DRAFT DATED JULY 25, 2022

2022

orange county transit plan update

A 20-year strategy for investing Orange County's transit tax revenues.

ORANGE COUNTY NORTH CAROLINA

DURHAM · CHAPEL HILL · CARRBORO DCHC METROPOLITAN PLANNING ORGANIZATION

Chapel Hill Transit

GO Triangle

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ORANGE COUNTY
NORTH CAROLINA

Sally Greene
Orange County
Board of County Commissioners

The 2022 **Orange County Transit Plan Update** represents two years of review, study, outreach, consultation, and deliberation aimed at charting the best path forward for Orange County's transit future. It is the second update—the first was in 2017—since the plan was adopted in 2012. As the plan's Policy Steering Committee, we are pleased to present it to the Orange County community.

The Plan Update allocates Orange County's transit tax district revenues over the next 20 years. It includes already programmed projects and investments described in previous versions of the plan as well as new projects to be funded with the revenue remaining after accounting for existing commitments.

Our work on the update underscored the reality that current funding streams, primarily the half-cent sales tax approved by voters in 2012, are simply inadequate to meet the critical transit needs of Orange County as a major employment hub. Accordingly, the update includes a vision for improving regional transit connections and enhancing transit service options beyond what current funding can support. These *Next Generation* projects will require further study and substantial additional funding. We hope the vision set forth in these pages—with refinements over the coming years—will provide a clear basis for future appeals for funding and inspire collaborative regional planning, particularly with Durham, Chatham, and Alamance counties.

Equity leads the values guiding the Plan Update. Past choices made by elected officials and public transportation agencies have deepened social inequity and racial injustice—in Orange County as throughout the United States. The investment commitments in this update acknowledge and address existing imbalances, and we expect future transit investments to go further to right historical wrongs.

Environmental sustainability is another essential value. The time we spend in our gas-powered automobiles is stealing a healthy climate future from our children. We must do our part to reduce carbon emissions by building a transportation infrastructure robust enough to provide viable alternatives to the car. This work includes building out bike path networks and safe sidewalks and other infrastructure to support nonmotorized transportation.

Other goals and values rounding out the Plan Update include supporting economic prosperity, promoting greater quality of life through facilitating travel in the region, easing access to our region's wealth of colleges and universities, and ensuring transit service for as many residents as reasonably possible. Key to achieving these goals is the need to consistently and explicitly link transit planning to land use planning.

The Plan Update recommends that all Orange County jurisdictions incorporate the Housing and Transportation Affordability Index as a planning tool. The H+T® Index treats the cost of transportation—like the cost of housing itself—as a critical element of the cost of living, and in this way, it refines our understanding of affordable housing. Planning that favors the proximity of housing to transit, moreover, offers a collateral benefit. Coordinated transit and land use planning enhances the county's ability to recruit world-class employers, with the promise of high-quality employment opportunities.

The transit system outlined and envisioned on these pages can be imagined, in the words of the nonprofit Climate and Community Project, as "a strategic lever in the quest for climate, economic, and racial justice." We invite you to join us in advancing Orange County's work toward this better future.

On behalf of the Orange County Transit Plan Update Policy Steering Committee,

Sally Greene, Chair

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contents.

Why does equity matter to transit planning?

transit•*equity*

Equity does not imply sameness. It is built on proportionality and based on need – the transportation needs of some groups are more significant than others, even if they are not the majority of those using transportation

This section provides an overview of the concept of "transit equity," its origins in the Civil Rights Movement, and the commitments needed to ensure ALL citizens benefit from investments in public transportation.

Transit equity and transit justice may be recent additions to the transportation lexicon but they are not new concepts to marginalized or socially vulnerable groups. For residents identifying as Black, African American, or People of Color, transit equity and transit justice hold even deeper meaning because they are inextricably linked to the history of the American Civil Rights Movement when the public battles forcing the end of legal segregation were waged on two primary fronts – lunch counters and transit vehicles.

Most Americans are familiar with Rosa Parks' strategically publicized refusal to relinquish her seat to a white rider on a bus in Montgomery, Alabama in 1955. But Parks' story is just one element of a sustained, organized campaign to end segregation on public transportation and in other public and private settings. In fact, the first organized transit boycott in the South occurred over two years before Parks' protest, in Baton Rouge.

The legal basis for racial segregation was initially codified when Homer Plessy was charged with boarding a "whites only" railroad car, violating New Orleans' "Separate Car Act" of 1890. Plessy fought his case all the way to the US Supreme Court who ruled that segregation based on race was not unconstitutional if each race was provided facilities that were "separate but equal" (Plessy v. Ferguson 1896). The "separate but equal doctrine" upheld and enforced legal discrimination and segregation long into the 20th century, until it was overturned in 1956 (Gayle v. Browder) as a direct result of Parks' direct action and the subsequent Montgomery Bus Boycott..

"At the bus station in Durham," 1940 by Jack Delano. Library of Congress

about the author.

Content in both the "Equity Connections" features and this chapter were adapted from a report authored for Orange County by Dr. Irma McClaurin. Dr. McLaurin is a past president of Shaw University, an award-winning author, and an activist anthropologist who has committed her life and career to helping others transform the world. She holds the PhD and MA in Anthropology and the Masters of Fine Arts (MFA) in English, both from the University of Massachusetts Amherst. As the Principal of Irma McClaurin Solutions (IMS), a consulting business, she specializes in helping others find immediate and sustainable solutions to emerging and urgent issues. Dr. McClaurin offers support as an asylum expert witness, leadership consultant and guru, speaker/facilitator, writer/editor, executive coach, researcher/evaluator, and diversity strategist.

The concept of "riding with dignity" remained a major organizing element of the Civil Rights Movement and major movement leaders like Dr. Martin Luther King, Jr. "made the case that transit systems did not do enough to help poor people access opportunities for gainful, meaningful employment, leading him to conclude that urban transit systems were 'a genuine civil rights issue,'" an insight that has taken on new relevance in recent years.

For these reasons and more, equity is woven throughout the Orange County Transit Plan Update as a unifying theme. The Plan Update prioritizes projects that improve equitable outcomes and actively works to mitigate historical inequities related to transit and transportation. The Plan Update also seeks to cultivate a shared language for discussing issues of equity and builds capacity by describing less obvious connections between transit planning and equity. The blue "Equity Connection" signs identify the opportunity to learn more about transit equity.

"While some aspects of transit inequality have improved - Blacks and other non-whites are no longer relegated to the back of the bus - in other respects there are still significant barriers to the formation of transit policies and practices that will affirm that…transit is a fundamental public good that we all benefit from regardless of age, race, or class."
- Dr. Irma McClaurin

Equality and Equity: What's the difference?

Two words are used in the policy and planning arenas that are often confused or used interchangeably – equality and equity. These words are not the same and care should be taken when using either. *Equality* is simply the state of being "equal" (in number, value, rank, etc.) and most people equate equality with "fairness" and "sameness." The (often unfounded) idea that people can be treated exactly the same and experience similar outcomes is often what drives debates about whether equity is needed.

The Concept of Equality
Sameness in the form of equality is considered fundamental to the democratic principles of the United States as embedded in the second paragraph of the United States' Declaration of Independence. An implied, innate state of sameness among all people has been made an arguing point by those who prescribe to a more individualistic worldview. Attempts to address inequality may be countered with arguments about the "fairness" of our efforts.

But equality is only achieved when every unique need is addressed and people with differing needs are included in the decision-making process, not as cosigners but as co-creators, resulting in the equal outcomes, despite different starting points. A slightly different way of thinking about this is that true equality can only be achieved with genuine equity.

The Concept of Equity
Equity is one of those words that seems to trigger emotions from some who believe that somehow their rights are being infringed upon. Many people prefer to see

scenario.

Imagine a bus in which all the seats are spaced equally apart — equality exists. Or does it? There is the same leg room distance between two rows of seats and each seat is spaced equally apart from the other. That means that there is equality — there is *sameness*. But what about the initial determination of what is "equal" leg room or "equal" space between seats? If that decision was made by a person who is 5'5" and weighs only 110 pounds, how comfortable is such seating for a person who is 6 feet tall and weighs 250 pounds? The myth of equality is that all people have exactly the same needs, the same access, and the same chances for an equal outcome. But if, somewhere along the way, one person or group makes a decision in their own favor (privileging them) it impacts everyone. It benefits the decision maker but does not equally benefit others who were not involved in the decision-making process. Historically, too many voices have been left out of city and transportation planning resulting in highly unequal processes and decision making.

> *"We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness."*

"fairness" in the form of "sameness." Anyone who gets something different is suspect. What most people fail to take into account is that under the guise of "fairness" and "equal," some groups enjoy greater privilege.

Many people do not know the history of transit inequality that can be traced back to 1892, when Homer Plessy refused to sit in the segregated car assigned to Blacks. Plessy's case was a landmark in challenging the "separate but equal" doctrine as practiced not only in southern states but in northern states as well. When the Supreme Court, in Plessy v. Ferguson, upheld segregation in public accommodations, they provided the legal justification and framework for segregation. Whites typically enjoyed the privilege of interpreting "equal" and in every area of social life (education, health, employment), Blacks received substandard equipment and inadequate resources, all deemed legal by virtue of the U.S. States Supreme Court.

Many of the gaps and disparities Blacks grapple with today in education, health, and employment, have roots in this landmark decision. America has always promoted "equality" in its social language, but the reality is that we are still grappling with 150 years of legalized inequality and unequal treatment after the dissolution of the slavery and 57 years after the passage of the 1964 Civil Rights Act that was meant to end segregation in public accommodations.

The principle of equity is not about sameness. It is built on proportionality and based on need — the transportation needs of some groups are more significant than others, even if they are not the majority of those using transportation. "Equity refers to proportional representation (by race, class, gender, etc.)...to achieve equity, policies and procedures may result in an unequal distribution of resources. For example, need-based financial aid reserves money specifically for low-income students. Although unequal, this is considered equitable because it is necessary to provide access to higher education for low-income students."

assessing equitable transit outcomes.

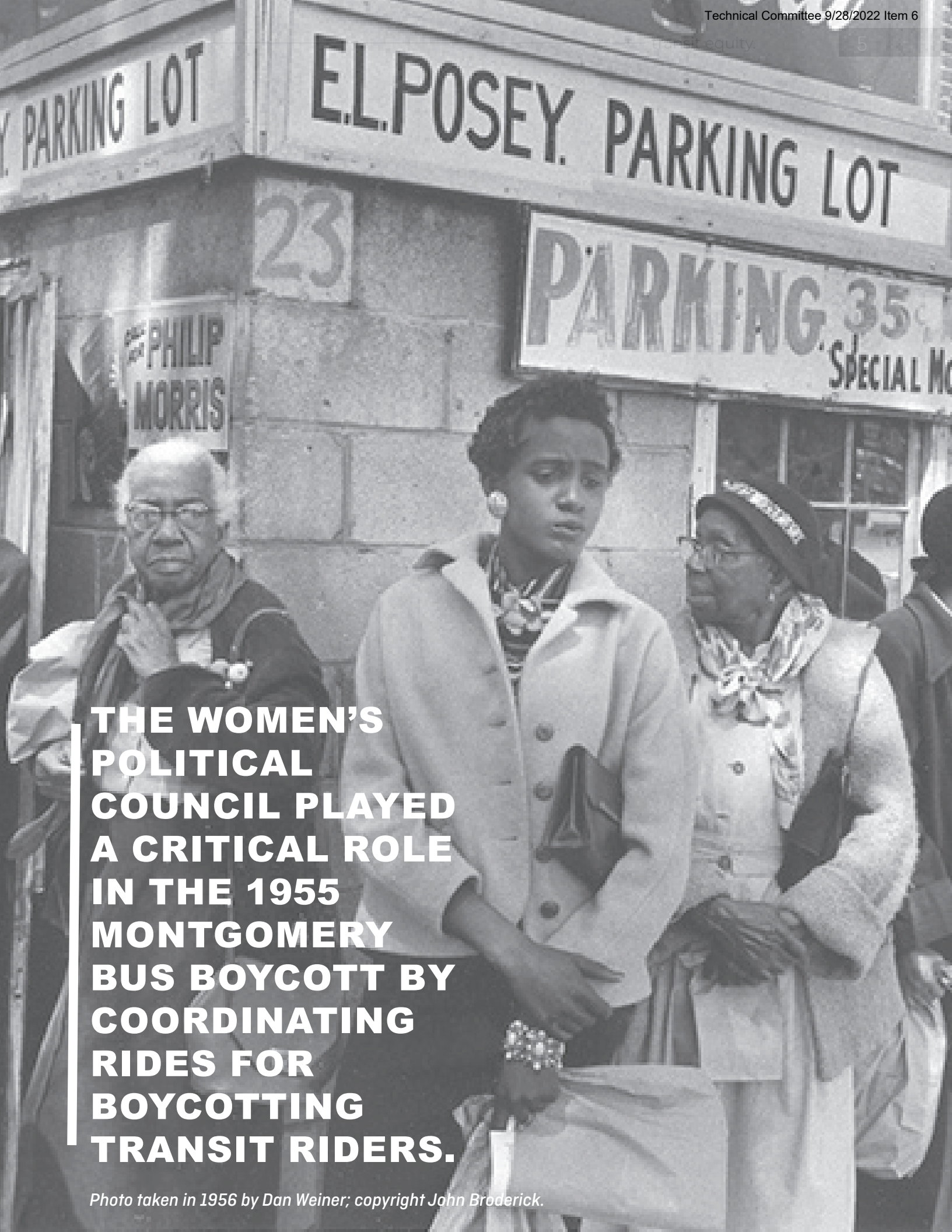
Who determines success when it comes to measuring equity? Often the institutions that generated inequalities are the same institutions charged with the task of self-reporting success. If a metaphor is needed, it's akin to asking the fox who raided the hen house to assess the hen house's security upgrades.

Breaking the cycle of power requires a different approach. It will take huge investments of resources (financial, human, time, etc.) to begin to undo harm that has unfolded over decades. Fifty-seven years after passage of the Civil Rights Act, and despite legal restrictions against discrimination in every aspect of American social life, it still exists and persists, showing up in transportation alongside housing and employment.

Equity cannot be measured exclusively through dashboards or policies. The only true indicator is radical improvement in the lives of the county's most vulnerable residents. However, there are some metrics that can be used to guide more thoughtful consideration of potential adverse impacts:

- Race
- Sexual Orientation (LGBTQ)
- Minoritized status
- Formerly Incarcerated
- Health disparities
- Unemployed
- Homelessness
- Poverty-level
- Age
- Physical & Vision Impairment
- Living in minority neighborhoods disrupted by highways
- Gender (women have highest incidence of being at the poverty level)
- Immigrant
- Undocumented immigrant
- Non-English speaker
- Rural communities
- Environmental disparities

The reality is that we are still grappling with 150 years of legalized inequality and unequal treatment after the dissolution of the slavery and 57 years after the passage of the 1964 Civil Rights Act that was meant to end segregation in public accommodations.



THE WOMEN'S POLITICAL COUNCIL PLAYED A CRITICAL ROLE IN THE 1955 MONTGOMERY BUS BOYCOTT BY COORDINATING RIDES FOR BOYCOTTING TRANSIT RIDERS.

Photo taken in 1956 by Dan Weiner; copyright John Broderick.

In other words, to achieve *equality*, there must be an imbalance. People and communities with the greatest need must be provided with relatively more resources, to allow them to catch up. *Equity* embraces this imbalance by acknowledging that a disproportionate allocation of resources is a necessary condition for change.

A Brief History of Transit Inequality

Like transit inequity, transit inequality derives from policy and planning decisions that have adversely impacted "vulnerable" and "marginalized" communities. Until the 1990s, people identifying as Black or African American, were the largest minority population group, comprising 12% of the national population. This group has also been the most disparately impacted in every area of social wellbeing (health, education, employment), including transit. These disparities were starkly evident in the impacts of the COVID-19 pandemic on minority populations as compared to the white population. National surveys indicate that Black residents, who make up an average of around 13% in most communities, represented over 50% of COVID-19 cases and nearly 58% of COVID-related deaths. In North Carolina, Black residents represent only 22% of the population and 38% of the COVID-19 deaths (2020). As Black residents also tend to depend more on public transportation than whites, their access to health care and employment opportunities has also been adversely impacted by the pandemic.

Marginalized groups have also disproportionately suffered adverse impacts generated by transportation policies and planning favoring majority-white communities. This preferential treatment of white communities has historically tied transportation access to opportunities to economic and political power. One notable example is the construction of highways through thriving Black communities under the guise of urban renewal. In many cases, highway corridors routes were selected based on the cost of land; areas selected were typically the cheapest or locations where political resistance was weakest. In practice, this meant that urban highways cut through low income and minority communities more often than not. The legacy of these projects is still felt today. Neighborhoods remain disinvested and disconnected from the rest of the community, contributing to transportation access and mobility challenges in marginalized communities that most need quality transit service.

Just before his assassination on April 4, 1968, Dr. Martin Luther King, Jr. astutely summarized the important role transportation plays in hindering the social mobility of Black Americans:

"Urban transit systems in most American cities... have become a genuine civil rights issue — and a valid one — because the layout of rapid-transit systems determines the accessibility of jobs to the Black community. If transportation systems in American cities could be laid out so as to provide an opportunity for poor people to get meaningful employment, then they could begin to move into the mainstream of American life."

Acknowledging historical and existing transit inequality shines a light on aspects of transit planning and policy that have been in the shadows for far too long, causing harm to particular groups and communities.

Moving Towards Transit Equity

Transit equity is a solutions-driven model of change. Few people would disagree with this statement. However, it is not the historical reality for many vulnerable populations. Access to transit has not been "fair," "equal," or "equitable" for marginalized and the vulnerable individuals and communities in America. Accessible, affordable transportation is a critical resource. Shifting this historic dynamic requires focusing less on cost as a measure of system success and placing greater emphasis on access and a more equitable distribution of the benefits of transit investments.

While many residents in Orange County rely primarily upon automobiles as their primary means of transport, there are still many residents who depend upon public transportation for access to employment, health care, shopping, and more. The Orange County Transit Plan Update attempts to identify the needs of vulnerable groups in Orange County, acknowledge that needs have historically not been addressed, and identify equitable transit solutions moving people and place closer to the goal of transit equality.

The Montgomery bus boycott was organized by local ministers, including Martin Luther King, Jr. ultimately helping end segregation on public transit. Image Credit: PBS

ORANGE COUNTY
NORTH CAROLINA

executive summary.

quick•*take*

Start here to learn more about the Orange County Transit Plan Update's purpose and organization.

SECTION
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WELCOME TO THE ORANGE COUNTY TRANSIT PLAN UPDATE! WE ARE GLAD TO HAVE YOU ON BOARD.

