



GoTriangle  
Operations & Finance Committee  
October 07, 2021  
8:30 am-10:00 am Eastern Time

*The GoTriangle Operations & Finance Committee will meet remotely on Thursday, October 7, 2021, at 8:30 am.*

*Microsoft Teams meeting | Join on your computer or mobile app*

*Click here to join the meeting*

*Or call in (audio only) +1 252-210-4099  
Phone Conference ID: 562 701 266#*

**I. Call to Order and Adoption of Agenda**

*(1 minute Vivian Jones)*

ACTION REQUESTED: Adopt agenda with any changes requested.

**II. Draft Minutes - September 2, 2021**

*(1 minute Michelle Dawson)*

ACTION REQUESTED: Approve minutes.

**III. Transit Operations Parts Miscellaneous Purchase Authorization**

*(5 minutes Brian Mclean)*

ACTION REQUESTED: Recommend that the Board authorize staff to enter into a contract with

**IV. Wake Transit Art Funding Eligibility Policy**

*(10 minutes Steven Schlossberg)*

ACTION REQUESTED: Recommend that the Board approve the Wake Transit Art Funding Eligibility Policy.

Art Funding Eligibility Policy

**V. Contract for Paratransit Upfit and Renovation of Plaza Building**

*(10 minutes Bryan Hammond)*

ACTION REQUESTED: Recommend Board authorization for the President/CEO to award and execute a contract with Bar Construction for the renovation, construction and site work at portions of the first floor and exterior parking areas adjacent to Slater Road in the amount of \$1,157,000, with an additional 10% contingency of \$115,700.

**VI. Contract for GoDurham Microtransit and Job Access Pilot**

*(10 minutes David Jerrido)*

ACTION REQUESTED: Recommend that the Board authorize the President/CEO to enter into a contract with National Express Transit (NEXT) for the operations of the GoDurham Microtransit and Job Access Pilot for FY22 and FY23, with a not to exceed amount of \$348,732.

Microtransit Planning Study

Scope of Work | GoDurham Microtransit and Job Access Operations

**VII. Disposition of Real Property at Seaboard Station**

*(10 minutes Gary Tober)*

ACTION REQUESTED: Recommend that the Board authorize staff to negotiate a contract for the sale of approximately 1.09 acres generally located at 850 Semart Drive in Raleigh.

Attachment A

**VIII. RUS Bus**

*(30 minutes )*

**IX. FY21 Financial Results**

*(10 minutes Sandra Freeman)*

**X. Adjournment**

*(Vivian Jones)*



**BOARD OF TRUSTEES  
OPERATIONS & FINANCE COMMITTEE  
MEETING MINUTES**

4600 Emperor Boulevard  
Suite 100  
Durham, NC 27703

**Thursday, September 2, 2021**

**8:30 a.m.**

**Remote | Microsoft Teams**

**Committee members present** | Vivian Jones, Michael Parker, Jennifer Robinson

**Other board members present** | Will Allen III

**Committee members absent** | Corey Branch, Valerie Jordan, Stelfanie Williams [excused]

Committee Chair Vivian Jones officially called the meeting to order at 8:31 a.m.

**I. Adoption of Agenda**

**II. Approval of Minutes**

**Action:** Parker made a motion, which was seconded by Robinson, to adopt the agenda and approve the minutes of August 5, 2021. Upon vote by roll call, the motion was carried unanimously.

**III. Demolition of Vacant Structures on Farrington Road**

Tom Henry presented the request on behalf of Gary Tober. He stated this property acquired for the abandoned D-O LRT project for the location of the rail operations facility has several vacant structures and abandoned homes. He requested approval of a contract to demolish the abandoned homes. GoTriangle will continue to steward the property while the county transit plan is updated to inform a future use of the property. He stated the demolition would help mitigate health and safety hazards.

Parker asked if it is feasible to relocate the houses for other purposes. Henry responded his understanding is the conditions of homes are not suitable for relocation or habitation.

**Action:** On motion by Robinson and second by Parker the Committee voted to recommend the Board authorize staff to enter into a contract with Corbett Clearing & Demolition, LLC for the demolition and site clearing of all structures located at stated addresses on Farrington Road, Durham, NC. Upon vote by roll call, the motion was carried unanimously.

**IV. NCDOT Grade Separation Projects**

Will Allen stated that to the extent these projects are cost avoidance for GoTriangle's quest for commuter rail every one of them is great as it prevents the expense falling to GoTriangle.

Tober stated the first project at New Hope Church Road will be a permanent easement over the rail. He stated the .59 acre easement does not affect the linear connectivity of corridor. The second project at East Millbrook Road provides a temporary easement to NCDOT for a railroad detour during the construction of a railroad bridge. Both properties have a Federal share and require FTA approval before granting the easement.

Robinson asked if the New Hope Church Road bridge will include pedestrian lanes on both sides of the bridge. Tober stated that the plans include lanes for pedestrians and bicycles on both sides of the bridge.

**Action:** On motion by Parker and second by Robinson the Committee voted to recommend the Board authorize staff to enter into easements, right of entry agreements, and other agreements, acting on the advice of counsel, necessary for NCDOT to complete two grade separation projects located on railroad right of way in Wake County owned by GoTriangle. Upon vote by roll call, the motion was carried unanimously.

## VII. Adjournment

**Action:** Committee Chair Jones adjourned the meeting at 8:41 a.m.

Prepared by:

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Michelle C. Dawson, CMC  
Clerk to the Board of Trustees



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## MEMORANDUM

**TO:** GoTriangle Board of Trustees Operations & Finance Committee  
**FROM:** Transit Operations  
**DATE:** September 21, 2021  
**SUBJECT:** Transit Operations Parts Miscellaneous Purchase Authorization

### Strategic Objective or Initiative Supported

### Action Requested

Staff requests the Operations & Finance Committee recommend that the Board of Trustees authorize the President/CEO to execute contracts with vendors for purchasing miscellaneous parts used for the maintenance and repair of agency vehicles.

Vendors	Not to Exceed - Maximum Dollar Amount
Carolina Freightliner	\$117,018
ABC-Muncie	\$173,832
Kirk's Automotive	\$136,659
Gillig Corporation	\$259,823

### Background and Purpose

GoTriangle recently completed a competitive Invitation for Bid (IFB) 20-091 for Bus and Vehicle Parts Supply (miscellaneous parts); that are used for the maintenance and repair of our agency's buses and vehicles. Following the guidelines of N.C. General Statute 143-129, notices of intent to award were issued to the above vendors that offered the lowest, responsive, responsible bids. Contracts would ensure that GoTriangle receives the most competitive pricing for miscellaneous parts and shall aid with the replenishing of inventory in a timely manner.

### Financial Impact

Initial duration of contracts will be for a one (1) year term with options to extend for two (2) one (1) year terms. These funds are included in the FY22 annual budget.

### Staff Contacts

- Brian McLean, Manager of Fleet Maintenance, 919-485-7472, [bmclean@gotriangle.org](mailto:bmclean@gotriangle.org)
- David Moore, Procurement Manager, 919-485-7559, [dmoore@gotriangle.org](mailto:dmoore@gotriangle.org)

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## MEMORANDUM

**TO:** GoTriangle Board of Trustees Operations & Finance Committee  
**FROM:** Finance and Administration  
**DATE:** September 23, 2021  
**SUBJECT:** Wake Transit Art Funding Eligibility Policy

### Strategic Objective or Initiative Supported

#### Action Requested

Staff requests that the Operations & Finance Committee recommend Board approval of the Wake Transit Art Funding Eligibility Policy.

#### Background and Purpose

In 2020, the Wake County Transit Planning Advisory Committee (TPAC) initiated steps toward the formal development of policies and procedures for integrating art that would be supported by Wake Transit tax revenues into transit projects. The Art and Culture Workgroup was created with the goal of informing the development of an Art Funding Eligibility Policy that outlines the application procedures and eligibility criteria for Wake Transit funded capital projects.

The Wake Transit Art Funding Eligibility Policy identified two (2) project types for which art is an eligible expense: Fixed Guideway Projects (bus rapid transit, commuter rail, etc.) and Transit Centers, as designated by the Wake Transit Work Plan. These two (2) project types have been selected because they are highly visible, public-facing facilities that will expose riders and the general community to all of the benefits that accompany the inclusion of art in transit systems.

The purpose of this policy is to identify projects that are eligible to receive Wake Transit funding for art, set funding parameters, guide Wake Transit project sponsors through the process of requesting art funding and reporting expenditures, and to provide program staff with the information necessary for implementing the policy. The policy will be reviewed and updated on the same update schedule as the Wake County Transit Plan Update, approximately every four (4) years.



## Financial Impact

## Attachments

- Wake Transit Eligibility Art Policy

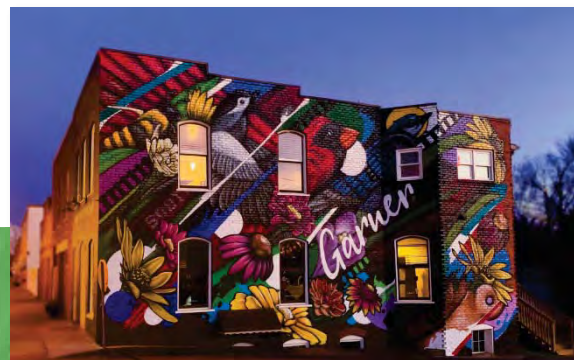
## Staff Contact

- Steven Schlossberg, [sschlosberg@gotriangle.org](mailto:sschlosberg@gotriangle.org), 919-485-7590



## ATTACHMENT D

# WAKE TRANSIT ART FUNDING ELIGIBILITY POLICY DRAFT – AUGUST 2021





## Executive Summary

Wake County is home to an economically, socially, and demographically diverse population, and the needs of those who live and work here are equally varied. As the county continues to grow into one of the most dynamic and desirable urban areas, the need for diverse, reliable transportation options has also grown.

The Wake County Transit Plan outlines a 10-year strategy to meet this increasing need by building upon and enhancing Wake County's transit network. The goals of the plan, known as the "Four Big Moves," are to connect Wake County to the region, connect all communities within the county, provide frequent and reliable urban mobility, and provide greater access to transit services. Achieving these Big Moves requires significant investment in expanding services, enhancing the customer experience, and building transit-supportive infrastructure.

Public art is defined as an original work of art that is designed and created by artists and that is accessible to the public. But more importantly, public art can transform civic spaces, foster shared community interactions, and celebrate unique stories and collective history. Furthermore, high quality art and design can improve the customer experience and increase ridership while creating a sense of identity and adding vibrancy to transit systems.

Understanding the benefits of including local culture, history and art into community projects, the Wake County Transit Planning Advisory Committee (TPAC) initiated steps toward the formal development of a policy for integrating art into projects supported by Wake Transit tax revenues. An Art + Culture Workgroup was commissioned by the TPAC, and participants informed the development of the Wake Transit Art Funding Eligibility Policy.

The purpose of the policy is to identify projects that are eligible to receive Wake Transit funding for art, set funding parameters, guide Wake Transit project sponsors through the process of requesting art funding and reporting expenditures, and to provide program staff with the information necessary to implement the policy. The policy will be reviewed in conjunction with the Wake County Transit Plan update process, approximately every four (4) years.

The Wake Transit Art Funding Eligibility Policy identified two (2) project types for which art is an eligible expense: Fixed Guideway Projects (bus rapid transit, commuter rail, etc.), and Transit Centers. The maximum amount eligible for art is a set percentage of a project's total construction cost. The maximum amount of Wake Transit funding that can be used for art is limited to \$5 million per eligible project, regardless of the total construction cost. However, if a project's calculated maximum amount eligible for art is in excess of \$5 million, the project sponsor may request that the TPAC consider, on a case-by-case basis, an exception to the funding cap.

### Adoption Schedule:

The TPAC is scheduled to review and consider recommending adoption of the Wake Transit Art Funding Eligibility Policy to the two (2) Wake Transit governing boards on August 11, 2021. It is then anticipated that the Capital Area Metropolitan Planning Organization (CAMPO) Executive Board and GoTriangle Board of Trustees will consider it for adoption at their respective September 2021 meetings.

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## Section 1 – Introduction

Public art is defined as an original work of art that is designed and created by artists and that is accessible to the public. Moreover, public art can play a much more important role. It can transform civic spaces, foster shared community interactions, and celebrate our unique stories and collective history.

For more than 30 years, a trend has emerged of incorporating public art into transit systems. Cities and agencies are recognizing that high quality art and design can improve the customer experience and increase ridership while creating a sense of identity and adding vibrancy to transit systems.

### 1.1 History

In 2020, the Wake County Transit Planning Advisory Committee (TPAC) initiated steps toward the formal development of policies and procedures for integrating art that would be supported by Wake Transit tax revenues into transit projects. Confirming that art and culture elements in capital improvement projects have well-documented benefits, TPAC members supported the creation of an Art + Culture Workgroup and tasked it with informing the development of an Art Funding Eligibility Policy that outlines the application procedures and eligibility criteria for Wake Transit-funded capital projects.

On August 11, 2021, the TPAC recommended adoption of the draft Wake Transit Art Funding Eligibility Policy to the two (2) Wake Transit governing boards. The Capital Area MPO Executive Board adopted the policy on XXX. The GoTriangle Board of Trustees adopted the policy on XXX, officially incorporating it into the Wake Transit Program.

### 1.2 Purpose

The purpose of this policy is to identify projects that are eligible to receive Wake Transit funding for art, set limits on Wake Transit funding that can be used for artistic elements, guide Wake Transit project sponsors through the process of requesting art funding for their eligible capital projects and to provide program staff with the information necessary for implementing the policy.

This policy will be reviewed and updated on the same update schedule as the Wake County Transit Plan, approximately every four (4) years.

### 1.3 Goals

Enhancing public spaces and facilities with high quality artwork has been proven to increase ridership and passenger interest and comfort. This policy will help achieve Wake County Transit Plan goals to improve the rider experience, attract new users, increase overall system ridership, and enhance Wake County's transit network.

General goals for including art in transit projects include:

**Partner Collaboration** – Promote relationships among community members, artists, engineers, architects and other design professions in the effort to integrate art into transit facilities.

**Community Engagement** – Engage with local communities in creating and integrating art that is representative of the unique experiences, history and cultural identity of the areas served.

**Enhanced Experience** – Use arts programming to further the goals of the Wake Transit program, enhance the perception of public transit and contribute to a positive experience for transit riders.

**Sense of Place** – Utilize art to enhance design, animate public spaces, affirm the distinct identity of the surrounding community and bring diverse people together.

## Section 2 – Eligible Projects

Wake County Transit Plan capital projects for which art is an eligible expense of Wake Transit tax revenues include:

1. Fixed Guideway Projects (BRT, CRT), and
2. Transit Centers, as designated by the Wake Transit Work Plan.

These two (2) project types have been selected because they are highly visible, public-facing facilities that will expose riders and the general community to all of the benefits that accompany the inclusion of art in transit systems. Given the very limited financial constraint of the Wake County Transit Plan at the time of this policy's development and the Wake Transit implementation program's need to meet public expectations and ensure financial solvency for the delivery of key projects, it is important to concentrate investment in artistic elements on planned facilities with the highest likely volume of passenger use, as well as those with the most prominence and permanence throughout the transit network.

A project is eligible to use Wake Transit tax revenues for art elements even if the subject project is partially funded by other funding sources. Further information on the applicability of funding limitations to projects that are partially supported by other sources of revenue is provided in Section 3.

Project sponsors are not required to incorporate art into their eligible projects. However, if they plan to use Wake Transit tax revenues for art to be installed as a component of a completed project and/or temporarily as a required mitigation measure during construction, they must specifically request funding for art through the submission of a project funding request as part of a Wake Transit Work Plan development cycle or as a Wake Transit Work Plan amendment request in conjunction with the corresponding request for the subject project. Projects funded in previous Work Plans are subject to the provisions outlined in Section 4.3 of this policy. Further, artistic elements that are eligible for funding with Wake Transit tax revenues must be physically and/or functionally integrated into the subject capital project. Art should be implemented in accordance with American Public Transportation Association (APTA) Best Practices for Integrating Art into Capital Projects.

## Section 3 – Funding

### 3.1 Art Funding Limitations

For eligible projects, art will become a permissible expense with Wake Transit tax revenues. Art funds are to be dedicated to the design, selection, fabrication, and installation of works of public art. The maximum amount of Wake Transit tax revenue eligible to be used for the selection, fabrication, and installation of art on an eligible project shall be determined by the following schedule:

Final Total Construction Cost of Subject Project	Maximum Amount Eligible for Art
Under \$50 million	1%
\$50 million to \$100 million	\$500,000 + 0.50% of the amount over \$50 million
Greater than \$100 million	\$750,000 + 0.25% of the amount over \$100 million

The final total construction cost used for the purposes of this policy shall mean the cost of construction specifically supported by the sum of Wake Transit tax revenues plus any of the following revenue sources that are used to support the subject project:

- Federal or state formula or discretionary funds that are allocated to the subject project's construction costs for use in Wake County.
- Except in the case of projects funded through the Community Funding Area Program, any other local funds from the project sponsor's general operating or capital funds that are allocated to the subject project's construction costs for use in Wake County.

For any eligible project funded through the Community Funding Area Program, the final total construction cost used to determine the maximum amount of Wake Transit tax revenue that can be used for art shall be limited to the amount specifically contributed as the necessary match from the Community Funding Area Program (CFAP) funding recipient toward the construction budget for the subject project. For example, if a CFAP funding recipient commits a match of local and/or other permissible sources of revenue under the program that totals 70 percent of the construction cost of an eligible project, the amount of Wake Transit tax revenue eligible to use toward art for the subject project will be based on 70 percent of the project's total construction cost.

The final total construction cost used for the purposes of this policy shall not include the cost of construction specifically supported by the following revenue sources:

- Transit-dedicated tax revenues collected from counties other than Wake County; and
- Federal or state formula or discretionary funds that are allocated to the subject project's construction costs for use in counties other than Wake County.

For any eligible project in which partial funding comes from Wake Transit tax revenues and partial funding comes from transit-dedicated tax revenues collected from counties other than Wake County, and the subject project, or any portion thereof, is located in a county other than Wake County, the final total construction cost used to determine the maximum amount of Wake Transit tax revenue that can be used for art shall be equal to:

- The cost of construction specifically supported by the sum of the Wake Transit tax revenues; plus
- The portion of any federal or state formula or discretionary funds that are acquired for use on the subject project in which the Wake Transit tax revenues can be attributed as the necessary match to leverage that amount of federal or state formula or discretionary funds.

### 3.2 Other Funding Notes

The maximum amount of Wake Transit tax revenue funding that is eligible for art shall be \$5 million per eligible project, regardless of the total construction cost. However, if an eligible project's calculated maximum amount eligible for art is in excess of \$5 million (calculated according to Section 3.1), the project's maximum amount of eligible art funding will be evaluated on a case-by-case basis through a Wake Transit Work Plan development cycle or Work Plan amendment request (see Section 4.2). Additionally, the Wake Transit Art Funding Eligibility Policy does not preclude project sponsors (of eligible or non-eligible projects as identified in Section 2) or other potential project funding participants from using their own separate funding sources (e.g., non-Wake Transit tax revenues) to incorporate art into projects that are not eligible under this policy or to add funding to projects that are eligible.

### 3.3 Artist Retention Fee

All projects eligible for art funding will be entitled to a lump sum of \$30,000 during their preliminary design phase. The purpose of this one (1)-time sum is to enable project sponsors to bring an artist on board as a member of the design team. The early inclusion of an artist is important in developing the opportunities, locations, and materials for future artwork.

The role of the selected artist will be determined by the project sponsor. The retention fee does not count against art funding limitations set in Section 3.1.

## Section 4 – Policy Administration

### 4.1 Request for Art Funding

Project sponsors will request art funding via submission of Wake Transit Work Plan project funding request forms or Work Plan amendment request forms. Project sponsors will be required to answer specific eligibility questions to be considered for receiving art funding for their project. The Wake Transit Work Plan project funding request and Work Plan amendment request forms and any other associated materials will be updated upon adoption of this policy by the Wake Transit governing boards: the CAMPO Executive Board and the GoTriangle Board of Trustees. Questions added to the form will include:

- Are you requesting to use Wake Transit funds for art?
- Are you requesting the \$30,000 artist retention fee for the preliminary design phase?
- Are you requesting construction funds at this time?
  - If yes, what is the total construction cost estimate for the project?
  - What are the funding sources and respective shares for the construction phase of the project?

### 4.2 Amendment Policy

The adopted [Wake Transit Work Plan Amendment Policy](#) is followed to process all amendment requests, including those that include art funding. For example, if the estimated construction cost for an eligible project increases, the project sponsor may submit an amendment request detailing the financial change and may include with its request a recalculation of the maximum amount of funding that can be allocated to art for the subject project.

### 4.3 Retroactivity

Projects that received funding in Work Plans adopted prior to the adoption of this policy shall be subject to the art funding limitations and guidelines set within this policy. An eligible project that is less advanced than the 60% design threshold may request to receive the \$30,000 one-time artist retention fee and spend up to the appropriate percentage of its total construction cost on art implementation. An eligible project that is more advanced than the 60% design threshold may request to spend up to the appropriate percentage of its total construction cost on art implementation but is not eligible to receive an artist retention fee.

### 4.4 Presentation of Art Components

All projects eligible for art funding are considered priority investments of the Wake Transit program. Project sponsors of these projects typically provide progress updates to the TPAC as they reach certain milestones throughout the implementation of the project. Project sponsors should include updates on the status of art implementation as part of regular progress updates to the TPAC on the overall project. TPAC members may be interested in elements such as:

- Name and background of the artist(s) retained for the project
- Role the artist(s) has/have played in the design process
- Art funding or maintenance partnerships that have been established
- Summary of community engagement activities conducted for art selection
- Description of the art (include renderings, graphic representations, photos, if available)
- Life expectancy/useful life of the artwork(s)
- Maintenance plan
- Location(s) of art installation(s)

## 4.5 Compliance

Each project sponsor is responsible for ensuring that its projects, including the art components incorporated into them, are developed and implemented in compliance with established public engagement and non-discrimination policies, set maintenance standards, and other applicable Wake Transit program-level rules and regulations. This includes compliance with the Wake Transit Community Engagement Policy, Work Plan Amendment Policy and Process, reporting and reimbursement request procedures, and executed master and project-level agreements.

## Section 5 – Reporting and Reimbursements

Art expenditures and art planning progress updates will be tracked and reported utilizing the established Wake Transit quarterly progress reporting and reimbursement request procedures.

### 5.1 Quarterly Reporting

A notation of art eligibility will be added to the scope of projects that have requested to use Wake Transit tax revenues to fund art. Activities occurring for the art components of the project should be included in the written “Project Status Updates” section of the quarterly progress report form for the subject project.

Examples of reported art-related milestones may include: hiring an artist to support the project, art-related engagement activities, completion of the final art design, location selection, or a decision to not move forward with incorporating art in the final project construction plan.

### 5.2 Reimbursement Requests

Project sponsors that request to use Wake Transit tax revenues to fund art will be required to internally monitor their art funding allocations. At the end of each quarter, project sponsors will report any art expenditures to the Wake County Transit tax district administration agency noting the total budget for artistic elements compared to inception spending against that budget to date. The information will be reported to the Wake County Transit tax district administration agency to verify that project sponsors are not exceeding the allowable art-related budget. The financial status of all projects eligible for art per this policy will be included in a one-page appendix in the fourth (4<sup>th</sup>) quarter Wake Transit project progress report prepared by the tax district administration agency after the end of each fiscal year. Project sponsors will use a specific template supplied by the Wake County Transit tax district administration agency. All supporting documentation will be maintained by the project sponsor and will be available upon request to the Wake County Transit tax district administration agency.

## Section 6 – Definitions

- **Artwork or Work of Art:** A tangible creation by an artist.
- **Artist Design Services:** Professional services by artists to develop designs for artworks or other architectural, landscape, or urban design elements, either individually or as a member of design team.
- **Arts Professional:** A trained professional with expertise in the arts and artistic processes.
- **Percent for Art:** A method of financing public art programs by requiring that a percentage of capital project construction budgets be appropriated for artworks.

- **Project Team (or Design Team):** Professionals, including artists, architects, engineers, city/organization staff and landscape architects engaged in the collaborative design of CIP projects. Capital Improvement Program: program for advance planning of capital project development and delivery.
- **Project Sponsor:** Initiates project and takes responsibility for its implementation; designated by TPAC and the CAMPO Executive Board.
- **Public Art:** Works of art in any media, created by an artist and planned and executed with the specific intention of being publicly accessible and in the physical public domain.
- **Transit Center:** As designated by the Wake Transit Work Plan, facilities located outside a public right-of-way that serve the purpose of staging people and vehicles to make transfers among transit routes where greater than two (2) transit routes converge



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## MEMORANDUM

**TO:** GoTriangle Board of Trustees Operations & Finance Committee  
**FROM:** Planning and Capital Development  
**DATE:** October 1, 2021  
**SUBJECT:** **Authorization to Execute Contract for Paratransit Upfit and Renovation of Plaza Building**

### Strategic Objective or Initiative Supported

2.2 Deliver reliable service

### Action Requested

Staff requests that the Board of Trustees authorize the President/CEO to award and execute a contract with Bar Construction for the renovation, construction and site work at portions of the first floor and exterior parking areas adjacent to Slater Road in the amount of \$1,157,000. Staff also requests authorization to include 10% project contingency to cover the cost of changes related to additional work that may be required due to unforeseen conditions, in the total amount of \$115,700. Upon approval, the project budget will be in the total amount of \$1,272,700.

### Background and Purpose

The needs for paratransit staff and vehicles has grown beyond the capacity of the Nelson Road Bus Operations and Maintenance Facility (BOMF). Dedicated paratransit areas do not provide sufficient room for dispatch personnel and there are no dedicated spaces for paratransit operators within the BOMF. Renovations and upfit to the Plaza building will allow Paratransit operations staff and vehicles to permanently relocate.

GoTriangle engaged with on-call consultant CPL to design a renovation and upfit for the Plaza building, and has obtained bids for the construction work.

The proposed renovation includes up to approximately 8,550 square feet of interior vacant space on the first floor, and includes: new spaces for bus radio and dispatch; quiet rooms for the paratransit operators; supervisor spaces; breakroom; showers; reservations staff; restriping of the parking lot to accommodate up to 25 paratransit vehicles; fencing; lighting upgrades; and security cameras. Additional scope included in the project will also address necessary expansion and renovation to the Finance & Administration suite.

The Invitation for Bids (IFB), released on September 3, 2021, included notifications to over 30 certified DBE contractors. The IFB closed on September 24, 2021. Staff recommends award to Bar Construction, determined to be the lowest responsive and responsible bidder.



The DBE goal for this contract was set at 15%. GoTriangle's pre-bid minority business outreach included notifications to over 95 area DBE certified companies representing work classifications including general architecture, general contracting, mechanical, electrical and plumbing, parking lot and exterior paving specialists. None of the bids received included a DBE participation approach that would meet the goal. The bid received from Bar Construction includes 6.3% DBE participation, and documentation of good faith efforts to obtain participation. Bar Construction's outreach including transmittal of pre-bid requests for interest to a large group of DBE and minority businesses.

### Financial Impact

This contract is within budget. The total FY22 GoTriangle Capital Improvement Program budget for this project is 1,431,807: \$568,124 from Wake Transit funds, \$195,000 from federal grants, and \$668,683 from GoTriangle. Of the total project budget, 1,272,700 is allocated for construction.

Staff is continuing to evaluate the cost of furnishings and information technology needs for the project, which may require additional funding in the future beyond the currently authorized project budget.

### Attachments

None

### Staff Contacts

- Bryan Hammond, (919) 485-8742, [bhammond@gotriangle.org](mailto:bhammond@gotriangle.org)
- Richard Major, (919) 485-7483, [rmajor@gotriangle.org](mailto:rmajor@gotriangle.org)
- Katharine Eggleston, (919) 485-7564, [keggleston@gotriangle.org](mailto:keggleston@gotriangle.org)





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## MEMORANDUM

**TO:** GoTriangle Board of Trustees Operations & Finance Committee  
**FROM:** Planning and Capital Development  
**DATE:** September 23, 2021  
**SUBJECT:** Operations Contract for GoDurham Microtransit and Job Access Pilot

### Strategic Objective or Initiative Supported

- Pursue service improvements and expansion opportunities
- Incorporate innovations to improve mobility and environmental stewardship
- Maintain cost-effectiveness

### Action Requested

Staff requests that the Committee recommend that the Board of Trustees authorize the President/CEO to enter into a contract with National Express Transit (NEXT) for the operations of the GoDurham Microtransit and Job Access Pilot for FY22 and FY23, with a not to exceed amount of \$348,732.

### Background and Purpose

Completed in summer 2020, the GoDurham Microtransit Planning Study identified three zones in the City of Durham and Durham County - East Durham, North Durham, and Sparger Road - that showed potential for on-demand shuttle service commonly referred to as microtransit service. These areas contain populations that are most likely to rely on transit, but are not suitable to provide cost effective fixed route service since they are in low density residential areas. After review of the study, GoTriangle and City of Durham staff determined that microtransit service in the East Durham and North Durham zones was of the highest priority.

As part of the scenario development for the Durham Transit Plan, microtransit service was recommended in each of the three options presented. The GoTriangle Board of Trustees approved funding for the GoDurham Microtransit and Job Access Pilot in the FY22 work plan. The implementation of the GoDurham Microtransit and Job Access pilot is one of many steps to increase transit access to neighborhoods, jobs centers, and rural parts of the Durham County that have infrequent fixed-route service. The pilot will increase service to Treyburn Corporate Park and the Bragtown neighborhood in North Durham, as well as destinations in East Durham such as Durham County Library – East Regional Branch, Southern High School, and Neal Middle School.



Staff determined that a sole source contract with the current operator of GoDurham ACCESS service, National Express Transit (NEXT), is appropriate for this pilot project to avoid substantial duplication costs that would be incurred to engage an additional operator. Additional benefits include:

- NEXT has outstanding safety record and customer service.
- NEXT has familiarity with the area.
- This partnership allows a quicker rollout of the pilot.

Since GoTriangle holds the contract with NEXT for GoDurham ACCESS, GoTriangle will hold the contract with NEXT for operations of the microtransit pilot service.

In addition to seeking an operator, GoTriangle will procure software to be used by NEXT to dispatch microtransit trips. The software procurement is not included in the operations procurement cost, it is budgeted separately. The pilot project includes funding for 16 months of operations in the East Durham zone and 11 months of operations in the North Durham zone.

If extension is recommended following the pilot, staff will work with the Durham Transit Plan Staff Working Group to seek additional funding to extend operations.

### Financial Impact

The FY22 Durham County Transit work plan includes \$413,713.59 for the GoDurham Microtransit and Job Access Pilot for operations, software, and marketing costs in FY22 and into FY23, of which \$348,732 will be allocated to this contract for operations.

