

# The Bus and Rail Investment Plan in Orange County



Revised: 9/27/2012  
Adopted: 10/2/2012

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# The Bus and Rail Investment Plan in Orange County

## I. INTRODUCTION

Orange County has achieved an enviable quality of life at the end of the first decade of the 21<sup>st</sup> century. Recent accolades include its ranking as the one of the best place to live by *Money Magazine*, July 2010, one of the best places to start a business by *Entrepreneur Magazine*, August 2009 and one of the best places in the nation to raise children by *Business Week*, December 2010. Orange County is nationally known for its excellent public education systems. Two districts serve the residents of Orange County: The Chapel Hill-Carrboro City School System and the Orange County School System. The University of North Carolina at Chapel Hill consistently ranks among the great institutions of higher education in the nation, most recently honored by *US News & World Report*.

With these successes comes growth in population and increased pressure on our roads and highways. Since 2004, the Triangle has moved from 46<sup>th</sup> largest metro area in the nation to 40<sup>th</sup> in 2009, and our vehicle demand on freeways is up by 28% over those five years. Recently, our region was named the 3<sup>rd</sup> most sprawling urban area in the country among the 83 areas studied.

In 2009, the Joint Long Range Transportation Plan for 2035, by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) noted that the region's population would more than double over the 25-year period. For the last two decades, the demand on our roads has grown significantly faster than our population. Even with planned highway improvements and likely additional revenues for new roads, it is clear that Orange County and the region will see declining levels of service on major roads in the next 25 years. Orange County population grew by 1.6% a year since 2000 and is projected to grow from the countywide 2010 census of 133,801 to approximately 173,000 by 2030.

The economic costs for increasingly congested roads are significant. In its 2010 Annual Urban Mobility Report, the Texas Transportation Institute estimated that our region has "congestion costs" of almost one-half billion dollars a year. Recently, a May 10, 2011 study cited in *Forbes* magazine found that the Triangle was the urban region in the nation that is most vulnerable to rising gasoline prices. Enhanced transportation options need to be created to ensure that Orange County's residents of all income levels have access to job centers and commerce.

Orange County residents and their regional neighbors are aware of the growth in clogged roads, as well as the accompanying air quality problems, negative economic impacts and the loss of the quality of life we enjoy if these transportation challenges are not met. Local citizens and elected leaders have responded to these challenges, with some assistance from state government, as described in this investment plan.

## II. TRANSIT PLANNING STEPS LEADING UP TO THIS PLAN

Beginning in 2007, a blue-ribbon group of Triangle leaders (the Special Transit Advisory Commission, or STAC) met for over a year and in 2008 unanimously recommended a regional vision for bus and rail investments. One year later, the region's two Metropolitan Planning Organizations (MPOs) fully incorporated the STAC recommendations into a long-range (25-year) transportation plan.

In August 2009, Governor Beverly Perdue signed into law the Congestion Relief and Intermodal Transport Fund Act (HB 148), legislation that allows Orange, Durham and Wake counties to generate new revenues for public transportation. These new revenues can include a one-half cent sales tax, if approved by the public through a referendum, as well as an additional \$10 in local and regional vehicle registration fees.

Over the last two years, Triangle Transit staff has worked with municipal, Orange County, the MPO and other regional transportation staff to develop a detailed, 25-year plan for new bus and rail investments designed to provide greater transportation options for residents and employers. These investments would positively impact traffic congestion and air quality, and support local land use policies. This plan is the culmination of that collaboration and proposes crucial public investments and services to maintain our quality of life and economic vitality for the next 25 years.

Extensive public engagement has occurred over the two years in the development of the bus and rail elements of this plan. In 2010 and 2011 Triangle Transit and local transportation staff members from municipalities, counties and MPOs conducted a series of 19 public workshops, at various locations throughout the Triangle, on the process and substance of the plan's development. A total of over 1,100 participants attended the meetings and they provided over 500 comments on the plan. Since that time, the project Web site, [www.ourtransitfuture.com](http://www.ourtransitfuture.com), was viewed by over 73,000 unique individuals. The Web site houses all of the presentation materials and proposed plan elements.

Additionally, the DCHC MPO held five public workshops to receive input on the proposed plan in 2011. In spring 2012, the Orange County Board of Commissioners held two public hearings and two public workshops to provide opportunities for the public to ask questions and provide feedback on the proposed plan.

There have been dozens of meetings with citizens, local elected officials, staff and members of the region's MPOs, community stakeholders and business leaders, allowing extensive feedback on the proposed bus and rail elements of the plan. The financial and service elements of this plan are coordinated with the adopted Durham County Bus and Rail Investment Plan. Additionally, this bus and rail investment plan builds on existing transit services and therefore does not eliminate or reduce the current financial and service commitments.

### III. PLAN ELEMENTS

#### A. Public Transit Providers

The Triangle has a number of public transit providers that have been involved in the development of this plan and will have responsibility to implement the recommendations of the plan upon its approval. Below is a brief description of the transit agencies:

Chapel Hill Transit is a multijurisdictional agency formed by a partnership of the Towns of Chapel Hill, Carrboro and the University of North Carolina at Chapel Hill. Chapel Hill Transit is responsible for regular and express route and demand response service in the Chapel Hill, Carrboro, and University area. Chapel Hill Transit also provides regional express bus service, in cooperation with Triangle Transit to Hillsborough.

Orange County Public Transportation is a county agency that provides community transportation in unincorporated Orange County consisting of demand response service and circulator service within Hillsborough in cooperation with the Town of Hillsborough. Orange County Public Transportation is responsible for providing transportation services to all residents of unincorporated Orange County, the Town of Hillsborough and a portion of the City of Mebane with destinations within and beyond Orange County's borders.

Triangle Transit is a regional transit agency serving Wake, Durham and Orange counties. Triangle Transit is responsible for providing regional commuter express and demand response service connecting Wake, Durham and Orange counties

#### B. New Bus Service

Representatives from Orange County, Chapel Hill, Carrboro, Hillsborough, The University of North Carolina at Chapel Hill, and Triangle Transit have worked collaboratively to develop a comprehensive bus service improvement plan that supports the effort to improve public transit in Orange County. The group identified a range of services that would address county-wide transit service needs. Identified services were ranked and prioritized based on a set of goals and strategies.

Goals include:

- Improve overall mobility and transportation options in the region
- Provide geographic equity
- Support improved capital facilities
- Support transit supportive land use
- Provide positive impact on air quality

Strategies to accomplish these goals include:

- Improve connectivity
- Increase frequency in peak hours
- Improve weekend, night services (off peak)

- Enhance existing service
- Maintain existing services
- Maintain level of local funding at no less than the August 1, 2009 spending level

Over the course of the plan, a new half-cent sales tax would enable delivery of a total of 40,950 additional bus hours in Orange County. By comparison, Chapel Hill Transit currently provides 190,000 annual bus hours and Orange Public Transportation provides approximately 13,000 annual bus hours. The projects will provide benefits to all areas of the county by enhancing urban and rural transit services.

Bus improvement projects were classified by type of service:

- Local bus service - service operating within Orange County boundaries
- Rural or Non-urban service- new or supplemented bus service in northern and western portions of the County.
- Regional service - service operating in more than one county or between separate urban areas. Note: Costs and expenses for regional bus services traveling between Durham and Orange counties are shared on a 50-50 basis by Durham and Orange counties in this Plan.

**First Five Years following successful sales tax referendum**

An investment that equals about 34,650 bus service hours will be provided during the first five years. Improvements will include:

Improve connectivity

- New regional service connecting Carrboro, Chapel Hill, and Durham
- New regional express service connecting Mebane, Hillsborough and Durham

Increase frequency in peak hours

- Enhanced services in the US 15/501 corridor between Durham and Chapel Hill for Chapel Hill Transit, Triangle Transit, and DATA
- Improvements in the NC 54 corridor transit service
- Increased peak hour service on Triangle Transit Route 800 between Research Triangle Park and Chapel Hill
- Increased peak hour service on Triangle Transit Route 420 between Hillsborough and Chapel Hill

Improve weekend, night services (off peak)

- New Saturday service on the in-town Hillsborough circulator
- Expanded local Saturday service in Chapel Hill, Carrboro and UNC
- Expanded regional Saturday service on existing Triangle Transit Route 405 between Durham and Chapel Hill and Triangle Transit Route 800 between Chapel Hill and the Research Triangle Park
- Expanded regional Sunday service on existing Triangle Transit Route 405 between Durham and Chapel Hill and Triangle Transit Route 800 between Chapel Hill and the Research Triangle Park
- New local Sunday service in Chapel Hill, Carrboro and UNC
- Expanded local evening service in Chapel Hill, Carrboro and UNC

#### Bus Service Enhancements

- Enhanced rural transit service in unincorporated Orange County

#### Maintain existing services consistent with state law

- Revenues from the County vehicle registration fee of \$7.00 as identified in the plan (see page 21) will be used to support existing bus service
  - Continue weekday hourly service on the in-town Hillsborough circulator
- ❖ Routes provided by Chapel Hill Transit, may or may not, be included in the plan. Chapel Hill Transit and its partners will determine which of the improvements will be included after further public involvement and analysis.

#### **Year six and beyond following successful sales tax referendum**

An additional 6,300 new bus service hours will be provided between year six of the plan implementation through the end of the program (year 2035) bringing the total to 40,950 total new bus hours.

#### **Improvements include:**

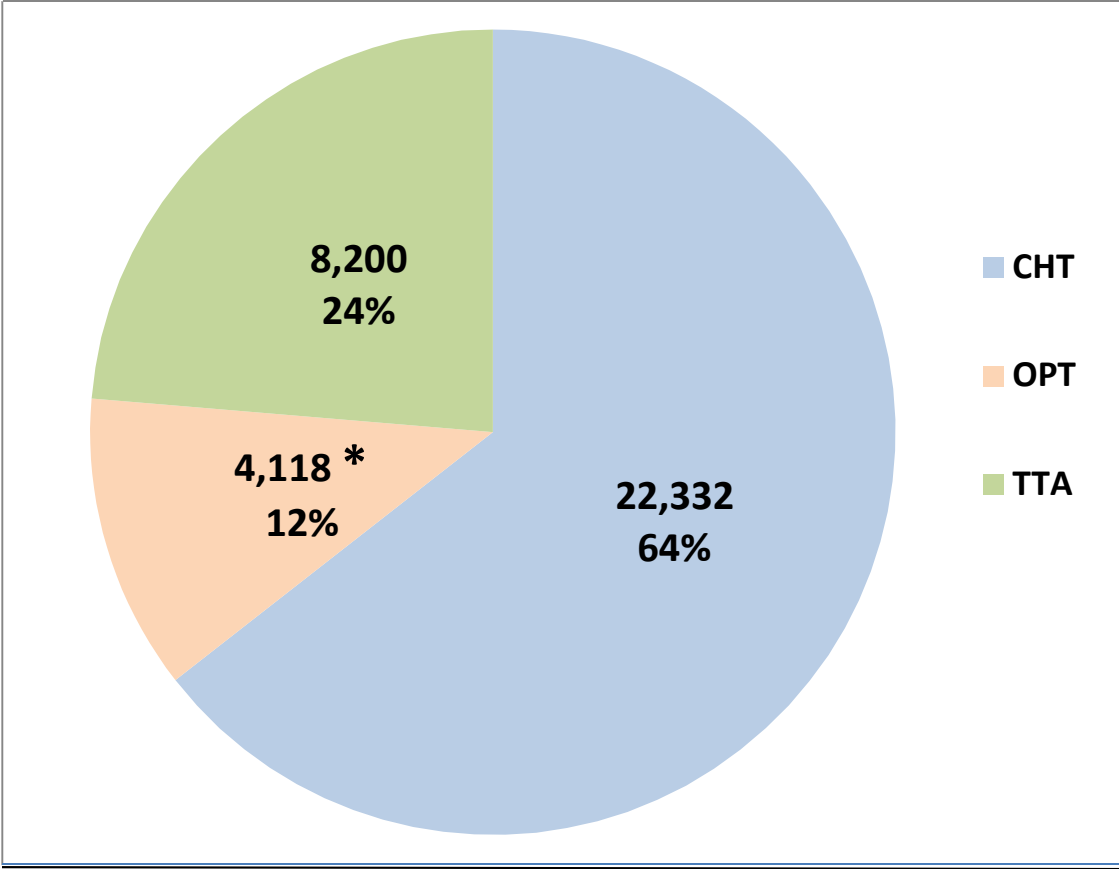
##### Increase frequency in peak hours

- Increased peak hour service on Pittsboro – Chapel Hill Express
- Increased peak hour service on the existing Triangle Transit Route 800 between Research Triangle Park and Chapel Hill
- Increased peak hour service in Chapel Hill, Carrboro and UNC

#### Service Enhancements

- Continued enhancements to rural transit service in unincorporated Orange County

The following chart depicts how revenue will be appropriated initially to the various transit providers – Chapel Hill Transit, Orange Public Transit, and Triangle Transit.