The Executive Summary provides you with an overview of the Orange County Transit Plan Update including a description of the plan's purpose and motivating values, a timeline of the planning process, a "map" of the plan's contents to help you find the information you need, and a summary of new investments in the County's transit system including Orange County's vision for the next generation of transit investments.

START HERE

WHAT IS THE ORANGE COUNTY TRANSIT PLAN UPDATE?

The Orange County Transit Plan Update allocates Orange County's **Transit Tax District** revenues over the next 20 years based on the community's needs, values, and priorities. It includes already programmed projects and investments described in previous plans (*Orange County Bus and Rail Investment Plan* (2012), *Orange County Transit Plan* (2017), and projects included in the County's annual transit work plans) and new projects to be funded with the revenue remaining after accounting for existing projects. The Orange County Transit Plan Update also ensures the benefits of public transportation investments support community members who are the most reliant on transit service and that public transportation investments support land use and development in Orange County that is resilient, sustainable, and attainable for all.

WHAT IS THE ORANGE COUNTY TRANSIT TAX?

In 2012, voters in Orange County approved a half-cent sales tax (Article 43) to fund transit service and transit infrastructure improvements. Funding for transit is also collected through a vehicle rental tax and vehicle registration fees. In 2022, Orange County generated $8,954,000 through these funding sources. The revenues support transit services provided by Orange County Public Transportation, Chapel Hill Transit, and GoTriangle. Revenues also help pay for infrastructure improvements related to transit in Orange County communities and support administrative and planning services.

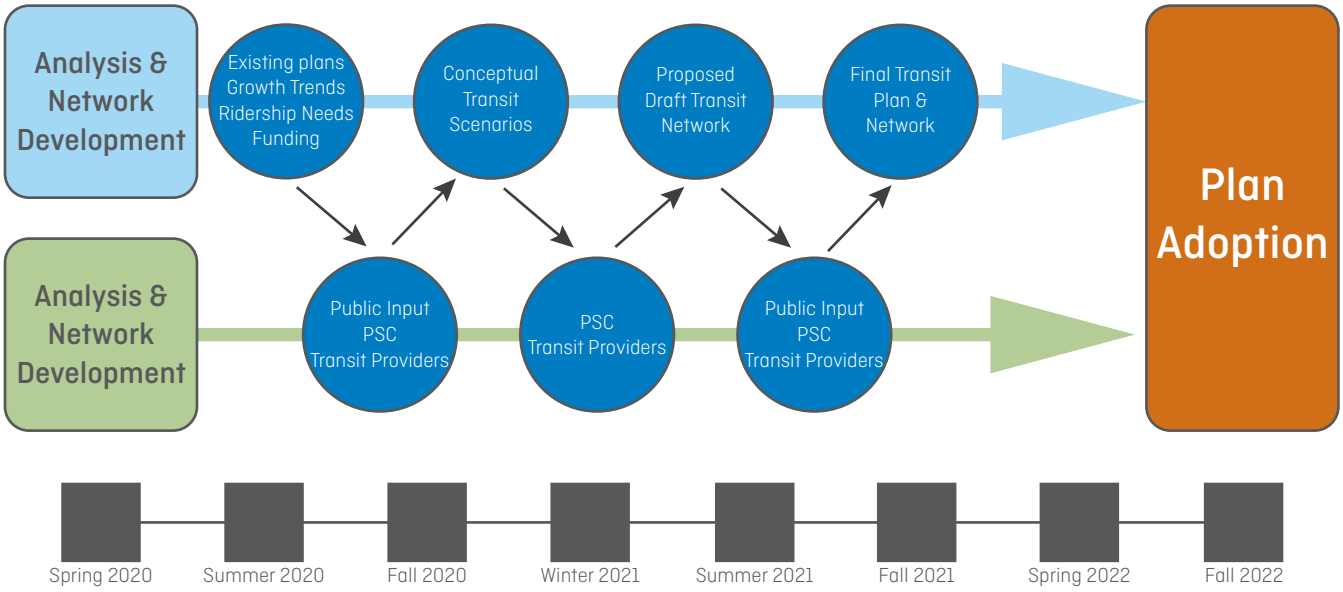
WHY IS IT IMPORTANT TO PLAN FOR TRANSIT?

Transit is more than just a way to get from one point to another. It connects people to employment opportunities, improves environmental outcomes by reducing the number of cars on the road, supports active transportation (walking, biking, rolling), and gives people the freedom to go *where* they want, *when* they want. Transit planning helps balance the needs of all transit riders and allocates available funding to meet these needs. Transit planning also guides important decisions in Orange County related to accommodating new growth and development and ensuring transportation options are available. These decisions directly and indirectly impact where people live, work, learn, shop, and play and the opportunities, services, and resources that are available.

HOW WAS THE TRANSIT PLAN UPDATE DEVELOPED?

The Orange County Transit Plan Update was developed between 2020 and 2022 and included reviewing existing transit, transportation, and land use plans; conducting public outreach and engagement; identifying and assessing transit projects; and creating an implementation plan, budget, and schedule for new transit projects.

PLAN TIMELINE



PLAN PARTNERS

The Plan Update was led by Orange County staff and a consultant team was hired to develop the plan. A Policy Steering Committee (PSC) of local elected officials was convened to guide the plan's policy direction. Municipalities (Carrboro, Chapel Hill, Hillsborough, and Mebane), the University of North Carolina at Chapel Hill, transit service providers (Chapel Hill Transit, Orange County Public Transportation, and GoTriangle), and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) were also closely involved in the plan's development.

PROJECT SELECTION

HOW WERE TRANSIT PROJECTS IDENTIFIED?

Transit projects were selected based on needs, priorities, and the recommendations of the public, local government staff, transit service providers, community stakeholders, and the Policy Steering Committee. The following were considered:

- Transit service provider's priority projects
- Public need
- Community values (equity, environmental sustainability, economic prosperity, affordable and attainable quality of life, and transportation and access for all)
- Regional connectivity
- Long-term transit vision.

WHAT VALUES GUIDED THE SELECTION OF PROJECTS?

The Orange County Transit Plan Update is guided by by five core community values.

EQUITY
Prioritize the transit needs of under-served or transit-dependent residents; includes historically disinvested communities of color, lower-income neighborhoods, seniors, and rural communities.

ENVIRONMENTAL SUSTAINABILITY
Prioritize accessible and convenient transit service in areas with existing or planned higher density development.

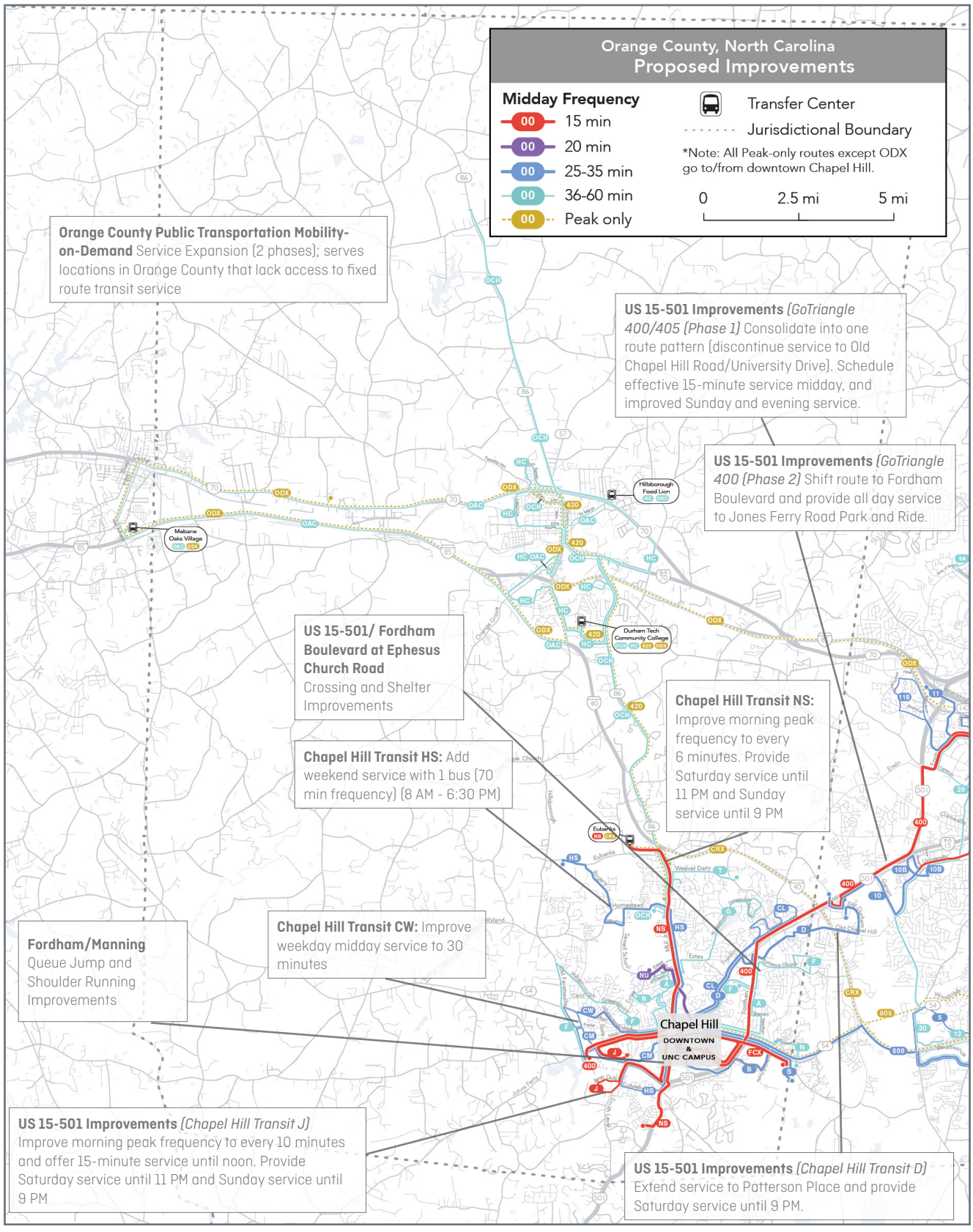
ECONOMIC PROSPERITY
Prioritize increasing access to jobs and opportunities.

AFFORDABLE & ATTAINABLE QUALITY OF LIFE
Prioritize transit service connections to affordable housing, recreation, and arts and cultural opportunities.

TRANSPORTATION & ACCESS FOR ALL
Prioritize transit service that increases transit access for the most people to the most places.

PROJECTS

The Orange County Transit Plan Update recommends five transit service improvement projects and two capital investment projects to enhance transit connections, access, and reliability.

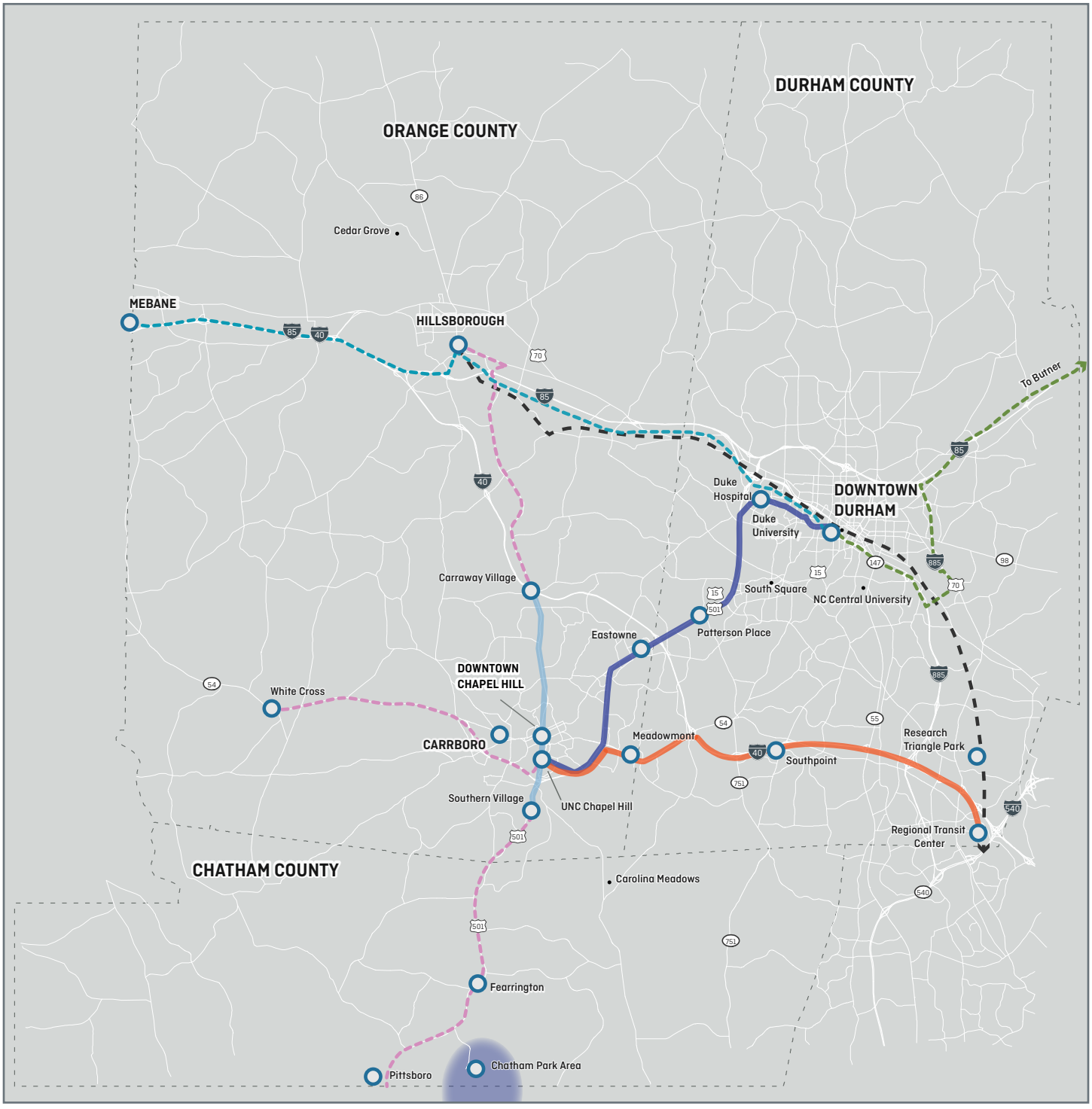


TRANSIT VISION

The Orange County Transit Plan Update also illustrates a long-term vision for "Next Generation" transit service and investments in Orange County.

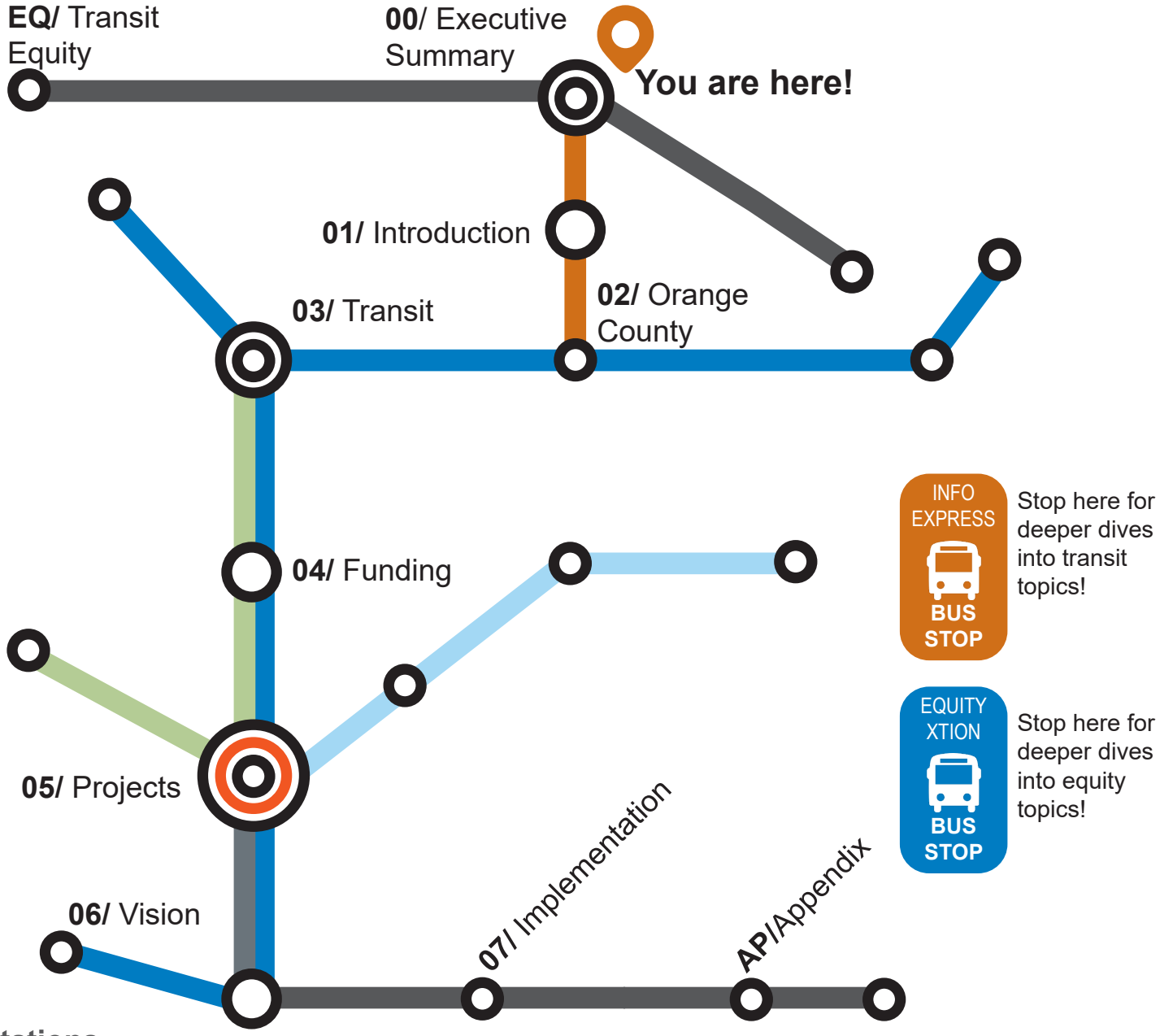
LEGEND

- Commuter Rail Transit (CRT)
- North-South Bus Rapid Transit (N-S BRT)
- Durham/ Chapel Hill Bus Rapid Transit (BRT)
- Chapel Hill/ RTP Bus Rapid Transit (BRT)
- Express Bus Corridors (2040)
- Express Bus Corridors (2050)
- Express Bus to Mebane



ROUTE MAP

A guide to finding your way around the Orange County Transit Plan Update.



Stations

EQ/ Transit Equity: Learn more about transit equity's origins in the Civil Rights Movement and what's needed today to ensure ALL citizens benefit from investments in public transportation.