### Attachments

- GoDurham Microtransit Planning Study
- Scope of Work

### Staff Contacts

- David Jerrido, Transit Service Planner, [djerrido@gotriangle.org](mailto:djerrido@gotriangle.org), 919-485-7549
- Jennifer Green, Transit Service Planning Superv., [jgreen@gotriangle.org](mailto:jgreen@gotriangle.org), 919-485-7529
- Brian Fahey, Transit Administrator, [bfahey@gotriangle.org](mailto:bfahey@gotriangle.org), 919-485-7501



GoDurham

# Microtransit Planning Study

June 2020



**GoDurham Microtransit Study | Market Review**  
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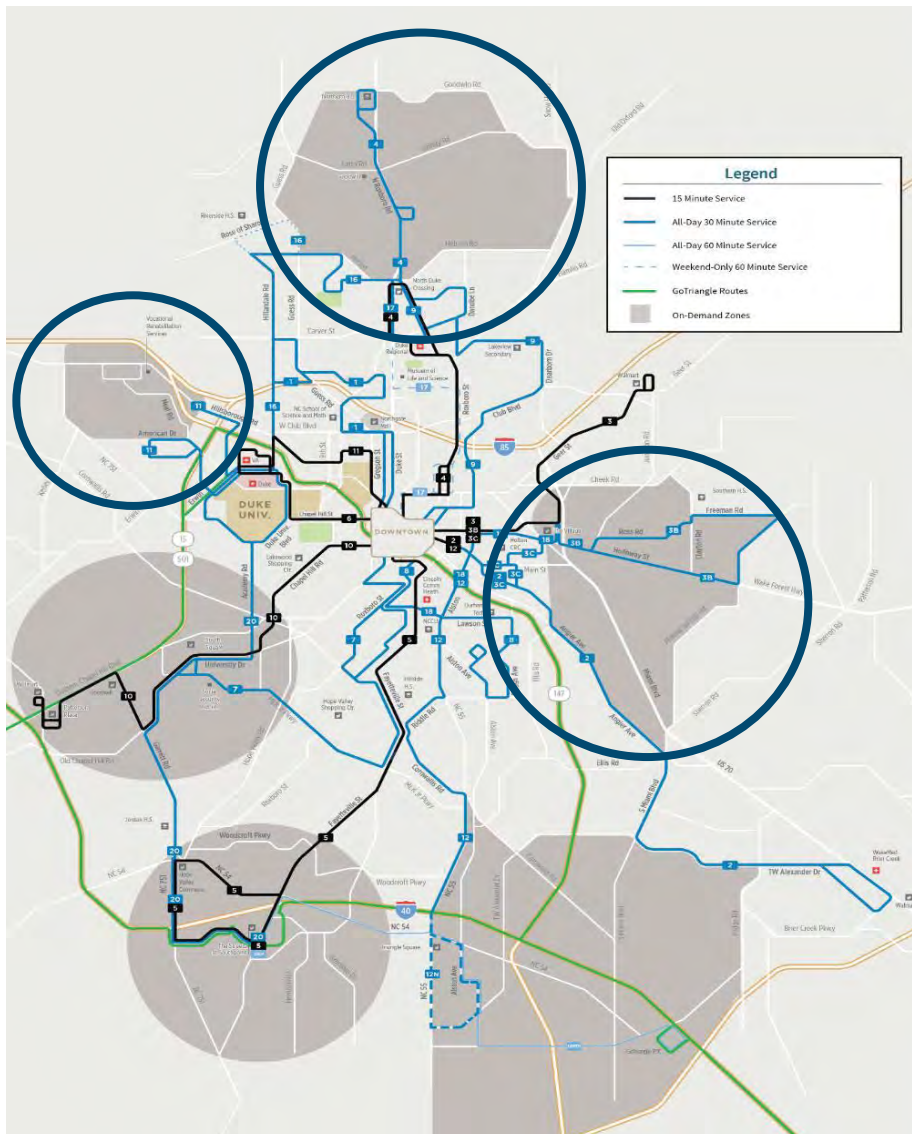
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# 1 Overview

In June 2019, the Durham City Council adopted the GoDurham Short Range Transit Plan (SRTTP). The SRTTP identified six potential on-demand zones on the periphery of the city where fixed-route ridership and residential density are low, but mobility needs of the community remain high. The purpose of this Microtransit Planning Study is to investigate service scenarios and provide recommendations for three of these zones, listed below and shown in Figure 1:

- Zone 1: East Durham – east of the Village Shopping Center
- Zone 2: Sparger Road – west of Cole Mill Road serving Neal Road, Sparger Road, and Operations Drive
- Zone 3: North Durham – north of Horton Road

Figure 1 Three Study Zones Overlaid on SRTTP Recommendations





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The GoDurham Microtransit Planning Study starts with a definition of the goals and objectives of providing on-demand service in Durham. The study follows with a market review to understand the socioeconomic characteristics, key activity centers and existing transit service within each zone. Market review findings helped inform the development of service design scenarios. Criteria developed from the goals and objectives were used to evaluate each scenario, including key performance indicators of ridership and cost. Lastly, the study concludes with a recommended direction for on-demand service in Durham, including prioritization of zones and a high-level implementation strategy.

## KEY FINDINGS

The GoDurham Microtransit Planning Study resulted in the following key takeaways:

- The study recommends a course of an action for implementing on-demand service in Durham, aligned with goals to make service more convenient, more equitable, and improve connections, while ensuring that the model created will be sustainable over the long term.
- The three study areas are generally characterized by low-density residential areas, plus some employment and activity centers. They have a high proportion of residents with socioeconomic characteristics that are linked to a higher transit propensity. Each zone currently has a lower frequency fixed route service running through part of the zone, plus a major hub with frequent fixed route connections.
- On-demand service can be designed in many ways, including different service delivery models and zone designs. Preliminary zone boundaries are drawn for each zone to encompass major population, employment, and activity centers. Based on GoDurham operational requirements and the goals of this study, two scenarios were created for further evaluation:
  - A ride-hail partnership model in which the agency provides subsidized rides with ride-hailing companies like Lyft, Uber, or local taxis, with a hybrid hub- and zone-based design which provides trips within a specific geographic zone and to specific identified connection points outside the zone, focused on providing first mile/last mile connections.
  - A microtransit turnkey model in which a dedicated transit service provider, like Via, is contracted to provide software, vehicles, and service operations within a specific geographic area, focused on providing community connections anywhere within the zone.
- The two scenarios and zone boundaries were evaluated based on metrics aligned with the study goals and objectives. Based on the evaluation, budget, and expected implementation timeline, the study recommends that GoDurham implement a ride-hail partnership in the East Durham zone as the highest priority. This service could expand upon the East Durham Connect pilot to a wider geography and extend the use of this service to those under 18. This service is estimated to serve 36 riders per day in the first year, increasing up to 120 riders per day in successive years. For the first year, the annual operating cost will be approximately \$119,000.
- If budget allows, Sparger Rd. 2 could also be included as part of an initial phase. This service is estimated to serve 8 riders daily at a cost of \$18,000 annually. This zone does



- not have the highest ridership potential, but it is the smallest zone with the lowest cost and highest number of transit riders who lost service since the SRTP (63 riders/daily).
- In order to ready this service for implementation, GoDurham must conduct extensive public engagement to adjust these preliminary recommendations to better fit the communities that will use this service. Implementation will also require robust marketing to ensure that potential customers know about and understand how to use the service.

## 2 Goals and Objectives

GoDurham staff, GoTriangle staff, and the project team developed a series of goals and objectives for microtransit service in Durham. Since this project explores the potential introduction of new service types and delivery models, goals were developed for the microtransit service itself (customer experience) and the internal knowledge growth during the service implementation process (agency experience). The team developed four goals, each with several objectives. These serve as the evaluation framework to determine which service scenario and geographic area would best meet the goals and objectives of this effort.

### **Goal 1: Make Service More Convenient**

- Preserve and enhance mobility for current customers
- Expand coverage to areas not served by fixed route
- Improve the customer experience, including more access, decrease wait and trip times, and ease of use
- Integrate experience with other modes, including fixed route

### **Goal 2: Connect People to Life's Activities**

- Improve access to jobs
- Connect people to healthcare and other social services
- Design service that will benefit the largest number of people
- Improve connections to fixed route network

### **Goal 3: Design an Equitable Service that Improves Access to Opportunity**

- Create shared economic prosperity for disadvantaged populations
- Address safety concerns around microtransit
- Build partnerships within each zone to encourage use and improve service

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- Ensure fares are accessible and affordable
- Design service to meet the needs of those with the fewest mobility options

**Goal 4: Create a Model That Will Be Sustainable**

- Understand the financial and technical feasibility of on-demand mobility options
- Develop services that achieve a high level of public support
- Learn and test new strategies for leveraging technology to improve the customer experience
- Generate additional data to understand transit demand and travel flows
- Gain experience collaborating and contracting with private-sector mobility companies

### 3 Market Review

The GoDurham Microtransit Study market review builds off findings from the GoDurham SRTP, as well as previous surveys conducted by GoDurham, to understand the unique transportation needs in these three zones (Figure 1). The market review analyzes the market demand of each zone based on demographics, employment centers, and other activity centers, as well as the performance of existing and past transit services in these areas.

#### ZONE FINDINGS

The key findings for each of the three zones from the market review are as follows:

- **Zone 1:** The East Durham Microtransit Zone is generally characterized by low-density residential developments, plus a couple clusters of employment areas. Higher transit propensity, determined through a series of socioeconomic characteristics, is concentrated in the half of the zone closer to downtown. The Village Shopping Center represents a potential key transfer point from microtransit to frequent fixed-route transit service.
- **Zone 2:** The Sparger Road Microtransit Zone generally encompasses low-density industry and commercial areas, with some low-density homes and apartments complexes. Transit propensity is relatively low, but low-wage employment sites along Hillsborough Road, social services agencies like the Vocational Rehabilitation Services facility, and low-income housing developments are potentially major markets for microtransit.
- **Zone 3:** The North Durham Microtransit Zone contains low density residential areas plus major commercial and retail centers. North Duke Shopping Center and Willowdale Shopping Center are potential key transfer points for microtransit to fixed-route transit. Transit propensity is relatively high throughout the study area. However, population and employment density are not strong enough to warrant fixed-route transit service.

#### FINDINGS FROM PREVIOUS STUDIES AND SURVEYS

##### GoDurham Short Range Transit Plan

The GoDurham SRTP was adopted by the Durham City Council in June 2019. The Plan recommended changes to the GoDurham network to provide more frequent and reliable service. The Plan also identified six zones to be served by on-demand services rather than fixed-route buses. This study focuses on three of these zones (Figure 1) and builds on the SRTP's market analysis and survey results.

##### Market Analysis

The SRTP analyzed the population density and demographic characteristics of Durham County. As shown in Figure 2, the population of Durham is concentrated towards downtown, with a low number of people per acre in the three microtransit study areas. However, as shown in Figure 3, areas with high proportions of populations who have a propensity for transit are spread out throughout the city and county, including in the microtransit study areas.

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Figure 2 Durham SRTP – Population Density

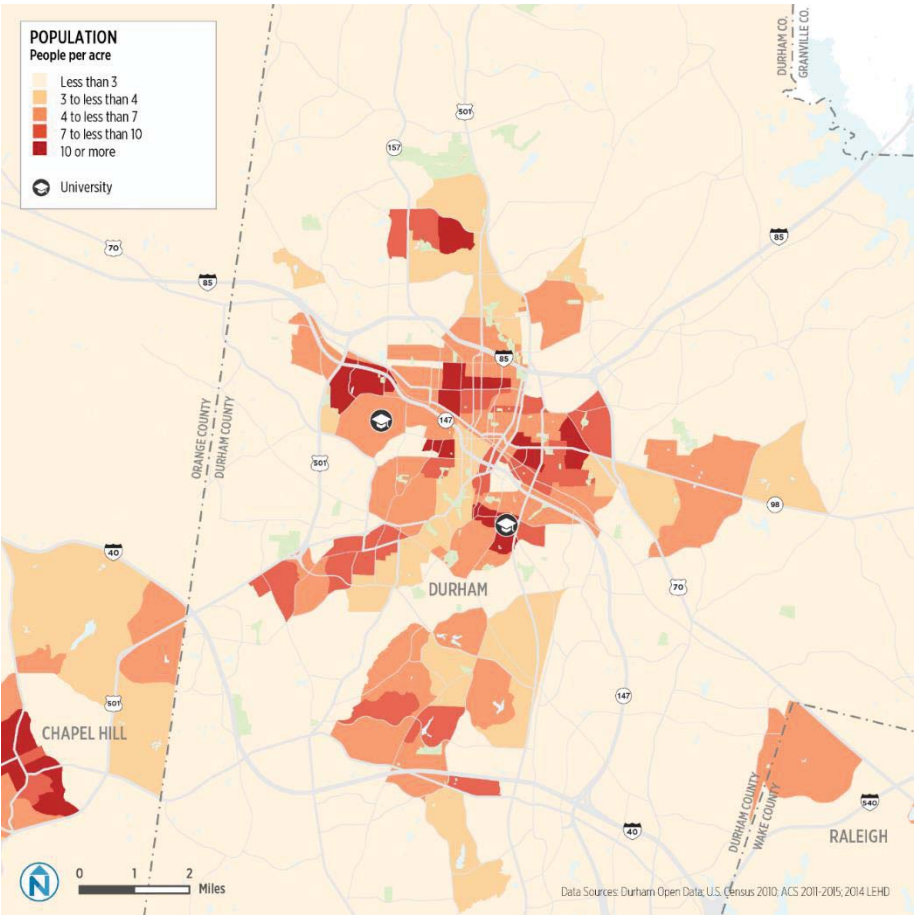
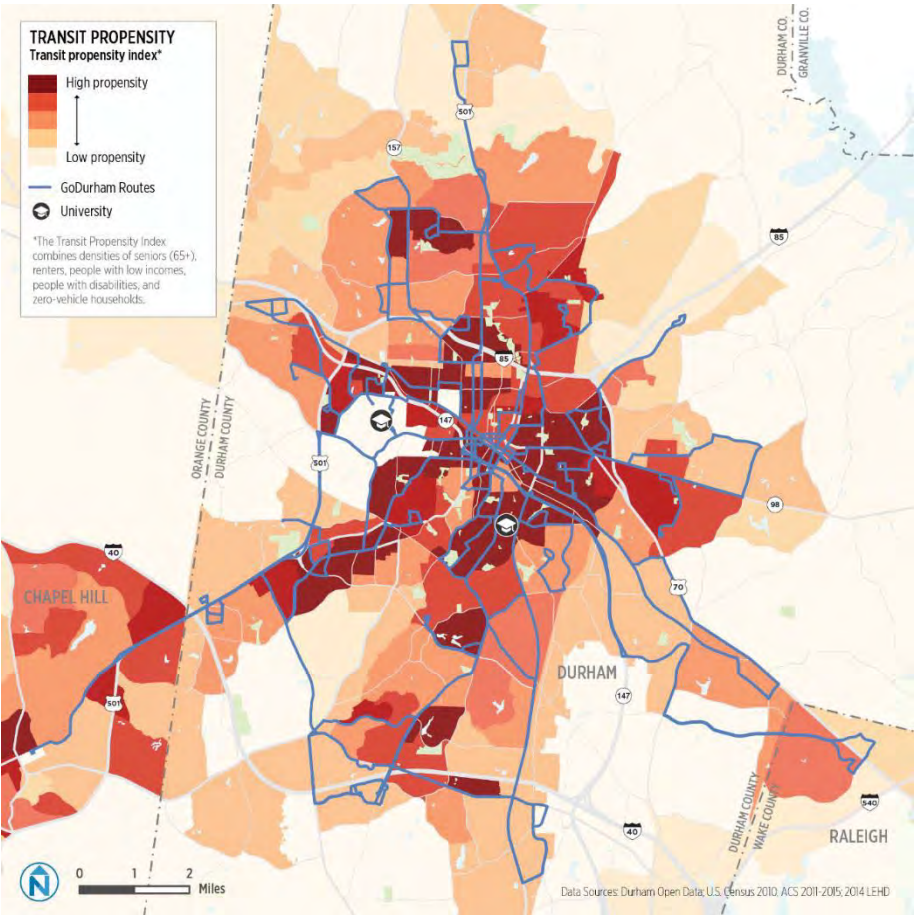


Figure 3 Durham SRTP – Transit Propensity Index





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Figure 4 Durham SRTP – Employment Density

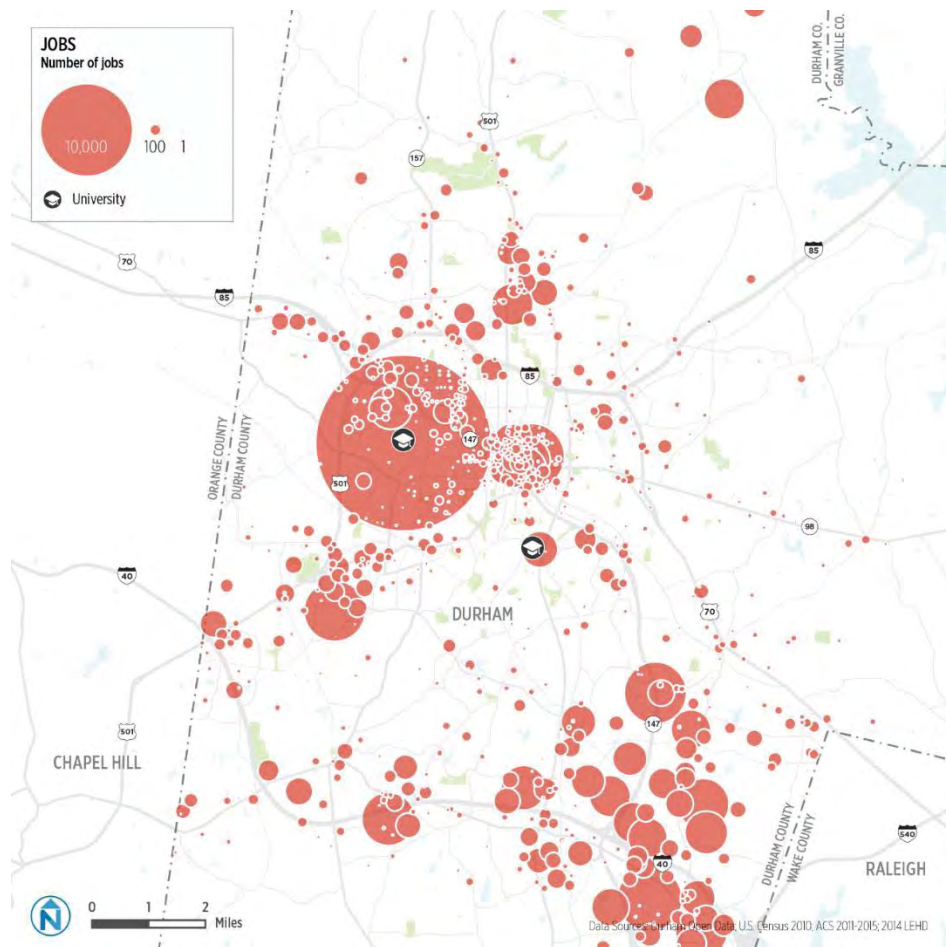
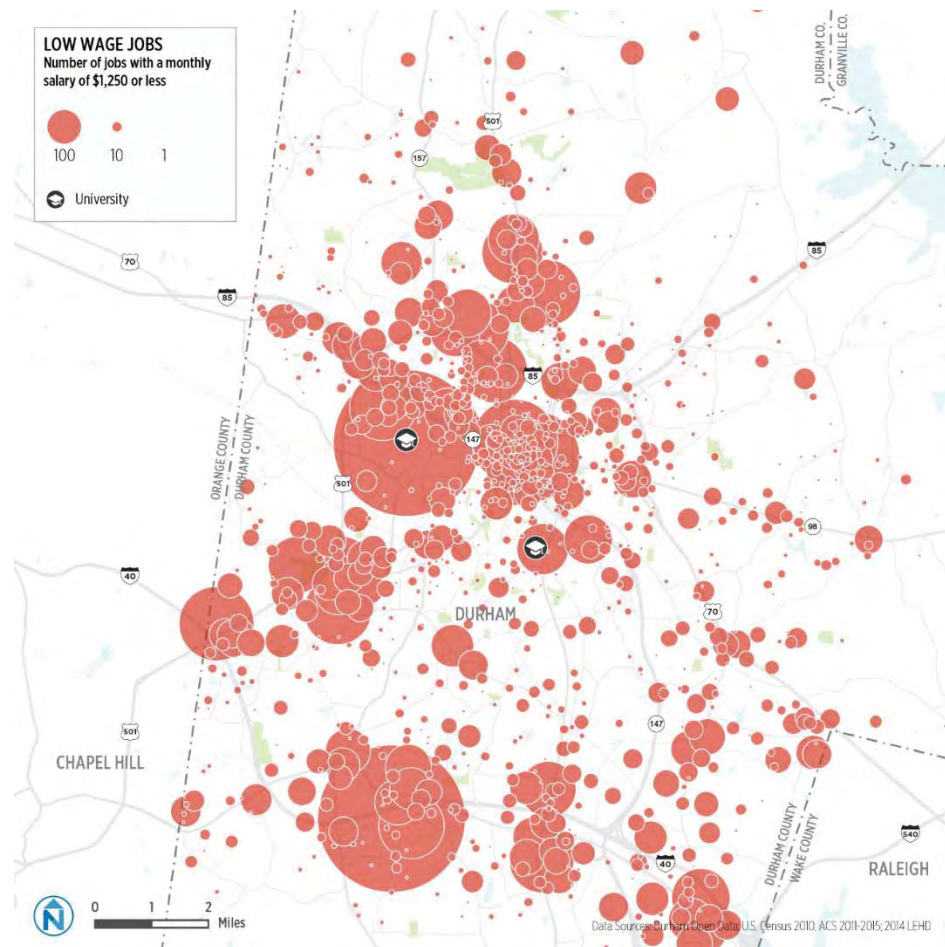


Figure 5 Durham SRTP – Low-Wage Employment Density



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The demographic data used in the SRTP included US Census, American Community Survey (ACS), and Longitudinal Employer-Household Dynamics (LEHD) data from 2010 to 2015. According to ACS population estimates, between 2010 and 2018 the population of Durham has increased by nearly 20%, and the socioeconomic characteristics of the city have also shifted. Additionally, the Transit Propensity Index (Figure 3) from the SRTP took into account several demographic factors—low-income populations, people with disabilities, seniors, people who live in rental units, and zero-vehicle households—but did not include race, which is a factor that greatly correlates with transit need. This market review updates the demographic analysis, using more recent population data and incorporating race into the Transit Propensity Index.

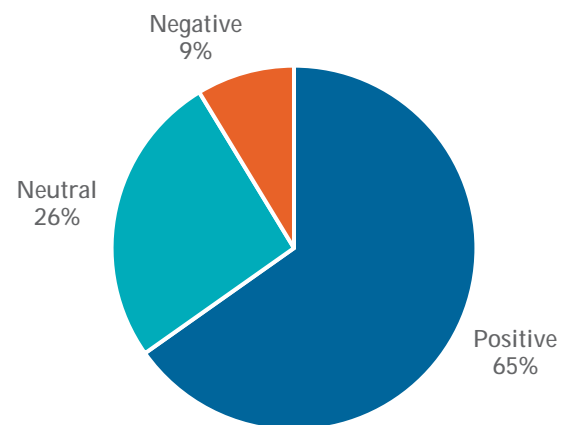
The SRTP market analysis also analyzed the employment density of the City and County of Durham. Figure 4 shows the employment centers are concentrated downtown, at Duke University, and near Research Triangle Park. However, Figure 5 shows low-income employment centers distributed throughout the county, including in the three microtransit study areas.

### On-Demand Zone Feedback

The GoDurham Short Range Transit Plan collected community feedback on a range of transit improvements and recommendations. When asked about the proposed on-demand zones, 65% of 23 survey respondents reacted favorably, compared to 26% who reacted negatively. Comments included the following feedback:

- Concern that higher costs would create a financial burden, especially for riders getting passes through Duke.
- Concern about greater pollution with a potential reduction in service by replacing fixed-route with on-demand service.
- Support for late-night on-demand service, especially during the weekends.
- Support for greater subsidies for low-income individuals.
- Concern about funds being directed away from bus service and liability issues behind transportation network companies (TNCs).

Figure 6 SRTP On-Demand Zone Public Feedback



### Service Changes Since SRTP

Since the adoption of the SRTP in June 2019, GoDurham has implemented many recommended service changes. The January 2020 service changes included the following routes that affect our study area:

- Routes 2, 2A, 2B, and 15 were combined into a new Route 2 and service was simplified. Route 2 now runs along Angier Avenue without a loop and service is more frequent.
- Route 3C in East Durham was restructured to serve The Village Shopping Center and Alston Avenue, rather than Holloway Street and Lynn Road. The East Durham Connect pilot program was put in place along the area that Route 3C no longer serves.
- Route 6 and Route 6B were combined and shortened to serve Duke and VA Medical Centers and no longer serve Sparger Road, Operations Drive, or Hillsborough Road west of Duke University.

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- Routes 9, 9A, and 9B maintained its routing with some schedule adjustments in North Durham.
- Route 11B was restructured and no longer serves Sparger Road or Hillsborough Road west of Cole Mill Road.
- Route 23 was eliminated, and service was increased on Route 3B at night and on weekends.

## Onboard Survey of GoDurham Customers 2019

GoDurham conducts an annual onboard survey of the agency's customers. The 2019 survey was conducted on buses in mid-October 2019, with 920 responses and a margin of error of +/- 3.2% at the 95% level of confidence. The project team reviewed the results of this survey to glean the following information relevant to planning on-demand service, with a focus on existing riders:

- *Trip Purpose:* A majority (62%) of current riders use transit primarily to get to work. A sizeable population (14%) primarily use transit to get to schools and colleges.
- *Fare Medium:* About half of GoDurham customers pay with cash, including 29% who pay in cash for a one-way ride on the bus and another 21% who purchase a day pass, likely through cash on the bus as well. As shown in Figure 7, the fare medium used differs by income level. Over 60% of customers who make less than \$50,000 per year use cash or a day pass. 42% of those who make more than \$50,000 use a GoPass or University ID, compared to less than 25% for lower income customers.

Figure 7 Income of Customer and Type of Fare Medium

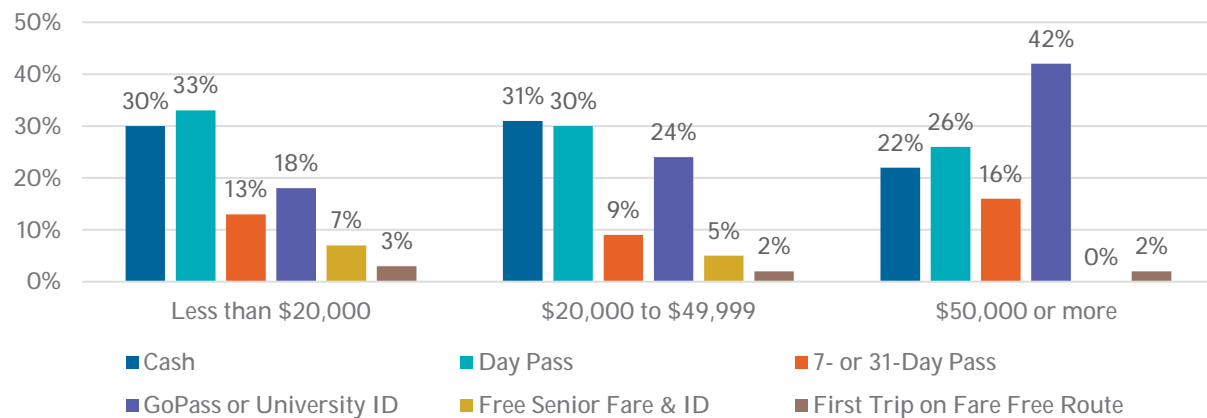
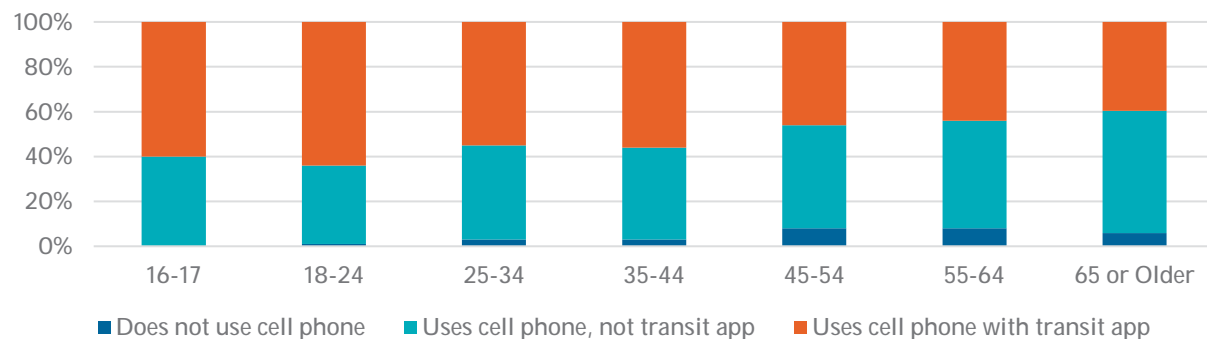


Figure 8 Age of Customer and Use of Cell Phone and Transit App



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- *Uber/Lyft Usage:* In the thirty days before the survey was conducted, about 51% of customers did not use Lyft and Uber. About 10% used Lyft or Uber once, 19% used them twice or three times, and about 20% used Lyft and Uber four or more times.
- *Mobile/Transit App Usage:* An overwhelming majority (96%) of customers use cell phones. 55% of customers use a cell phone and have a transit app downloaded already. As shown in Figure 8, cell phone and transit app usage vary a bit with age. 64% of customers who are between 18 and 24 use a cell phone with a transit app, compared to 40% of customers who are 65 or older.

## Community Survey of Adults in Wake, Durham, and Orange Counties 2019

In August and September of 2019, the transit providers in the Triangle Region conducted a community survey of the general adult population in Wake, Durham, and Orange Counties. The results of the survey are based on a random sample of 1,202 adults in the three counties, including both transit riders and non-riders, 400 of whom are from Durham County. The project team reviewed the results of this survey to glean the following information relevant to planning on-demand service, with a focus on the general population, or the total pool of potential riders rather than just existing transit riders:

- *Trip Purpose:* In Durham County, 63% of local trips are work-related, regardless of transportation mode. The second greatest proportion of trips are for errands and shopping at 25%, with school-related trips at 6% of the survey population.
- *Uber/Lyft Usage:* In Durham County, 62% of the sampled population did not use Lyft or Uber in the thirty days before the survey was taken. About 21% of people used Lyft or Uber one to three times, and 18% used them four or more times.

## MARKET REVIEW METHODOLOGY

In order to understand the market for microtransit in Durham, this market review evaluates the following characteristics for each study area.

- *Key activity and employment centers:* The market review identifies key activity centers in and around each zone as places that many customers may want to travel from or to, such as shopping areas, apartment complexes, schools, and supermarkets. Since people who work low-wage jobs are more likely to use transit than those with higher income, the market review also looked locations of low-wage jobs identified in the SRTP.
- *Residential market for transit:* The market review analyzes the population density within each zone (Figure 9), as well as demographic characteristics associated with a higher propensity for transit. Using US Census ACS 2018 5-year estimates data at the block group level, this market review assesses the proportion of residents in each zone who are seniors (age 65+), have low incomes (<100% of poverty level), are non-white, have disabilities, and live in households with no vehicles. These indicators are combined into a composite Transit Propensity Index (TPI), which highlights the areas with the greatest transit need (Figure 10).
- *Existing transit and ridership:* To determine potential connections to fixed-route transit within the microtransit zones, this market review discusses GoDurham bus routes that cross through the study areas. The SRTP also analyzed transit ridership by stop on the GoDurham network before January 2020 service changes. This ridership analysis is included in the market review since it helps to identify key transfer points and areas where customers already use transit.