Provider	Hours	% Share of Revenue
CHT	22,332	64%
OPT	4,118 *	12%
TTA	8,200	24%
<b>Total</b>	<b>34,650</b>	<b>100%</b>

*Operating Cost for TT/ CHT is \$97/ hr; OPT cost is \$58/ hr*

**\*The above chart uses a blended formula for operating costs. Since operating cost for OPT are currently \$58/ hr, the 4,118 hours will result in 6,887 hours at that \$58/hr rate.**

❖ See Appendix for more detailed information about specific bus routes and proposals



### C. New Bus Capital Investments

- Park and Ride lots
- Bus shelters in both rural and urban areas of the County
- Real-time passenger information signs and technology
- Bus stop access improvements such as sidewalks

❖ For financial information about these proposed investments please see the Appendix.

### D. Hillsborough Amtrak Station

The plan will provide local funding to support the creation of a passenger rail station in the Town of Hillsborough.

The Rail Station Small Area Plan is a conceptual site and land use plan for the 20-acre tract of land owned by the Town located off of Orange Grove Street. The proposed land uses include a rail station building with space for municipal meetings and a police station; a fire station, and space for a civic arts center. On the eastern portion of the site, high-density commercial and residential land uses are suggested. Phasing options have been considered as well. In addition to the conceptual site plan for the Hillsborough tract, a general transportation network and set of land uses is proposed for the adjacent Collins property.

❖ For financial information about this proposed investment please see the Appendix.

# HILLSBOROUGH STATION

VIEW FROM CHURTO STREET BRIDGE



HILLSBOROUGH - ORANGE COUNTY RAIL STATION TASK FORCE

DESIGNED AND DRAWN BY THOMAS J. CAMPANELLA  
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL - DEPARTMENT OF CITY AND REGIONAL PLANNING



APRIL 2010

# HILLSBOROUGH STATION



EXISTING SITE

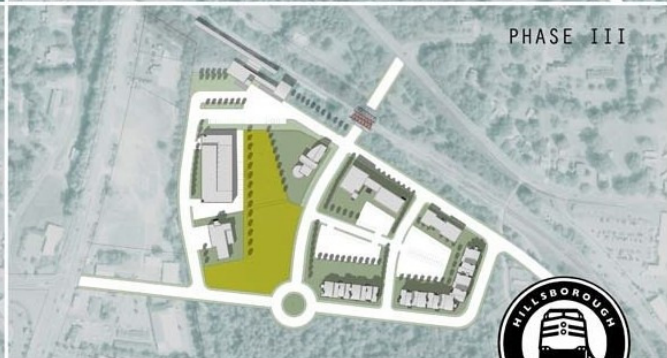


PHASE II



PHASE I

HYAA LITTLE LEAGUE AND TEE-BALL FIELDS



PHASE III

HILLSBOROUGH - ORANGE COUNTY RAIL STATION TASK FORCE

DESIGNED AND DRAWN BY THOMAS J. CAMPANELLA  
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL - DEPARTMENT OF CITY AND REGIONAL PLANNING



APRIL 2010

## E. New Light Rail Service

The Orange County Bus and Rail Investment plan provides funding for a fixed guideway transit system that would connect Durham and Orange counties using Light Rail technology (LRT). The 17.3-mile alignment extends from the University of North Carolina (UNC) Hospitals to Alston Avenue/NCCU in East Durham. A total of 17 stations have been proposed including a station at Mason Farm Road, Hamilton Road, the UNC Friday Center, as well as a potential station at Woodmont/Hillmont or Meadowmont in Chapel Hill. Stations in Durham include Patterson Place along US 15-501, the South Square area, at Duke Medical Center, Ninth Street, and downtown Durham, with convenient access to nearby bus and Amtrak intercity rail connections. Due to the light rail vehicle's capabilities and the requirements of the activity centers and neighborhoods being served along the corridor, light rail stations are routinely spaced between ¼ mile and 2 miles apart.

Light Rail vehicles are electrically powered and travel at speeds up to 55 mph. The total travel time for the 17.3-mile alignment is about 35 minutes, including stops. The vehicles are approximately 90 feet long and can operate in both directions. Additional cars can be added as the demand increases. Recent 2035 projections indicate that ridership will exceed approximately 14,000 boardings per day. These projections are subject to change as the demand model is refined and as development, population and employment changes are recognized.

Light rail vehicles can operate in exclusive right of way, as well as along urban streets, and characteristically serve accessible low platforms (14 inches high) at each station. The operations plan for the 17.3-mile alignment includes train frequencies (headways/ e.g. time between each train) of 10 minutes during the morning and evening peak and 20 minutes during the off-peak hours and on weekends. Vehicles will operate on an 18-hour schedule each weekday. Several potential light rail vehicle maintenance facility locations are being evaluated. Detailed alignment and station location decisions will be made at the end of Preliminary Engineering.

The total capital cost for the Durham and Orange Light Rail Project is approximately \$1.378 billion (2011 dollars). Orange County's share is \$316.2 million in 2011 dollars, which is the same as \$418.3 million in Year-Of-Expenditure (YOE) dollars. Operations and Maintenance costs are estimated at \$14.44 million/year (2011 dollars). Orange County's share of the Operations and Maintenance costs are \$3.46 million/year (2011 dollars). For Orange County's share of the capital cost of the Light Rail project the total cost allocation is Orange County 25%, and an assumed State participation of 25% and Federal Participation of 50%.

Cost estimates for the light rail project have been developed with multiple conservative assumptions. Included in the \$1.378 billion total project cost are the following contingencies:

- 30% contingency on all civil engineering construction costs (stations, sitework, track, yard & shop)
- 20% contingency on systems (signals, electricity, communications)

- 10% contingency on vehicles
- Additional contingency on all soft costs (Design/Architectural/Engineering)

Beyond these line-item specific contingencies, there are also two general contingency line items, one that is equal to 5% of construction cost and another that is equal to 5% of the entire project cost.

For financial information about this proposed investment please see the Appendix.

#### F. Martin Luther King Boulevard Bus Lanes and Corridor Improvements

This investment provides for corridor improvements for buses on Martin Luther King (MLK) Boulevard from Interstate 40 to UNC, using a combination of exclusive lanes and other forms of preferential treatment. It will make bus travel times more reliable in peak periods. Existing buses operating in the MLK corridor will be re-routed to take advantage of the enhanced facilities.

Orange County's cost for the bus lanes is anticipated to be \$22 million in \$2011 dollars, which is the same as \$24.5 in YOE dollars – according to staff at Chapel Hill Transit. This project assumes 25% of the funding will come from the State and 50% of the funding will come from the Federal Government. Since the bus lanes will be used by existing services, they do not generate any additional operational costs within the plan.

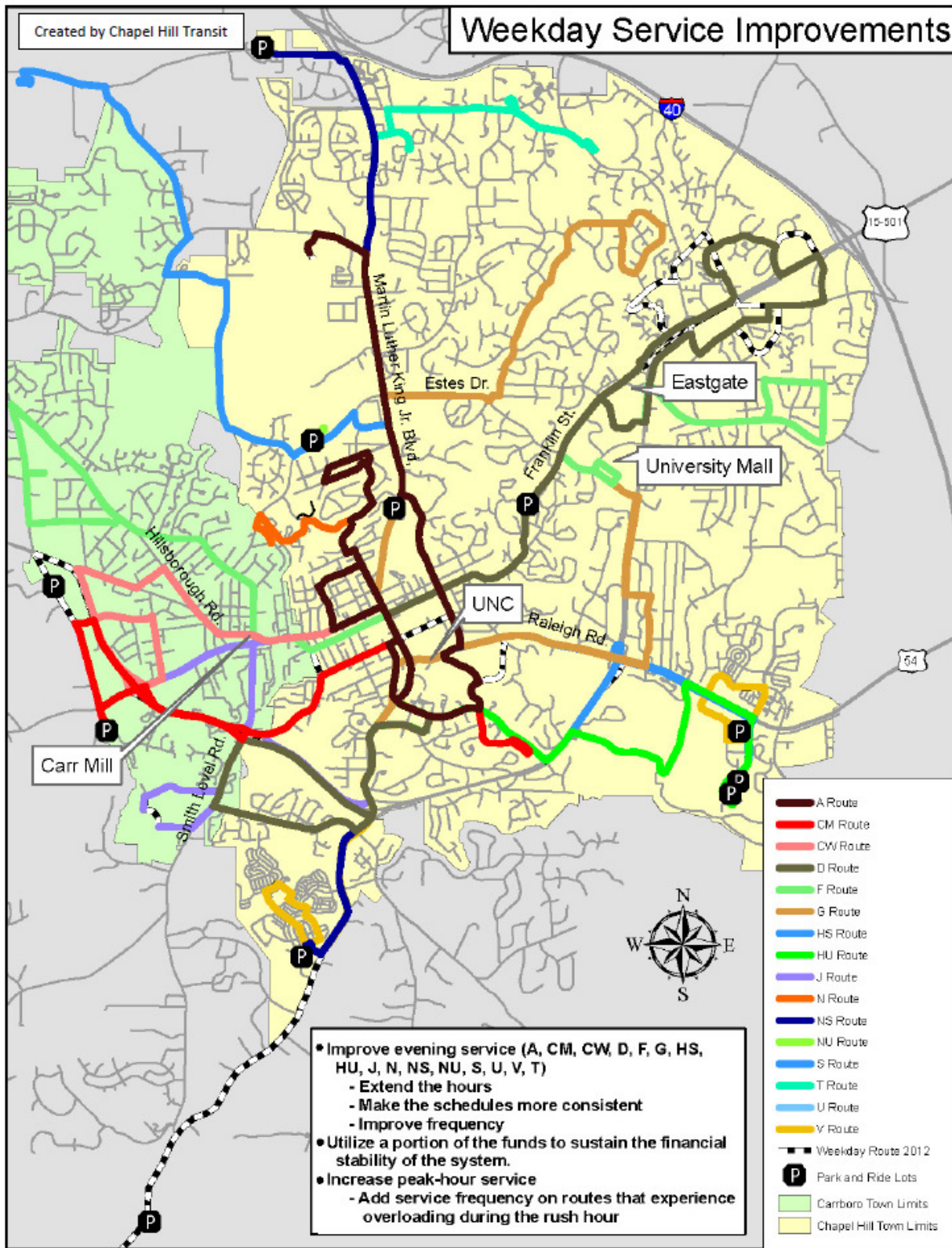
For financial information about this proposed investment please see the Appendix.

#### IV. **MAPS:** The series of maps listed below articulate proposed investments in both bus and rail throughout Orange County.

- a. Chapel Hill Transit Weekday Service Improvements
- b. Chapel Hill/Carrboro: Saturday Service Improvements
- c. Chapel Hill/Carrboro: Sunday Service Improvements
- d. Improved Bus Service in US 15/ 501 and NC 54 Corridors
- e. Orange County Transit Plan: Proposed Regional Bus Service Improvements
- f. Proposed Hillsborough and Rural Bus Service Improvements
- g. Durham-Orange Light Rail Transit Project
- h. Improved Bus service on MLK
- i. Regional Integration of Orange, Durham, and Wake Transit Plans