00/ Executive Summary: An overview of the Orange County Transit Plan Update's purpose and organization.

01/ Introduction: The Orange County Transit Plan Update allocates the county transit tax revenues over the next 20 years.

02/ Orange County: Key characteristics of the people and places in Orange County and their influence on transit investments, and service.

03/ Transit: Orange County's transit service providers, the existing transit network, and transit system performance.

04/ Funding: Collection and allocation of transit funding, including the assumptions used to estimate expenses, costs, and revenues.

05/ Projects: Specifics for each project proposed in the Orange County Transit Plan Update.

06/ Vision: The next generation of transit investments envisioned in Orange County.

07/ Implementation: Next steps for implementing proposed projects.

AP/Appendix: Supplemental information and resources.

ORANGE COUNTY
NORTH CAROLINA

introduction.

quick•*take*

The Orange County Transit Plan Update allocates the county transit tax revenues over the next 20 years.

SECTION 01 introduction.

What's a transit plan and why does Orange County need one?

transit•*plan*
A document and financial strategy describing public transportation investments that reflect the community's needs, values, and priorities.

This section describes the "nuts and bolts" of the planning process including the reasons Orange County plans for public transportation and the benefits of planning today for tomorrow's needs.

At its most basic level, the Orange County Transit Plan Update describes a strategy for using funding collected through the county's transit tax over the next 20 years. But, if we look closer, the Orange County Transit Plan Update also tells a story about people and places - how the county became what it is today and where the county is headed in the future.

The Transit Plan Update guides important decisions in Orange County related to how we will use developed and undeveloped land, where we can or should accommodate new growth and development, and what types of transportation options will be available to us. These decisions directly and indirectly impact where we live, work, learn, shop, and play and the opportunities, services, and resources available to us. Therefore, this plan is also concerned with equity, ensuring that 1) the benefits of public transportation investments support community members who are the most reliant on transit service; and 2) public transportation investments support land use and development that is resilient, sustainable, and affordable.

Why Plan for Transit?

Transit is more than just a way for riders to get from one point to another. Transit connects people to employment opportunities, improves environmental outcomes by reducing the number of cars on the road, supports active transportation (walking, biking, rolling), and gives people the freedom to go *where* they want, *when* they want. Transit planning requires understanding and balancing the needs of all transit riders (even potential transit riders) and allocating available funding to meet these various needs. This is not a simple task and there are not "right" or "wrong" ways to do it. These decisions are informed by the community's values and "trade-offs" must be considered and weighed based on needs, goals, and resources.

Guided by **five core values**, the Orange County Transit Plan Update describes how the county will invest in improvements to the types (modes), locations (routes), and schedules (frequency and span) of transit services offered in Orange County.

core values.

Equity: Prioritize the transit needs of under-served or transit-dependent residents; includes historically disinvested communities of color, lower-income neighborhoods, seniors, and rural communities.

Environmental Sustainability: Prioritize accessible and convenient transit service in areas with existing or planned higher density development

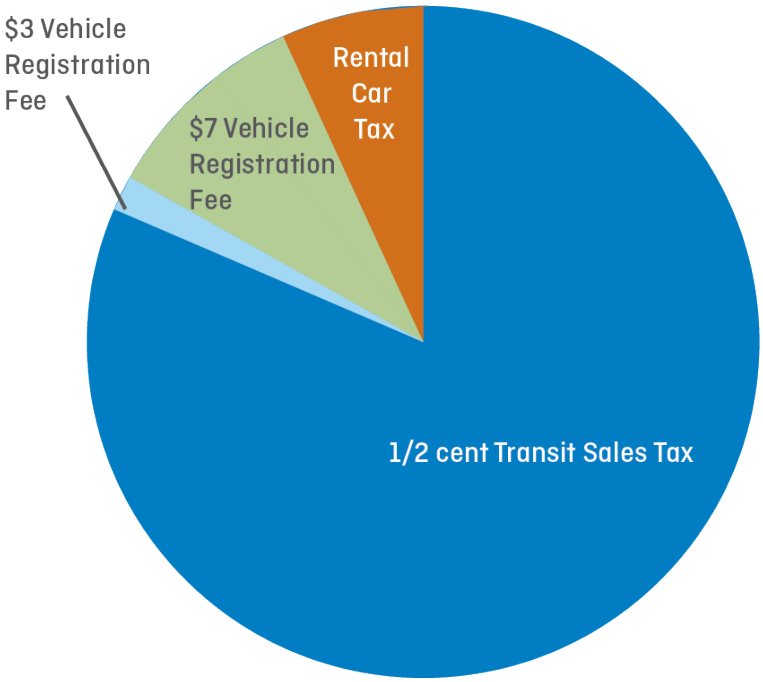
Economic Prosperity: Prioritize increasing access to jobs and opportunities.

Affordable and Attainable Quality of Life: Prioritize transit service connections to affordable housing, recreation, and arts and cultural opportunities.

Transportation and Access for All: Prioritize transit service that increases transit access for the most people to the most places.

Investing in Transit

In 2012, residents of Orange County approved a half-cent sales tax to fund transit service and infrastructure improvements. Additional funding is generated for transit through a vehicle rental tax and vehicle registration fees. Transit revenues and expenses are discussed in more detail in the "Funding" section of this plan.



Revenue Sources Supporting Transit in Orange County

North Carolina's General Statutes require the County to create a financial plan describing how transit tax revenues will be spent. Transit tax revenues **must be used to provide new or improved service** - they cannot be used to pay for transit service that is already being provided by the county. The first of these plans, the *Orange County Bus and Rail Investment Plan,* was adopted in 2012. The Orange County Board of County Commissioners (BOCC), GoTriangle, and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) also executed an Interlocal Implementation Agreement (ILA) in 2012, describing a process for the implementation and oversight of the *Orange County Bus and Rail Investment Plan*. The ILA established a Staff Working Group (SWG) including representatives from Orange County, GoTriangle, and DCHC MPO. The SWG reviews transit planning implementation progress and supports updates to the Plan in response to changing community needs and priorities or to make changes to projects or the implementation plan and schedule. The plan was last updated in 2017 as the *Orange County Transit Plan*.

Both the 2012 and 2017 Plans centered around the Durham-Orange Light Rail Transit (D-O LRT) project, with a significant portion of funding being allocated to its planning and implementation. When the D-O LRT project was discontinued in March of 2019, it was necessary to update to the county's transit plan.

EQUITY CONNECTION

BUS STOP

equity or equality?

To understand what can be achieved through thoughtful transit planning, it is important to consider the differences between equality and transit equity. While they are similar, these concepts are not interchangeable. Equality means being exactly the same - most people associate this with the idea of "fairness" or "sameness." Equity, on the other hand, acknowledges that systemic prejudices have led to social and structural imbalances and situations where some groups benefit (or experience adverse impacts) more than others. Rectifying imbalances requires unequal distribution of benefits or mitigation of adverse impacts.

Debates about the concept of equity often stem from the belief that similar treatment yields similar outcomes. But this perspective fails to acknowledge that unequal treatment in the past means that we're not all starting out at the same place and some of our neighbors must struggle just to get to the starting line.

This means that without a deliberate focus on equity we will never achieve a condition of equality.

The Orange County Transit Plan Update attempts to move us closer to rectifying disparities in access to services, goods, and opportunities. Proposed projects were measured, assessed, and prioritized to determine who would benefit and where benefits would be experienced, ensuring a more equitable distribution of the benefits of transit investment.

This document (*Orange County Transit Plan Update*) is the product of the plan update process. The update process provided a valuable opportunity to ensure planned transit projects and investments reflect community values and meet community needs and goals. Within this plan update we introduce seven new transit projects supplementing the projects in the 2012 and 2017 plans, and enhancing the transit service and infrastructure currently provided by Orange County.

Service Providers

Transit services in Orange County are primarily provided by three agencies; each participates in the development and implementation of the county's transit plans.

Orange County Public Transportation (OCPT) is a county agency providing fixed route and demand response community transportation services to all residents of unincorporated Orange County, the Town of Hillsborough, Efland, and a portion of the City of Mebane with destinations within and beyond Orange County's borders. OCPT also provides circulator service within Hillsborough (in cooperation with the Town of Hillsborough), midday service connecting Chapel Hill to Hillsborough, and connections to Cedar Grove in northern Orange County.

Chapel Hill Transit (CHT) is a multi-jurisdictional agency formed by a partnership of the Town of Chapel Hill, Town of Carrboro, and the University of North Carolina – Chapel Hill (UNC-CH). CHT provides fare-free regular and express routes and demand response service in Chapel Hill, Carrboro, and UNC-CH campus areas. CHT also provides regional express bus service to Hillsborough in cooperation with GoTriangle.

GoTriangle is a regional transit agency providing regional commuter express and demand response service connecting Wake, Durham, and Orange counties.

In addition to these three primary transit service providers**, Piedmont Authority for Regional Transit (PART)** also provides longer distance service between Greensboro, NC, and UNC-CH Hospitals with several stops in Alamance County.

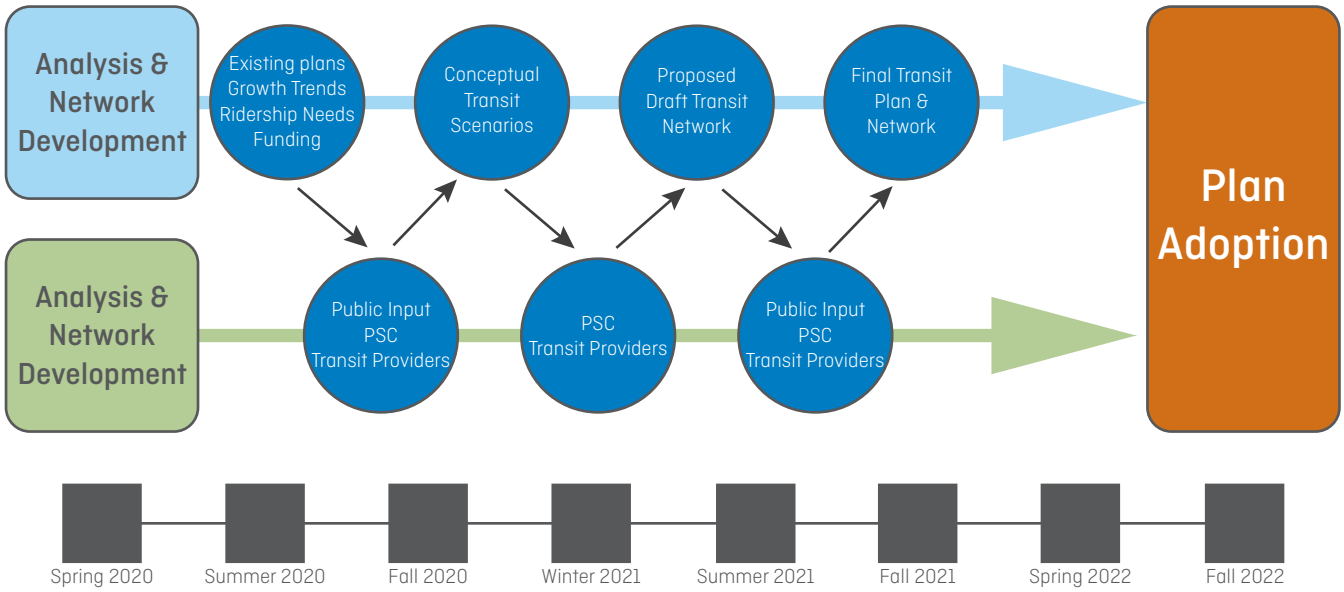
policy steering committee.

POLICY STEERING COMMITTEE MEMBERS	
Member Name	**Title/Organization**
Sally Greene (Chair)	Orange County Board of County Commissioners
Amy Fowler (replaced Mark Marcoplos)	Orange County Board of County Commissioners
Michael Parker	Chapel Hill Town Council
Barbara Foushee	Carrboro Town Council
Mark Bell	Hillsborough Town Commission
Montrena Hadley (replaced Patty Phillips)	Mebane City Council

A Policy Steering Committee (PSC) helped guide the transit planning process. The Committee's six members included elected officials from Orange County and the towns and cities within the County's borders including Carrboro, Chapel Hill, Hillsborough, and Mebane. Meetings were held regularly to discuss transit priorities, community engagement, the plan's strategic direction, and to review work products and proposed projects. The consulting team and Orange County staff facilitated a four-hour strategic planning retreat for PSC members on July 24, 2021 in Hillsborough to reach consensus on core community values, confirm the transit goals, and to discuss conceptual transit scenarios. PSC members and the project team attended the retreat in person and the retreat was live-streamed on Zoom to accommodate additional participants while maintaining room capacity limits to prevent transmission of COVID. A primary outcome of the retreat was the identification of five "Core Values" used to identify and assess projects to include in the Transit Plan Update.

Updating the Plan

The Orange County Transit Plan Update was developed between 2020 and 2022 and included tasks such as reviewing existing transit, transportation, and land use plans; conducting two phases of public outreach and engagement; developing and assessing conceptual transit scenarios and proposed projects; and creating an implementation plan, budget, and schedule for new transit projects.



Project Timeline

Plan Review

The planning process also considered existing transit plans to better understand unmet transit needs and land use plans to ensure transit investments are aligned with county and municipal visions for growth and development. A full list of plans reviewed for this project is available in the appendix.

Key resource documents include:

- Orange County 2030 Comprehensive Plan (2008)
- Orange County Bus and Rail Investment Plan (2012)
- Orange County Transit Plan Update (2017)
- Chapel Hill Short Range Transit Plan (2020)
- Orange County Public Transportation Short Range Transit Plan (2018)
- GoTriangle Short Range Transit Plan (2018)
- FY20-29 State Transportation Improvement Plan (STIP) (2020)
- DCHC 2050 Metropolitan Transportation Plan (MTP) (draft, 2022)
- Chapel Hill 2020 Comprehensive Plan (2012)

Local government and transit agency staff actively participated in identifying unmet transit needs, balancing transit needs with available resources, and vetting proposals for transit improvements. Key partners included:

- Orange County Public Transportation
- Orange County
- Town of Chapel Hill
- GoTriangle
- Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO)
- Town of Carrboro
- Town of Hillsborough
- City of Mebane
- University of North Carolina - Chapel Hill

outreach & engagement.

The Orange County Transit Plan Updates centers community outreach and engagement, ensuring the plan reflects community values and meets the community's transit needs. Drawing on best practices and experience, the planning team designed an approach providing residents and other stakeholders with the information and tools needed to fully engage in the planning and decision-making process and offering ample and accessible opportunities to participate in the planning process. Two critical elements of this approach are redundancy (many ways to participate) and accessibility (engagement makes sense given the community's needs and resources).

The project's outreach and engagement were conducted in two phases. Phase 1 introduced important transit planning concepts and established a shared understanding of the transit planning process, purpose, and key players. The goal of Phase 1 was to identify community transit priorities and establish a broad vision for new transit investments. Phase 2 drilled down into proposed projects and investment options ensuring they reflected community priorities and the feedback gathered in Phase 1.

approaches.

project website
Launched and maintained throughout the process; served as a centralized location for information, questions, and feedback

virtual transit summit
Introduced the Plan Update process and the transit system and set expectations on project scopes and budgets; sought early input on transit goals; helped identify community priorities; shared information about existing transit services that may not be widely known; included simultaneous Spanish interpretation.

surveys
Gathered preliminary information on transit wants and needs; respondents asked to share ridership habits, including types of transit they use, trip purposes, and any reasons for not taking transit; survey was available online and in print form and was offered in both English and Spanish; the second survey sought to gather input on the set of proposed projects and identify any unmet needs or additional thoughts.

virtual focus groups
Invited community leaders and representatives to provide feedback on the proposed investment strategies and projects.

pop ups
In-person engagement at bus stops and park and ride lots to promote the second transit survey and gather additional feedback.

engagement phase 1.

TOOLS/ *project website, survey, transit summit.*

A project website was established to share and store project information. Launched early in the planning process, the website was a central location for important information, resources, and materials. A survey (available online or in print, in both Spanish and English) gathered information on community transit needs and priorities by asking questions about travel patterns, travel modes, trip purposes, reasons the respondent chooses not to use transit (if applicable), and what could change to make transit a more attractive option. Transit service providers and planning partners helped promote the first survey and over 200 responses were received. In October 2020, a virtual Transit Summit was held attracting over 50 participants. The summit provided an overview of the planning process, introduced Orange County's transit system and providers, and set expectations in terms of the amount of funding available to support new transit investments. Participants were also asked about their transit goals and priorities, and this information was integrated into the planning process. The Transit Summit was promoted in both English and Spanish and featured simultaneous Spanish/English interpretation to help mitigate language barriers. A summary of feedback from Phase 1 is available in the appendix.

PHASE 1/ *what did we learn?*

"Transit riders want expanded transit services – both in frequency and in hours of operation.

engagement phase 2.