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Figure 9 Durham Population Density

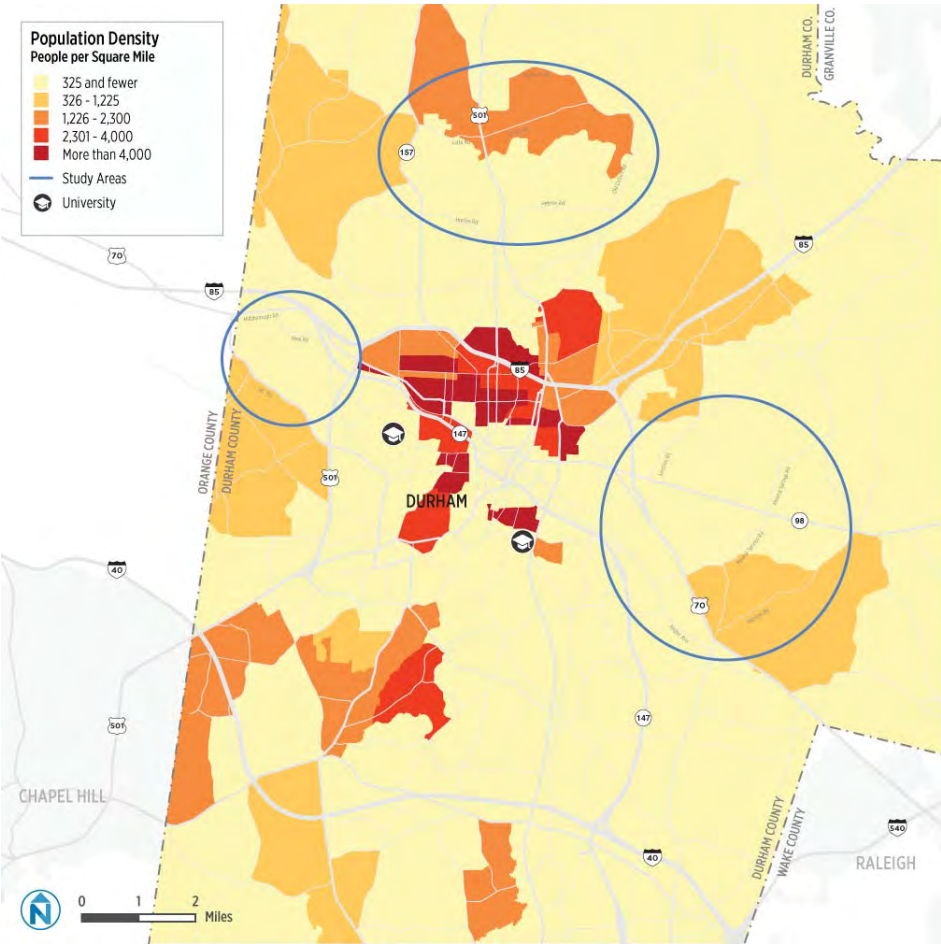
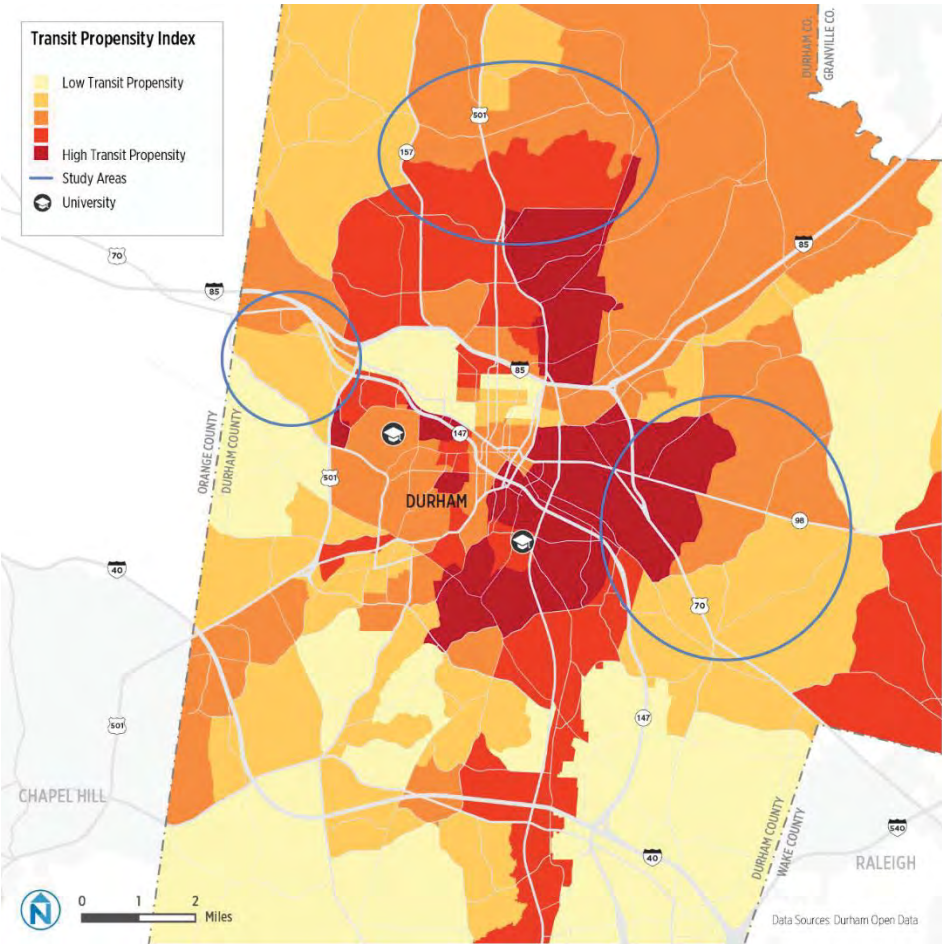


Figure 10 Durham Transit Propensity Index



## ZONE 1: EAST DURHAM

The East Durham Microtransit Zone is generally characterized by low-density residential developments and a few commercial and retail corridors, plus high transit propensity on the western half of the zone. The study area is east of Downtown Durham and its major corridors include Holloway Street, US Route 70, and Angier Avenue. The area is currently served by GoDurham Route 3B. GoDurham Route 2 also intersects the southern part of the study area.

### Activity and Employment Centers

The Village Shopping Center represents a key transfer point with fixed-route service to Durham Station every 15 minutes. As shown in Figure 11, key activity centers include:

- The Village Shopping Center and retail development surrounding the intersection of Holloway St and N Miami Blvd
- Southern High School
- Springwood Park Apartments (previously served by Route 3C)
- Food Lion
- Rochelle Manor Apartments
- Durham Ridge Assisted Living

East Durham also contains clusters of low-wage jobs (Figure 12). These jobs are located:

- At the Village Shopping Center and its surrounding retail development
- Along Holloway Street
- At the intersection of Sherron Road and US Route 70

### Residential Market for Microtransit

The East Durham Microtransit Zone, as shown in Figure 13, has relatively low population density. The zone has higher population density in the residential subdivisions adjacent to Sherron Rd and S Mineral Springs Rd in the southern portion of the study area.

Figure 11 East Durham Study Area and Activity Centers

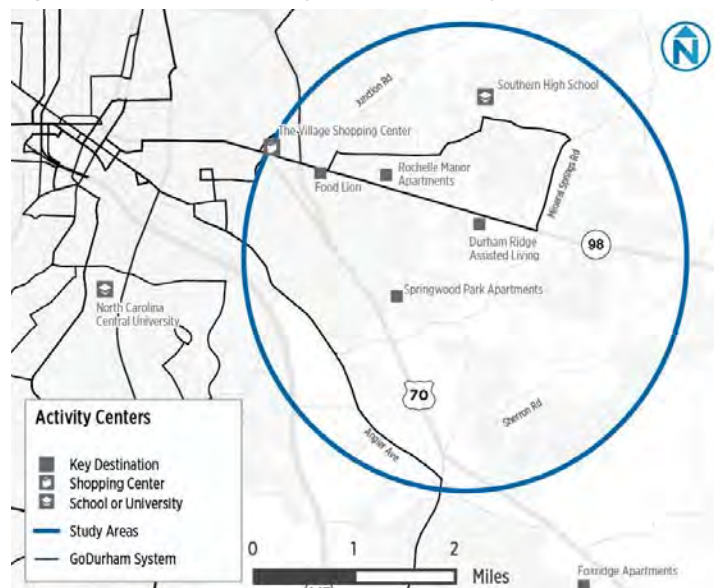
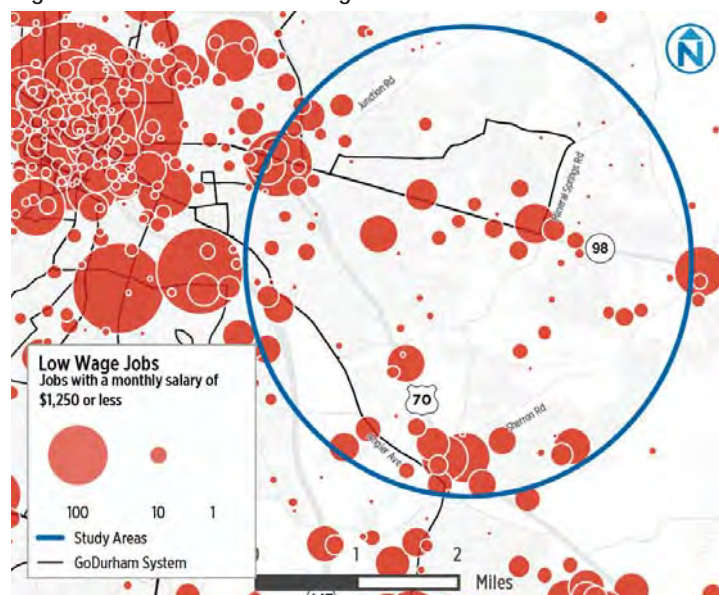


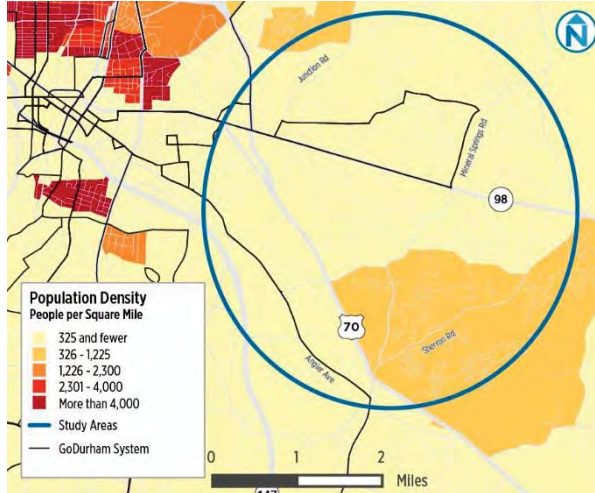
Figure 12 East Durham Low Wage Jobs



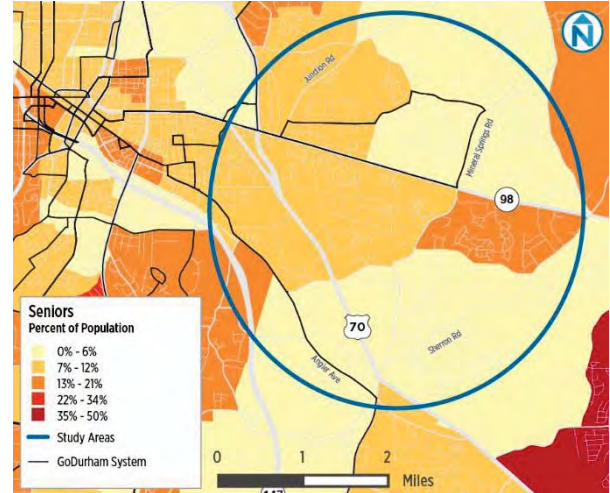


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**Figure 13 East Durham Population Density**



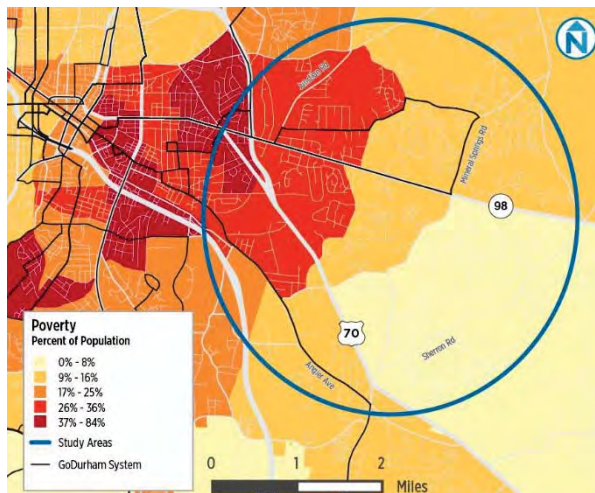
**Figure 14 East Durham Senior Population**



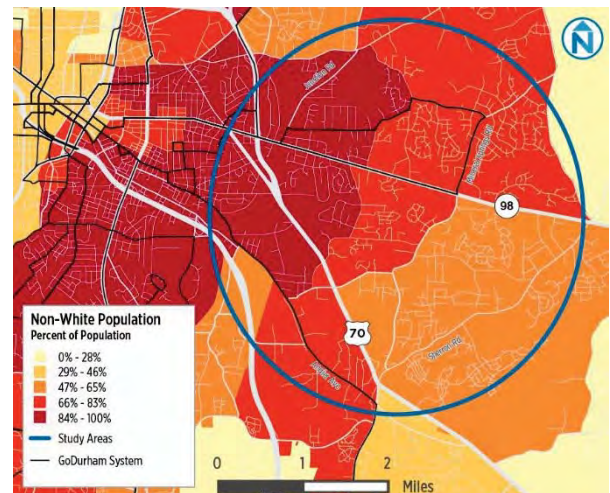
The project team analyzed socioeconomic characteristics that correlate to greater transit need:

- The study area has moderately low concentrations of seniors, ages 65 and older (Figure 14). The highest concentration of seniors (13% - 21%) is in the Grove Park neighborhood, located south of NC 98, between S Mineral Springs Rd and Sherron Rd. Additionally the Durham Ridge Assisted Living home is located on NC 98 approximately ½ mile west of Mineral Springs Rd.
- The western portion of the East Durham Microtransit Zone has the highest concentration of people living below 100% of the Federal Poverty Level (Figure 15), including the Wellons Village, East Durham, and Wedgewood neighborhoods. These neighborhoods include several large apartment complexes and subsidized housing projects, like Hardee Terrace Apartments, Cambridge Village Apartments, and Rochelle Manor Apartments.

**Figure 15 East Durham Low-Income Residents**



**Figure 16 East Durham Non-White Population**



- The East Durham Microtransit Zone has high concentrations of non-white populations, as shown in Figure 16. Areas with the highest concentrations are generally in the western portion of the study area, including East Durham, Wellons Village, Merrick Moore, Wedgewood, and Y.E. Smith neighborhoods.

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- The East Durham Microtransit Zone has relatively high concentrations of people with disabilities in the western portion of the study area, as shown in Figure 17. These concentrations are highest west of Lynn Rd and are lowest east of Mineral Springs Rd and south of NC 98.

Figure 17 East Durham People with Disabilities

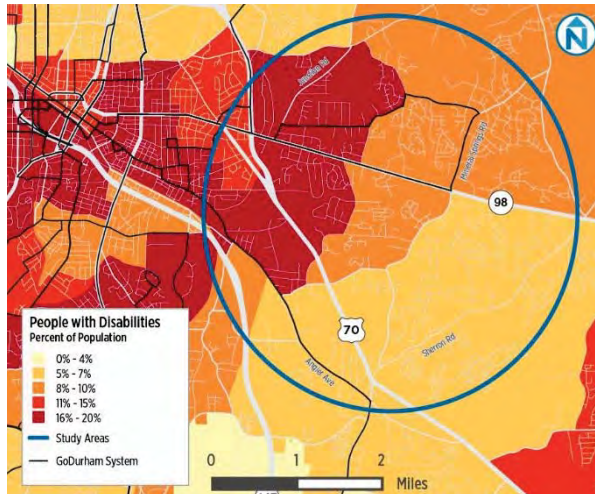
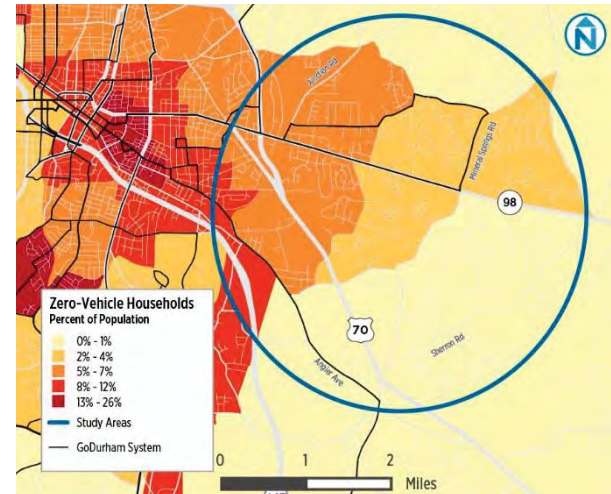


Figure 18 East Durham Zero-Vehicle Households



- Durham generally has high automobile ownership rates and this is true for the East Durham Microtransit Zone as well. Zero-Vehicle Households are most concentrated in the western portion of the study area (Figure 18)

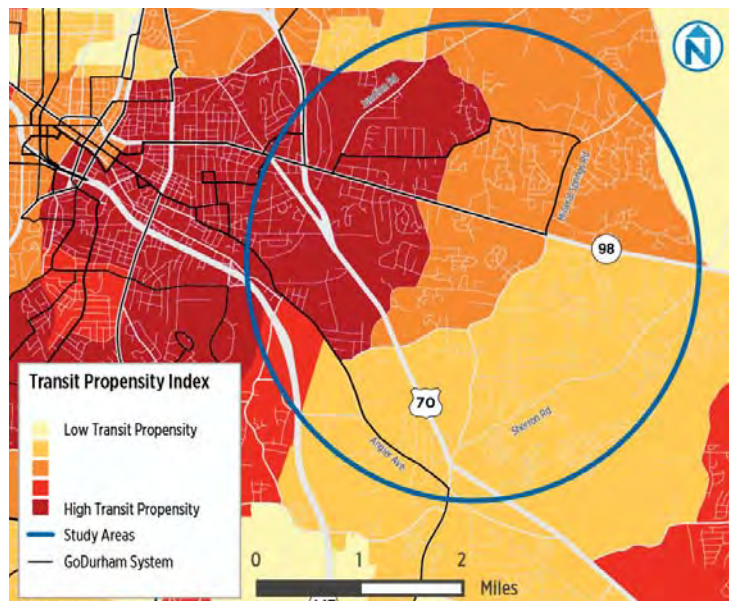
The overall Transit Propensity Index, which combines the five above demographic factors, varies across the East Durham Microtransit Zone, with the highest propensity in the western portion of the study area and the lowest propensity in the southeastern portion, as shown in Figure 19.

## Existing Transit Services

The East Durham Microtransit Zone is currently served by the following GoDurham routes (Figure 20):

- Route 3B: along Holloway Street, Ross Road, and Freeman Road. Route 3B runs every hour from around 5AM to midnight on Mondays to Saturdays and from 7AM to 9PM on Sundays.
- Route 2: along Angier Ave. Route 2 runs every 30 minutes daytime and every hour nighttime Mondays to Saturdays from 6AM to midnight and runs every hour Sundays from 6:30AM to 9PM.
- Routes 3/3B/3C all serve the Village Shopping Center, which gets service every 15 minutes during the day Monday to Saturday and every 30 minutes on nights and Sundays.

Figure 19 East Durham Transit Propensity Index





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Figure 20 East Durham Transit Routes

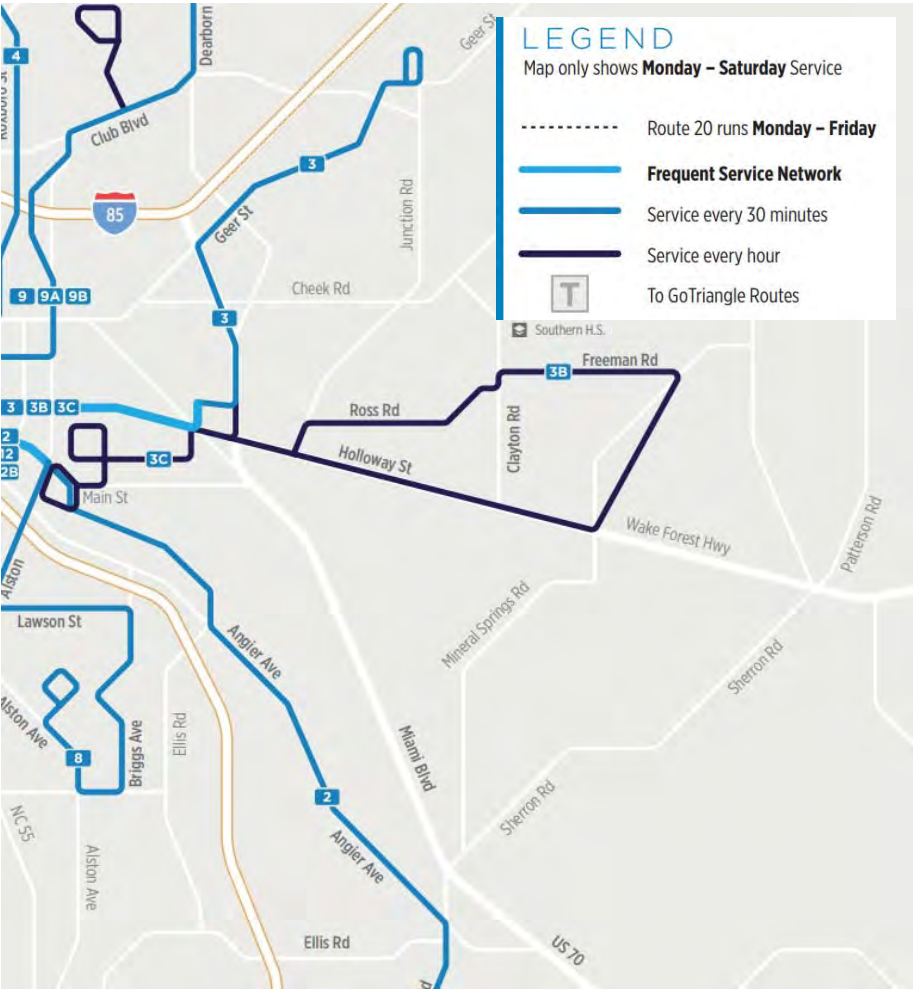
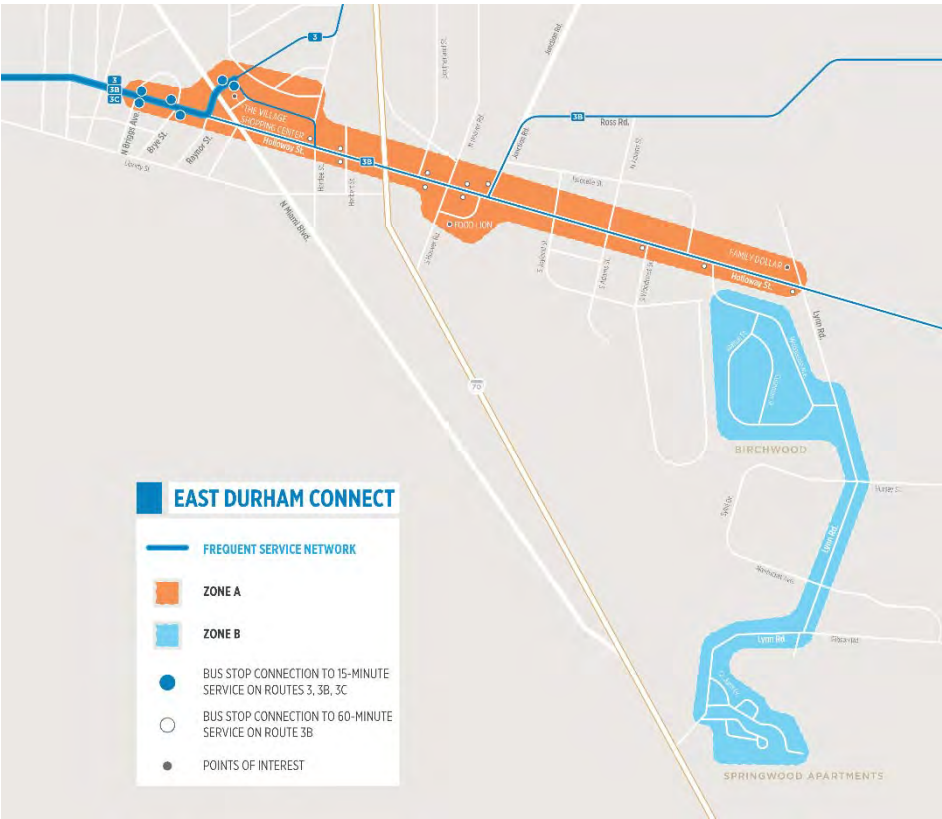


Figure 21 East Durham Connect Pilot Zones



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In addition to fixed-route services, GoDurham is currently piloting an on-demand zone in this area, called the East Durham Connect. The pilot program is in partnership with Lyft. Customers use Lyft for free rides between the two zones shown in Figure 21: A) along Holloway Street encompassing the Village Shopping Center and B) between NC 98 and US 70 on Wedgedale Avenue and Ivywood Lane. Zone A has employment and activity centers, plus connections to the bus frequent service network. Zone B is residential and along the same corridor that Route 3C used to serve before it was rerouted.

Lyft trips must go from Zone A to Zone B or vice versa, and customers access the free ride subsidy on the Lyft app using a discount code. The service is available on Mondays to Saturdays from 6AM to 7PM, and customers are limited to 50 rides a month. Additionally, youth 17 years of age or younger cannot ride the service alone due to Lyft requirements and instead must book a ride with GoDurham ACCESS. The pilot was launched in February 2020 and goes until the end of June 2020 but may be extended.

Ridership on East Durham Connect has been lower than estimated, likely partially due to the Covid-19 pandemic. In February and March, the service had a little over 6 riders per day, compared to an estimated expected ridership of 35 people on each weekday and 20 people on each Saturday. The cost per trip has been about \$8, at an average trip length of 1.8 miles.

## Ridership on Prior Transit Services

During the development of the SRTP, stop level ridership was assessed for every route in the GoDurham system using Automatic Passenger Count (APC) data from September 2016. Though some of these routes have changed, key findings related to ridership in the study area relevant to this study include:

- **Route 2/2A:** Route 2 had relatively high ridership, but only in the segment between Durham Station and Angier Avenue at Guthrie Avenue (Figure 22). Within the East Durham Microtransit study area, Route 2/2A had much lower ridership, likely due to lower density and the loop design of the route (which has since been redesigned). The intersection of Angier Avenue and Miami Boulevard has relatively higher ridership, as well as the southeastern point of the route on Page Road near Foxridge Apartments, which is no longer served by fixed-route transit.
- **Route 3/3B/3C:** Route 3 (Figure 23) was the highest ridership and most productive route in the GoDurham System, but that ridership was concentrated outside of the microtransit study area between Durham Station and the Village Shopping Center, emphasizing the potential for the Village Shopping Center to be a large transfer point between the microtransit zone and the GoDurham system. The 3B loop variant along Holloway Street, Freeman Road, and Ross Road has relatively low ridership, though riders are distributed through the loop. Route 3C had very low ridership and has since been rerouted and replaced by the East Durham Connect pilot.
- **Route 23:** As shown in Figure 24, Route 23 was a low ridership route and operated along a similar set of corridors as Route 3/3B. The route ran on Monday-Saturday nights and Sundays and was relatively productive along the Holloway Street, Freeman Road, and Ross Road loop, bringing people to the Village Shopping Center. Route 23 has since been discontinued, and Route 3/3B now operates more frequently and later into the night.

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Figure 22 Ridership by Stop on Old Route 2/2A/2B, Inbound (Left) and Outbound (Right)



Figure 23 Ridership by Stop on Old Route 3/3B/3C, Inbound (Left) and Outbound (Right)

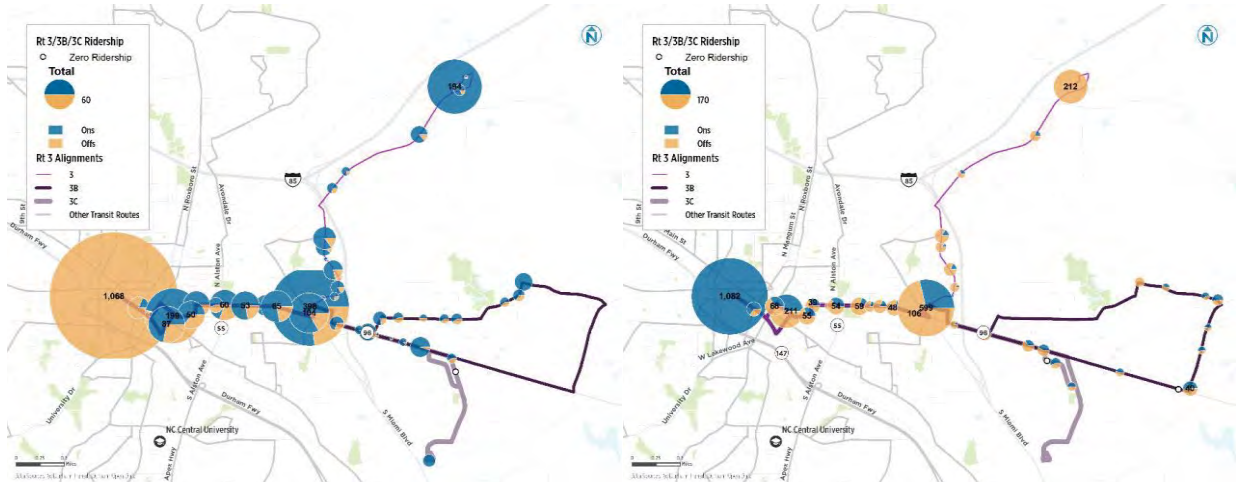
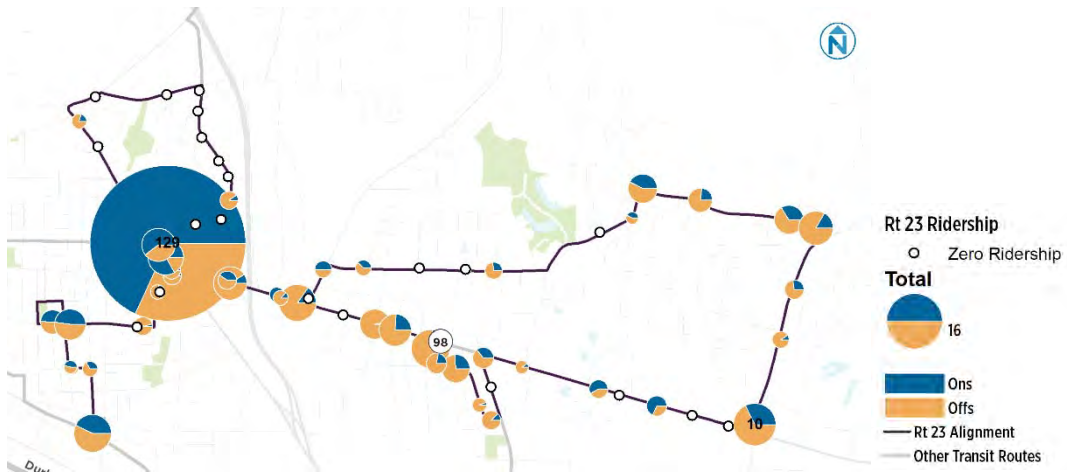


Figure 24 Ridership by Stop on Old Route 23 (Loop)





## ZONE 2: SPARGER ROAD

The Sparger Road Microtransit Zone is located on the west side of Durham, to the northwest of Duke University. The zone encompasses west of Cole Mill Road, serving Neal Road, Sparger Road, Operations Drive, and Hillsborough Road. The study area is generally characterized by low-density industry and commercial entities, plus some low-density residential places. The area is partially served by GoDurham Routes 11 and 11B.

### Activity and Employment Centers

The Sparger Road zone has limited access to transit, and no access to frequent routes, but does have various activity and employment centers. As shown in Figure 25, key activity centers include:

- The Vocational Rehabilitation Services building on Hillsborough Rd
- Food Lion and retail employment
- Low-income housing developments along American Dr and Constitution Dr that continue to be served by Route 11B
- Industrial and light manufacturing job sites along the western part of Hillsborough Rd
- Fast food and service jobs along eastern part of Hillsborough Rd

The Sparger Road study area also has clusters of low-wage jobs (Figure 26), located:

- Along the Hillsborough Rd corridor west of NC Hwy 147, previously served by Route 11
- Along the Hillsborough Rd corridor east of NC Hwy 147, currently served by Route 11

### Residential Market for Microtransit

The Sparger Road Microtransit Zone is a low population density area, as shown in Figure 27. The northern portion of the study area is primarily light industrial, and the southern portion is low-density residential subdivisions with a few apartment complexes located on American Dr and Constitution Dr near US 15-501.

