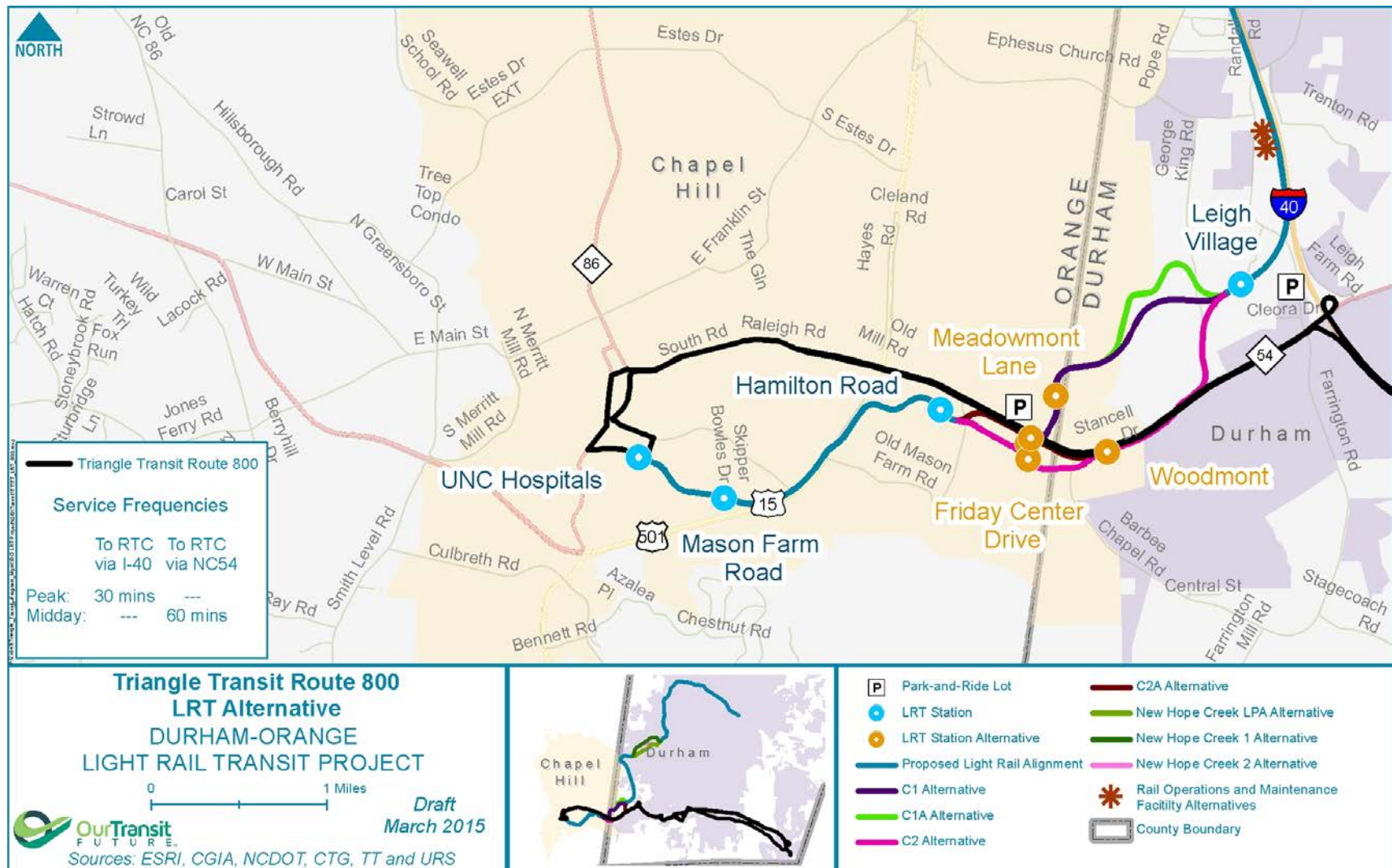


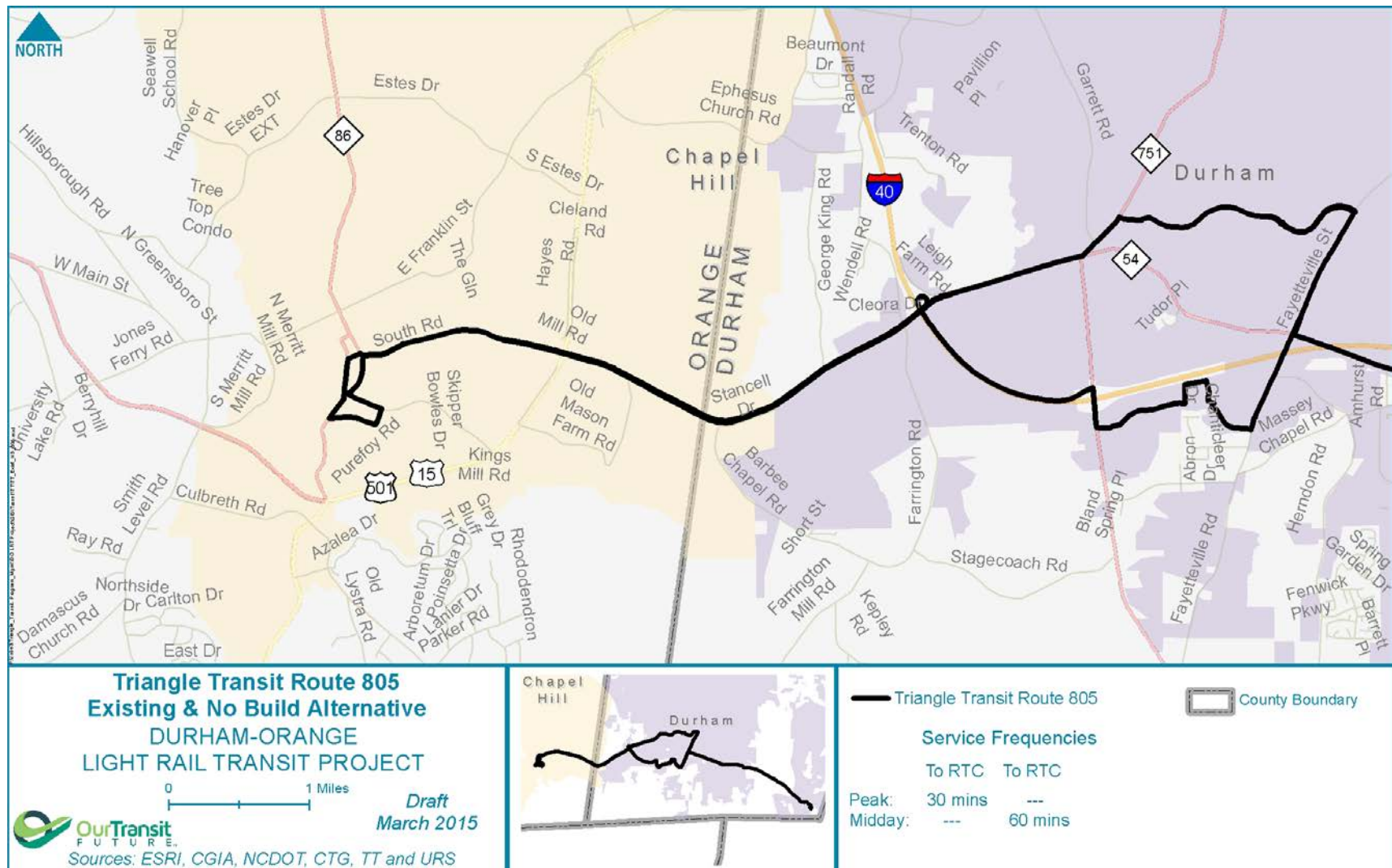




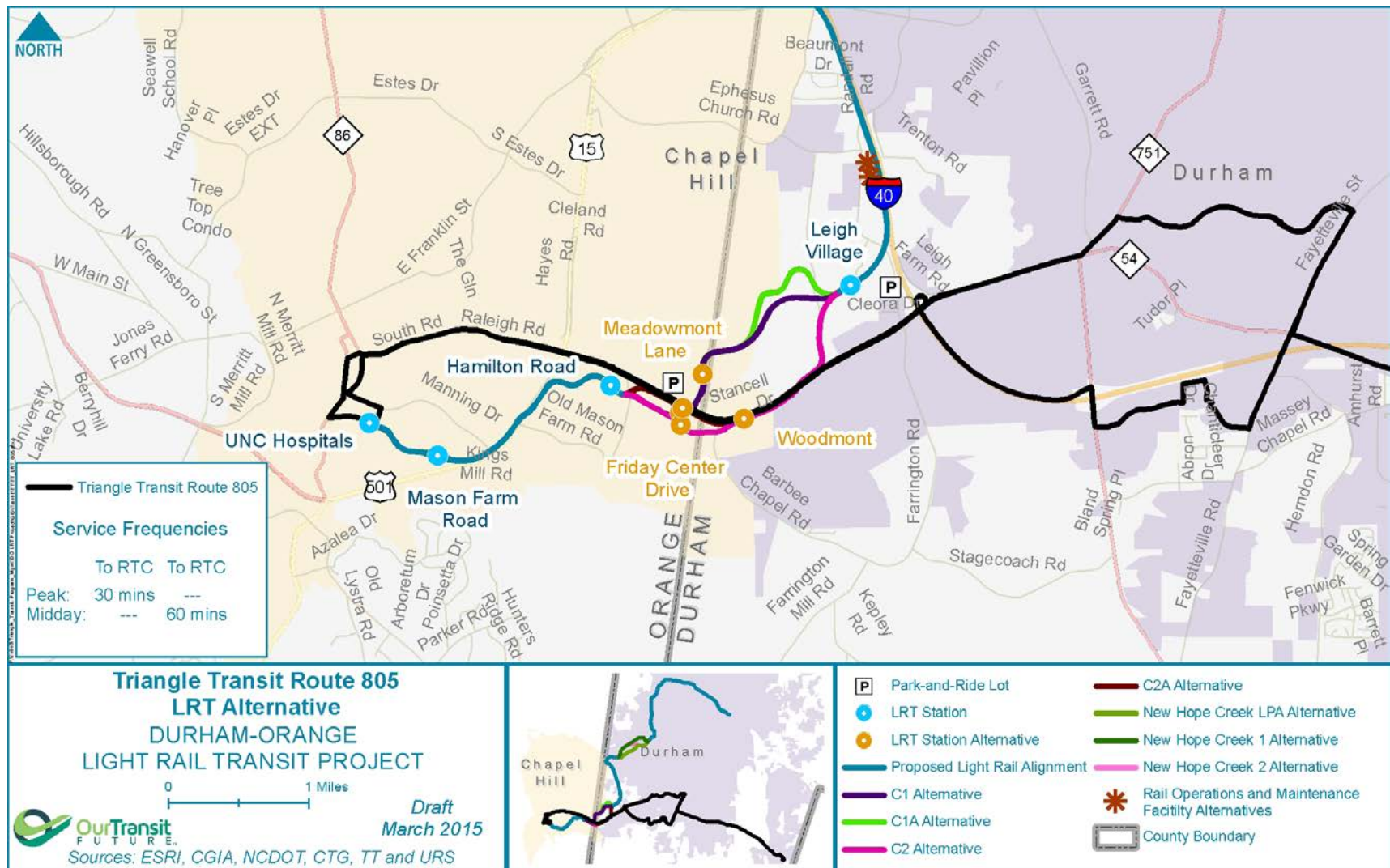


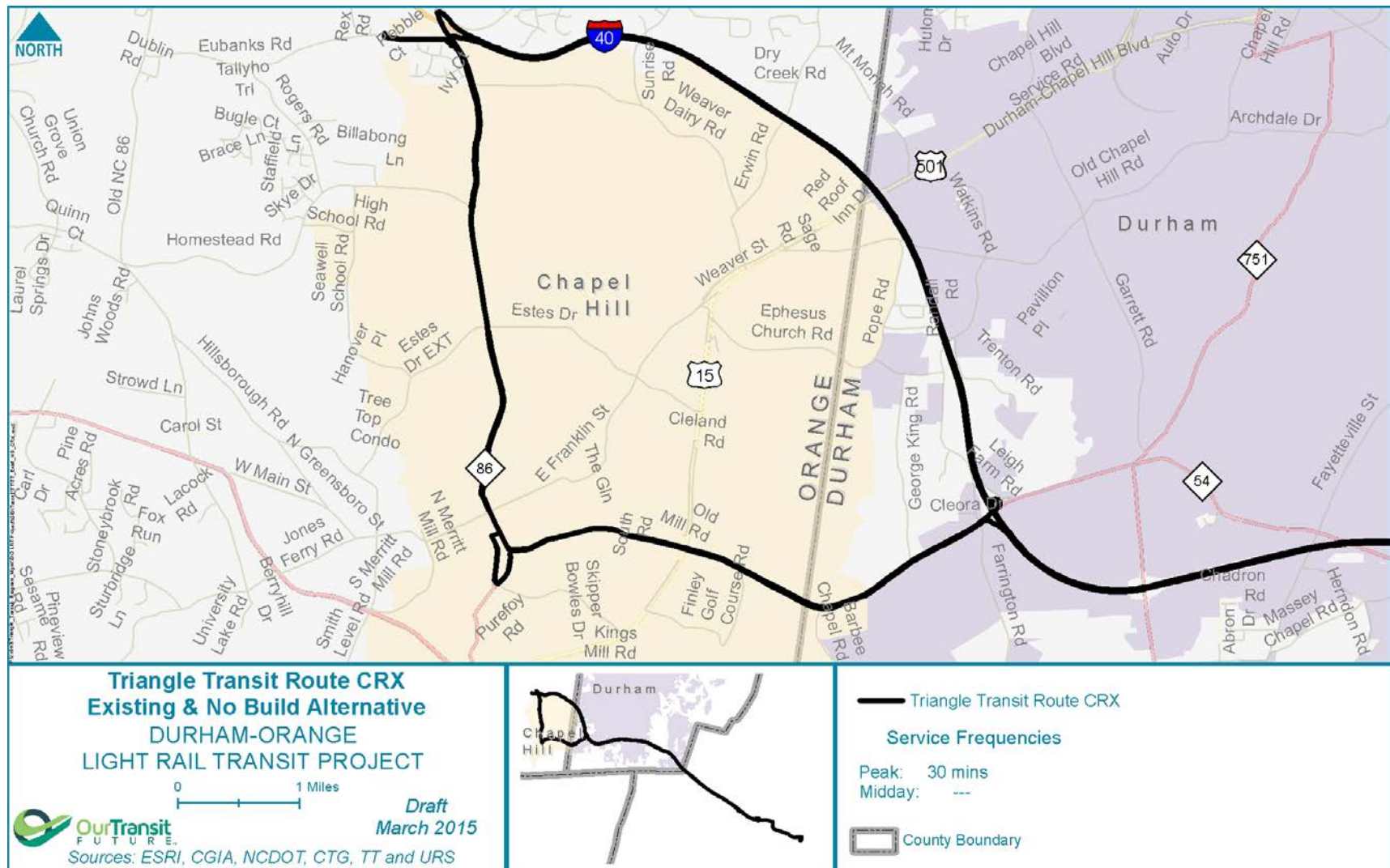




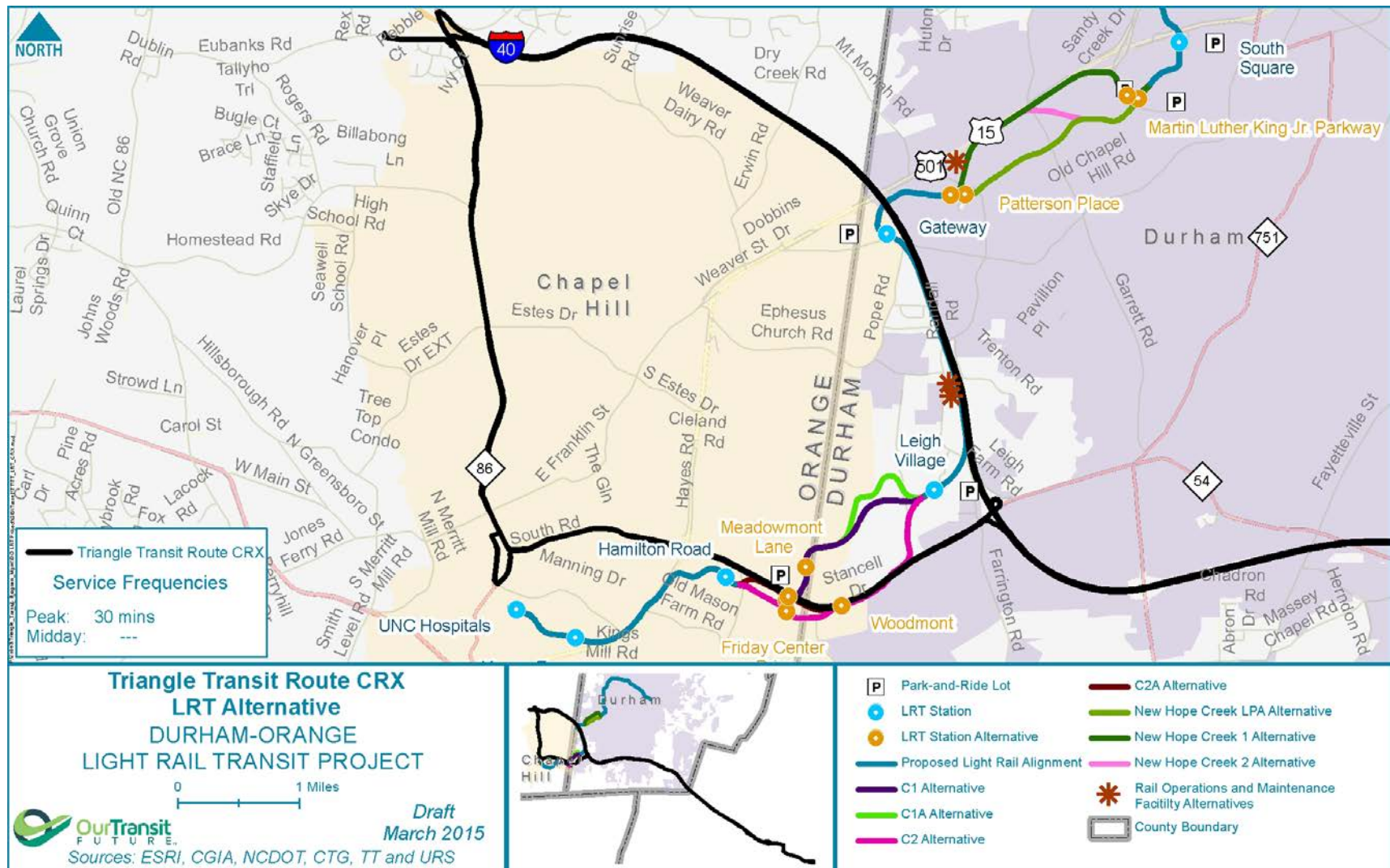


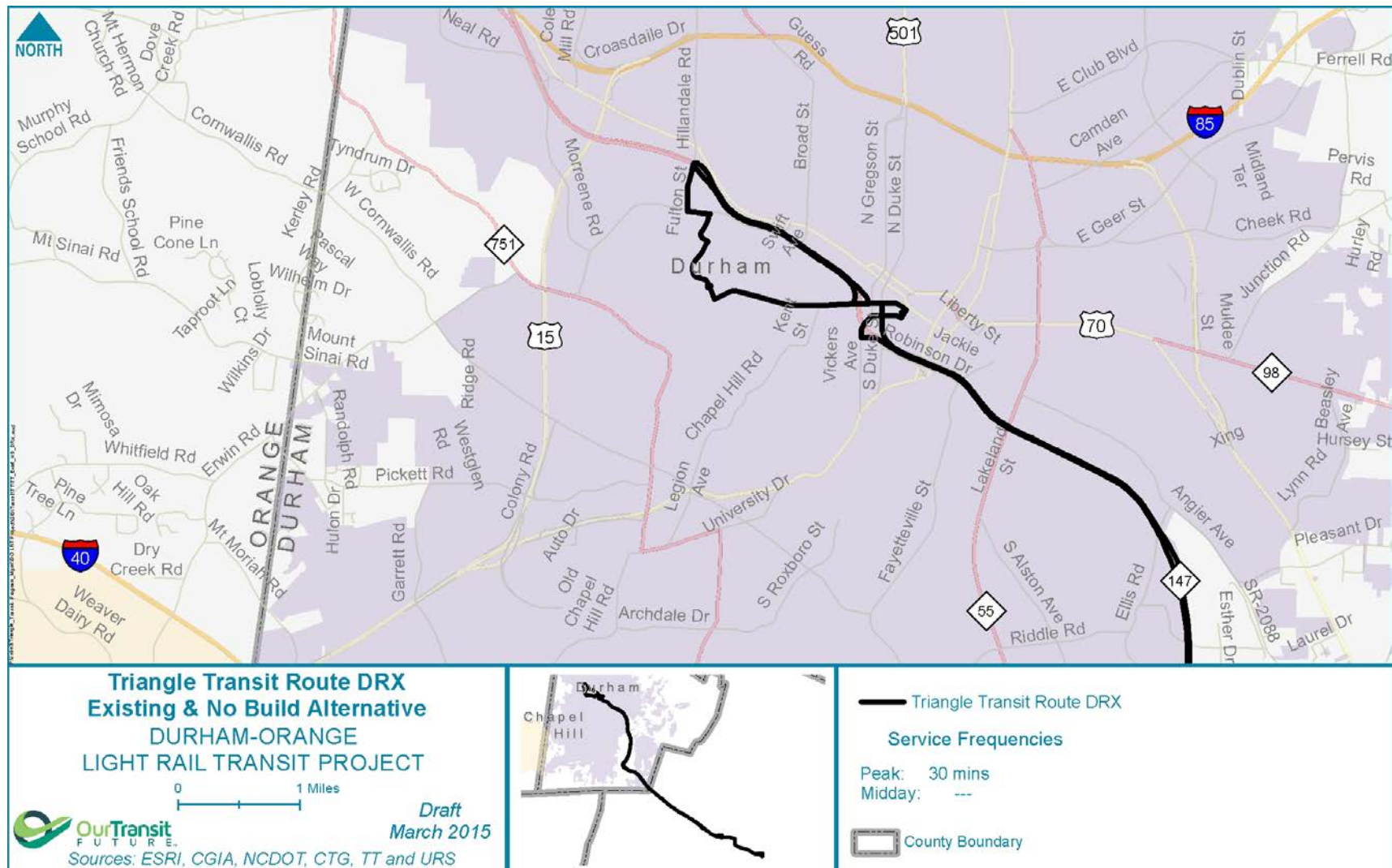










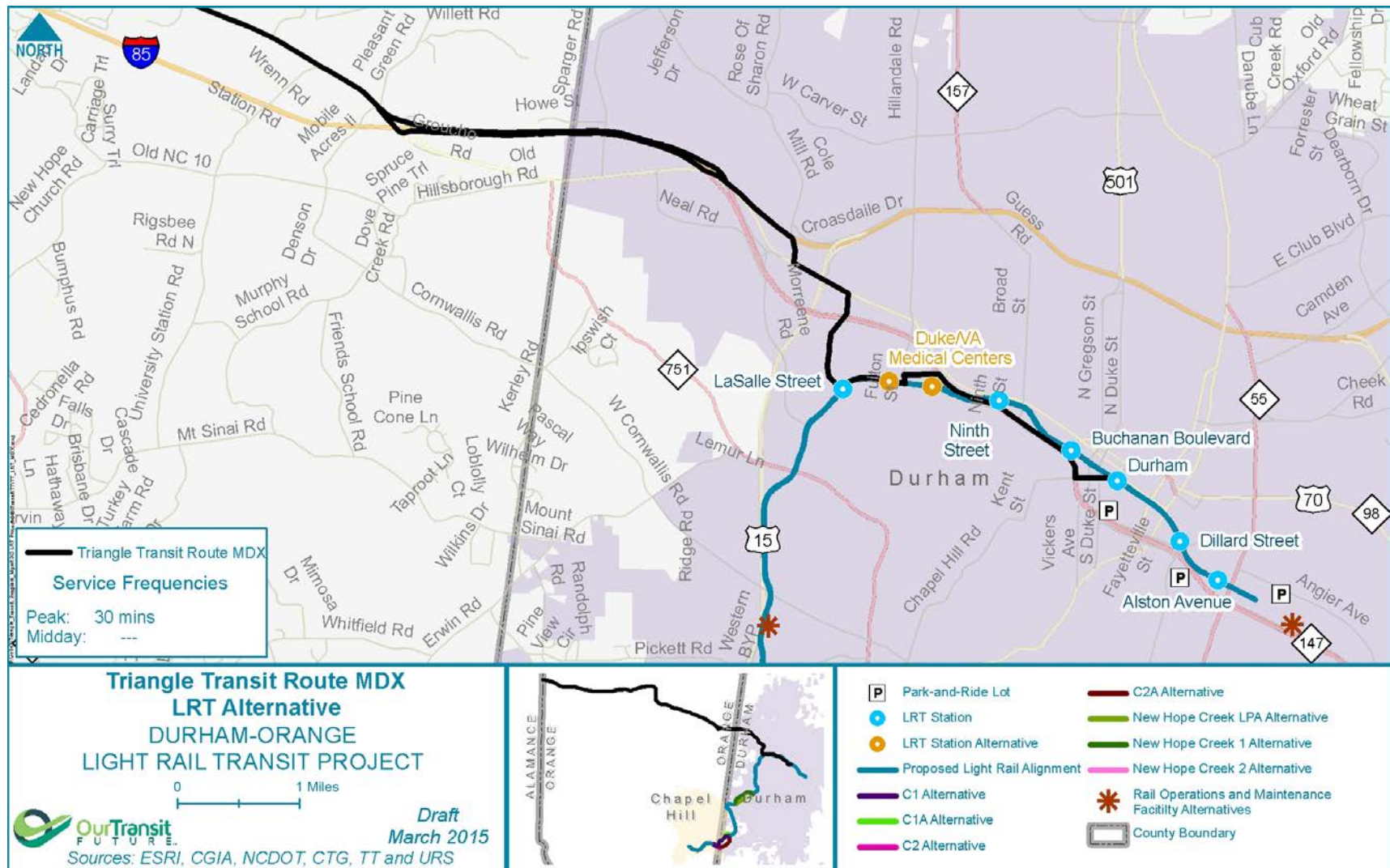


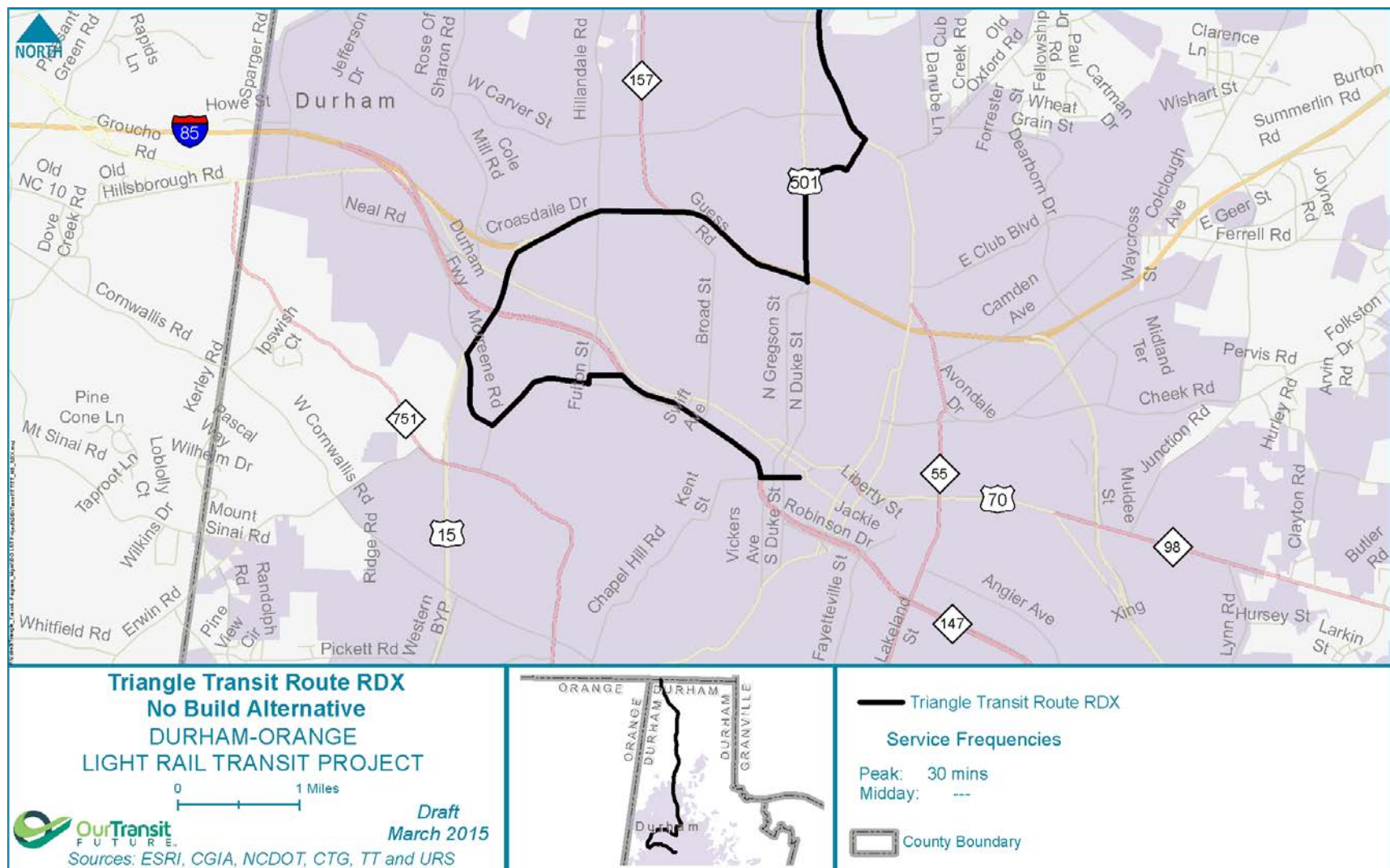




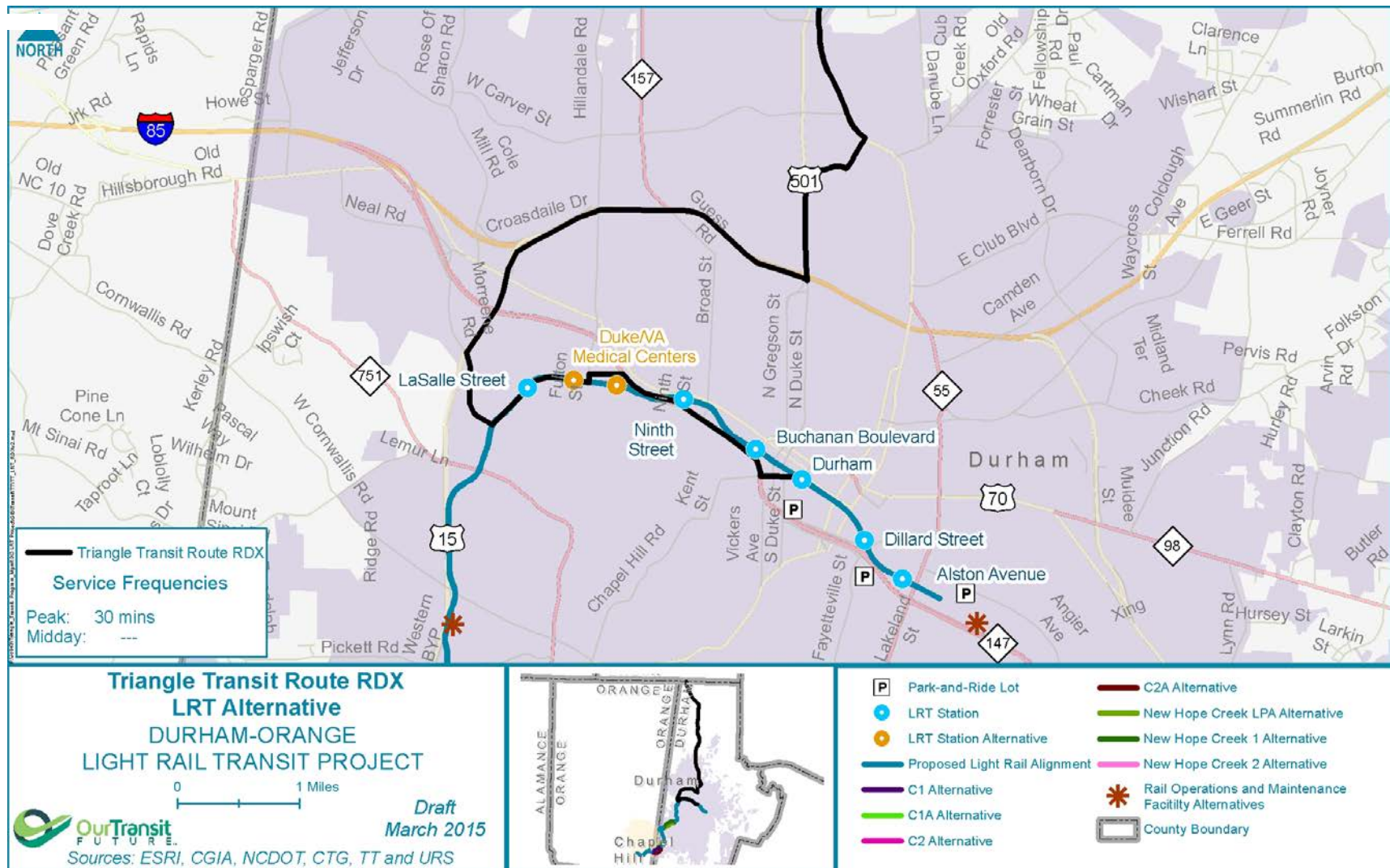




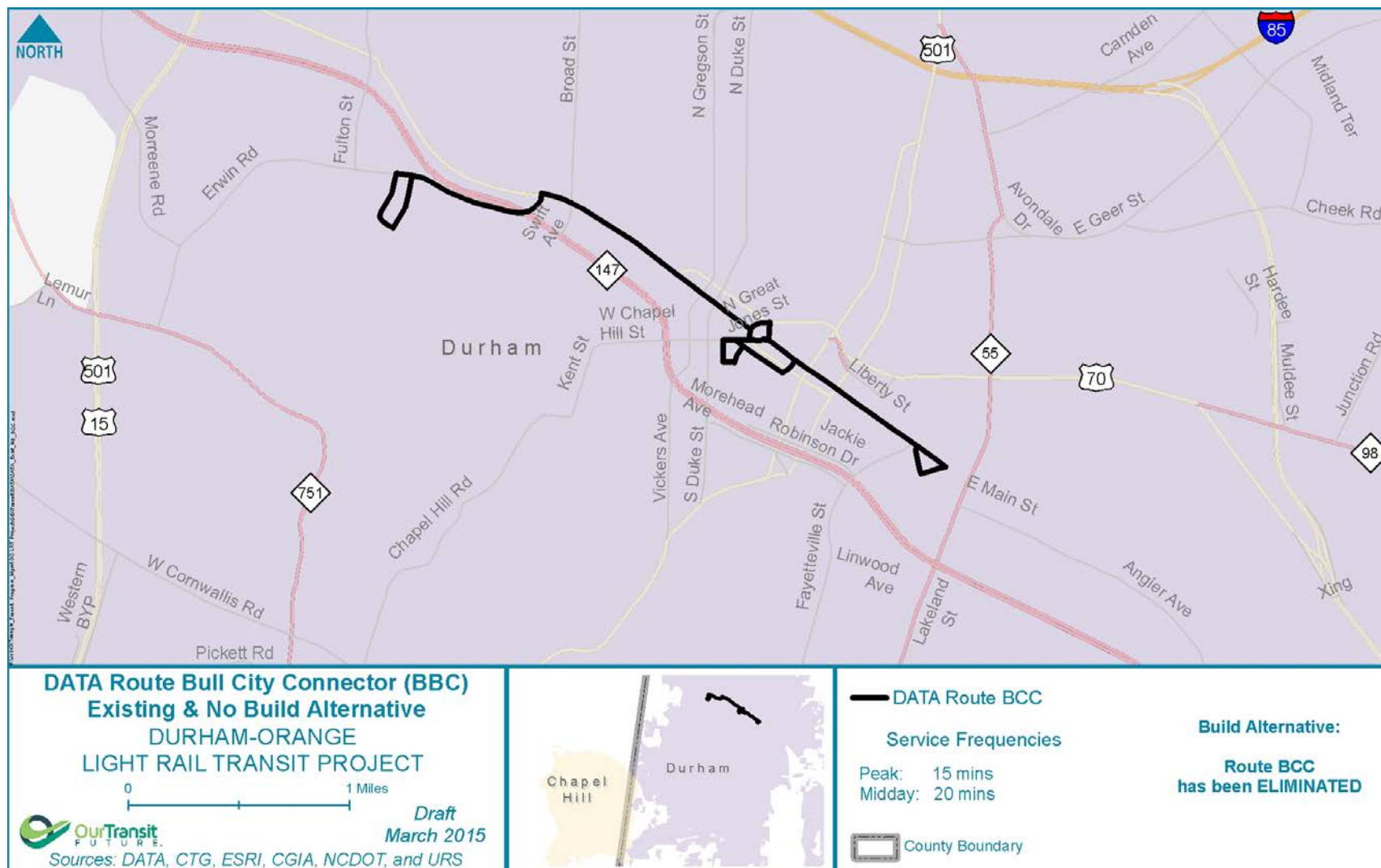




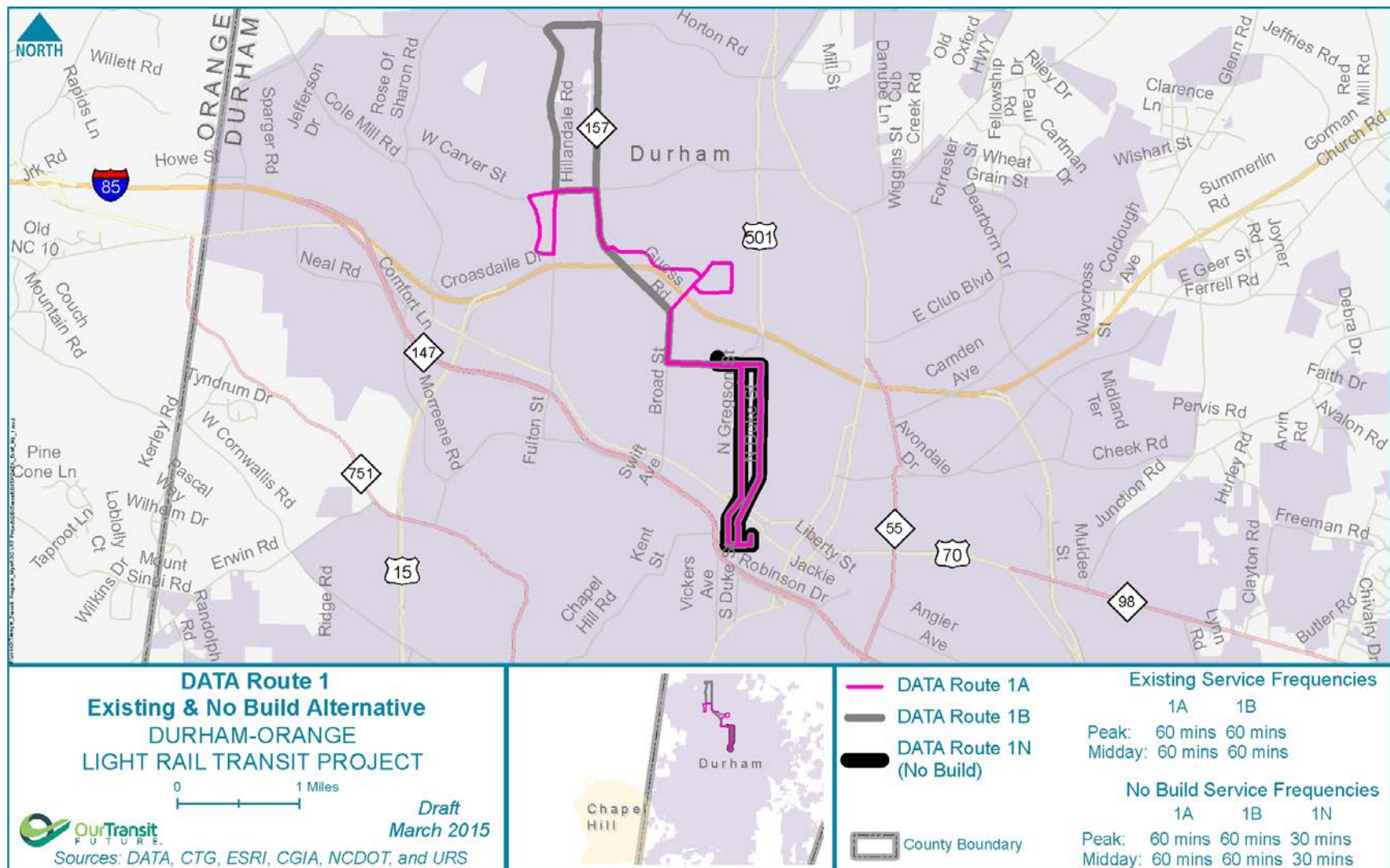


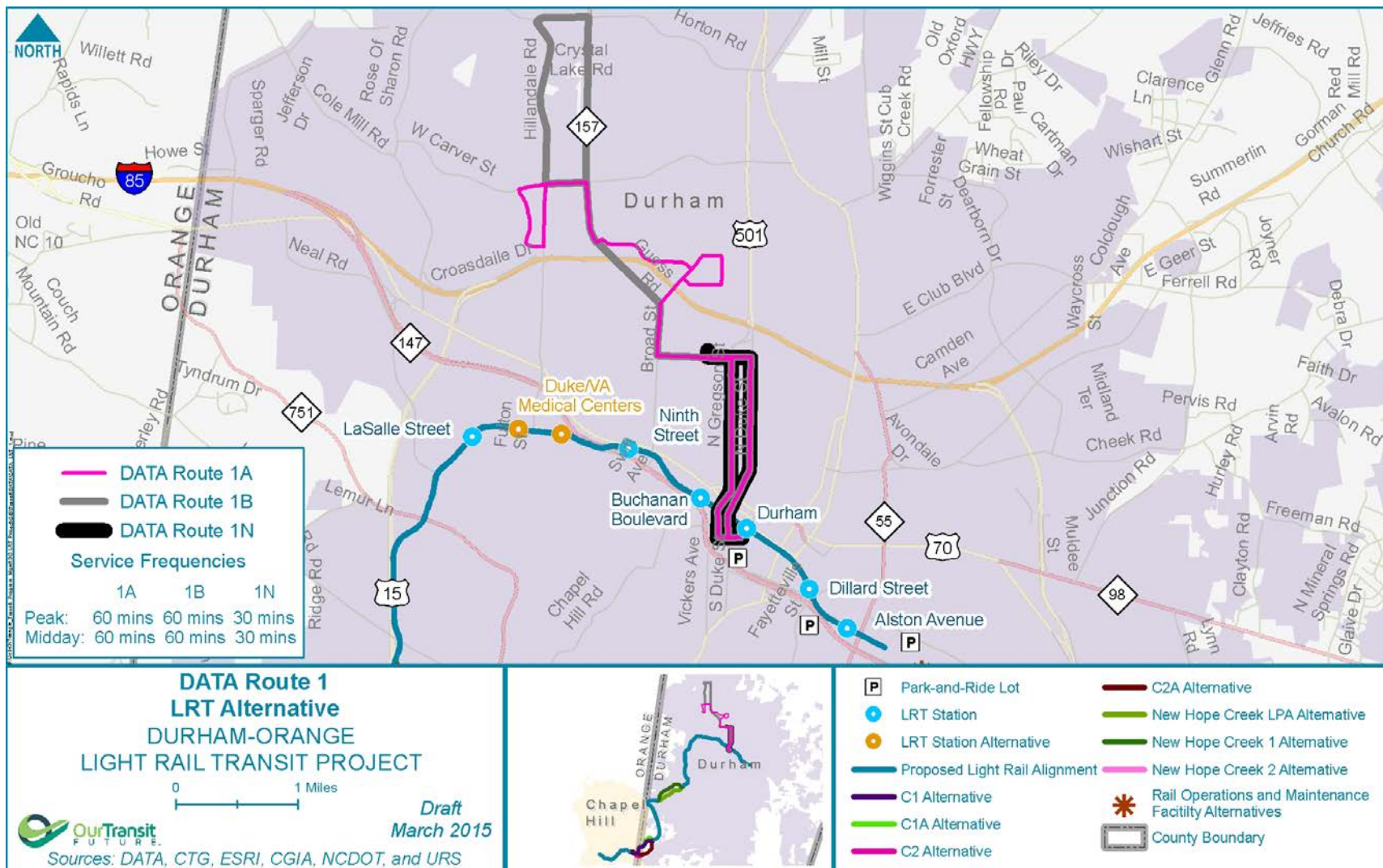


**APPENDIX F**  
**INDIVIDUAL ROUTE MAPS**  
**DURHAM AREA TRANSIT AUTHORITY**  
**(Weekday Peak and Midday Period Routes Only)**