TOOLS/ *focus groups, survey, pop-ups.*

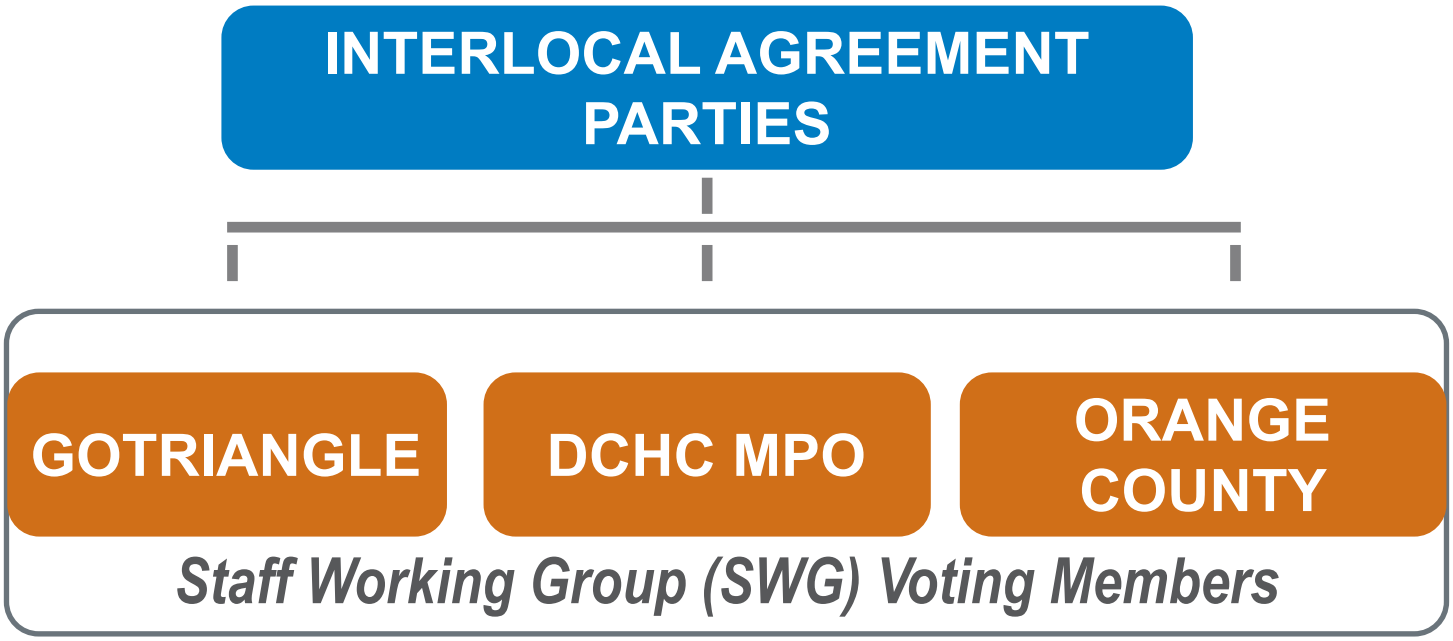
Two virtual focus groups gathered stakeholder feedback on proposed projects and a conceptual transit vision. The project team, transit service providers, and the PSC collaborated on an invitation list of targeting participants representing community interests, organizations, and agencies. Groups were capped at 15 participants to allow for a productive virtual environment for open discussion. The Phase 2 survey sought feedback on proposed projects and the conceptual transit vision by asking respondents to provide feedback on unmet transit needs or other transit-related concerns. The survey was available online and in print, in both English and Spanish. Transit providers, county and municipal staff, and community organizations heavily promoted the survey on behalf of the planning team. Additionally, project staff conducted pop-up events at bus stops across Orange County, sharing plan information and promoting the opportunity to provide feedback on the proposed projects and the conceptual transit vision. Additionally, posters and postcards were distributed advertising the survey. These intensive advertising efforts paid off - over 1,000 responses were received. A final phase of outreach gathered feedback on the plan, proposed projects, and conceptual transit vision during public comment for the plan's adoption.

PHASE 2/ *what did we learn?*

"Support was confirmed for the proposed improvements and transit vision.

Plan Governance

The *Orange County Bus and Rail Investment Plan* was approved in 2012 by Orange County, DCHC MPO, and GoTriangle. Along with this plan, Orange County, GoTriangle, and DCHC MPO entered into an Interlocal Implementation Agreement (ILA) to provide for effective implementation and oversight of the transit plan on October 24, 2012.The ILA establishes a **Staff Working Group** (SWG) including representatives from Orange County, GoTriangle, and DCHC MPO. The SWG supports the annual project selection process and budget approval; reviews progress of plan implementation; and prepares updates to the Plan at least every four years, or due to identified changes to costs or revenues that are significant enough to require a plan update. The *Orange County Transit Plan* (2017) was the first plan update. In 2017, the parties to the ILA plus Durham County also approved an update to the ILA's Cost-Sharing Agreement governing the division of responsibility for costs associated with the D-O LRT project, a key element of the 2012 and 2017 plans. The 2017 Cost-Sharing Agreement supersedes the original 2012 agreement. In 2021, these parties commenced a governance plan update process to review and possibly amend the governance structure for transit planning and implementation.



ORANGE COUNTY
NORTH CAROLINA

orange county.

quick•*take*

Home to nearly 150,000 residents, Orange County is the westernmost anchor of the Research Triangle.

SECTION
02

What influences transit investments in Orange County?

spatial•*analysis*
Methods of organizing and assessing data and information to identify patterns and trends based on geographic location.

This section summarizes key characteristics of the people and places in Orange County and describes their influence on transit decisions, investments, and service.

Orange County is centrally located in North Carolina's Piedmont, part of the Research Triangle Region. Four municipalities are located wholly or partially within the county - the Towns of Chapel Hill, Carrboro, and Hillsborough and the City of Mebane. A small part of Chapel Hill extends into Durham County. Orange County's population is largely concentrated within the urbanized areas of the towns and there are several rural communities like Efland and Cedar Grove, among others.

History

Orange County was originally inhabited by the Eno, Occaneechi, and Haw tribes of Native Americans. Later colonizers included the English, German, Scotch-Irish, and Welsh. The county played a pivotal role in the lead up to the American Revolution due to the Regulator Movement – North Carolina residents who instigated armed rebellion against corrupt colonial officials. In 1789, the flagship campus of the University of North Carolina system was established in Chapel Hill.

Like many areas in the American south, the county's development was rooted in agriculture (tobacco, cotton) and influenced by the railroad's arrival in the mid-1800s. The railroad's connections to national and international markets and the manufacturing advances of the Industrial Revolution combined to form the foundation of the Piedmont's textile industry. The region's strong grip on textiles manufacturing continued into the mid to late 20th century but then began a precipitous drop off, likely due to competition from overseas producers.

A strong agricultural tradition still exists in Orange County, though the county's economy has evolved and diversified to embrace new industrial sectors such as life sciences and biotechnology. The establishment of Research Triangle Park (RTP) in 1959 solidified the county's place in the new global economy. Information and knowledge-based sectors are strongly supported by several research universities, a nearby international airport, the high quality of life, communities, and an entrepreneurial spirit.

People

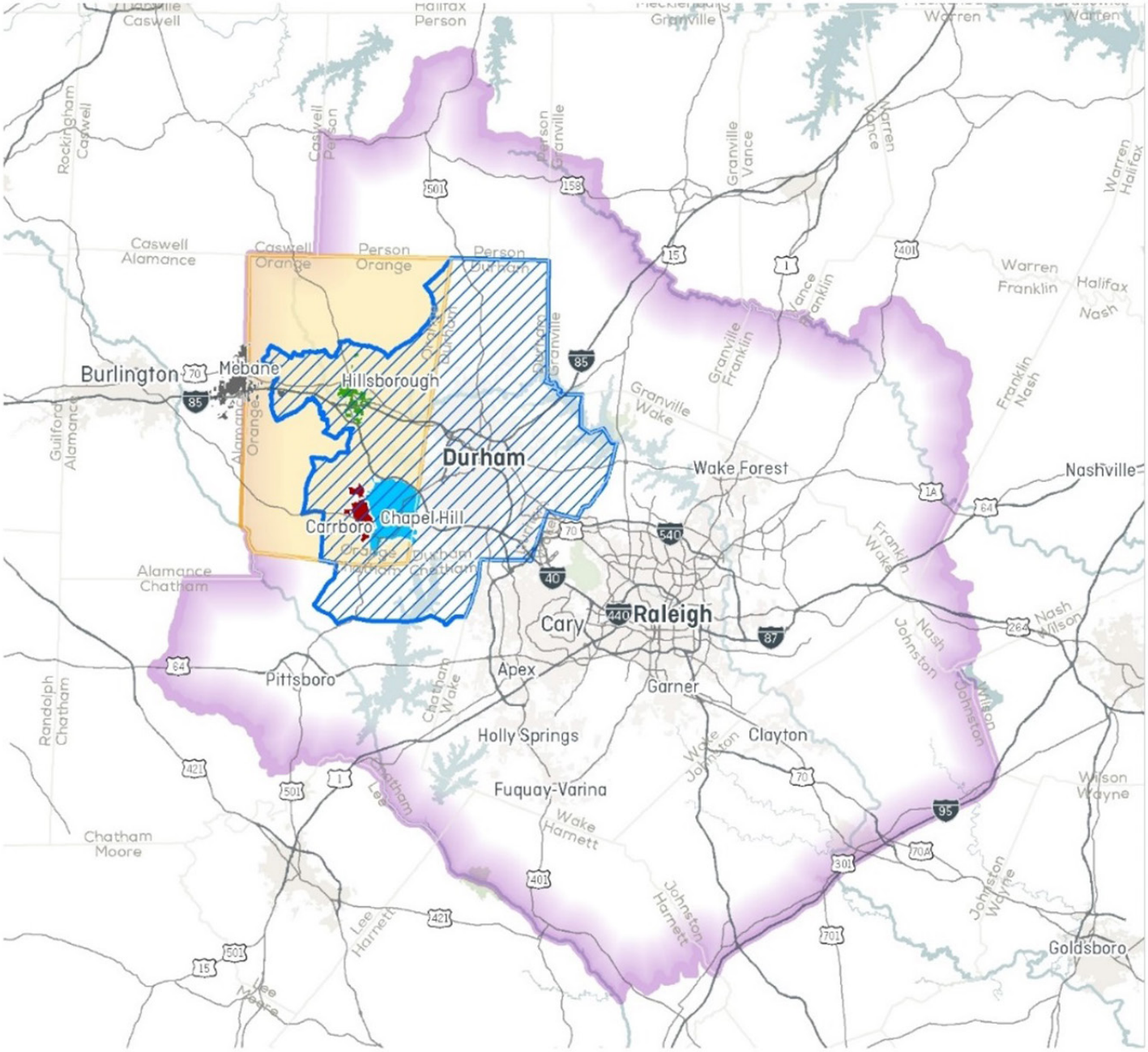
Nearly 149,000 residents were living in Orange County at the time of the 2020 Decennial US Census, an increase of approximately 15,000 residents since 2010. Median age remains relatively low (35.1) though the share of population aged over 65 has increased (9.4% in 2010, 14.1% in 2020). The share of residents under the age of 18 has remained stable over the last decade (20.0% in 2010 compared to 19.5% in 2020) (US Census, 2020 ACS 5-year estimates).

Trends indicate shifts in the racial distribution of the county's residents. The share of residents identifying as white (74.4% in 2010 and 66.6% in 2020) and residents identifying as Black or African American (11.2% in 2010 and 10.7% in 2020) have both decreased. Asian residents (6.7% in 2010 and 8.5% in 2020) and residents identifying as Hispanic or Latino of any race (8.2% in 2010 and 10.6% in 2020) have both increased.

Residents of Orange County tend to be highly educated. Over 26% of residents hold a bachelor's degree and the rate of master's degree attainment is near 34.8% - both representing increases over the last decade for residents aged 25 and older. Unemployment remains low (4.2% in 2010 and 2.5% in 2020).

Median household income (2020) is around $7,000 higher than the national average but over 38% of households in Orange County report earning $100,000 or more, annually.

PLANNING CONTEXT: Triangle region



Housing

Residential density is generally concentrated in Chapel Hill, Carrboro, Durham, and areas along the Fordham Boulevard/ Durham-Chapel Hill Boulevard (US 15/501) corridor. Areas of higher density (over 10,000 residents per square mile) include Duke University and the University of North Carolina-Chapel Hill. Higher density areas typically feature multi-family housing and a more traditional development pattern with smaller lots and higher street network connectivity. There are also several pockets of higher residential density outside of downtown Chapel Hill on Fordham Boulevard/Durham-Chapel Hill Boulevard (US 15/501) and along the Martin Luther King, Jr. Boulevard corridor. Hillsborough also features a more traditional grid of streets but residential lots are larger and density tends to be much lower than Chapel Hill or Carrboro.

Outside of downtown Chapel Hill, Carrboro, and Hillsborough, development patterns shift to post-war suburban development featuring larger lot sizes, strict separation of uses, and disconnected, looping street patterns. These areas are significantly more difficult to serve by transit - higher-density, well-connected neighborhoods are much better suited for transit service .

Residential density drops significantly at the boundaries of incorporated communities like Chapel Hill and Carrboro and most of Orange County is rural and very low-density (less than 1,000 residents per square mile).

While the cost of living in North Carolina remains lower than the national average, over half of all renters in the state report spending more than 30% of their gross monthly income on housing each month. This figure only incorporates housing costs and likely underestimates the amount a household spends each month as it neglects to incorporate transportation costs (see box H+T Index).

Orange County has a relatively high median home value ($346,200) as compared to Chatham County ($333,100) or then Durham County ($246,000) (ACS 2020 5-year estimates). Median value is a rough indicator of the relative affordability of the housing stock in each county. Durham County likely has a higher share of affordable and potentially affordable homes. Most housing falling into an the "affordable" range (based on Area Median Income) is between I-40 and US 15-501 (between Chapel Hill and Durham); south of NC-54; west of US 15-501 near Chapel Hill; and east of Hillsborough in Orange County. Notably, these areas with more affordable housing are more difficult to serve with useful transit service.

INFO EXPRESS

BUS STOP

H+T index.

The Housing and Transportation Affordability Index (H+T Index) was created by the Center for Neighborhood Technology (CNT) as a tool to provide a more comprehensive view of cost of living and housing affordability. Traditional metrics of affordability only consider housing costs and determine housing to be "affordable" when monthly rent or mortgage payments account for no more than 30% of household income. The flaw in this metric is that it does not account for transportation costs in the calculation of monthly expenses on housing.

The H+T Index acknowledges and accounts for the inverse relationship between housing costs and transportation costs. For example, in the Triangle Region, housing costs are typically higher near dense urban centers. These tend to be the same locations that enjoy greater access to jobs and better transit service, meaning transportation costs are typically lower.

In contrast, housing costs tend to be lower in locations further from urban centers but jobs are generally further away and there is less transit service available. Residents in these locations are generally more dependent on private vehicles and spend more time traveling to and from work each day.

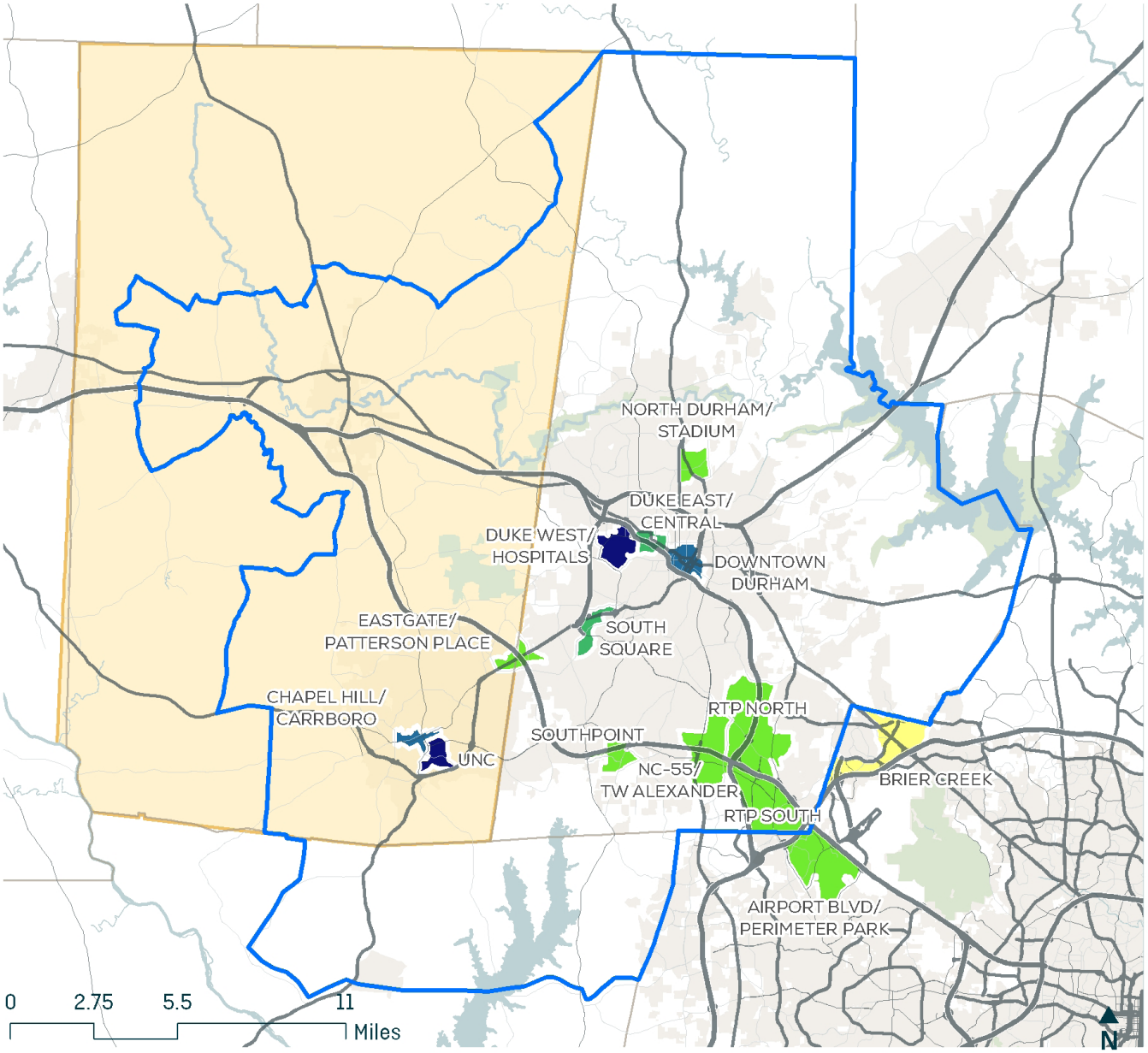
The H+T Index includes both housing AND transportation costs when calculating affordability. If the combined costs are no more than 45% of household income, the living situation can be considered affordable.

CNT also reports that neighborhoods that are "compact, mixed-use, and [have] convenient access to jobs, services, transit and amenities" have lower transportation costs, contributing to a higher level of affordability.

Jobs

The county's largest employers are UNC Chapel Hill, UNC Health Care, and Chapel Hill-Carrboro City Schools. The county's largest private employer is Eurosport (Sports Endeavors, Inc.), a distributor of sports equipment and apparel. Like the region, most residents are employed

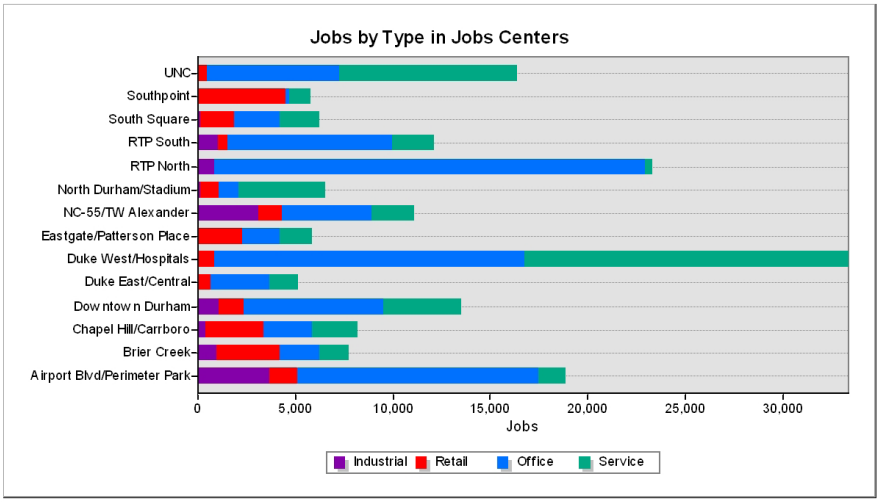
PLANNING CONTEXT: Regional Job Centers



Jobs centers

Jobs per acre

- 5.0 or fewer
- 5.001 - 10.00
- 10.01 - 15.00
- 15.01 - 20.00
- 20.01 or more
- DCHC MPO
- Orange County



in the educational services, and health care and social assistance sector (39.1%, 2018); followed by professional, scientific, and management; and administrative and waste management services (12.9%, 2018).