# Weekday Service Improvements



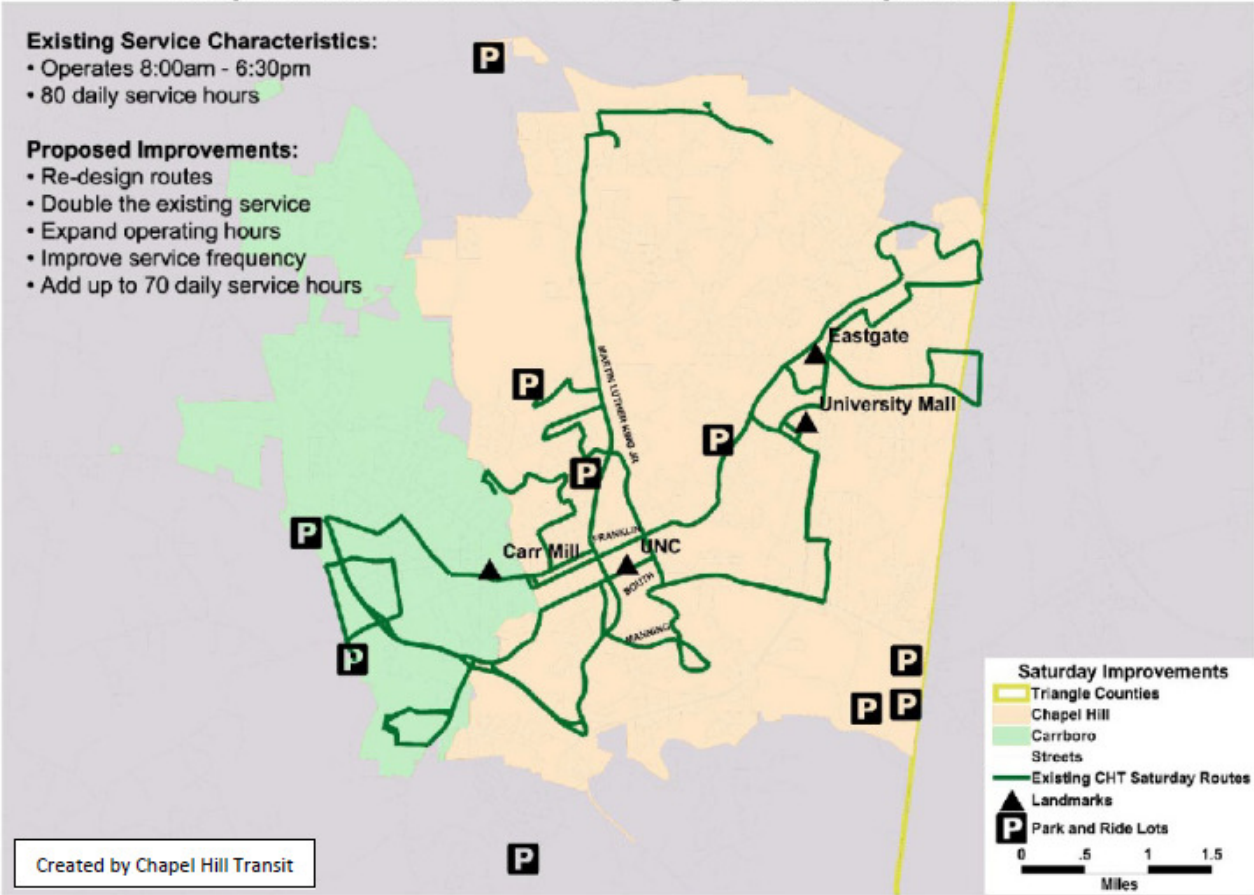
# Chapel Hill/Carrboro: Saturday Service Improvements

**Existing Service Characteristics:**

- Operates 8:00am - 6:30pm
- 80 daily service hours

**Proposed Improvements:**

- Re-design routes
- Double the existing service
- Expand operating hours
- Improve service frequency
- Add up to 70 daily service hours



Created by Chapel Hill Transit

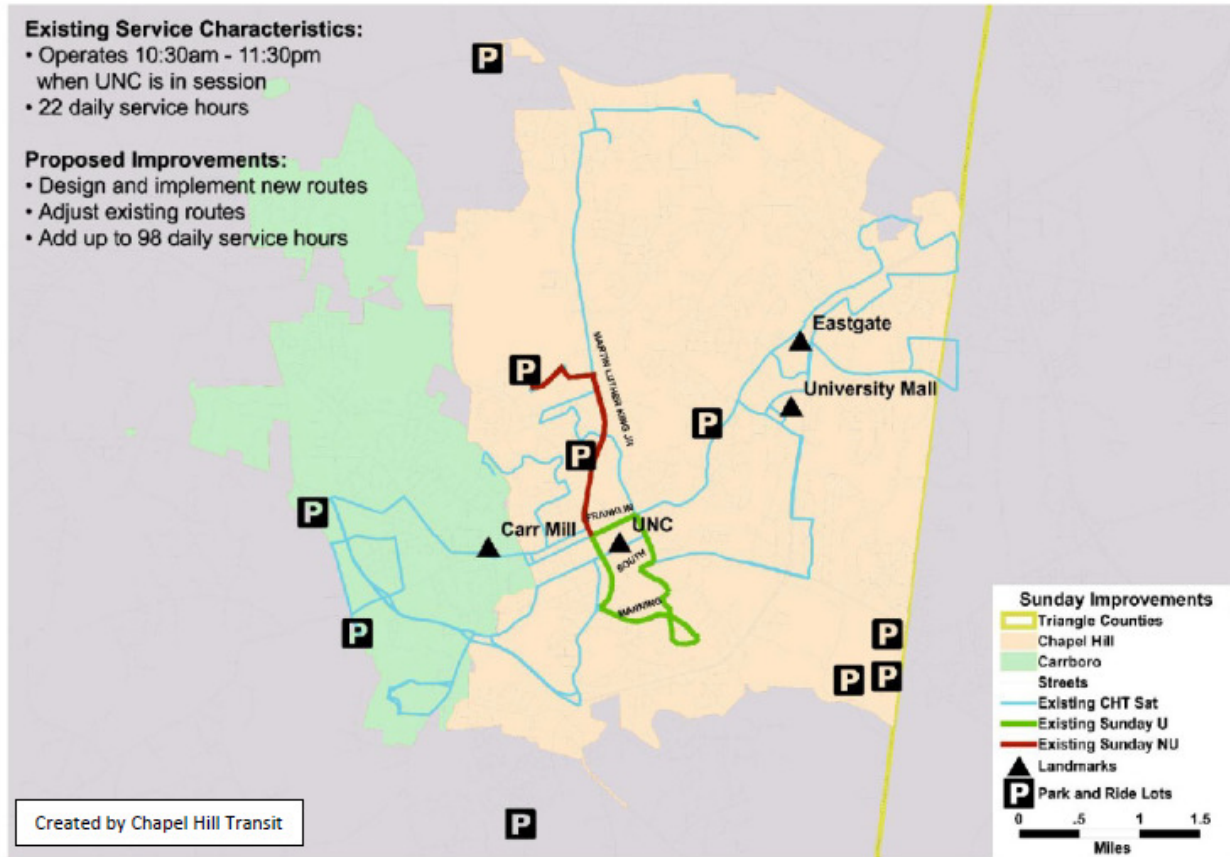
# Chapel Hill/Carrboro: Sunday Service Improvements

## Existing Service Characteristics:

- Operates 10:30am - 11:30pm when UNC is in session
- 22 daily service hours

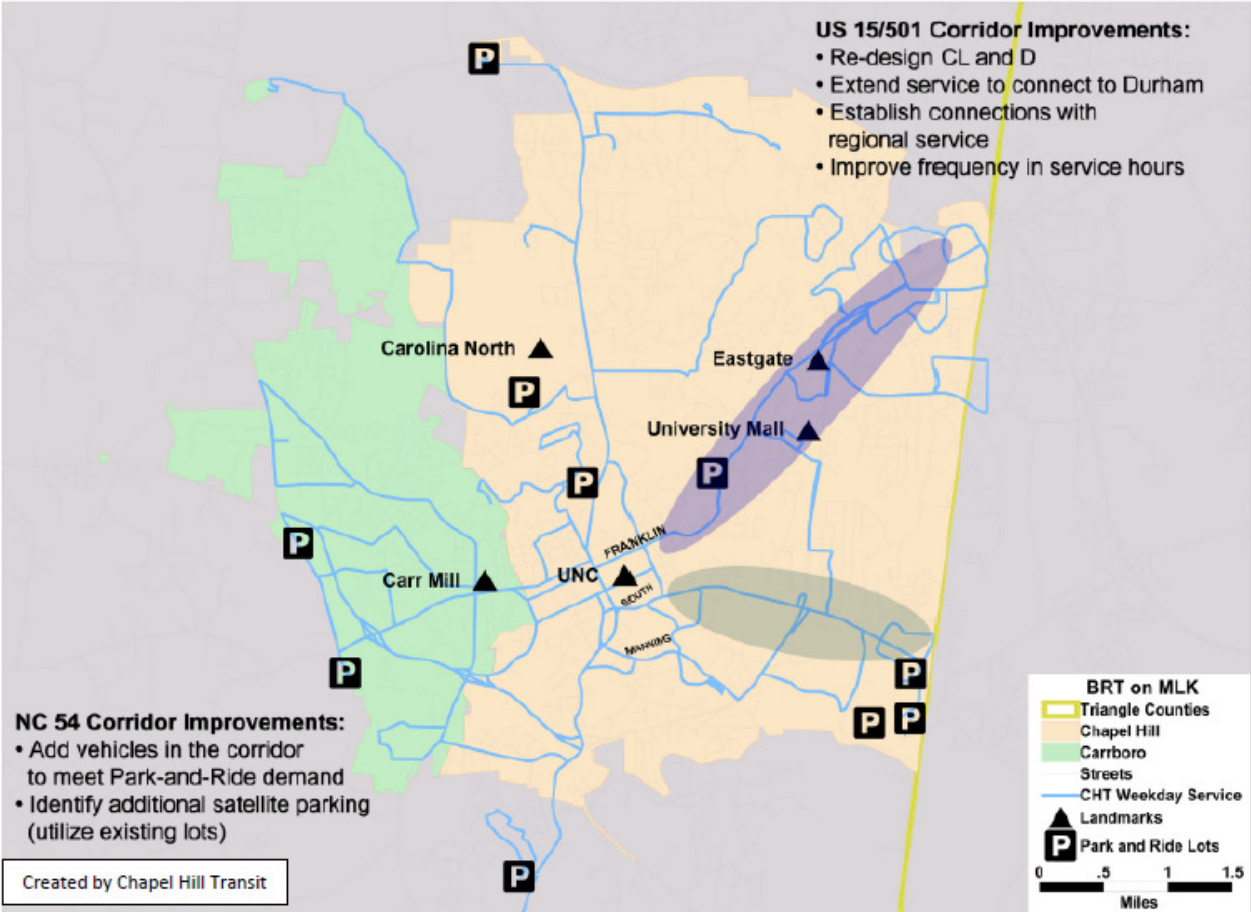
## Proposed Improvements:

- Design and implement new routes
- Adjust existing routes
- Add up to 98 daily service hours