Figure 25 Sparger Road Study Area and Activity Centers

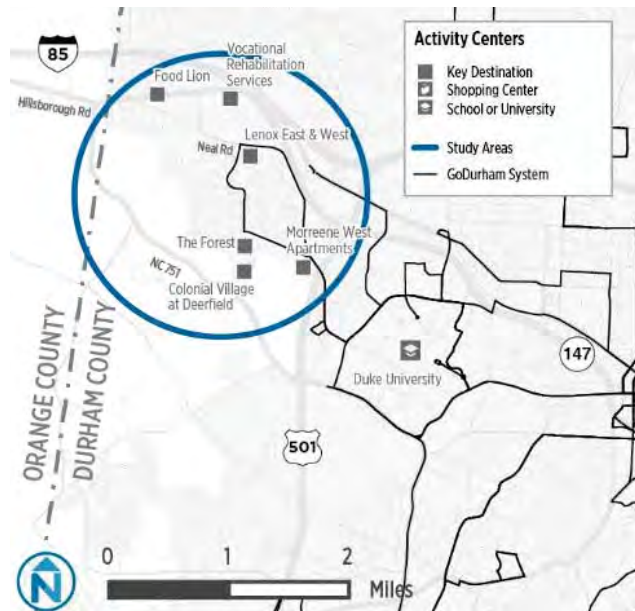
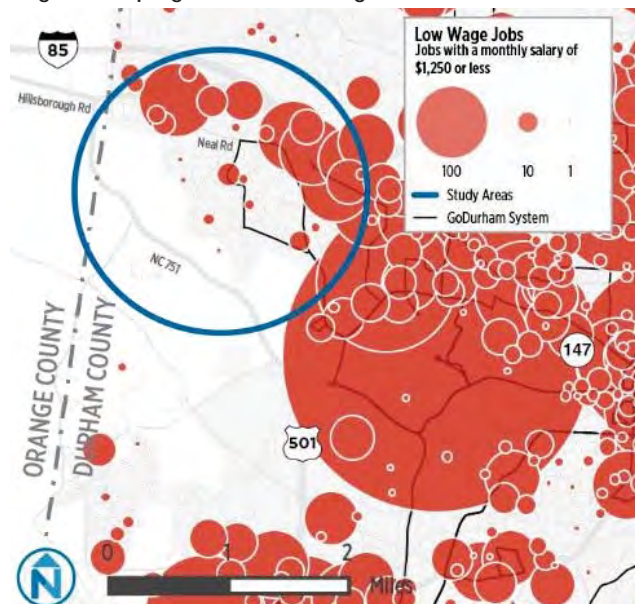


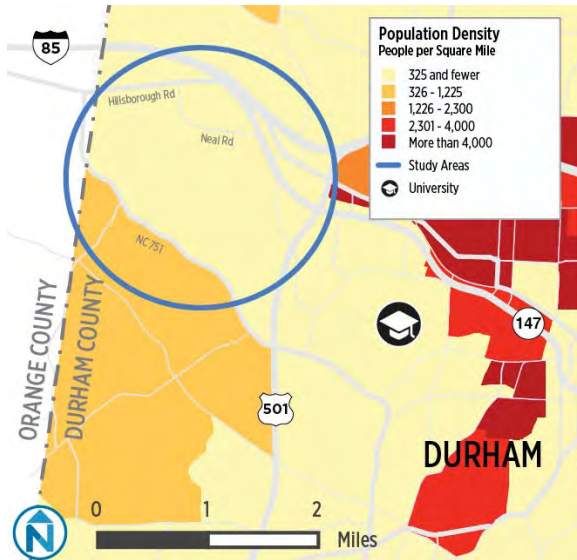
Figure 26 Sparger Road Low Wage Jobs



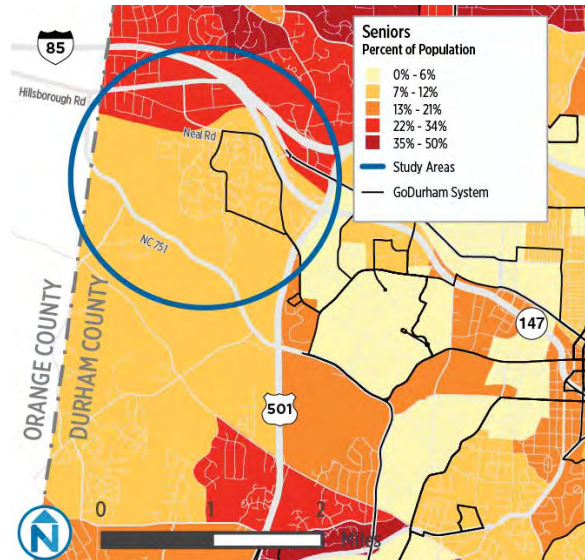


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**Figure 27 Sparger Road Population Density**



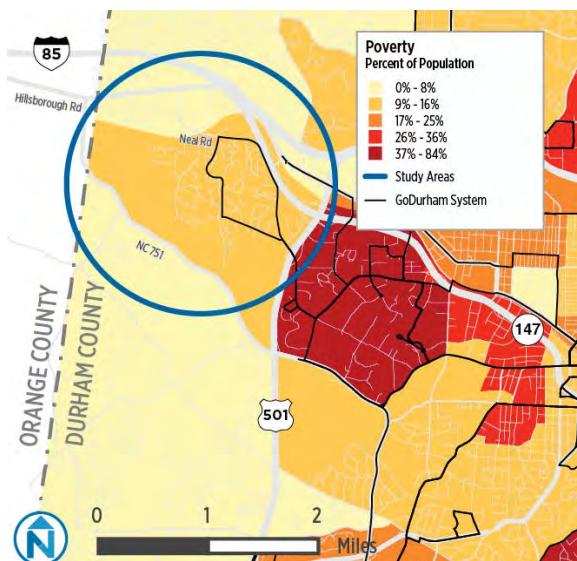
**Figure 28 Sparger Road Senior Population**



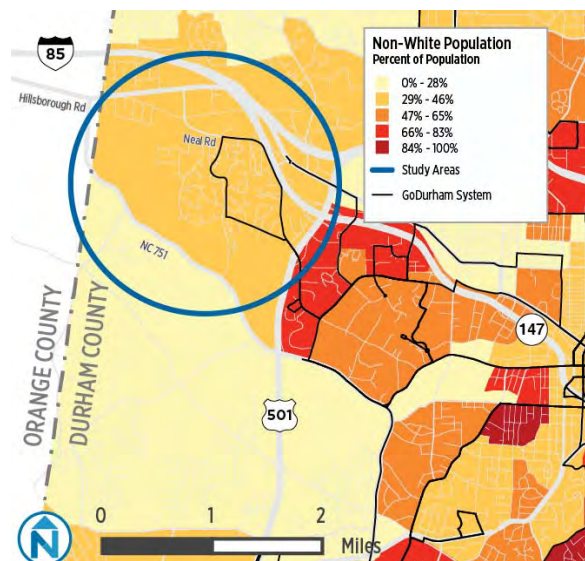
The project team analyzed socioeconomic characteristics that correlated to greater transit need:

- The study area has relatively low concentrations of seniors (Figure 28). The area adjacent to Hillsborough St in the northern portion of the study area shows the highest concentration of seniors. However, this corridor is primarily an employment zone with a relatively few residential areas.
- The study area also has relatively low concentrations of low-income populations, as shown in Figure 29. The study area is adjacent to Duke University and the surrounding student housing areas with high concentrations of low-income households.

**Figure 29 Sparger Road Low-Income Population**



**Figure 30 Sparger Road Non-White Population**



- The Sparger Road Microtransit Zone has relatively low concentrations of non-white populations (Figure 30). The study area is adjacent to higher concentrations of non-white populations in the neighborhoods surrounding Duke University.

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- The zone has relatively low concentrations of people with disabilities, as shown in Figure 31. The Hillsborough Rd corridor and adjacent neighborhoods north of I-85 have higher concentrations of people with disabilities than the rest of the study area.

Figure 31 Sparger Road People with Disabilities

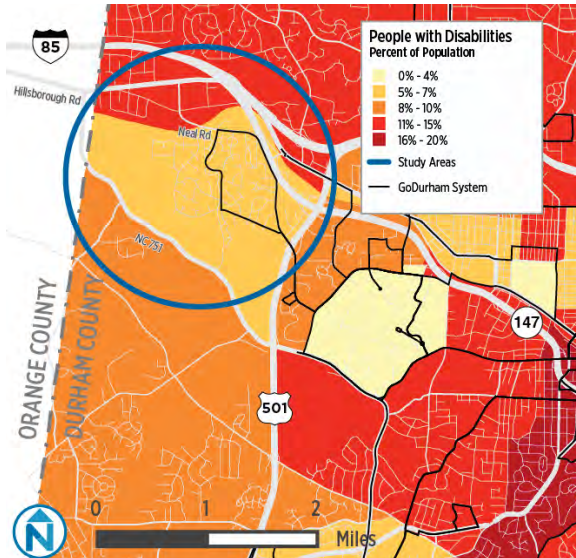
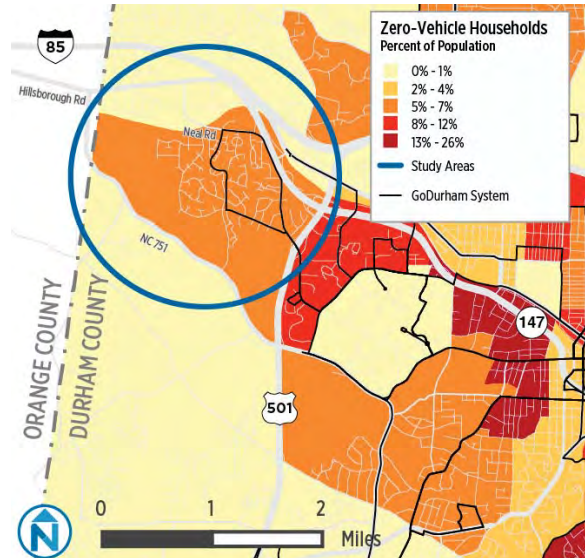


Figure 32 Sparger Road Zero-Vehicle Households



- Lastly, the zone has relatively low concentrations of zero-vehicle households (Figure 32), particularly compared to the high concentrations found in the adjacent neighborhoods surrounding Duke University.

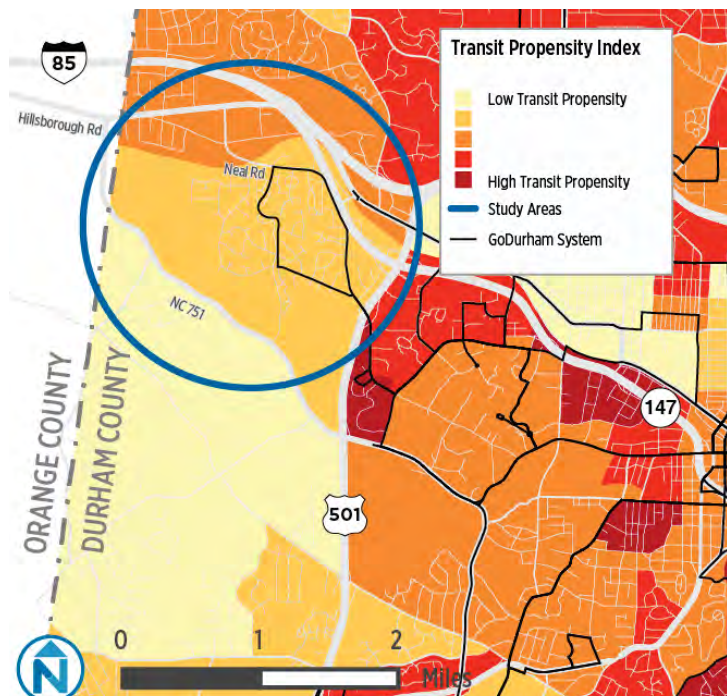
The Sparger Road Microtransit Zone has relatively low transit propensity, as shown in Figure 33. Transit propensity is relatively low in this area due to the low-density residential development. However, the manufacturing and industrial employment hub along the Hillsborough Rd corridor and the Vocational Rehabilitation Services facility represent potential markets for microtransit service to provide access to employment and improve community mobility.

## Existing Transit

The Sparger Road Microtransit Zone is currently served by the following GoDurham Routes (Figure 34):

- Route 11: along Hillsborough Road east of NC Hwy 147. Route 11 runs every 30 minutes Mondays to Saturdays from 5:30 AM to 7:00 PM and every 60 minutes from 7:00 PM to 12:30 AM. The service runs every hour on Sundays from 6:30 AM to 9:30 PM.

Figure 33 Sparger Road Transit Propensity Index





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- Route 11B: in a loop along Neal Rd, American Dr, and Constitution Dr. Route 11B runs every 30 minutes from 5:45 AM to 7:00 PM and every 60 minutes from 7:00 PM to 12:00 AM on Mondays to Saturdays and every hour from 7:00 AM to 9:00 PM on Sundays

Routes 11 and 11B combine just outside of the study area at Erwin Road surrounding Duke University. Combined, these two routes serve Duke every 15 minutes. Route 6 also serves the Duke and VA hospitals every 30 minutes.

Figure 34 Sparger Road Zone Transit Routes



## Ridership on Prior Transit Services

During the development of the SRTP, stop level ridership was assessed for every route in the GoDurham system using Automatic Passenger Count (APC) data from September 2016. Though some of these routes have changed, key findings related to ridership in the study area relevant to this study include:

- Route 6/6B: Route 6/6B was GoDurham's second most productive route at 49 passengers per hour, though boardings mostly occurred on the 6 and 6B combined portion of the route. The 6B leg on Morreene and Neal to Hillsborough Rd had very low ridership, while the 6 leg on American

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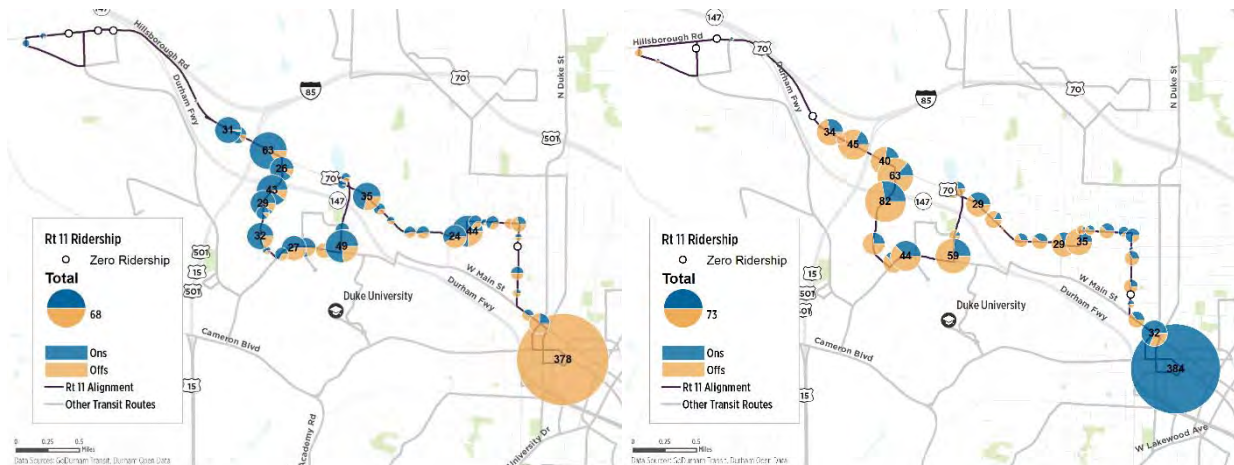
and constitution had moderate ridership. Route 6 and 6B has since been combined and the route has been truncated to just serve the Duke and VA Hospitals.

- Route 11: This route had relatively low ridership, and most boardings occurred on LaSalle and to the east of it near the Duke campus. The section of the route west of Durham Freeway on Hillsborough Rd had virtually no ridership. Route 11 has since been truncated and split into two variants: Route 11 which serves LaSalle and Hillsborough east of Durham Freeway, and Route 11B which runs along a loop in the study area.

Figure 35 Ridership By Stop on Old Route 6/6B, Inbound (Left) and Outbound (Right)



Figure 36 Ridership By Stop on Old Route 11, Inbound (Left) and Outbound (Right)



## ZONE 3: NORTH DURHAM (NORTH OF HORTON ROAD)

The North Durham Microtransit Zone is generally a low-density residential area, bisected by N Roxboro Street and contains Infinity Rd, Latta Rd, and Hebron Rd. The area is served by Routes 4, 9, 9A, and 9B.

### Activity and Employment Centers

The North Durham Microtransit Zone is mostly residential but also has some commercial and retail centers. As shown in Figure 37, key activity centers include:

- North Duke Shopping Center
- Riverside Shopping Center
- Oxford Commons Shopping Center
- Carver Rehabilitation & Living Center
- Apartment complexes, including Meriwether Place, Preiss Steele, JFK Towers, Magnolia Pointe, and Briar Green, among others
- Northern High School and Riverdale High School
- Willowdale Shopping Center
- Durham County Library
- Durham Correctional Center

Figure 37 North Durham Study Area and Activity Centers

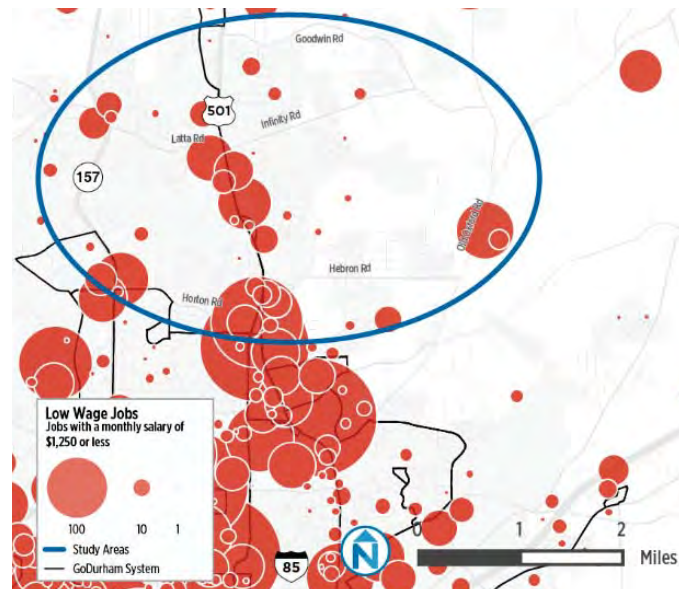


North Duke Shopping Center represents a key transfer point for potential microtransit services to reach Route 9/9A/9B. The commercial area, which includes Food Lion and other stores, at the intersection of Guess Road and Horton Road is also a potential transfer point to Route 9A. The study area has a number of low-income apartment buildings and senior facilities that may represent a market for door-to-door microtransit service.

The North Durham study area has clusters of low-wage jobs (Figure 38), located:

- Along N Roxboro Street just south of Latta Road
- At the intersection of Guess Road and Horton Road around Willowdale Shopping Center
- At the southern part of the study area, around the North Duke Crossing Shopping Center

Figure 38 North Durham Low Wage Jobs





## Residential Market for Microtransit

The North Durham Microtransit Zone has relatively low population density, as shown in Figure 39. The highest density area is the northern portion of the study area along the Infinity Rd corridor. This area includes several residential subdivisions and apartment complexes, including JFK Towers and Seven Oaks Townhomes.

Figure 39 North Durham Population Density

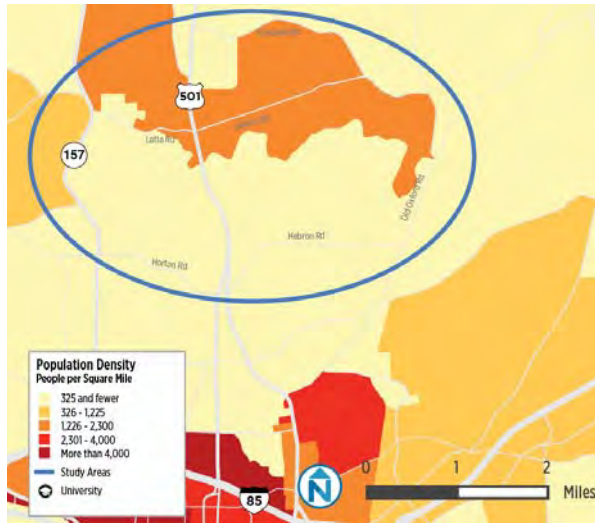
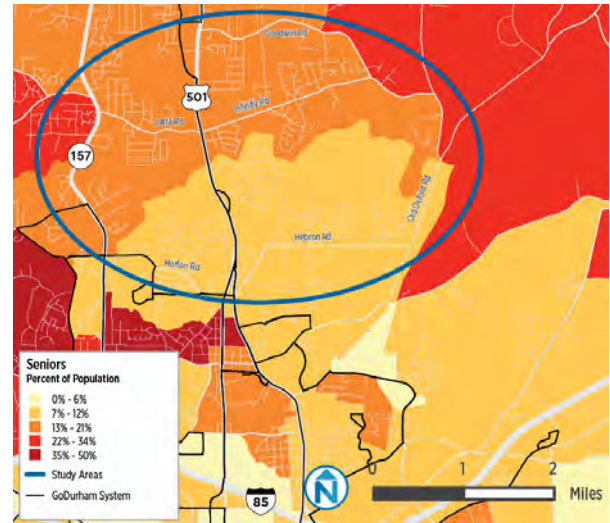


Figure 40 North Durham Senior Population



The project team analyzed socioeconomic characteristics that correlate to greater transit need:

- The study area has a moderate concentration of seniors, aged 65 and older. As shown in Figure 40, seniors represent a greater proportion of the denser areas of the zone, surrounding the Infinity and Latta Rd corridor.
- The study area has a relatively low proportion of people living under 100% of the federal poverty line (see Figure 41). Low-income populations are concentrated along the southern part of the zone, south of Hebron Rd, and include the Briar Green Apartments and Magnolia Pointe Apartments.

Figure 41 North Durham Low-Income Population

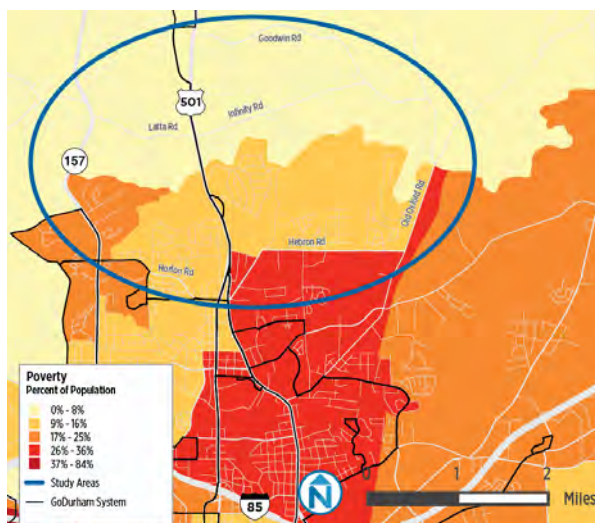
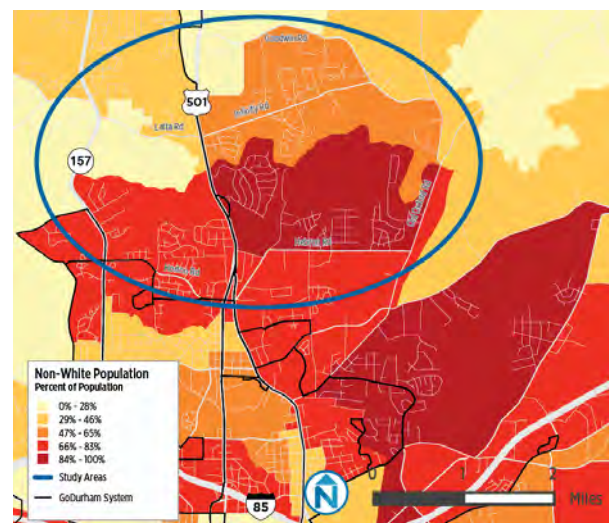


Figure 42 North Durham Non-White Population



- The southern half of the North Durham Microtransit Zone has a relatively high proportion of non-white residents, especially between Infinity Rd and Hebron Rd, as shown in Figure 42. This area has a very low population density, but the vast majority of people who do live in the area are people of color.
- The study area also has a relatively high proportion of people with disabilities throughout the study area (see Figure 43). The area north of Latta Road and west of N Roxoboro Street has both a high proportion of people with disabilities and a relatively higher density of residents.

Figure 43 North Durham People with Disabilities

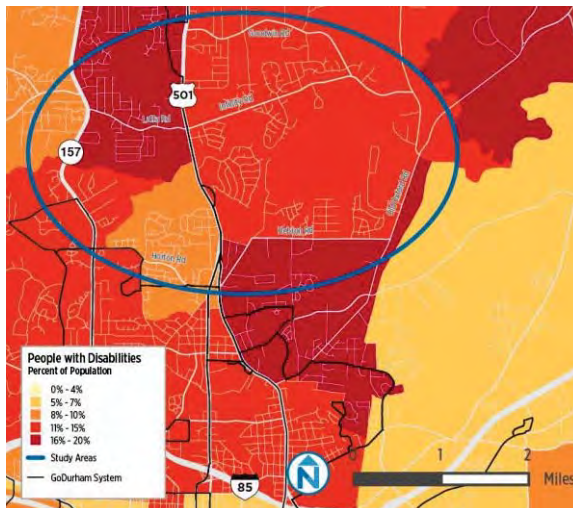
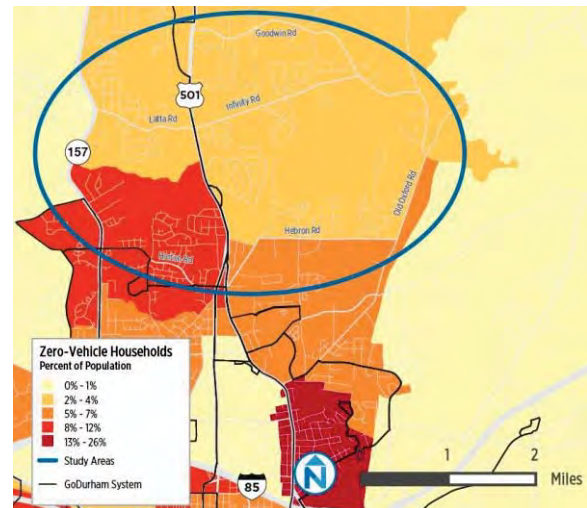


Figure 44 North Durham Zero-Vehicle Households



- The overwhelming majority of North Durham households own at least one vehicle, as shown in Figure 44. The southwestern part of the zone has the highest proportion of households with no vehicles.

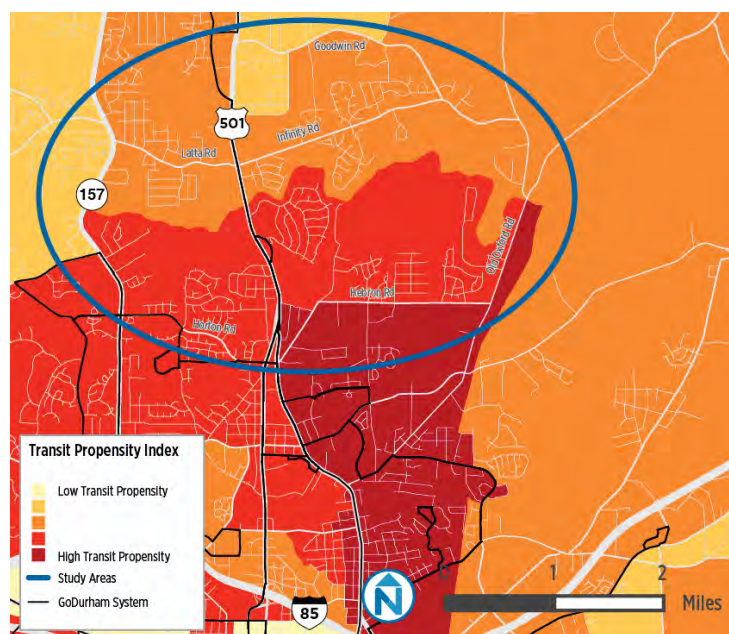
Figure 45 North Durham Transit Propensity Index

Combining the five socioeconomic characteristics described above, the North Durham Microtransit Zone has a relatively high transit propensity index. As shown in Figure 45, the southern half of the study area has the highest transit propensity, as well as the places immediately to the south of the study area.

## Existing Transit

The North Durham Microtransit Zone is currently served by the following GoDurham Routes (Figure 46):

- Route 4: Operates along Roxboro St, Carver St, and Duke St, providing direct

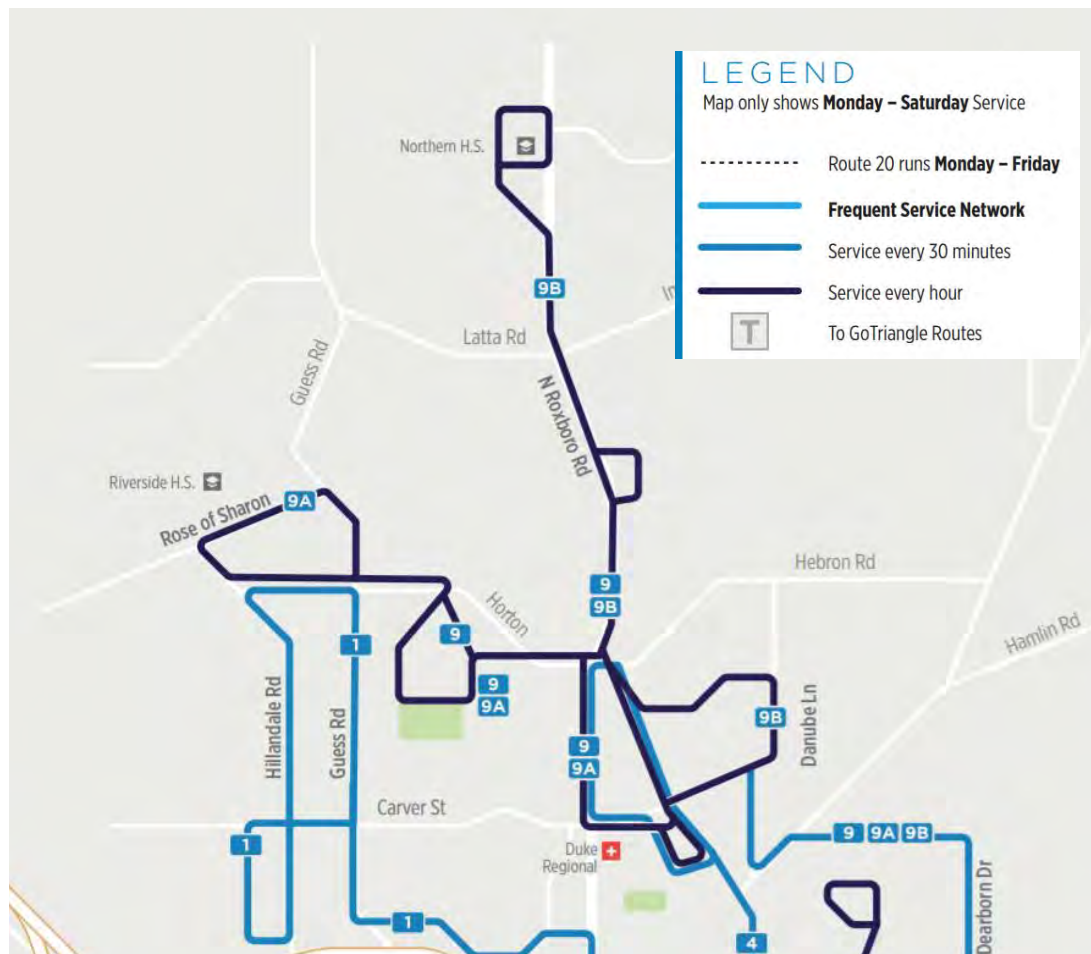




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- service to Duke Regional Hospital and North Duke Crossing. Route 4 operates every 30 minutes from 5:30 AM to 7:00 PM and every 60 minutes from 7:00 PM to 12:30 AM, Monday through Saturday and every 60 minutes from 7:00 AM to 9:00 PM on Sundays.
- **Route 9B:** Running along N Roxboro Rd to Goodwin Rd via JFK Apartments and Northern High School, Route 9B operates every hour Mondays to Saturdays from 5:30 AM to 8 PM. There are also additional trips that only serve Northern High School on school days.
  - **Route 9A:** Route 9A serves the southwest edge of the study area on Horton Road and at Willowdale Shopping Center. Service runs every hour from 5:30 AM to 7 PM on Mondays to Saturdays.
  - **Route 9:** Routes 9A and 9B do not run on Sundays or late evenings on Mondays to Saturdays. Route 9 replaces 9A and 9B and only runs at those times, though not the full routes. Route 9 runs evenings and Sundays once per hour, and only serves as far north as JFK Apartments and as far west as New Castle Rd at Wylderwood Rd.