Most of the county's jobs are in and around downtown Chapel Hill, UNC-CH campus, and along the US 15-501 corridor. There are also pockets of job density in shopping centers like Meadowmont and the Mebane outlets. Employment generators outside of downtown districts and campuses are typically "big box" retailers. Usually surrounded by large parking lots, these locations are more difficult to serve by transit because in most cases, there is a long walk between on-street bus stops and the front entrance. In some cases, buses make a time-consuming deviation into these shopping centers to allow a shorter walk, slowing service on these routes.

Regionally, jobs are concentrated near higher education and research facilities, particularly around the Duke Hospital campus, the UNC Chapel Hill campus, and Research Triangle Park (RTP). The largest regional jobs centers (Duke Hospital, UNC, and RTP) are characterized by office and service (primarily health care) jobs.

Smaller jobs centers often offer a higher proportion of retail jobs and may be key destinations for commuters with limited mobility options apart from transit. In Orange County, Eastgate, Patterson Place, downtown Chapel Hill, and downtown Carrboro have notable shares of retail jobs. Southpoint, South Square, and Brier Creek are retail-heavy jobs centers located outside the county.

Travel Patterns

In Orange and Durham Counties, home-to-work commuter flows are characterized by strong pulls towards several key job centers including:

- North Durham to Duke/Downtown Durham
- East Durham to Duke/Downtown Durham
- Southpoint to Duke/Downtown Durham;
- Chapel Hill to Duke/Downtown Durham
- Carrboro to Chapel Hill
- Hillsborough to Durham.

Regional commuter flows are dominated by travel between Wake County and Research Triangle Park; between Wake County and Duke/Downtown Durham; and between Wake County and Chapel Hill. Relatively lighter flows exist between Chatham County and Chapel Hill; Alamance County and Chapel Hill; Alamance and Duke/Downtown Durham; and Alamance and Hillsborough.

Most residents travel to work alone in a car, truck, or van. Some workers carpool but the share of carpooling workers has decreased between 2010 and 2018 (11.3% and 7.1%, respectively). Notably, there have been no changes over the last decade in the share of workers using public transportation to reach work (7.1% in both 2010 and 2018).

There has been a small increase in the number of employees who walk to work (5.0% and 6.1% in 2010 and 2018, respectively) but no change in the share of residents cycling to work (1.8%). There has been a more significant increase in the share of employees working from home (6.3% and 9.1% in 2010 and 2018, respectively), a figure that is likely to increase further given continued technological innovations and the COVID-19 pandemic and quarantine. Mean travel time to work has increased by nearly one minute since 2010 (21.8 as compared to 22.9 minutes in 2018).

Transit Need

A robust travel market (i.e., potential for high ridership) does not always reflect the greatest transit need. In fact, many residents who live in rural and geographically distant areas are often those who need transit the most but who are often the most difficult transit customers to serve. There is also a need to avoid placing

the region.

A rapidly growing and deeply interconnected region like the Research Triangle benefits from investing in high quality public transit service. Local and regional transit service provides options for a range of transit riders including commuters, students, workers, travelers, and more. Transit relieves congestion and reduces travel times on the region's major transportation corridors, making connections between the places riders call home and the region's major employment hubs. Fare-free service provided by Chapel Hill reduces the need for parking on and near UNC Chapel Hill's campus, supporting higher and better uses of limited land resources. And, thanks to membership in the Burlington-Graham MPO, there are also connections in the County to western destinations via Piedmont Authority for Regional Transit (PART), a service that is expanding.

Regional demographic and economic trends impact the transportation system and transit services telling us who lives in our region, where they live, where they need to travel, and the choices they make about how they meet travel needs. Tracking patterns and trends guides the important decisions we make about transit investments.

- Some of the largest increases in growth are occurring in the region's more rural and suburban areas including southeast Durham County and northwest Chatham County
- Urban areas are also experiencing growth, but at a relatively slower rate
- Two industry sectors make up nearly 40% of the region's jobs: "educational services" and "health care and social assistance"
- 10% of jobs are in "professional, scientific, and technical services"
- Jobs tend to be concentrated near higher education and research facilities
- Average annual salaries in these industries range from around $58,000 to $96,000
- 25% of the region's jobs are in sectors that don't enjoy the same high salaries including "retail trade;" "accommodation and food services;" "administrative support;" "waste management;" "transportation and warehousing;" and "arts, entertainment, and recreation" Residents employed in these industries are more likely to be housing and transportation cost-burdened
- There has been significant growth in the region's share of older residents since 2012 (age 65 and over) who tend to concentrate in the far northern and southern parts of the region
- Households earning more than $125,000 annually increased regionally and tend to be located in the region's northern and southwestern areas but there is a significant cluster in and around Chapel Hill's urban core
- There has been a regional decrease in households earning less than $25,000 (the lowest reported income bracket), but extremely low-income households are increasing on the region's fringes, particularly in northern and eastern Durham County
- The region's minority populations are increasingly moving outside of urban centers including significant growth in African American and Hispanic populations in Orange County north of Chapel Hill and I-85 and I-40 and to the north and east of Hillsborough.

undue transportation burdens on minority population groups. Income, vehicle availability, and age are indicators that help identify transit need.

It is difficult to provide useful transit to residents in distant, harder-to-reach areas as the additional distance means that the cost per ride is much higher. There are several geographically-isolated, high-poverty neighborhoods in Orange County which are harder to serve with cost-effective transit (i.e., rural areas outside the town boundaries of Hillsborough, Mebane, Chapel Hill, Carrboro, and Durham). Providing residents with meaningful transit options requires supportive land use and housing policies that allow lower income residents to live closer to high-quality transit service.

People in households without vehicles are not necessarily "transit-dependent" but are more likely to use transit because they do not have a car in their driveway, always ready to go. Few people in and around Orange County live without a car, so overall densities of zero- car-households is low. The highest levels are found within and immediately around downtown Chapel Hill, where non-car options (transit, bike share and bike infrastructure, etc.) are most abundant. Beyond this area, there are a few pockets where zero-car household densities are higher, primarily rural areas between Hillsborough and Chapel Hill.

As a demographic group, seniors (65+) are less likely to own cars than the general population. The highest concentrations of seniors are on the outer edges of urban areas like Chapel Hill, Durham, and Mebane. Some areas with a higher density of older residents are home to retirement communities.

Seniors' transit needs and preferences tend to be different from those of younger riders. For example, seniors tend to be *more* sensitive to walking distance, because of limits on their physical ability, or concerns for their personal safety but they are also *less* sensitive to long waits for transit, typically because they use transit for other reasons than commuting to/from work. Likewise, seniors are generally also less likely to be discouraged by slow or indirect routes. Because of these factors, transit service designed to meet the needs of seniors tends not to meet the needs of riders who are employed, in school, or caring for kids in school who find long waits to be intolerable.

Information about ethnicity or race does not alone tell us how likely someone is to use transit but we must avoid projects resulting in disproportionate burdens and ensure the equitable distribution of benefits. Rural parts of Orange County tend to have a higher percentage of white residents with fewer Black and Hispanic residents. Urbanized areas are more diverse and neighborhoods have a more even mix of Black, Hispanic, Asian, and white residents.

EQUITY CONNECTION

BUS STOP

equity & orange county.

Orange County is home to thriving communities that enjoy the benefits of proximity to major research universities and one of the world's preeminent biotech industry hubs. However, Orange County also "has the largest income inequality for a county with more than 100,000 residents in the state" despite being one of the healthiest counties in North Carolina.

Children living in poverty are a useful indicator of inequality. While white residents represent 64% of Orange County's population, only 4% of white children live below the poverty line. Hispanic and Black/ African American residents constitute 5% and 11% of the Orange County population respectively, but 34% of Hispanic children and 24% of Black children are living in poverty.

Unfortunately, prospects for the lives of these children are not positive. Research indicates that children born into poverty have a substantially higher likelihood of remaining impoverished throughout their lives. Orange County's Department of Health states that "69% of children born into poverty will remain in poverty unless there is significant change in the system."

Hispanic and Black residents are most likely to be impacted by transit inequality. Transportation decisions most often benefit Orange County's majority white population who are heavily invested in driving. More data are needed to fully understand how past transit planning has facilitated access to transit resources or increased barriers that further disadvantage the most vulnerable and solutions are needed to rectify inequities.

ORANGE COUNTY
NORTH CAROLINA

transit.

quick•*take*

The Research Triangle is a highly interconnected region requiring coordinated transit funding, planning, and service.

SECTION
03
transit.

What do we know about transit in Orange County?

transit•*network*
The bus, rail, and other types of public transportation routes available in a region or area.

This section provides an overview of transit service providers, the existing transit network, and transit system performance.

Public transit service supports basic mobility for individuals who do not have access to a private vehicle or other means of transportation. Public transit service also supports overall transportation goals such as reduced congestion and reduced travel time and can help meet environmental goals including reduced emissions, improved air quality, and a decreased reliance on fossil fuels. These benefits impact both riders and non-riders making public transit a true public good. For these reasons alone, public transit investments are a foundational element of great communities.

Network Overview

Orange County has several transit providers including:

- **Orange County Public Transit (OCPT)**: a department of Orange County, operates three circulator routes
- **Chapel Hill Transit (CHT)**: a shared enterprise of the Town of Chapel Hill, Town of Carrboro, and the University of North Carolina – Chapel Hill; serves most of the town of Chapel Hill and runs a weekday rush hour service between Chapel Hill and Hillsborough (route 420)
- **GoTriangle**: operates regional bus and shuttle service, paratransit services, ride matching and vanpools; provides commuter resources and an emergency ride home program for the Raleigh-Durham-Chapel Hill area including Apex, Cary, Chapel Hill, Durham, Garner, Hillsborough, Knightdale, RDU International Airport, Raleigh, the Research Triangle Park, Wendell, Wake Forest, and Zebulon

Connecting services:

- **GoTriangle**: operates routes connecting Chapel Hill with Durham and provides regional transit services between Wake, Durham, Orange, and Alamance Counties; Orange-Durham Express route provides hourly peak only service between Durham Station and Mebane City Hall
- **GoDurham:** provides no service in Orange County but does offer some connections with GoTriangle routes near the county line
- **Piedmont Authority for Regional Transit (PART):** provides service in the Greensboro, Winston-Salem, and High Point Piedmont Triad, operates a bus that runs during rush hour and sparsely during midday connecting Chapel Hill and Mebane to Greensboro, with a timed connection a few times a day to GoTriangle service in Mebane.

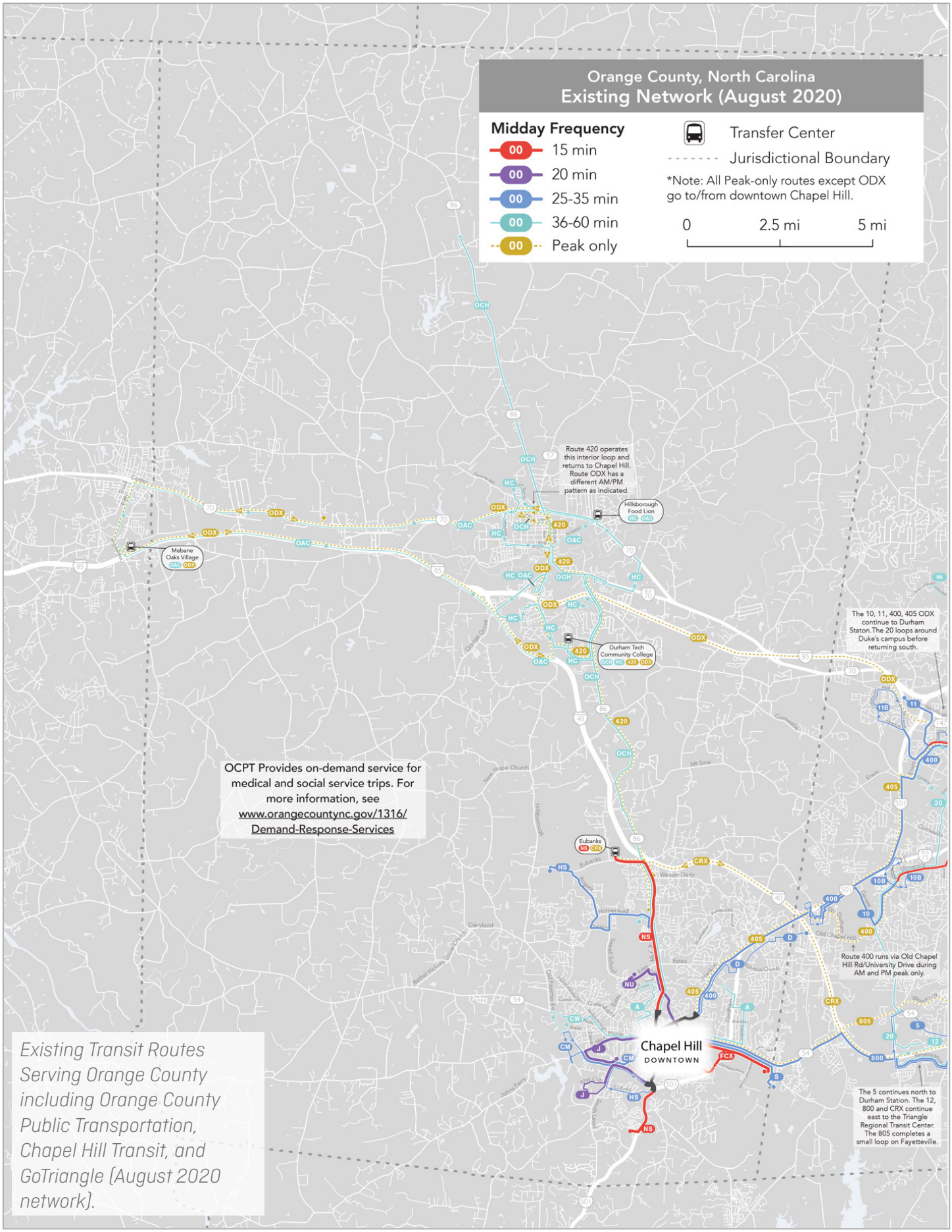
Transit System Performance

Several key indicators help us understand how well the current transit system is functioning. These include frequency of service, productivity of service, network coverage (the number of people currently near transit service) and transit network accessibility.

Frequency

The amount of time between transit vehicles on the same route. Frequencies of 15 minutes or less generate the greatest benefits for riders and service providers. Frequency should be considered relative to trip length (i.e., it makes less sense to wait a long time to travel a short distance).

Several transit routes in Orange County operate *only* during rush hours; other routes run more frequently during rush hour, including some very frequent routes including CHT routes U, RU, S and FCX. Few CHT routes run into the evening, and those that do have lower frequencies and often stop service at 9 PM. Fewer routes run on weekends, though more service is now available on weekends following CHT's August 2020 network update. OCPT serves a very large, mostly low-density area across much of the county making it difficult to provide service at useful frequencies. Service is primarily coverage-oriented, providing basic access for



Existing Transit Routes Serving Orange County including Orange County Public Transportation, Chapel Hill Transit, and GoTriangle (August 2020 network).

shopping, services, and social trips. GoTriangle offers some late and weekend service providing people in and near downtown Chapel Hill with regional access.

Productivity

The number of riders compared to cost of service, measured in boardings per service hour; useful for assessing ridership goals.

The highest productivity service in Orange County is CHT's U route and its reverse route, the RU. Both operate at high frequencies and directly serve the core of downtown Chapel Hill and UNC. Most CHT routes have relatively high productivity; nearly all routes report 20 boardings per hour or more. Factors contributing to CHT's high productivity include service focused on the densest, most active parts of Orange County and fare-free service attracting more riders. Most GoTriangle routes achieve 10-20 boardings per hour. Both of GoTriangle's all-day services (Routes 400 and 800) achieve 16 boardings per hour. Three GoTriangle peak-only routes (420, CRX, ODX) achieve productivity levels below 13 boardings per hour and all three of OCPT's fixed route services average 10 boardings or less per hour. The Orange-Alamance Connector (OAC) has the lowest productivity with less than one (0.9) boarding per hour. But, because OCPT routes are coverage-oriented and provide service to less populated areas, productivity is not necessarily the best measure of their value to the community.

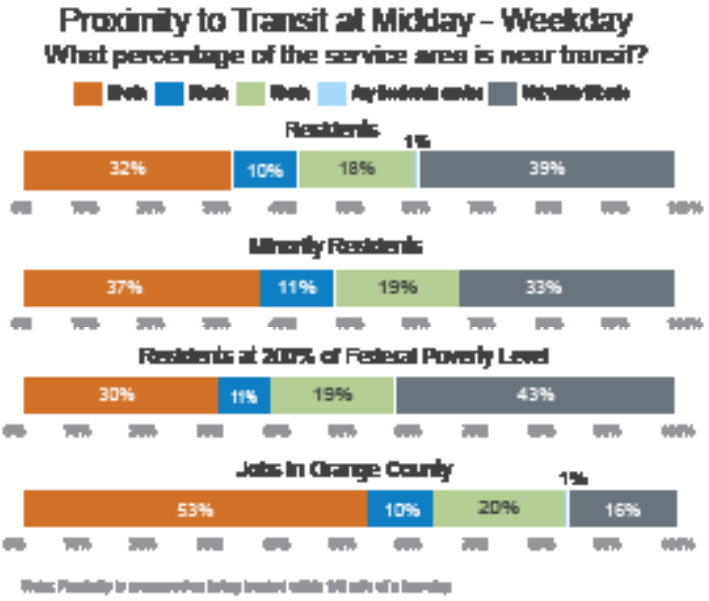
Coverage

The number of people living within a half-mile of a transit stop with service during the midday period. The Orange County Transit Plan Update assessed coverage based on proximity to <u>any</u> transit service and proximity to <u>frequent</u> transit service (20 minutes or less between vehicles).

Over 50% of Orange County's jobs are located within a half-mile of a transit stop with frequent service at midday. Orange County residents living within a half-mile of a transit stop served by frequent transit service (20 minutes or less between vehicles at midday) include:

- 42% of *all* Orange County residents
- 48% of Orange County residents identifying as a *minority*
- 38% of Orange County residents who are living in poverty (200% of the federal poverty line)

While this indicates that a meaningful portion of Orange County's population can access frequent transit service, 43% of impoverished residents still live more than a half-mile away from a transit stop providing frequent, midday service. This disparity is due to relatively higher levels of poverty in the county's rural areas where it is more expensive to serve residents because buses must travel longer distances between customers.