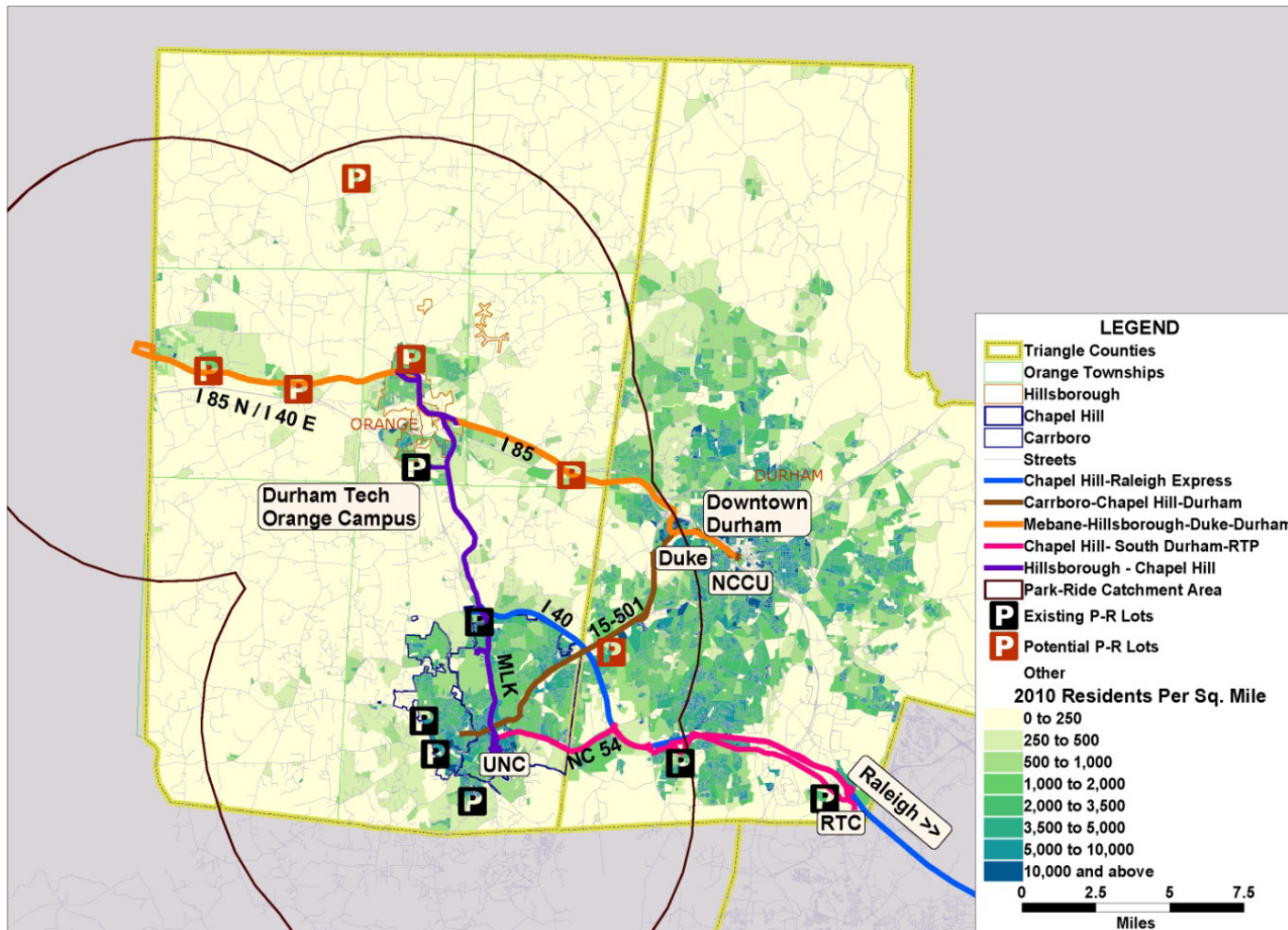


# Improved Bus Service in US 15/501 and NC 54 Corridors



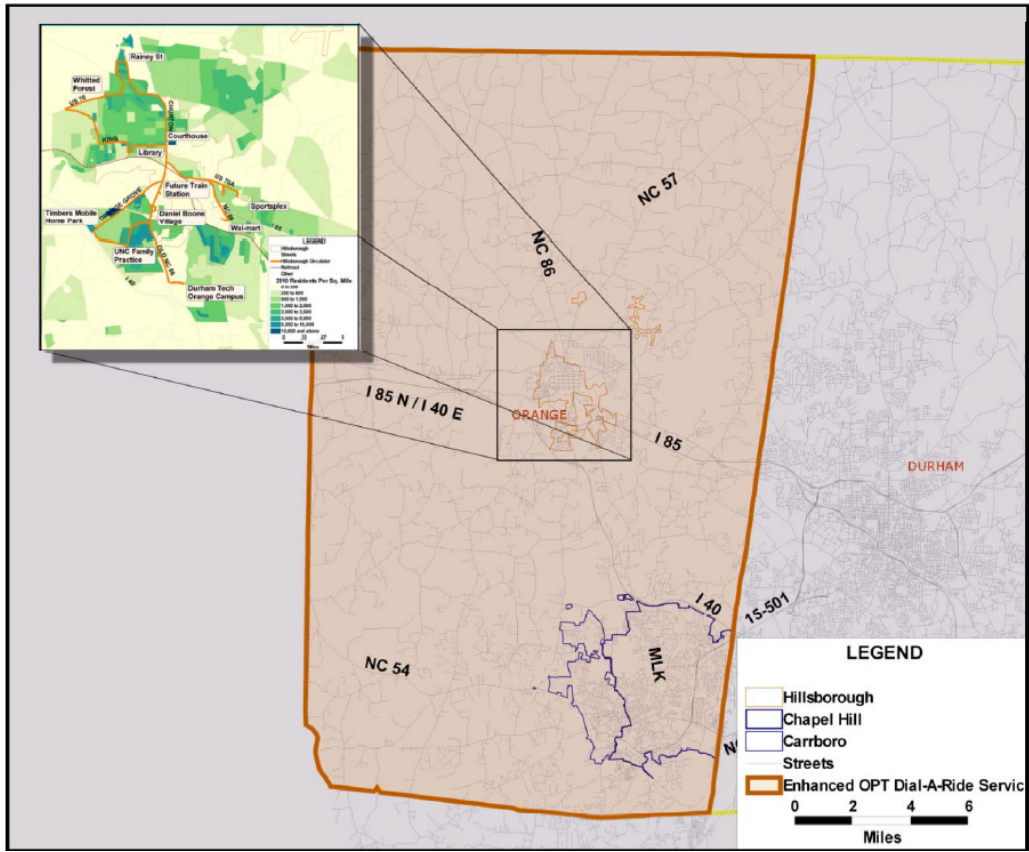


# Orange County Transit Plan: Proposed Regional Bus Service Improvements



Created by Triangle Transit  
 April 23<sup>rd</sup> 2012

# Orange County Transit Plan: Proposed Hillsborough and Rural Bus Service Improvements



Created By Triangle Transit

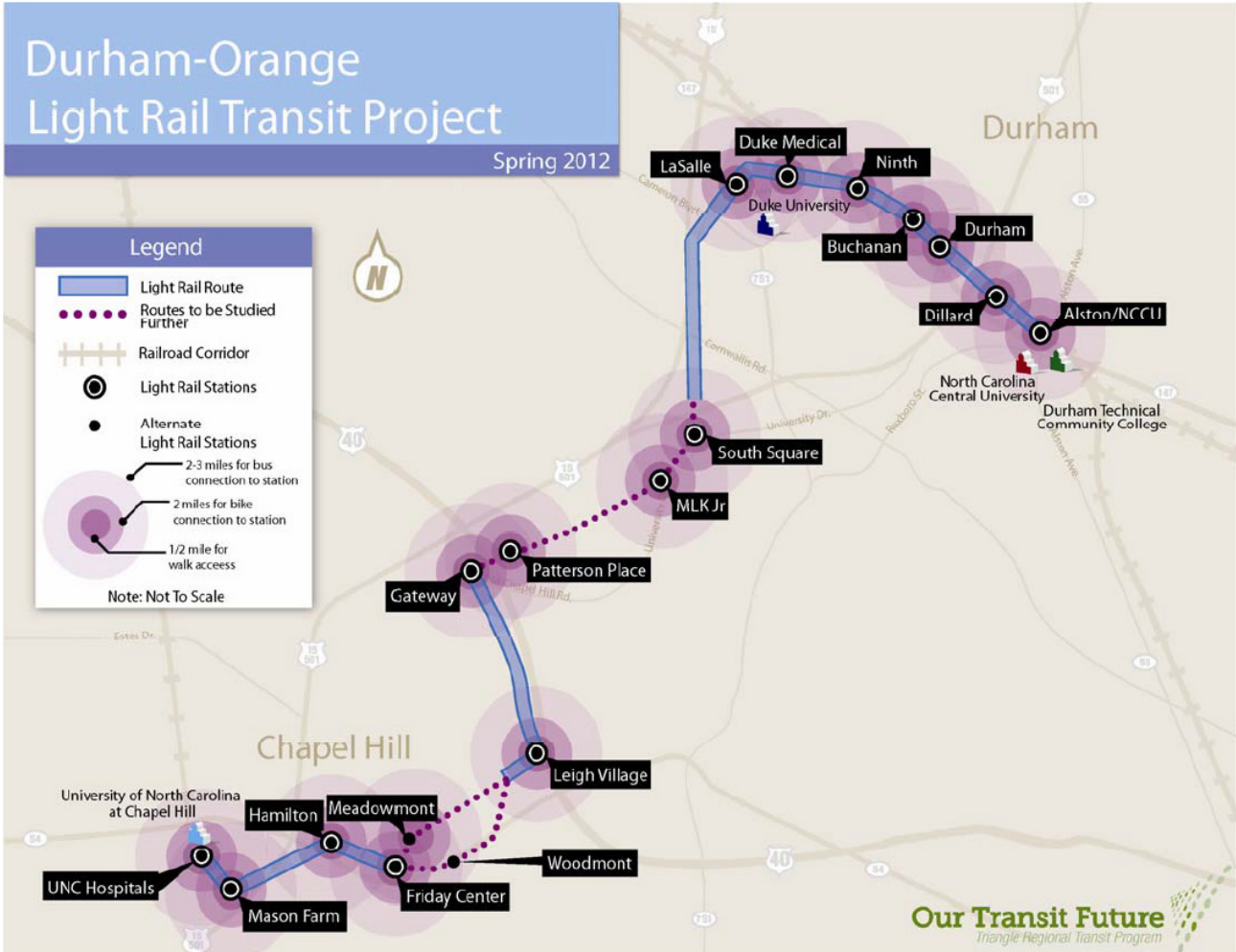
# Durham-Orange Light Rail Transit Project

Spring 2012

**Legend**

- Light Rail Route
- Routes to be Studied Further
- Railroad Corridor
- Light Rail Stations
- Alternate Light Rail Stations
- 2-3 miles for bus connection to station
- 2 miles for bike connection to station
- 1/2 mile for walk access

Note: Not To Scale



**Our Transit Future**  
Triangle Regional Transit Program

## Improved Bus Service on Martin Luther King Jr. Boulevard

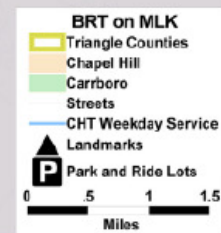
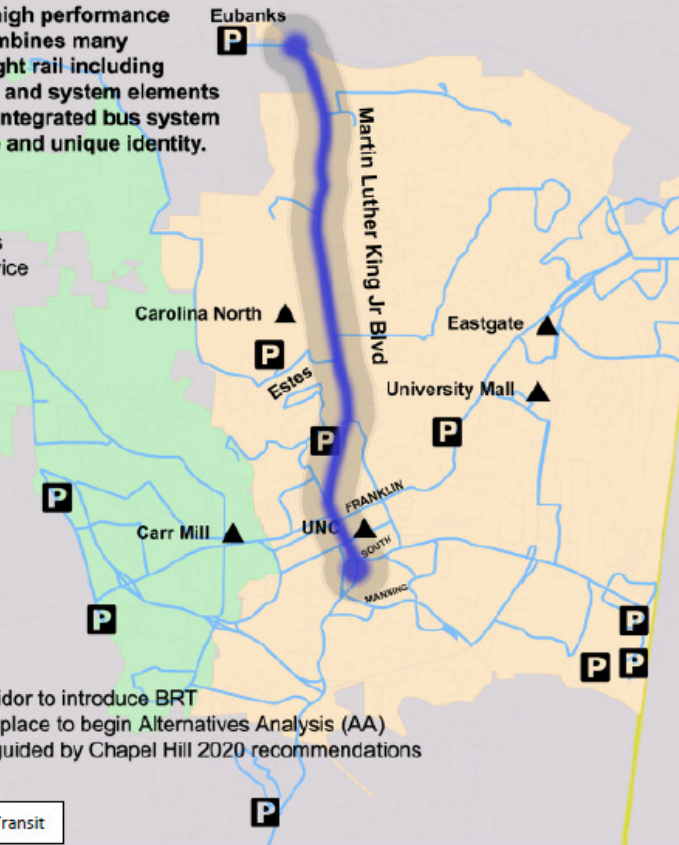
**BRT** is a flexible, high performance bus service that combines many characteristics of light rail including physical, operating, and system elements into a permanently integrated bus system with a quality image and unique identity.

**Characteristics:**

- High capacity buses
- High frequency service
- Dedicated lanes
- Upgraded shelters
- Technology
- Easy fare payment
- Unique identity

- MLK is a prime corridor to introduce BRT
- CHT has funding in place to begin Alternatives Analysis (AA)
- AA process will be guided by Chapel Hill 2020 recommendations

Created by Chapel Hill Transit







## V. ORANGE COUNTY REVENUES

A variety of revenue sources provide the funding for the Orange County Bus and Rail Investment Plan. Those revenues include:

- A new one-half-cent sales tax in Orange County
- A new \$7 vehicle registration fee levied by Orange County
- An increase of \$3 to the existing \$5 vehicle registration fee currently levied by Triangle Transit in Orange County
- Revenue from Triangle Transit's rental car tax
- NC State Government contributions
- Federal Government contributions

In addition, local funding of current transit services will remain in place.

The initial proceeds for a FULL YEAR of each local revenue stream for Orange County in 2013 for transit are assumed to be:

- |  |               |
|--|---------------|
| • ½-cent sales tax:                      | \$5.0 million |
| • \$7 vehicle registration fee:          | \$788,000     |
| • \$3 vehicle registration fee increase: | \$338,000     |
| • Rental car tax revenue:                | \$582,000     |

Growth rates assumed for each revenue source:

- |  |      |
|--|------|
| • ½-cent sales tax:                      |      |
| ○ Growth rate from 2011 through 2014:    | 1.0% |
| ○ Growth rate from 2015 through 2035:    | 3.6% |
| • \$7 vehicle registration fee:          | 2.0% |
| • \$3 vehicle registration fee increase: | 2.0% |
| • Rental car tax revenue:                | 4.0% |

A total of \$25 million would be borrowed over the life of the plan. This borrowing would cover for the large capital expenditures which occur for 3 to 4 years of construction of the light rail component of the plan. Any borrowing would be from capital markets through government bonds, would require approval by the NC Local Government Commission, and would have to meet debt to revenue ratios required by the capital markets for bond issuance.

Further details for each revenue source follow.

### A. One-half cent sales tax in Orange County

A one half-cent sales tax in Orange County means that when individuals spend \$10.00 on certain goods and services, an additional five cents (\$0.05) is added to the transaction to support the development of the Bus and Rail Investment Plan. Purchases of food, gasoline, medicine, health care and housing are excluded from the tax.

A one half-cent sales tax in Orange County is estimated to generate \$5.0 million in 2013 if active for the full year. Discussions with the NC Dept of Revenue indicate that in the first year

of the plan, the revenue streams may not be active until April 1<sup>st</sup> instead of January 1<sup>st</sup>. The figures in Appendix G: Revenue reflect the partial first-year levy of both a ½-cent sales tax and a \$10 vehicle registration fee increase. Over the life of the plan to 2035, the sales tax is expected to generate approximately \$163 million in Year-Of-Expenditure (YOE) dollars. This tax can only be levied subsequent to a referendum by the Orange Board of County Commissioners and approval by the voters.