Figure 46 North Durham Transit Routes



Additionally, Route 1 intersects a small part of the study area in the southwest section, serving Willowdale Shopping Center every 30 minutes on Mondays to Saturdays and every hour on Sundays.

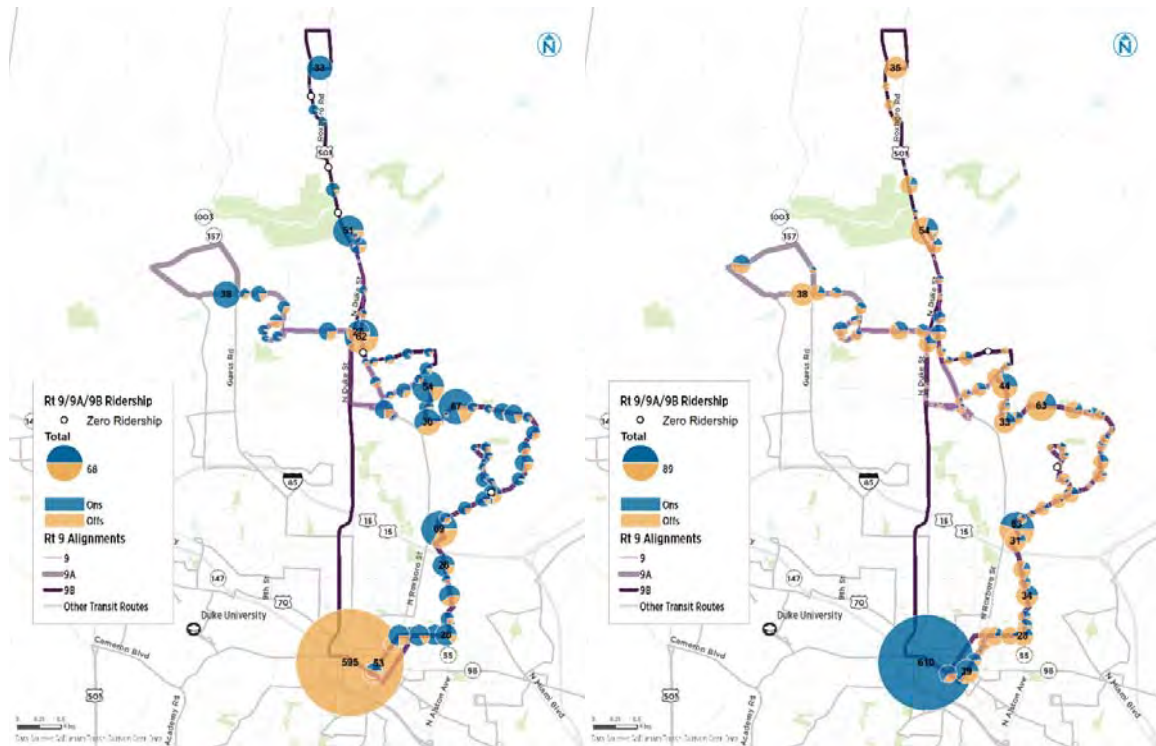


## Ridership on Prior Transit Services

During the development of the SRTP, stop level ridership was assessed for every route in the GoDurham system using APC data from September 2016. Though the schedule for Route 9/9A/9B has been adjusted since then, the routing remains relatively the same.

Route 9 was the fourth highest ridership route in the GoDurham system, but its productivity, or the number of boardings per service hour, is one of the lowest. As shown in Figure 47, the southern half of the route had much higher ridership than the parts of the route that overlap with the study area. Within the study area, the places with a relatively high number of boardings and alightings include near Willowdale Shopping Center, JFK Apartments, North Duke Shopping Center, and Northern High School. Route 1 ridership analysis also showed a relatively high number of boardings and alightings at Willowdale Shopping Center.

Figure 47 Ridership By Stop of Old Route 9/9A/9B, Inbound (Left) and Outbound (Right)



## 4 Service Design

### OVERVIEW

Effective microtransit can act as a complement to fixed route service. It can help meet the mobility needs of customers who may have lost their bus route, or who live just beyond a reasonable walking distance to the closest bus route. Low density areas can be difficult to serve with a large bus, and on-demand technology using smaller vehicles offers a low-cost innovative solution to serve areas with lower demand.

For this effort, the project team looked at several factors, including a range of service delivery models and approaches to service design. The team also reviewed peer agencies that are offering similar on-demand services, as shown in Appendix A. Four service delivery models and four service design approaches were considered. Two approaches were identified to consider within each proposed geographic zone.

### On-Demand Service Delivery Models

On-demand service, as with other types of public transportation services, is delivered in four primary ways in the United States. These service delivery methods range from complete ownership to fully contracted service. Geographical parameters and pricing of the service can be designed to function in much the same way across all models, although different delivery methods may have consequences for other aspects of the digital and physical user experience, as well as service characteristics like wait times and hours of operation. To the municipality or transit provider, these service delivery methods have a significant impact on cost and general oversight requirements.

- **In-House Operation:** The City or agency acts as the sole entity responsible for all aspects of public transportation operations, employing every position, owning every vehicle, and managing all compliance and oversight requirements.
- **Hybrid:** The City or agency contracts with a private entity for a subset of transportation management and operations. For microtransit, many agencies enter contracts with transportation technology companies for software and trip booking algorithm support. The agencies often provide vehicles and drivers in-house.
- **Turnkey Contract:** The City or agency contracts with a private transportation provider offering a full software platform and dedicated vehicles for the day-to-day management of the public transportation service and only remains responsible for the administration of the contractor and the assurance of all compliance and oversight requirements.
- **Ride-Hail Company Contract:** The City or agency contracts with a ride-hail provider, such as Uber or Lyft, offering its standard consumer-facing software and non-dedicated vehicles for the day-to-day management of the public transportation service and only remains responsible for the administration of the contractor and the assurance of all compliance and oversight requirements.



As shown in Figure 48, each on-demand operating model has benefits and challenges with regards to capital and staffing needs, costs, software needs, service quality, and launch timeline.

Figure 48 On-Demand Operating Models

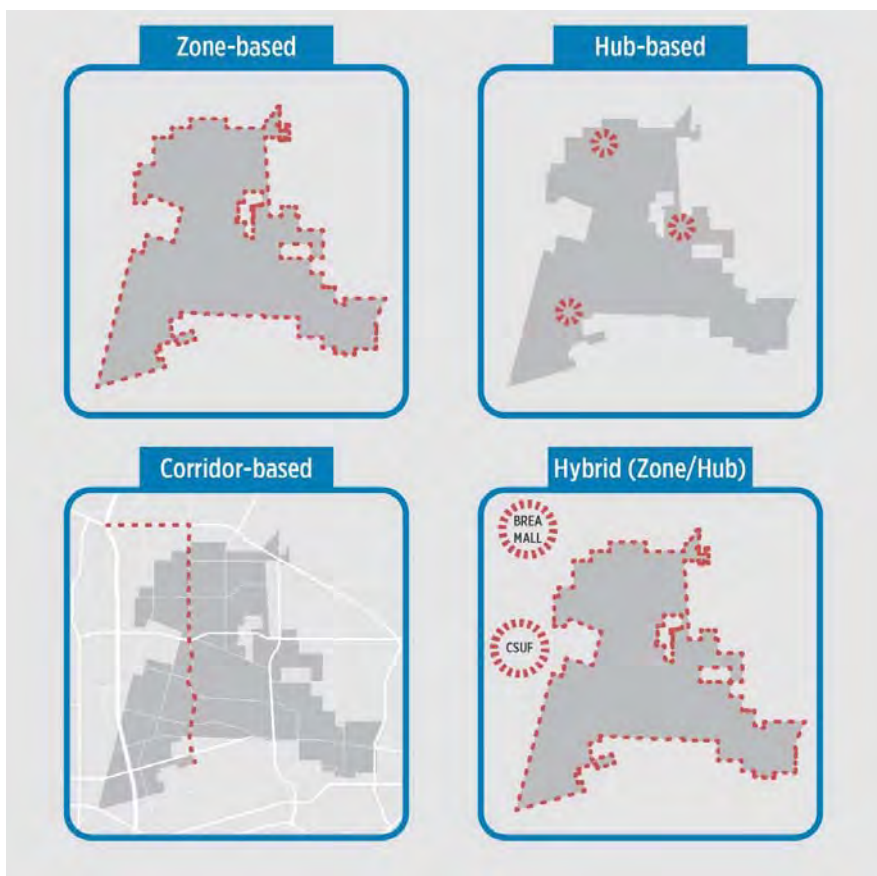
In-House	Hybrid	Turnkey	Ride-hail
<p>Agency provides and manages vehicles, drivers, brand, payment system, marketing, customer service.</p> <p>Procure custom app and dispatch software.</p> <p><b>Pros:</b></p> <p>Most agency control over service experience, brand, data. Clear regulatory compliance.</p> <p><b>Cons:</b></p> <p>Highest capital and staff costs. Long time to launch. High per-ride costs &amp; wait-times, limited service hours &amp; coverage. Less sophisticated software and dispatch optimization.</p>	<p>Agency provides and manages vehicles, drivers, brand and marketing, customer service.</p> <p>Partner provides off-the-shelf app and dispatch software, payment system.</p> <p><b>Pros:</b></p> <p>Good agency control over service experience, brand, data. Better software and dispatch optimization. Clear regulatory compliance.</p> <p><b>Cons:</b></p> <p>High capital and staff costs. Long time to launch. High per-ride costs &amp; wait-times, limited service hours &amp; coverage.</p>	<p>Turnkey contractor provides dedicated vehicles, drivers, app and dispatch software, brand, payment system, and customer service.</p> <p><b>Pros:</b></p> <p>Lower capital and staff costs. Moderate time to launch. Better software and dispatch optimization. Polished end-to-end experience with some agency customization. Moderate operating economics.</p> <p><b>Cons:</b></p> <p>Less agency control over service experience, brand, data. Moderate per-ride costs, wait-times, hours and service coverage. Some regulatory complexity.</p>	<p>Non-dedicated TNC fleet serves rides meeting agency criteria, invoices agency based on agreed-upon subsidy structure.</p> <p>TNC provides app and dispatch software, brand, payment system, and customer service.</p> <p><b>Pros:</b></p> <p>Lowest capital and staff needs. Quick to launch. Most sophisticated software. Lowest-per ride costs and wait times. Best hours and coverage. Familiar to many riders.</p> <p><b>Cons:</b></p> <p>Least agency control over service experience, brand, data. Regulatory limitations.</p>

## Zone Design Models

Once an on-demand service delivery model is selected, agencies have multiple options for how they can design on-demand zones, based on the goals of the service and the needs of the area being served. Figure 49 shows a diagram of the following four potential zone design models:

- **Zone-based:** Rides are provided anywhere within the zone boundaries, with pick-ups and drop-offs not constrained to any specific stop as long as they are in the zone boundary.
- **Hub-based:** Rides are provided between specific hubs, or stops, within a zone. Hubs are usually activity centers or existing transit stops.
- **Corridor-based:** Rides are provided along a specific corridor within the service area. Pick-ups and drop-offs must be along the corridor. Corridor-based design usually replaces an existing fixed-route bus route.
- **Hybrid:** A combination of the above three zone designs. A hybrid zone/hub design can include rides that must either start or end at a hub, with the other end of the trip unrestricted. Hubs can be within the zones or outside of the zones.

Figure 49 On-Demand Zone Design Models



## GoDurham Operational Requirements

GoDurham is planning to design this on-demand service as an extension of its fixed route network. Thus, any type of on-demand service implemented in Durham must consider the following operational requirements:

- Accept GoDurham fare media and allow GoDurham to collect fare revenue for different prices for different rider groups, as well as from GoPasses and mobile payment.
- Ensure equitable access for unbanked customers.
- Ensure youth under age 18 can ride without an adult.
- Comply with Title VI requirements: non-smartphone bookings, wheelchair accessible vehicles.
- Be scalable to be operated in multiple zones.

Additionally, GoDurham intends to implement one of the studied on-demand zones by January 2021 and has budgeted \$125,000 for a year of service in this zone. Due to a relatively tight implementation timeline and budget constraint, this study chose to focus on the turnkey and ride-hail service delivery models to explore further. Other delivery models can be revisited once initial zones are successful and GoDurham would like to further invest in on-demand service. For the zone design, the study focuses on the zone-based and hybrid models as they best fit the low-density, high transit need nature of the three study areas.

## SERVICE DESIGN SCENARIOS

To design a service that best fits the context of Durham, two operational service design scenarios are created and applied to the three study areas, each with a refined service boundary. These scenarios are then evaluated based on the goals and objectives of the study.

### Operational Service Design

As shown in Figure 50, two service design scenarios were created, one designed around a ride-hail partnership and the other around microtransit provided by a turnkey contractor.

#### Scenario 1: First Mile/Last Mile Ride-Hail Model

This ride-hail partnership model involves a GoDurham subsidy of ride-hailing trips whose origin and destination lies within the-defined service area, provided that the trip starts or ends at a transit stop. This model has a similar service span to the fixed route bus service, so that customers may have a first mile/last mile option whenever using fixed route.

#### Scenario 2: Community Connections Microtransit Model

This turnkey model is designed to use microtransit to connect customers to fixed route transit or other destinations within the zone. Rides are not restricted to bus stops, as long as they remain within the zone. Due to cost considerations, service spans are more limited than existing fixed route service.

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Figure 50 Service Design Scenarios

	Scenario 1: First Mile/Last Mile	Scenario 2: Community Connections
Operator	Ride-hailing companies (such as Lyft, Uber, and taxis)	Turnkey contractor (such as Via)
Operation Model	Hybrid (zone/hub) – rides anywhere within the zone that starts or end at an existing transit stop. Rides will mostly be solo, with potential for some shared rides. No ride caps.	Zone-based – rides starting and ending anywhere within the zone. Rides are designed to be shared, but maybe be solo depending on demand. No ride caps.
Service Span	M-Sa: 5:30AM to 12:30AM Sun: 7AM to 9PM (Same as fixed route service)	M-Sa: 7AM to 8PM Sun: 8AM to 7PM
Fares	Free, if the ride is under \$12 - Since the service is designed for first mile/last mile, most people will pay a fare through their typical fare medium once they transfer to fixed route.	Follows GoDurham's existing fare structure – a single trip is \$1, and all discounts and passes apply.
Fare Medium	Overwhelming majority of trips will be free, but for trips that are over \$12, the prepaid card or credit card on file will be charged.	All existing GoDurham fare mediums can be used.
Registration, Booking, and Waiting	Trips can be booked via an app or phone call, either scheduled in advance or on-demand. The maximum wait time is 15 minutes, with most waits below 10 minutes. Vehicle tracking is available on the app.	Trips can be booked via an app or phone call, either scheduled in advance or on-demand. The maximum wait time is 15 minutes, with most waits below 10 minutes. Vehicle tracking is available on the app.
Integration with GoDurham Services	Trips must start or end at an existing transit stop.	Free transfers to GoDurham fixed route services through existing fare mediums.
Access (age and ADA)	Service is open to all, but customers who are under 18 or use wheelchairs must book through a taxi company rather than Lyft or Uber.	Service is open to all, and vehicles will be wheelchair accessible.
Data Sharing Requirements	Origin-destination and other trip statistics will be shared with GoDurham.	Origin-destination and other trip statistics will be shared with GoDurham.



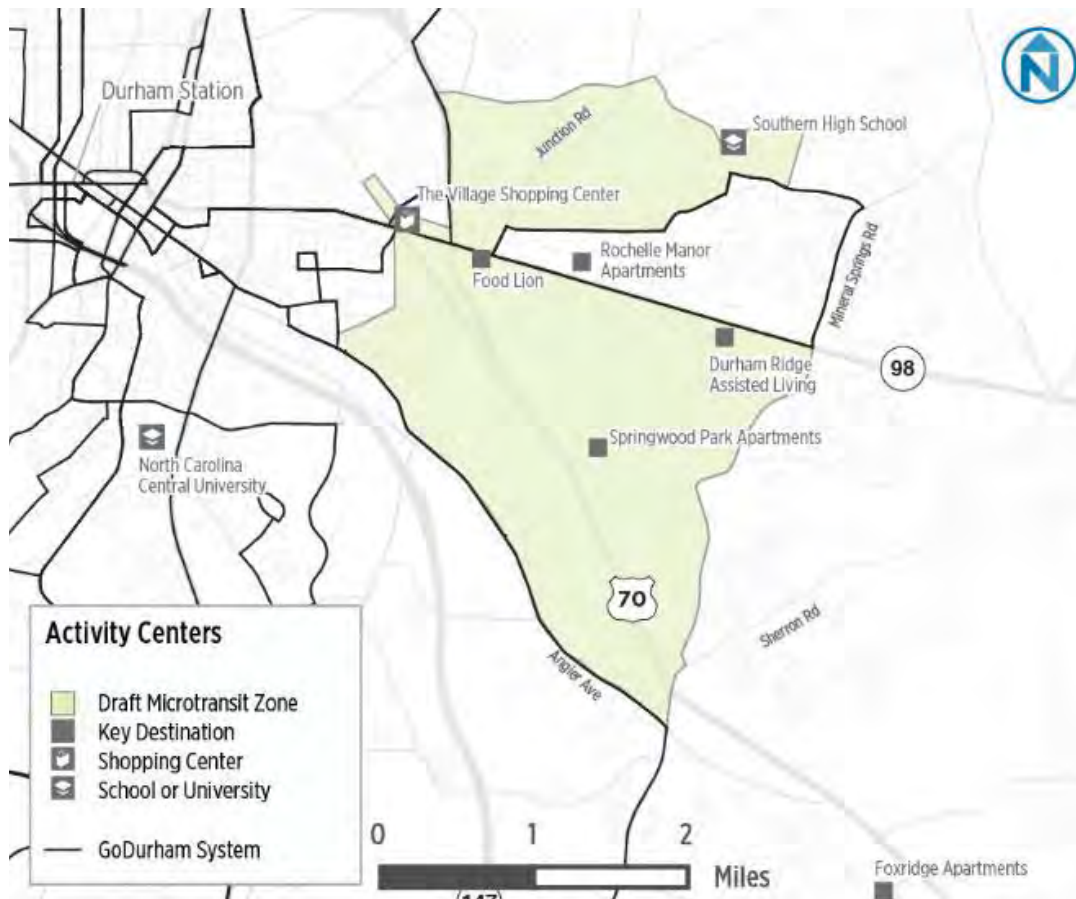
## Zone Design

Preliminary on-demand service zones were developed in accordance with market review findings and identified potential service types, including a zone-based model and a hybrid zone/hub-based model. Preliminary service zones were designed to provide first- last-mile connections to existing fixed-route service, provide service in high transit propensity areas, and improve connections to key activity centers within the study areas. The preliminary service zones were refined based on their potential for successful implementation, ability to complement existing fixed-route transit service, and potential to meet the unique needs of the community.

### East Durham Service Zone

The East Durham Service Zone, as shown in Figure 51, is a roughly 6.4 square mile area in East Durham. The zone is roughly bounded by Angier Ave to the south, Mineral Springs Rd to the east, Clayton Rd and Cheek Rd to the north, and Gary St to the west. The zone was designed to exclude the area within the Route 3B loop to provide complementary service without jeopardizing performance of the existing fixed-route service. The service zone includes transfer hubs with high frequency service on Routes 3, 3A, and 3B at the Village Shopping Center and with Route 2 at Angier Ave & Guthrie Ave. The zone also includes a potential hub further to the east at John W Neal Middle School on NC 98, which is currently outside of the GoDurham service area.

Figure 51 East Durham Service Zone



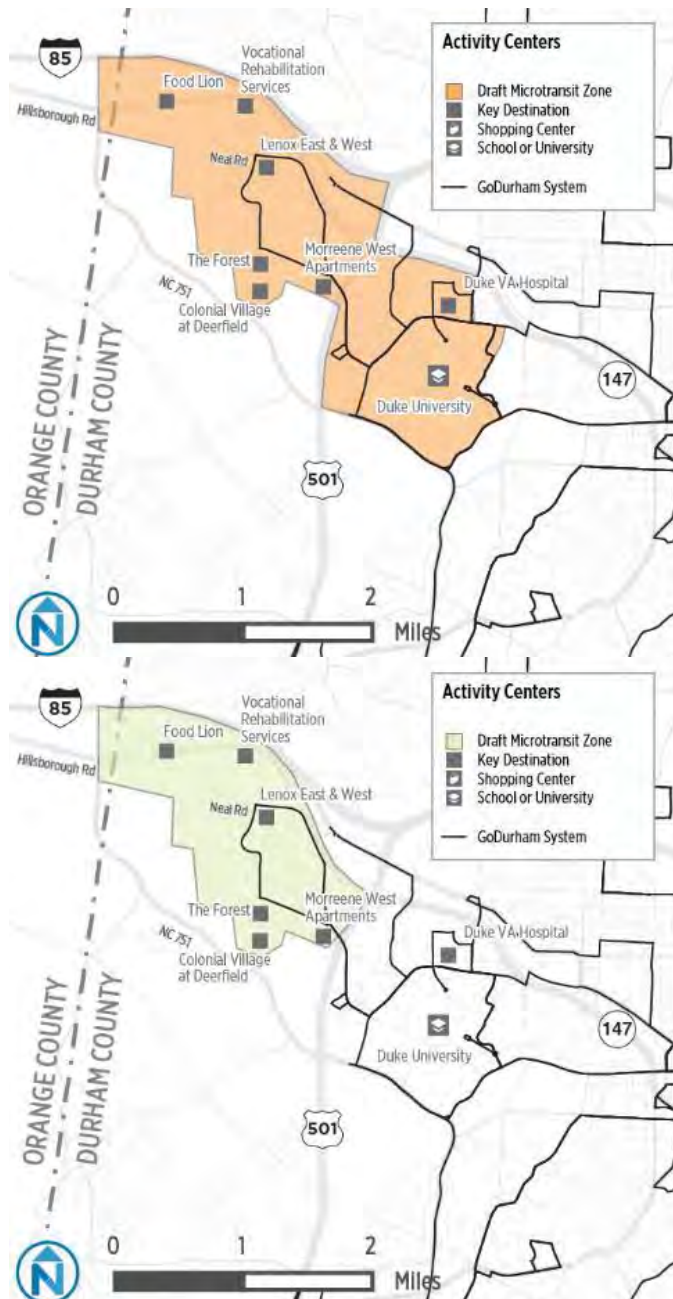


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### Sparger Road Service Zones

Two Sparger Road Service Zones, as shown in Figure 52, were developed to assess potential trade-offs associated with directly serving the Duke University campus and hospital system (Sparger Road Zone 1) or limiting service to a smaller zone located to the west of Hwy 501 and to the south of I-85 (Sparger Road Zone 2). Sparger Road Zone 1 is approximately 3.9 square miles and overlays service on Route 6, 11, and 11B, including connections to high frequency transit service on Erwin Rd where Routes 11 and 11B overlay. Sparger Road Zone 2 is approximately 2.0 square miles and provides a connection to Route 11B.

Figure 52 Sparger Road Service Zones 1 and 2

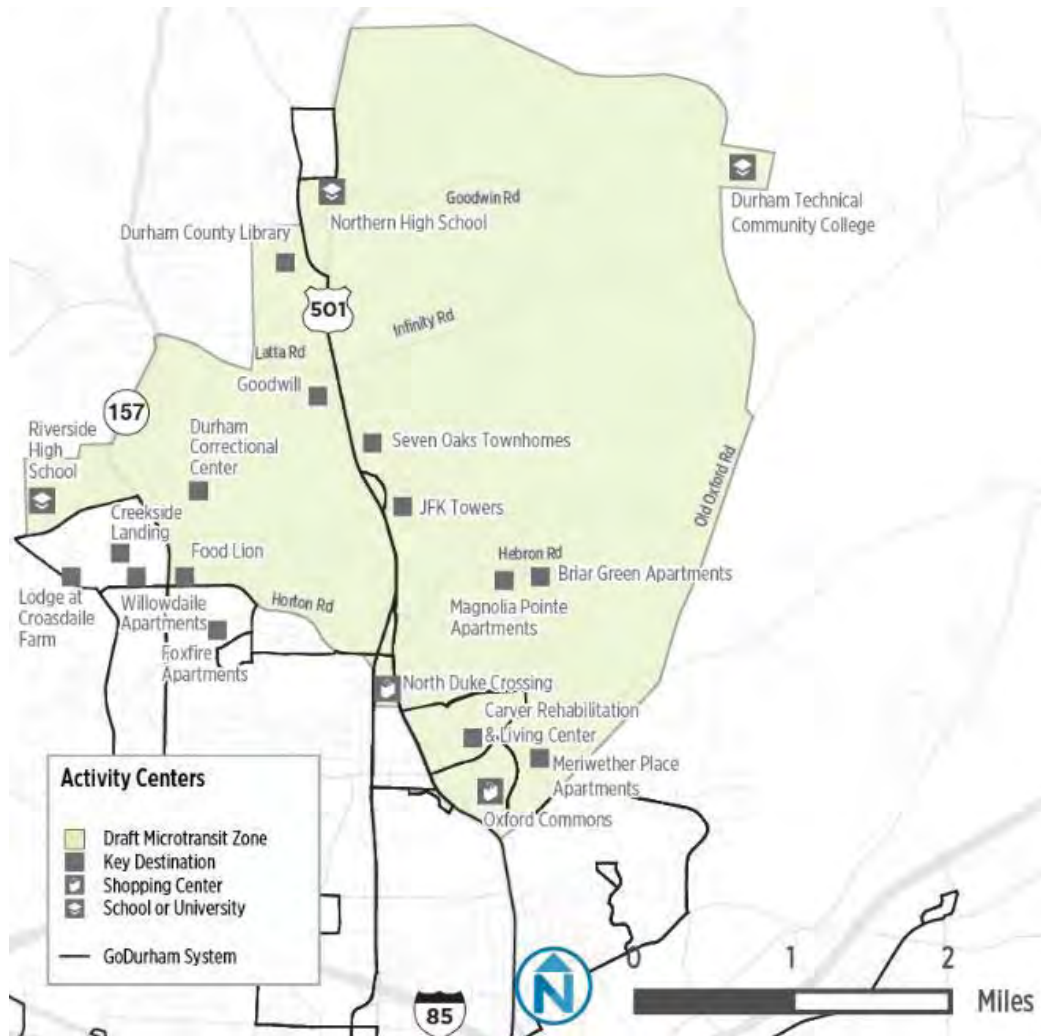


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### North Durham Service Zone

The North Durham Service Zone, as shown in Figure 53, is a roughly 13.6 square mile zone bounded by Snow Hill Rd to the north, Old Oxford Rd to the east, Horton Rd and Roxboro Rd to the south, and Guess Rd to the east. The zone includes Riverside High School, Northern High School, Durham Technical Community College, North Duke Crossing, and Oxford Commons as key destinations. The zone provides connections to fixed-route service on Routes 9, 9A, 9B, and 4 at North Duke Crossing and Oxford Commons.

Figure 53 North Durham Service Zone



## 5 Evaluation

Each of the four on-demand zones were evaluated according to specific criteria designed to align with the four identified study goals and objectives:

1. Make Service More Convenient
2. Connect People to Life's Activities
3. Design an Equitable Service that Improves Access to Opportunity
4. Create a Model that will be Sustainable

The findings for these evaluation metrics are shown below in Figure 54, Figure 55, Figure 56, and Figure 57.

### METHODOLOGY

Evaluation criteria cover a range of assessments including quantitative statistics regarding existing service, demographics, as well as projected ridership and costs. While service performance, productivity, and costs are important considerations, the evaluation criteria also considered several qualitative characteristics, including convenience, modal integration, and potential for future partnerships and public support. Evaluations were performed for each geographic zone and for the two most feasible operator models: Ride-Hail Partnerships and Microtransit Partnerships. The following briefly discusses the main methodologies for scenario evaluation.

- **Market analysis:** For metrics that evaluated the number of people or jobs within the zone, within the fixed route walkshed, or outside of the existing fixed route walkshed, the analysis is conducted using data and results from the market review and SRTP. The fixed route walkshed is within one-quarter mile of a bus stop, or about a five-minute walk.
- **Ridership estimates:** On-demand services are relatively new to the transit field, and ridership is difficult to estimate due to the nature of these services. As a part of this study, a high-level ridership estimation was developed by looking at existing transit ridership and potential new riders based on the proportion of population and jobs without easy access to fixed route service within each zone. This mode share was also adjusted due to factors that differ between fixed route and on-demand services, as well as different service spans. A review of peer agency services also helped to understand ridership from similar projects in other cities. Additionally, new transit services and technologies take time to reach their full ridership potential. Due to the Covid-19 pandemic, the adoption rate will likely be even slower, so ridership is estimated at a lower level for the first year of adoption and is anticipated to grow in future years as transit regains lost ridership.
- **Cost estimates:** Cost estimates are based on ridership estimates and the experiences of other local or peer agency projects. Ride-hail costs are calculated based on a per-trip average cost for the area, and microtransit costs are calculated based on a per-hour average cost from peer agencies.
- **Qualitative analysis:** The scenarios and zones are compared in a relative manner, based on characteristics of the service model and zones, as well as experiences in peer cities that have implemented on-demand service.