Accessibility

The number of destinations (jobs, services, and community assets) residents can reach using transit service.

Transit access in Orange County is highest in Chapel Hill and Carrboro, reflecting the concentration of jobs and more robust transit connectivity in these areas. Higher accessibility extends along NC 54 to the Durham County line, from downtown Chapel Hill along US 15-501 in both directions towards the Blue Hill District and Southern Village, and northward along NC 86. More modest transit access is observed along the US 70/I-85 corridor, reflecting a lower density of destinations and overall lower levels of transit service. Most of the county's rural areas lack access to jobs via fixed route transit, though many are within the demand response service areas of regional transit providers.

Transit Trip-Making Potential

A person's likelihood of using transit when it's available depends on several factors like daily travel needs, place of residence, vehicle availability, and more. We can assess the general likelihood of a person using transit to meet a travel need ("transit trip making potential") by considering the amount of trip producers (like households), trip attractors (ex., jobs), and the time it takes to travel between all possible producer-attractor pairs using transit. We can also weight the analysis to prioritize pairs that have more units at the origin (ex., a pair connecting *many* households to *one* jobs center).

For trips <u>beginning</u> in Orange County, the highest trip-making potential is connections to regional employment centers: central Chapel Hill/Carrboro, (including UNC campus and hospitals) and the Duke Hospitals area in Durham. There is only one high-potential connection in Orange County north of I-40

(downtown Durham/Duke to Hillsborough.

For trips ending in Orange County, there are strong bi-directional connections between Chapel Hill and Duke University/Hospitals and connections between Chapel Hill and residential areas in southern Durham County. Overall, transit trip-making opportunities in Orange County are strongest in more urbanized areas like Chapel Hill and Carrboro, particularly to and from downtown areas to developments like Southern Village, the Blue Hill District, and Carraway/Weaver Dairy Road.

Transit Competitiveness

Transit competitiveness compares trip-making opportunities for transit versus traveling by automobile. For example, imagine a household that can reach a major office district in 15 minutes by car and in 30 minutes by transit. The same household can also reach a shopping center in 15 minutes by car and 45 minutes by transit. For this household, transit is a more attractive option when traveling to the office district than to the shopping center.

Carrboro and Chapel Hill's most transit-competitive areas provides transit access to around one-third of the jobs that can be reached by car. This is considered a reasonable level of connectivity to jobs, suggesting a relatively high share of transit commuters. A more moderate area of transit competitiveness exists along NC-86 between Chapel Hill and Hillsborough. Elsewhere, transit competitiveness is notably lower, suggesting transit is likely only used infrequently or primary used by households with low rates of vehicle ownership (no cars or one car per household). Areas to the west of Orange County such as Burlington, Graham, Alamance County, and other Piedmont-Triad areas do not yet demonstrate an impact on transit competitiveness analyses but are worth keeping an eye on to track changes.

A *trip-making potential* analysis helps identify "underserved" origin-destination pairs. These are pairs with high auto trip-making potential but low transit trip-making potential representing regional opportunities to better-connect residents if transit service can be improved to provide travel times that are similar to car travel times.

For trips beginning in Orange County, there are opportunities to improve transit competitiveness for trips between residential areas in Chapel Hill and Carrboro (specifically the Blue Hill District and other in-town neighborhoods) and Downtown/UNC. There are more modest opportunities to improve transit competitiveness for trips between downtown/UNC and northern Carrboro/southern Hillsborough.

There are also opportunities to improve *regional* transit connections for trips beginning in Orange County including trips between central Chapel Hill/Carrboro to Raleigh; from

emerging technologies.

New technologies and concepts are emerging addressing transportation needs and shifting the role of the transit agency. A primary concept is that a trip must be approached from end to end and may include a range of services, public and private. For example, a trip could include walking, using a scooter, and a bus ride.

Mobility as a Service (MaaS): connecting multiple modes in a single trip and making it easier to plan and pay for trips through technology

Mobility on Demand (MoD): services and technologies like car sharing, ride sharing, ride sourcing, bike sharing, microtransit, dockless bike sharing, and even connected and autonomous vehicles

Transit Technology: mobile fare payment and cross-platform fare payment options (ex. using one mobile app to pay for multiple mobility services); also includes real-time information for bus location and arrivals

Microtransit: small-scale shared mobility services; may be public or private; typically use app-based services to extend or replace fixed-route transit service in areas with low ridership; typically cannot achieve high ridership relative to service levels; most successful if extending or supplementing existing paratransit service

Potential Challenges

- Limits to feasibility of emerging technologies
- May not meet the community's needs and values or mission of transit service providers, if goal is generating high ridership relative to cost and efficiency
- More labor-intensive and costly
- Full automation could reduce labor costs, but is still prohibitively far into the future
- Public-private partnerships may draw less cost-constrained riders away from traditional transit.

INFO EXPRESS

BUS STOP

continuing pandemic impacts.

The COVID-19 pandemic has disrupted public health and quality of life throughout Orange County. Transit is particularly affected because operations and ridership are predicated on close proximity to many people.

COVID-19 is expected to disrupt our daily lives for another one to three years. COVID-19's effects on economic recovery will likely outlast direct public health impacts. Over the twenty-year horizon of the 2020 Orange County Transit Plan Update, the pandemic may impact economic growth forecasts; long-term impacts are more uncertain.

Short-term impacts are more volatile as public health and public transit officials continue to respond to virus-related issues. COVID-19 reduced transit ridership, affected operations by mandating vehicle capacity and fare collection changes; and generated operator shortages. Sales tax and other local funding sources that support the local and regional transit agencies are more unpredictable.

The process of developing the Orange County Transit Plan Update attempted to build in the flexibility needed to accommodate COVID-19 uncertainties including:

- The evolution of social distancing and individual levels of comfort with proximity to others affecting people's travel choices
- Changes in where and how we work and live
- Shifts in anticipated financial resources at all levels of government
- Disruptions in the recovery process due to new waves of outbreaks.

Even with these heightened levels of uncertainty, maintaining a useful transit system is critical to the lives of many people, and investing in the long-term success of transit is essential to the long-term success of Orange County.

Hillsborough to Duke Hospital; and from northern Carrboro/Chapel Hill (including the Blue Hill District) to Duke hospitals.

For transit trips ending in Orange County, there are opportunities to improve transit competitiveness for trips between southeastern Durham County, northern Durham, the Brier Creek area, eastern Cary, and northern Raleigh and ending in the Downtown/UNC area. It is currently possible to travel between these areas using transit, but it requires at least one transfer and routes tend to be indirect, both of which undermine the competitiveness of transit.

Transit Trends

Two kinds of transit trends (for the period 2012-2018) guided decisions for the Orange County Transit Plan Update. These trends, *direct* (trips, ridership, and revenue) and *indirect* (gas prices, economic factors, competing modes), help transit service providers focus investments and make decisions to improve service.

DIRECT

Total Annual Ridership

Chapel Hill Transit and GoTriangle had the most boardings in the region (6.0 and 1.7 million, respectively); Orange County Public Transit had notably fewer boardings on their fixed-route operations (17,852). Each provider served a similar number of trips in 2018 as they did in 2012. OCPT ridership fluctuated the most among the three providers over the time period considered (15,000 trips in 2012, about 24,000 in 2017, and 18,000 trips in 2018).

Service Hours

Service hours represent the total time during which a transit vehicle offers revenue service. Total annual service hours provide a general quantification of how much transit service an agency provides and is useful for understanding each agency's role in the regional transit network. CHT provides around 160,000 service hours per year - the most of the three Orange County providers. CHT's local routes are shorter relative to the other providers and focused on downtown Chapel Hill and UNC. GoTriangle provided 143,000 service hours in 2018, up 33% from 2012. Routes primarily operate during peak commuting periods with lengthier travel times between regional destinations. OCPT accrues the least service hours annually of the three providers (approximately 5,500 service hours annually), owing to a significantly smaller service portfolio.

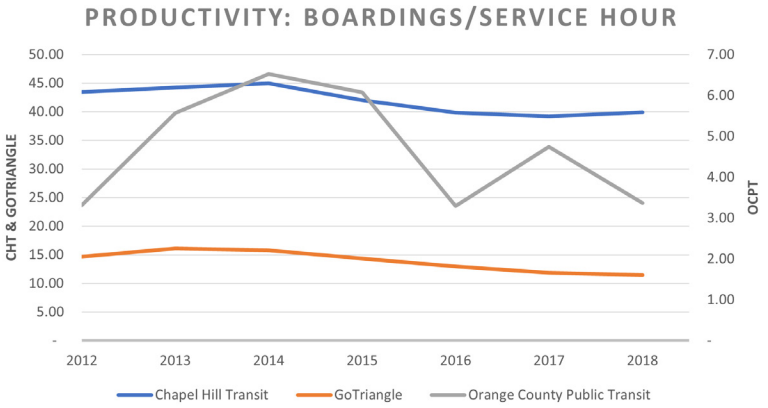
Productivity

Measures of transit productivity offer a way to compare system performance while accounting for the varying sizes of transit agencies. **Boardings Per Service Hour** considers the number of people using an available transit service. A *higher* number of boardings per service hours indicates more productive service. **Cost Per Rider** considers the cost of each boarding relative to the transit service provider's annual operating costs. A *lower* cost per rider indicates more productive service. Cost per rider is impacted

by the size of the transit agency, the number of riders, and the nature of service provided (i.e., ridership oriented or coverage oriented). *Ridership-oriented service* (i.e., more passengers along concentrated, centralized routes) are inherently more productive than *coverage-oriented services* where vehicles must travel longer distances to serve fewer passengers.

Productivity: Boardings Per Service Hour

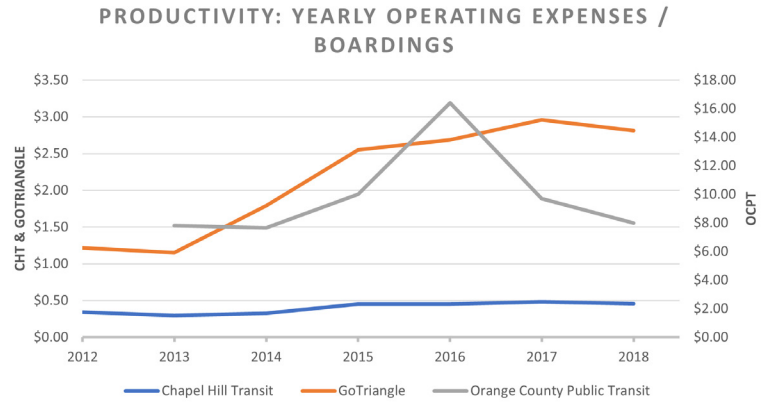
Chapel Hill Transit is the most productive provider, serving 39 riders per service hour (2018). GoTriangle served an average of 11 riders per service hour (2018). This lower productivity reflects the provider's role in connecting regional centers, using fewer buses on longer routes. OCPT's productivity is the lowest of the three providers (6.5 riders per hour in 2018), reflecting its more rural service context and coverage-oriented service.



Productivity: Boardings Per Service Hour Unlinked passenger trips per vehicle revenue hour. Please note differences of scale between CHT/Go-Triangle and OCPT

Productivity: Cost Per Rider

CHT's costs per rider increased by 36% between 2012 and 2018 ($0.34 per boarding in 2012 and $0.46 per boarding in 2018) but they still have the lowest cost per rider of the three transit agencies serving Orange County. CHT's higher productivity reflects shorter, higher-ridership routes (influenced by a fare-free system and parking restrictions on UNC's campus). Between 2012 and 2018, GoTriangle's cost per rider increased 250% from $1.22 to $2.81 and OCPT's cost per boarding spiked in 2016 but stabilized to its 2013 level by 2018 (2012 data was unavailable for OCPT). Cost per rider is significantly higher for OCPT as compared to the other two services (ex. in 2016, OCPT's cost per rider was nearly $17; during the same period, costs per rider for CHT and GoTriangle were $0.48 and $2.70, respectively). The relatively higher costs per rider for OCPT reflects the system's coverage orientation in a largely suburban and rural county with decentralized pockets of riders.

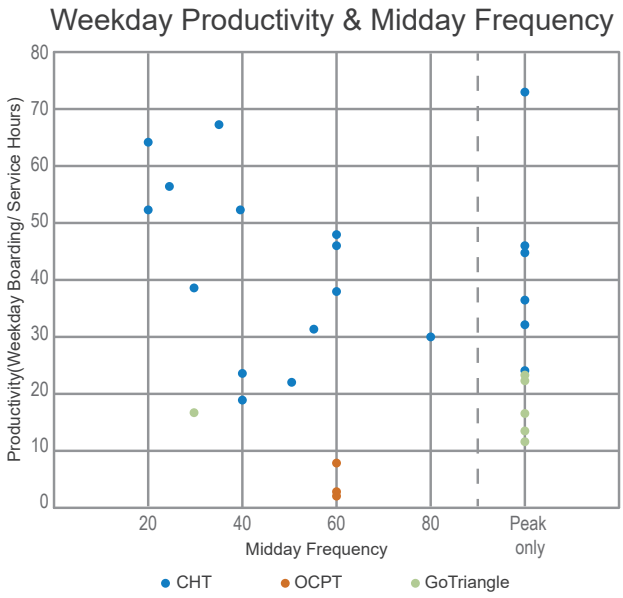


Productivity: Cost per Rider (NTD Reporting). Please note differences of scale between CHT/GoTriangle and OCPT.

INDIRECT

Gas Prices

Gas prices directly affect the cost of travel. Very high gas prices, generally indicating international high demand, have historically led to nationwide reductions in personal automotive travel and increased transit utilization. The cost per gallon of gasoline has generally decreased in North Carolina since 2012 and average miles per gallon (MPG) have increased for both the typical passenger car fleet, including most sedans, coupes, and SUVs, and the light-duty truck fleet, including heavier vehicles that can tow more than 4,000 pounds. Efficiency improvements in the U.S. passenger fleet and declines in fuel prices have increased the use of personal vehicles for typical travel needs. Despite this systemic change in vehicle trends,



Weekday productivity and midday frequency for all transit service in Orange County

regional transit ridership in the region has remained stable. Transit agencies with petroleum-powered vehicles are also sensitive to petroleum prices. Shifts to buses that rely on alternative energy (electric drivetrain, e.g.) may limit transit agency exposure to fluctuations in gas prices.

Shared Mobility & TNCs

Transportation network companies (TNCs), better known as ride hailing services, provide shared or distributed transportation opportunities and vehicles ("shared mobility"). TNCs include services like Uber and Lyft, both primarily mobile phone-based vehicle ride hailing companies. Other TNCs include bike and scooter-sharing companies, like Lime, Gotcha, and Byrd. The impacts of these players on transit (and transportation more generally) are difficult to quantify due to the novelty of shared mobility platforms and the reticence of privately-owned TNCs to share user data. Academic research has yielded mixed and sometimes contradictory findings about the impact TNCs are having on travel behavior.

There is some evidence that TNCs may help solve the "last-mile" problem, providing a bridge between fixed route transit services and trip origins/destinations. TNCs could also potentially help riders seamlessly switch between public transit service and shared mobility vehicles, centralizing transit services, enhancing frequency in key corridors, and reducing reliance on private vehicles.

There is also research suggesting that TNCs pull riders away from public transit service, making it more difficult for transit agencies to compete for riders Other research indicates that TNCs may offer stopgaps for transit, such as when walk distances are very far or conditions are unreasonably crowded on transit routes.

A 2019 Transportation Research Board (TRB) manuscript presents mixed findings. Ride-hailing services like Uber and Lyft negatively impacted transit ridership but bike sharing positively impacted transit ridership (both at a statistically significant rate). Until more data are available and regulatory models mature, the case is incomplete on the effects of TNCs on transit utilization and/or how transit service design can effectively respond to their presence.

TNCs also may have a positive effect on *overall* accessibility. Examples of new partnerships between ride-sharing companies and transit agencies include DART in Dallas, Texas, partnering with Uber in 2015 to solve a "last mile" problem. The federal government has also invested in the development of technology solutions through programs such as Accelerating Innovative Mobility (AIM) grants.

INFO EXPRESS

BUS STOP

electric transit vehicles.

Electric or "zero emissions" buses are the next generation of transit vehicles. They are quieter and more pleasant to ride, significantly reduce the carbon footprint of transit agencies, contribute to improved air quality in transit corridors, and improve community health outcomes.

Innovations in battery technology are making electric transit vehicles a more practical option. The cost of electric buses is decreasing (although they still cost about twice as much as a diesel vehicle) and the Federal Transit Administration continues to implement grant programs to help agencies purchase zero emissions transit vehicles.

Chapel Hill Transit was among the first agencies in North Carolina to acquire hybrid transit vehicles and now has 29 hybrid vehicles on the road. They continue to push the boundaries of innovation, working towards a goal of converting the agency's core fleet of 93 vehicles to zero emission buses.

The agency acquired three all-electric vehicles in the fall of 2021 and will add eight more to their fleet over 2022. The new electric buses can run 10 – 12 hours (200 – 250 miles) on a full battery charge. The new vehicles were pilot tested for several months before making their debut in regular service. Chapel Hill Transit also launched a solar feasibility study to investigate ways that solar panels could be installed in bus parking lots and park and rides to charge buses using renewable energy. This would further enhance the sustainability and cost efficiency of the zero emissions vehicles.

Revenues from Orange County's Transit Tax could potentially help offset the costs of all-electric transit vehicles and supportive charging infrastructure.

ORANGE COUNTY
NORTH CAROLINA

funding.

quick•*take*

Transit Tax District Revenues in Orange County fund new and improved transit services.

SECTION
04
funding.

How is transit funded in Orange County?

transit·tax
A half-cent sales and use tax levied by Orange County and used to improve or enhance the county's transit service.

This section describes the collection and allocation of transit funding, including the assumptions used to estimate expenses, costs, and revenues.

There are four dedicated revenue streams used to fund the local share of projects and services in this plan, referred to as Tax District Revenues. The revenues governed by this Plan are those collected in Orange County. These four dedicated Tax District Revenue streams are as follows:

- Article 43: Half-Cent Sales and Use Tax
- Article 50: Five-Percent Vehicle Rental Tax
- Article 51: Three-Dollar increase to GoTriangle Regional Vehicle Registration Fee
- Article 52: Seven-Dollar County Vehicle Registration Fee

The projects and services described in this plan update are primarily funded through these Tax District Revenues, with a small amount of funding for capital projects coming from federal sources. Because this is an update, the projects and services described within **supplement** (are in addition to) the program of projects and services to the 2012 *Orange County Bus and Rail Investment Plan* and the 2017 *Orange County Transit Plan,* with the exception of programmed expenses related to the discontinued D-O LRT project.