Revenue from the ½-cent sales tax identified in the Bus and Rail Investment Plan for Orange County can be used for financing, constructing, operating and maintain local public transportation systems. The funds can be used to supplement but not supplant or replace existing funds or resources for public transit systems.

#### B. \$7 Vehicle Registration Fee in Orange County

A seven dollar (\$7) vehicle registration fee in Orange County means that when an individual registers a new vehicle or renews the registration for an existing vehicle in Orange County, an additional \$7 per year is added to the cost above the other required registration fees for that vehicle.

The seven dollar fee in Orange County is expected to bring in \$788,000 in 2013 if implemented for a full year. Discussions with the NC Dept of Revenue indicate that in the first year of the plan, the revenue streams may not be active until April 1<sup>st</sup> instead of January 1<sup>st</sup>. The figures in Appendix G: Revenue reflect the partial first-year levy of both a ½-cent sales tax and a \$10 vehicle registration fee increase. Over the life of the plan to 2035, the seven dollar fee is expected to generate \$22.5 million in Year-Of-Expenditure (YOE) dollars. The implementation agreement will articulate how this revenue can be utilized.

#### C. \$3 Vehicle Registration Fee Increase for Triangle Transit in Orange County

A three dollar (\$3) vehicle registration fee increase in Orange County means that when an individual registers a new vehicle or renews the registration for an existing vehicle in Orange County, an additional \$3 per year is added to the cost above the other required registration fees for that vehicle. An existing \$5 fee for vehicle registration supports activities of Triangle Transit, including bus operations and long-term planning. This fee would be increased to \$8 when the \$3 increase is implemented.

The three dollar (\$3) fee in Orange County is projected to generate \$338,000 in 2013 if implemented for a full year. Discussions with the NC Dept of Revenue indicate that in the first year of the plan, the revenue streams may not be active until April 1<sup>st</sup> instead of January 1<sup>st</sup>. The figures in Appendix G: Revenue reflect the partial first-year levy of both a ½-cent sales tax and a \$10 vehicle registration fee increase. Over the life of the plan to 2035, the three dollar (\$3) fee is expected to generate \$9.7 million in Year-of-Expenditure (YOE) dollars. The implementation agreement will articulate how this revenue can be utilized.

#### D. Revenue from Triangle Transit's Rental Car Tax

Triangle Transit operations are partially funded by a five percent (5%) tax on car rentals in Wake, Durham, and Orange Counties. Under existing policy adopted by the TTA Board, 50% of the rental car tax revenues are dedicated to advancing long-range bus and rail transit.

Since a significant portion of all cars rented and driven in the three counties are rented at the RDU International Airport, it is difficult to determine which rentals are driven primarily in one county or another. Therefore, the 50% rental revenues dedicated to long-term transit were allocated by county according to the percentage of population in the Triangle Region, which is: Wake (68%); Durham (21.5%); Orange (10.5%).

The Triangle Transit rental car tax proceeds directed to project development in Orange County are estimated to be \$582,000 in 2013. Over the life of the plan to 2035, the rental car tax is expected to generate \$21.3 million in Year-of-Expenditure (YOE) dollars for Orange County.

#### E. NC State Government Funding

The plan includes a 25% capital cost contribution by the NC Department of Transportation (NCDOT) for both light rail and commuter rail projects in Orange County. This level of participation was established by the State in Charlotte's Lynx Blue Line light rail project in 2003. The plan assumes that NCDOT also pays for 10% of bus capital costs (replacement buses, new buses, park and ride lots, etc) consistent with its current practices. Over the life of the plan to 2035, the contributions of NCDOT are expected to total \$130.6 million in Year-of-Expenditure (YOE) dollars in Orange County.

#### F. Federal Government Funding

The plan assumes that the Federal Government contributes 50% of the capital cost for the light rail project in Orange County. This was the federal level of participation in the Charlotte Lynx Blue Line light rail project and is consistent with federal funding outcomes for most rail projects in the Federal Transit Administration's New Starts program in recent years.

The plan assumes that the Federal Government also pays for 80% of bus capital costs, consistent with its current practices, and continues to provide operating appropriations consistent with present Federal Transit Administration operating grant formulas. Over the life of the plan to 2035, the contributions of the Federal Government are expected to total \$248 million in Year-of-Expenditure (YOE) dollars in Orange County.

#### G. Transit Fares

The plan assumes fares for all operating agencies remain unchanged from the existing fare structures.

- Light Rail farebox recovery ratio: 20%
- Triangle Transit bus farebox recovery ratio: 15%
- Chapel Hill Transit bus farebox recovery ratio: 0%
- Orange Public Transportation bus farebox recovery ratio: 3.5%



## H. FTA Formula Funds

The plan assumes that new bus services will receive partial operating and capital cost contributions through existing formula programs established by the Federal Transit Administration (FTA), and that transit agencies in Orange County will receive those contributions in accordance with historical patterns of funding that existing transit services have received. Over the life of the plan to 2035, FTA Formula funds are expected to total \$70.9 million in Year-Of-Expenditure (YOE) dollars in Orange County.

## I. Additional Revenue Sources

This draft Bus and Rail Investment Plan does not rely on additional municipal contributions, public or private third party contributions or value capture forms of revenue.

## VI. ORANGE FINANCIAL PLAN DATA

The following is a list of the total spending for each technology and category identified in the Orange County Bus and Rail Investment Plan to 2035. All figures are in Year of Expenditure dollars (YOE) unless otherwise noted.

- Light Rail Capital: \$418.3 million (\$316.2 million in 2011 dollars)
- Light Rail Operations: \$59.1 million
- Bus Capital:
  - MLK Bus Lanes - \$24.5 million
  - Miscellaneous Bus Capital Projects - \$6.7 million
  - Buses purchased - \$17.6 million
- Bus Operations: \$106.8 million
- Hillsborough Intercity Rail Station: \$8.9 million (\$8.0 million in 2011 dollars; Orange County will only be responsible for a 10% matching contribution to total cost)
- Amount of debt service payments made by Triangle Transit through 2035: \$19.2 million

**Note Regarding Borrowing:** Amount borrowed by Triangle Transit to execute the plan: \$25 million (this number is larger than the line above because debt payments are over 30-year terms and continue past 2035)

Additional specific financial information on each of these plan elements can be found in the Appendices.

## VII. AGREEMENTS

### IMPLEMENTATION AGREEMENT: ANNUAL REVIEW AND CHANGES TO THE PLAN

The Bus and Rail Investment Plan in Orange County details the specific elements of local and regional bus service, and Light Rail service to be added in Orange County over a 23-year period. Because of the long time frame for implementation of the Plan and its major capital projects, over time there will be changes and revisions made to the Plan. As the statutory implementation agency, Triangle Transit will work with Orange County, the DCHC Metropolitan Planning Organization (MPO), and the towns of Chapel Hill, Carrboro,

Hillsborough, the University of North Carolina at Chapel Hill and Chapel Hill Transit, and the public transit provider in Orange County, to develop and execute an Implementation agreement which details the following aspects of implementation of the Plan:

- (a) Annual review presentations of the activities and progress made in implementation of the Plan by Triangle Transit to the County, TTA Board and the MPO;
- (b) The process for review and vote by the County, the MPO and Triangle Transit's Board of Trustees of any significant or substantial revisions to the Plan required by changes experienced in revenues received, capital costs, operating expenses, or other substantial issues affecting the Plan;
- (c) A recognition and preservation of decision making responsibilities of the operating agencies;
- (d) Responsibility of Triangle Transit for direct disbursement of funds from the revenues received per Section V (above) to the public agency responsible for implementing the bus services set forth in the Plan; and
- (d) Other necessary provisions regarding implementation of this Plan as agreed to by the County, the MPO, and Triangle Transit.

### **COST SHARING AGREEMENT**

The capital and operating costs for the 17.3-mile LRT line will be shared by Orange and Durham counties. Accordingly, a separate cost sharing agreement between Orange County, Durham County and Triangle Transit has been developed. The cost sharing agreement sets forth the respective shares of the capital and operating costs that will be paid by each county for this project that cross both county and municipal borders.

### **TAX LEVY AGREEMENT**

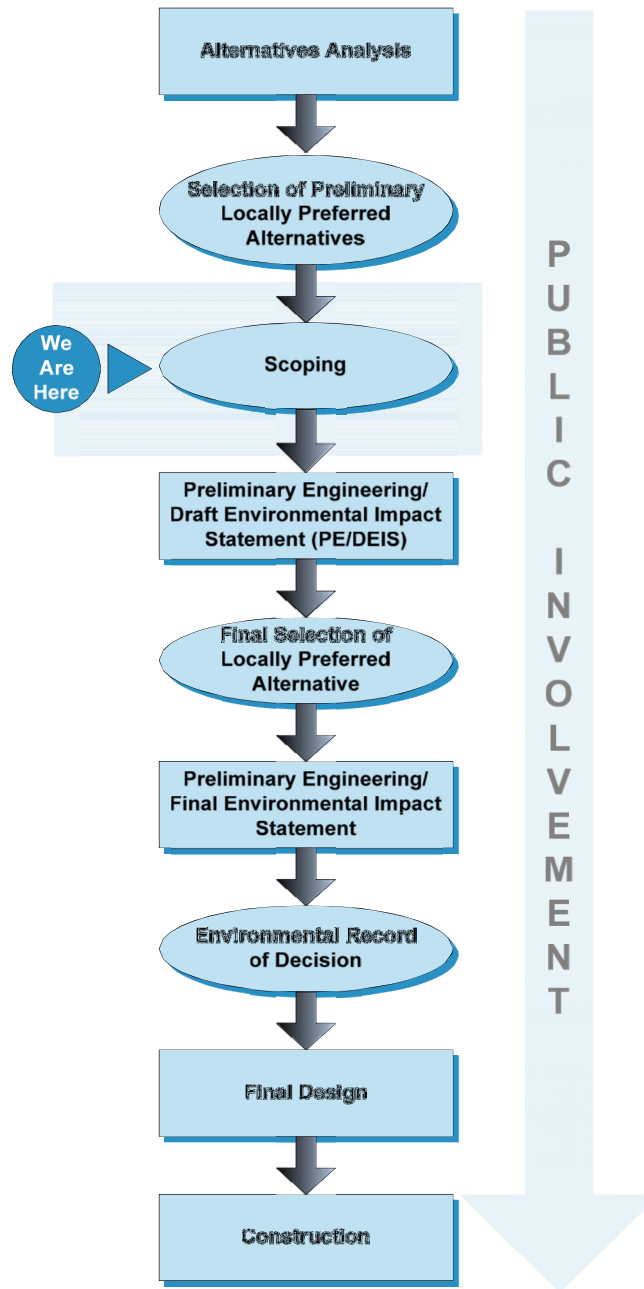
One additional agreement has been developed by Orange County and Triangle Transit relevant to the plan. In this tax levy agreement Triangle Transit agrees not to levy the half-cent transit sales tax for Orange County in the event of a successful referendum vote on the sales tax until after receiving a Resolution from the Orange County Board of County Commissioners requesting that the tax be levied.

## **VIII. NEW STARTS PROCESS**

### **Federal New Starts Funding Process**

It is anticipated that Federal funds assisting in the planning and implementation of the Durham-Orange Light Rail Transit Project would be secured through the Federal Transit Administration's (FTA) discretionary New Starts program.

New Starts is the federal government's primary financial resource for funding transit "guideway" capital investments. Projects seeking New Starts funding – like all federally-funded transportation investments in metropolitan areas – must emerge from a locally-driven, *multimodal* corridor planning process, as depicted graphically in this chart:



Through the jointly adopted 2035 Long Range Transportation plan by the Durham-Chapel Hill-Carrboro MPO (DCHC MPO) and the Capital Area MPO (CAMPO), transportation corridors in greatest need of more detailed planning and analysis were identified. The Alternatives Analysis (AA), completed in 2011, focused on a set of needs and alternative actions to address these needs, and generated information needed to select an option for further engineering and implementation. In February 2012, the DCHC MPO selected a 17.3-mile light rail corridor from East Durham to UNC Hospitals as the locally preferred alternative (LPA). Triangle Transit, as the local project sponsor, will submit to FTA the New Starts project justification

and local financial commitment and request FTA's approval to enter into the preliminary engineering (PE) phase of project development.

During the preliminary engineering phase of project development, local project sponsors refine the design of the proposal, taking into consideration all reasonable design alternatives. Preliminary engineering results in estimates of project costs, benefits, and impacts at a level of detail necessary to complete the federal environmental process.

Preliminary engineering for a New Starts project is considered complete when the FTA has issued a *Record of Decision* (ROD) as required by the National Environmental Policy Act (NEPA). Projects which complete preliminary engineering and whose sponsors are determined by the FTA to have the technical capability to advance further in the project development process must request FTA approval to enter final design and submit updated New Starts information for evaluation.

Final design is the last phase of project development, and includes right-of-way acquisition, utility relocation, and the preparation of final construction plans, detailed specifications, construction cost estimates, and bid documents.