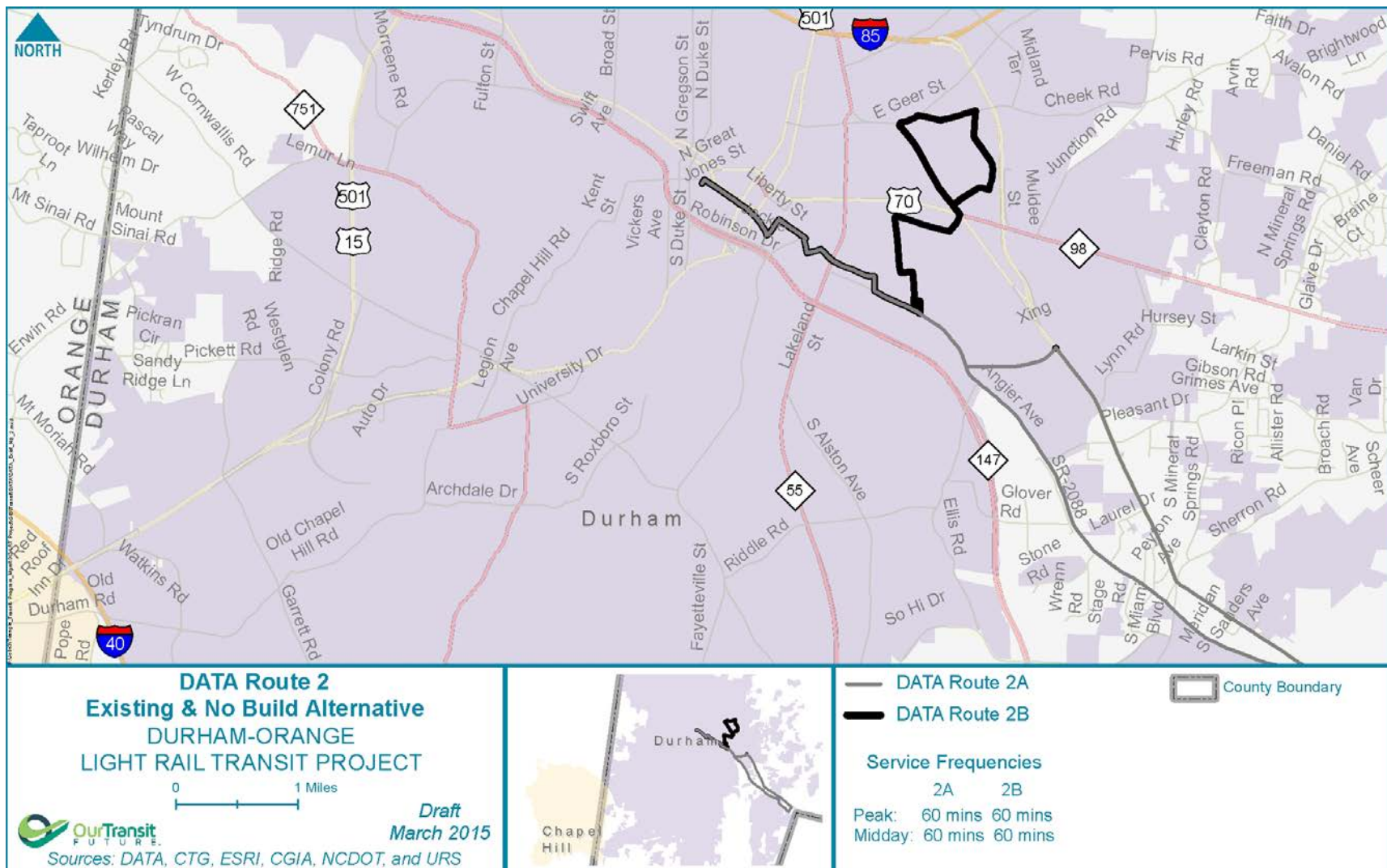


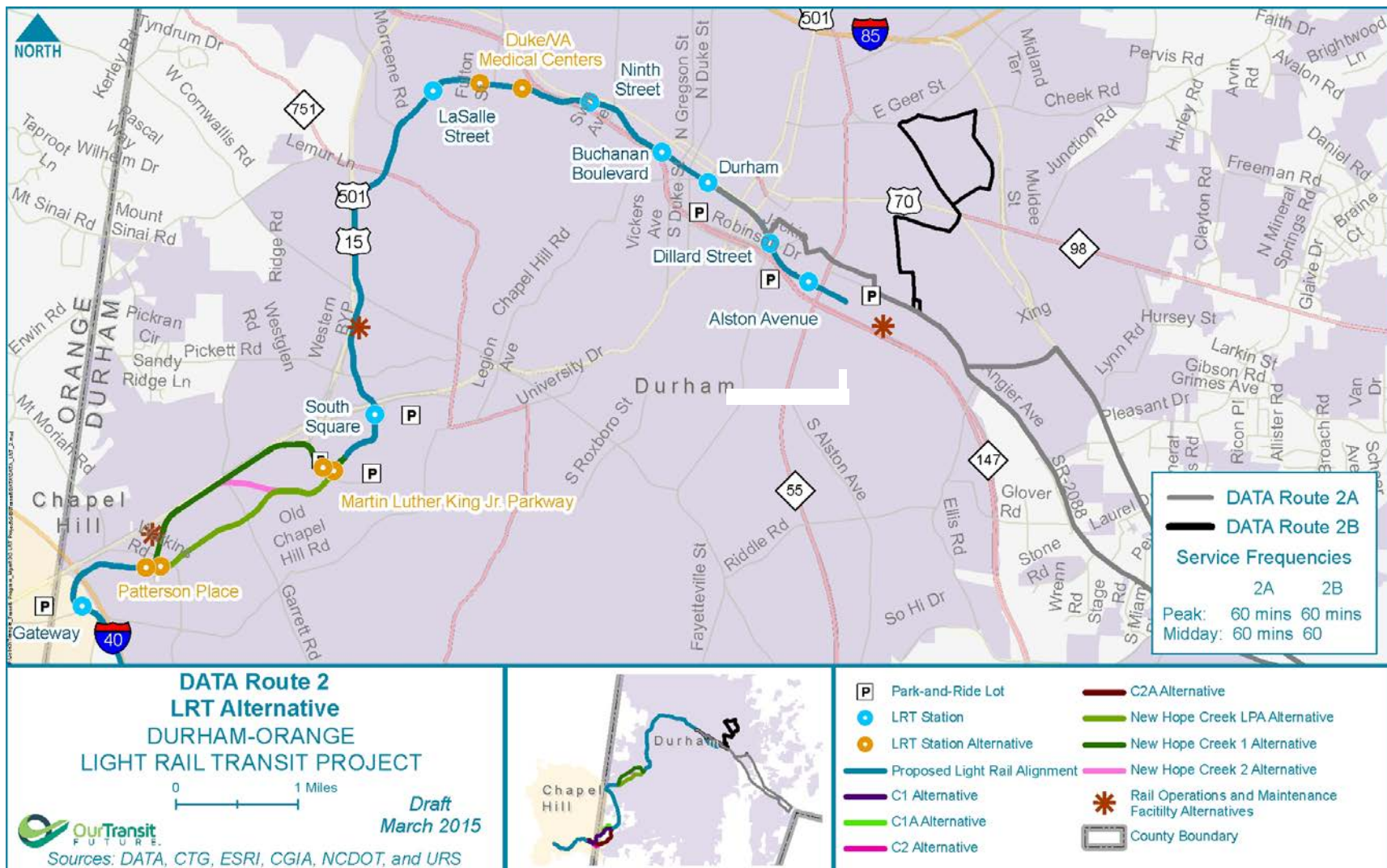




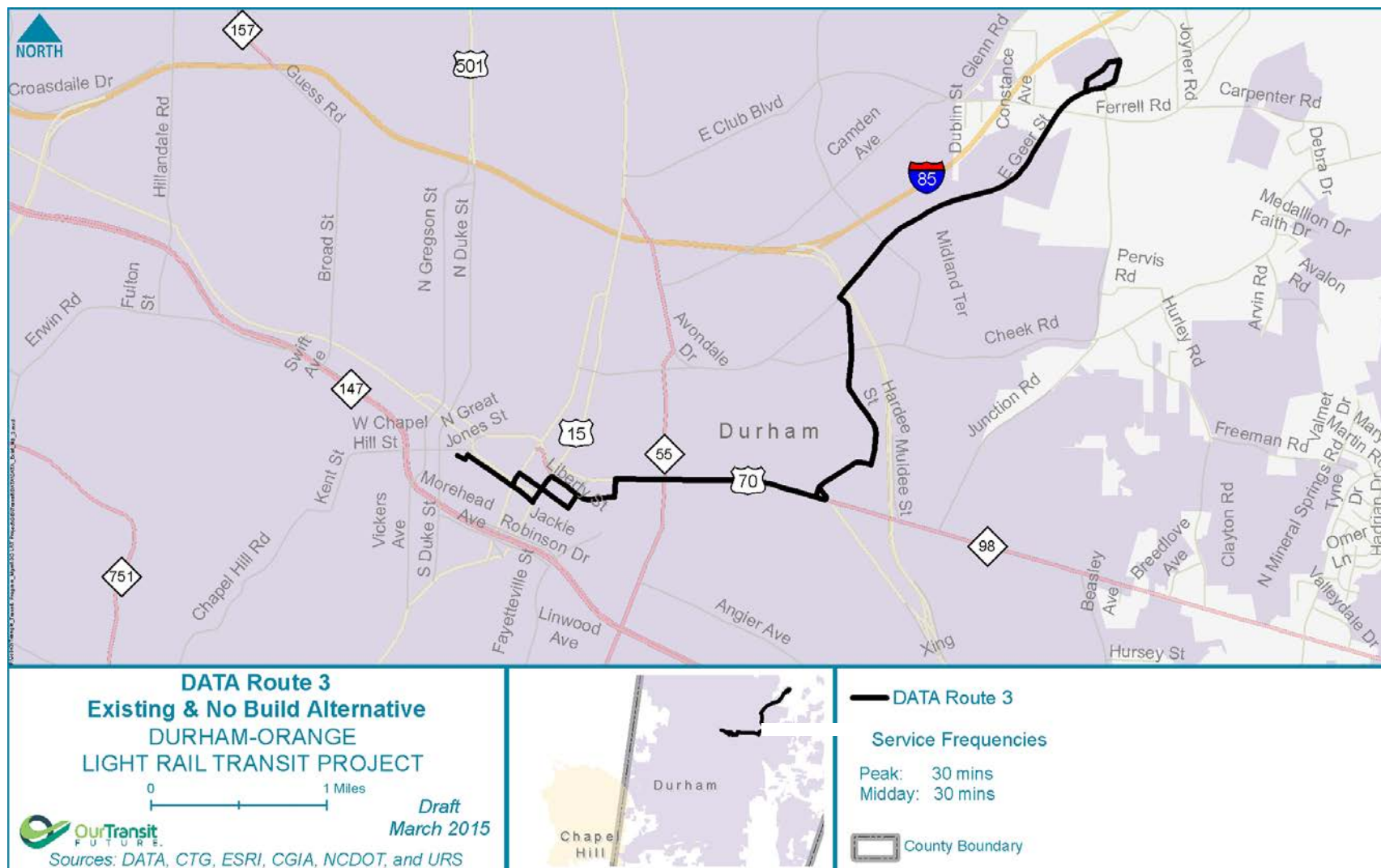




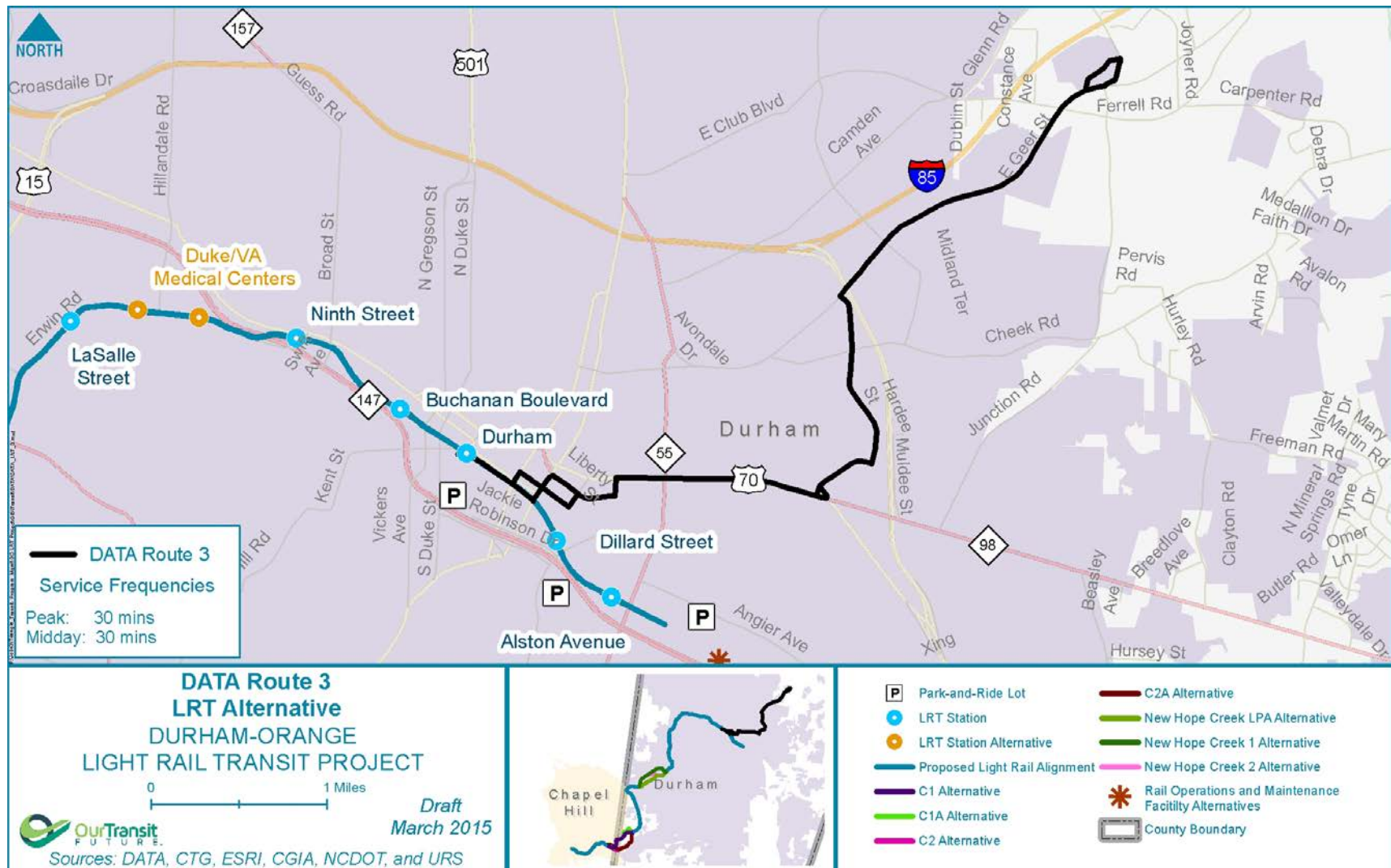


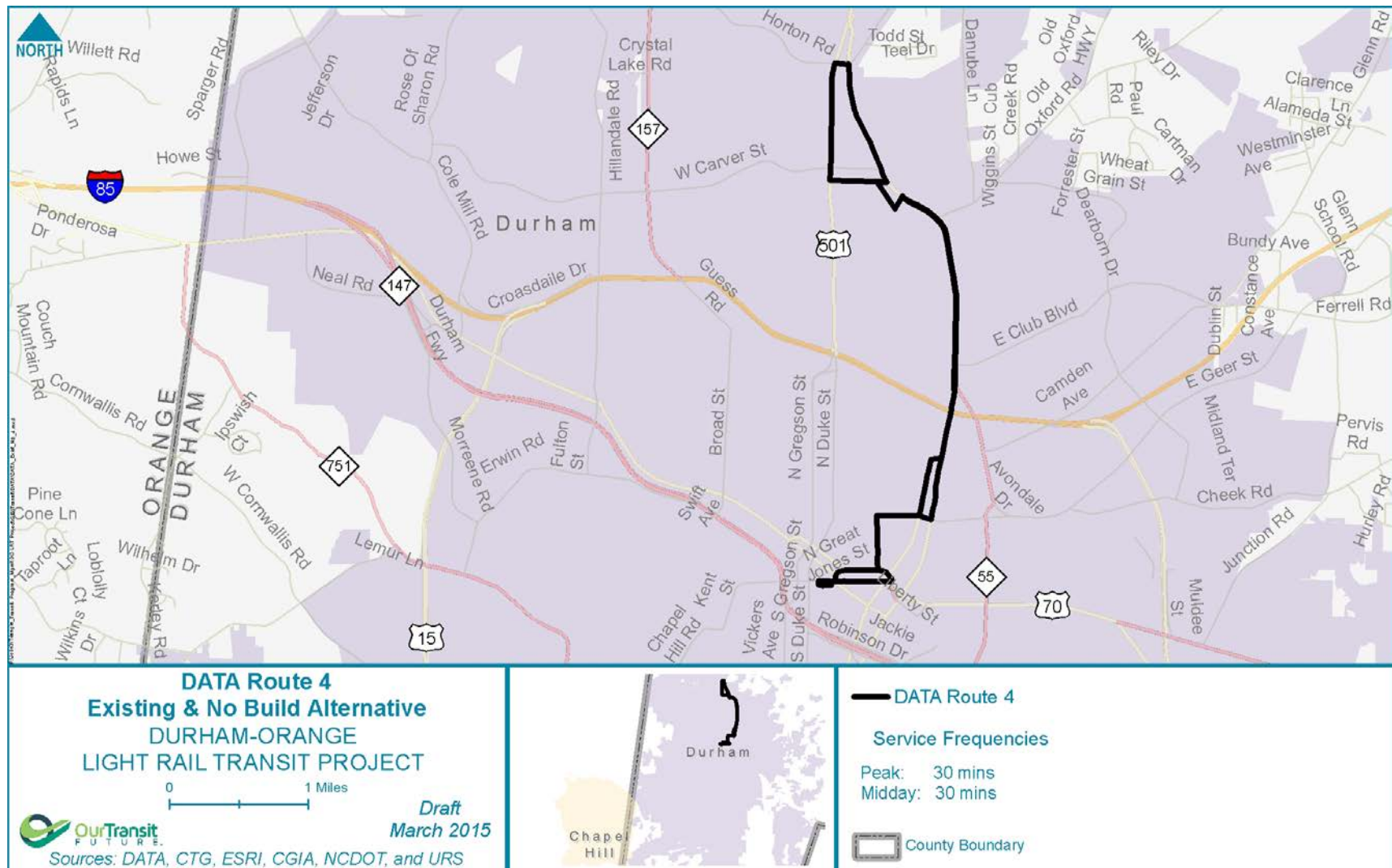


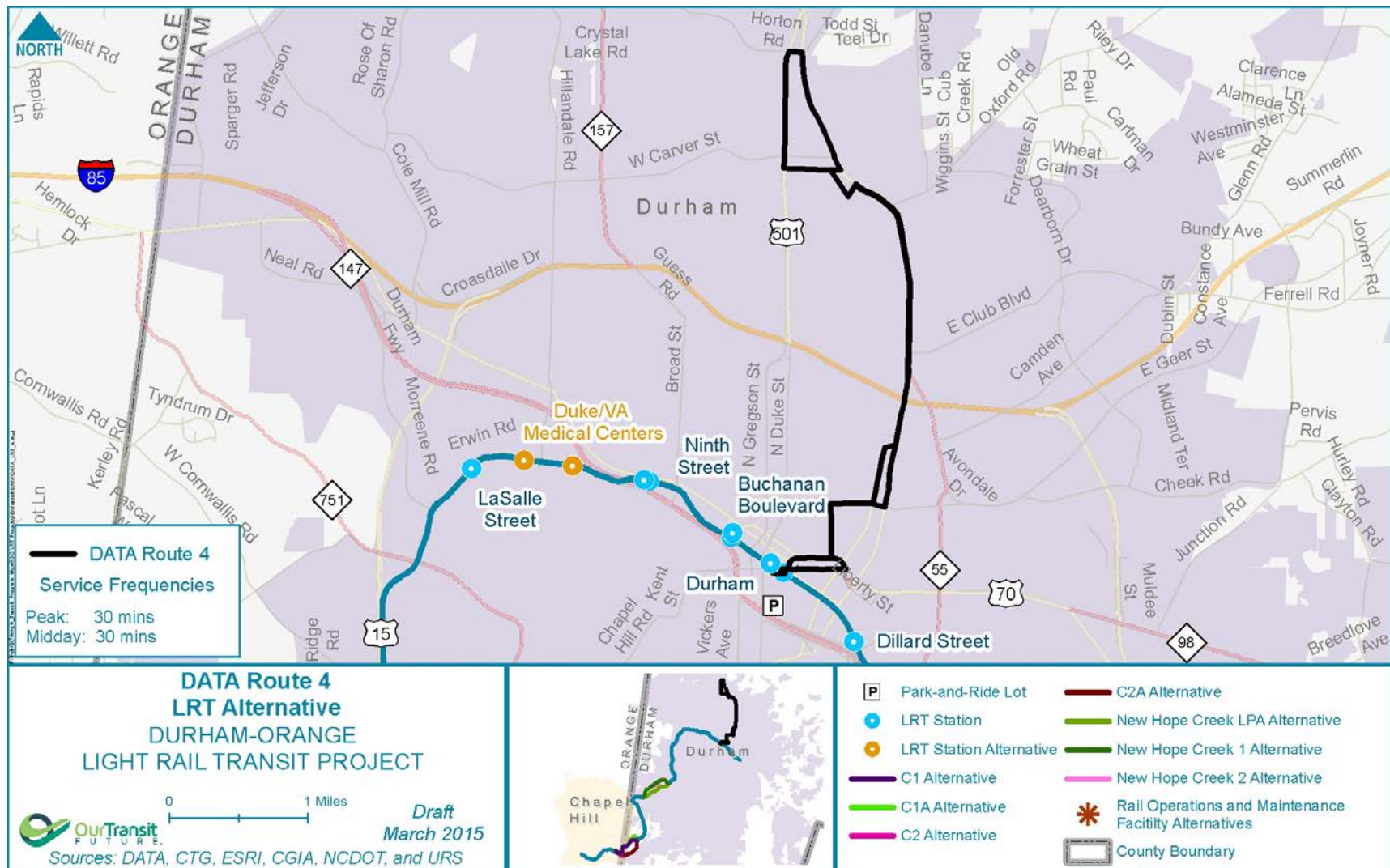




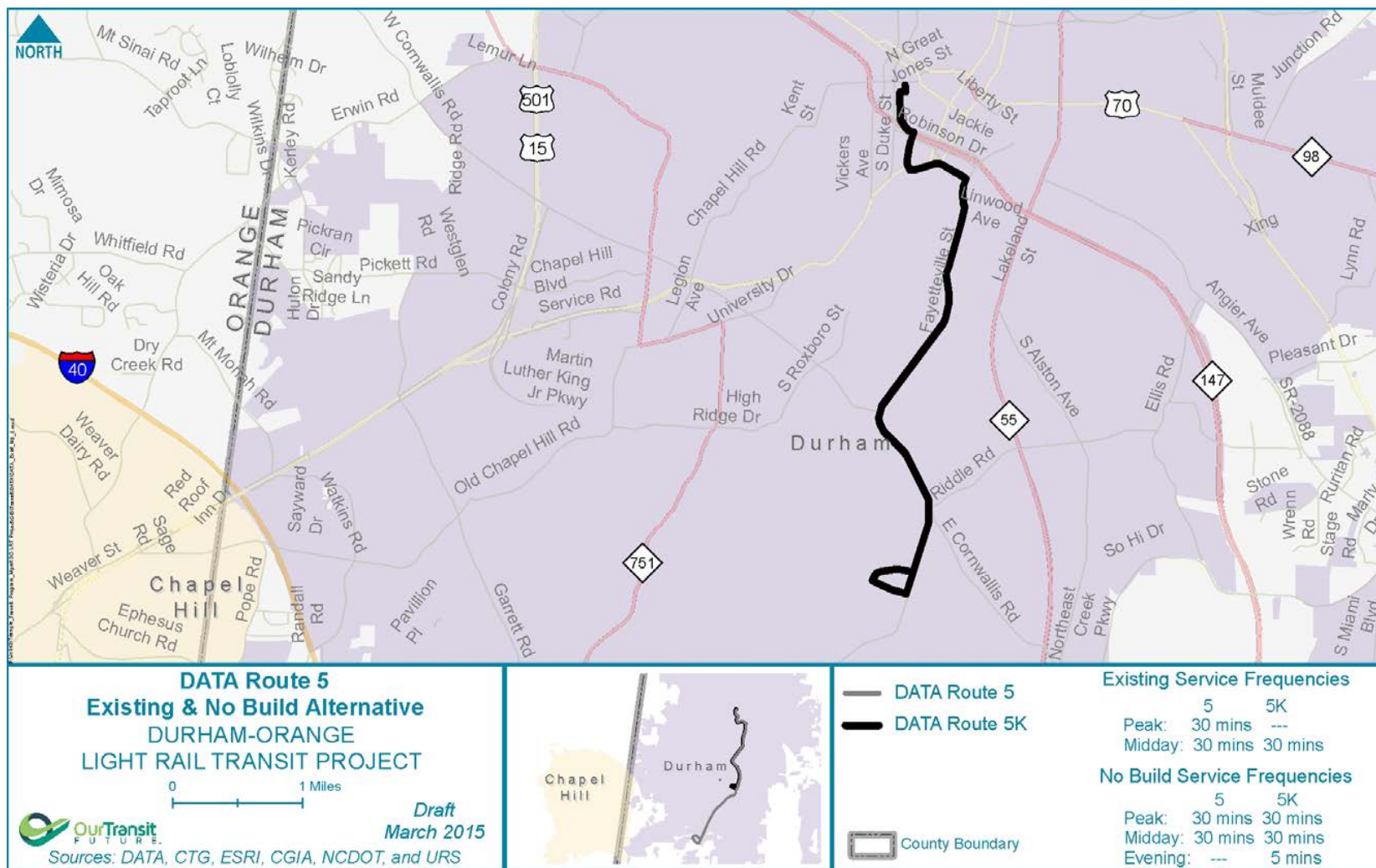


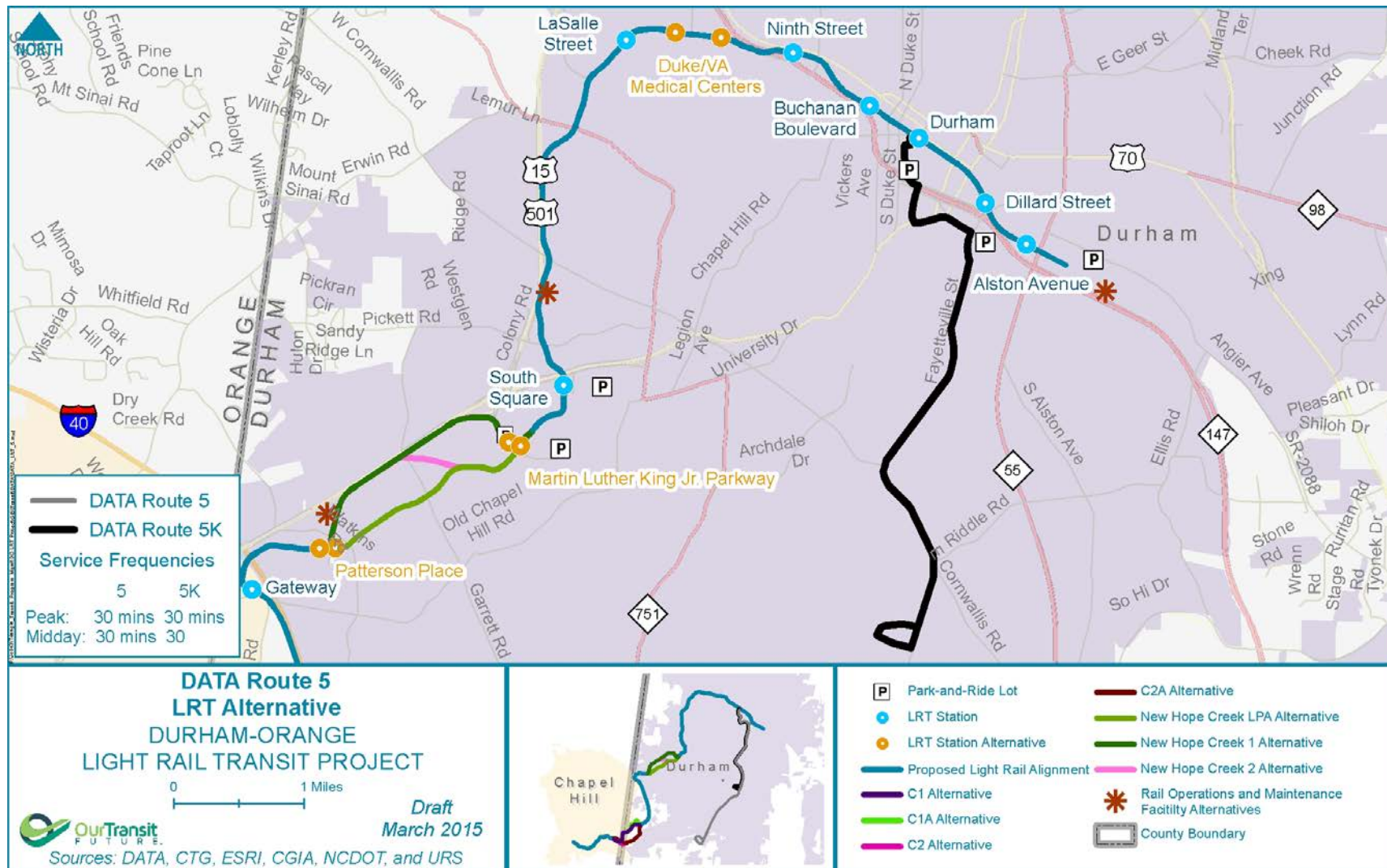




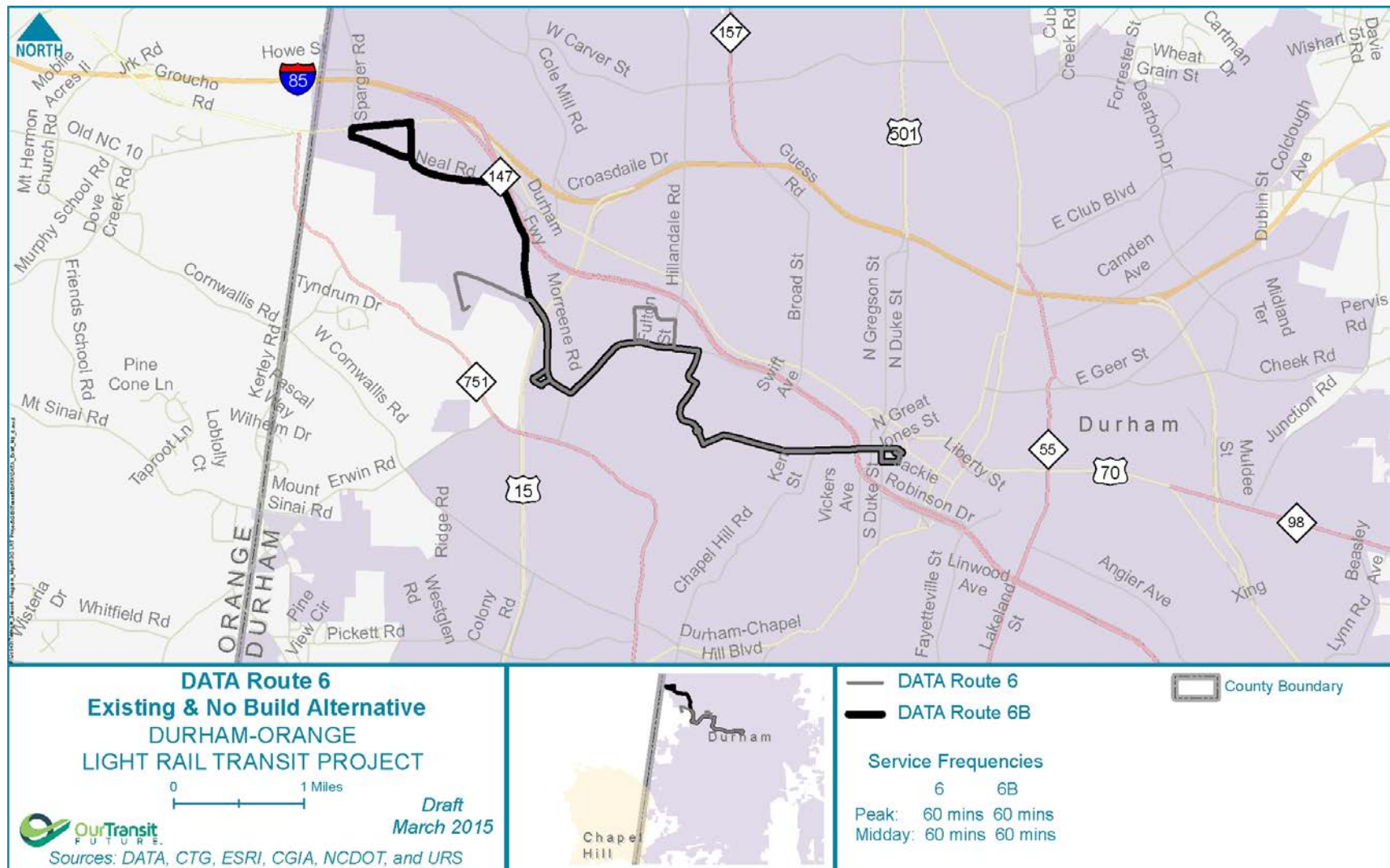


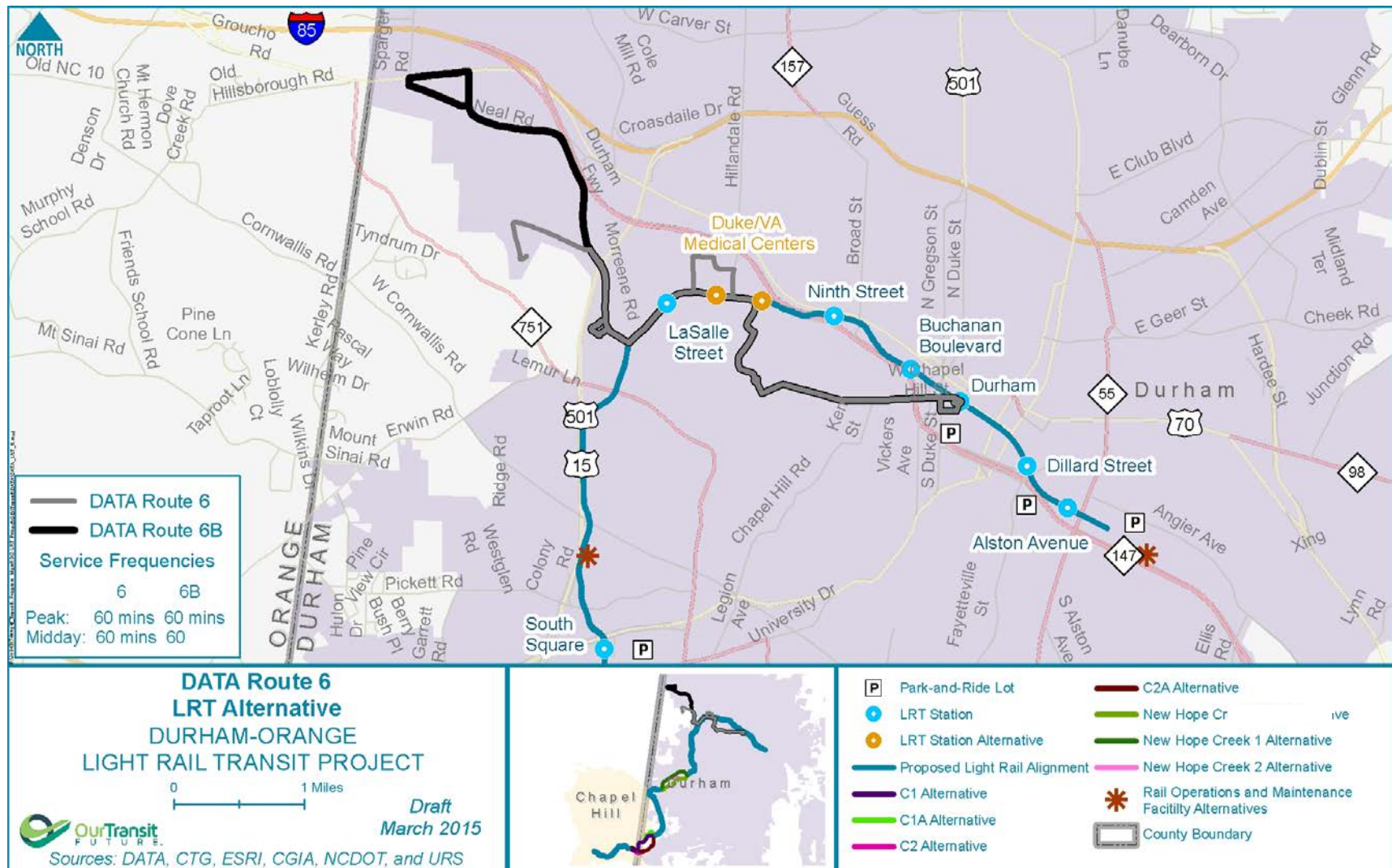




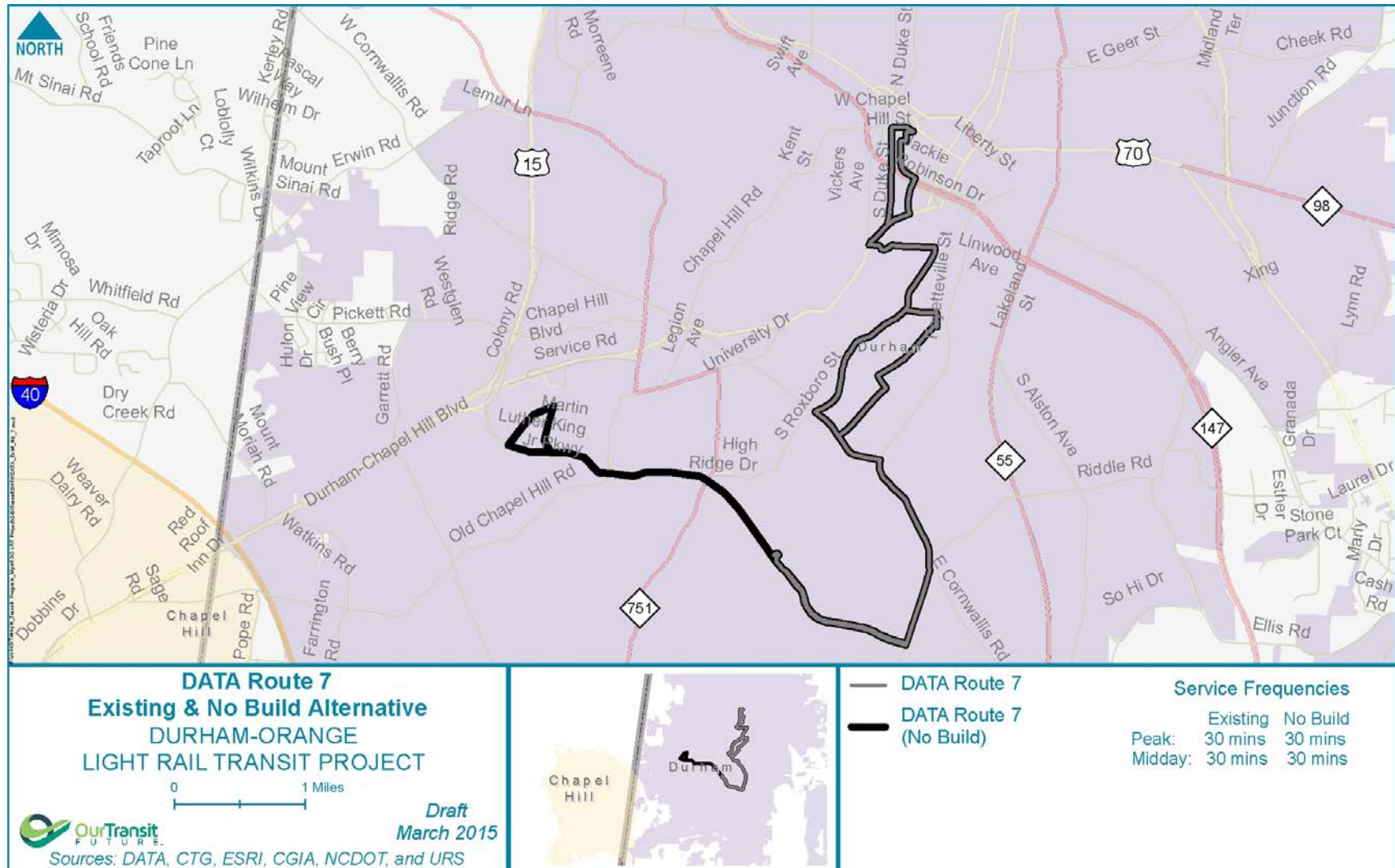




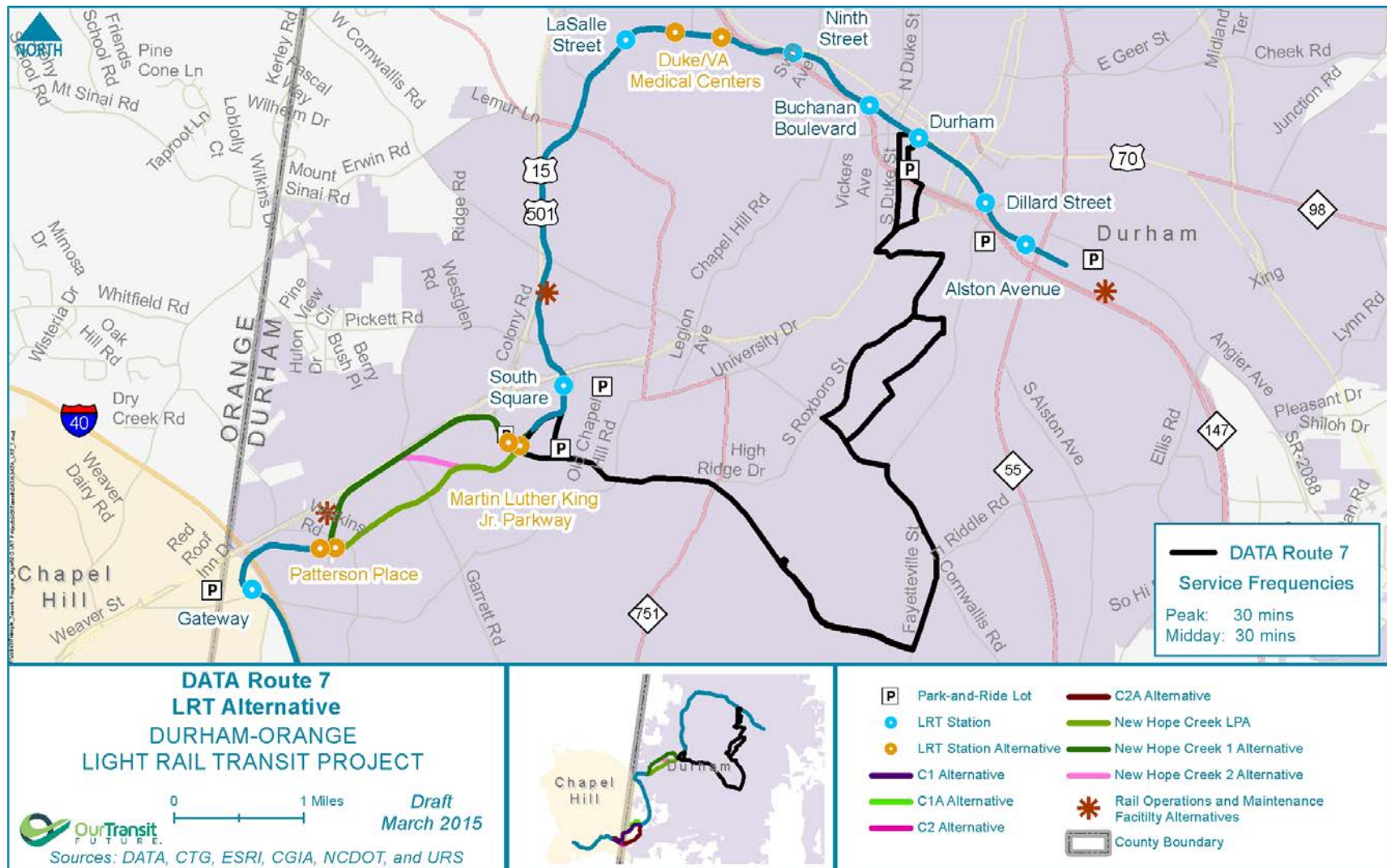