Figure 54 Make Service More Convenient – Evaluation Criteria Matrix

Objective	Criteria	East Durham	Sparger Road 1	Sparger Road 2	North Durham
Preserve and enhance mobility for current customers	Qualitative description of current fixed-route frequencies and estimated wait times	<ul style="list-style-type: none"> <li>15-minute frequency between the Village Shopping Center and Durham Station</li> <li>30-minute frequency on all other routes throughout the zone</li> <li>Average wait times would decrease for microtransit service but may require a transfer</li> </ul>	<ul style="list-style-type: none"> <li>15-minute frequency on Erwin Road east of La Salle Street</li> <li>30-minute frequency on all other routes throughout the zone</li> <li>Average wait times would decrease for microtransit service but may require a transfer</li> </ul>	<ul style="list-style-type: none"> <li>30-minute frequency on Route 11B</li> <li>Average wait times would decrease for microtransit service but may require a transfer</li> </ul>	<ul style="list-style-type: none"> <li>30-minute frequency on combined Route 9, 9A, 9B alignment and Route 4</li> <li>Average wait times would decrease for microtransit service but may require a transfer</li> </ul>
	Ridership at existing transit stops within the zone	1,053	1,183	141	489
Expand coverage to areas not served by fixed route	# of additional residents outside fixed-route walkshed	7,074	1,324	586	13,083
	# of additional jobs outside fixed-route walkshed	895	1,169	1,157	787
	Projected on-demand ridership within zone	<b>Scenario 1: Ride-Hail Partnership</b>			
		<i>First year</i>			
		<ul style="list-style-type: none"> <li>36 per day</li> <li>13,200 per year</li> </ul>	<ul style="list-style-type: none"> <li>8 per day</li> <li>2,900 per year</li> </ul>	<ul style="list-style-type: none"> <li>6 per day</li> <li>2,000 per year</li> </ul>	<ul style="list-style-type: none"> <li>25 per day</li> <li>9,100 per year</li> </ul>
		<i>1-2 Years</i>			

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Objective	Criteria	East Durham	Sparger Road 1	Sparger Road 2	North Durham
		<ul style="list-style-type: none"> <li>120 per day</li> <li>44,000 per year annual</li> </ul>	<ul style="list-style-type: none"> <li>26 per day</li> <li>9,600 per year</li> </ul>	<ul style="list-style-type: none"> <li>18 per day</li> <li>6,700 per year</li> </ul>	<ul style="list-style-type: none"> <li>83 per day</li> <li>30,300 per year</li> </ul>
		<b>Scenario 2: Microtransit Partnership</b>			
		<i>First year</i>			
		<ul style="list-style-type: none"> <li>33 per day</li> <li>12,000 per year</li> </ul>	<ul style="list-style-type: none"> <li>7 per day</li> <li>2,600 per year</li> </ul>	<ul style="list-style-type: none"> <li>5 per day</li> <li>1,800 per year</li> </ul>	<ul style="list-style-type: none"> <li>23 per day</li> <li>8,300 per year</li> </ul>
		<i>1-2 Years</i>			
		<ul style="list-style-type: none"> <li>100 per day</li> <li>36,100 per year</li> </ul>	<ul style="list-style-type: none"> <li>22 per day</li> <li>7,900 per year</li> </ul>	<ul style="list-style-type: none"> <li>15 per day</li> <li>5,500 per year</li> </ul>	<ul style="list-style-type: none"> <li>68 per day</li> <li>24,800 per year</li> </ul>
Improve the customer experience	Qualitative assessment of level of improvement	<b>High;</b> Extends first-last-mile service in high transit propensity neighborhood to existing high-frequency transit	<b>Low;</b> Overlaps large areas of high-frequency transit service near Duke University, extends first-last-mile service on Sparger Road corridor	<b>Medium;</b> Extends first-last-mile service on Sparger Road corridor with less service duplication than Sparger Road 1	<b>High;</b> Extends first-last-mile service in high transit propensity neighborhood serving multiple high schools and high ridership retail employment hubs
	Number of riders from recently removed stops	57	63	63	0
Integrate experience with other modes	Qualitative Assessment	All service zone geographies provide opportunities to integrate with existing modes			

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Figure 55 Connect People to Life's Activities – Evaluation Criteria Matrix

Objective	Criteria	East Durham	Sparger Road 1	Sparger Road 2	North Durham
Improve access to jobs	# of jobs within zone	1,760	41,121	1,507	4,656
Connect people to healthcare and social services	# of healthcare and social services within zone	<ul style="list-style-type: none"> <li>▪ Durham Ridge Assisted Living</li> </ul>	<ul style="list-style-type: none"> <li>▪ Vocational Rehabilitation Services</li> <li>▪ Duke Hospital System</li> </ul>	<ul style="list-style-type: none"> <li>▪ Vocational Rehabilitation Services</li> </ul>	<ul style="list-style-type: none"> <li>▪ Carver Rehabilitation and Living Center</li> </ul>
Design service that will benefit the largest number of people	# of residents within zone	11,914	8,926	3,582	19,544
Improve connections to fixed-route network	# of connections to fixed-route service	Route 2, 3, 3B	Route 6, 11, 11B	Route 11B	Route 9, 9A, 9B, 4
	# of connections to high frequency transit	1	1	0	0

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Figure 56 Design an Equitable Service that Improves Access to Opportunity – Evaluation Criteria Matrix

Objective	Criteria	East Durham	Sparger Road 1	Sparger Road 2	North Durham
Create shared economic prosperity for disadvantaged populations	# of low wage jobs within zone	479	2,588	205	1,227
Address safety concerns around microtransit	Wait times	Maximum wait time standard of 15 minutes would be consistent between all zone geographies. Average wait times may vary within zones and are estimated at approximately 7.5 minutes.			
Build partnerships within each zone to encourage use and improve service	Qualitative assessment of potential partnerships	<b>Medium</b> ; Potential Partners – The Village Shopping Center, Housing complexes	<b>High</b> ; Potential Partners – Duke University, Vocational Rehabilitation Services, Housing complexes	<b>Low</b> ; Potential Partners – Vocational Rehabilitation Services, Housing complexes	<b>High</b> ; Potential Partners – North Duke Crossing, Oxford Commons, Durham Technical Community College, Housing complexes
Ensure fares are accessible and affordable	Offers payment alternatives, low-income fares, and ease of integration with transit system fare structure	Fare integration can be applied consistently across all zone geographies. Fare structure integration is feasible for both Scenario 1: Ride-Hail Partnership and Scenario 2: Microtransit Partnership. Because of the availability of fare box equipment on microtransit vehicles, it will be simpler to facilitate fare integration in Scenario 2: Microtransit Partnership.			
Design service to meet the needs of those with the fewest mobility options	# number of residents within socioeconomic groups with higher transit propensity	11,070 people of color 1,168 seniors 5,048 poverty in poverty 990 disabled people 434 zero-vehicle households	6,664 people of color 800 seniors 3,852 poverty in poverty 1,116 disabled people 447 zero-vehicle households	1,503 people of color 474 seniors 1,476 poverty in poverty 777 disabled people 245 zero-vehicle households	14,228 people of color 2,575 seniors 9,299 poverty in poverty 1,430 disabled people 1,067 zero-vehicle households



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Figure 57 Create a Model that will be Sustainable Over the Long-Term – Evaluation Criteria Matrix

Objective	Criteria	East Durham	Sparger Road 1	Sparger Road 2	North Durham
Understand the financial and technical feasibility of on-demand mobility options	Operating cost per trip	<b>Scenario 1: Ride-Hail Partnership</b>			
		\$8	\$8	\$8	\$8
		<b>Scenario 2: Microtransit Partnership</b>			
		\$23	\$106	\$151	\$33
	Annualized cost (first year of service)	<b>Scenario 1: Ride-Hail Partnership</b>			
		\$119,000	\$26,000	\$18,000	\$82,000
		<b>Scenario 2: Microtransit Partnership<sup>1</sup></b>			
		\$277,000	\$277,000	\$277,000	\$277,000
Develop services that achieve a high level of public support	Qualitative assessment based on public engagement process	Ability to generate public support will be determined during the public involvement process. Generating public support and ridership on the service will require significant marketing efforts by the agency. The East Durham Service Zone was previously served with an on-demand pilot and may have a higher level of public support as a result.			
Learn and test new strategies for leveraging technology to improve the customer experience		Experience testing new strategies and technologies will be consistent between service zone geographies.			
Generate additional data to understand transit demand and travel flows	Produces data to help support agency planning efforts	Data produced from new service will be consistent between service zone geographies.			
Gain experience collaborating and contracting with private-sector mobility companies		Experience with private-sector mobility companies will be consistent between service zone geographies.			

<sup>1</sup> Estimated demand for service is not sufficiently high in any of the four on-demand service zones to warrant more than one microtransit vehicle.

## EVALUATION RESULTS

### Operator Model

The service scenario evaluation has identified several trade-offs between ride-hail partnerships and microtransit partnerships in terms of affordability, scalability, ridership potential, and agency oversight.

#### Ride-Hail Partnership

Ride-hail partnerships represent an affordable, scalable service with a higher ridership potential than microtransit partnerships. Ride-hail partnerships are relatively affordable because the agency does not pay the full amount of operator wages. Instead, the agency provides defined subsidies for eligible trips within the on-demand zone. While this model provides service at a lower cost to the agency, it gives the agency less control over service operations. In these partnerships, the agency does not control dispatching and cannot ensure a specific number of vehicles will be present in the zone at any given time. This makes monitoring performance standards more difficult compared to microtransit partnerships, although the potential for superior wait times is strong under this model, given the large number of vehicles operating on ride-hail platforms at any given time in the region.

As ride-hail services like Lyft and Uber have become ubiquitous throughout many communities, potential riders have become more comfortable riding these services. This presents an opportunity for higher initial ridership through a ride-hail partnership than a microtransit partnership, with which potential passengers may be less familiar.

#### Microtransit Partnership

Microtransit partnerships are more expensive to operate than ride-hail partnerships and may therefore need to be designed with more limitations on service hours, frequency and coverage to contain cost, but they create a stronger extension of the agency's brand, allow greater control and operational oversight, and allow for more seamless integration of existing fare media within the service. Microtransit service operators are paid for the full amount of time service is operating, not just while transporting passengers like ride-hail operators. This difference in operator wage structures makes microtransit partnerships significantly more expensive than ride-hail partnerships.

Unlike ride-hail partnerships, microtransit partnerships provide a dedicated service with greater agency oversight. In these kinds of partnerships, the agency can ensure every vehicle is ADA compliant, can more easily monitor operating statistics and performance standards, and can ensure a specific number of vehicles are in service at any given time. Microtransit partnerships allow the agency to extend their branding to vehicles operating the service. This makes the service more visible to potential passengers and improves marketing. Additionally, microtransit service is capable of incorporating on-board farebox equipment that allows for a seamless integration of the existing fare structure and fare media. Microtransit can work under several operating models ranging from in-house, which is completely managed and operated by the agency; a hybrid with procurement of third-party technology for scheduling, dispatching and fare payment; or turnkey which completely outsources all elements of the service. All three are possible for GoDurham, but turnkey is recommended as it is the least expensive and easiest to implement.

## Geographic Zones

All four on-demand service zones present unique challenges and opportunities for on-demand service.

### East Durham

The East Durham zone has the highest ridership potential of the four geographic zones, with initial ridership estimates in the range of 33 – 36 passengers per day. The zone provides connections to four existing transit routes and one high-frequency transit hub at the Village Shopping Center. Existing fixed-route service in the East Durham zone accounts for over 1,000 daily boardings and appears to be well suited for first- last-mile connections to transit. Additionally, the previous East Durham Connect Pilot makes this area well positioned for marketing the new service to residents. Depending on the operator model, on-demand service in the East Durham zone would have an estimated annual cost of \$119,000 – \$227,000.

### Sparger Road 1

Sparger Road Zone 1 has relatively low ridership potential, with initial ridership estimates in the range of 7 – 8 passengers per day. Many areas within the zone are adjacent to existing fixed-route service operating every 15-30 minutes. This zone includes the largest number of jobs, due to the inclusion of the Duke University campus and numerous Duke health system facilities. Depending on the operator model, operating on-demand service in this zone is estimated to cost between \$26,000 – \$277,000 per year.

Despite the relatively low potential ridership projections based on current mode share estimates, there is a possibility that a subsidized on-demand service could be used for transportation within the Duke Campus, rather than as a first- last-mile connection to fixed-route service. This zone presents a potential risk given the complex dynamics of providing direct service to Duke University. However, Duke University represents a key potential partner for the service in this zone and will be an important stakeholder in any ongoing transit projects in the area.

### Sparger Road 2

Given the small size of the zone and limited population and employment, the Sparger Road Zone 2 has relatively low ridership potential, with initial ridership estimates ranging from 5 – 6 passengers per day. The zone would provide first- last-mile connections from the existing Route 11B to the Sparger Road and Hillsborough Road corridors that were previously served by fixed-route, including the Vocational Rehabilitation Services facility. Sparger Road zone 2 has significantly less overlap with existing fixed-route service than Sparger Road zone 1 and does not include the large employment associated with Duke University and the Duke health system facilities. Depending on the operator model, operating on-demand service in this zone is estimated to cost between \$82,000 – \$277,000 per year.

### North Durham

The North Durham zone is the largest zone analyzed as a part of this assessment and contains the largest total population. This zone has moderate ridership potential, higher than both Sparger Road zones but lower than the East Durham Zone, with initial ridership estimates ranging from 23 – 25 passengers per day. The North Durham zone would provide first- last-mile connections between existing fixed-route transit service and numerous large apartment complexes, retail

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employment centers at North Duke Crossing and Oxford Commons, and educational institutions including Northern High School, Riverside High School, and Durham Technical Community College. Existing ridership at fixed route stops within this zone account for nearly 500 daily boardings. Depending on the operator model, operating on-demand service in this zone is estimated to cost between \$18,000 – \$277,000 per year.

## **Recommended Scenario**

The evaluation criteria established for this Microtransit Planning Study identify the tradeoffs between different operator models and geographic zones. The prioritization for implementation by geographic zone is as follows:

1. East Durham
2. Sparger Road Option 2
3. North Durham

While each of the zones and operator models evaluated are generally supportive of on-demand transit service, a ride-hail partnership in the East Durham zone has been identified as the highest priority scenario for implementation. The high transit propensity, available connections to high-frequency transit service, and local familiarity with on-demand transit service from the East Durham Connect pilot program make the East Durham zone the preferred area for expanding on-demand service operations. The East Durham Connect pilot was significantly more restricted than this proposed service and will serve as a key launching point for on-demand service in the GoDurham service area with significant potential to expand or adjust service as needed.

While Sparger Road Option 2 provides a smaller extension of first- last-mile connections in a lower transit propensity area, the service can be provided at a relatively low cost and would extend service to an area that was previously served by fixed-route bus service. Sparger Road Option 2 represents a low-cost option for replacing removed fixed-route service and should be considered as a part of a phased implementation for on-demand service.

North Durham has moderately high transit propensity and provides connections to numerous employment hubs, shopping centers, and high schools, which all present potential connections and trip generators in the zone. The North Durham zone has a lower ridership potential than the East Durham zone and comes at a higher estimated cost than the Sparger Road zones. This zone should be considered for implementation after marketing efforts for the East Durham and Sparger Roads raise public awareness and acceptance for on-demand service.

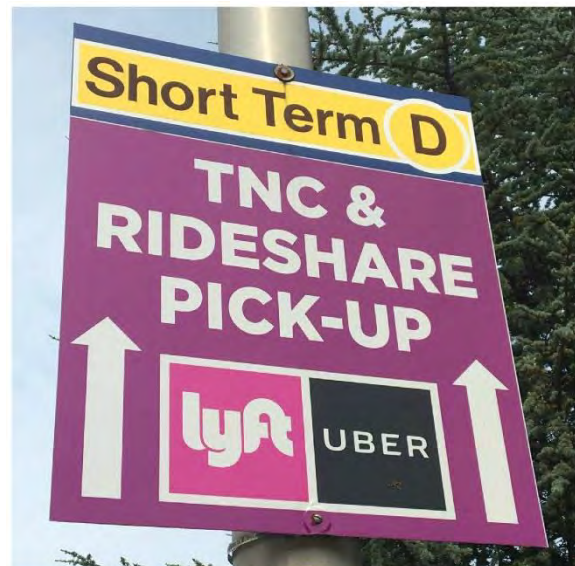
The relatively low costs and scalability of ride-hail partnerships make them the preferred operator model for initiating and adjusting service to meet demand. While there are numerous benefits associated with the microtransit partnership model, the higher operating cost makes this a less feasible option in the short term. As ridership and awareness of on-demand service increases in the region, microtransit partnerships may become a more attractive model, but in the short-term is cost prohibitive. Following implementation, performance and productivity should be monitored continuously and the service parameters, subsidies, zone boundaries, and operator model may be adjusted to reflect potential changes in demand.

## 6 Implementation

This study explored two service models and evaluated their effectiveness in three potential on-demand zones. These proposed service areas were developed based on market demand, community need, and previous studies conducted by GoTriangle. The assessment included a detailed look at the benefits and challenges of the service type, total service cost, and implementation feasibility.

While this effort uses past studies and available data to propose new service concepts, GoDurham must seek public input to refine the design to develop and implement a pilot that puts the needs of the community first. The goals and objectives established at the beginning of the program, along with public input should direct the procurement requirements. Procurement of new services should ensure that all of GoDurham's operational requirements will be met. Services should also provide GoDurham staff with the flexibility to modify service design, including changes to the service area boundary, span of service, and fare structure, including ride caps in order to adapt as users test the new service and issues or opportunities are identified. Given the variety of potential operator types that may be interested in bidding on this service, the agency may wish to craft the procurement documents broadly enough such that taxis, turnkey microtransit providers, and taxi companies are all able to respond, allowing the agency to compare the offerings of these different vendors before selecting one or more of them. The RFP should also include specific language directing the service provider to disseminate agency designed surveying consistent with the ongoing annual and triennial customer experience and satisfaction surveys in the region. Finally, the new service should provide the agency with ample and timely data to inform ongoing evaluation of the service, the content, frequency, and format of which should be specified in the RFP and contract documents to ensure upfront alignment in agency and contractor expectations.

New on-demand service will require additional agency resources beyond a contract for services. Bus stops within the zone will need to be identified as pick up and drop off points. These locations will need updated wayfinding, signage, and possibly additional investments in seating, sidewalk infrastructure and enhanced lighting for riders to safely wait to transfer between services. Other resources will need to be invested in marketing and community outreach to introduce and promote the new service. New service also presents an opportunity for interagency coordination to promote wider regional travel. On-demand services in East Durham provide an opportunity to connect riders to GoTriangle services – the agencies should work together to consider app integration and fare policies that allow for cross-agency service connections.



Ride-hail wayfinding signage at T.F. Green Airport (Warwick, RI)



## PUBLIC ENGAGEMENT

This study is conducted during the Covid-19 pandemic, a time when typical public engagement efforts cannot be done effectively and will require more time. Thus, the results and recommendations of this study are tentative and should be adapted based on future public input before implementation.

A community survey would help to fine-tune components of new on-demand service including, but not limited to, the following:

- Service Hours – what times of day and days of the week is service needed?
- Booking Preference – would a smartphone be someone's primary booking method? Or would a telephone be a preferred option for booking a trip.
- Willingness to Pay – how much would someone be willing to pay? While fares will be comparable to GoDurham's existing fares, is there an interest to pay more for higher levels of service?
- Wait Time Tolerance -how long are people willing to wait? Is there a threshold where people would look at alternatives unless cost savings were significant?
- Purpose of Use – where are people going? Would services be helpful for personal errands or do people need to connect to locations outside of the zone? How could this service, in combination with fixed route service, facilitate these connections?
- Frequency of Use - how often would people be willing to use the service? One or two times a week, or for daily commuter connections.
- Safety and Comfort – how comfortable are people with riding an agency branded microtransit service or using a ride-hail service to reach a fixed-route bus? How do people perceive their safety using these services or waiting for these services.



## MARKETING

Robust marketing and outreach are essential to ensure that all potential customers know about and understand how to use the service. Promoting any new transit service is important, but unlike fixed route service, on demand transit is less visible and people may not be aware new service has begun. Also, peer experience demonstrates that awareness of the services can have a huge impact on how well it is utilized. Targeted marketing strategies within the zone could include distributing materials to businesses and residences, specifically local employers, housing complexes and other key activity centers. If budget allows, conducting geo-targeted digital advertising could also help raise local awareness.

Promotion of new on demand service should also align with larger marketing efforts to attract riders back to public transit – be creative in making the new normal feel normal, by aligning choosing to ride with the economy or climate change or to provide (socially distanced) human connections again.

## COVID-19

The impact of the COVID-19 pandemic on local and regional transportation systems was immediate: traffic volumes and transit ridership decreased immediately and dramatically. Public transit has benefited from strong public support during COVID-19, being an essential service for frontline workers and others. In June 2020, roughly 70 days after the initial shelter in place directive was issued, businesses and industries are slowly re-opening. Employment, however, has not yet been fully restored. Riders' return to public transportation is expected to be cautious. Public transit systems must identify ways to address safety concerns, attract customers back, and prepare for a new transportation paradigm.

There are new protocols on buses and at transit centers to maintain social distancing and reduce the risk of transmission and protect the health of transit employees and customers. These new measures include reduced capacity on fixed route buses. New policies combined with low ridership and increased cleaning requirements will continue to strain transit agency budgets. Many agencies have already had to reduce service hours and frequency, and on-demand service could be used to both fill in some of these service gaps or to offset fixed route capacity.

Transit riders, like all consumers, need to know the steps that transit agencies are taking to protect them. On-demand service through a third party, is still a part of GoDurham's public transit services. Policies that impact fixed route services should extend to on-demand vehicles, when applicable. These include efforts to maintain social distancing, use of masks, and customers should refrain from using services if they are not feeling well. On-demand service also can provide an affordable alternative for seniors or those who may have health issues and concerns riding a fixed route bus. Contactless fare payment and adjusting vehicle capacity are other features of on-demand service that can help to reduce risk of transmission. While somewhat controversial, on-demand apps could also provide contact tracing to help warn riders if they have been exposed to the virus and reduce the spread of transmission.

Transit agencies are also using on demand services to fill gaps in service due to service reductions and to meet immediate community need. By modifying existing on-demand services, agencies have been able to bring healthcare workers directly to hospitals or provide seniors with trips for essential services. The Central Ohio Transit Agency (COTA) expanded their COTA/Plus on-demand pilot to a second zone to specifically mitigate COVID-19 related service reductions. LA Metro also adapted its microtransit service to three train stations by providing direct rides to essential services and jobs. On-demand service offers a way to respond to transit need in times of public health crises and to also creatively meet mobility needs when fixed route service is not available or needed.

Flexibility is perhaps on-demand transit's biggest asset, and as new transportation patterns emerge from the pandemic, fixed route demand will change. GoDurham will be able to utilize lessons learned from its on-demand services to explore new, innovative ways to create a more responsive and resilient transit system for the future. On-demand service operates very differently than fixed route, and the success or failure of GoDurham's new zone based service should be determined based on performance metrics that go beyond ridership or fares, such as improved mobility, increased safety, and enhanced customer experience. The peer agencies identified in Appendix A may provide relevant examples for on-demand service performance standards, but metrics should be tailored to reflect the unique goals and characteristics of the agency.

## Appendix A: Peer Agency On-Demand Services

Service Name	Service Description	Findings
SC Rides (San Clemente, CA)	Ride-hail partnership to replace two low performing fixed routes with corridor-based on-demand service	<ul style="list-style-type: none"> <li>• 6AM to 8PM span along 8-mile corridor</li> <li>• Fare: \$2-\$5, with maximum subsidy of \$9</li> <li>• Serves 50-100 passengers/day, compared to 100 on previous fixed route</li> </ul>
Go Dublin (Dublin, CA)	Ride-hail partnership to replace low performing fixed route with zone-based on-demand service	<ul style="list-style-type: none"> <li>• 6 square miles service area</li> <li>• Subsidy: 50% discount on ride up to \$5</li> </ul>
Direct Connect (Pinellas County, FL)	Ride-hail partnership as first mile/last mile service to many bus stops around the county	<ul style="list-style-type: none"> <li>• Subsidy: \$5 for TNC service, \$25 for wheelchair service</li> <li>• Ridership: 40 rides per day</li> </ul>
East Durham Connect (Durham, NC)	Ride-hail partnership to replace low performing fixed route with a hybrid corridor/hub on-demand service, launched during Covid-19 pandemic	<ul style="list-style-type: none"> <li>• 3 miles combined corridor length</li> <li>• Free fare, agency cost on average \$8/ride</li> <li>• Ridership: 4-7 rides per day</li> </ul>
RTP Connect Pilot (Raleigh/Durham, NC)	Ride-hail partnership to serve hard-to-serve area with a hybrid zone/hub on-demand service	<ul style="list-style-type: none"> <li>• 6:30AM to 10PM on weekdays</li> <li>• Subsidy: maximum of \$10 per trip; on average trips are \$7.96</li> <li>• Ridership: 107 rides per day</li> </ul>
VTA Flex (Santa Clara, CA)	Microtransit service with defined pick up and drop off locations	<ul style="list-style-type: none"> <li>• 5:30AM to 8:30PM on weekdays in 5.5 square mile area</li> <li>• Fares: \$2 off-peak, \$3 peak (fixed route is \$2)</li> <li>• Ridership: 41 rides per day</li> <li>• Average wait time: 7.5 minutes</li> <li>• Average travel time: 8 minutes</li> </ul>
West Salem Connector	Microtransit service with defined pick up and drop off locations	<ul style="list-style-type: none"> <li>• 5:30AM to 9PM on weekdays in 2.38 square mile area (denser than Durham)</li> </ul>

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Service Name	Service Description	Findings
		<ul style="list-style-type: none"> <li>1 vehicle in operation</li> <li>Ridership: 50 boardings per day, with 4.7 trips at the peak hour</li> </ul>
Call n Ride (Denver, CO)	Microtransit service with many zones, designed for first mile/last mile connections, zone-based and curb-to-curb	<ul style="list-style-type: none"> <li>Average span is 14.2 hours per day, 23.2 vehicle hours</li> <li>Fare: \$2.65, same as fixed route and free transfers</li> <li>Ridership: 95.9 riders per day in each zone on average, 3.9 per hour</li> <li>Cost: \$21.84 per trip on average</li> </ul>
Capital Metro Pickup (Austin, TX)	Microtransit service that is zone-based and curb-to-curb	<ul style="list-style-type: none"> <li>7AM to 7PM weekdays, 10AM to 5PM Saturdays, 7.37 square mile area</li> <li>Started with 2 vehicles, has increased over time as ridership increased</li> <li>Ridership: 2400 rides/month, average 3.1 per vehicle hour</li> <li>Average wait time: 11 minutes, with service standards of 15 minutes maximum</li> <li>Cost: \$28.5 per trip on average</li> </ul>
Go OnDemand Pilot (Raleigh/Durham, NC)	Microtransit service that is zone-based and curb-to-curb in Research Triangle Park	<ul style="list-style-type: none"> <li>6:30AM to 6:30PM weekdays span</li> <li>4 vehicles</li> <li>Ridership: 83 rides/day</li> <li>Cost: \$31.44 per trip</li> </ul>
Other microtransit services	TCRP Synthesis 141: <i>Microtransit or General Public Demand–Response Transit Services: State of the Practice</i> evaluated a series of agencies offering on-demand services	<ul style="list-style-type: none"> <li>For agencies contracting a turnkey provider for microtransit, the average cost per vehicle hour is \$57</li> </ul>

### Scope of Work: GoDurham Microtransit and Job Access Operations

- National Express Transit (NEXT) will manage and control all operational activities of the GoDurham Microtransit and Job Access pilot. These activities include the following:
  - Using GoDurham ACCESS vehicles to pick up and drop off riders
    - Maintaining good repair of the vehicles
  - Dispatching and monitoring vehicle operations using software selected by the Selection Committee
    - NEXT will be responsible for troubleshooting and minor maintenance of the software (such as assisting customers with app navigation, account creation, and basic account maintenance – for example, password resets). NEXT will report major software issues (including app and payment failures) directly to the software provider.
      - Issue reports for the software provider may be submitted directly by the customer through the selected software or through GoDurham ACCESS Customer Service/Reservations
    - NEXT will be responsible for training operators on the basic functions of the software
    - NEXT will utilize the Samsung tablets and desktop computers in use for GoDurham ACCESS for the GoDurham Microtransit and Job Access Pilot
  - Operating within the program rules of the Pilot as specified by the Selection Committee, including geographic boundaries of the Eastern Durham and Northern Durham (when implemented) microtransit zones.
    - NEXT will be responsible for attaining the on-time performance goal of **85%**. An on-time trip is one which a passenger is picked up within the maximum wait time of **30 minutes**.
    - NEXT will be responsible for completing all pick-ups within 60 minutes of a booking.
    - NEXT will abide by all other applicable responsibilities as outlined in the GoDurham ACCESS contract with GoTriangle.
  - In the event GoDurham fare collection resumes, NEXT will conduct fare collection and fare media sales on board the vehicle
    - This includes cash collection, pass validation (either visually or using an app on the Samsung tablets), and pass sales
  - Developing methods for improving the reliability and efficiency of service operations
  - Providing customer service as related to the operations of the service
  - Booking trips for riders who call GoDurham ACCESS Dispatch by telephone. These trips must be provided within the program rules of the pilot (i.e. customer is picked up within the same window of time as customers who book via the app)
  - Fulfill walk-up bookings
  - Ensuring safety of personnel and patrons
  - Instituting operational and maintenance reporting procedures, and submitting regular reports to GoTriangle as requested on the performance of the Pilot hereunder
  - Entering all customer feedback about the service into Zendesk for follow-up
  - Responding to operational complaints (as reported through Zendesk)



- Providing any documents or data requested by GoTriangle or the City of Durham to satisfy external reporting requirements, evaluate the service's performance, and evaluate NEXT's performance in carrying out this scope
- Working cooperatively with GoTriangle in providing any and all information and/or assistance reasonable and necessary for grant reporting to be performed successfully
- GoTriangle is responsible for:
  - Oversight of operations contract and service planning
    - Communicating service changes/disruptions to operators and dispatchers
    - Assisting NEXT on providing best practices for day-to-day operations
    - Evaluating service performance
    - Management of contract for operations and software, including facilitating coordination between software vendor and NEXT
  - Marketing and public affairs
  - Administering the operations software and configuring service parameters
  - Responding to service-related complaints (as reported through Zendesk)  
Working with the City of Durham on federal, state and local grant reporting and coordinating capital procurements.
  - GoTriangle is responsible for reporting service statistics for the Pilot to the National Transit Database.



Connecting all points of the Triangle

## MEMORANDUM

**TO:** GoTriangle Board of Trustees Operations & Finance Committee  
**FROM:** Director of Real Estate and Facilities  
**DATE:** September 29, 2021  
**SUBJECT:** Disposition of Real Property at Seaboard Station

### Strategic Objective or Initiative Supported

Strengthen partnerships and maintain cost effectiveness.

### Action Requested

GoTriangle staff requests the Committee recommend the Board authorize staff to negotiate a contract for the sale of approximately 1.09 acres generally located at 850 Semart Drive in Raleigh.

### Background and Purpose

GoTriangle was approached by Seaboard Station, LLC regarding whether GoTriangle would be willing to sell 1.09 acres of excess property located at 850 Semart Drive. After determining that the property was no longer needed for transit purposes, GoTriangle agreed to competitively market the property as required by FTA C 5010.1E. Prior to listing, the property appraised for \$1,070,000. FTA concurred with the appraisal and review appraisal. Once the property was listed, Seaboard Station, LLC submitted a letter of intent to purchase the property for \$1,120,000. The property was listed for several months. The offer submitted by Seaboard Station was the only offer GoTriangle received for the property.

### Financial Impact

Seaboard Station, LLC will purchase the property for \$1,120,000. The FTA and NCDOT both contributed to the acquisition of the property. GoTriangle will return 55.7% of the proceeds to the FTA as required by FTA C 5010.1E and 10% to NCDOT.

### Attachments

- Attachment A

### Staff Contacts

- Gary Tober, 919.485.7577, [gtober@gotriangle.org](mailto:gtober@gotriangle.org)
- Tom Henry, 919.485.7589, [thenry@gotriangle.org](mailto:thenry@gotriangle.org)



## Attachment A

850 Semart Drive Raleigh, North Carolina 27604

Estimated Area for Parcel 2 0.170 acres

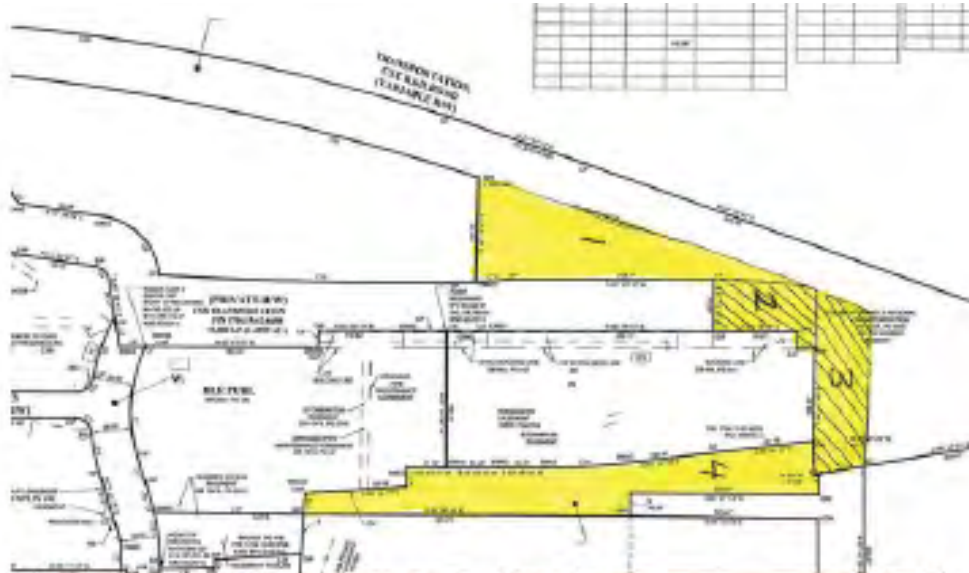
Estimated Area for Parcel 3 0.270 acres

Estimated Area for Parcel 4 0.610 acres

**Total** = 1.05 acres

**Appraised Value** = \$1,070,000 (FTA concurred with appraisal and review)

**Offer** = \$1,120,000 (property was competitively marketed on LoopNet, GoTriangle received one offer)



Segment 15 of the Railroad Right-of-Way (Seaboard Station)





## MEMORANDUM

**TO:** GoTriangle Operations and Finance Committee  
**FROM:** Thomas Henry, Interim General Counsel  
Katharine Eggleston, Chief Development Officer  
**DATE:** October 7, 2021  
**SUBJECT:** **RUS Bus Development Framework**

### Action Requested

Staff requests that the Operations and Finance Committee receive an update regarding the RUS Bus development framework, as negotiations are proceeding towards conclusion and board action may be requested as soon as October 27.