The FTA typically considers a Full Funding Grant Agreement (FFGA) for a New Starts project during the final design phase of the New Starts project development process. A State FFGA will also be requested by the local project sponsor to supplement federal and local funding sources.

With all funding secured, construction on the project will begin.

## **IX. ALTERNATIVE PLAN**

If it is determined that Federal or State funding for the proposed projects are not available, an alternative plan must be developed. Upon this determination, Triangle Transit will work in collaboration with the citizens, elected officials, and stakeholders from Orange County, Chapel Hill Transit, DCHC MPO and Durham County to identify next steps toward the development of a revised plan.

## **X. CLOSING SUMMARY**

The Bus and Rail Investment Plan in Orange County is the result of years of collaborative work among Orange County elected officials and civic leaders, regional stakeholders, municipal and county staff and Triangle Transit. The plan consists of a balance of bus improvements and rail investment to help accommodate the population and employment growth that the region is expected to experience in the next 25 years.

The proposed plan addresses the ongoing need to provide more options to transit riders with improved and expanded bus and rail connections. Once implemented, the residents of Orange County will be able to have greater access to jobs, shopping, and activity centers such as downtown Chapel Hill and Carrboro, the University, or UNC Hospital.

Additionally, the plan will provide core infrastructure investment that will help support the goals and objectives of local land use plans in Orange County and its municipalities. In particular, as evidenced in communities across the country, investment in light rail has proven to be a great motivator for private companies to build transit-oriented development at station locations along the rail corridor. This kind of more intense development generally consists of a mixed-use, walkable environment that can provide a more sustainable alternative to the suburban growth pattern that exists today, while allowing more open space to be preserved.

All the elements listed in the Draft Bus and Rail Investment Plan of Orange County are fiscally constrained. At every turn, the Plan is conservative in revenue assumptions and incorporates contingencies for capital and operating expenditures.

The draft plan has been shared with the general public, Carrboro Board of Aldermen, Chapel Hill Town Council, the Hillsborough Town Commissioners, the DCHC MPO, the Burlington-Graham MPO and the Orange County Commission. The draft plan will be considered for approval by the DCHC MPO, the Burlington–Graham MPO, the Triangle Transit Board of Trustees, and the Orange County Board of Commissioners. The Orange County Board of Commissioners will determine if and when to set a referendum date. Once a referendum passes, work can begin on implementation of the Bus and Rail Investment Plan.

- ❖ *As directed by NCGS 105-510.6, Triangle Transit drafted and developed this Plan, working in collaboration with the citizens, elected officials, and stakeholders from Orange County, the DCHC MPO, and Chapel Hill Transit.*

# Bus and Rail Plan In Orange County

## Appendix A: Master Assumption List

## Assumptions in Orange County and Durham County Financial Plans for Bus and Rail Transit

September 26, 2012

### ASSUMPTIONS

	ORANGE	DURHAM
Sales Tax Growth Rate to 2015	1.00%	2.00%
Sales Tax Growth Rate 2016 and Beyond	3.60%	3.50%
Light Rail Capital Cost Responsibility (Percentage)	22.95%	77.05%
Light Rail Operating Cost Responsibility (Percentage)	23.95%	76.05%
Light Rail Capital Cost Share Based on Current Cost Estimates (\$2011 millions)	\$ 316.2	\$ 1,061.8
Light Rail Operating Cost Share Based on Current Cost Estimates(\$2011 millions)	\$ 3.46	\$ 10.98
MLK Bus Lanes Capital Cost (\$2011 millions)	\$ 22.1	NA
MLK Bus Lanes Operating Cost* (\$2011 millions)	\$ -	NA
Hillsborough Intercity Train Station Capital Cost (\$2011 <u>millions</u> )	\$ 8.0	NA
Hillsborough Intercity Train Station Operations Cost **	Not part of plan	
Amount borrowed by Triangle Transit to execute the plan (\$2011 millions)	\$25	\$165
Plan Minimum Cash Balance (\$2011 millions)	\$4.1	\$12.9

### OUTCOMES

New Bus Hours in First Five Years of Plan	34,650	45,000
Total Cumulative New Bus Hours by End of Plan (Year 2035)	40,950	87,500
Opening Year for Hillsborough Intercity Train Station	2015	NA
Opening Year for MLK Bus Lanes	2019	NA
Opening Year for Light Rail	2026	2026
"Rail Dividend" Bus Hours that can be re-directed when Light Rail Opens	30,000-45,000	12,000-35,000
Plan Cash Balance in 2035 (\$2035 millions)	\$45	\$89
Plan Cash Balance in 2035 (\$2011 millions)	\$23	\$46

\*MLK Bus Lanes have no operating costs because existing, already-paid-for bus services will be-re-organized to use the bus lanes

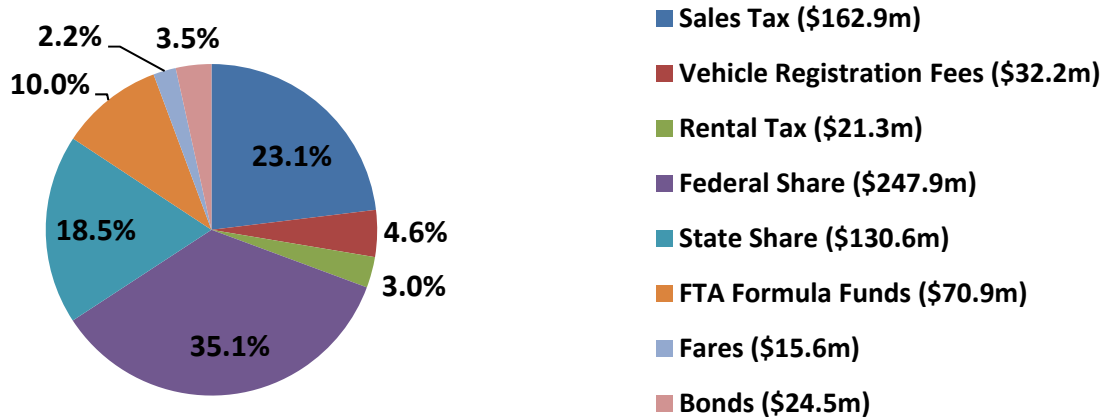
\*\*Operations cost of Intercity Rail Station assumed to be covered in existing station plans by NCDOT Rail Division and Town of Hillsborough. Capital Cost contribution of the Orange County plan is 10% of total capital cost for Hillsborough train station.

Light green indicates updated cell or figure since previous draft

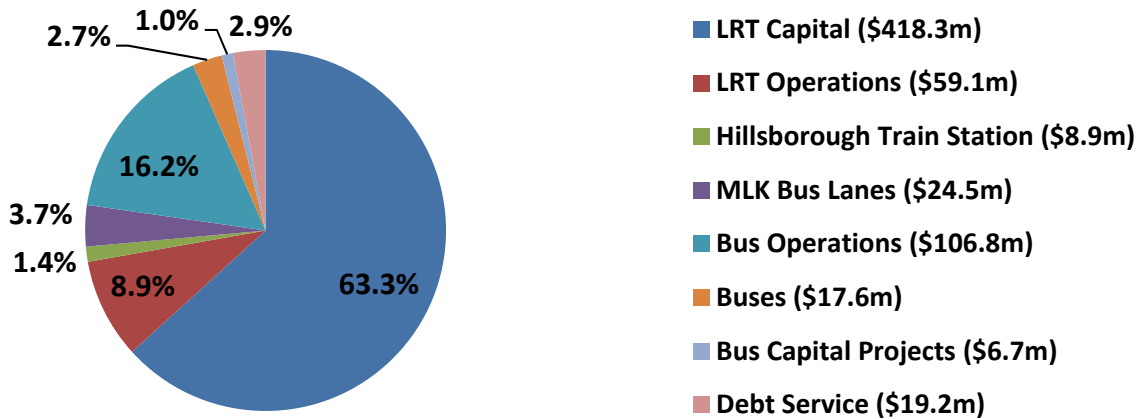
# TOTAL Plan Revenues and Costs to 2035, and LOCAL Costs to 2035:

## All Numbers Are in Year-Of-Expenditure (YOE) Dollars

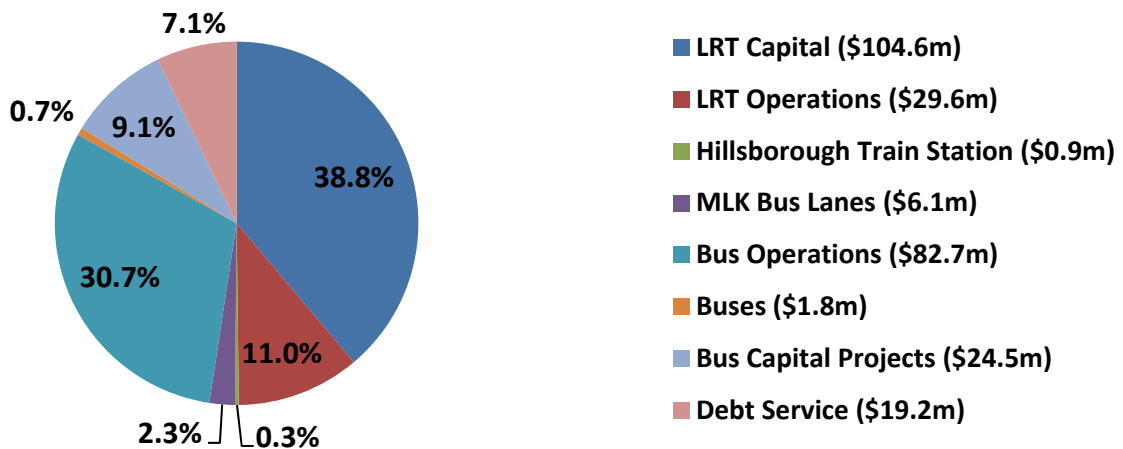
**Orange County Plan Revenue, All Sources to 2035: Total Revenue \$706.0m**



**How ALL Dollars Are Spent to 2035: Total Cost \$659.9m**



**How LOCAL Orange County Dollars Are Spent to 2035: \$268.7m**



Note: small differences and percentages not adding exactly to 100.0% may be due to rounding



# Bus and Rail Plan In Orange County

## Appendix B: Proposed Bus Service Enhancements

# ORANGE COUNTY BUS PLAN - FUNDED AND FUTURE COMPONENTS

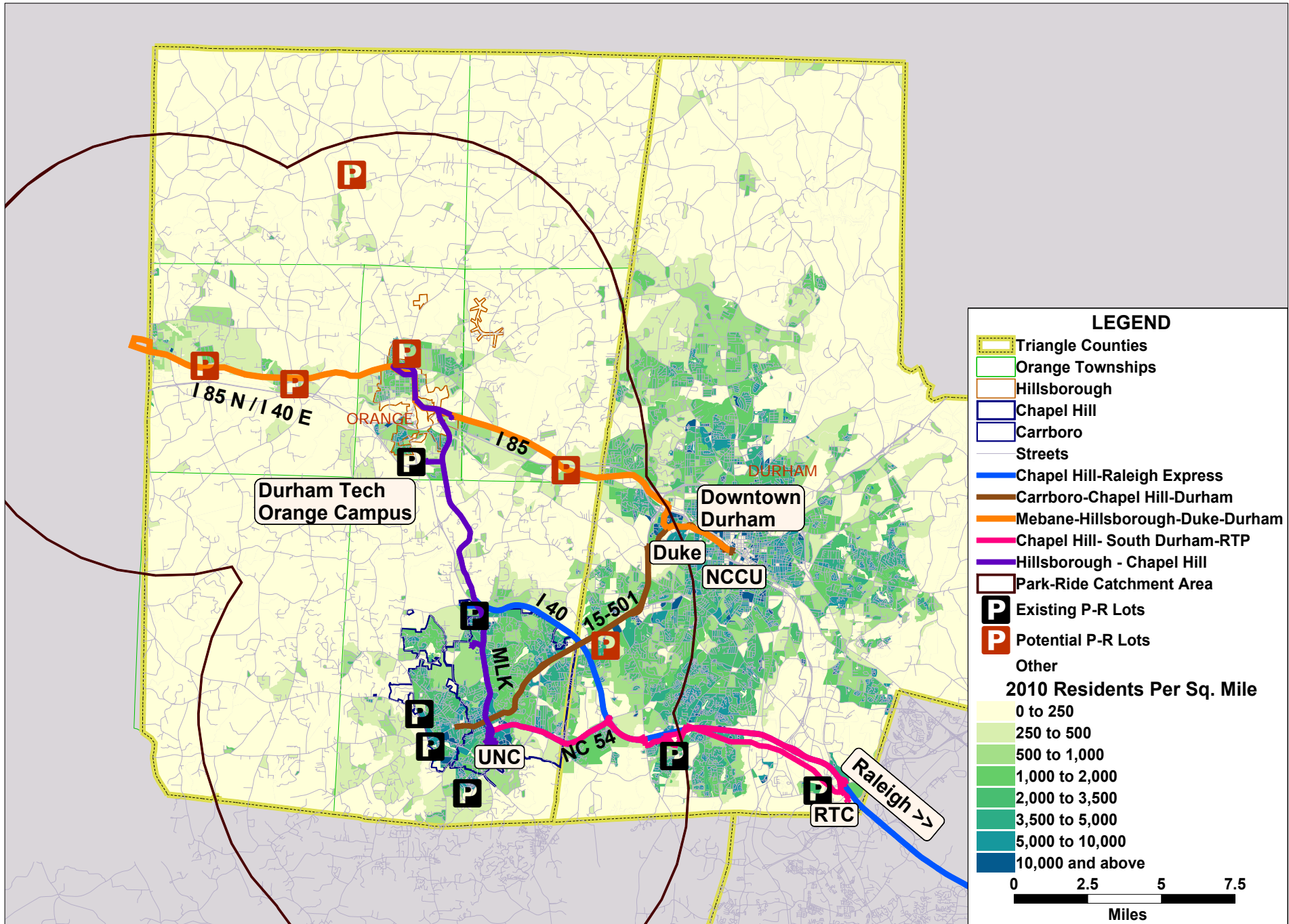
## REGIONAL SERVICES - FUNDED FIRST FIVE YEARS