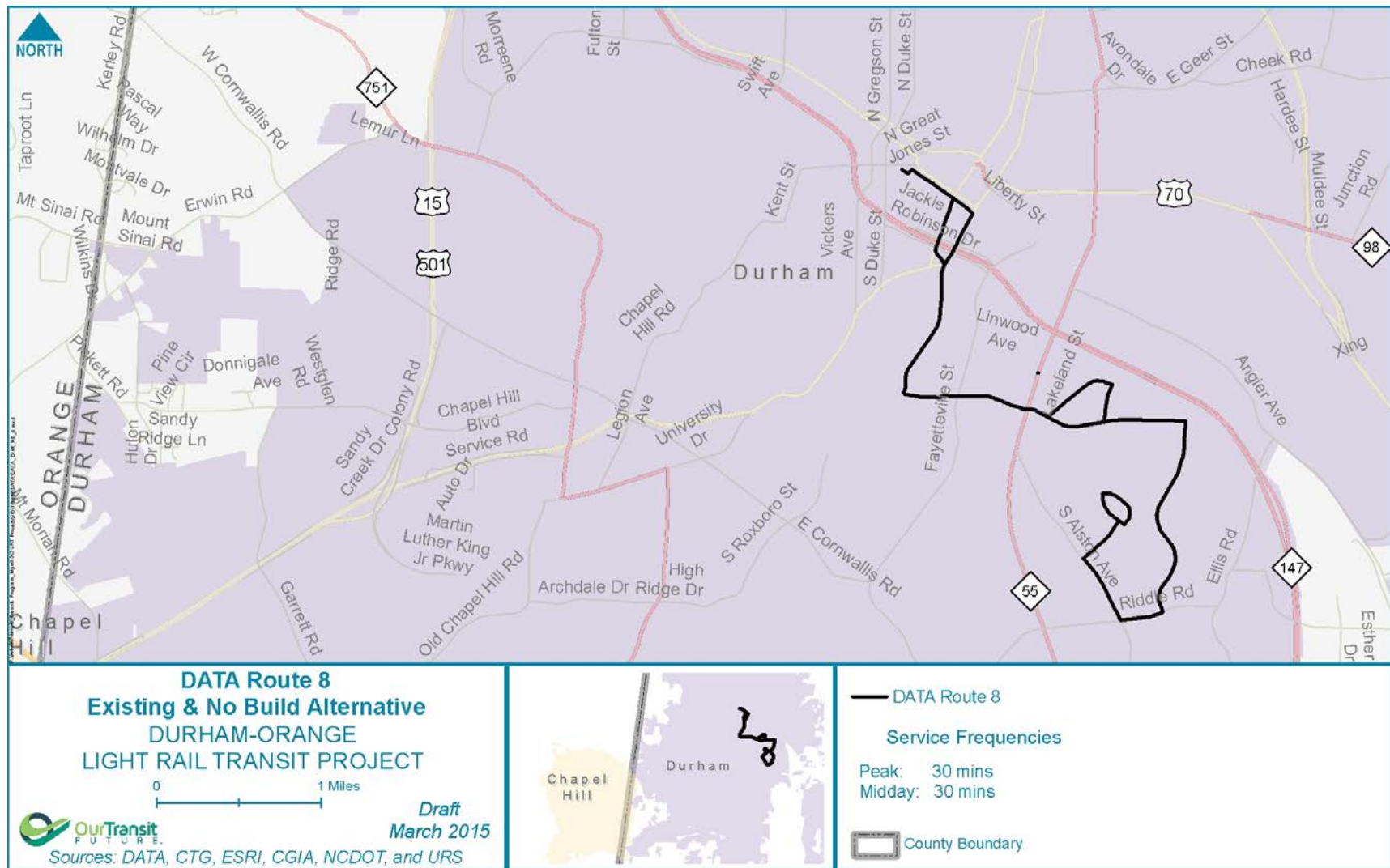




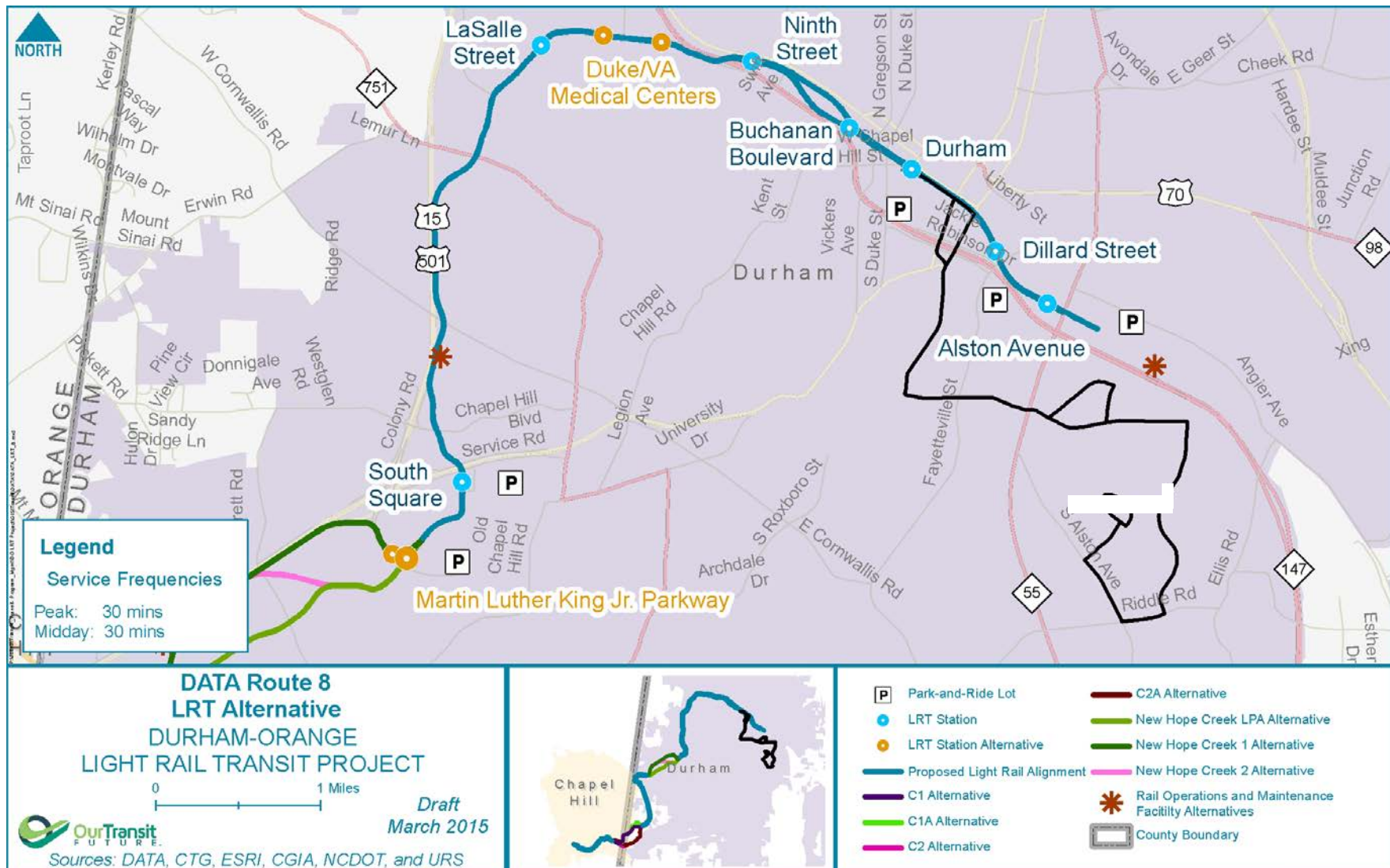


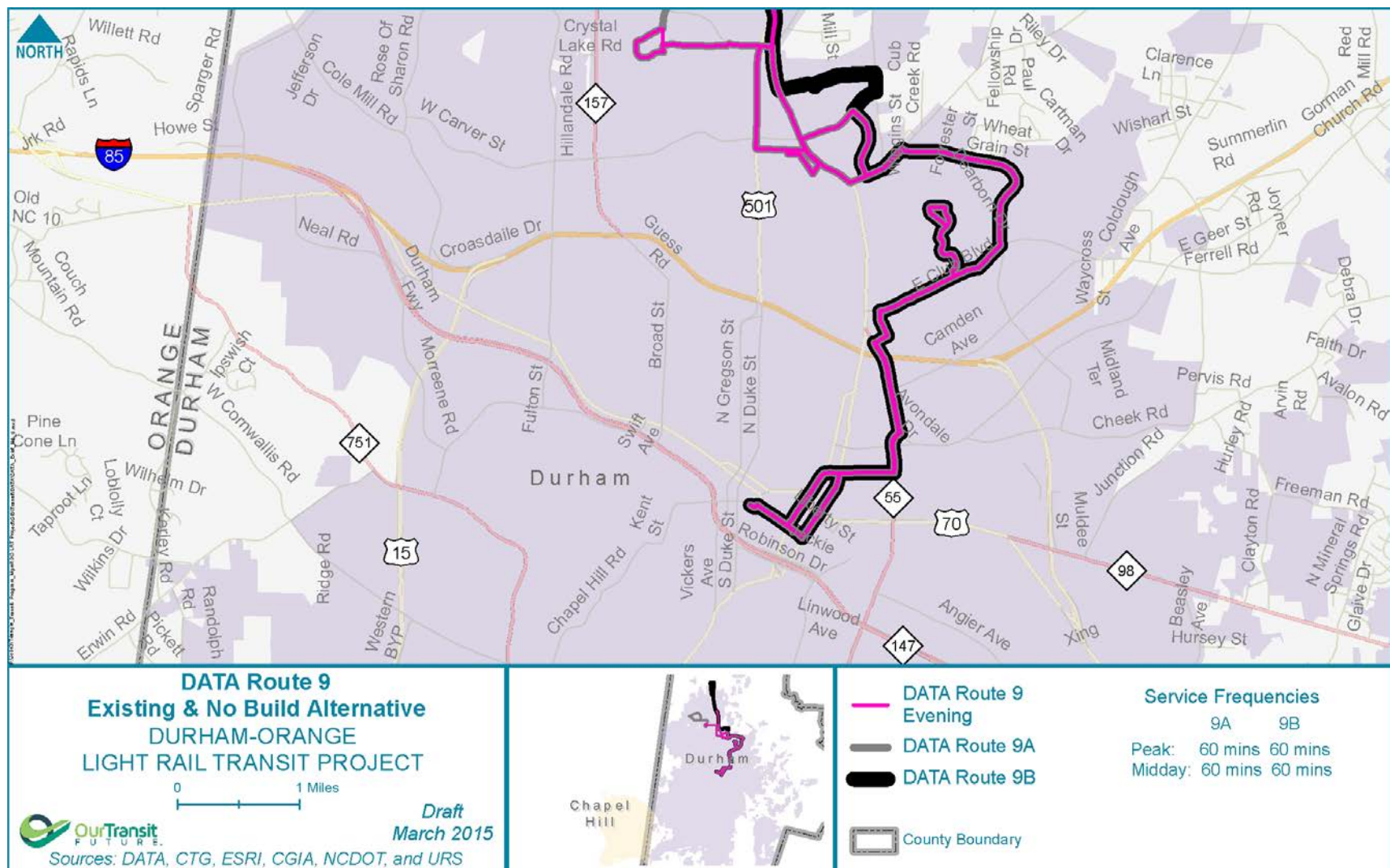




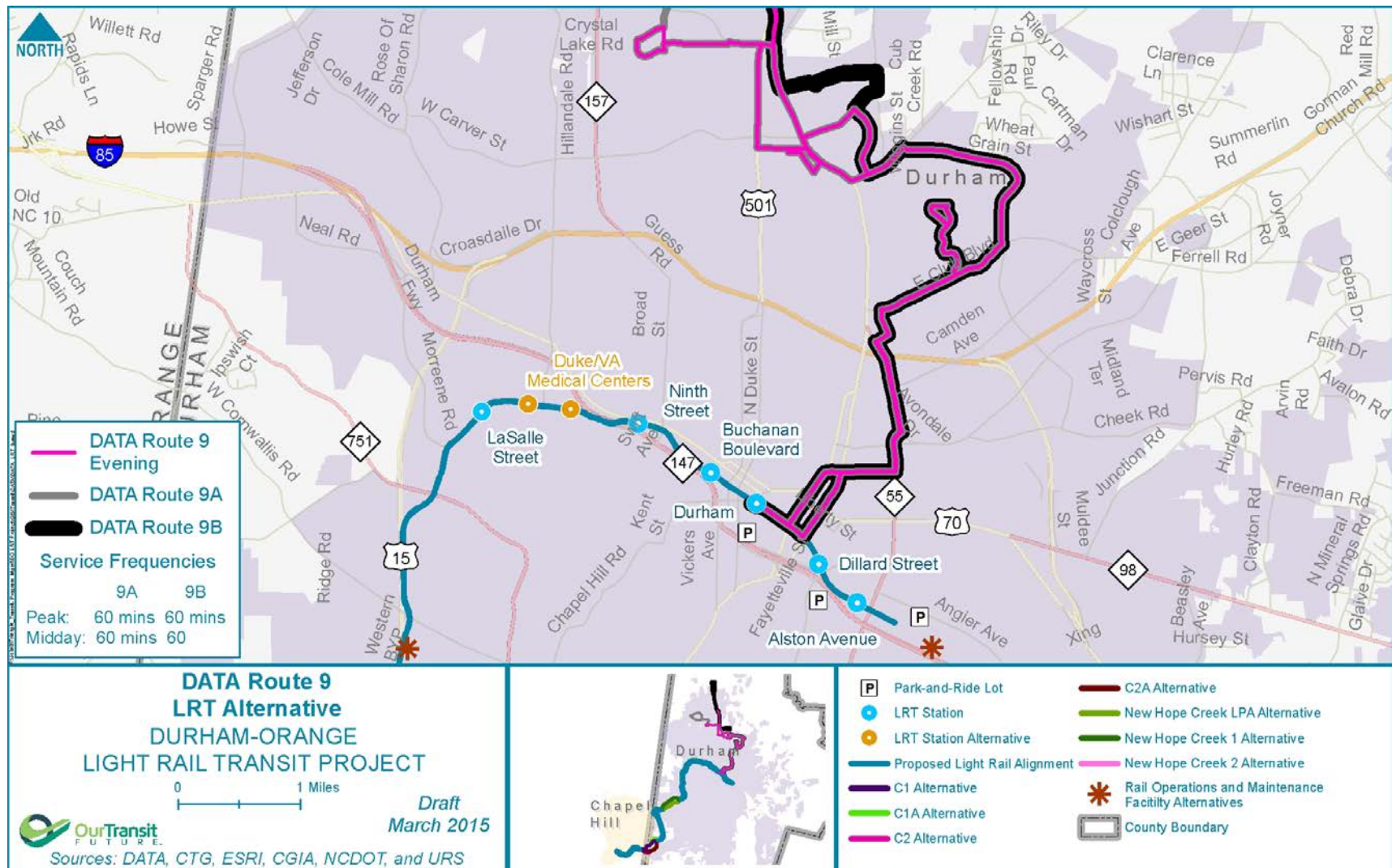






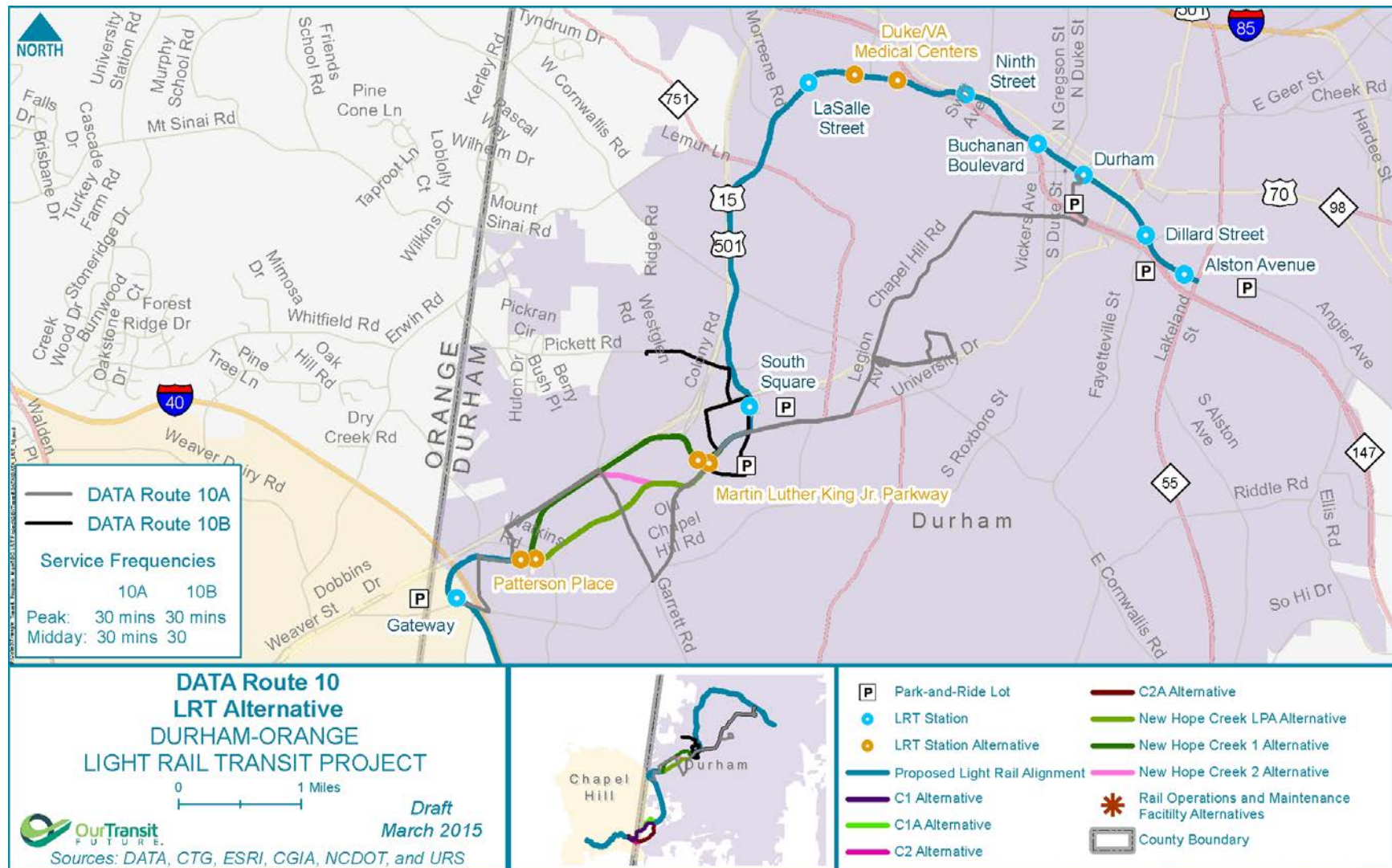




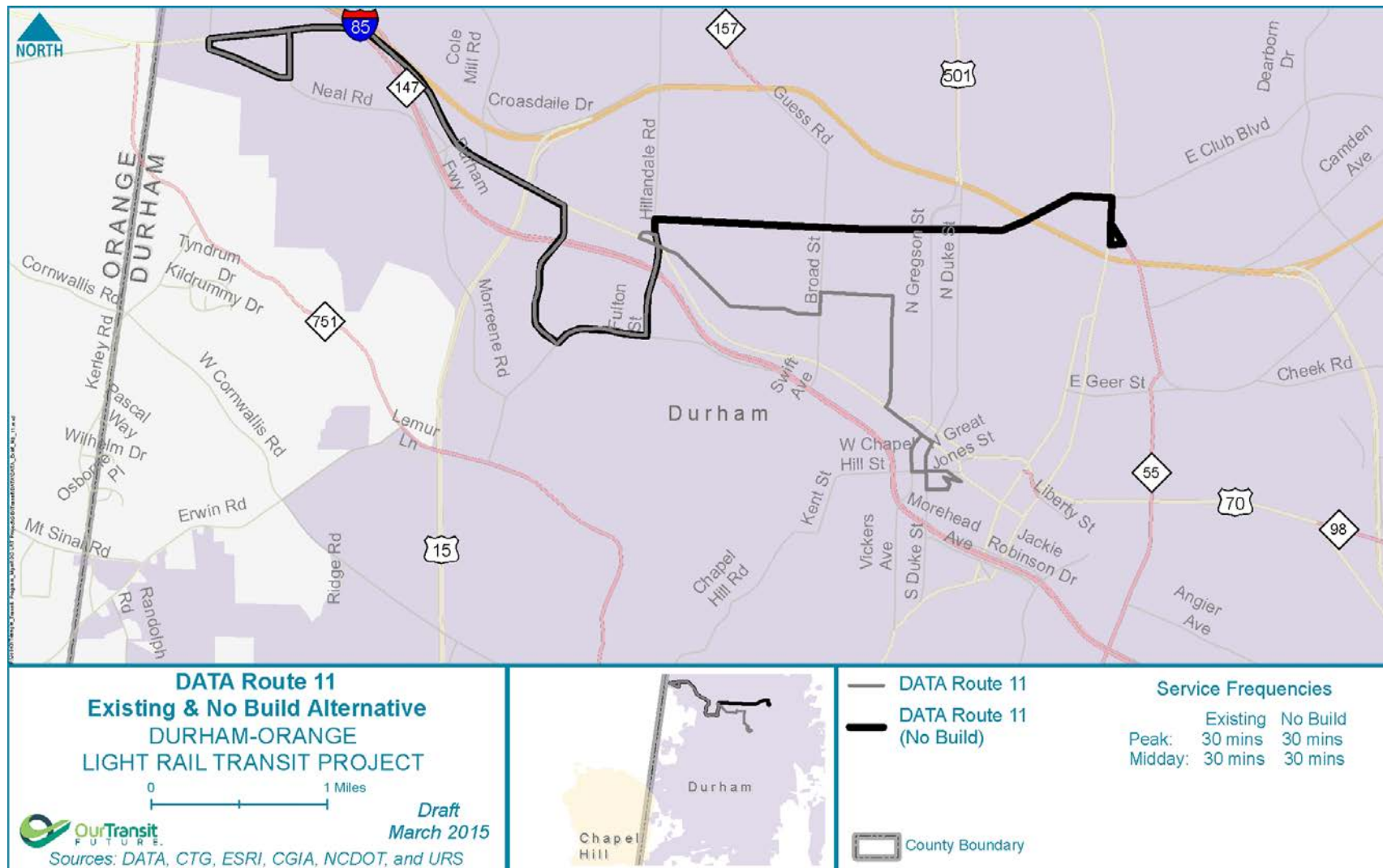


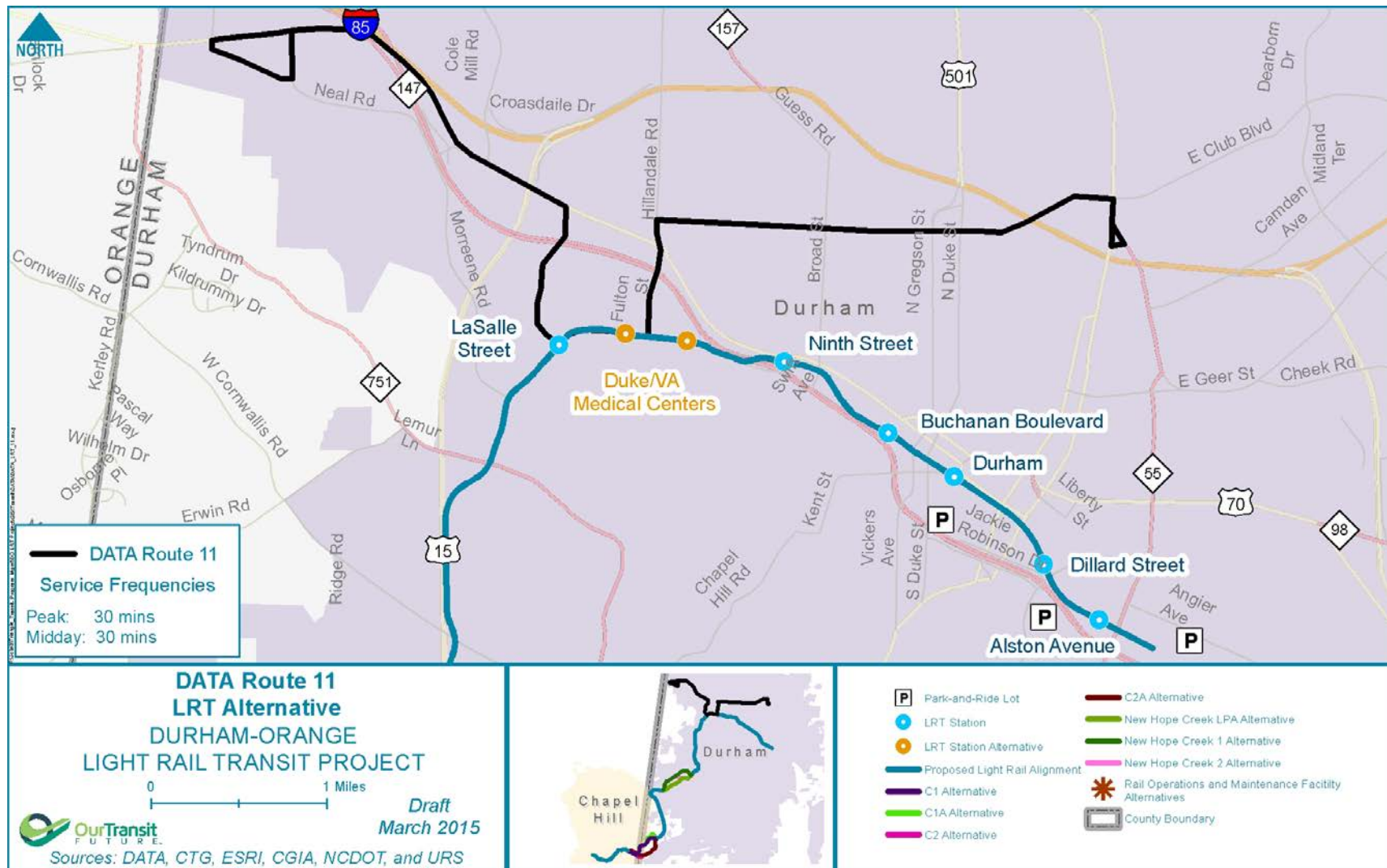


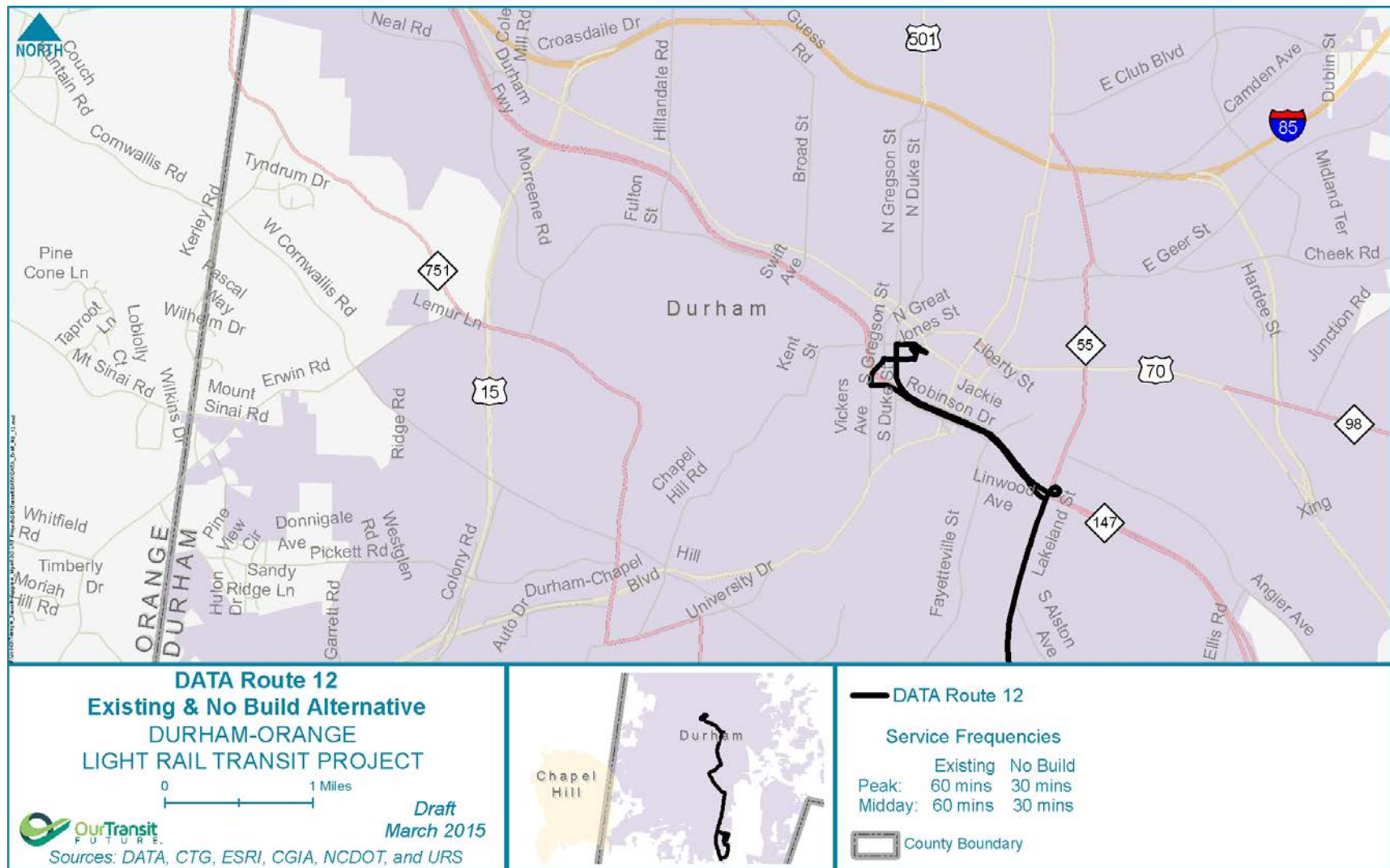






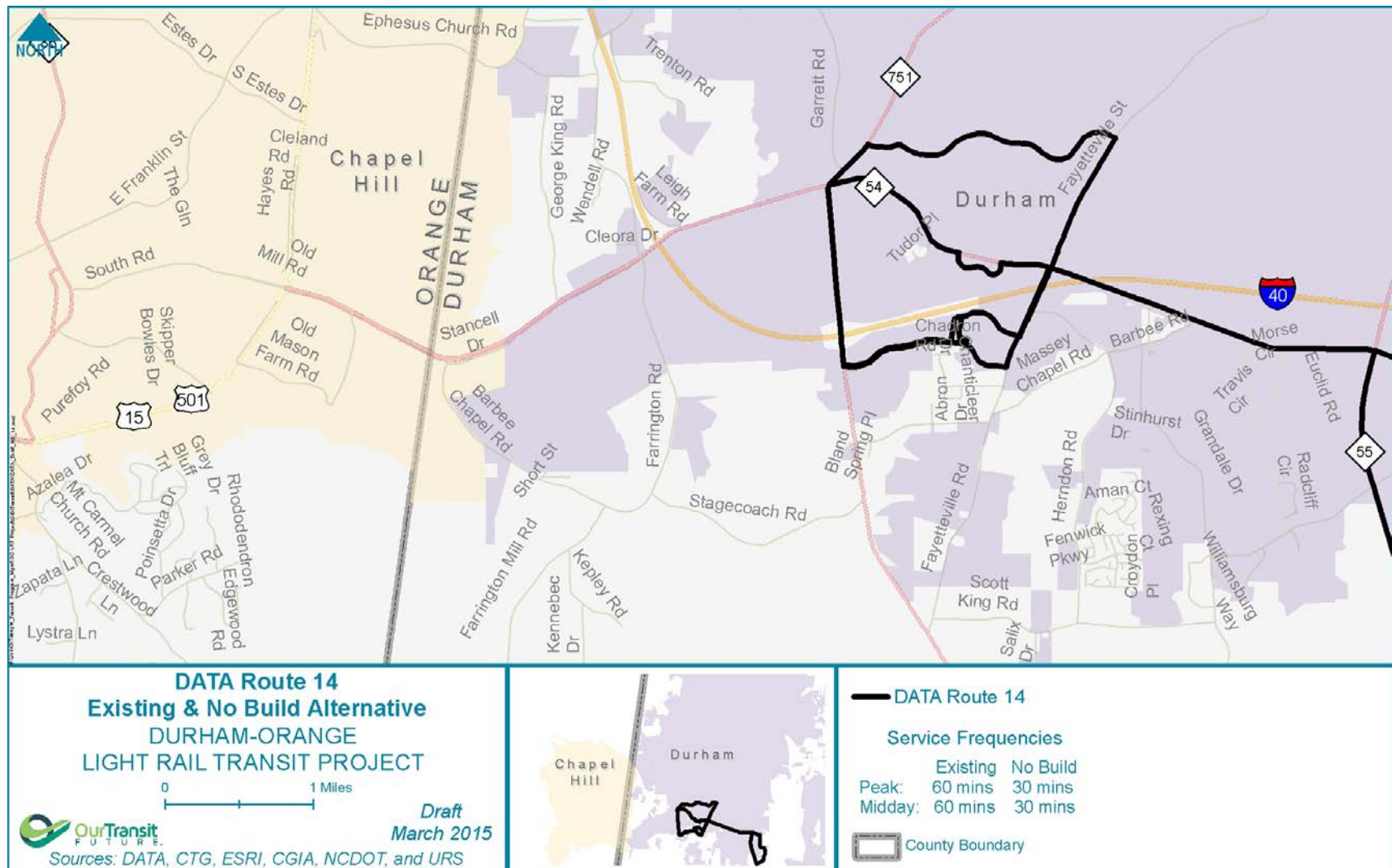


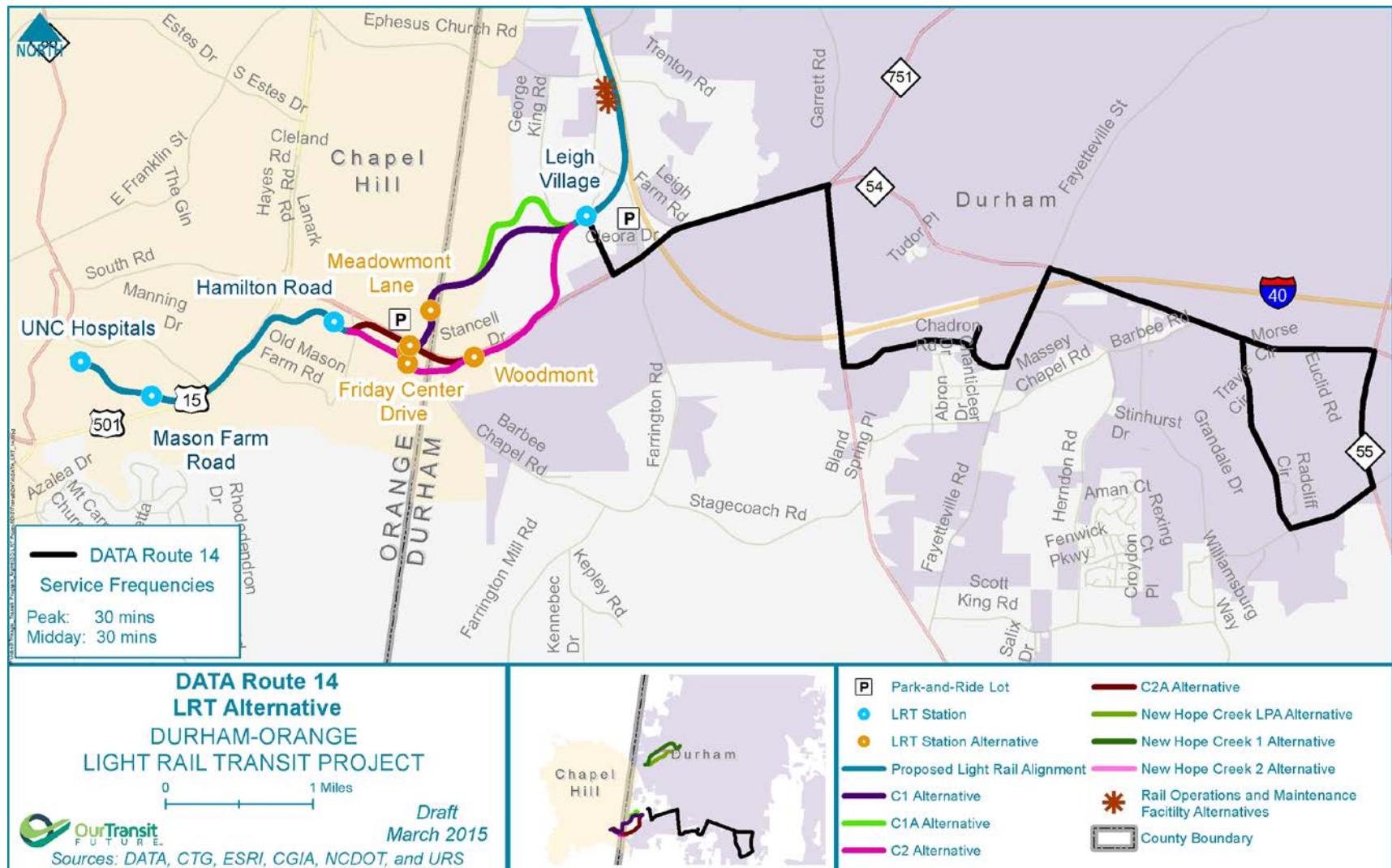




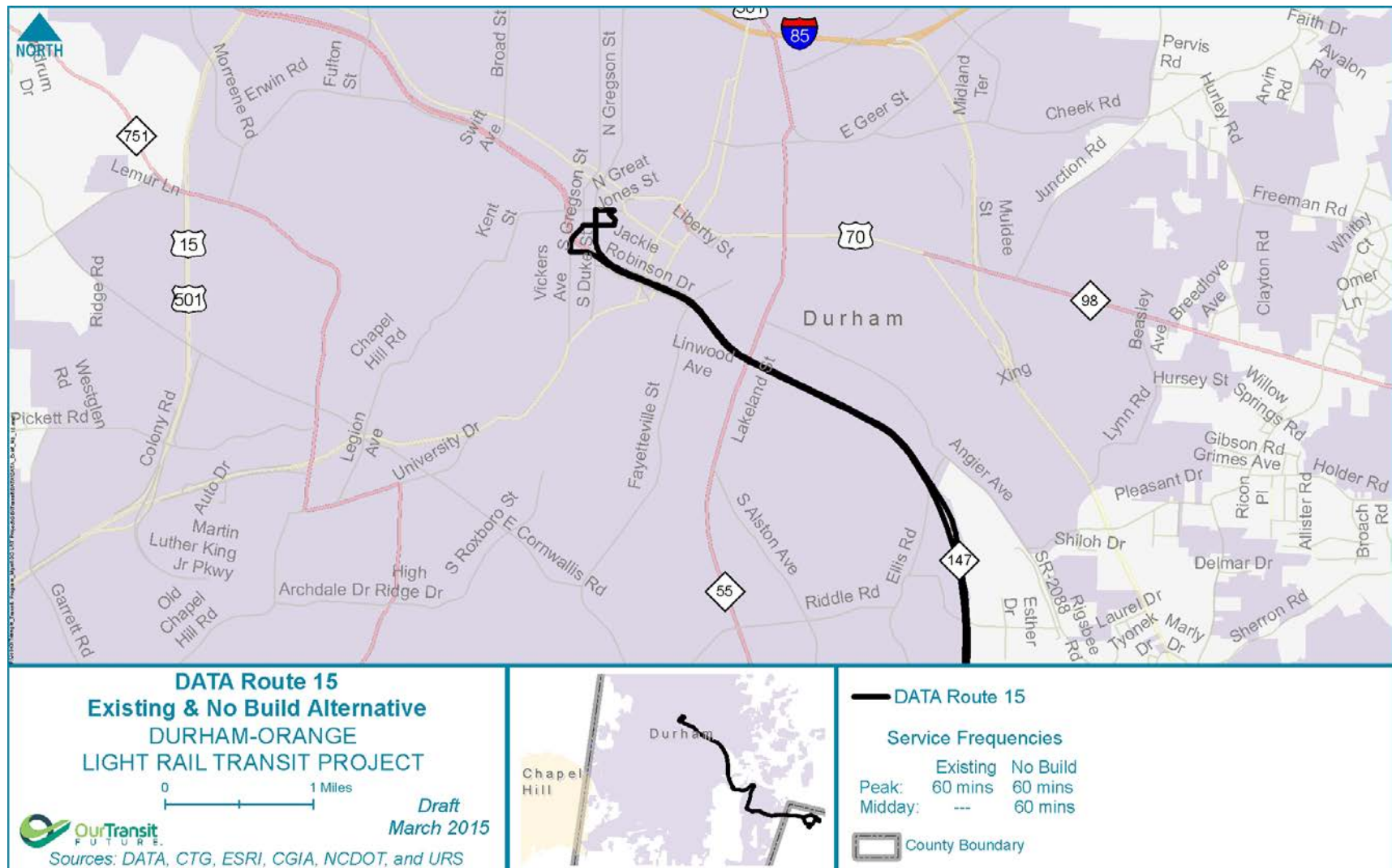