### Background and Purpose

In November 2019, the Board of Trustees authorized staff to commence negotiations with Hoffman & Associates for agreements related to the RUS Bus project. At its March 2021 meeting, the Board authorized staff to finalize business terms sheets to lay the foundation for the necessary agreements: an agreement related to the public transit facilities, an agreement related to the private overbuild, and a ground lease. Staff, consultants, and outside counsel have been actively working to develop an agreement framework for delivery of the complete RUS Bus joint development. To advance the project towards the next phases of delivery, staff are planning to include RUS Bus on the October 27 board agenda.

The following information reviews the basic elements of the project:

The RUS Bus Project consists of two project components: (1) "Private Overbuild": a privately financed, mixed-use, transit-oriented project that is planned to include a high-rise building with Class A ground floor retail space, an upscale hotel, multifamily residential units (including affordable housing units), and a private parking deck; and (2) "RUS Bus Transit Facilities": transit improvements that will be physically co-located within the Private Overbuild. The RUS Bus Transit Facilities will be owned and operated by GoTriangle.

The planning, design, and construction of the Private Overbuild will be financed and managed by the Joint Development Team led by Hoffman. The Joint Development Team will manage the planning, design, and construction of the RUS Bus Transit Facilities concurrently with the planning, design, and construction of the Private Overbuild. There will be separate consulting, design, and construction agreements for the RUS Bus Facilities and Private Overbuild. GoTriangle will oversee the management of the planning, design, and construction of the RUS Bus Transit Facilities by the



Joint Development Team, including compliance with requirements applicable to the use of state and federal funds for public transit projects.

GoTriangle used an open competitive procurement process to select the Joint Development Team for concurrent design and construction of the Private Overbuild and RUS Bus Transit Facilities. Following an evaluation of proposals by staff and consultants, and following consultation with the Board of Trustees, GoTriangle selected the Joint Development Team led by Hoffman as its preferred Developer. GoTriangle staff is actively working to finalize the agreements with the preferred developer, to advance the project into the remaining stages of design work and to prepare for demolition and site preparation as soon as the spring of 2022.

**Financial Impact**

When the agreements are presented to the Board for consideration, the financial commitments will be described in more detail.

**Staff Contact(s)**

- Thomas Henry, Interim General Counsel, [thenry@gotriangle.org](mailto:thenry@gotriangle.org), 919.485.7589
- Katharine Eggleston, Chief Development Officer, [keggleston@gotriangle.org](mailto:keggleston@gotriangle.org), 919.485.7564





October 2, 2021

Connecting all points of the Triangle

**To:** GoTriangle Operations and Finance Committee  
**From:** Finance  
**Subject:** **FY21 Unaudited Year End Results**

Attached is an overview of the draft, unaudited FY21 year-end results. The final Annual Comprehensive Financial Report (ACFR) will be submitted to the Local Government Commission (LGC) no later than October 31, 2021. As you are aware there have been many challenges as we worked to stay financially stable in the midst of COVID-19 impacts. Through careful monitoring of expenses as well as additional federal funding GoTriangle was able to end the year with a modest surplus. The three tax districts in Durham, Orange and Wake also ended with a surplus.

A summary of the FY21 information is shown below. Details are provided in the attached report and will be reviewed during the meeting.

	<u>Revenue</u>	<u>Expenses</u>	<u>Revenue Over/((Under) Expenses</u>
GoTriangle *	\$ 37,695,802	\$37,523,453	\$ 172,349
Durham	\$ 41,466,945	\$15,874,383	\$25,592,262
Orange	\$ 10,319,005	\$5,879,646	\$ 4,439,359
Wake	\$118,087,888	\$34,734,839	\$83,353,049

\*GoTriangle revenue includes \$7.9M in COVID funding.

Sandra Freeman  
 CFO/Director of Administrative Services



P.O. Box 13787  
 Durham, NC 27703  
 919-485-7415 | Fax: 919-485-7491

[www.gotriangle.org](http://www.gotriangle.org)



# GoTriangle Month End Close Book Fiscal Year 2021 (Unaudited Actuals)



*Above: GoTriangle Transit Operations Staff Recognized by North Carolina as Frontline Heroes during COVID-19 Crisis*

## for Period Ending June 2021

**GoTriangle  
Financial Statements  
Unaudited**



## FINANCIAL OVERVIEW FOR PERIOD ENDING JUNE 30, 2021

### Revenue

FY21 unaudited actual revenues through June 2021 are \$37.7M, which is 75.3% of the \$50.1M total FY21 budget, and \$8.9M more than the FY20 YTD revenue unaudited actuals that totaled \$28.8M.

- FY21 YTD Transit Service Revenue - Bus and Paratransit is \$6.2M compared to \$6.3M in FY20. The FY21 reimbursement is 108.1% of budget, and it is trending up.
- FY21 YTD Paratransit Service Revenue - Paratransit is \$388K compared to \$550K in FY20.  
(services provided to Durham and Raleigh)
- FY21 YTD \$5 Vehicle Registration taxes are \$6.7M compared to \$6.2M in the same period in FY20.
- FY21 YTD Vehicle Rental taxes are \$4.6M compared to \$5.8M during the same period in FY20. This is most likely due to COVID-19 travel restrictions
- FY21 receipt of \$7.9M CARES Act funds is a one-time federal COVID-19 reimbursement and has been received in full
- FY21 Other Reimbursements total \$4.2M made up of \$2.4M operating reimbursements and \$1.8M capital reimbursements.

### Expenses

FY21 unaudited actual expenses through June 2021 are \$37.5M, which is 70.2% of the full year budget of \$53.4M and \$3.5M more than the FY20 YTD expense actuals that totaled \$41.0M.

- FY21 YTD Transit Operations expenses total \$26.0M compared to FY20 YTD actuals totaling \$24.8M
- FY21 YTD Administration expenses total \$4.8M compared to FY20 YTD actuals totaling \$5.0M
- FY21 YTD Capital expenditures total \$6.6M compared to FY20 YTD actuals totaling \$11.1M

### Cash Balances

Unaudited ending cash balances for GoTriangle and the counties increased from FY20 to FY21.

### Tax Districts

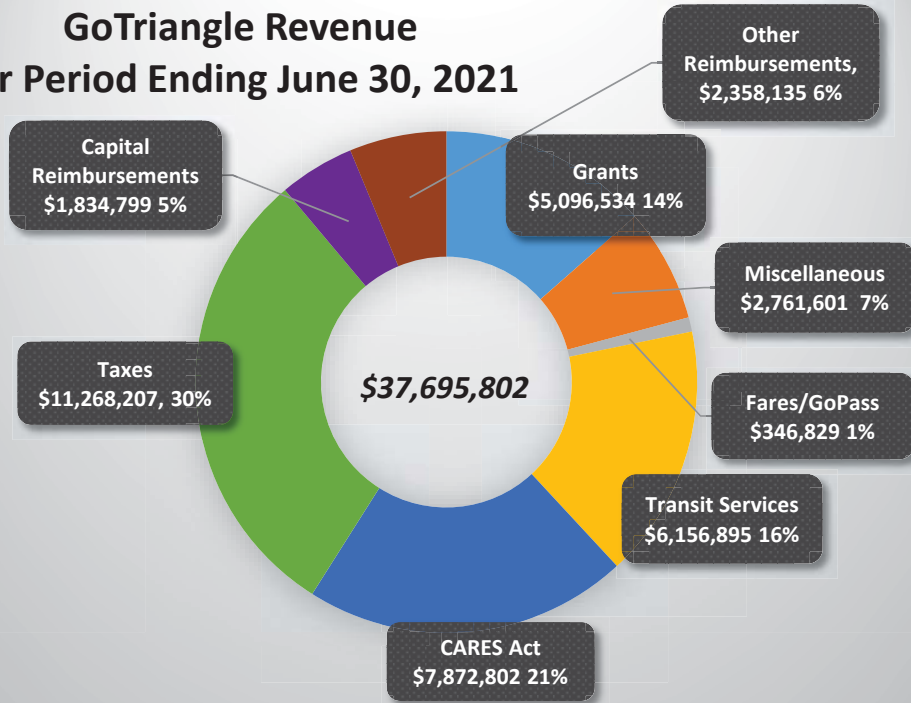
Profit & Loss statements (P&L) are attached, and trends are being monitored; no concerns versus budget at this time

### Year End Summary

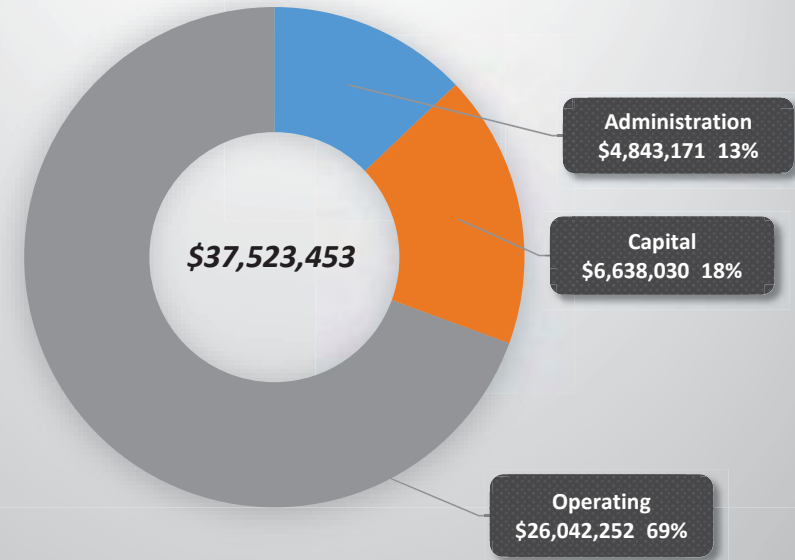
FY21 unaudited net revenues (revenues less expenses) equal \$172K. This is significantly better than FY20 net revenues.



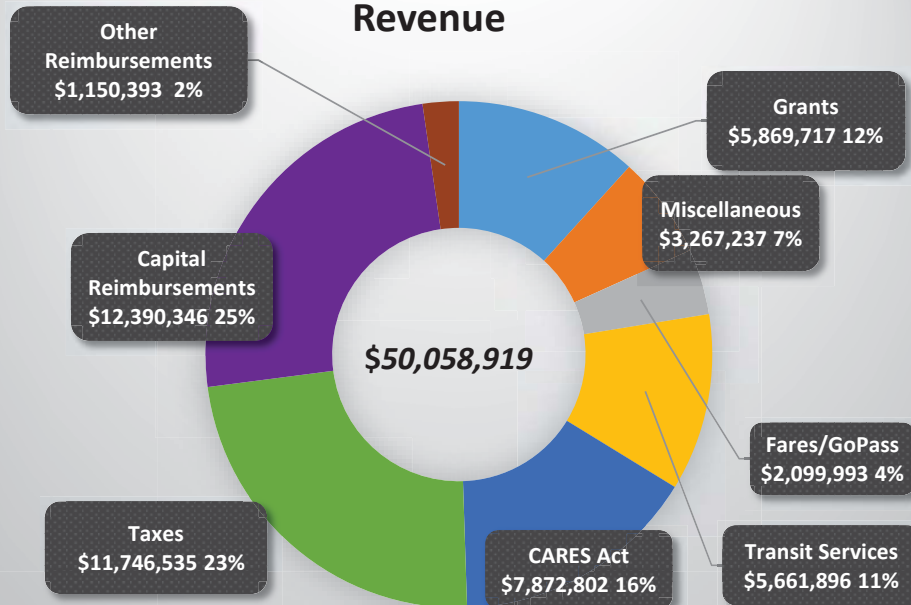
### GoTriangle Revenue for Period Ending June 30, 2021



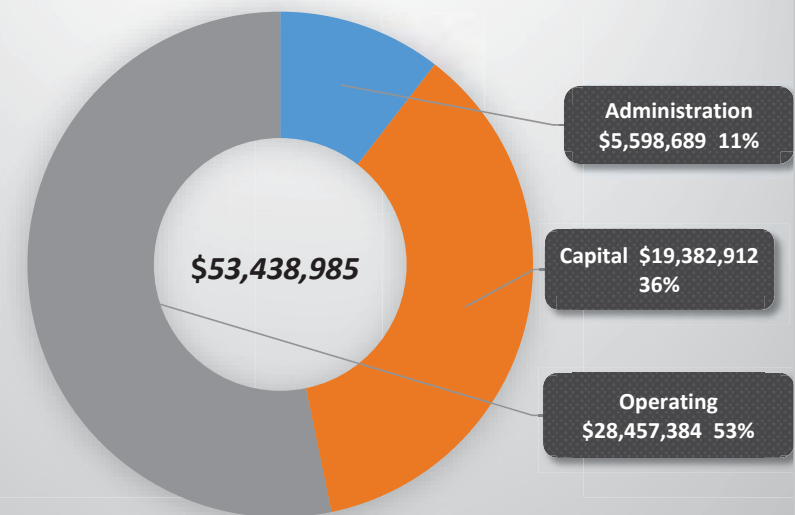
### GoTriangle Expenses for Period Ending June 30, 2021



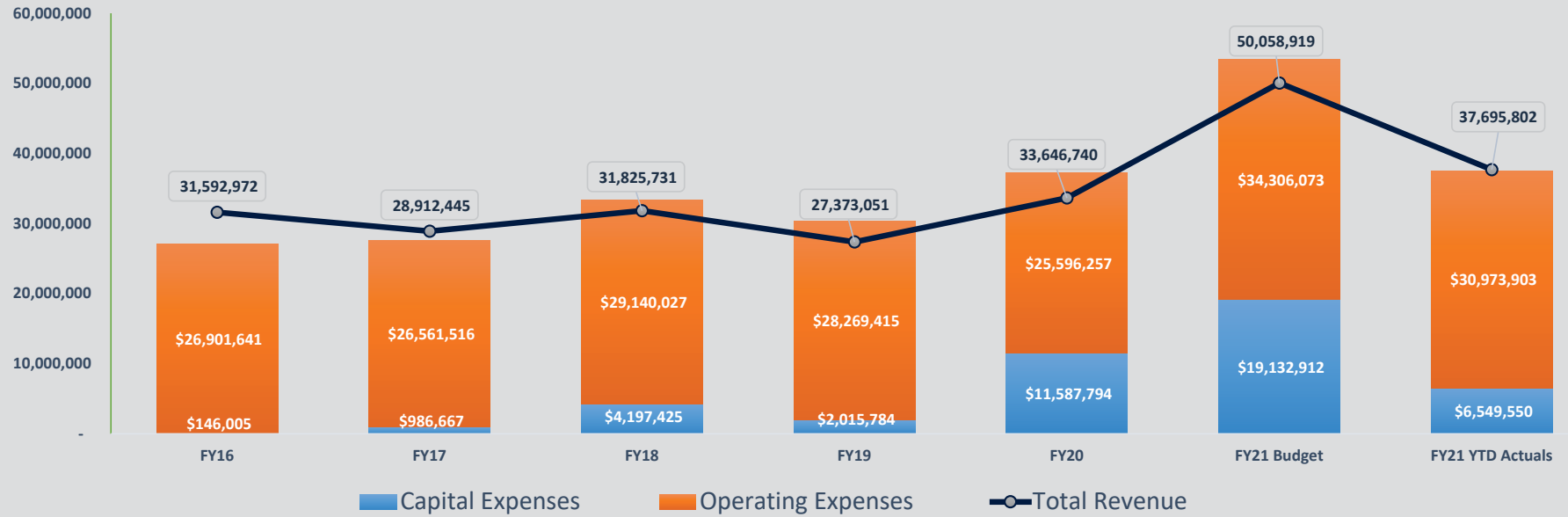
### GoTriangle FY21 Budget Revenue



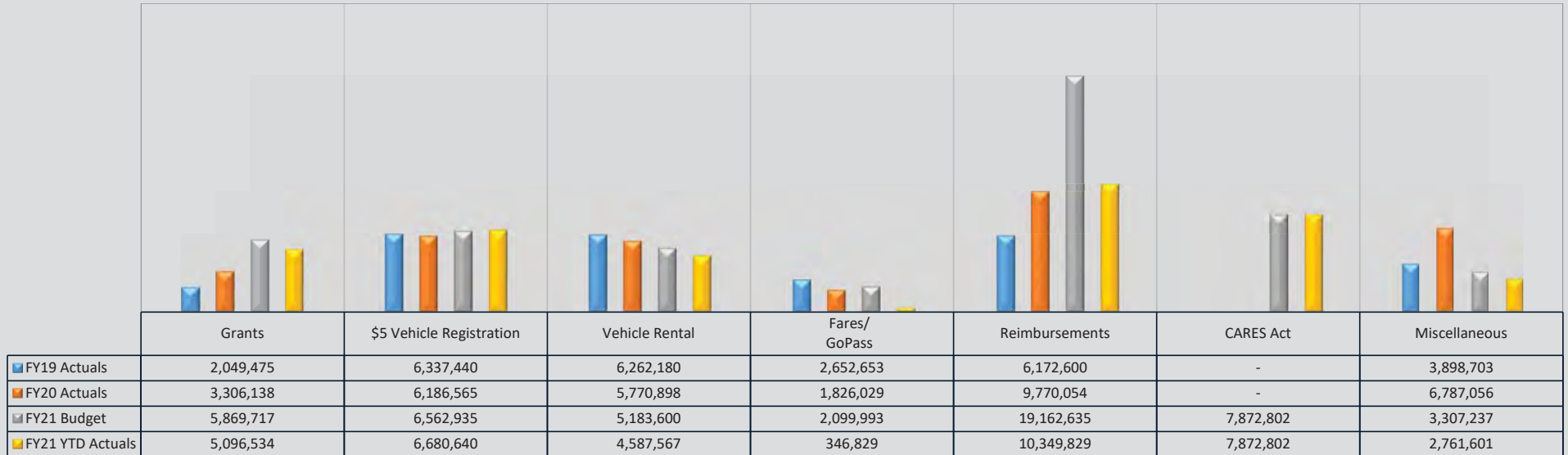
### GoTriangle FY21 Budget Expenses



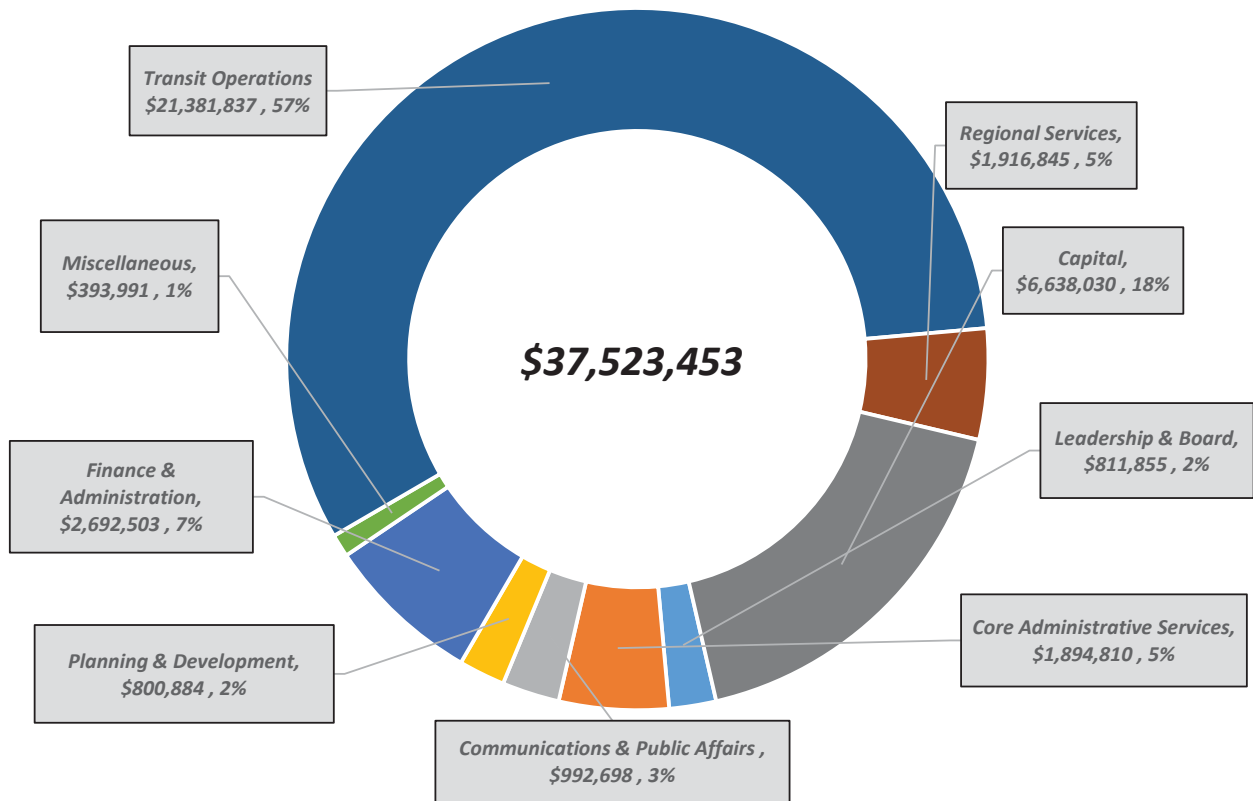
## GoTriangle Total Revenue vs Expense Trends



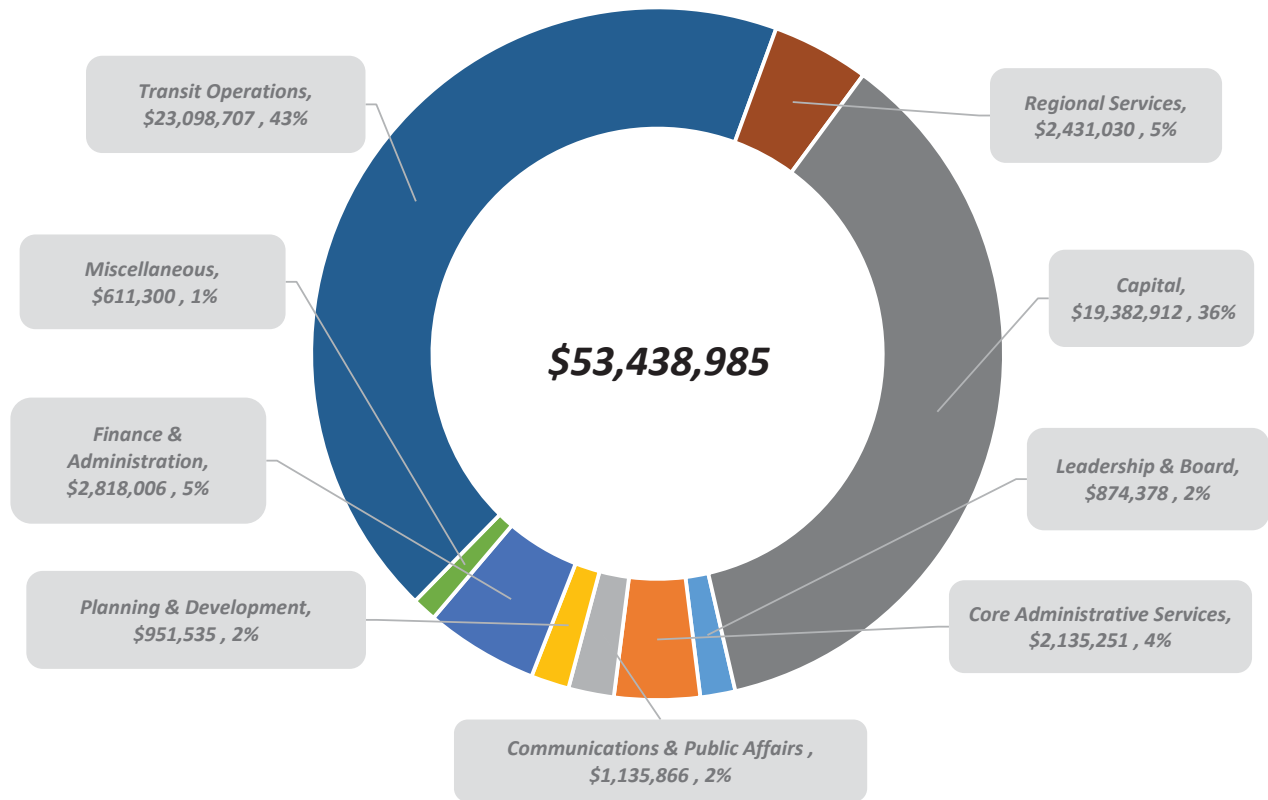
## GoTriangle Revenue by Category



## GoTriangle FY21 Expense Actuals by Function



## GoTriangle FY21 Expense Budget by Function



### NOTE:

Finance Administration - Finance, Administration, IT, DBE/EEO

Core Administrative Services - HR, Legal, Real Estate

Planning & Development - Capital Development, Regional Services - Planning

Transit Operations - Bus Supervision, Bus Operations, Bus Maintenance, Paratransit, Vanpool

**FY21 FINANCIAL RESULTS - P&L**  
**GoTRIANGLE**  
**For Period Ending June 30, 2021**

	(a) FY2020 GoTriangle Actuals	(b) FY2021 Full Year GoTriangle Amended Budget	(c) FY2021 YTD GoTriangle Actuals	(c) - (b) FY2021 Budget vs YTD Actuals	(c) / (b) 2021 YTD % of Budget Achieved	(d) FY2020 Period to Date	(c) - (d) FY2021 YTD vs FY2020 YTD
<b>REVENUES</b>				<b>Favorable/ (Unfavorable)</b>			<b>Favorable/ (Unfavorable)</b>
<b>Inter-governmental revenue:</b>							
Federal Grant Revenues	\$72,136	\$4,984,089	\$4,514,212	(\$469,877)	90.6%	\$72,136	\$4,442,076
State Grant Revenues	2,655,729	69,818	50,794	(19,024)	72.8%	2,655,729	(2,604,935)
Local Grant Revenues (includes TDM)	605,955	815,810 <sup>1</sup>	531,527	(284,283)	65.2%	605,955	(74,428)
Indirect Cost Credits	1,520,695	1,540,837	1,529,356	(11,481)	99.3%	1,520,695	8,661
Misc. Revenue	310,687	-	63,031	63,031	0.0%	310,687	(247,656)
Bus Accident Damage Reimbursement	51,754	40,000	292,083	252,083	730.2%	51,754	240,329
Bus Fares	529,545	580,000 <sup>2</sup>	-	(580,000)	0.0%	529,545	(529,545)
Transit Service Revenue - Bus	6,256,193	5,661,896	6,117,745	455,849	108.1%	6,256,193	(138,448)
Transit Service Revenue - Paratransit	-	-	39,150	39,150	0.0%	-	39,150
Vanpool Fares	952	-	-	-	0.0%	952	(952)
Paratransit Services Revenue	550,453	654,993 <sup>2</sup>	388,281	(266,712)	59.3%	550,453	(162,172)
Consignment	738,936	865,000 <sup>2</sup>	10,408	(854,592)	1.2%	738,936	(728,528)
Vanpool Subsidies	6,143	-	(51,861)	(51,861)	0.0%	6,143	(58,004)
Reimbursement from Others	844,357	12,390,346 <sup>4</sup>	2,772,124	(9,618,222)	22.4%	844,357	1,927,766
\$5 Vehicle Registration Taxes	6,186,565	6,562,935	6,680,640	117,705	101.8%	6,186,565	494,075
COVID-19 Reimbursement	-	7,872,802	7,872,802	-	100.0%	-	7,872,802
Vehicle Rental Taxes	5,770,898	5,183,600	4,587,567	(596,033)	88.5%	5,770,898	(1,183,331)
Rental Income	104,658	654,427 <sup>3</sup>	95,328	(559,099)	14.6%	104,658	(9,329)
GoDurham Reimbursement	1,067,988	1,110,393	1,128,728	18,335	101.7%	1,067,988	60,740
Investment Earnings	1,499,689	1,071,973	1,073,886	1,913	100.2%	1,666,119	(592,233)
<b>Total Revenues</b>	<b>28,773,335</b>	<b>50,058,919</b>	<b>37,695,802</b>	<b>(12,363,117)</b>	<b>75.3%</b>	<b>28,939,765</b>	<b>8,756,037</b>
<b>EXPENDITURES</b>				<b>Favorable/ (Unfavorable)</b>			<b>Favorable/ (Unfavorable)</b>
Department Expenses	25,596,257	34,306,073	30,973,903	3,332,170	90.3%	29,875,546	(1,098,357)
Capital Outlay	11,587,794	19,132,912	6,549,550	12,583,362	34.2%	11,131,237	4,581,687
<b>Total Expenditures</b>	<b>37,184,051</b>	<b>53,438,985</b>	<b>37,523,453</b>	<b>15,915,532</b>	<b>70.2%</b>	<b>41,006,783</b>	<b>3,483,330</b>
<b>Revenues over Expenditures</b>	<b>(8,410,716)</b>	<b>(3,380,066)</b>	<b>172,349</b>	<b>(28,278,649)</b>		<b>(12,067,018)</b>	<b>5,272,707</b>

<sup>1</sup> Includes TDM revenue and expenses

<sup>2</sup> Fare collections in the original budget were projected to resume in October 2020

<sup>3</sup> Rental income assumed tenancy in the Plaza building

<sup>4</sup> Reimbursement from Others includes quarterly reimbursements from transit partners for Call Center services and tax district contributions for GoTriangle capital purchases such as buses

## TAX DISTRICTS

### FINANCIAL OVERVIEW FOR PERIOD ENDING JUNE 30, 2021

#### Durham

FY21 unaudited actual revenues through June 2021 are \$41.5M, which is 129.7% of the \$32.0M total FY21 budget, and \$6.5M more than the FY20 YTD revenue actuals that totaled \$34.9M.

- FY21 YTD 1/2 Cent Sales Tax unaudited actuals total \$34.1M compared to FY20 YTD totaling \$30.2M
- FY21 YTD \$3 and \$7 DMV Registration Tax unaudited actuals total \$2.5M compared to prior YTD totaling \$2.3M
- FY21 YTD Vehicle Rental Tax unaudited actuals total \$1.1M compared to FY20 YTD totaling \$1.2M

FY21 unaudited actual expenses through June 2021 are \$15.9M, which is 39.0% of the full year budget of \$40.7M and \$6.6M more than the FY20 YTD expense actuals that totaled \$9.3M.

#### Orange

FY21 unaudited actual revenues through June 2021 are \$10.3M, which is 117.9% of the \$8.8M total FY21 budget, and \$1.4M more than the FY20 YTD revenue actuals that totaled \$9.0M.

- FY21 YTD 1/2 Cent Sales Tax unaudited actuals total \$8.5M compared to FY20 YTD totaling \$7.2M
- FY21 YTD \$3 and \$7 DMV Registration Tax unaudited actuals total \$1.2M compared to prior YTD totaling \$1.1M
- FY21 YTD Vehicle Rental Tax unaudited actuals total \$482K compared to FY20 YTD totaling \$564K

FY21 unaudited actual expenses through June 2021 are \$5.9M, which is 54.4% of the full year budget of \$10.8M and \$1.0M more than the FY20 YTD expense actuals that totaled \$6.9M.

#### Wake

FY21 unaudited actual revenues through June 2021 are \$118.1M, which is 133.9% of the \$88.2M total FY21 budget, and \$8.8 more than the FY20 YTD revenue actuals that totaled \$109.3

- FY21 YTD 1/2 Cent Sales Tax unaudited actuals total \$104.0M compared to FY20 YTD totaling \$93.4M
- FY21 YTD \$3 and \$7 DMV Registration Tax unaudited actuals total \$9.7M compared to prior YTD totaling \$9.0M
- FY21 YTD Vehicle Rental Tax unaudited actuals total \$3.1M compared to FY20 YTD totaling \$3.7M

FY21 unaudited actual expenses through June 2021 are \$34.7M, which is 16.7% of the full year budget of \$208.2M and \$3.5M more than the FY20 YTD expense actuals that totaled \$38.3M.