Service Type	PROJECTS	Enhanced or New	Cumulative New Service Hours	Service Description
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405)	Enhanced	1,506	Increase peak-hour frequency of the express route between Durham and Chapel Hill to 15 minutes during the peak commute, directly serve Downtown Carrboro with rush hour service to Durham.
Regional Exp	Mebane-Hillsborough-Durham Express Introduce Service	New	2,510	Introduce a new express route serving Mebane, Hillsborough, and Durham.
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405) - mid-day	Enhanced	4,016	Increase frequency of the express route between Durham and Chapel Hill or Carrboro to 30 minutes during the mid-day.
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405) - Sundays	New	4,640	Introduce Sunday service on route between Durham and Chapel Hill or Carrboro.
Regional	Chapel Hill-Regional Transit Center via Southpoint (Route 800) - Sundays	New	5,264	Introduce new Sunday service to the existing TTA route 800.
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405) - Saturday	Enhanced	5,484	Extend service between Durham and Chapel Hill or Carrboro to 11pm on Saturdays.
Regional	Chapel Hill-Regional Transit Center via Southpoint (Route 800) - Saturdays	Enhanced	5,704	Extend service between RTP and Chapel Hill (via Southpoint) to 11pm on Saturdays.
Regional	Route 800-SW Durham (Southpoint)-Chapel Hill peak	Enhanced	7,210	Phase 1 service improvement - increase peak hour frequency on the existing TTA Route 800. Currently the route operates at 30-minute frequency.
Regional Exp	Chapel Hill-Raleigh Express (Route CRX) - peak	Enhanced	7,963	Introduce mid-day service on the express route between Chapel Hill and Raleigh.
Regional	Hillsborough-Chapel Hill (Route 420) - peak: <b>IMPLEMENTED in 2012</b>	Enhanced	7,963	Increase frequency of the regional route between Hillsborough and Chapel Hill to 30 minutes during the peak commute.
Regional	Additional service Hours TBD	Enhanced	8,200	237 additional hours that may augment any of the services above

## REGIONAL SERVICES - UNFUNDED, FUTURE PRIORITIES AFTER YEAR 2020

Service Type	PROJECTS	Enhanced or New	Cumulative New Service Hours	Service Description
Regional Exp	Mebane-Hillsborough-Durham Express Expansion	New	9,204	Increase the frequency on an express route serving Mebane, Hillsborough, and Durham to 30 minutes at peak.
Regional	Hillsborough-Chapel Hill (Route 420) - mid-day	Enhanced	13,722	Increase frequency of the regional route between Hillsborough and Chapel Hill to 30 minutes during the mid-day.
Regional Exp	White Cross to Carrboro to Chapel Hill Express	New	15,228	Phase I - Introduce a new express route serving Alamance County and Chapel Hill (via NC-54) at an hourly frequency.
Regional Exp	White Cross to Carrboro to Chapel Hill Express	New	16,734	Phase II - Introduce a new express route serving Alamance County and Chapel Hill (via NC-54) at a 30-minute frequency .
Regional Exp	Chapel Hill-Raleigh Express (Route CRX) - mid-day	Enhanced	18,366	Introduce mid-day service on the express route between Chapel Hill and Raleigh.
Regional	Chapel Hill-Regional Transit Center via Southpoint (Route 800) - mid-day	Enhanced	19,997	Increase frequency of the regional route between RTP and Chapel Hill (via Southpoint) to 30 minutes during the mid-day.
Regional	Route 800- RTC via SW Durham (Southpoint)-Chapel Hill peak	Enhanced	20,813	Phase 2 service improvement - increase frequency of the existing Route 800 between RTP and Chapel Hill (via Southpoint) to 15 minutes during the peak commute.
Regional	Chapel Hill-Regional Transit Center via Woodcroft (Route 805) - mid-day	Enhanced	21,691	Introduce added mid-day trips to regional route between Woodcroft and Chapel Hill.

# Orange County Transit Plan: Proposed Regional Bus Service Improvements



# ORANGE COUNTY BUS PLAN - FUNDED AND FUTURE COMPONENTS

## HILLSBOROUGH LOCAL AND RURAL ORANGE COUNTY SERVICES - FUNDED FIRST FIVE YEARS

Service Type	PROJECTS	Enhanced or New	Cumulative New Service Hours	Service Description
Local	Hillsborough Circulator	Enhanced	2,008	Operate Hillsborough Circulator Mon-Fri, 8 hours per day
Local	Improve Service in Unincorporated Orange County	Enhanced	4,200	Improve capacity of demand response service to rural areas
Local	Hillsborough Circulator Phase 2	Enhanced	4,702	Add Saturday Service to Hillsborough Circulator
Local	Improve Service in Unincorporated Orange County	Enhanced	6,887	Further improve capacity of demand response service to rural areas

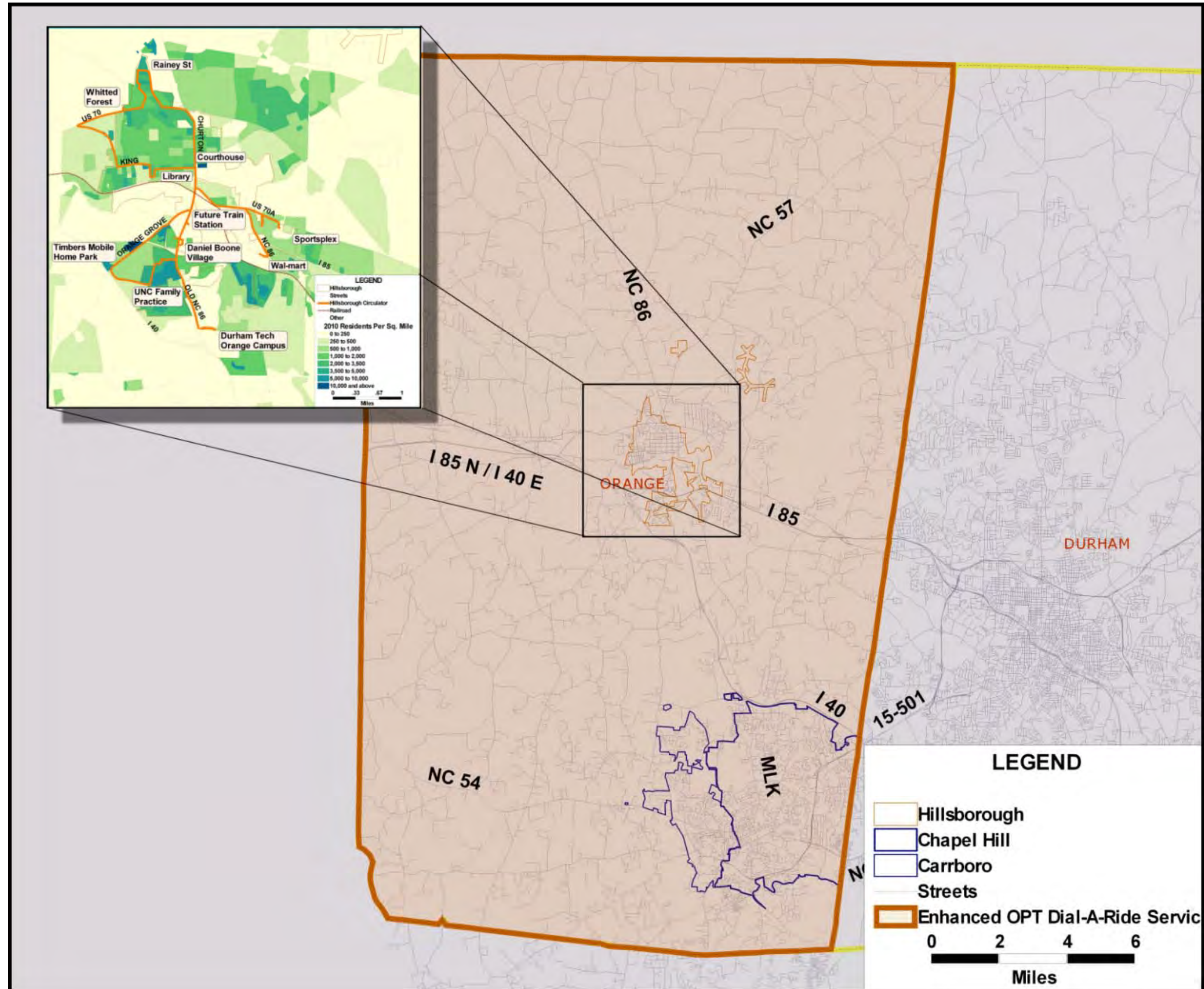
## HILLSBOROUGH LOCAL AND RURAL ORANGE COUNTY SERVICES - UNFUNDED, FUTURE PRIORITIES AFTER YEAR 2020

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NA - All identified needs funded in first five years.



# Orange County Transit Plan: Proposed Hillsborough and Rural Bus Service Improvements



## ORANGE COUNTY PLAN - FUNDED AND FUTURE COMPONENTS

### CHAPEL HILL TRANSIT BUS SERVICE OPTIONS

Service Type	Project	Enhanced or New	Cumulative New Service Hours
Local	Service Improvements Chapel Hill, Carrboro, UNC in the 15/501 corridor	Enhanced	7,279
Local	54 Corridor Improvements (Orange and Durham Counties)	Enhanced	4,016
Local	Support existing services	Enhanced	6,000
Local	Chapel Hill - Carrboro -UNC Saturday Service	New	5,096
<b>Sub-Total</b>			<b>22,391</b>
Local	Chapel Hill - Carrboro -UNC Sunday Service	New	3,640
Local	Extend evening service in Chapel Hill Carrboro UNC	Enhanced	4,080
Regional	Pittsboro- Chapel Hill Express	Enhanced	816
Local	Improve peak hour frequency Chapel Hill Carrboro UNC	Enhanced	2,209
<b>Total</b>			<b>33,136</b>

This list of service priorities supplied by Chapel Hill Transit exceeds the 22,332 bus hour budget currently expected to be available in the plan for Chapel Hill Transit. Roughly a third of the proposed service hours will not be funded in the plan. Chapel Hill Transit and its partners will make a final determination of service priorities based on extensive public involvement and analysis in order to fit within the approximately 22,000 hour limit called for in the financially constrained plan.