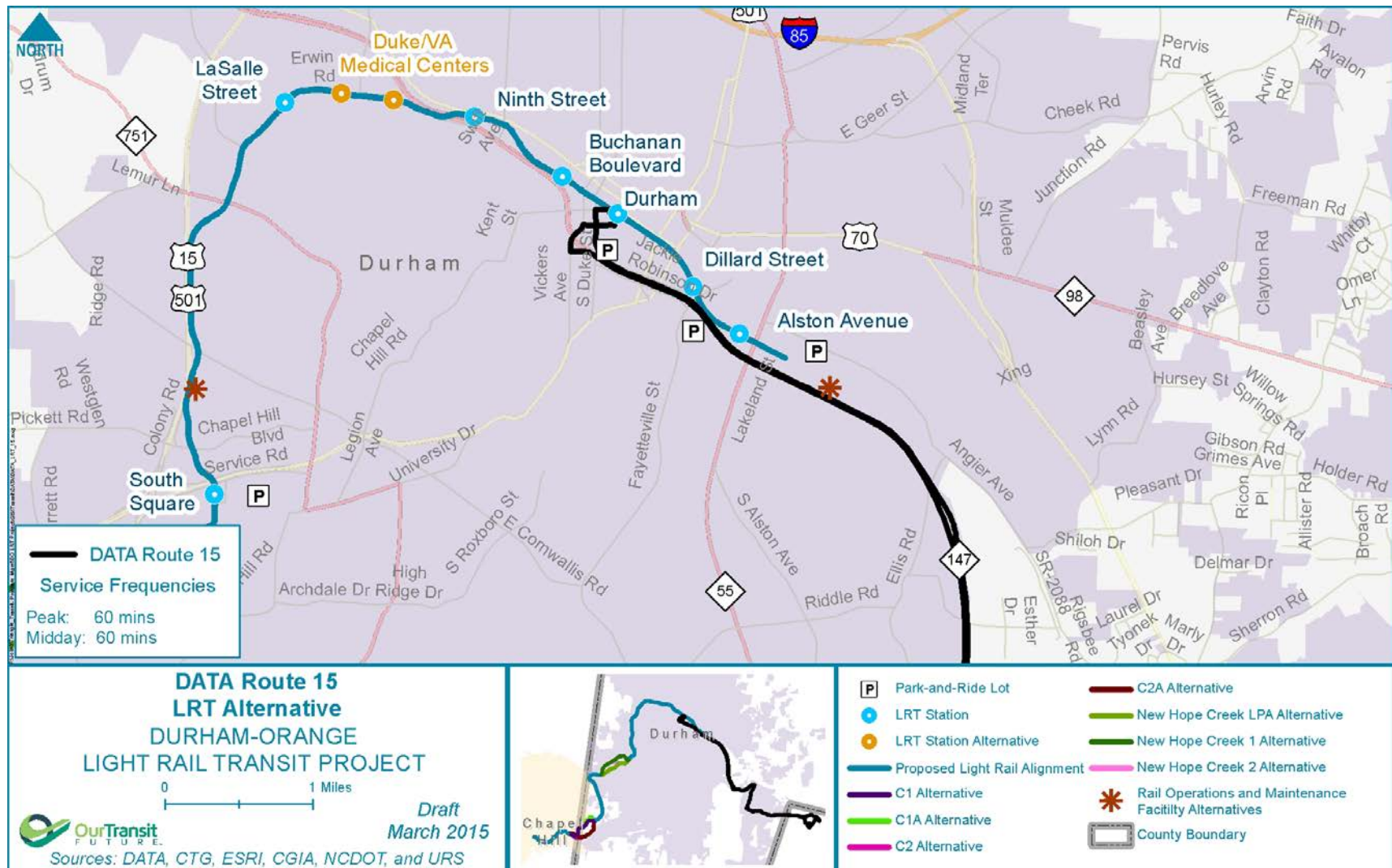


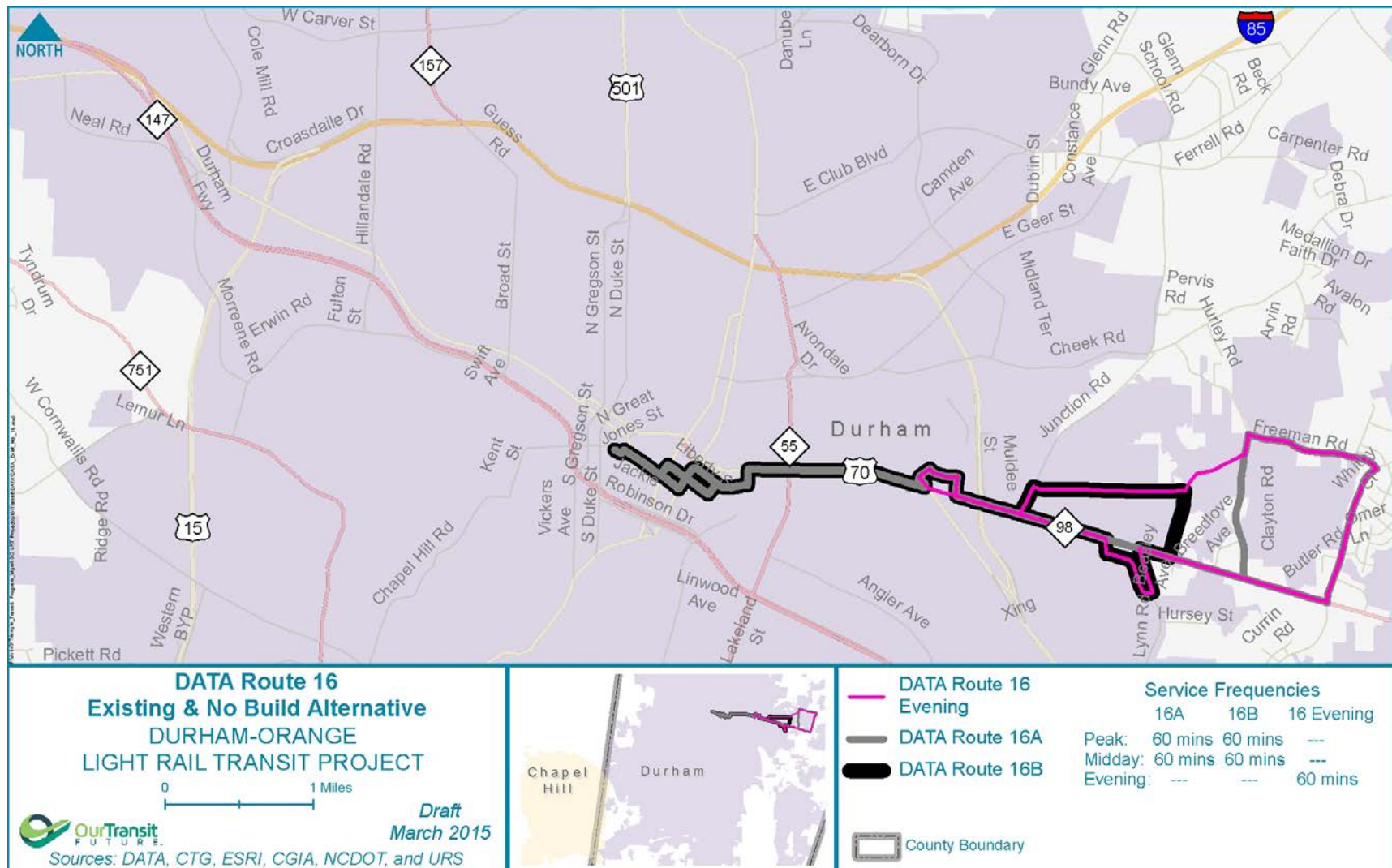




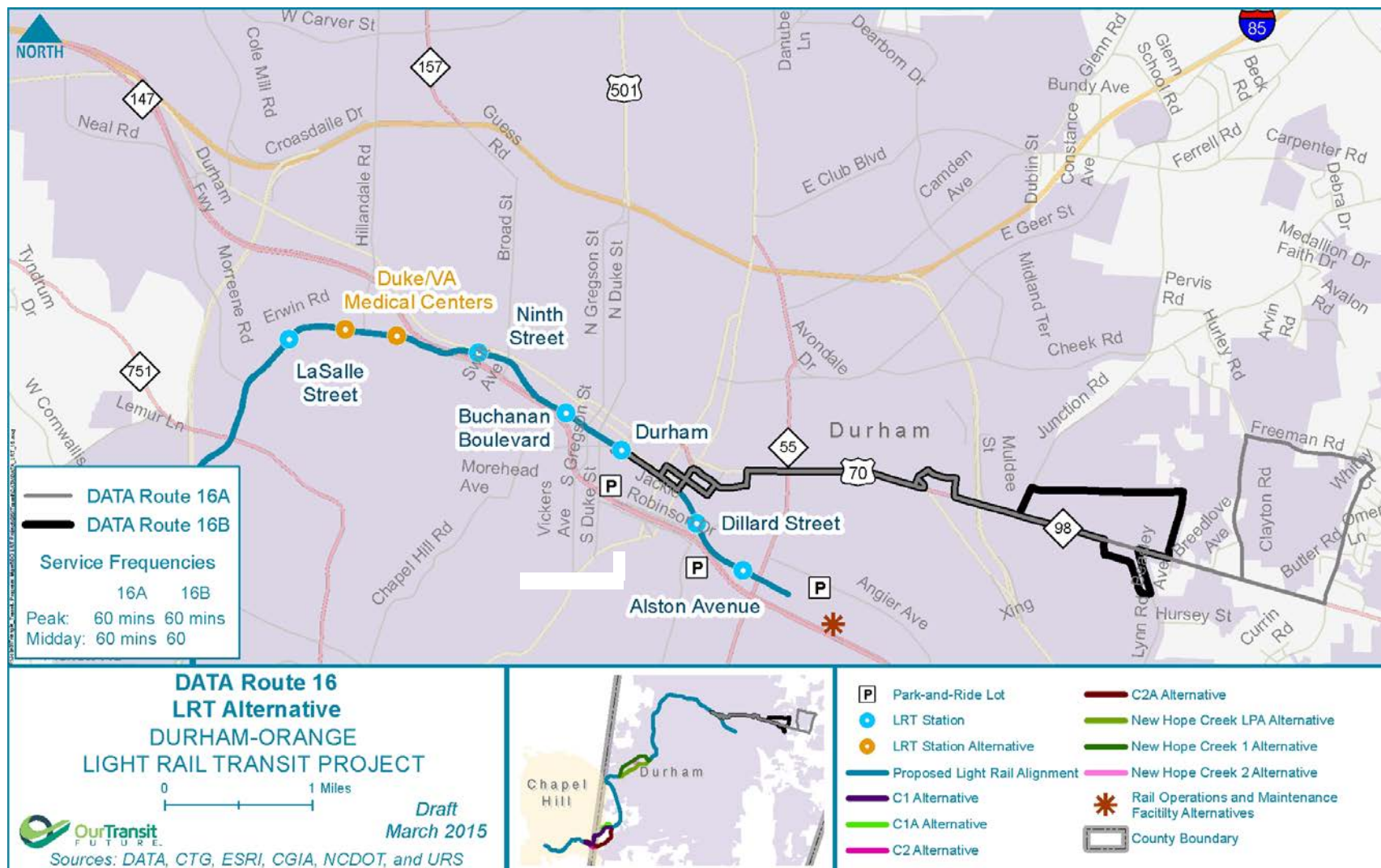


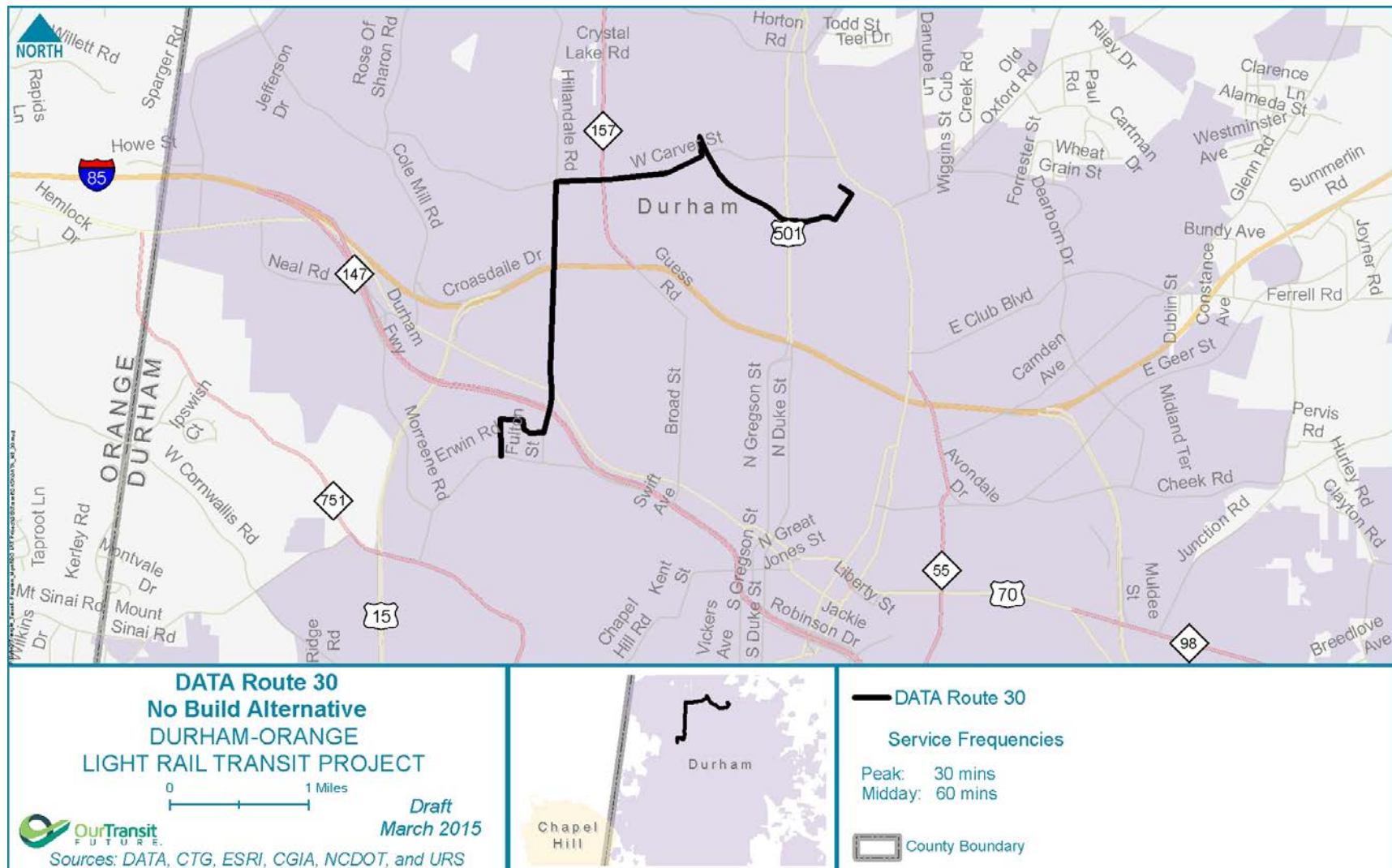








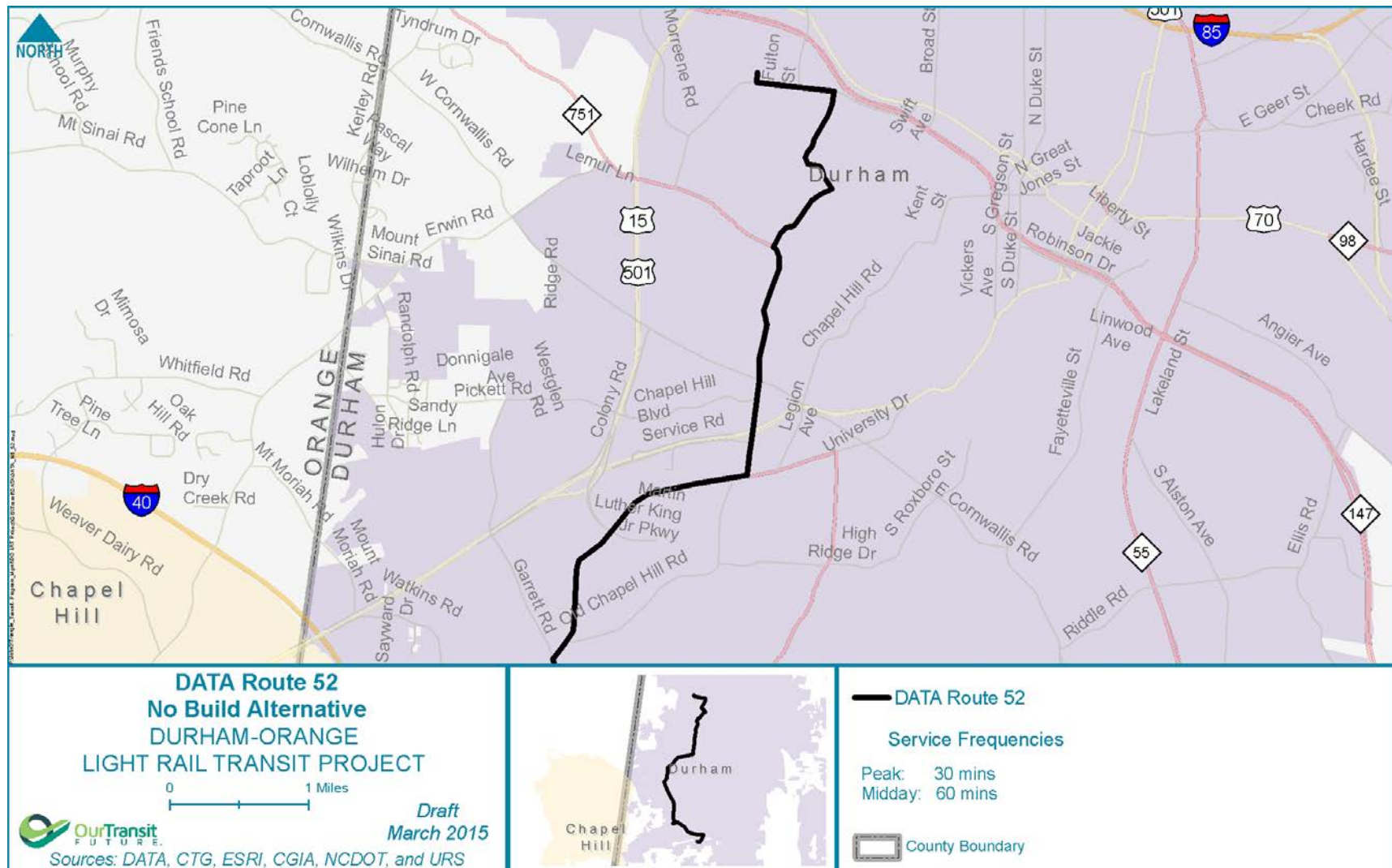


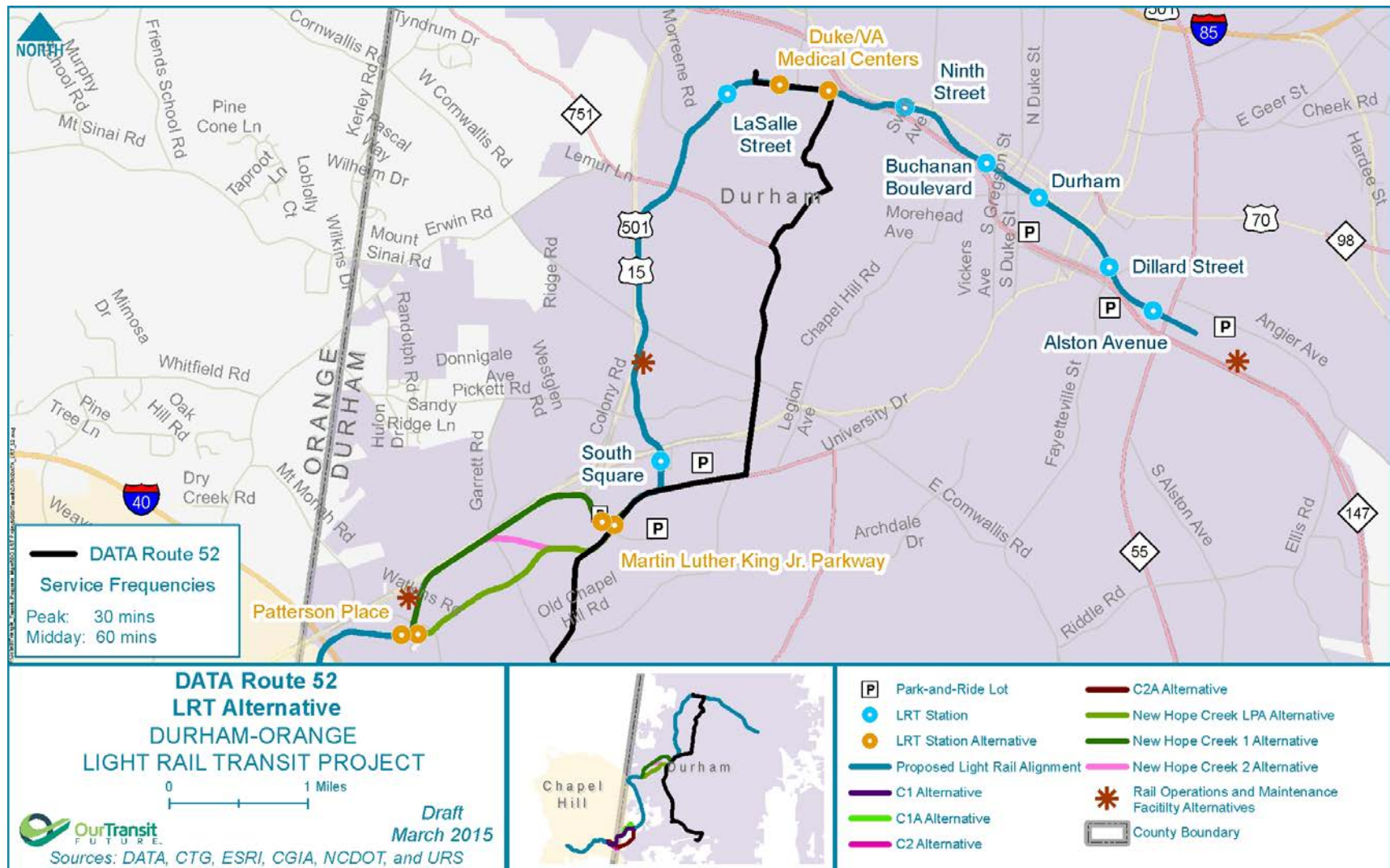




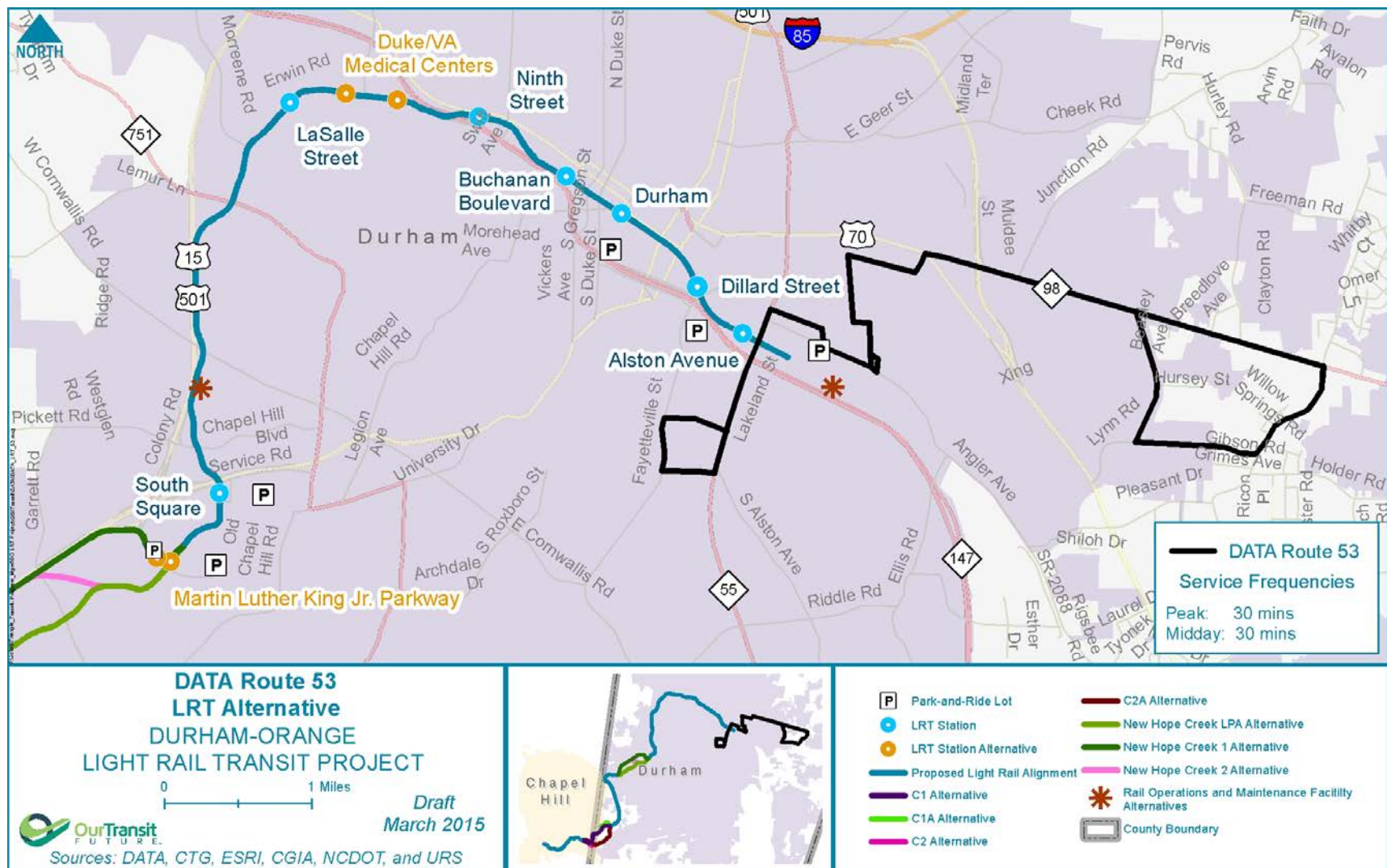


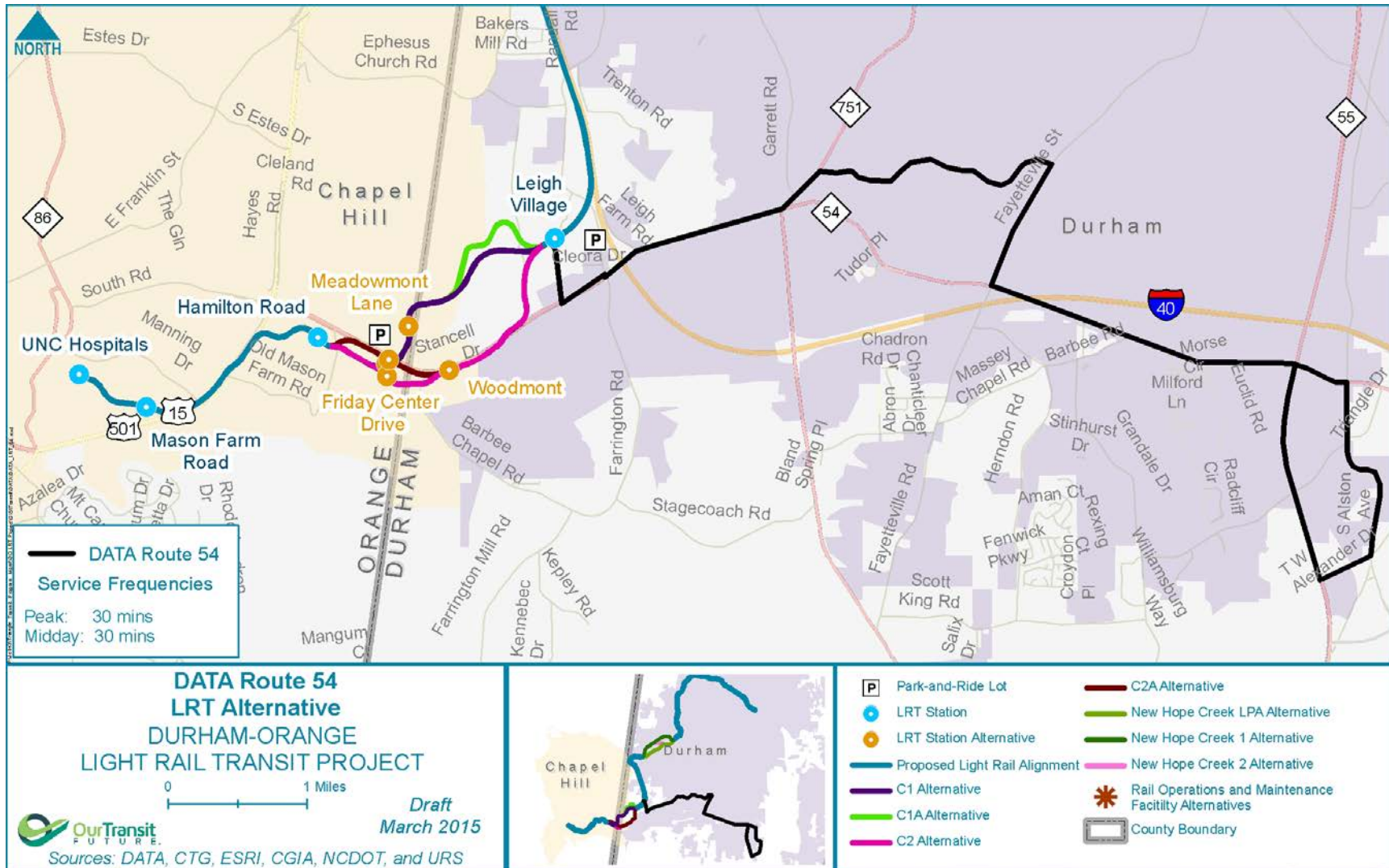




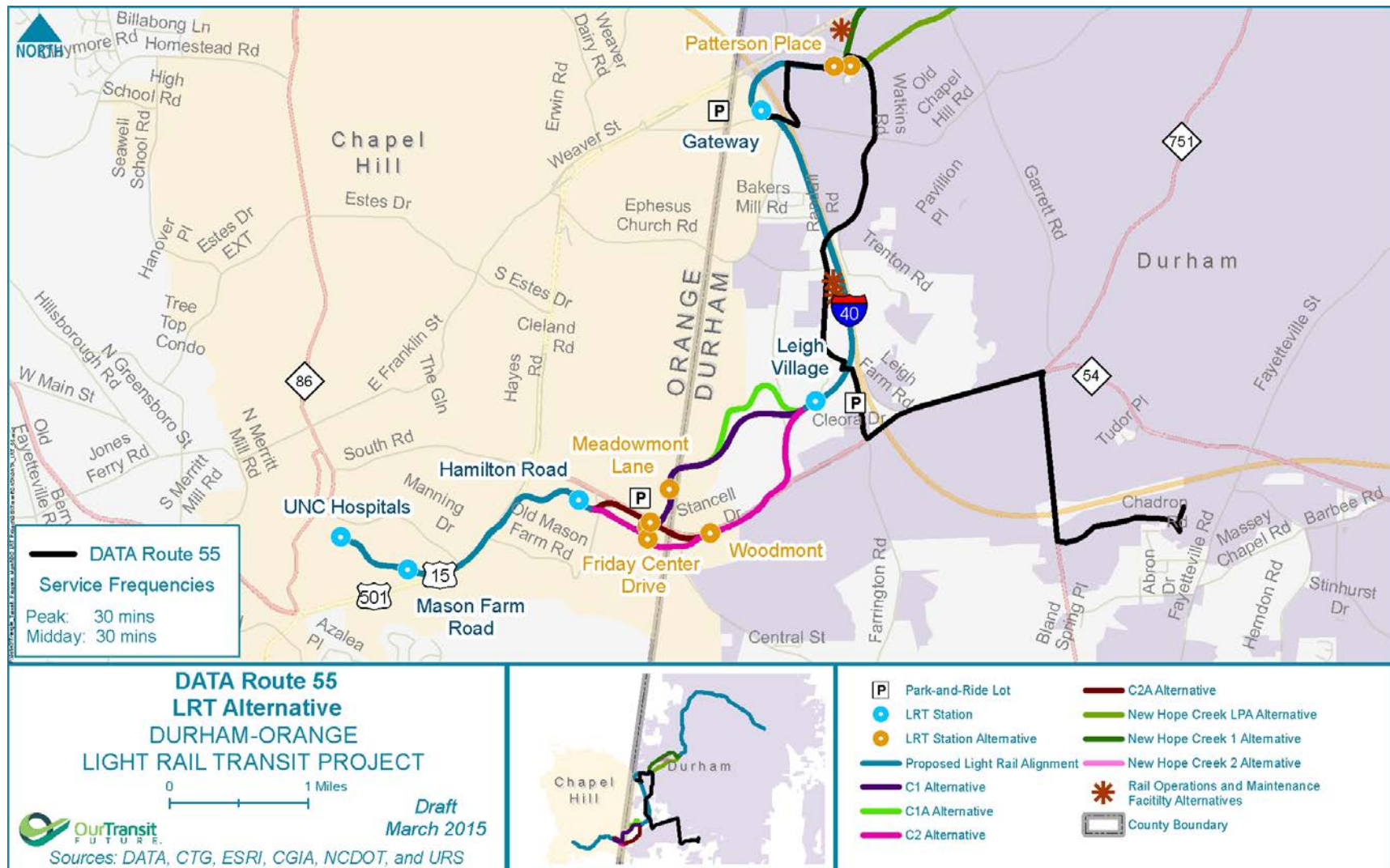






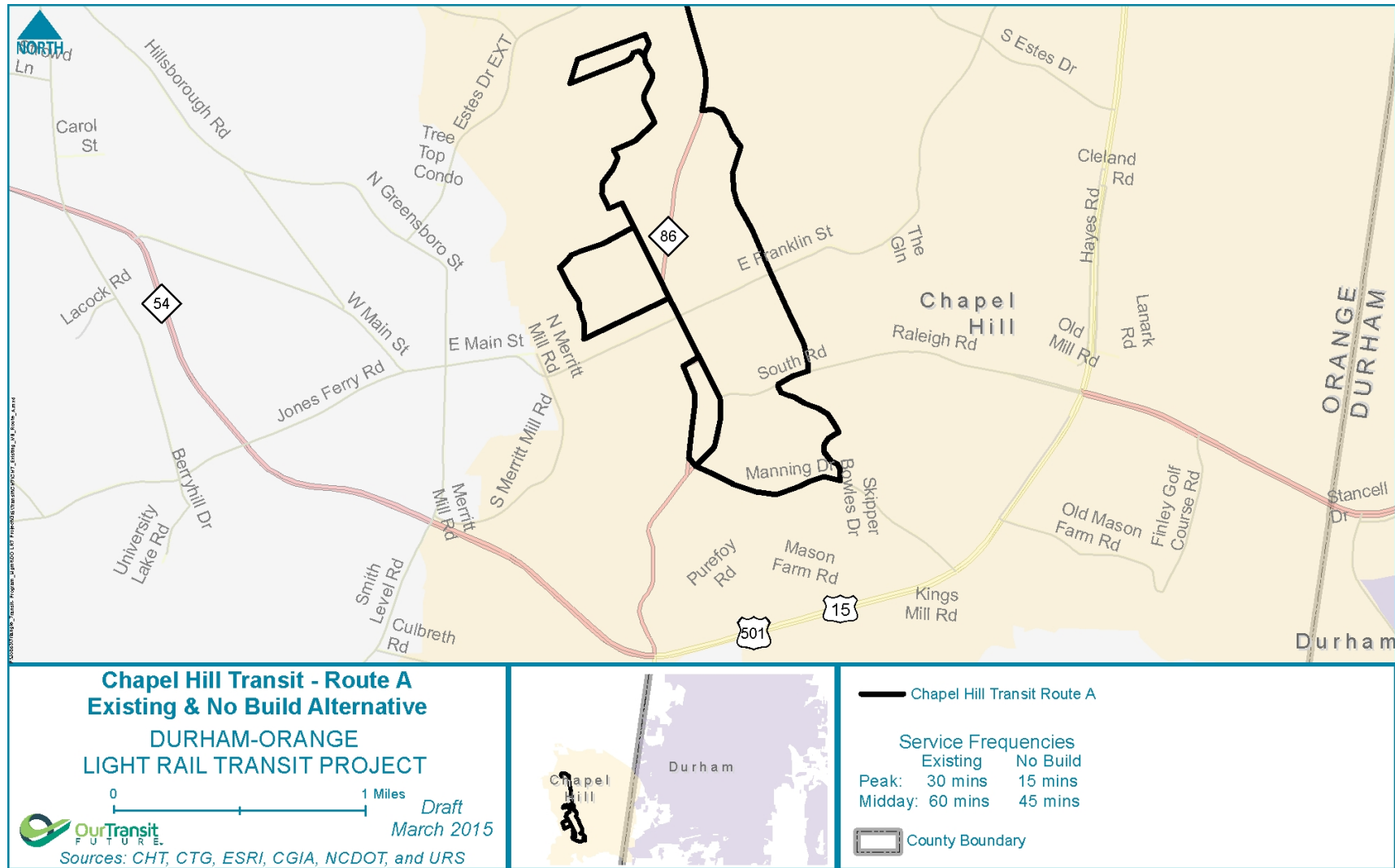




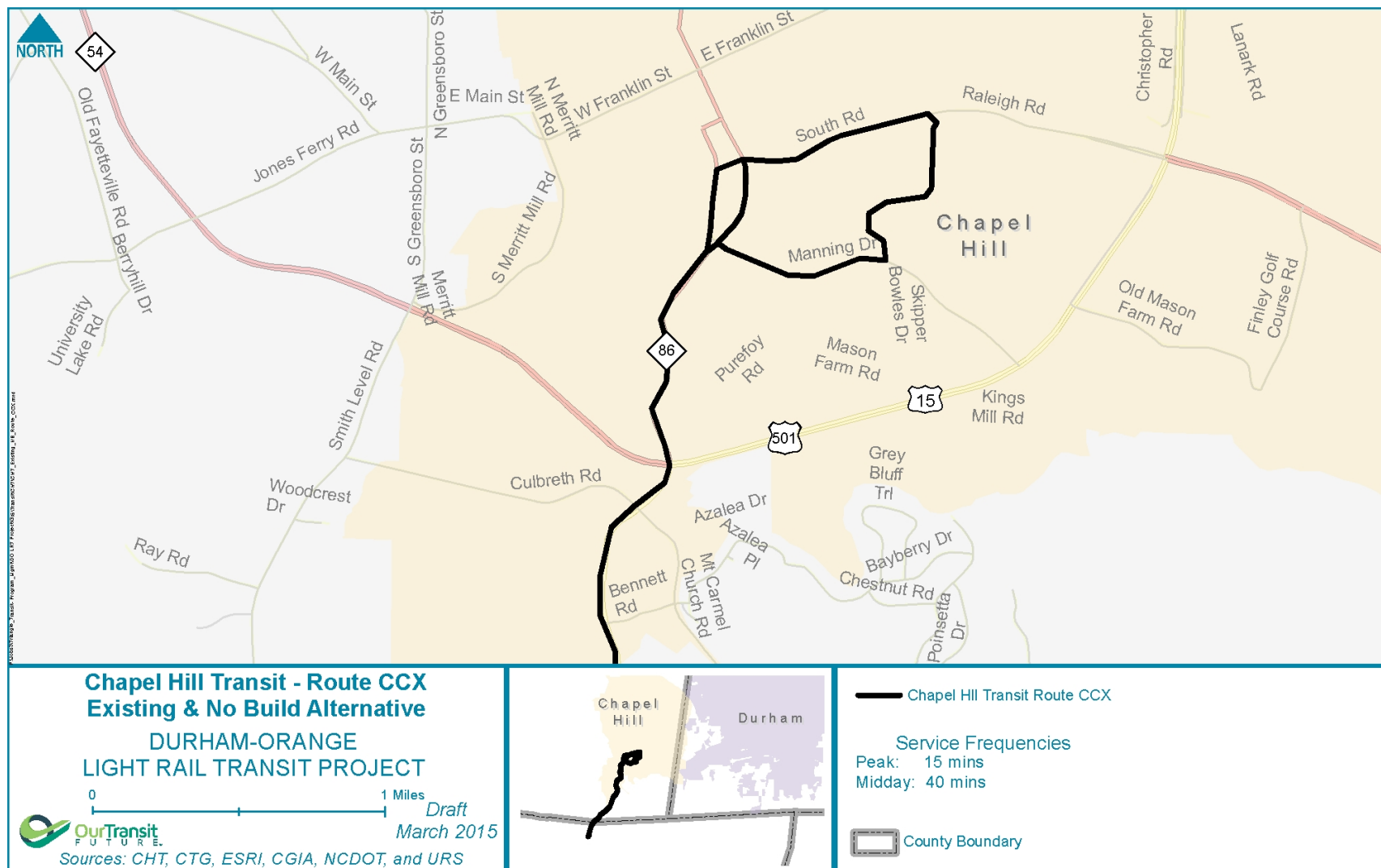