Funding Sources

In 2012, Orange County voters approved a half-cent sales tax supporting transit funding (Article 43). A regional transportation public authority, known as GoTriangle, was created to help administer these revenues and work on public transit service projects involving Orange, Durham, and Wake Counties.

Article 43 revenues are allocated by the North Carolina Department of Revenue to GoTriangle, which then allocates a portion of that money to Orange County through reimbursements for projects that either offer **new** public transit services or **expand** existing ones. There are three additional dedicated funding streams supporting transit in Orange County - a 5% Vehicle Rental Tax (Article 50) and two Vehicle Registration Fees (Article 51 and Article 52). It is worth noting, and is explored in more detail later in this section, that the half-cent sales tax, vehicle registration, and rental car fees represent only a fraction of the local investment in public transit. Tax District Revenues are allocated to the three transit service providers

INFO EXPRESS
BUS STOP

transit for more people or in more places?

Transit planning requires balancing the community's transit needs and objectives with the limited funding available. Equitably meeting transit needs and objectives is even more challenging in communities like Orange County, where coverage needs are greater and potential ridership is lower in rural parts of the county.

While trade-offs and decisions must be made, transit planning is not a zero sum exercise. Transit systems can be configured to meet goals along a *spectrum* of service orientations and most systems (including those operating in Orange County) fall somewhere in between the two extremes.

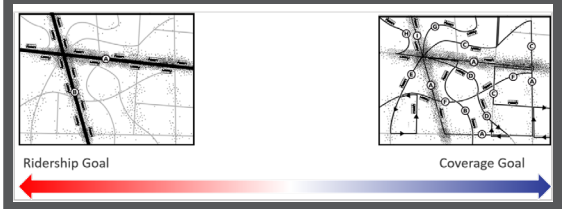


Image courtesy of Jarrett Walker & Associates

operating service in Orange County according to proportions established in the 2012 Interlocal Agreement (ILA):

- 64% Chapel Hill Transit
- 24% GoTriangle
- 12% Orange County Public Transportation.

The 2012 ILA also authorizes Chapel Hill Transit and OCPT to use 100% of the amount raised by the Seven-Dollar County Vehicle Registration Fee to cover the increased operating cost of services provided before the original plan took effect. This update continues to rely on this assumption.

The projects in this Plan Update are preliminary. The Staff Working Group produces an Annual Work Plan identifying specific transit projects, services, and activities to be implemented in the upcoming year and projects and time-frames are subject to change. For example, if upon further study a project is more costly than originally anticipated, or funding available from federal, state, or the amount of Tax District Revenue collected does not match the assumptions in this Plan, the project may be delayed or its scope reduced.

Assumptions

This Plan Update is fiscally restrained and relies on estimates and assumptions that have been developed by GoTriangle staff using current information and forecasting expertise. To calculate the cost of improvements, net new revenue hours have been converted to dollar costs using assumptions regarding current costs per revenue hour and inflation per year, for each transit service provider. The following formula determines the amount of Tax District Revenue available each year (Fiscal Years 2023- 2040) to support transit improvements:

Fund Balance/Deficit =
(Total Programmed Expenditures) - (Estimated Revenues)

EQUITY CONNECTION

BUS STOP

identifying transit equity.

Transit inequities occur when transit and transportation resources do not support the needs of all members of the community. Historically, many policies and practices related to transit and transportation adversely impacted communities with "majority-minority" populations. Racially discriminatory practices include:

- Segregated and substandard seating relegating Black riders to the back of the bus
- Segregated and poorly maintained rest stops, depots, stations, and shelters in high minority communities
- Inconvenient or inadequate bus routes impacting mobility and access to education, jobs, services, and more
- Discriminatory employment, hiring, and promotion practices

Key Funding Assumptions

INPUT	ASSUMPTIONS
Sales tax revenue annual compound growth rate (Orange County, FY23-40)	3.7%
Inflation rate – capital costs/ operating costs (based on 2020 $)	2.5%
Allocation of funding for bus operations according to Interlocal Agreement	
Chapel Hill Transit/ GoTriangle/Orange County Public Transportation	64%/ 24%/ 12%
Tax district revenue share of bus operating costs*	
Chapel Hill Transit/ GoTriangle/Orange County Public Transportation	64%/ 24%/ 12%
Bus operating cost per hour (2020 dollars)	
Chapel Hill Transit/ GoTriangle/Orange County Public Transportation	$118/ $133.70/ $68
Cost of new transit vehicle	$560,000
Tax district revenues funding increased cost of existing service**	
Chapel Hill Transit/ GoTriangle/Orange County Public Transportation	100%/ 0%/ 100%
**Expansion bus services only **$7 vehicle registration fee proceeds only*	

Orange County Transit Expenditures, Revenues, and Funds Balance FY 2023-2040

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
Operating	$5,424,547	$5,860,322	$6,007,000	$7,939,109	$8,137,900	$8,801,569	$9,488,896	$9,726,000
Capital	$3,455,627	$4,954,958	$5,290,541	$2,962,058	$2,794,706	2,381,443	0	$1,474,164
Total Expenditures	$8,880,174	$10,815,280	$11,297,541	$10,901,167	$10,932,606	$11,183,012	$9,488,896	$11,200,165
Estimated Revenues	$10,556,653	$10,955,819	$11,314,868	$11,683,594	$12,016,055	$12,332,159	$12,739,395	$13,208,008
Balance/ (Deficit)	$1,676,479	$140,539	$17,328	$782,427	$1,083,448	$1,149,147	$3,250,499	$2,007,844
Fund Balance Prior Year	0	$1,676,479	$1,817,017	$1,834,345	$2,616,772	$3,700,221	$4,849,368	$8,099,867
Fund Balance End of Year	$1,676,479	$1,817,017	$1,834,345	$2,616,772	$3,700,221	$4,849,360	$8,099,867	$10,107,710
ORANGE COUNTY TRANSIT PLAN UPDATE: PROPOSED PROJECTS								
Operating Improvements								
	FY23	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**
CHT Route CW (midday frequency improvement)	$190,610	$195,375	$200,300	$205,300	$210,400	$215,700	$221,100	$226,600
CHT Route HS (weekend service)	$160,038	$164,039	$168,100	$172,300	$176,600	$181,000	185,500	$190,100
OCPT Mobility on Demand (expanded hours, 2 phases)		$438,741	$449,700	$650,588	$666,900	$683,600	$700,700	$718,200
CHT Route NS (service improvements)				$314,741	$322,600	$330,700	$339,000	$347,500
CHT Route D (service expansion)				$453,602	$464,900	$476,500	$488,400	$500,600
GoTriangle Route 400/405 (consolidation and improvement phase 1)				$823,878	$844,500	$865,600	$887,200	$909,400
CHT Route J (service improvement)						$460,069	$471,600	$483,400
GoTriangle Route 400/405 (consolidation and improvement phase 2)							$467,296	$479,000
Capital Improvements								
Vehicle acquisition, repower, replacement (Route NS improvements)				$1,855,583				
Fordham Bldv./ Ephesus Church Rd. improvements (400/D/F connection)				$1,000,000				
Fordham Blvd./ Manning Dr. queue jump and shoulder running improvements					$2,000,000	$2,000,000		
Vehicle acquisition, repower, replacement (Route 400, D, J improvements)					$672,574			

Orange County Transit Expenditures, Revenues, and Funds Balance FY 2023-2040 (cont'd)

FY31	FY32	FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40
$9,969,200	$10,218,700	$10,474,300	$10,736,000	$11,004,300	$11,279,400	$11,561,300	$11,850,200	$12,146,400	$12,450,100
0	$2,793,918	$2,927,764	$1,748,555	$2,676,617	$486,966	0	0	$970,161	$331,471
$9,969,200	$13,012,618	$13,402,064	$12,484,555	$13,680,917	$11,766,366	$11,561,300	$11,850,200	$13,116,561	$12,781,571
$13,694,663	$14,183,876	$14,666,548	$15,164,856	$15,704,541	$16,320,714	$16,989,579	$17,689,316	$18,419,706	$19,184,994
$3,725,463	$1,171,258.67	$1,264,484	$2,680,301	$2,023,624	$4,554,348	$5,428,279	$5,839,116	$5,303,144	$6,403,423
$10,107,710	$13,833,173	$15,004,432	$16,268,916	$18,949,217	$20,972,841	$25,527,189	$30,955,468	$36,794,584	$42,097,728
$13,833,173	$15,004,432	$16,268,916	$18,949,217	$20,972,841	$25,527,189	$30,955,468	$36,794,584	$42,097,728	$48,501,151

ORANGE COUNTY TRANSIT PLAN UPDATE: PROPOSED PROJECTS (cont'd)

Operating Improvements (cont'd)

FY31	FY32	FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40
$232,300	$238,100	$244,100	$250,200	$256,500	$262,900	$269,500	$276,200	$283,100	$290,200
$194,900	$199,800	$204,800	$209,900	$215,100	$220,500	$226,000	$231,700	$237,500	$243,400
$736,200	$754,600	$773,500	$792,800	$812,600	$832,900	$853,700	$875,000	$896,900	$919,300
$356,200	$365,100	$374,200	$383,600	$393,200	$403,000	$413,100	$423,400	$434,000	$444,900
$513,100	$525,900	$539,000	$552,500	$566,300	$580,500	$595,000	$609,900	$625,100	$640,700
$932,100	$955,400	$979,300	$1,003,800	$1,028,900	$1,054,600	$1,081,000	$1,108,000	$1,135,700	$1,164,100
$495,500	$507,900	$520,600	$533,600	$546,900	$560,600	$574,600	$589,000	$603,700	$618,800
$491,000	$503,300	$515,900	$528,800	$542,000	$555,600	$569,500	$583,700	$598,300	$613,300

Capital Improvements (cont'd)

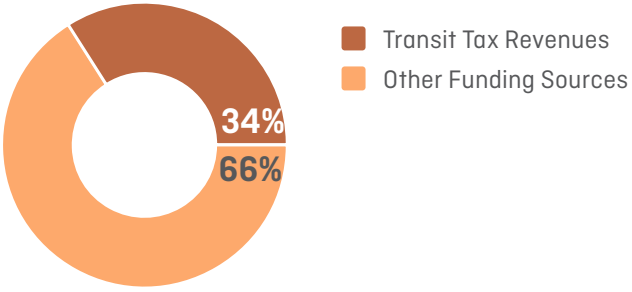
		$133,846							
								$970,161	

Transit Tax Revenues as a Share of Transit Budgets

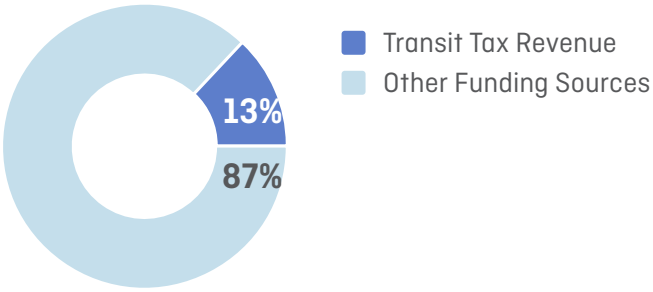
Orange County Public Transportation, Chapel Hill Transit, and GoTriangle all receive operations funding from Transit Tax Revenues. The service providers, DCHC MPO, and communities in Orange County also receive funding for bus rapid transit improvements, capital projects supporting transit, and for administrative services related to managing the taxing authority.

But the funding generated by Orange County's half-cent transit sales tax remains a small part of each agency's annual budget. The portion of each provider's budget funded by the transit tax is shown below.

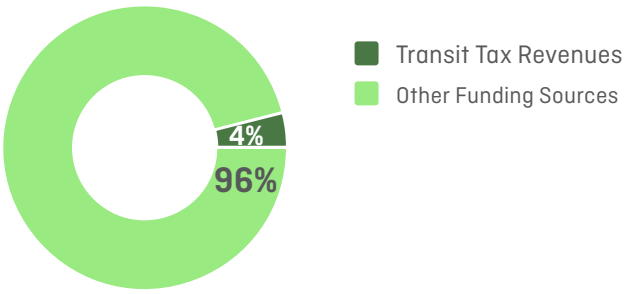
Orange County Public Transportation



Chapel Hill Transit



*GoTriangle**



*Operating costs only

Year by Year Revenue Comparison (in thousands of $$)

YR	TAX DISTRICT REVENUE	ACTUAL	PROJ.*	DIFF.
FY 2017	Half cent sales tax	$6,854	$6,690	$164
	GoTriangle vehicle rental tax	$595	$570	$25
	$3 vehicle registration fee	$335	$345	($10)
	$7 vehicle registration fee	$780	$805	($25)
	TOTAL REVENUES	**$8,564**	**$8,410**	**$154**
	ACTUAL VS. PROJECTED (%)			**102%**
FY 2018	Half cent sales tax	$7,3445	$7,000	$345
	GoTriangle vehicle rental tax	$615	$595	$20
	$3 vehicle registration fee	$330	$360	($30)
	$7 vehicle registration fee	$770	$840	($70)
	TOTAL REVENUES	**$9,060**	**$8,795**	**$265**
	ACTUAL VS. PROJECTED (%)			**103%**
FY 2019	Half cent sales tax	$7940	$7,400	$540
	GoTriangle vehicle rental tax	$660	$620	$40
	$3 vehicle registration fee	$330	$370	($40)
	$7 vehicle registration fee	$775	$865	($90)
	TOTAL REVENUES	$9,705	$9,255	**$450**
	ACTUAL VS. PROJECTED (%)			**105%**
FY 2020	Half cent sales tax	$7,245	$7,755	($510)
	GoTriangle vehicle rental tax	$565	$650	($85)
	$3 vehicle registration fee	$325	$380	($55)
	$7 vehicle registration fee	$755	$890	($135)
	TOTAL REVENUES	**$8,890**	**$9,675**	**($785)**
	ACTUAL VS. PROJECTED (%)			**92%**
FY2021	Half cent sales tax	$8,533	$8,000	$533
	GoTriangle vehicle rental tax	$480	$675	($195)
	$3 vehicle registration fee	$350	$390	($40)
	$7 vehicle registration fee	$820	$915	($95)
	TOTAL REVENUES	**$10,183**	**$9,980**	**$203**
	ACTUAL VS. PROJECTED (%)			**102%**
FY2022	Half cent sales tax	$7,040	$8,260	($858)
	GoTriangle vehicle rental tax	$432	$702	($270)
	$3 vehicle registration fee	$335	$405	($70)
	$7 vehicle registration fee	$785	$940	($155)
	TOTAL REVENUES	**$8,954**	**$10,307**	**($1,353)**
	ACTUAL VS. PROJECTED (%)			**87%**
	Projected revenues from 2017 Orange County Transit Plan			

Federal Transit Administration (FTA) Capital Investment Grants (CIG) Program.

FTA provides discretionary grant program funds for transit capital investments, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. **New Starts** and **Core Capacity** projects require completion of two phases prior to issuance of a construction grant agreement (Project Development and Engineering). **Small Starts** only requires Project Development in advance of the construction grant agreement. Projects are rated by FTA on a 5-point scale at specific milestone points during the process based on criteria assessing project justification and local financial commitment.

New Starts

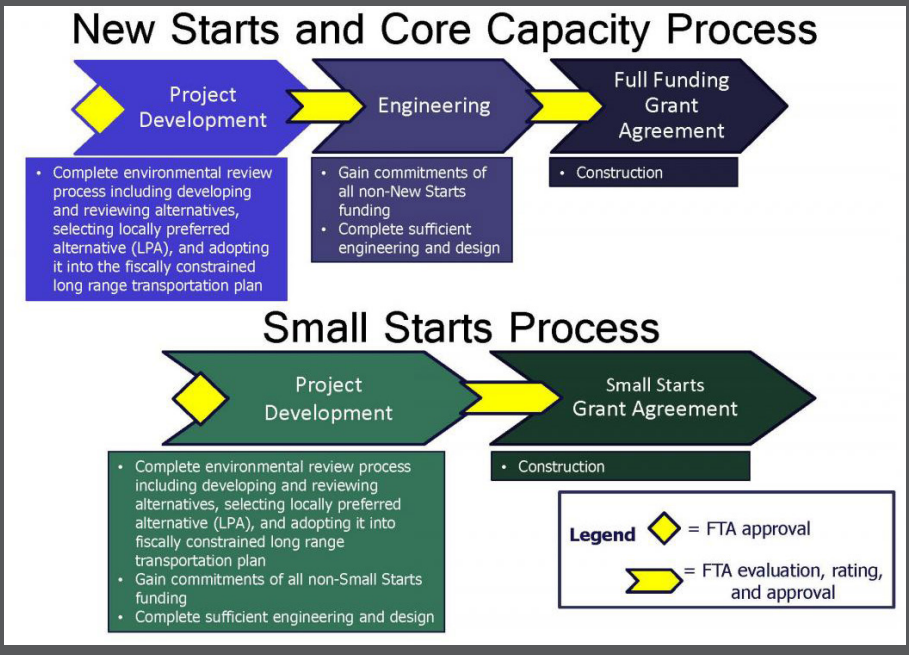
- Total project cost equal to or greater than $300 million or total New Starts funding sought equals or exceeds $100 million
- New fixed guideway system (light rail, commuter rail, fixed guideway BRT, etc.) or extension to existing system

Small Starts

- Total project cost is less than $300 million and total Small Starts funding sought is less than $100 million
- New fixed guideway systems (light rail, commuter rail etc.); extension to existing system; fixed guideway BRT system; corridor-based BRT system

Core Capacity

- Substantial corridor-based investment in existing fixed guideway system
- Project must: Be located in a corridor that is at or over capacity or will be in five years; increase capacity by 10%; “not include project elements designated to maintain a state of good repair”



Process: FTA New Starts, Small Starts and Core Capacity Improvements following entry into Project Development

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ORANGE COUNTY
NORTH CAROLINA

projects.

quick•*take*

Five transit service improvements and two capital projects are proposed in the Plan Update.

SECTION

05

projects.

05 What transit improvements are included in the update?

core•values
Five community values identified by the Policy Steering Committee and informing the identification of projects included in the Plan Update.

This section describes the program of improved services and projects recommended to be funded using Orange County's available Tax District Revenues.

The program of transit projects and services was developed based on the needs, priorities, and recommendations of the public, staff from local governments, transit service providers, key community stakeholders, and the Policy Steering Committee. Guided by five core values (see box), the Plan Update describes transit investments that will improve the types (modes), locations (routes), and schedules (frequency and span) of transit services available in Orange County. The Plan Update recommends five operational (service) oriented projects and two capital improvement projects enhancing transit connections, access, and reliability. As noted, the projects in this Plan Update supplement the projects and investments described in the 2012 *Orange County Bus and Rail Investment Plan* and the 2017 *Orange County Transit Plan* and projects included in the Annual Work Plans of the Staff Working Group (SWG). This update allocates the Orange County Transit Tax District revenues that remain after accounting for these already-programmed expenditures (with the exception of projects related to the discontinued D-O LRT).