## Bus Operations

### Total Bus Operations and Maintenance Costs by Year

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bus Hours	9,000	15,750	24,750	34,650	34,650	34,650	34,650	34,650	34,650	34,650	34,650	34,650
Cost (\$YOE thousands)	\$ 905	\$ 1,608	\$ 2,565	\$ 3,702	\$ 3,817	\$ 3,935	\$ 4,057	\$ 4,183	\$ 4,313	\$ 4,447	\$ 4,584	\$ 4,727

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Bus Hours	34,650	34,650	34,650	34,650	34,650	34,650	34,650	34,650	34,650	34,650	40,950
Cost (\$YOE thousands)	\$ 4,873	\$ 5,024	\$ 5,180	\$ 5,341	\$ 5,506	\$ 5,677	\$ 5,853	\$ 6,034	\$ 6,221	\$ 6,414	\$ 7,815

### Total Bus Operations \$YOE Cost to Year 2035

\$ 106,782,735

Bus Operations Costs assumed to be split according to following percentages:

Federal	8.9%
State	10.0%
Local	77.6%
Fares	3.5%

# Bus and Rail Plan In Orange County

## Appendix C: Bus Capital Enhancements



## Bus Capital and Vehicle (Bus) Purchases/Replacements

### Total Bus Purchases (New and Replacement Buses)

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
New Buses Purchased	4	3	4	4	-	-	-	-	-	-	-	-
Replacement Buses Purchased												
Cost (\$YOE thousands)	1,606	1,222	1,654	1,876	-	-	-	-	-	-	-	-

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
New Buses Purchased	-	-	-	-	-	-	-	-	-	-	3
Replacement Buses Purchased	4	3	4	4	-	-	-	-	-	-	-
Cost (\$YOE thousands)	2,245	1,736	2,386	2,706	-	-	-	-	-	-	2,132

### Total Bus Purchases \$YOE Cost to Year 2035

\$ 17,564,162

### Total Bus Capital Project Spending (Amenities, Transit Centers, Park/Ride Lots, Sidewalks, etc)

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cost (\$YOE thousands)	656	2,664	3,379	-	-	-	-	-	-	-	-	-

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Cost (\$YOE thousands)	-	-	-	-	-	-	-	-	-	-	-

### Total Bus Capital Projects \$YOE Cost to Year 2035

\$ 6,699,000

Bus Purchases and Bus Capital projects assumed to be split according to current trend:

Federal	80%
State	10%
Local	10%

# Bus and Rail Plan In Orange County

## Appendix D: Hillsborough Train Station Expenditures

# Hillsborough Intercity Rail Station

## Total Rail Station Construction Costs by Year

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cost (\$YOE thousands)	\$ 875	\$ 3,552	\$ 4,506	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Cost (\$YOE thousands)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

## Total Hillsborough Intercity Rail Station \$YOE Cost to Year 2035

\$ 8,932,229

Hillsborough Rail Station assumed to be split according to pattern for other NCDOT Rail Division-approved stations

Federal	80%
State	10%
Local	10%

NCDOT Rail Division has studied two possible station designs. The option in the plan includes a permanent station. A modular, temporary station can be built for less money, approximately \$4 million in \$2011 dollars. Examples of the type of station the \$8.9 million YOE dollar investment projected above would build can be found in Cary and Kannapolis.

# Bus and Rail Plan In Orange County

## Appendix E: MLK Bus Lanes Expenditures

## MLK Bus Lane Project

### Total MLK Bus Lane Project Costs by Year

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cost (\$YOE thousands)	\$ 694	\$ 704	\$ 4,007	\$ 7,456	\$ 7,892	\$ 3,703	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Cost (\$YOE thousands)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### Total MLK Bus Lane \$YOE Cost to Year 2035

\$ 24,456,259

Project Costs are anticipated to follow the percentages below within the FTA Small Starts program

Federal	50%
State	25%
Local	25%

# Bus and Rail Plan In Orange County

## Appendix F: Light Rail Expenditures

## Durham-Orange Light Rail Expenditures: Capital & Operating to 2035

### Total Light Rail Capital Spending

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cost (\$YOE thousands)	\$ 3,258	\$ 3,306	\$ 5,034	\$ 3,460	\$ 3,567	\$ 5,517	\$ 16,757	\$ 28,530	\$ 31,211	\$ 68,984	\$ 120,898	\$ 96,797

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Cost (\$YOE thousands)	\$ 31,009	-	-	-	-	-	-	-	-	-	-

### Total Bus Purchases \$YOE Cost to Year 2035

\$ 418,327,293

### Total Light Rail Operations Spending

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cost (\$YOE thousands)	-	-	-	-	-	-	-	-	-	-	-	-

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Cost (\$YOE thousands)	-	\$ 5,135	\$ 5,294	\$ 5,458	\$ 5,627	\$ 5,802	\$ 5,982	\$ 6,167	\$ 6,358	\$ 6,555	\$ 6,759

### Total Light Rail Operations \$YOE Cost to Year 2035

\$ 59,136,705

The capital cost of the Durham-Orange Light Rail project is anticipated to be split as follows:

Federal	50%
State	25%
Local	25%

The operating cost of the Durham-Orange Light Rail project is anticipated to be split as follows:

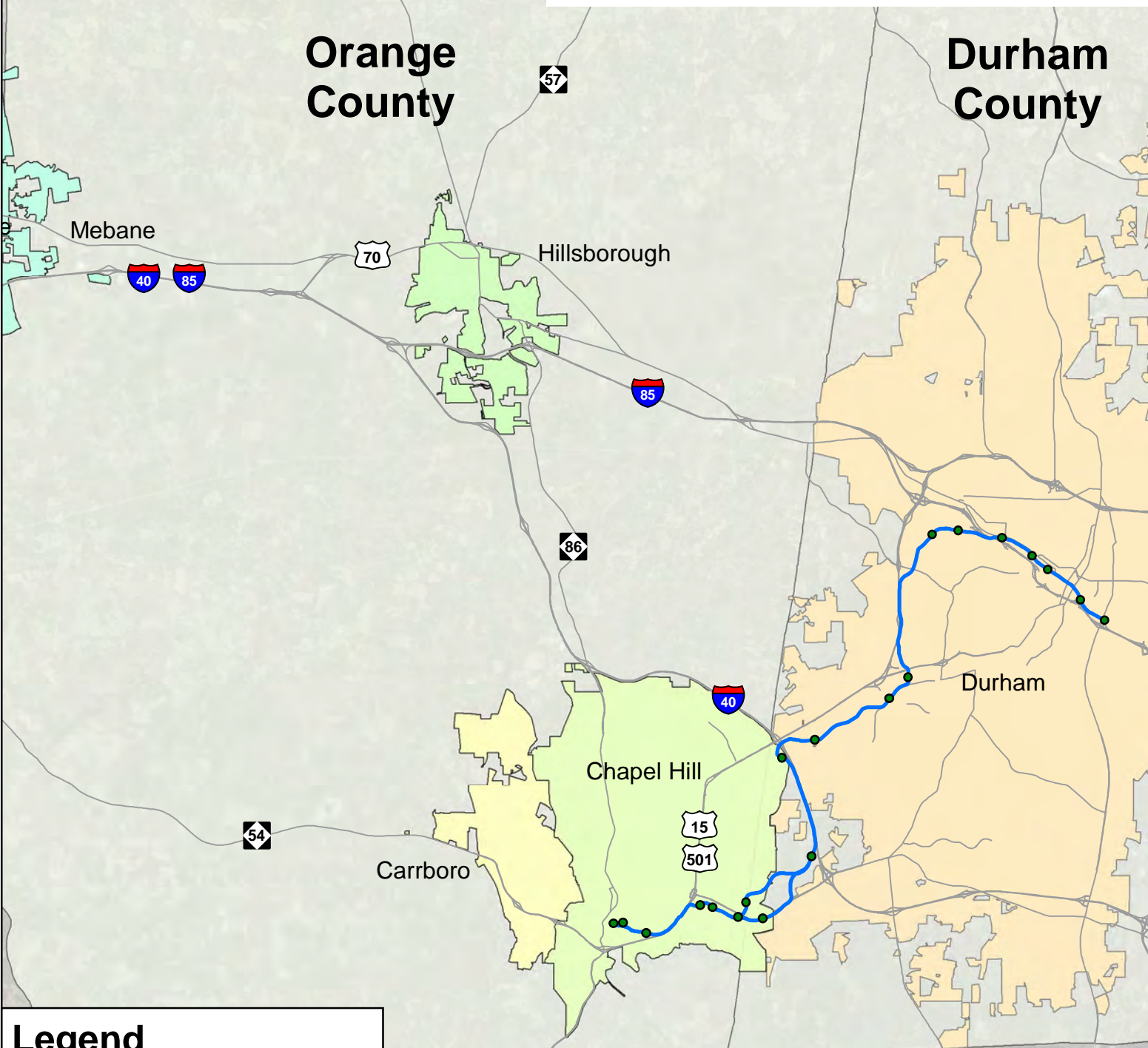
Federal	20%
State	10%
Local	50%
Fares	20%

# Durham-Orange Light Rail LPA

According to the Cost-Sharing Agreement between Durham and Orange Counties, Orange County's responsibility for Capital Costs for Light Rail is agreed to be 22.95% of total project costs, which at the time of the agreement, is approximately \$316.2 million, including 50% federal and 25% state shares.

Orange  
County

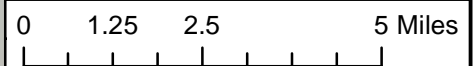
Durham  
County



## Legend

- Proposed LRT Stations
- Durham-Orange LRT LPA

N





# Bus and Rail Plan In Orange County

## Appendix G: Revenues by Year

## Orange County Plan Revenues

### Total Orange County Revenues by Year (\$YOE millions)

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1/2-Cent Sales Tax*	\$ 3.9	\$ 5.0	\$ 5.0	\$ 5.2	\$ 5.4	\$ 5.6	\$ 5.8	\$ 6.0	\$ 6.2	\$ 6.5	\$ 6.7	\$ 6.9
\$7 Vehicle Registration Fee*	\$ 0.6	\$ 0.8	\$ 0.8	\$ 0.8	\$ 0.9	\$ 0.9	\$ 0.9	\$ 0.9	\$ 0.9	\$ 0.9	\$ 1.0	\$ 1.0
\$3 Vehicle Registration Fee*	\$ 0.3	\$ 0.3	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4
Car Rental Tax (existing)	\$ 0.6	\$ 0.6	\$ 0.6	\$ 0.7	\$ 0.7	\$ 0.7	\$ 0.7	\$ 0.8	\$ 0.8	\$ 0.8	\$ 0.9	\$ 0.9
FTA Formula Funds	\$ 2.3	\$ 2.4	\$ 2.4	\$ 2.5	\$ 2.6	\$ 2.6	\$ 2.7	\$ 2.8	\$ 2.8	\$ 2.9	\$ 3.0	\$ 3.0
Federal Projects Share	\$ 4.5	\$ 8.0	\$ 12.2	\$ 7.0	\$ 5.7	\$ 4.6	\$ 8.4	\$ 14.3	\$ 15.6	\$ 34.5	\$ 60.4	\$ 48.4
State Projects Share	\$ 1.4	\$ 1.9	\$ 3.5	\$ 3.3	\$ 3.2	\$ 2.7	\$ 4.6	\$ 7.6	\$ 8.2	\$ 17.7	\$ 30.7	\$ 24.7
Fares	\$ 0.0	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2
Bond Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5.8	\$ 17.6
<b>Total Revenue By Year</b>	<b>\$ 14.4</b>	<b>\$ 20.2</b>	<b>\$ 26.2</b>	<b>\$ 21.1</b>	<b>\$ 20.2</b>	<b>\$ 18.9</b>	<b>\$ 24.9</b>	<b>\$ 34.1</b>	<b>\$ 36.5</b>	<b>\$ 65.2</b>	<b>\$ 110.4</b>	<b>\$ 104.5</b>

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	TOTAL
1/2-Cent Sales Tax	\$ 7.2	\$ 7.4	\$ 7.7	\$ 8.0	\$ 8.3	\$ 8.6	\$ 8.9	\$ 9.2	\$ 9.5	\$ 9.9	\$ 10.2	\$ 162.9
\$7 Vehicle Registration Fee	\$ 1.0	\$ 1.0	\$ 1.0	\$ 1.1	\$ 1.1	\$ 1.1	\$ 1.1	\$ 1.1	\$ 1.2	\$ 1.2	\$ 1.2	\$ 22.5
\$3 Vehicle Registration Fee	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5	\$ 9.7
Car Rental Tax (existing)	\$ 0.9	\$ 1.0	\$ 1.0	\$ 1.0	\$ 1.1	\$ 1.1	\$ 1.2	\$ 1.2	\$ 1.3	\$ 1.3	\$ 1.4	\$ 21.3
FTA Formula Funds	\$ 3.1	\$ 3.2	\$ 3.3	\$ 3.4	\$ 3.4	\$ 3.5	\$ 3.6	\$ 3.7	\$ 3.8	\$ 3.9	\$ 4.0	\$ 70.9
Federal Projects Share	\$ 17.3	\$ 1.4	\$ 1.9	\$ 2.2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1.7	\$ 247.9
State Projects Share	\$ 8.5	\$ 1.2	\$ 1.3	\$ 1.4	\$ 1.1	\$ 1.1	\$ 1.2	\$ 1.2	\$ 1.3	\$ 1.3	\$ 1.7	\$ 130.6
Fares	\$ 0.2	\$ 1.2	\$ 1.2	\$ 1.3	\$ 1.3	\$ 1.4	\$ 1.4	\$ 1.4	\$ 1.5	\$ 1.5	\$ 1.6	\$ 15.6
Bond Proceeds	\$ 1.2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24.5
<b>Total Revenue By Year</b>	<b>\$ 41.2</b>	<b>\$ 18.3</b>	<b>\$ 19.4</b>	<b>\$ 20.2</b>	<b>\$ 18.3</b>	<b>\$ 18.9</b>	<b>\$ 19.5</b>	<b>\$ 20.1</b>	<b>\$ 20.7</b>	<b>\$ 21.3</b>	<b>\$ 24.1</b>	<b>\$ 706.0</b>

### Total Orange County Transit Plan \$YOE Revenue to Year 2035

\$ 706,000,000

\*Revenue in first year is 75% of full value because revenue source is anticipated to be active on 4/1/2013, not 1/1/2013