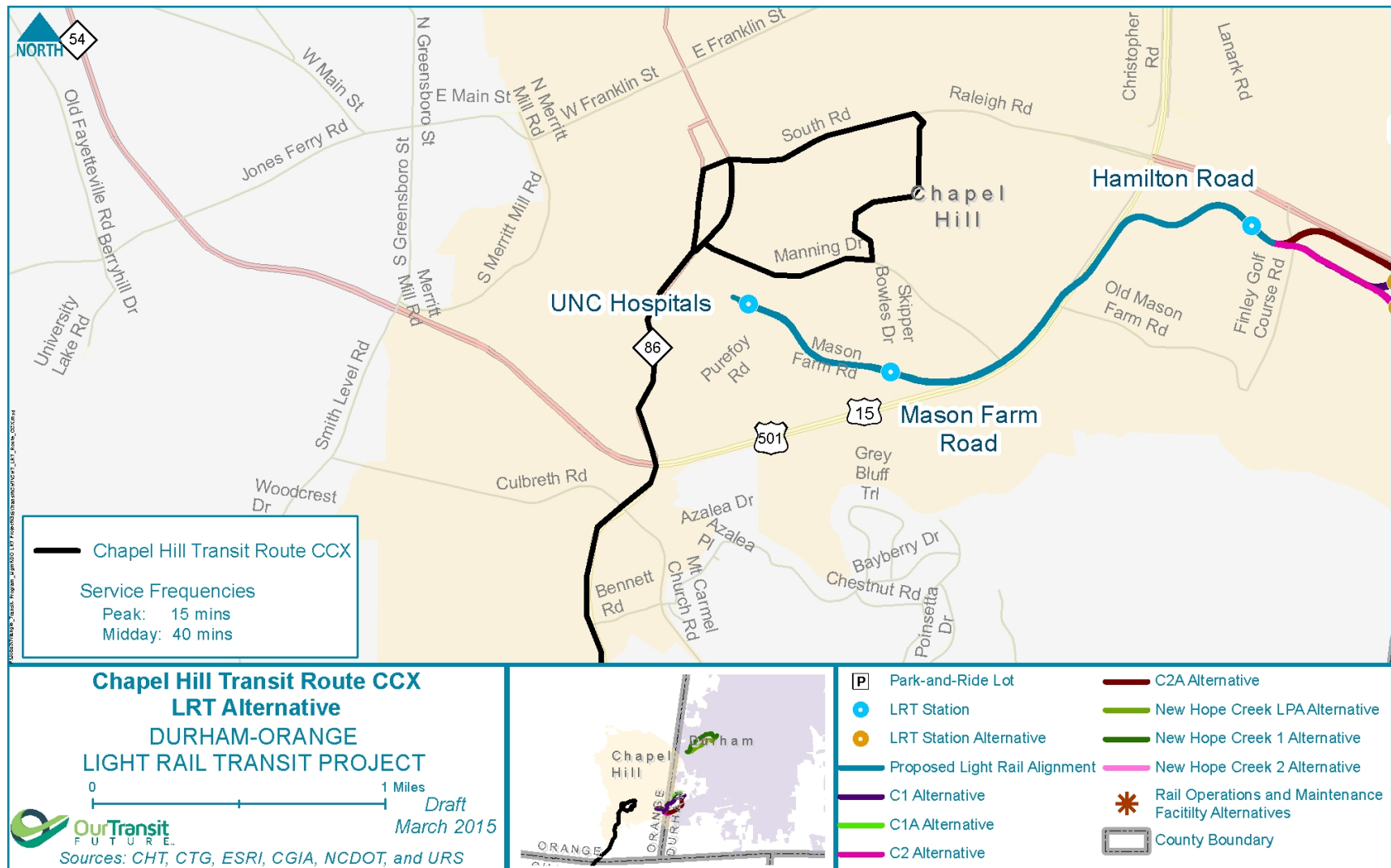


**APPENDIX G**  
**INDIVIDUAL ROUTE MAPS**  
**CHAPEL HILL TRANSIT**  
**(Weekday Peak and Midday Period Routes Only)**

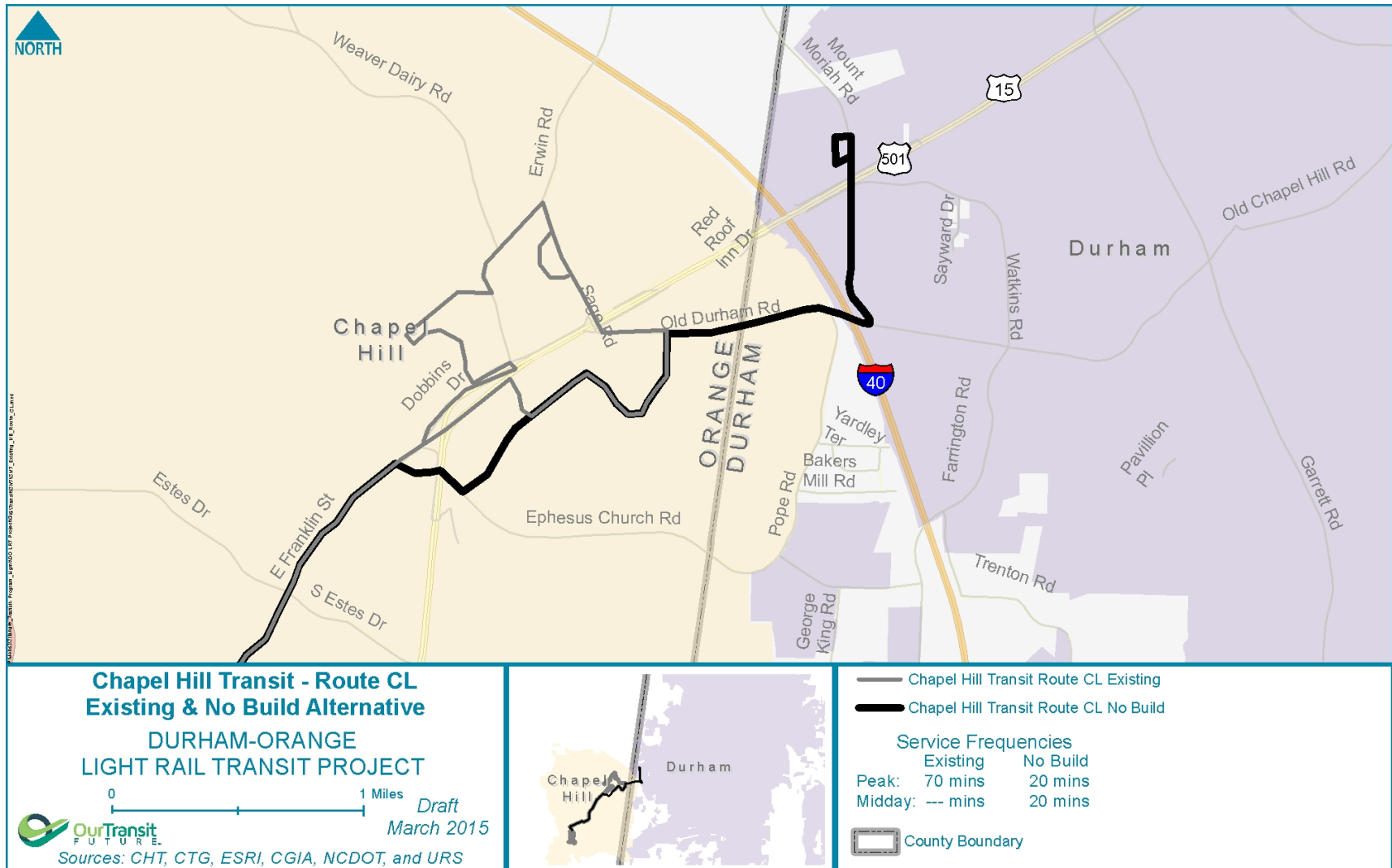


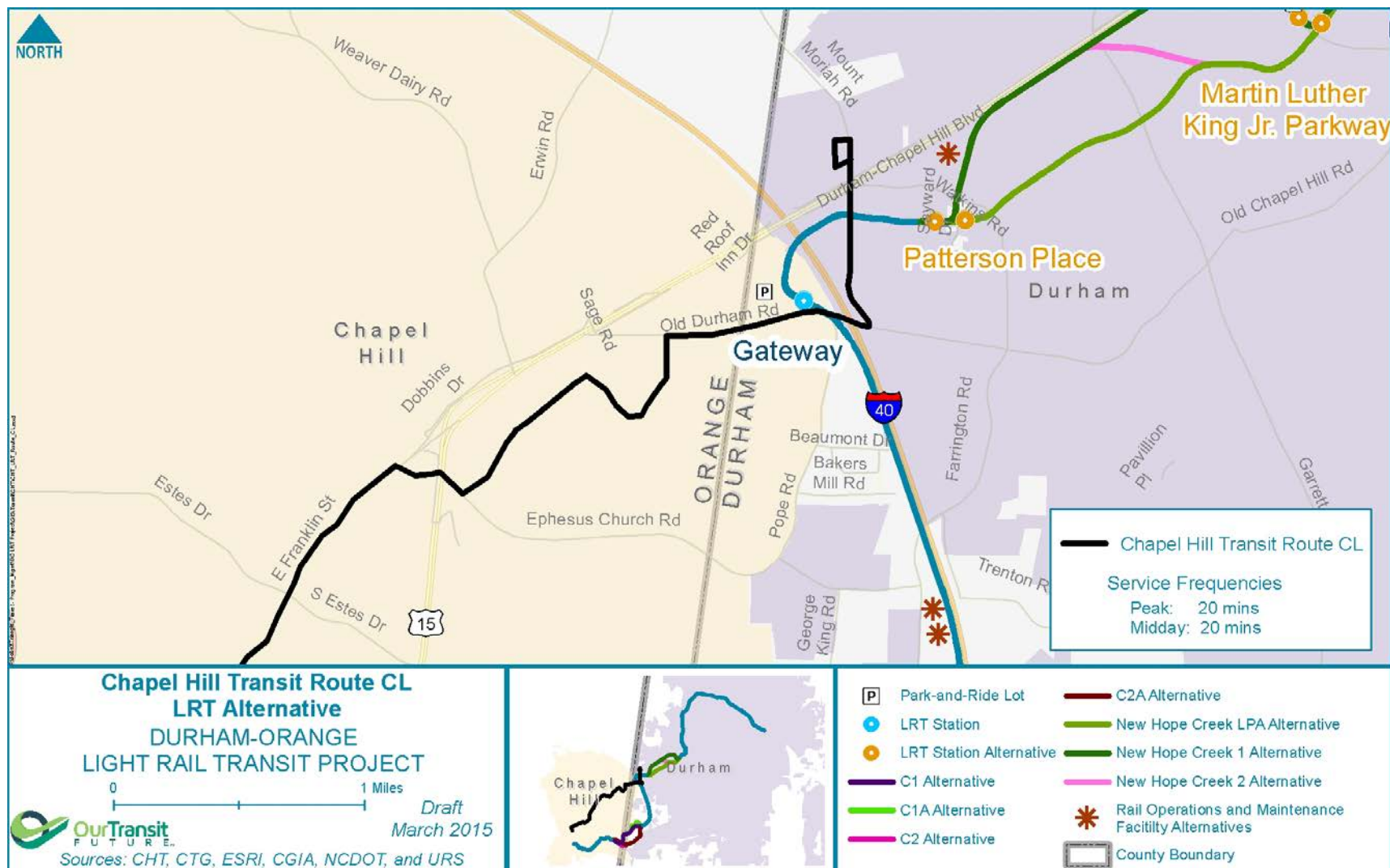


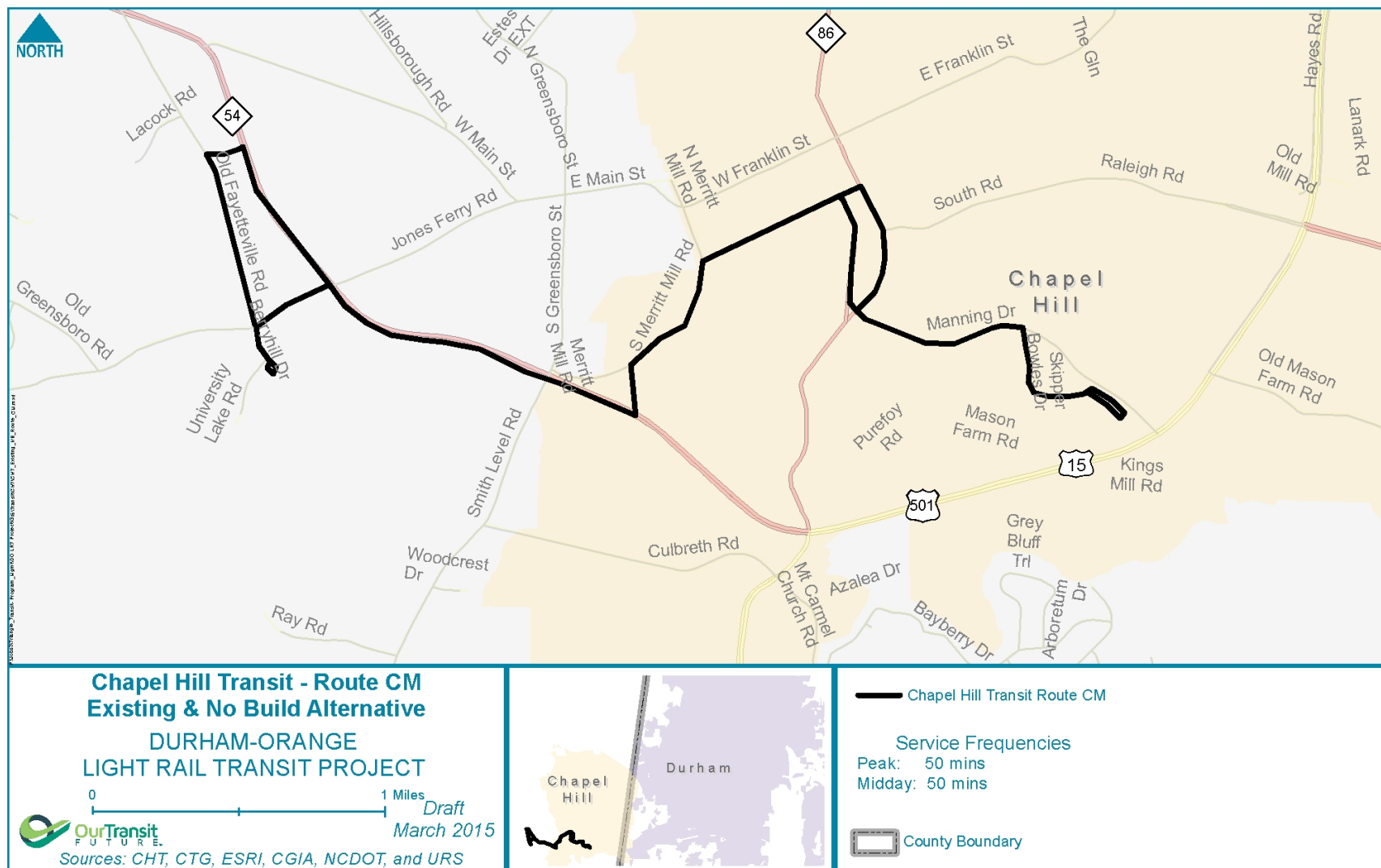


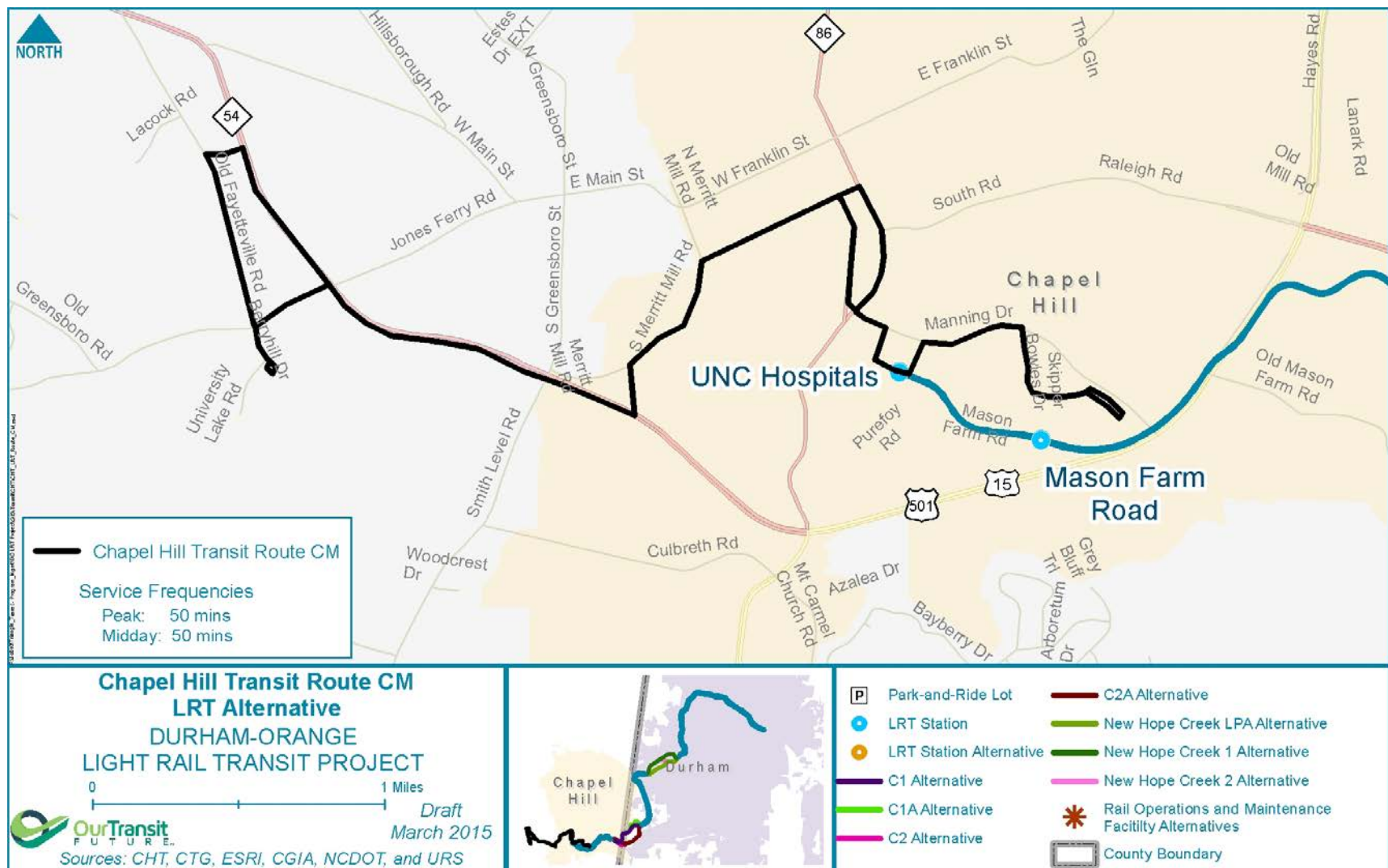


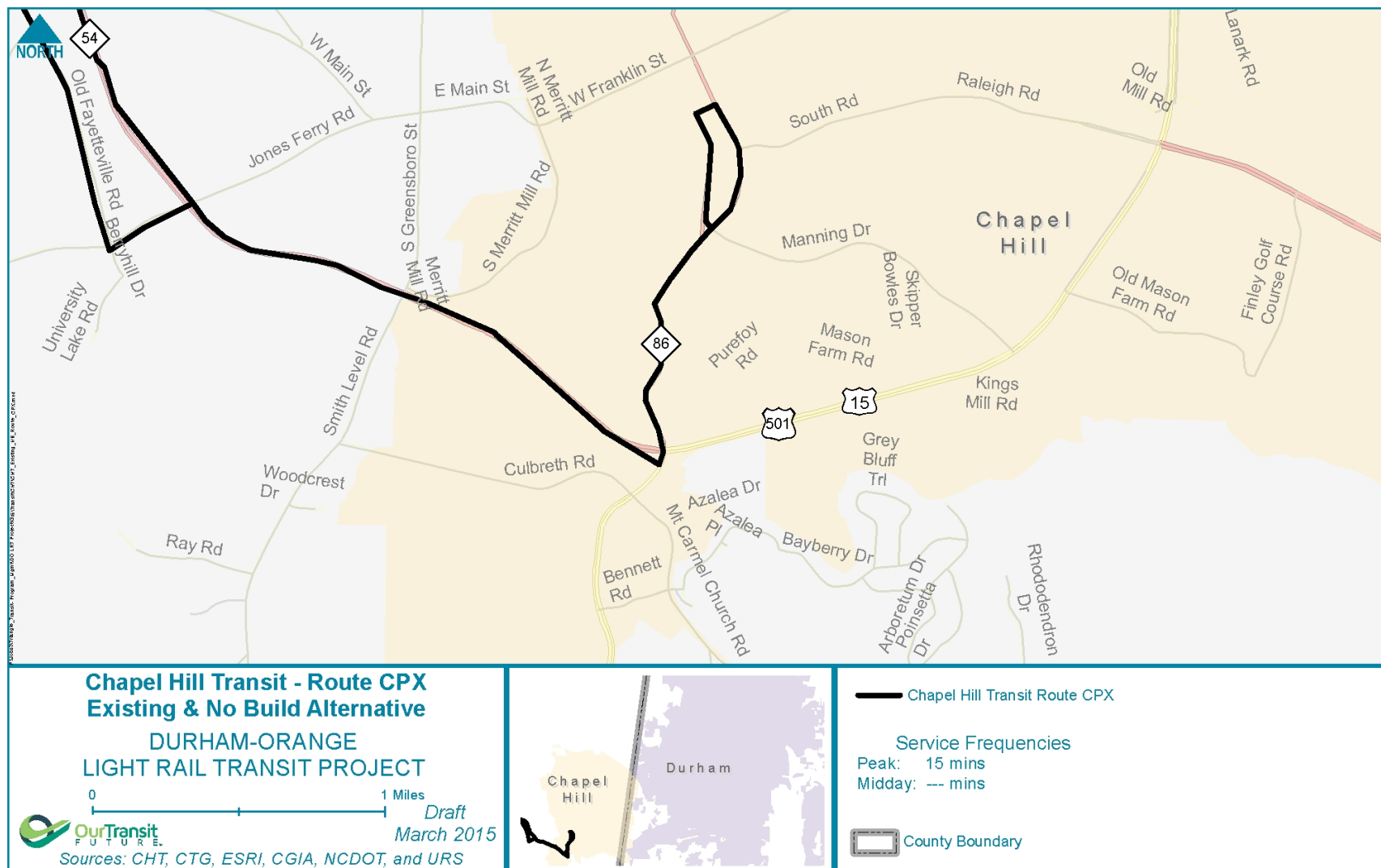




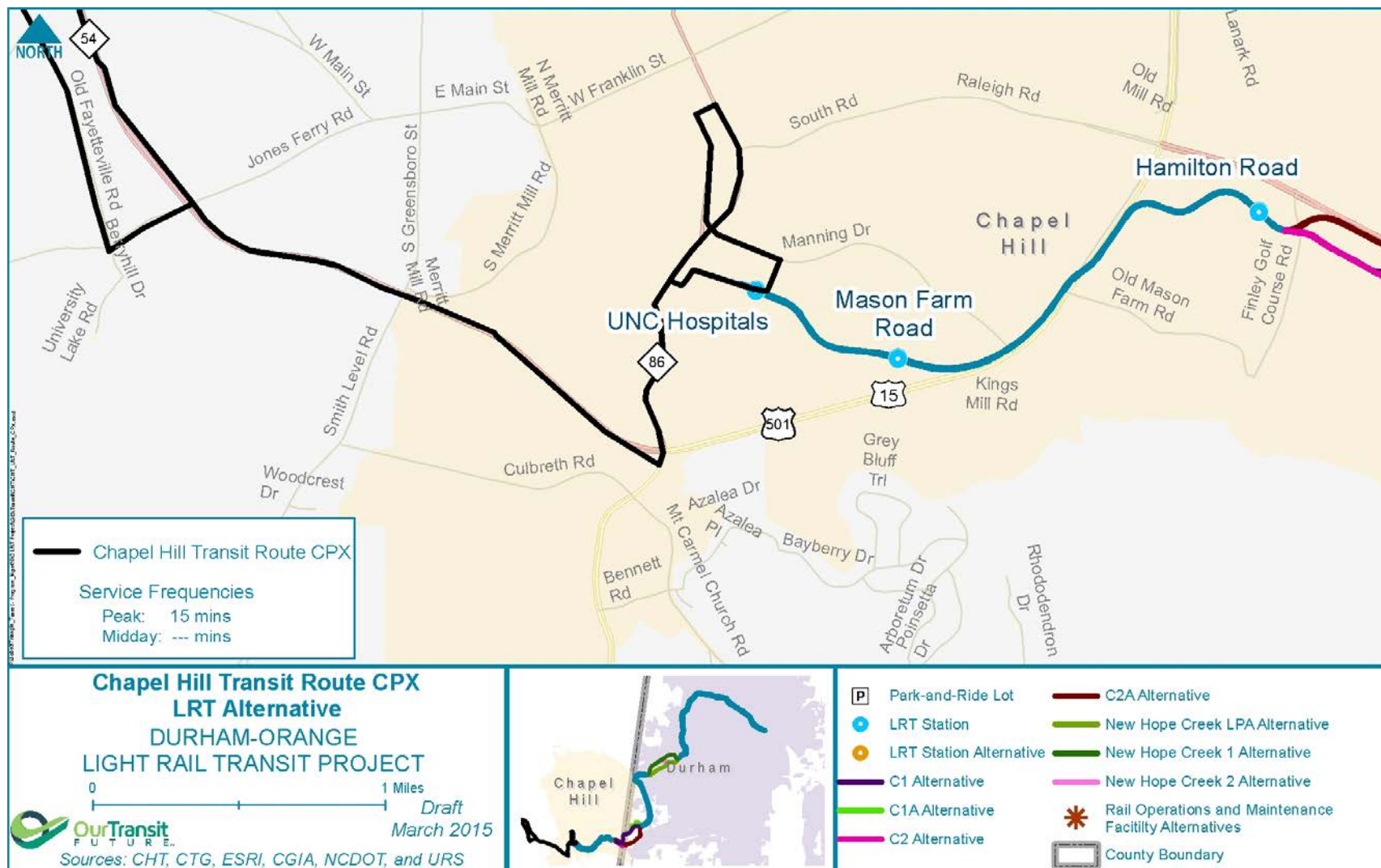


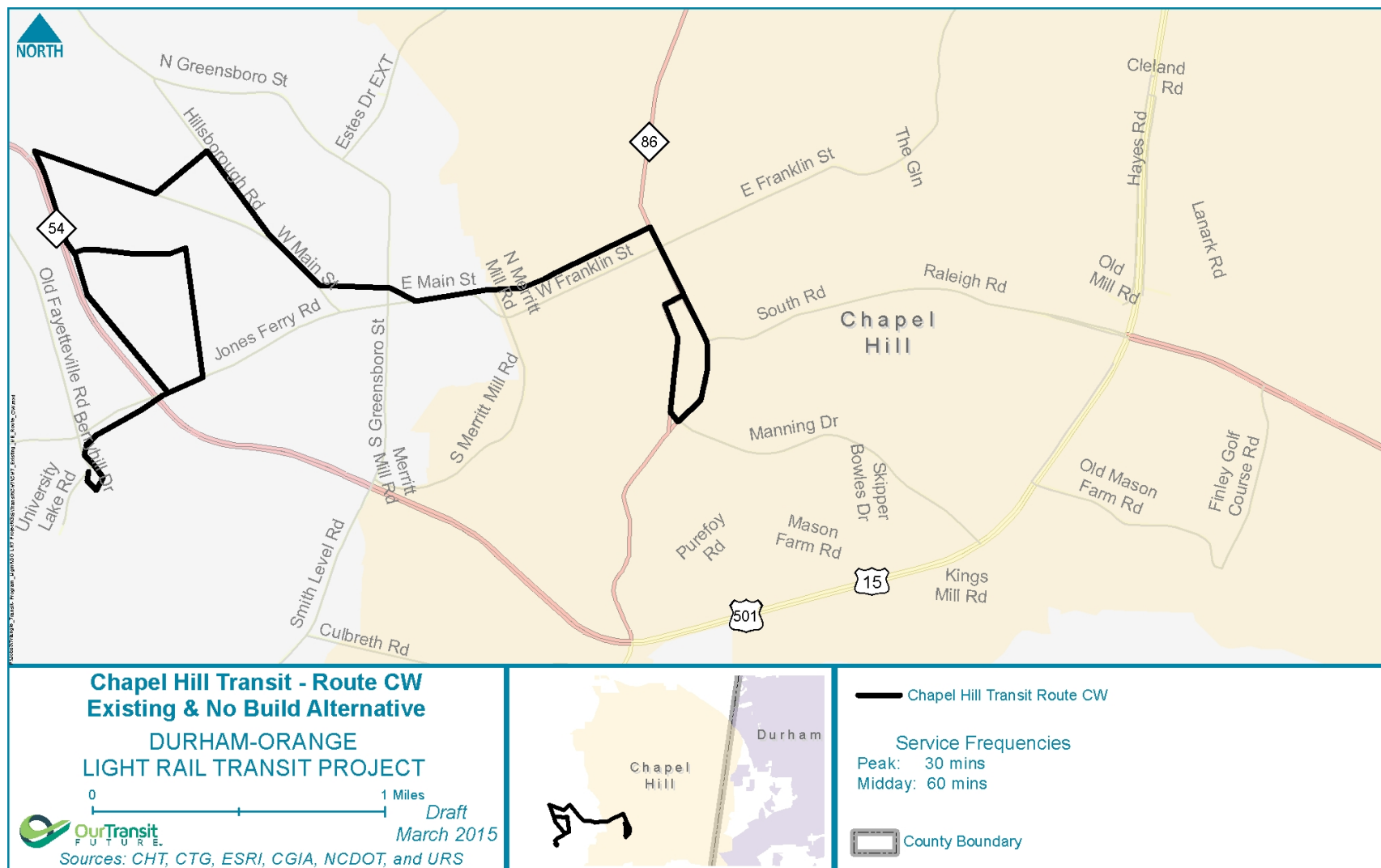


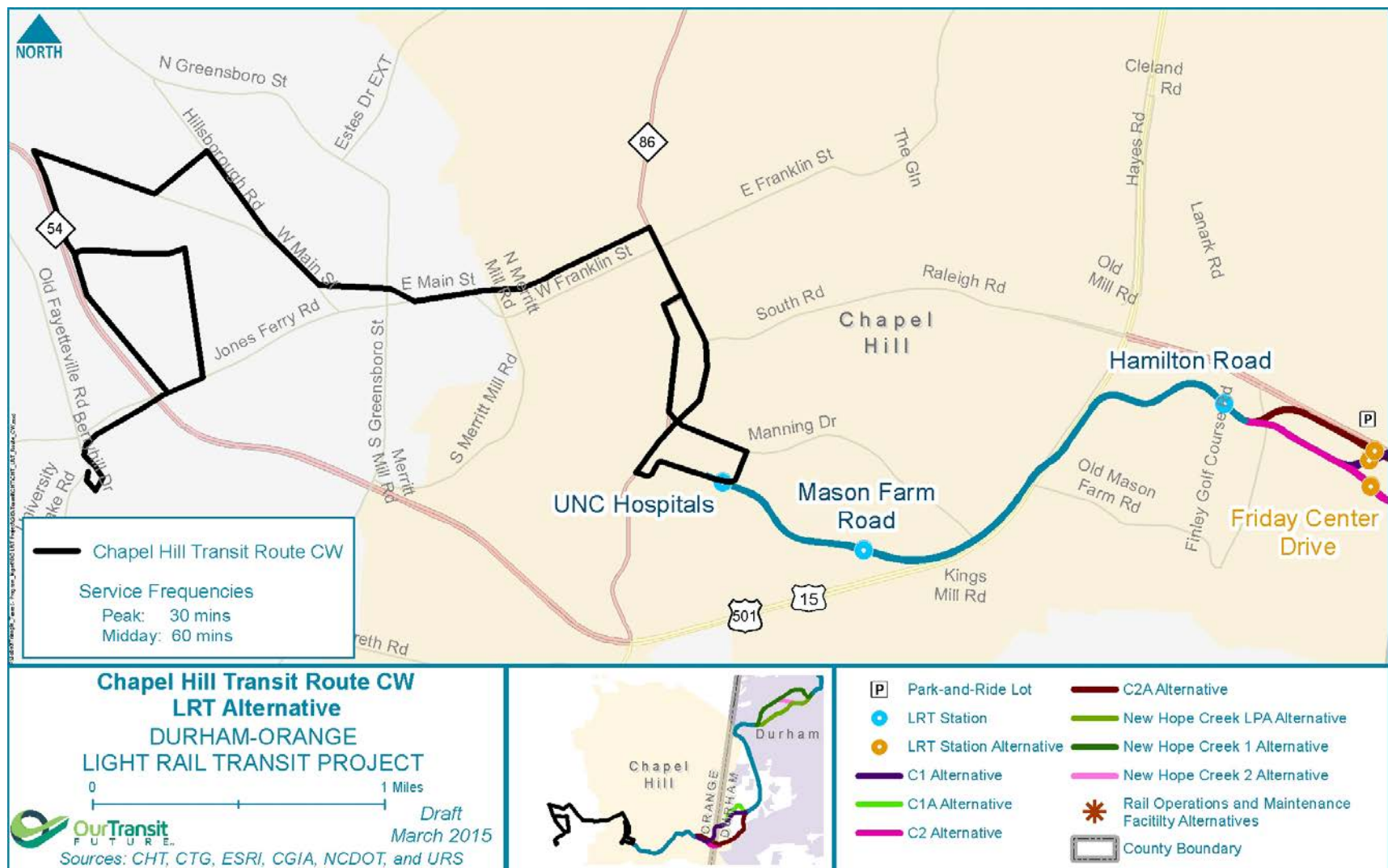