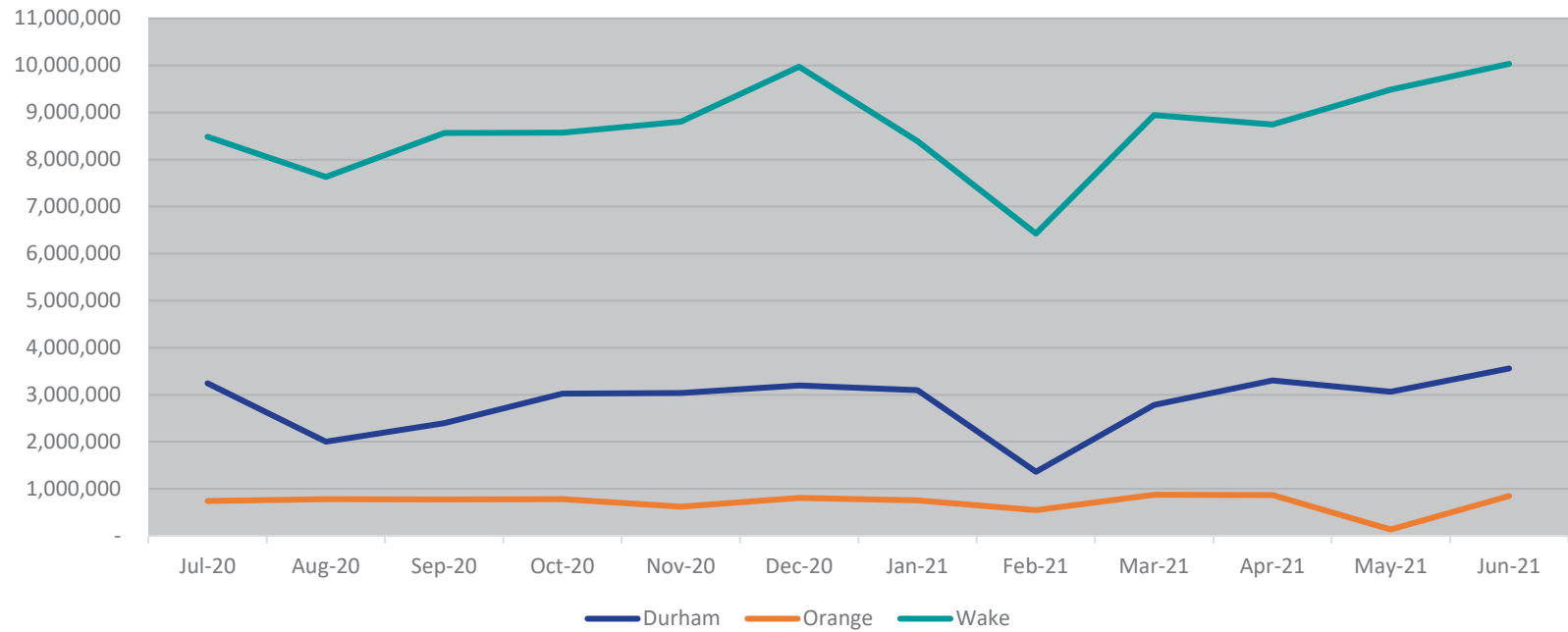
**FY2021 Transit Plan Local Tax Revenue**

July 2020 - June 2021

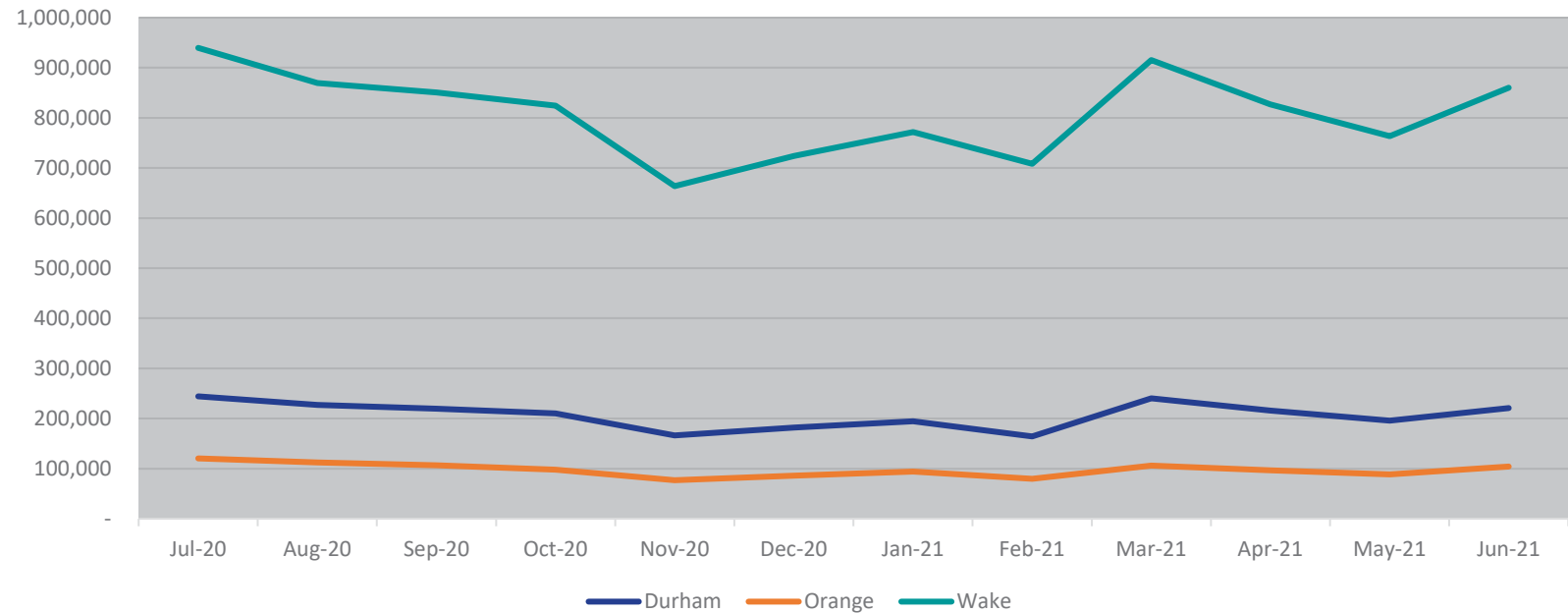
<b>Durham County</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>April</b>	<b>May</b>	<b>June</b>	<b>YTD Total</b>	<b>Budget</b>	<b>% Received</b>	<b>FY20</b>
Half-Cent Sales Tax <sup>1</sup>	7,640,368	9,264,085	7,239,447	3,301,534	3,062,430	3,558,804	34,066,667	28,539,000	119%	30,229,156
DMV Registration Tax	691,314	558,538	598,986	216,017	195,504	221,170	2,481,529	2,329,000	107%	2,295,490
Vehicle Rental Tax	188,633	194,878	211,494	92,257	99,118	199,946	986,327	1,114,500	88%	1,155,265
<b>Total Local Revenue</b>	<b>8,520,315</b>	<b>10,017,501</b>	<b>8,049,927</b>	<b>3,609,809</b>	<b>3,357,052</b>	<b>3,979,919</b>	<b>37,534,523</b>	<b>31,982,500</b>	<b>117%</b>	<b>33,679,911</b>
<b>Orange County</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>April</b>	<b>May</b>	<b>June</b>	<b>YTD Total</b>	<b>Budget</b>	<b>% Received</b>	
Half-Cent Sales Tax <sup>1</sup>	2,298,497	2,208,788	2,175,142	868,638	135,887	845,892	8,532,844	7,104,000	120%	7,243,711
DMV Registration Tax	339,603	261,250	279,970	96,670	88,210	104,150	1,169,853	1,107,000	106%	1,078,827
Vehicle Rental Tax	92,123	95,173	103,288	45,056	48,407	97,648	481,695	544,300	88%	564,199
<b>Total Local Revenue</b>	<b>2,730,223</b>	<b>2,565,212</b>	<b>2,558,400</b>	<b>1,010,364</b>	<b>272,503</b>	<b>1,047,689</b>	<b>10,184,391</b>	<b>8,755,300</b>	<b>116%</b>	<b>8,886,737</b>
<b>Wake County</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>April</b>	<b>May</b>	<b>June</b>	<b>YTD Total</b>	<b>Budget</b>	<b>% Received</b>	
Half-Cent Sales Tax <sup>1</sup>	24,678,563	27,347,184	23,759,625	8,745,364	9,482,707	10,033,626	104,047,069	39,086,580	266%	93,403,840
DMV Registration Tax	2,659,864	2,212,078	2,395,463	826,829	763,271	859,956	9,717,461	10,125,000	96%	8,999,330
Vehicle Rental Tax	596,607	616,360	668,912	291,791	313,490	635,386	3,122,546	3,524,800	89%	3,653,862
<b>Total Local Revenue</b>	<b>27,935,034</b>	<b>30,175,622</b>	<b>26,824,000</b>	<b>9,863,984</b>	<b>10,559,468</b>	<b>11,528,967</b>	<b>116,887,076</b>	<b>52,736,380</b>	<b>222%</b>	<b>106,057,032</b>

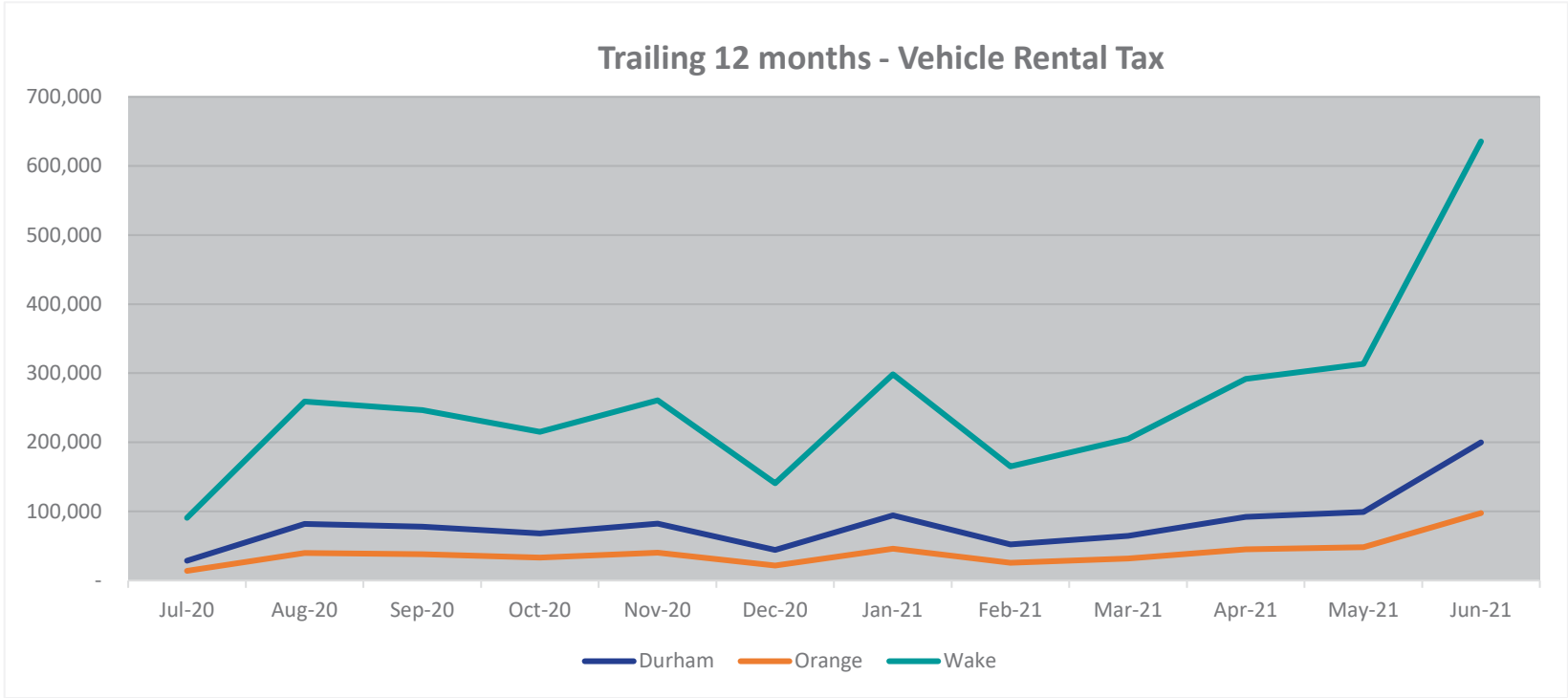
<sup>1</sup> April 2021 and May 2021 Half Cent Sales Taxes shown above are estimates, since the actuals have not been received yet due to state agency processing time. When the actual taxes are received by GoTriangle, the estimate will be changed to actuals.

Trailing 12 months - Half-Cent Sales Tax



Trailing 12 months - DMV Registration Tax





**FY21 FINANCIAL RESULTS P&L**  
**DURHAM TAX DISTRICT**  
**For Period Ending June 30, 2021**

	(a) FY2020 Durham Actuals	(b) FY2021 Full Year Durham Amended Budget	(c) FY2021 YTD Durham Actuals	(c) - (b) FY2021 Budget vs YTD Actuals	(c) / (b) 2021 YTD % of Budget Achieved	(d) FY2020 Period to Date	(c) - (d) FY2021 YTD vs FY2020 YTD
<b>REVENUES</b>				Favorable/ (Unfavorable)			Favorable/ (Unfavorable)
Inter-governmental revenue:							
Federal Grant Revenues	\$0	\$0	\$557,460	\$557,460	0.0%	\$0	\$557,460
State Grant Revenues	-	-	-	-	0.0%	-	-
Misc. Revenue	270,736	-	-	-	0.0%	270,737	(270,737)
\$7 Vehicle Registration Taxes	1,223,929	1,630,000	1,737,085	107,085	106.6%	1,606,864	130,221
\$3 Vehicle Registration Taxes	524,499	699,000	744,444	45,444	106.5%	688,626	55,818
1/2 Cent Sales Tax	24,943,173	28,539,000	34,066,667	5,527,667	119.4%	30,229,156	3,837,511
Vehicle Rental Taxes	1,054,722	1,114,500	986,327	(128,173)	88.5%	1,155,265	(168,938)
Investment Earnings/Unrealized Gain (Loss)	833,499	-	3,374,962	3,374,962	0.0%	970,065	2,404,897
<b>Total Revenues</b>	<b>28,850,558</b>	<b>31,982,500</b>	<b>41,466,945</b>	<b>9,484,445</b>	<b>129.7%</b>	<b>34,920,713</b>	<b>6,546,232</b>
<b>EXPENDITURES</b>				Favorable/ (Unfavorable)			Favorable/ (Unfavorable)
Department Expenses	1,496,582	2,021,700	1,312,387	709,313	64.9%	1,486,046	173,659
Capital Outlay	2,877,157	30,875,082	7,898,372	22,976,710	25.6%	2,876,907	(5,021,465)
Transit Service Partners	4,952,308	7,761,650	6,663,624	1,098,026	85.9%	4,952,308	(1,711,316)
<b>Total Expenditures</b>	<b>9,326,048</b>	<b>40,658,432</b>	<b>15,874,383</b>	<b>24,784,049</b>	<b>39.0%</b>	<b>9,315,261</b>	<b>(6,559,122)</b>
<b>Revenues over Expenditures</b>	<b>19,524,510</b>	<b>(8,675,932)</b>	<b>25,592,562</b>	<b>(15,299,604)</b>		<b>25,605,452</b>	<b>13,105,354</b>
<b>Other Financing Source</b>							
Prior Year Carryforward	-	11,043,332	-	(11,043,332)		-	-
<b>Revenue and Other Financing Sources over (under) Expenditures</b>	<b>19,524,510</b>	<b>2,367,400</b>	<b>25,592,562</b>	<b>(26,342,936)</b>		<b>25,605,452</b>	<b>13,105,354</b>

**FY21 FINANCIAL RESULTS P&L**  
**ORANGE TAX DISTRICT**  
**For Period Ending June 30, 2021**

	(a) FY2020 Orange Actuals	(b) FY2021 Full Year Orange Amended Budget	(c) FY2021 YTD Orange Actuals	(c) - (b) FY2021 Budget vs YTD Actuals	(c) / (b) 2021 YTD % of Budget Achieved	(d) FY2020 Period to Date	(c) - (d) FY2021 YTD vs FY2020 YTD
<b>REVENUES</b>				<b>Favorable/ (Unfavorable)</b>			<b>Favorable/ (Unfavorable)</b>
Inter-governmental revenue:							
Federal Grant Revenues	\$0	\$0	\$126,540	\$126,540	0.0%	\$0	\$126,540
State Grant Revenues	-	-	-	-	0.0%	-	-
Misc. Revenue	48,797	-	46	46	0.0%	48,797	(48,751)
\$7 Vehicle Registration Taxes	583,471	775,000	818,895	43,895	105.7%	755,181	63,714
\$3 Vehicle Registration Taxes	250,062	332,000	350,958	18,958	105.7%	323,646	27,312
1/2 Cent Sales Tax	5,723,078	7,104,000	8,532,844	1,428,844	120.1%	7,243,711	1,289,133
Vehicle Rental Taxes	515,097	544,300	481,695	(62,605)	88.5%	564,199	(82,504)
Investment Earnings	18,995	-	8,027	8,027	0.0%	19,787	(11,760)
<b>Total Revenues</b>	<b>7,139,499</b>	<b>8,755,300</b>	<b>10,319,005</b>	<b>1,563,705</b>	<b>117.9%</b>	<b>8,955,321</b>	<b>1,363,684</b>
<b>EXPENDITURES</b>				<b>Favorable/ (Unfavorable)</b>			<b>Favorable/ (Unfavorable)</b>
Department Expenses	585,822	748,000	485,942	262,058	65.0%	575,285	89,343
Capital Outlay	3,020,586	6,066,210	1,625,293	4,440,917	26.8%	3,020,586	1,395,293
Transit Service Partners	3,290,937	3,989,250	3,768,411	220,839	94.5%	3,290,937	(477,474)
<b>Total Expenditures</b>	<b>6,897,344</b>	<b>10,803,460</b>	<b>5,879,646</b>	<b>4,923,814</b>	<b>54.4%</b>	<b>6,886,808</b>	<b>1,007,162</b>
<b>Revenues over Expenditures</b>	<b>242,155</b>	<b>(2,048,160)</b>	<b>4,439,359</b>	<b>(3,360,109)</b>		<b>2,068,513</b>	<b>356,522</b>
<b>Other Financing Source</b>							
Prior Year Carryforward	-	6,655,910	-	(6,655,910)		-	-
<b>Revenue and Other Financing Sources over (under) Expenditures</b>	<b>242,155</b>	<b>4,607,750</b>	<b>4,439,359</b>	<b>(10,016,019)</b>		<b>2,068,513</b>	<b>356,522</b>

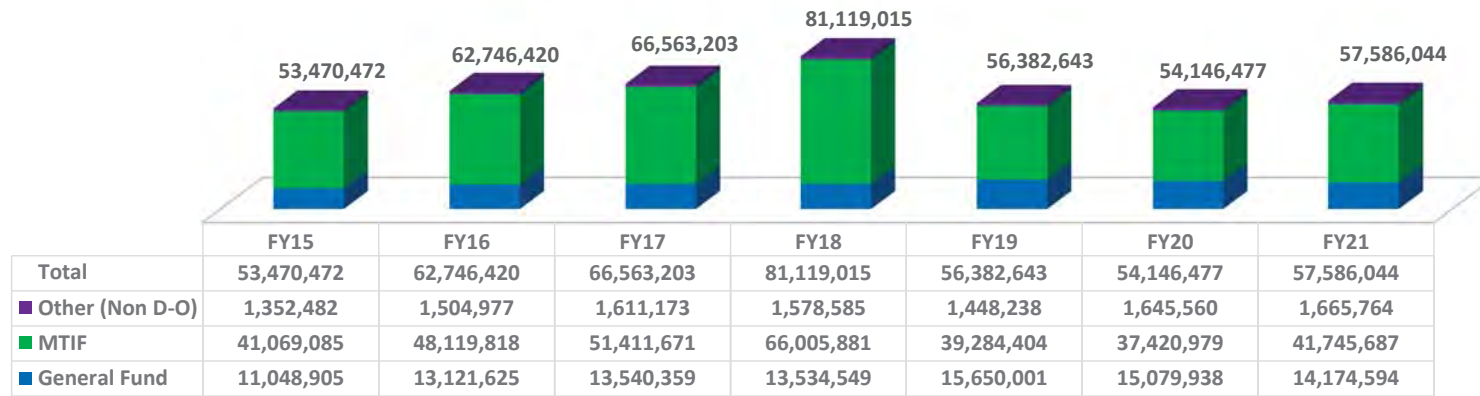


**FY21 FINANCIAL RESULTS P&L  
WAKE TAX DISTRICT  
For Period Ending June 30, 2021**

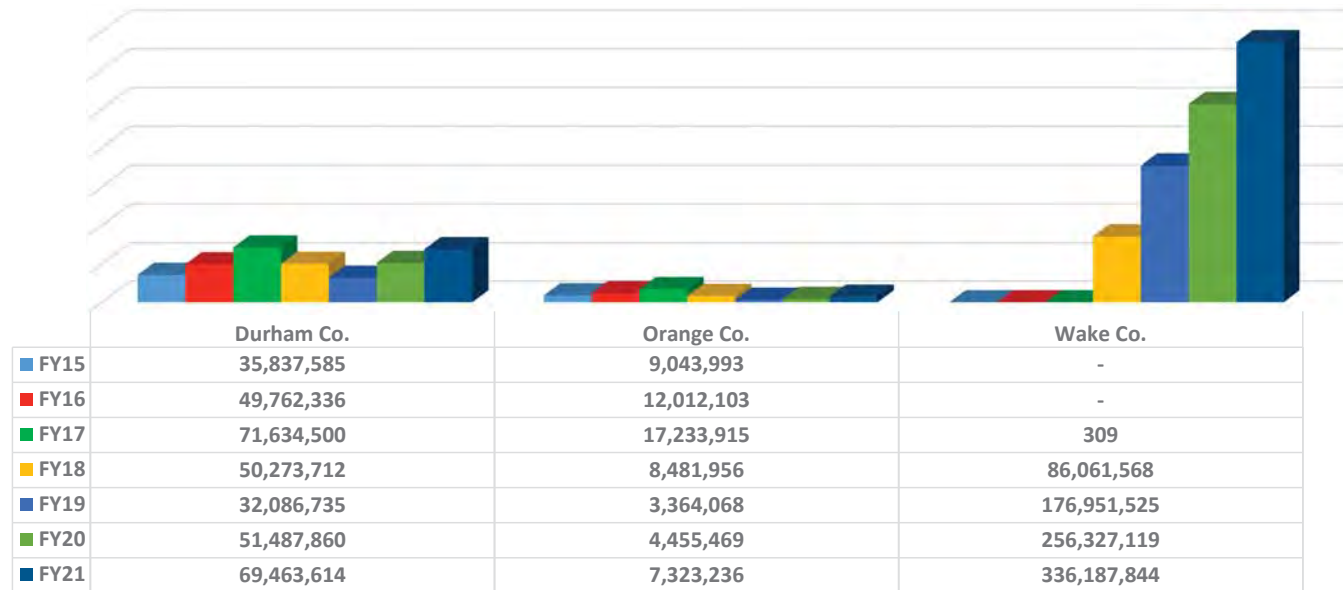
	(a) FY2020 Wake Actuals	(b) FY2021 Full Year Wake Adopted Budget	(c) FY2021 YTD Wake Actuals	(c) - (b) FY2021 Budget vs YTD Actuals	(c) / (b) 2021 YTD % of Budget Achieved	(d) FY2020 Period to Date	(c) - (d) FY2021 YTD vs FY2020 YTD
<b>REVENUES</b>				<b>Favorable/ (Unfavorable)</b>			<b>Favorable/ (Unfavorable)</b>
Inter-governmental revenue:							
Federal Grant Revenues	\$0	\$35,297,000	\$204,858	(\$35,092,142)	0.6%	-	\$204,858
Misc. Revenue	134,670	-	43,305	43,305	0.0%	134,670	(91,365)
\$7 Vehicle Registration Taxes	4,854,647	7,088,000	6,803,069	(284,931)	96.0%	6,300,203	502,866
\$3 Vehicle Registration Taxes	2,079,852	3,037,000	2,914,392	(122,608)	96.0%	2,699,127	215,265
1/2 Cent Sales Tax	77,093,610	39,086,580	104,047,069	64,960,489	266.2%	93,403,840	10,643,229
Bus Fares	-	161,480	-	(161,480)	0.0%	-	-
Vehicle Rental Taxes	3,335,864	3,524,800	3,119,546	(405,254)	88.5%	3,653,862	(534,316)
Investment Earnings/Unrealized Gain (Loss)	3,148,201	-	955,649	955,649	0.0%	3,101,389	(2,145,740)
<b>Total Revenues</b>	<b>90,646,844</b>	<b>\$88,194,860</b>	<b>118,087,888</b>	<b>29,893,028</b>	<b>133.9%</b>	<b>109,293,091</b>	<b>8,794,797</b>
<b>EXPENDITURES</b>				<b>Favorable/ (Unfavorable)</b>			<b>Favorable/ (Unfavorable)</b>
Department Expenses	1,515,393	2,924,332	1,666,895	1,257,437	57.0%	1,483,480	(183,415)
Capital Outlay	23,313,330	184,797,316	18,364,624	166,432,692	9.9%	23,311,196	4,946,572
Transit Service Partners	13,482,624	20,517,521	14,703,320	5,814,201	71.7%	13,465,171	(1,238,149)
<b>Total Expenditures</b>	<b>38,311,348</b>	<b>208,239,169</b>	<b>34,734,839</b>	<b>173,504,330</b>	<b>16.7%</b>	<b>38,259,847</b>	<b>3,525,008</b>
<b>Revenues over Expenditures</b>	<b>52,335,496</b>	<b>(120,044,309)</b>	<b>83,353,049</b>	<b>(143,611,302)</b>		<b>71,033,244</b>	<b>5,269,789</b>
<b>Other Financing Source</b>							
Contribution from Reserves - Tax District	-	32,085,000	-	(32,085,000)		-	-
Prior Year Carryforward	-	117,261,694	-	(117,261,694)		-	-
<b>Revenue and Other Financing Sources over (under) Expenditures</b>	<b>52,335,496</b>	<b>29,302,385</b>	<b>83,353,049</b>	<b>(292,957,996)</b>		<b>71,033,244</b>	<b>5,269,789</b>

## **Cash and Investments Unaudited**

### GoTriangle Cash and Investments



### Triangle Tax Districts Durham, Orange, and Wake Counties Cash and Investments



## **Capital Improvement Projects**

## FY21 Capital Projects

FY 21 Advanced Technology Capital Projects								
Project	Cost	Federal	Durham Transit Plan	Orange Transit Plan	Wake Transit Plan	NCDOT	GoTriangle/ Other	GoTriangle Match %
Share TheRide NC	54,800					49,818	4,982	9%
ERP Module	3,000,000		704,525	194,400	750,000		1,351,075	45%
<b>TOTAL</b>	<b>\$ 3,054,800</b>	<b>\$ -</b>	<b>\$ 704,525</b>	<b>\$ 194,400</b>	<b>\$ 750,000</b>	<b>\$ 49,818</b>	<b>\$ 1,356,057</b>	<b>44%</b>

FY 21 Bus Capital Projects								
Project	Cost	Federal	Durham Transit Plan	Orange Transit Plan	Wake Transit Plan	NCDOT	GoTriangle	GoTriangle Match %
Bus Repower (15)*	3,887,639	480,000	\$ 394,348	\$ 246,343	1,250,000		1,516,948	39%
OSHA Requirement	250,000						250,000	100%
Purchase 4 replac. Paratransit vehicles*	352,000	294,800					57,200	16%
6 Buses (Expansion/Replacement)	3,283,287		1,050,653	656,657	1,575,977			0%
Regional Transit Facilities Study	1,512,500	240,000	975,000	37,500	200,000		60,000	4%
RUS BUS	2,217,375	1,128,000			1,089,375			0%
Paratransit Office Renovation*	1,100,000	240,000			568,124		291,876	27%
Bus Stop Improvements Wake County	1,992,760	403,840			1,588,920			0%
Roof Renovation*	17,000	13,600					3,400	20%
Asphalt Resurfacing*	70,000	56,000					14,000	20%
Safety and Security - 1% requirement	28,811	23,049					5,762	20%
<b>TOTAL</b>	<b>\$ 14,711,372</b>	<b>\$ 2,879,289</b>	<b>\$ 2,420,001</b>	<b>\$ 940,500</b>	<b>\$ 6,272,396</b>	<b>\$ -</b>	<b>\$ 2,199,186</b>	<b>15%</b>

\*Carryforward from FY20



## FREQUENTLY ASKED QUESTIONS

### FY21 For Period Ending June 30, 2021

#### **Q1. When is GoTriangle's fiscal year (FY)?**

A1. GoTriangle's fiscal year begins July 1 and ends June 30.

#### **Q2. Why did GoTriangle's Reimbursement from Others revenue *budget* increase \$11.5M over FY20?**

A2. GoTriangle performs services or makes purchases that benefit other transit agencies within the Triangle, and those agencies reimburse GoTriangle for their share of the cost. During FY21, a total of \$12,390,346 was budgeted for reimbursements related to capital expenditures. Specifically, \$250K is expected from Johnston County for commuter rail and \$858K is expected for RideShare expenses. Other capital reimbursements include \$9.6M for regional bus capital projects and \$1.6M for advanced technology capital projects.

#### **Q3. What revenues are considered Other Reimbursements?**

A3. Other reimbursements include bus accident damages payments and GoDurham expenses.

#### **Q4. Why did GoTriangle's Capital Outlay expense budget increase \$7.5M over FY20?**

A4. During FY21, GoTriangle anticipates spending \$14.7M for regional projects, \$1.4M for major projects and \$3.1M for advanced technology projects. As noted in A1, \$12.1M of these capital outlay expenses will be reimbursed by other transit agencies within the Triangle, so GoTriangle's share should be \$6.7M.

#### **Q5. Why did GoTriangle's FY21 Executive Office budget decrease so much compared to FY20?**

A5. In FY20, the Executive Office budget included both CEO and COO staff and other expenses. In FY21, the budget was split so the Chief Operations Office would have a separate budget.

#### **Q6. What is the difference between Transit Service Revenue - Paratransit and Paratransit Services Revenue?**

A6. Paratransit Services Revenue is for paratransit services GoTriangle provides to Durham County Access and Accessible Raleigh Transportation. Transit Services Revenue - Paratransit reflects the cost of non-contracted paratransit services provided by GoTriangle.

#### **Q7. Since GoTriangle is still operating fare free, why are there Bus Fares and Consignment revenues?**

A7. Some of GoTriangle's customers continue to buy GoPass cards for clients, and there was a deposit from PayPal for past transactions received during this fiscal year.

#### **Q8. Why are GoTriangle's Investment Earnings/Unrealized Gain (Loss) negative?**

A8. GoTriangle's Investment Earnings/Unrealized Gain (Loss) is a combination of year to date investment earnings (interest) and the **change in value** of its investment portfolios. The portfolios consist of similar investments established at different times, so the adjustments to market value are not in sync resulting in **unrealized** gains or losses. GoTriangle generally holds investments until maturity, so the losses shown are not expected to truly be realized.

## FREQUENTLY ASKED QUESTIONS

### FY21 For Period Ending June 30, 2021

**Q9. Why are actual Capital Outlay expenditures for GoTriangle, and the Durham, Orange and Wake tax districts lower than budget?**

A9. Many projects are delayed due to COVID-19. For example, bus repowers are ongoing, but it is taking a while for each repower to be completed due to the slowness of being able to get various parts. Additionally, the nature of capital projects is that there is usually a 3-6 month time frame from when a budget is identified to procurement, identifying contractors, contract award, and when invoices are received to be processed by the Tax District. Lastly, expenditures appear lower due to the timing of when Transit Partners submit reimbursements to the Transit Tax District, which is usually quarterly. By the end of the fiscal year, all actual expenditures will be processed.

**Q10. Why are actual Department expenses for the Durham, Orange and Wake tax districts averaging 36.7%?**

A10. Tax District expenses appear lower since Transit Partners generally submit reimbursements to the Transit Tax District on a quarterly basis. By the end of the fiscal year, all actual expenses will be processed.