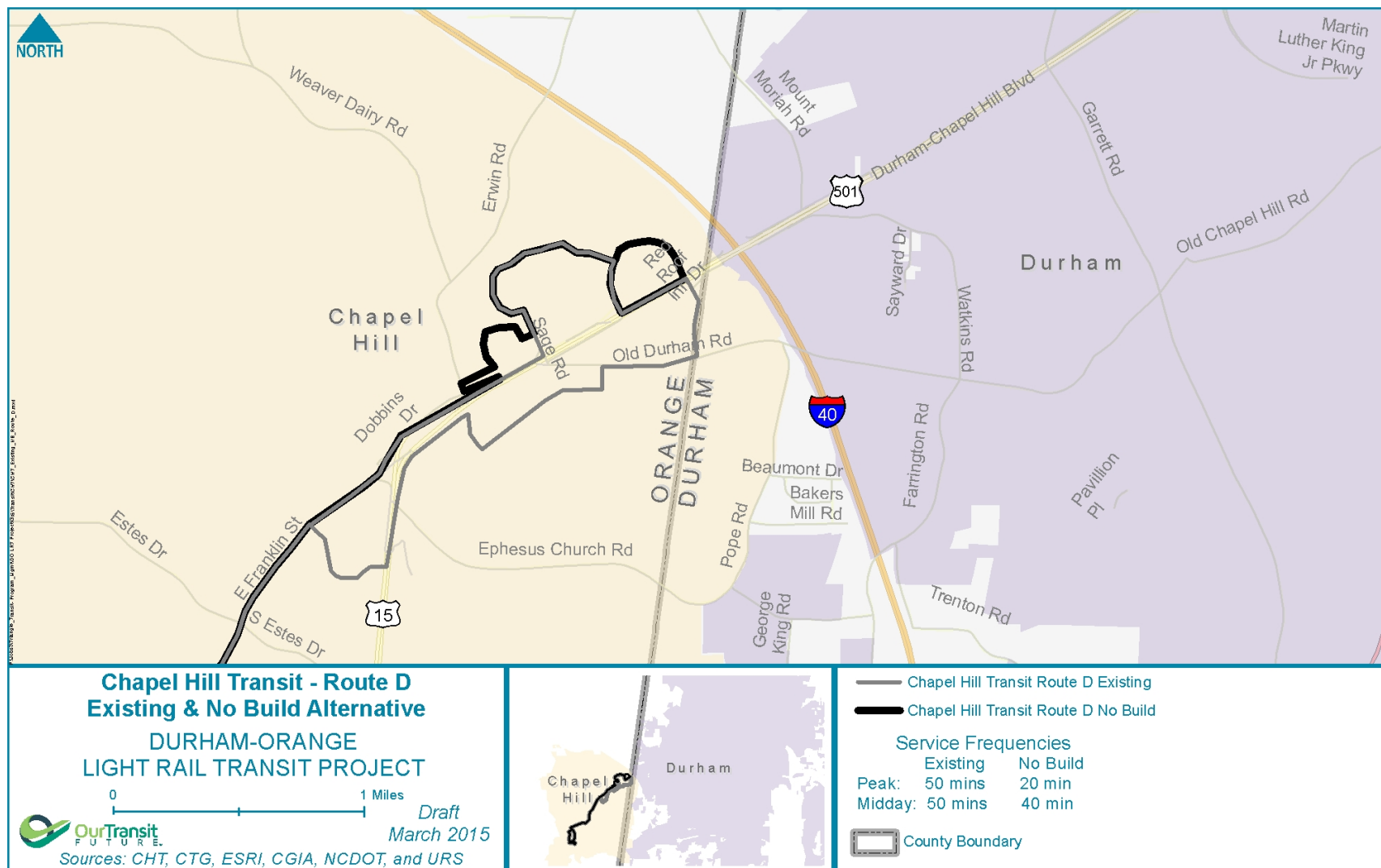








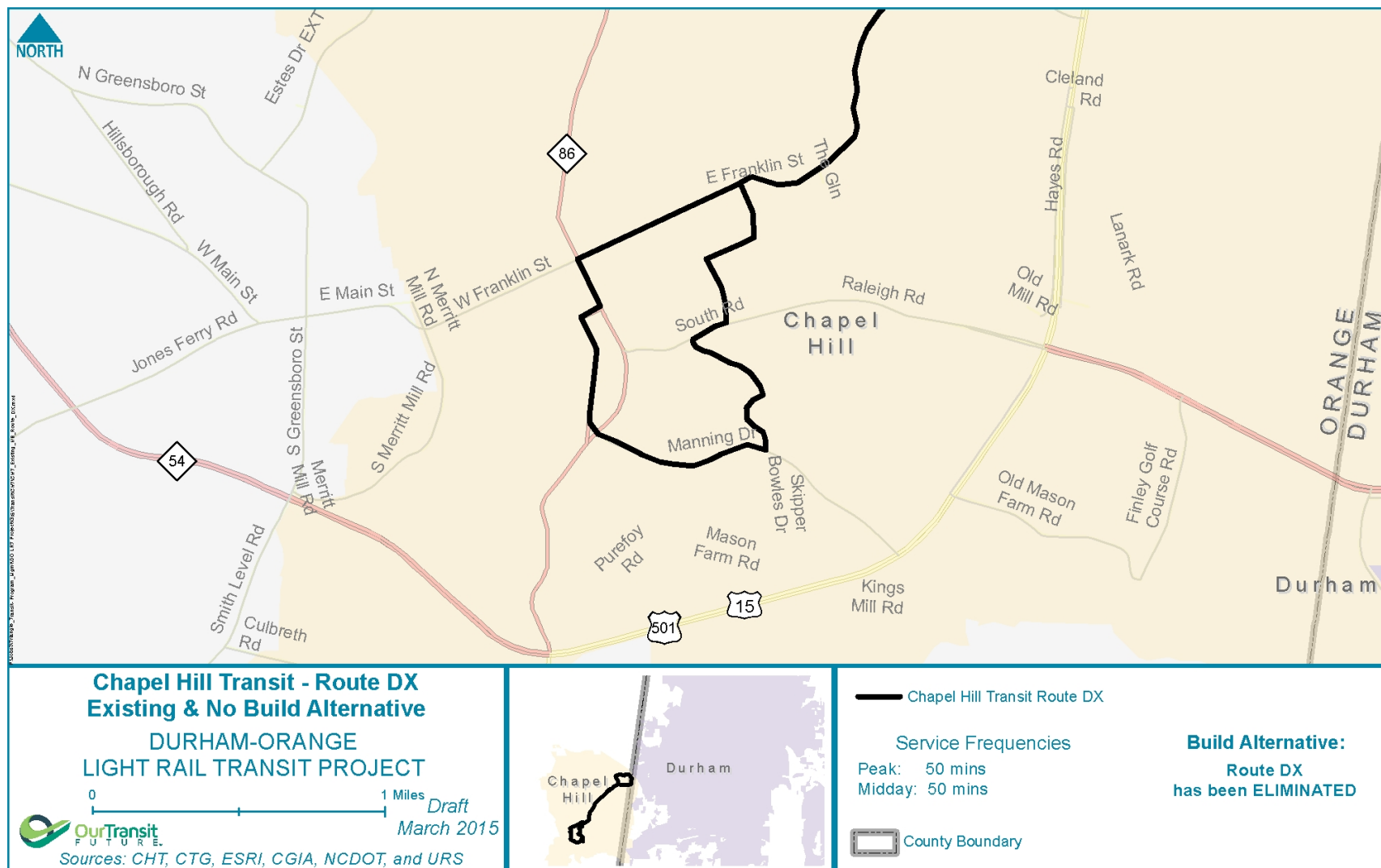


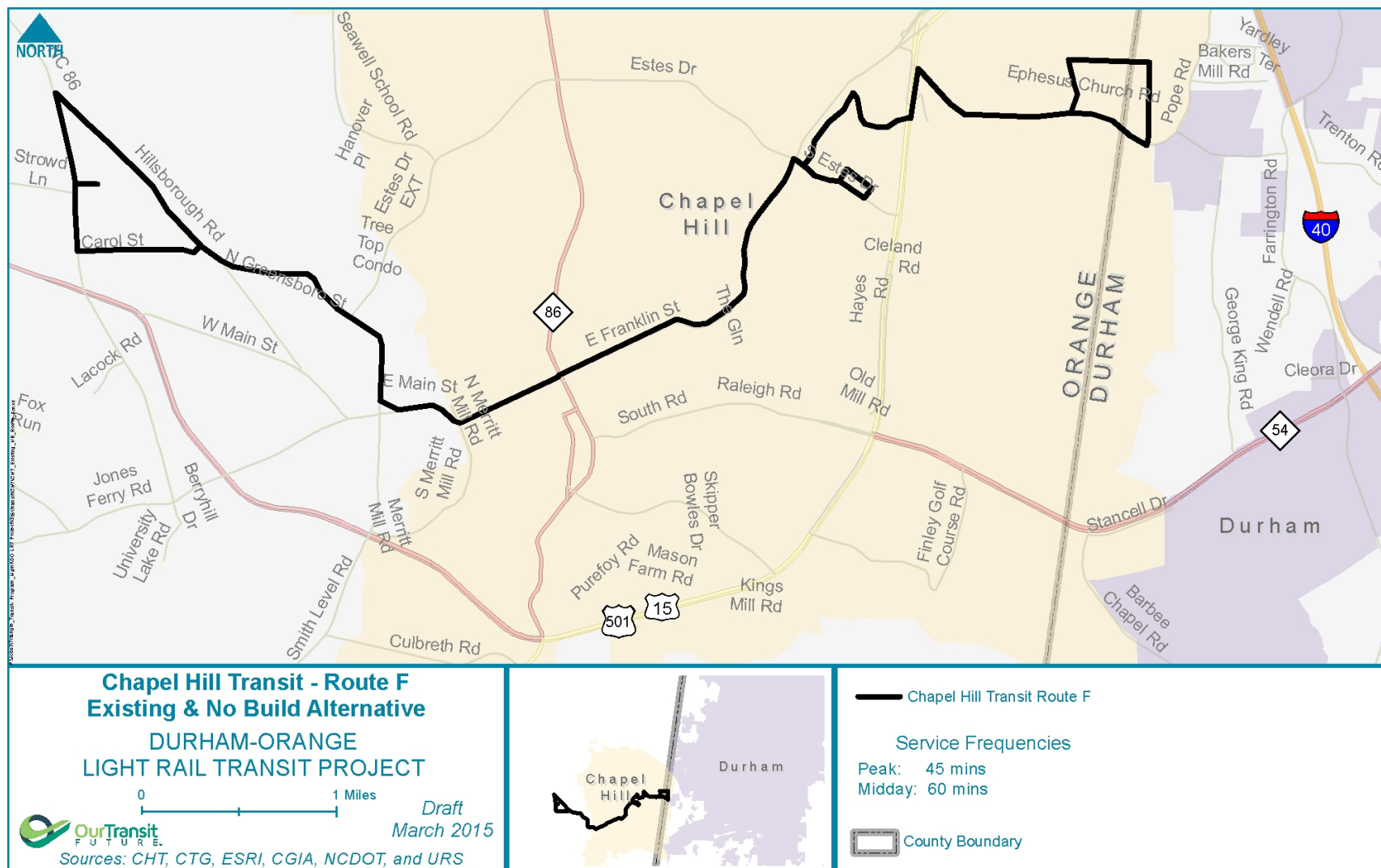


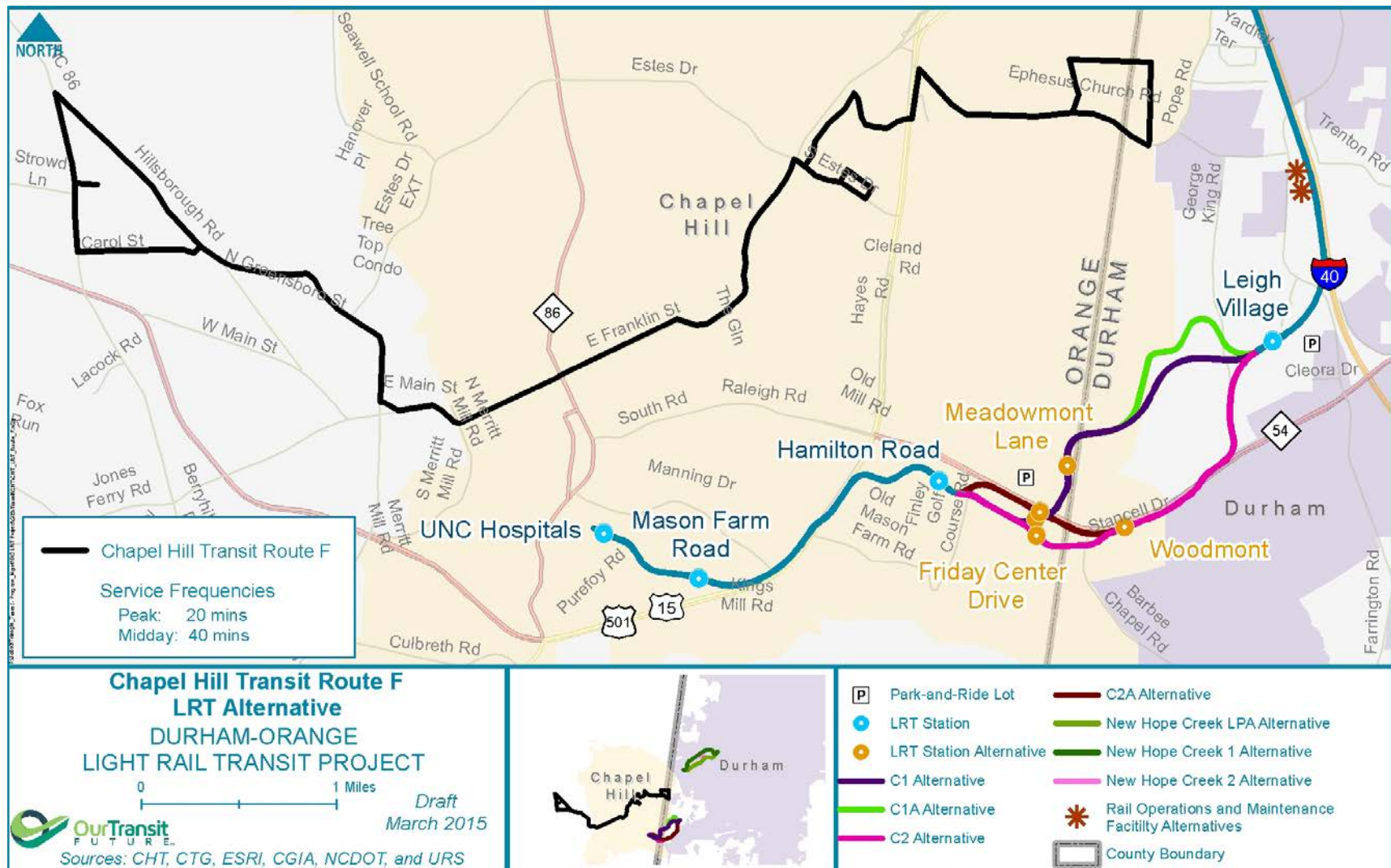


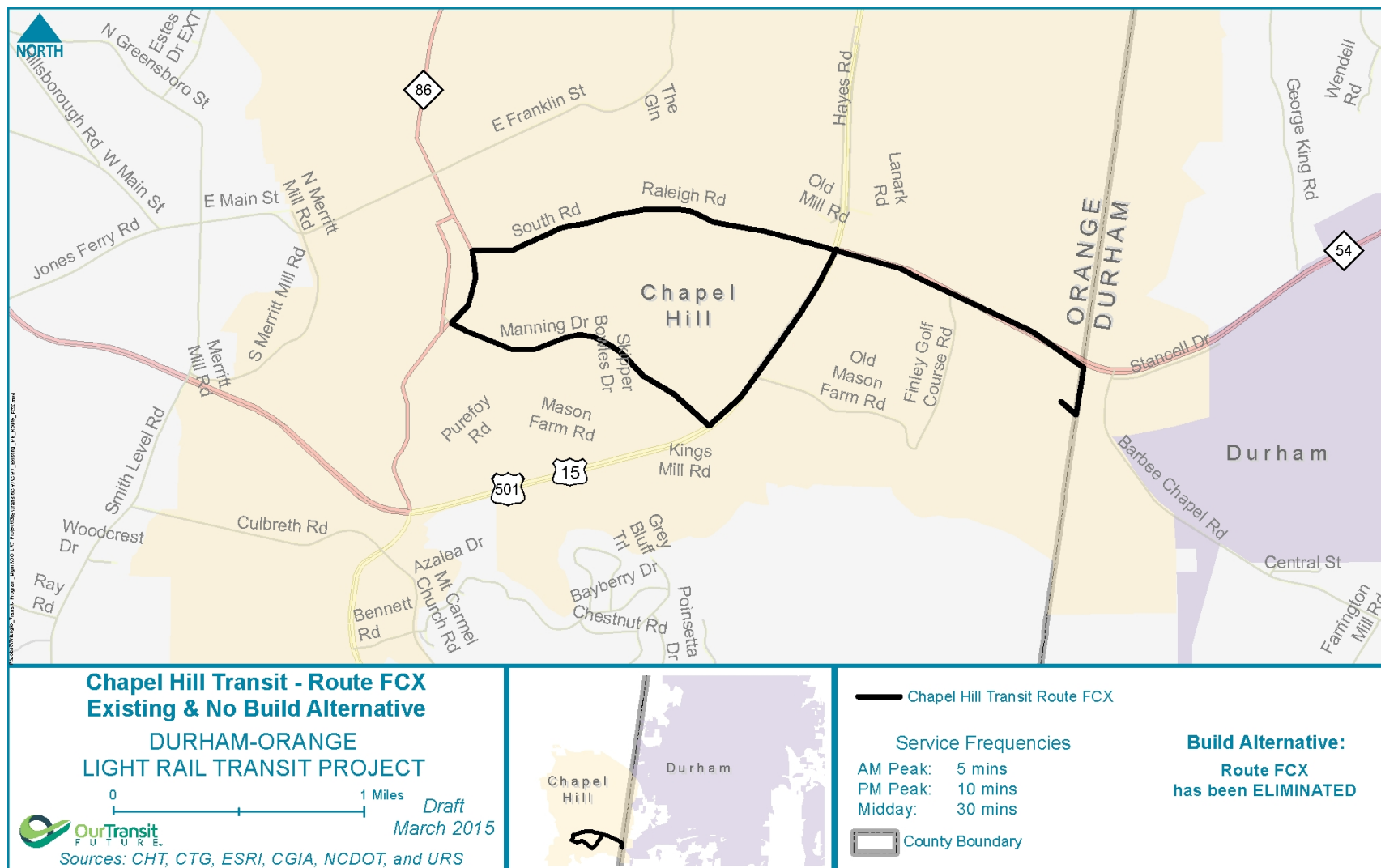


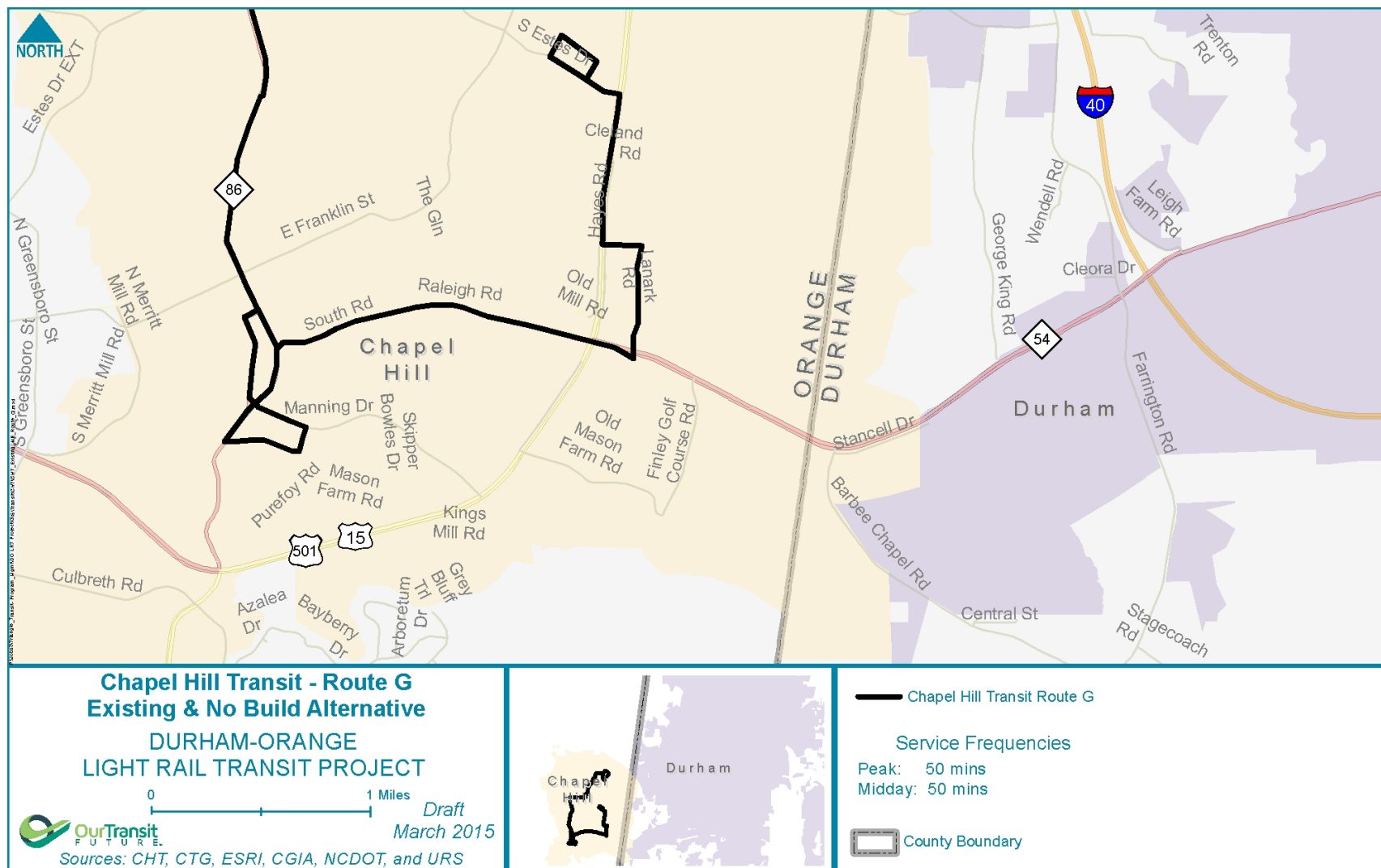




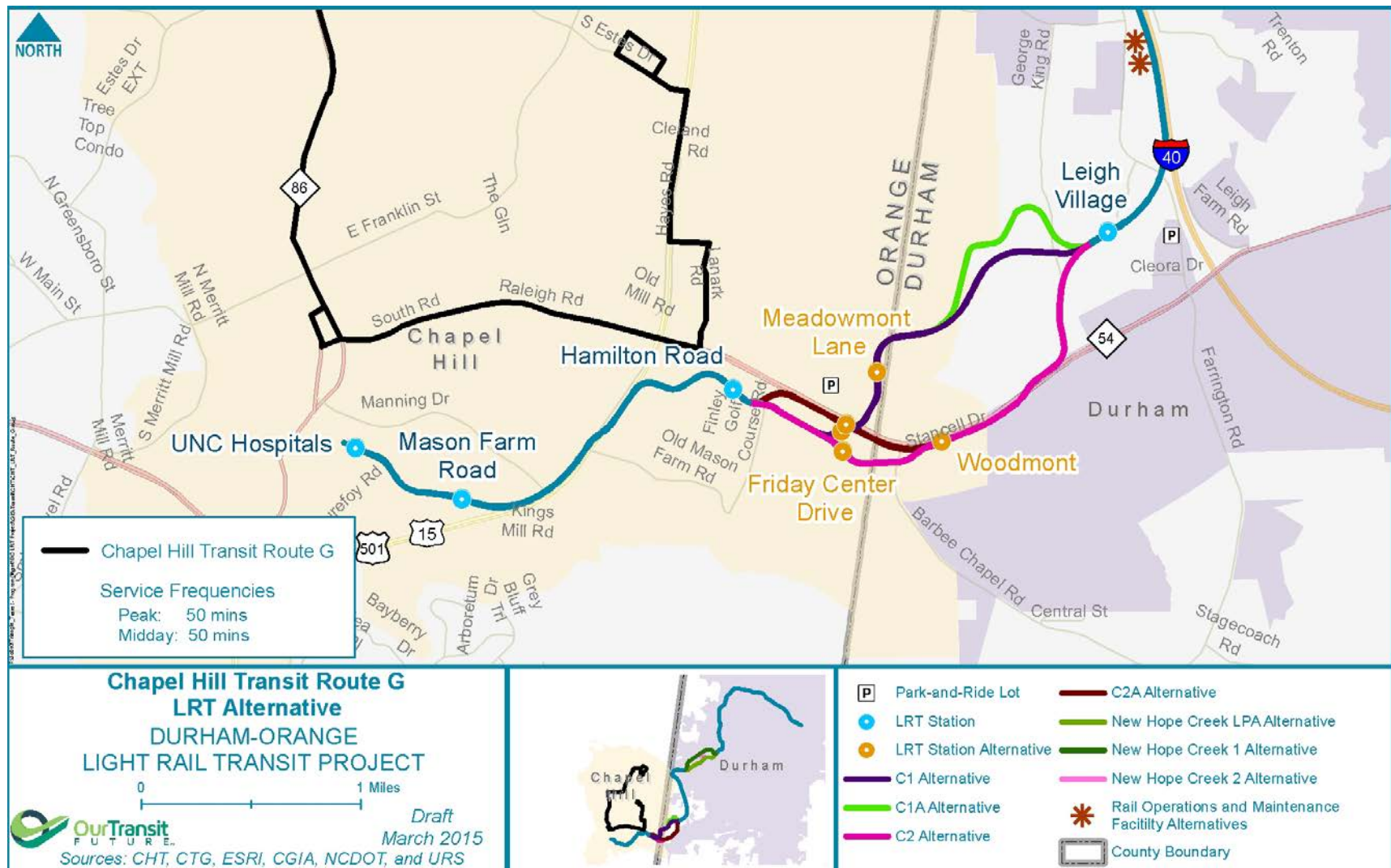


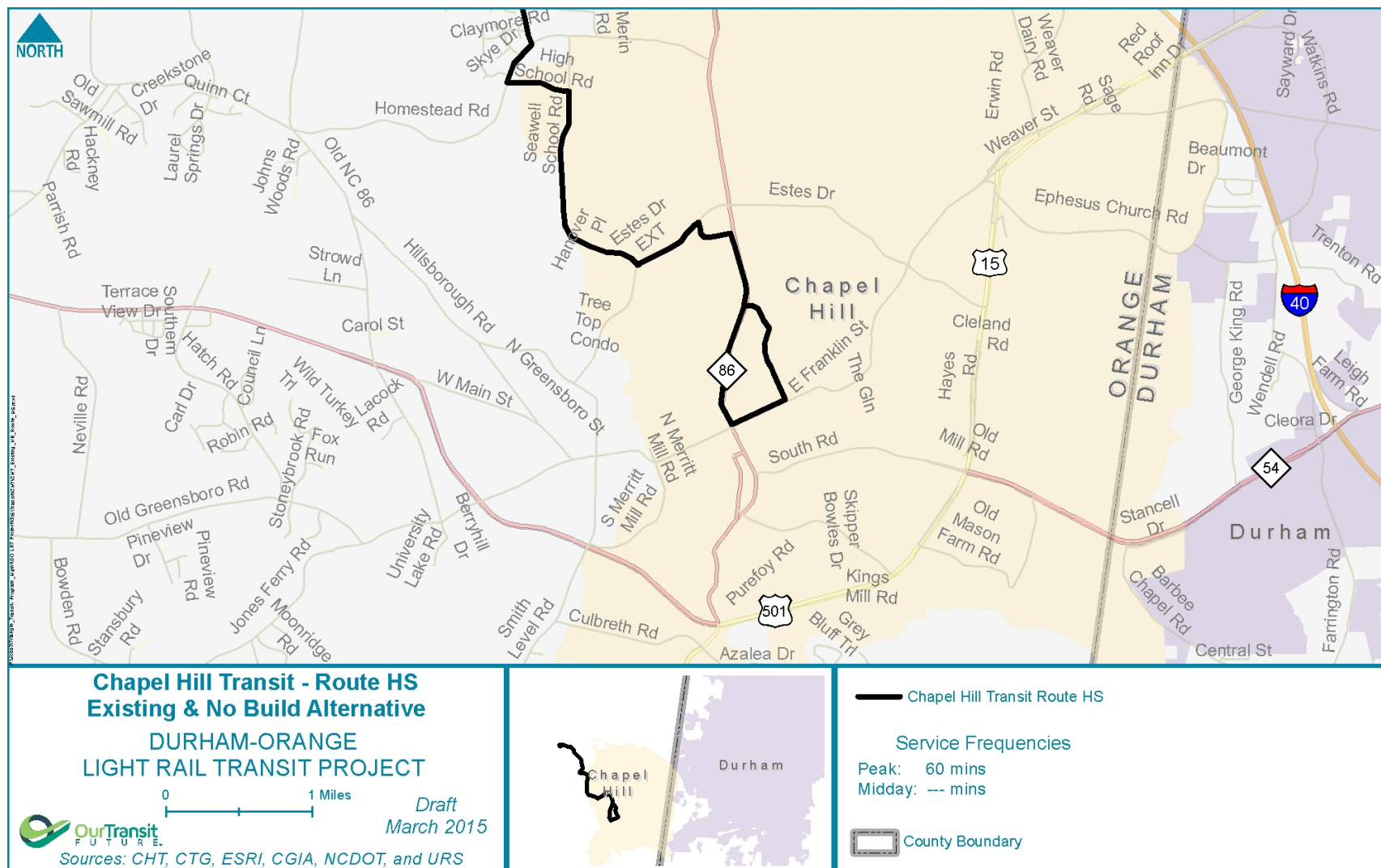


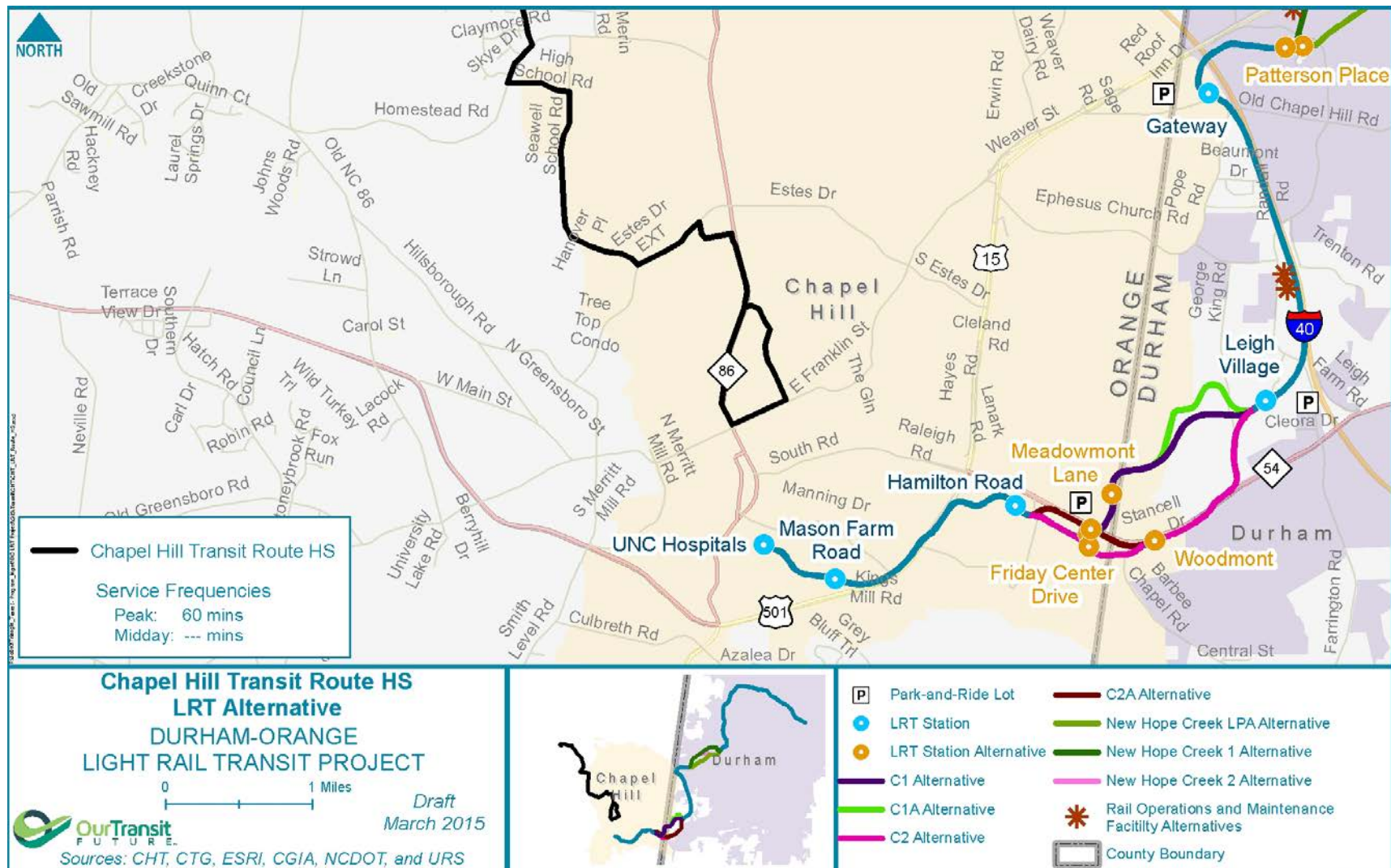




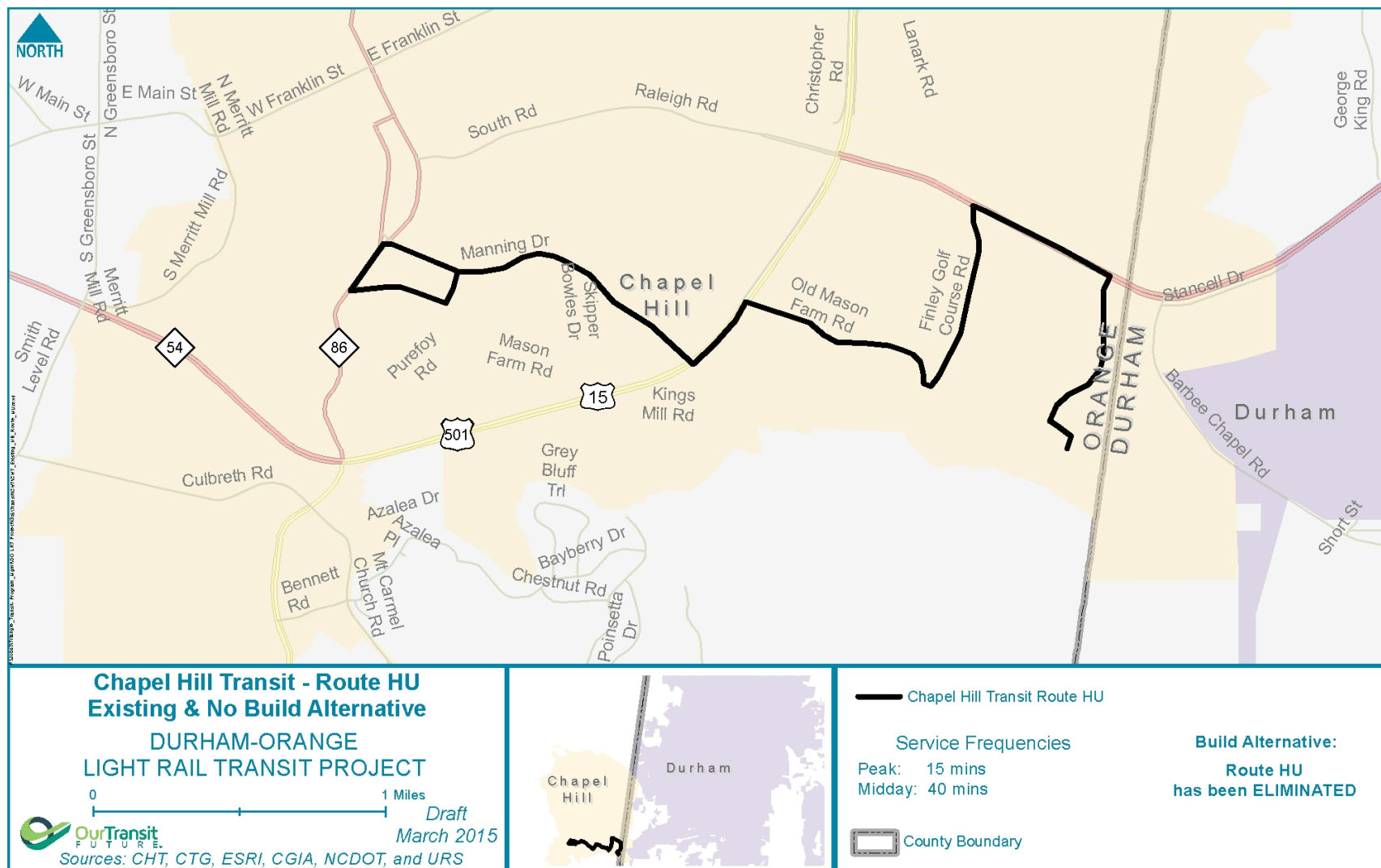


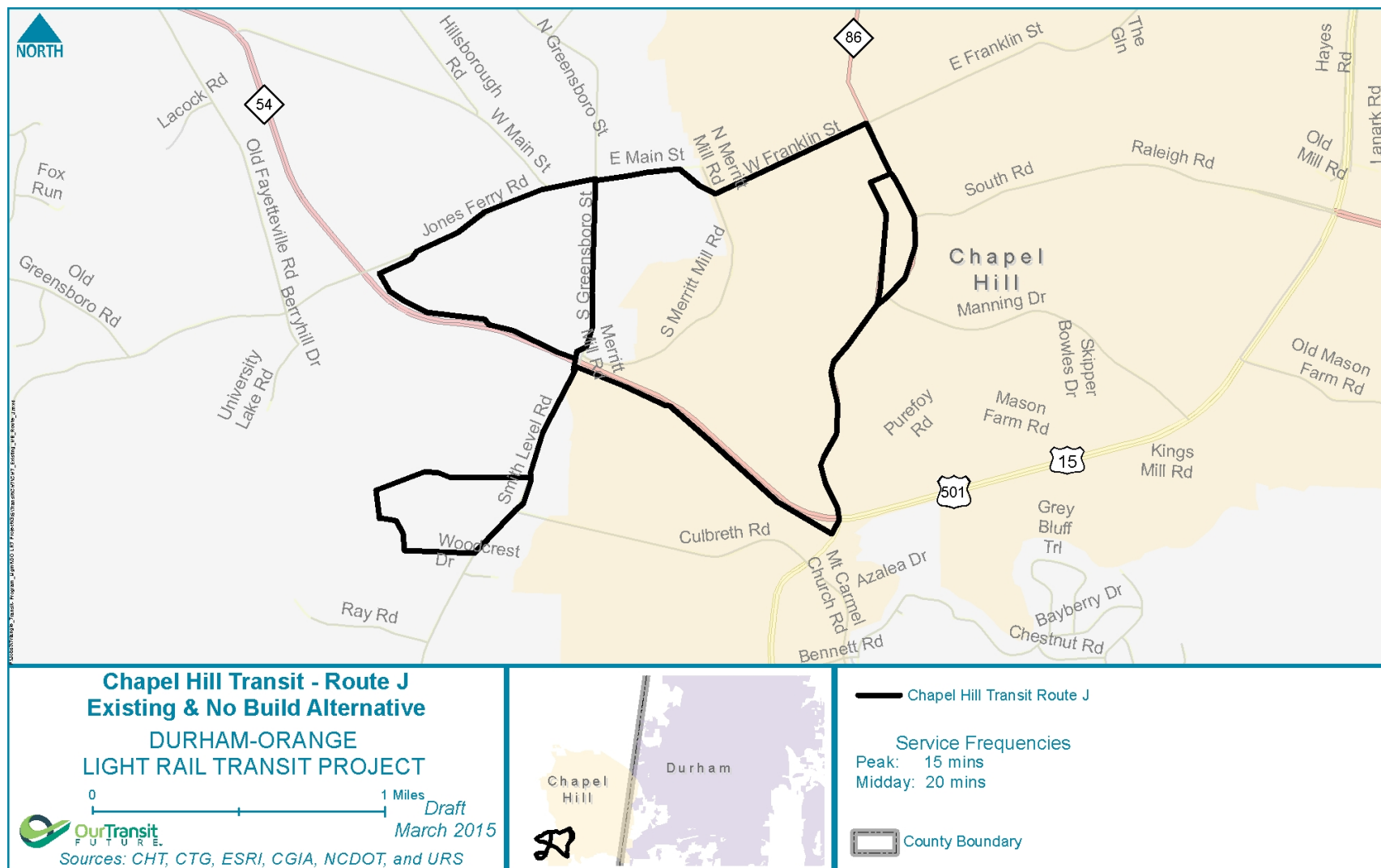




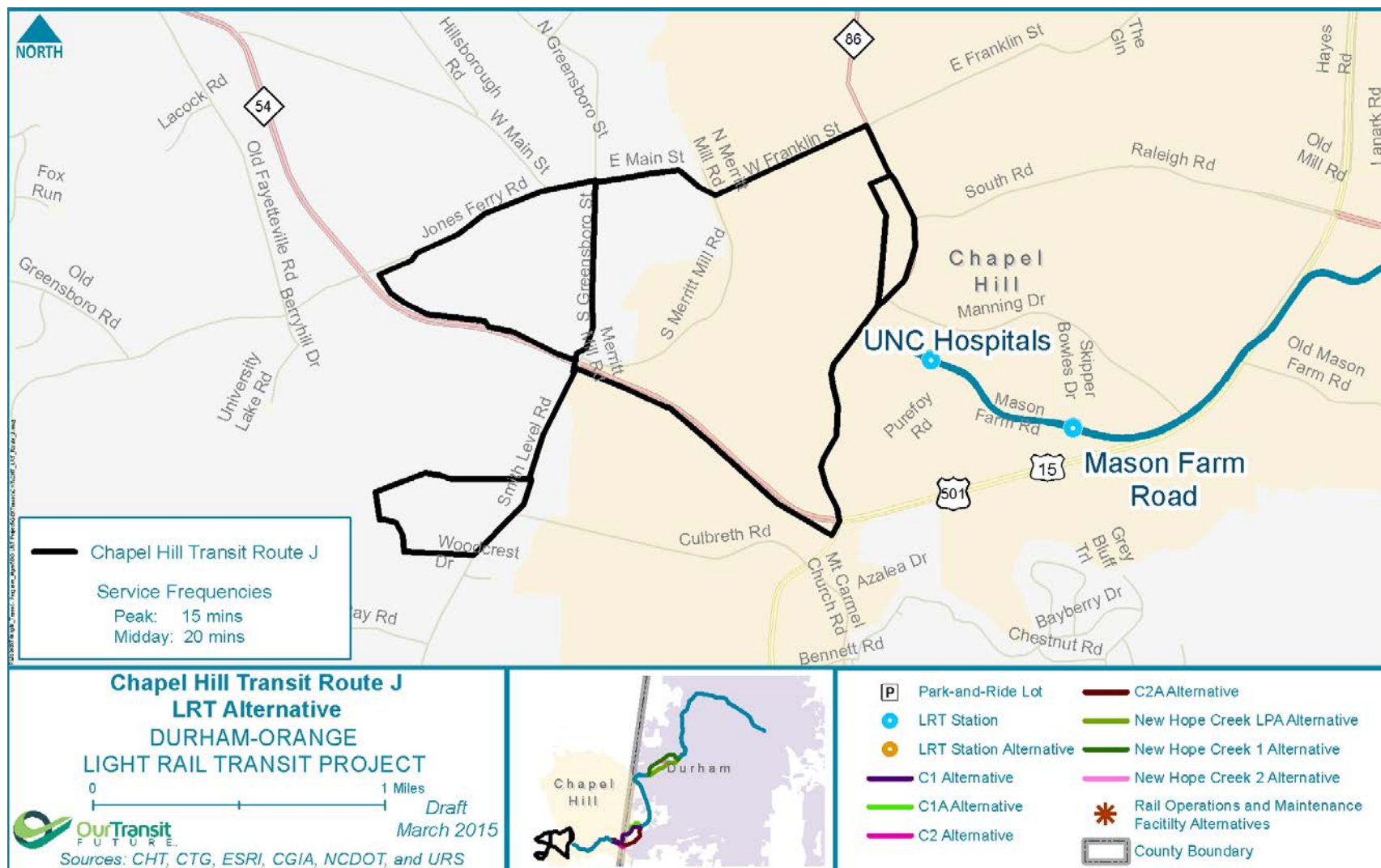


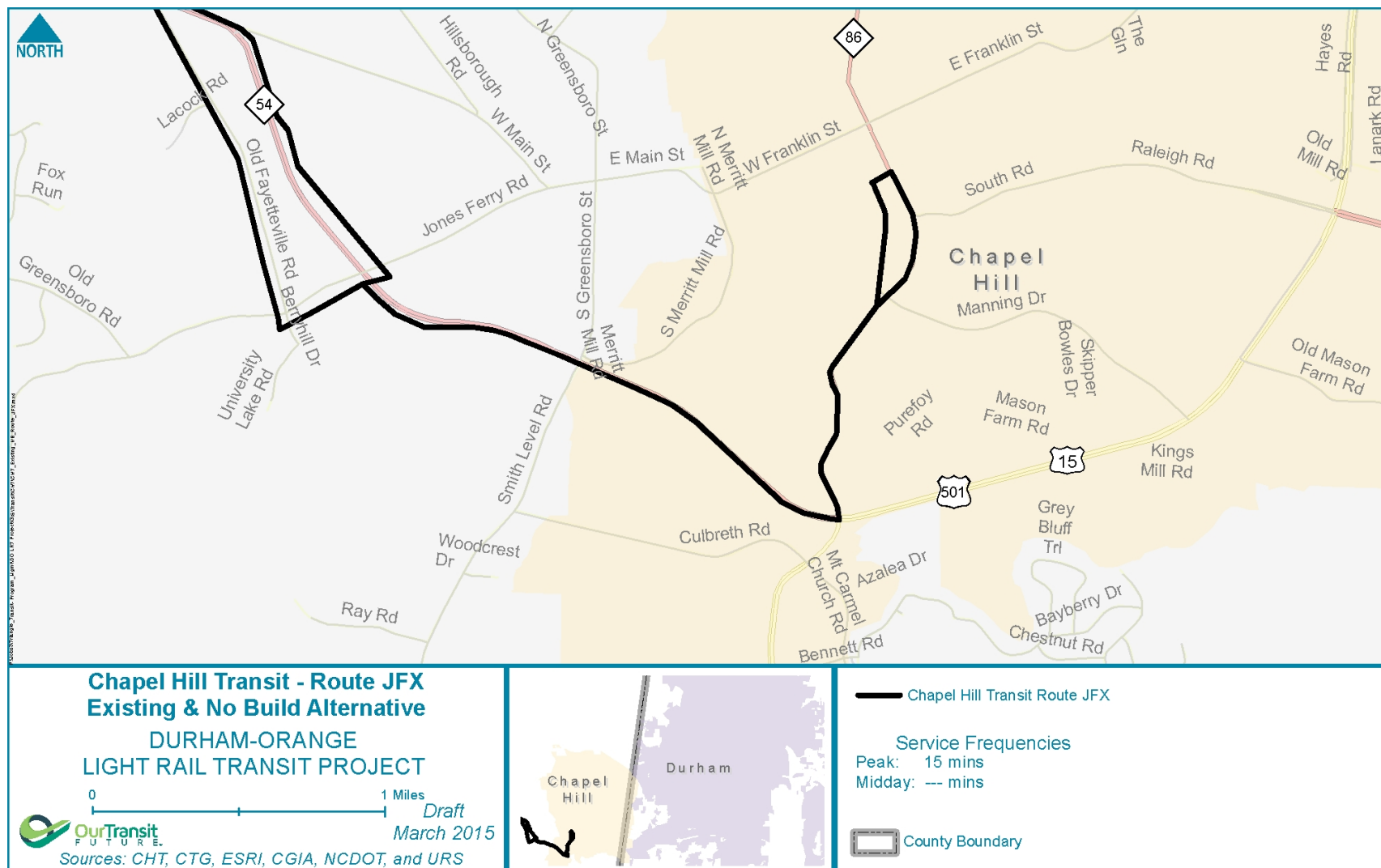


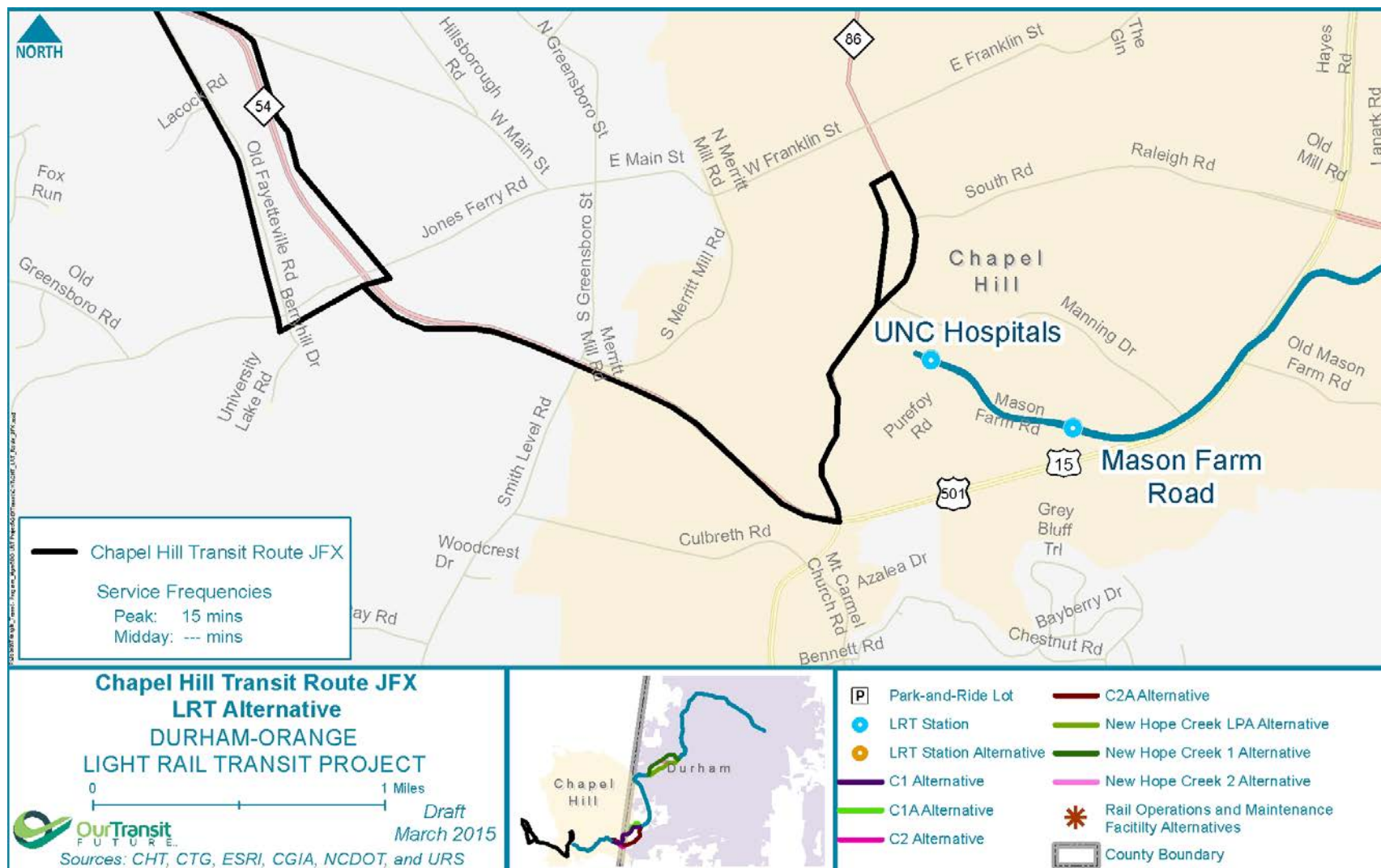


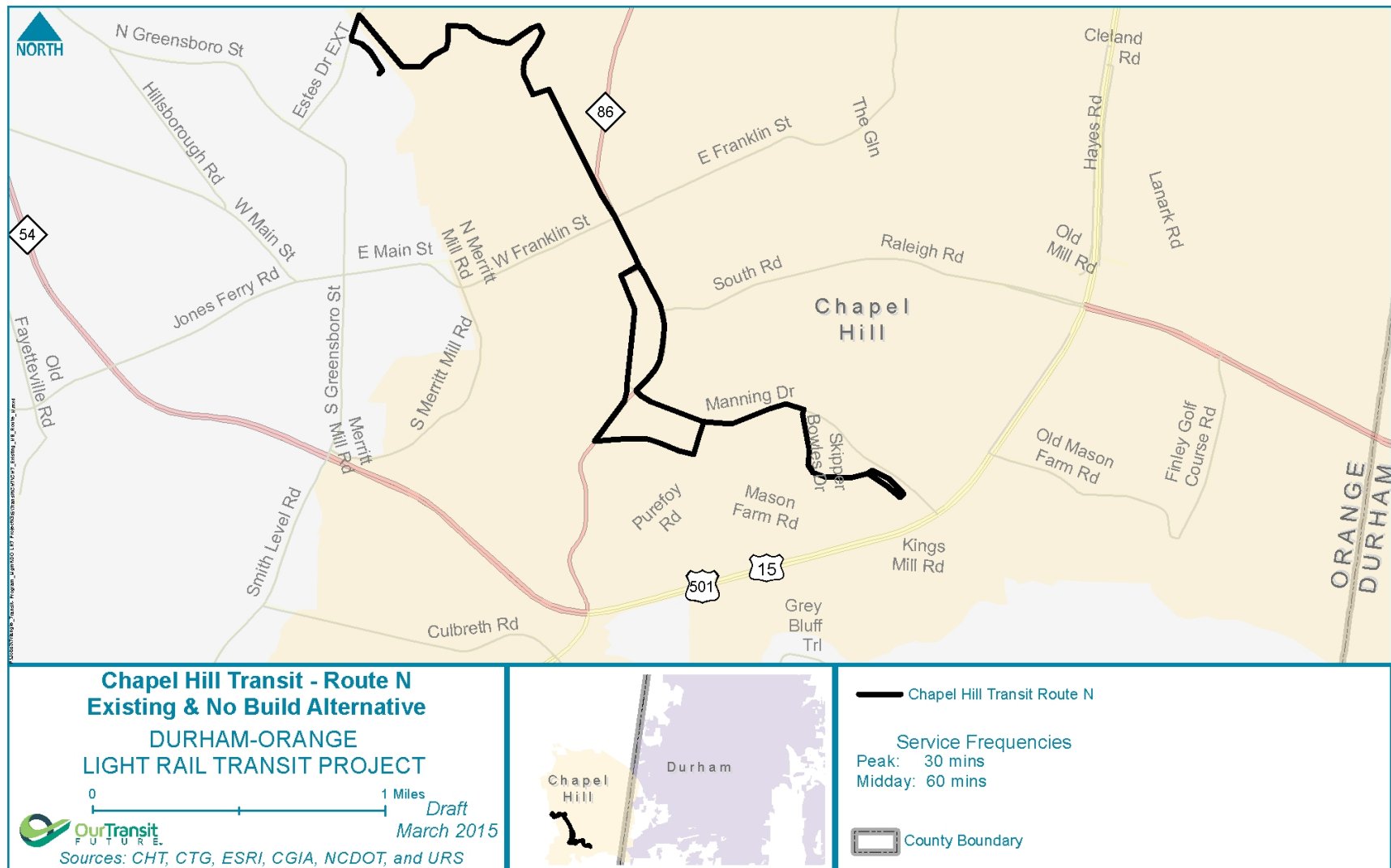




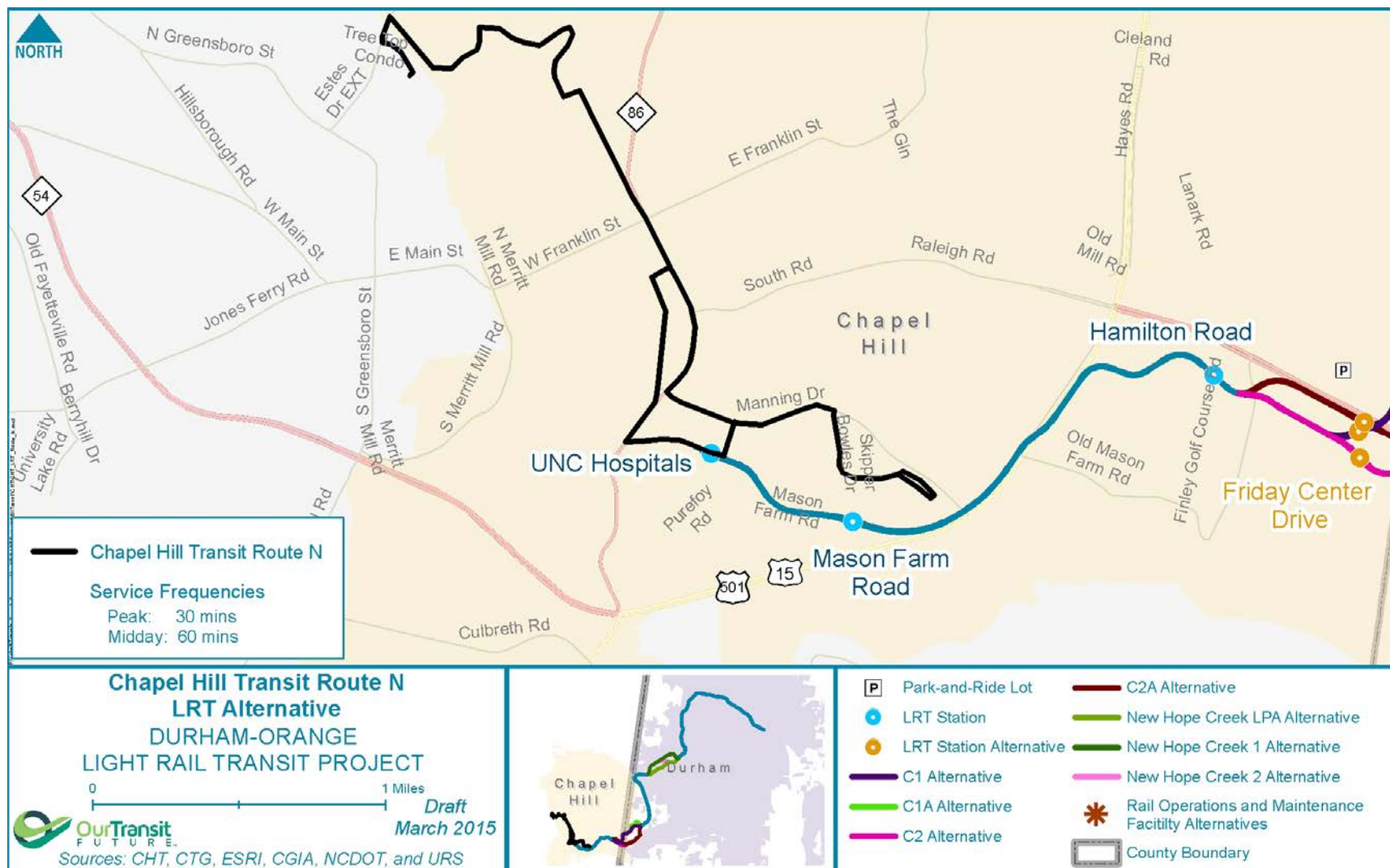




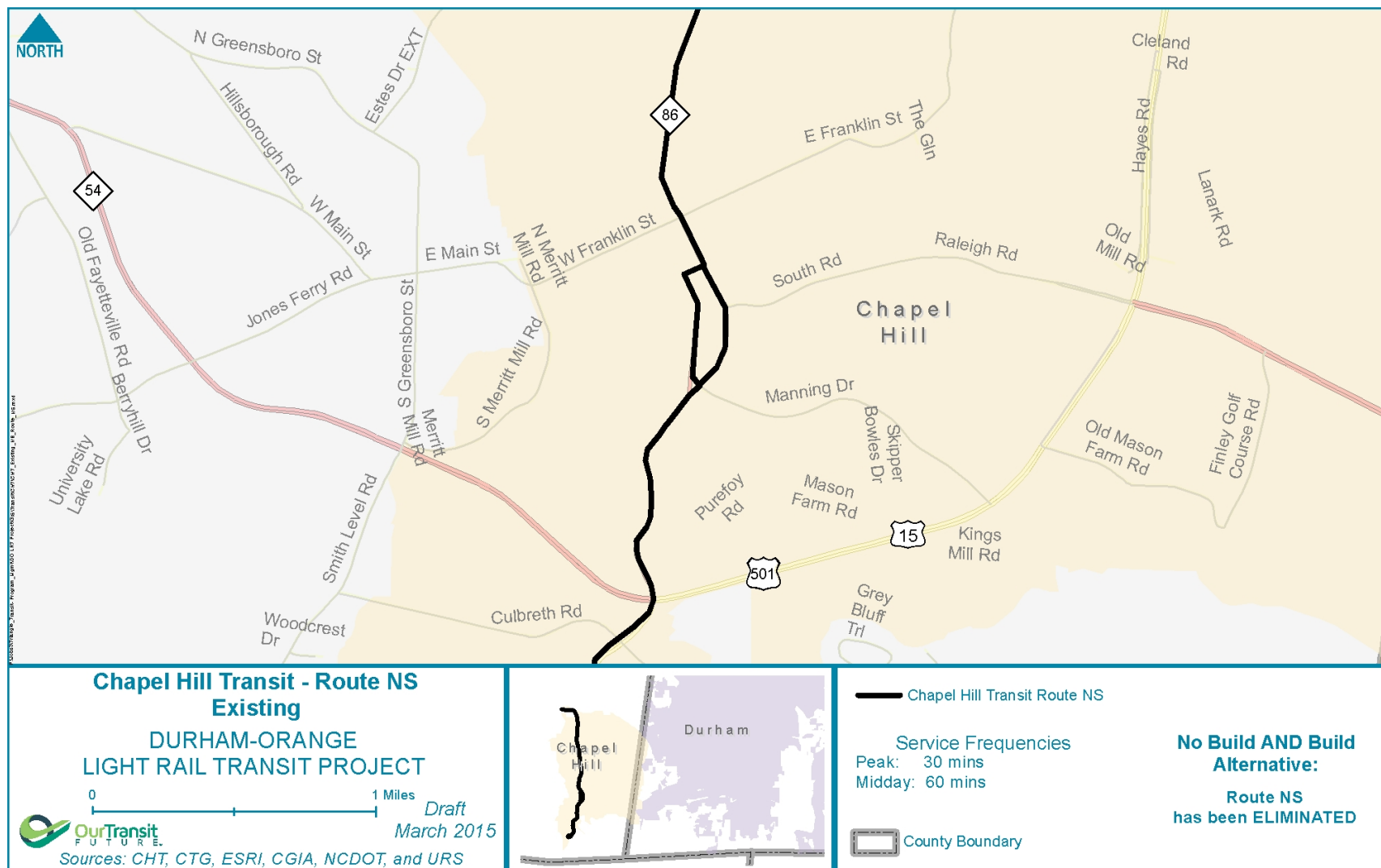




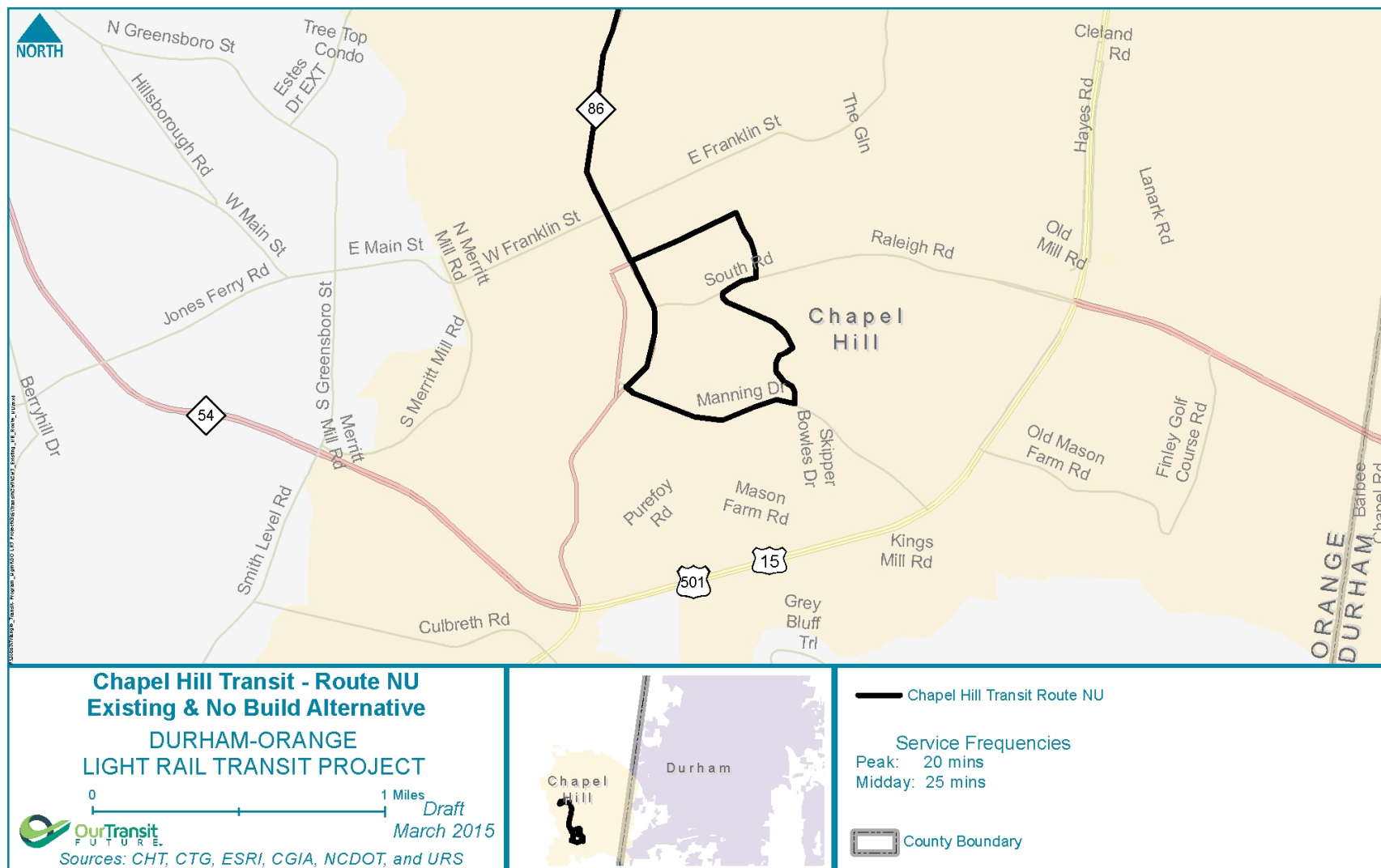


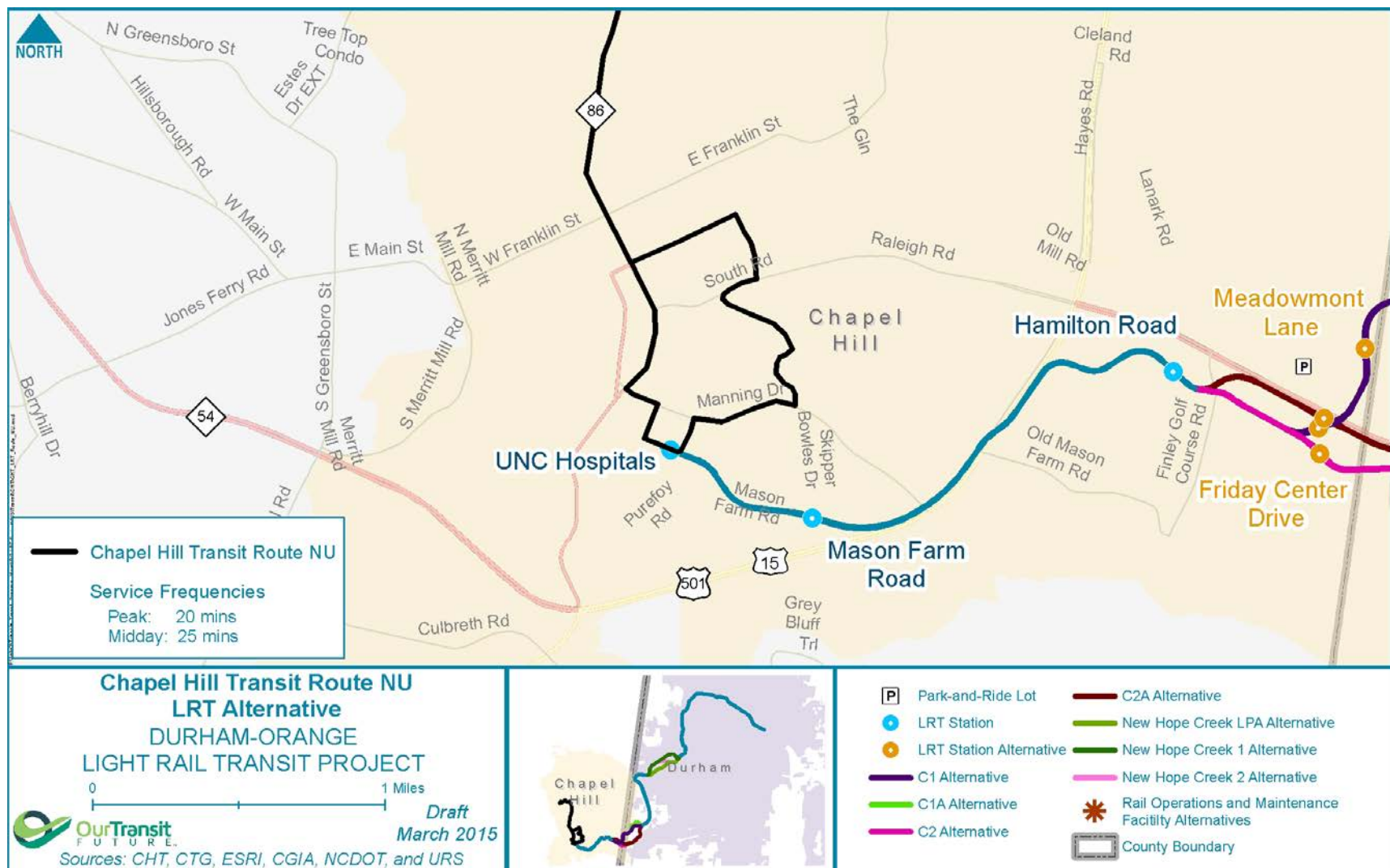


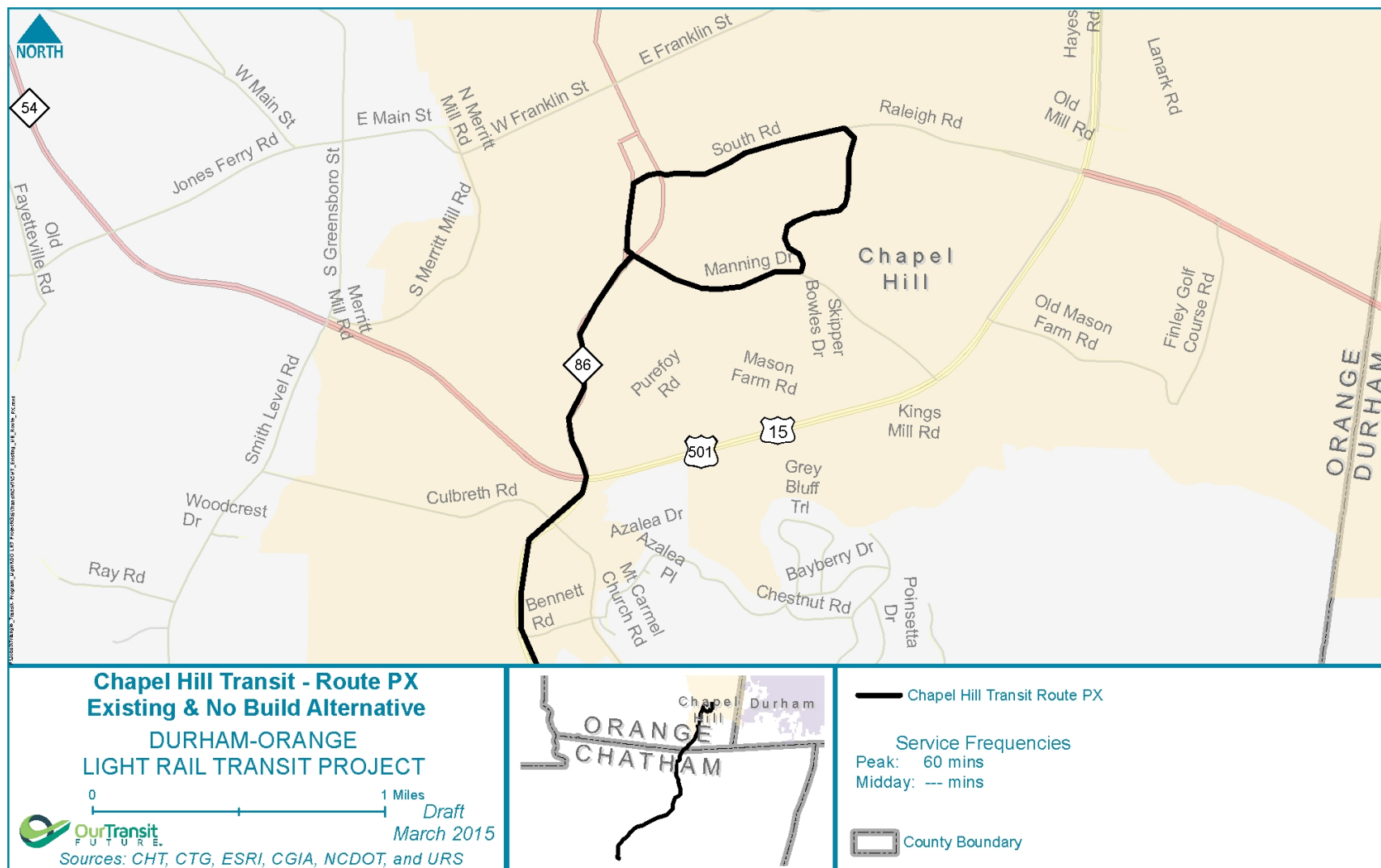




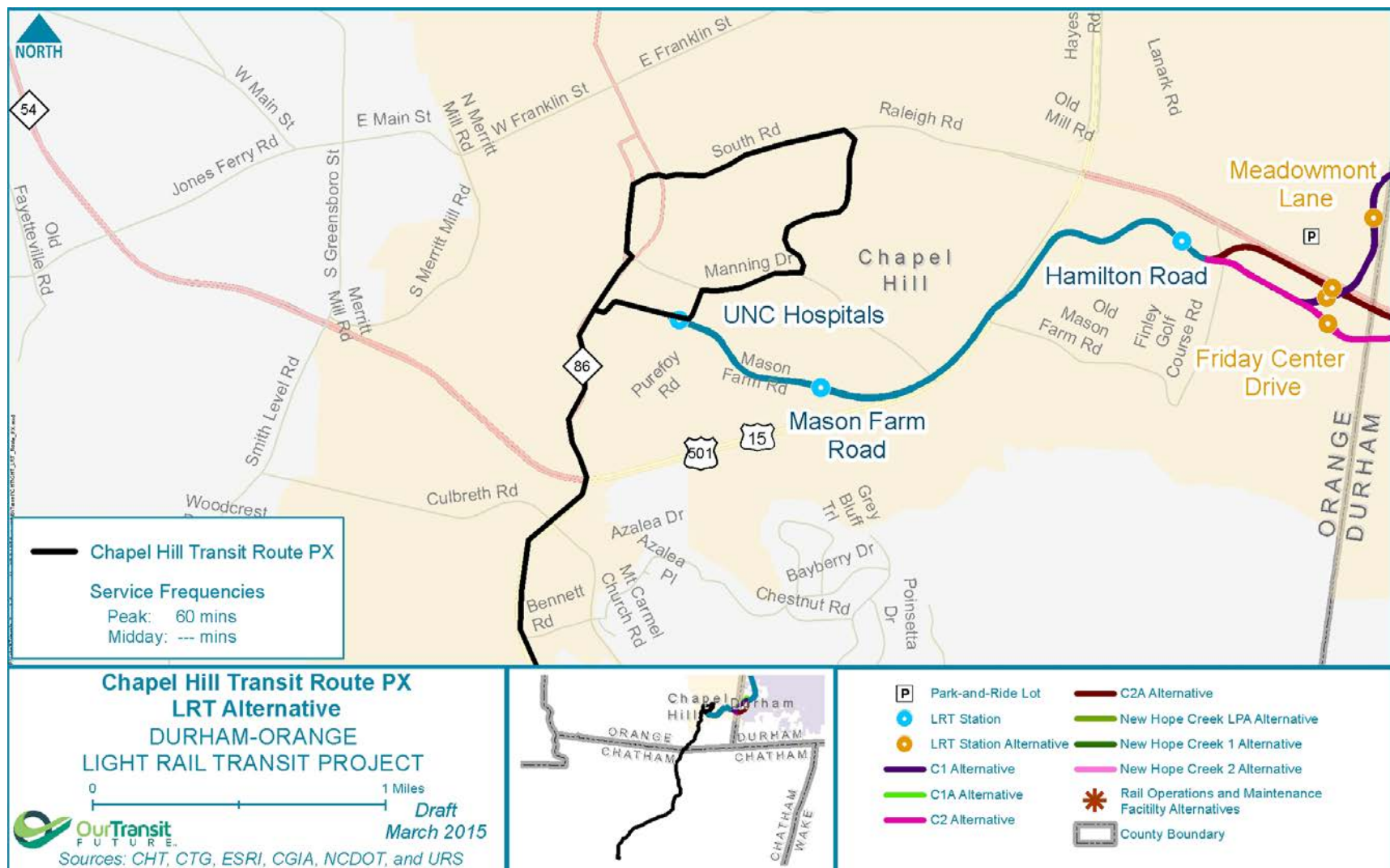
Y



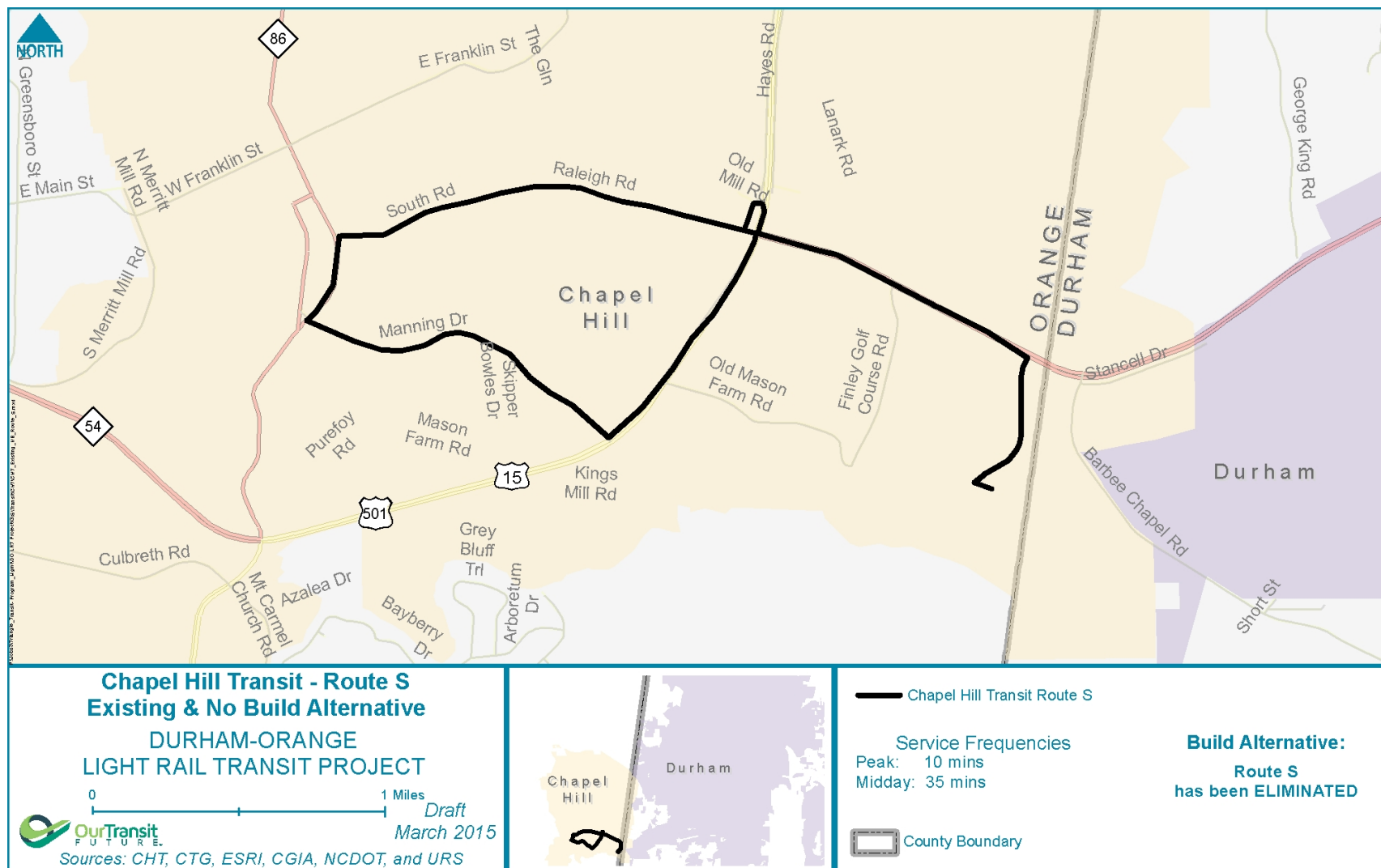


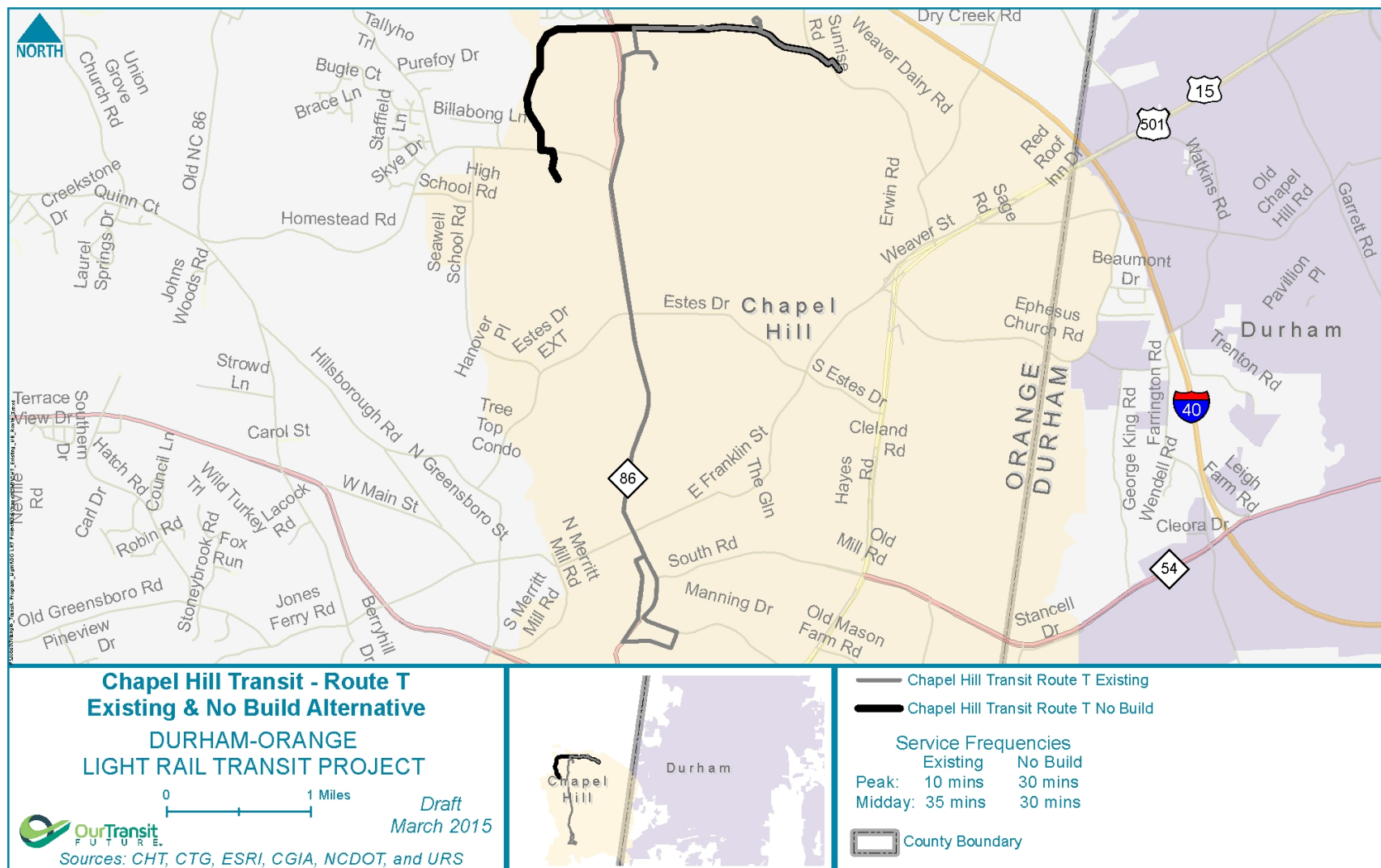


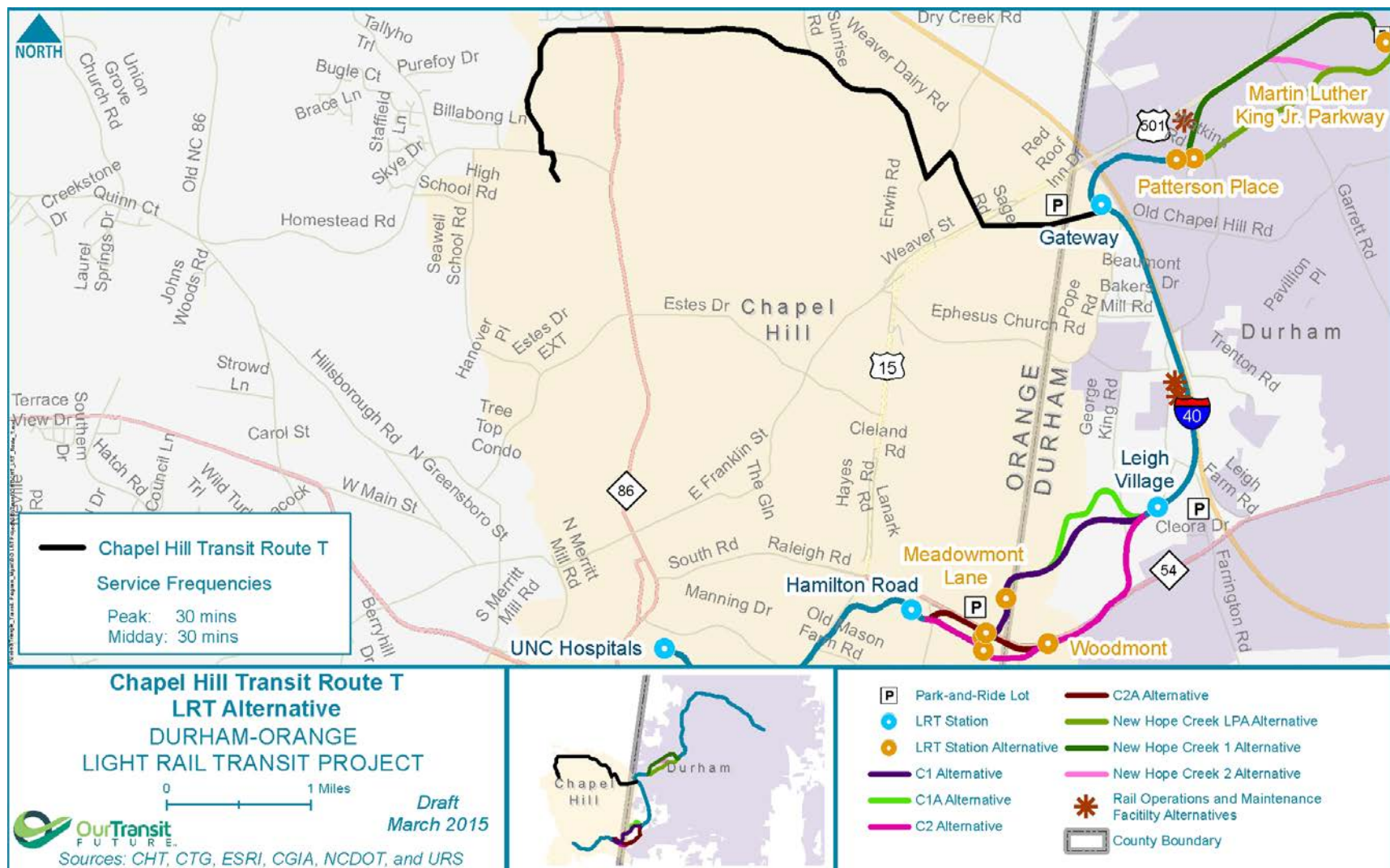


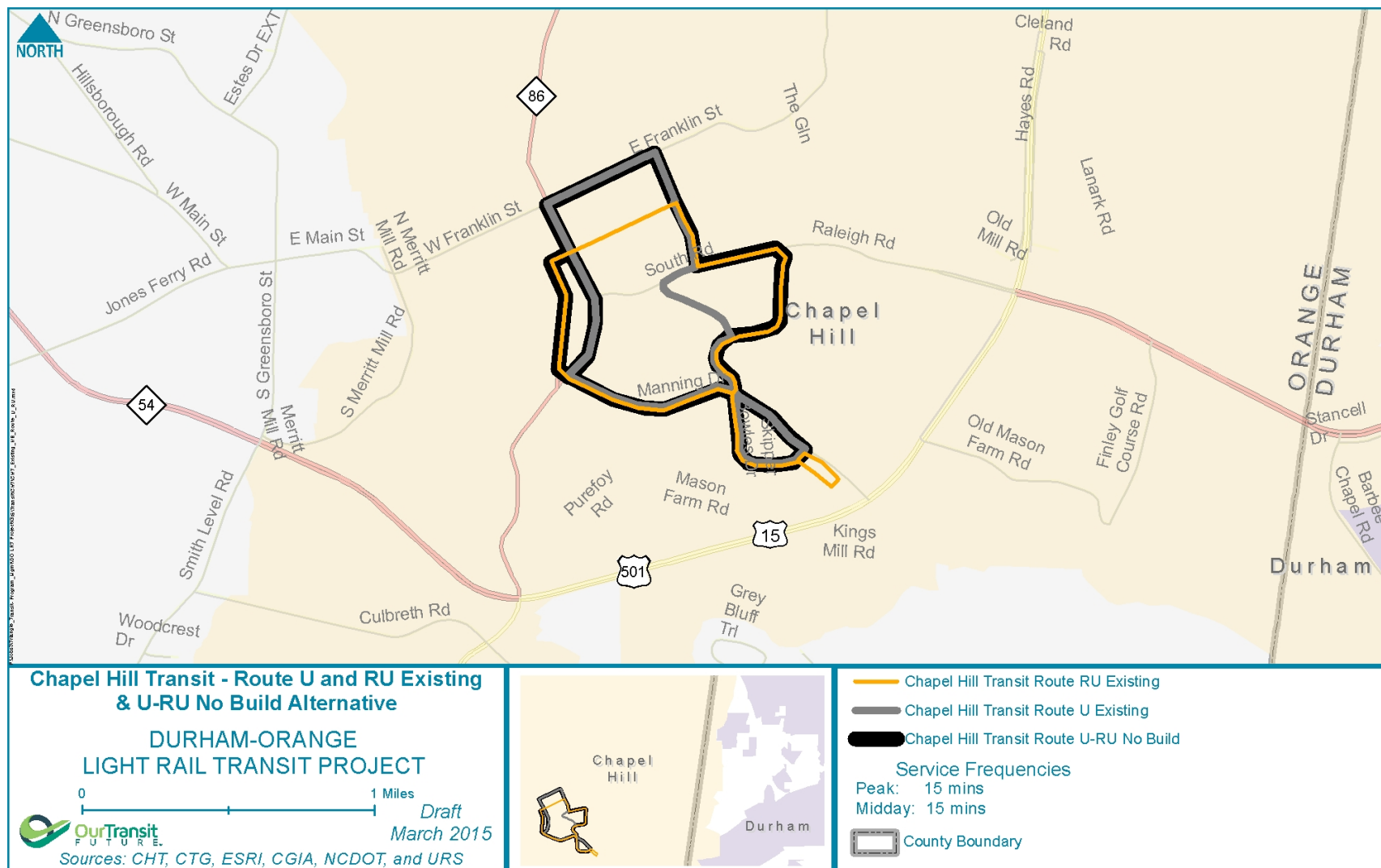




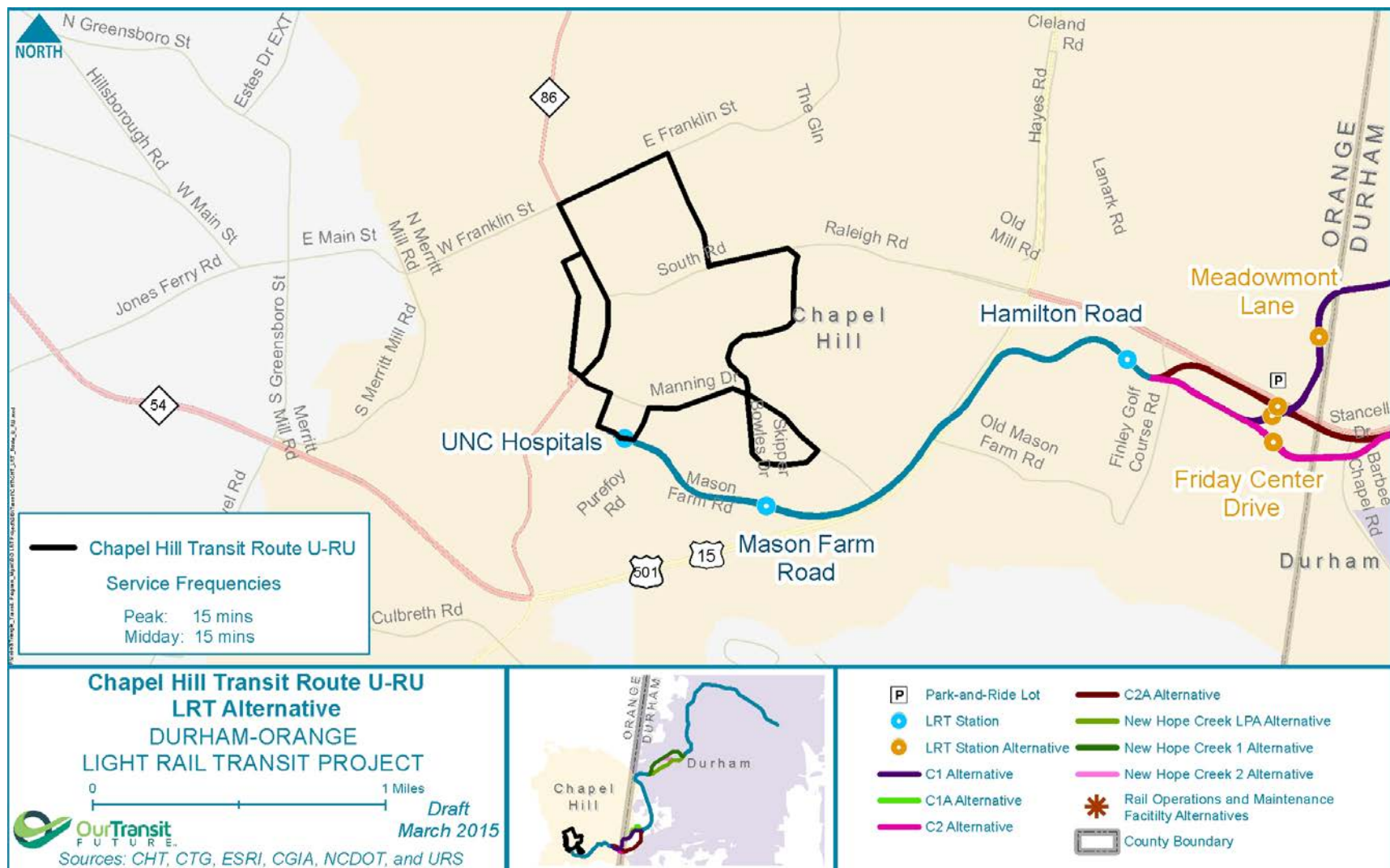




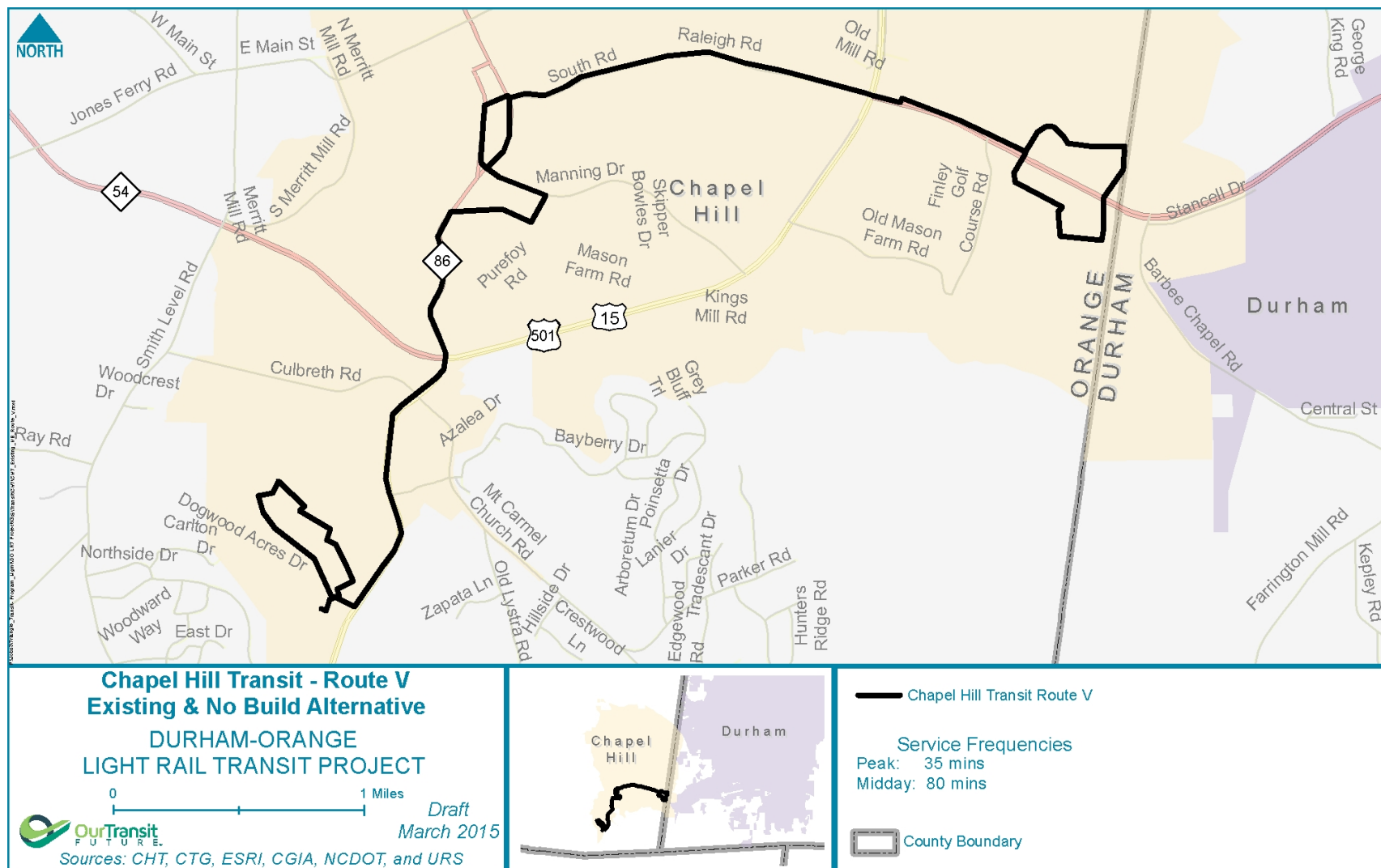


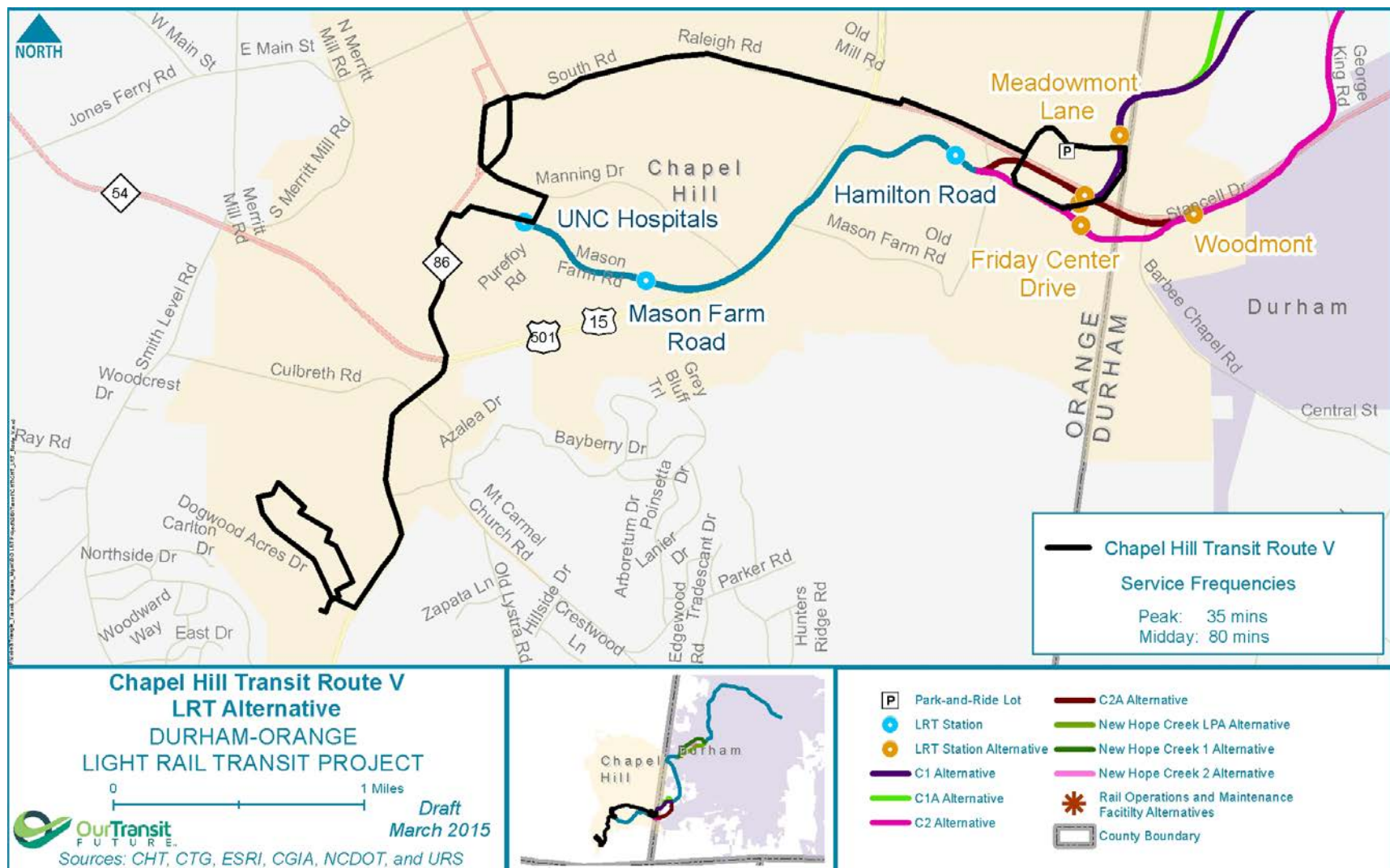


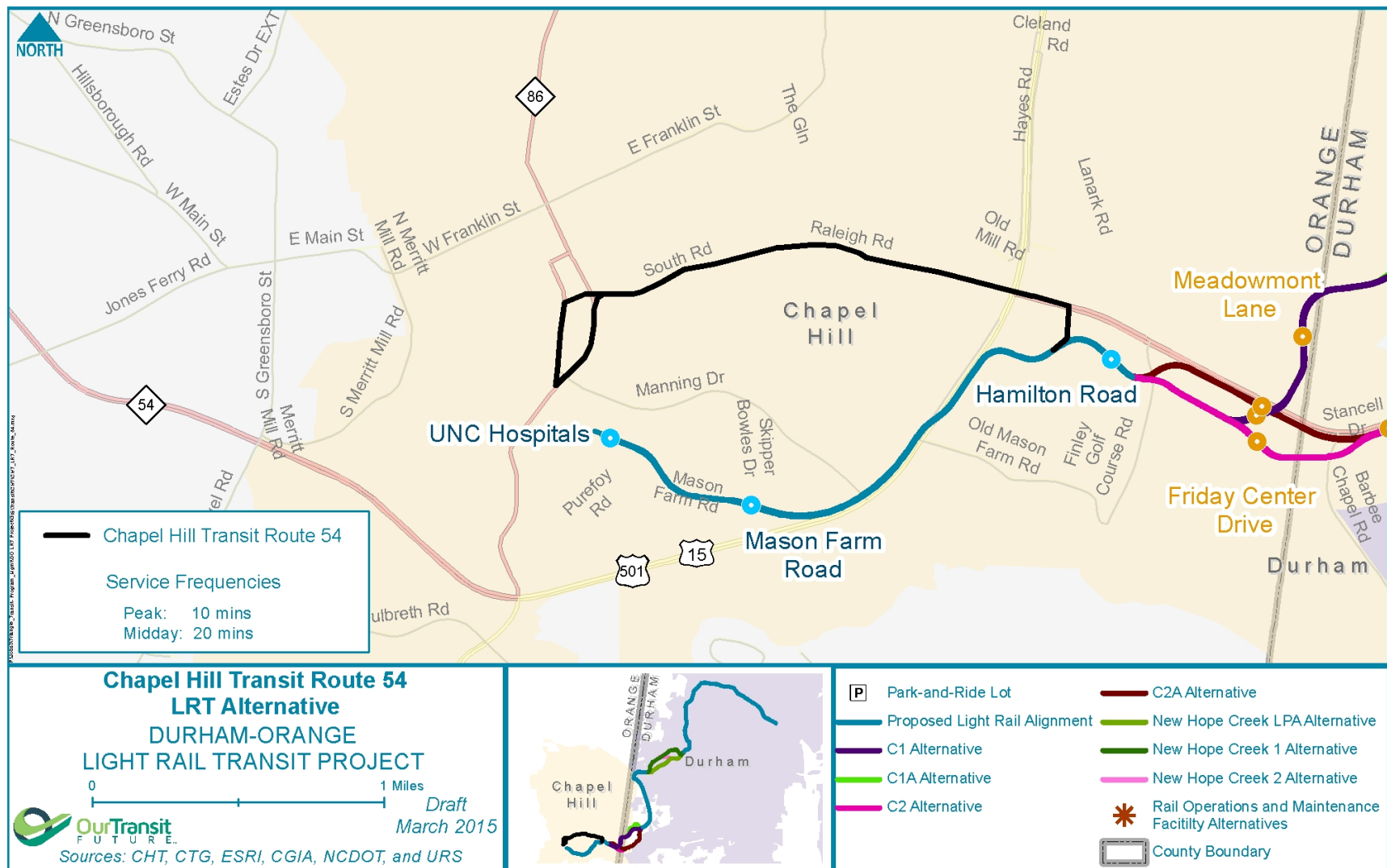


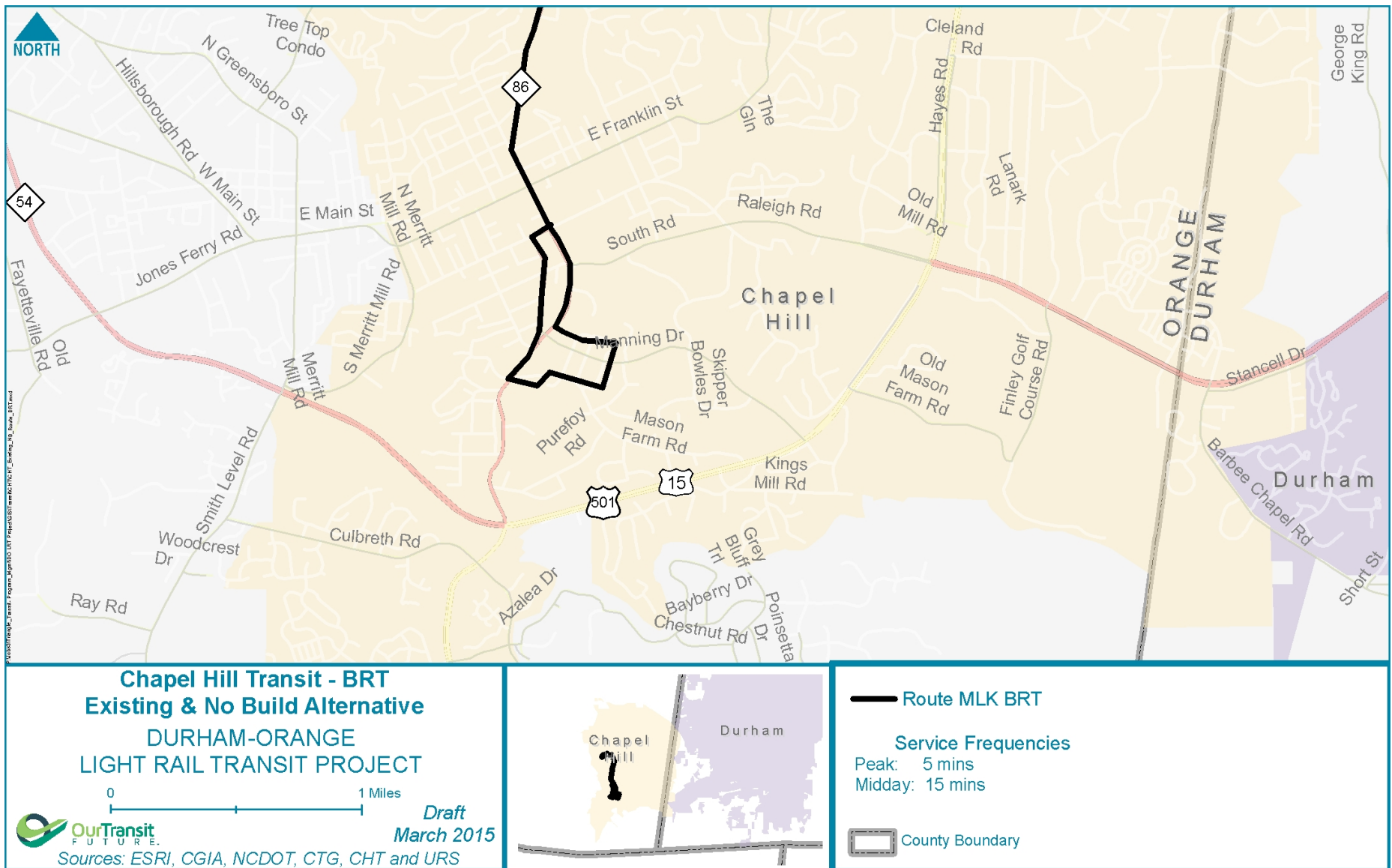




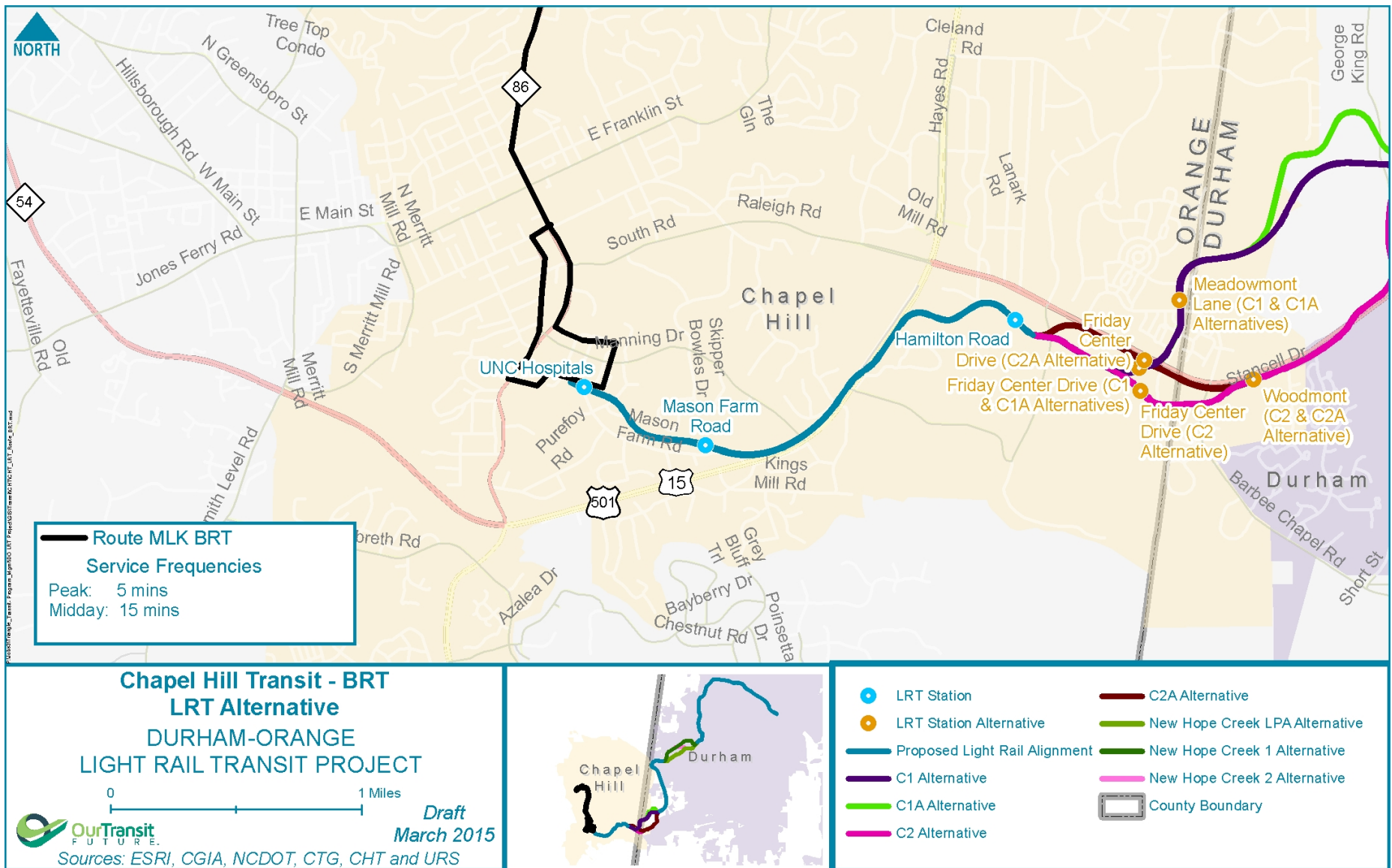




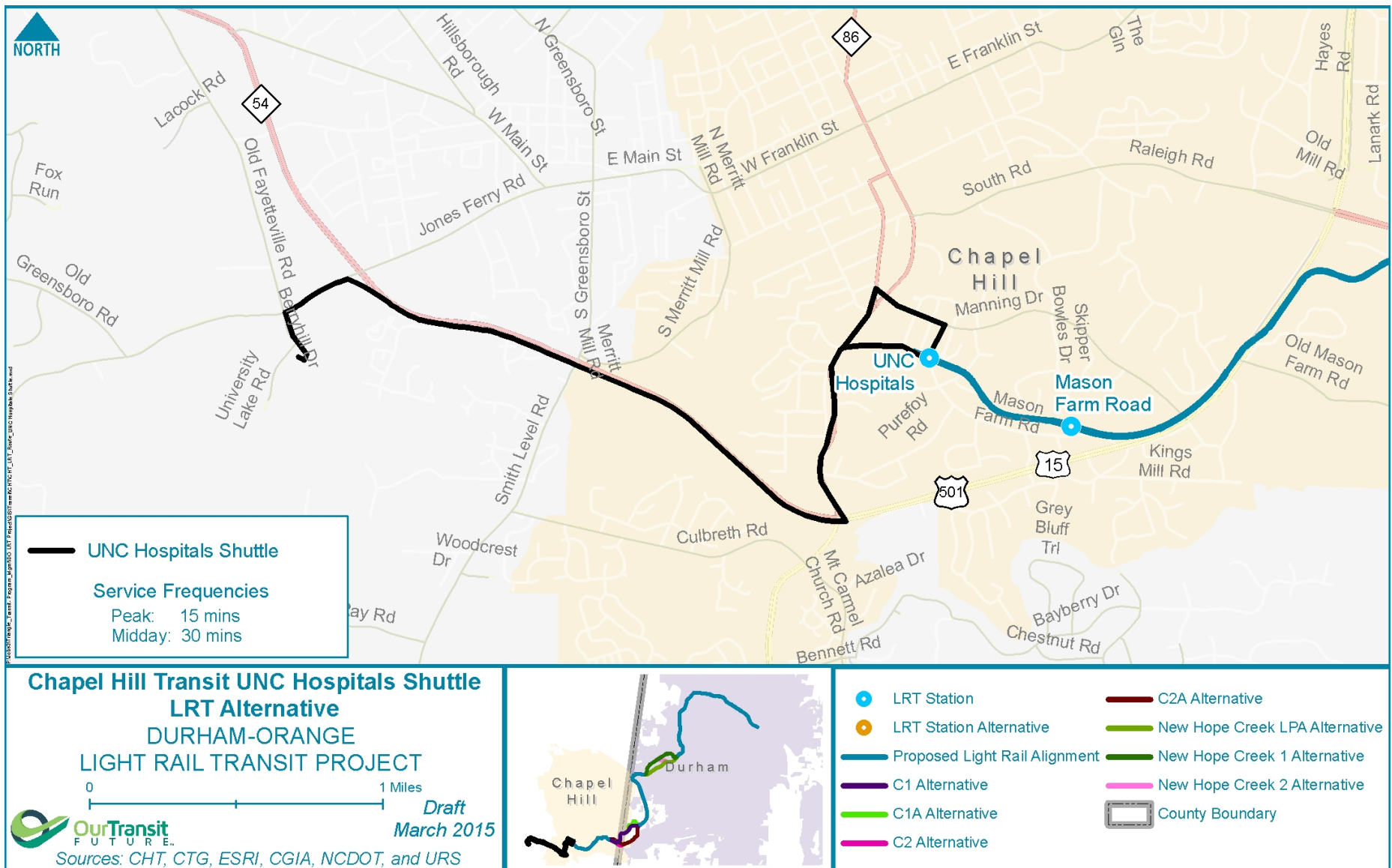












**APPENDIX H**  
**INDIVIDUAL ROUTE MAPS**  
**DUKE TRANSIT**  
**(Weekday Peak and Midday Period Routes Only)**