Project Selection

The projects included in the Orange County Transit Plan Update can primarily be funded using Transit Tax Revenues projected to be generated between FY2022 and FY2040. The two capital improvement projects recommended in the update likely require a supplemental source of funding such as a federal grant, state funding, or local funding from a source other than the Tax District Revenue. Projects are intended to be implemented in phases between 2022 and 2040, as Tax District Revenues are generated. While these projects are near-term investments, they are individually and collectively intended to help achieve the county's longer-term transit vision (see section 6).

During the planning process, the project team considered various strategies for investing and maximizing Tax District Revenue, beginning with "big picture" priorities (ex. Is transit service in Orange County focused on generating higher ridership or is it focused on providing service to more places, regardless of how many people use the service?) and narrowing down project options based on more specific transit needs and goals. Community members, staff, and policy makers were engaged throughout the process, providing critical input and feedback for all major decisions and milestones.

A set of guiding questions helped identify the final set of

core values.

Equity: Prioritize the transit needs of under-served or transit-dependent residents; includes historically disinvested communities of color, lower-income neighborhoods, seniors, and rural communities.

Environmental Sustainability: Prioritize accessible and convenient transit service in areas with existing or planned higher density development

Economic Prosperity: Prioritize increasing access to jobs and opportunities.

Affordable and Attainable Quality of Life: Prioritize transit service connections to affordable housing, recreation, and arts and cultural opportunities.

Transportation and Access for All: Prioritize transit service that increases transit access for the most people to the most places.

projects recommended in the Plan Update. Each of the seven projects can affirmatively answer the following:

1. **Is the project identified as an unfunded or emerging priority by transit service providers?**
2. **Does the project help meet an expressed public need?**
3. **Does the project reflect, incorporate, or further the identified core values?**
4. **Does the project advance the conceptual transit vision and/or improve regional connectivity?**

The five service improvements and two capital investment projects included in this Plan Update meet all the objectives.

Transit Enhancements Summary

The Orange County Transit Plan Update recommends seven projects - five enhancements to existing transit service (operations) and two capital investment projects enhancing transit connections, access, and reliability. New bus services (including increased service span and frequency on existing routes) are proposed to be implemented by Chapel Hill Transit, GoTriangle and Orange County Public Transportation using Tax District Revenues. Costs to purchase, maintain, and replace buses required for service improvements are also included. The service costs shown represents the estimated cost of service in the year of projected implementation; these costs are adjusted for inflation over time. As applicable, cost-share assumptions between Durham and Orange Counties are described. Costs for capital improvement projects are estimated based on the cost of similar projects but final project costs estimates require more comprehensive planning, engineering, and design studies.

A summary of the projects included in the Plan Update is included below and each project is described in more detail in the following pages. Section 4 (Funding) provides an overview of the funding assumptions used to develop the scope, cost, and implementation of each project including rate of inflation, cost per vehicle, and cost per hour for each transit service provider.

Transit Project/ Service	Net New Revenue Hours	Additional Peak Vehicles
Service Improvements		
Chapel Hill Transit CW: Improve weekday midday service to 30 minutes	1,500	0
Chapel Hill Transit HS: Add weekend service with 1 bus (70 min frequency) (8 AM - 6:30 PM)	1,177	0
Orange County Public Transportation: Mobility-on-Demand Service Expansion (2 phases)	4,400	N/A
Chapel Hill Transit NS: Improve morning peak frequency to every 6 minutes. Provide Saturday service until 11 PM and Sunday service until 9 PM	2,300	3
US 15-501 Service Improvements (GoTriangle 400/405, Chapel Hill Transit D, Chapel Hill Transit J)		
GoTriangle 400/405 (Phase 1): Consolidate into one route pattern (discontinue service to Old Chapel Hill Road/University Drive). Schedule effective 15-minute service midday, and improved Sunday and evening service.	10,663*	0
GoTriangle 400 (Phase 2): Shift route to Fordham Boulevard and provide all day service to Jones Ferry Road Park and Ride.	5,616*	1*
Chapel Hill Transit D: Extend service to Patterson Place and provide Saturday service until 9 PM.	8,833**	1
Chapel Hill Transit J: Improve morning peak frequency to every 10 minutes and offer 15-minute service until noon. Provide Saturday service until 11 PM and Sunday service until 9 PM	3,200	2
Capital Projects		
Crossing and Shelter Improvements on US 15-501/ Fordham Boulevard at Ephesus Church Road		
Fordham/Manning Queue Jump and Shoulder Running Improvements		
**Subject to a 50/50 cost share with Durham County **Subject to a 60/40 cost share with Durham County*		

Projects from 2012 and 2017 Transit Plans

Most of the Transit Tax revenues collected in Orange County (approximately $9 million in FY2021) are used to fund "programmed" projects, services, and administrative needs (i.e., approved for funding in the 2012 or 2017 Orange County Transit Plans), with the exception of projects that have been removed due to the D-O LRT's discontinuation. The projects in this Transit Plan Update are **new projects.** They are being added to the **projects that are already being funded with transit tax revenue** (shown below). When determining how much transit tax revenue was available for new projects, these projects are included in "existing expenses."

Operating Projects

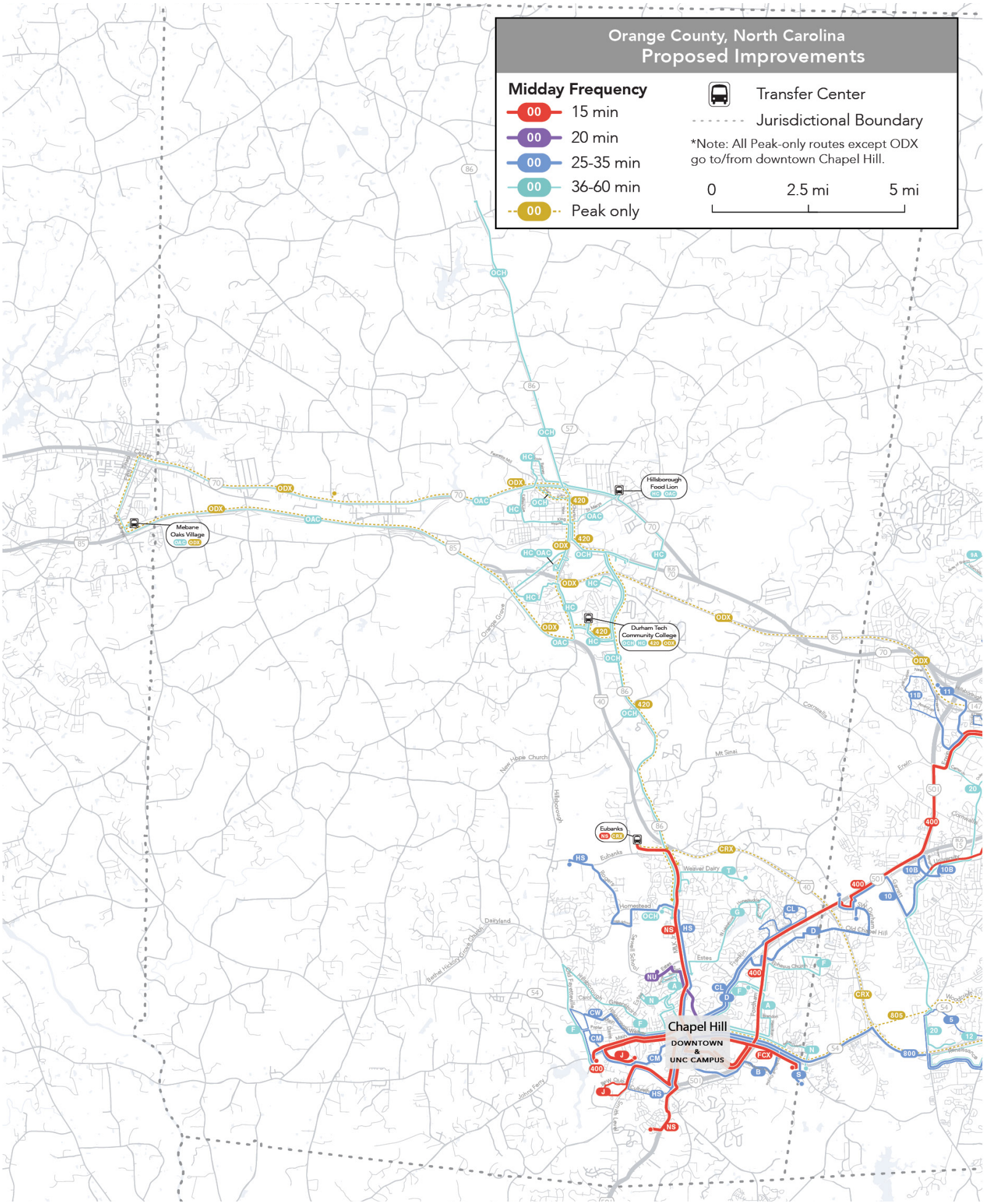
Durham-Chapel Hill-Carrboro Metropolitan Planning Organization	
Transit Plan Administration	Staff Working Group Administrator
GoTriangle	
Tax District Administration	Tax District Admin - Financial Oversight Staff
Tax District Administration	Tax District Admin - Financial Oversight - Support Services (O)
Transit Plan Administration	Transit Plan Admin - Program Management Staff
Transit Plan Administration	Transit Plan Admin - Project Implementation Staff
Transit Plan Administration	TPA - Transit Planning - Support Services
Transit Plan Administration	TPA - Legal and Real Estate - Support Staff
Transit Plan Administration	TPA – Marketing Communication and PE - Support Staff
Transit Plan Administration	TPA - Marketing, Communication and PE - Support Services
Transit Plan Administration	TPA - Regional Technology and Administration - Support Staff
Transit Plan Administration	Customer Surveys

GoTriangle (cont'd)	
Transit Operations	Route 800 Improvements
Transit Operations	Route 400 Improvements
Transit Operations	Route ODX
Transit Operations	Route CRX Improvements
Transit Operations	Route 405 Improvements
Transit Operations	Paratransit expansion
Transit Operations	Youth GoPass
Transit Operations	Fare Collection Improvements (D)
Orange County Public Transportation	
Transit Operations	Continuation of Transit Services
Transit Operations	Increased Cost of Existing Services
Transit Operations	Hillsborough Circulator Expansion
Transit Operations	Hillsborough Circulator II
Chapel Hill Transit	
Transit Operations	Increased Cost of Existing Services
Transit Operations	Existing Service Expansion FY13-FY20

Capital Projects

GoTriangle	
Capital Planning	ERP System - Transit Plan
LRT	Light Rail Transit Closeout Costs
Transit Infrastructure	Hillsborough Park and Ride
Transit Infrastructure	New Transfer Center (Location TBD, Hillsborough or RTC)
Transit Infrastructure	Mebane Bus Stop Improvement
Transit Infrastructure	Bus Stop Improvements (Orange County)
Transit Infrastructure	Priority Transit Access Improvements
Transit Infrastructure	RTC Facility Feasibility Study - Orange
Transit Infrastructure	Mobile Ticket Validators - Orange share (includes Route 420)
Vehicle Acquisition	Vehicle acquisition and replacement
Capital Planning	Origin Destination Survey
Capital Planning	GoTriangle Short Range Transit Plan
Capital Planning	Transit Facilities Study
Transit Infrastructure	Bus Stop Improvement (5 OPT Stops) Short Term
Orange County Public Transportation	
Transit Infrastructure	15 OPT Bus Stop Signs
Transit Infrastructure	Hillsborough Park-and-Ride - 3(Orange County -Construction)
Capital Planning	AVL
Capital Planning	Planning for new Transit Plan

Chapel Hill/ Chapel Hill Transit	
BRT	North-South BRT
BRT	North-South BRT Supplemental
Transit Infrastructure	CHT ADA Bus Stop Upgrades
Transit Infrastructure	UNC Manning Drive Bus Station
Transit Infrastructure	Lighting in bus shelters
Transit Infrastructure	Bus Stop Sign Design and Replacement
Vehicle Acquisition	Programmed Expansion Bus Renewals Based on Useful Life
Town of Carrboro	
Transit Infrastructure	Estes Drive Bike-Ped Improvements
Transit Infrastructure	Estes Drive Transit Access/Corridor Study
Transit Infrastructure	Morgan Creek Greenway
Transit Infrastructure	South Greensboro St. Sidewalk
Transit Infrastructure	Carrboro West Main Street Sidewalk
Transit Infrastructure	NC 54 signalized pedestrian crossings (Westbrook Drive, Abbey Road, Kingsmill/Laurel)
Town of Hillsborough	
Transit Infrastructure	Hillsborough Train Station
Transit Infrastructure	Hillsborough Train Station Bus Stop Improvements


Orange County, North Carolina
Proposed Improvements
Midday Frequency
15 min
20 min
25-35 min
36-60 min
Peak only
Transfer Center
Jurisdictional Boundary
*Note: All Peak-only routes except ODX go to/from downtown Chapel Hill.
0
2.5 mi
5 mi
Mebane Oaks Village
Hillsborough Food Lion
Durham Tech Community College
Eubanks
Chapel Hill
DOWNTOWN
&
UNC CAMPUS

CW

CHAPEL HILL TRANSIT

SERVICE IMPROVEMENT

The CW route provides service between Carrboro and UNC-CH via West Main Street, Weaver Street, and West Franklin Street.

Route: Chapel Hill Transit CW

Improvement: Frequency

Description: Increases midday service frequency to every 30 minutes on weekdays

Cost: $190,610

Net New Revenue Hours: 1,500

Implementation Year: 2023

Frequency improvements on Chapel Hill Transit's CW route provides more frequent service between major employment and recreational centers in Carrboro and Chapel Hill. The route serves the historically African American Northside neighborhood promoting more equitable access to opportunity. The project also increases transit access near multifamily and lower-income housing. Denser development in these locations, combined with more convenient transit service, helps reduce the need for private vehicles and supports environmental benefits. Investing Transit Tax District revenues in this project also helps address one of Chapel Hill Transit's unfunded transit priorities.

core values.

Equity: Provides more frequent transit service near areas with lower-income housing and in/near historically African American neighborhoods.

Environmental Sustainability: Route serves an area with higher density development with opportunities to reduce use of single occupancy vehicle.

Economic Prosperity: Improves transit access to an area with many jobs and improves connectivity by better connecting Carrboro and Chapel Hill.

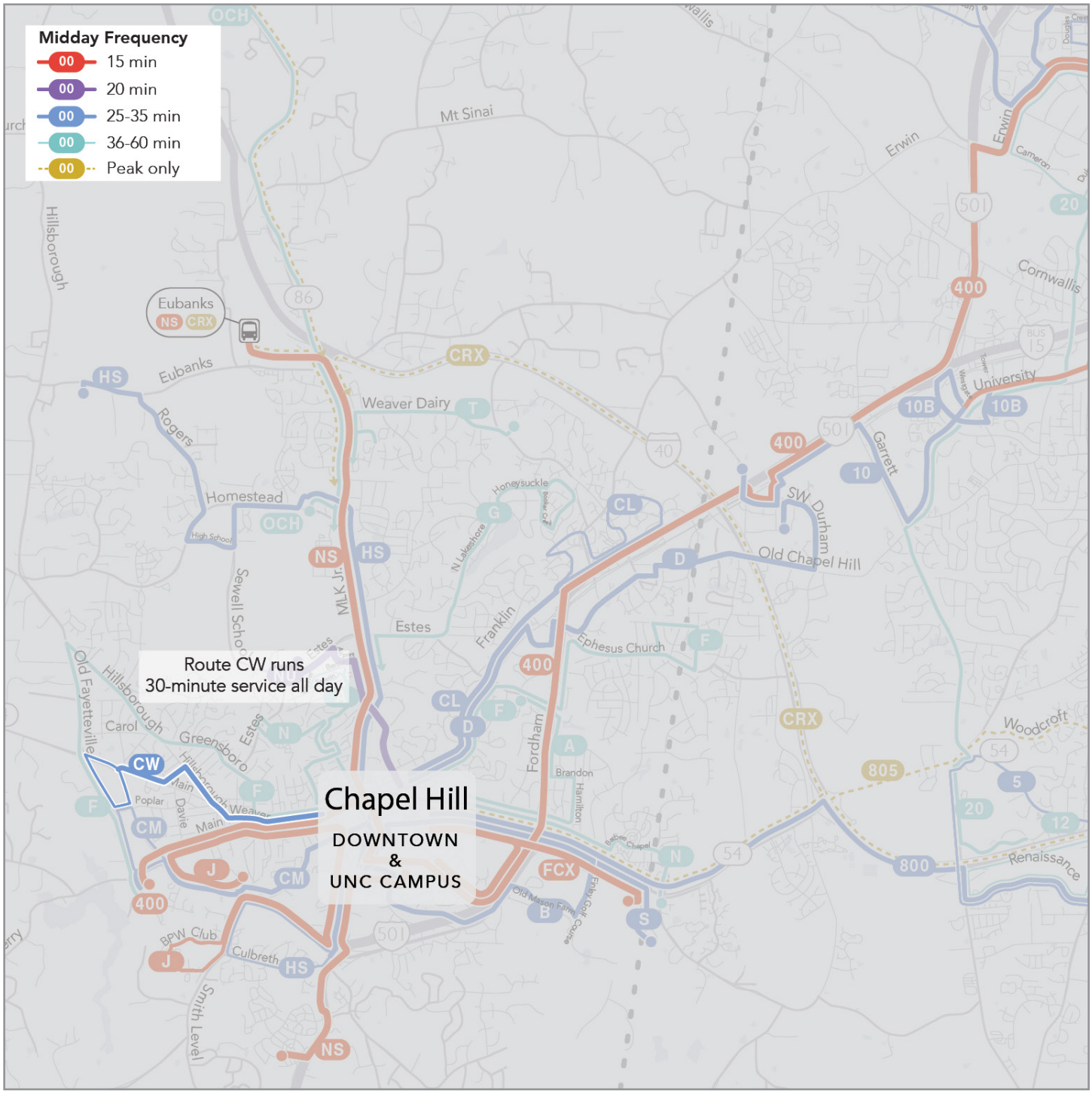
Affordable and Attainable Quality of Life: Improves transit access near multifamily housing developments.

Transportation and Access for All: Service enhancement is an unfunded priority project for Chapel Hill Transit.

CW

CHAPEL HILL TRANSIT

SERVICE IMPROVEMENT



HS

CHAPEL HILL TRANSIT

SERVICE IMPROVEMENT

The HS route provides weekday-only service between Morris Grove Elementary School and Smith Level Road via Rogers Road, Homestead Road, and Martin Luther King Jr. Boulevard.

Route: Chapel Hill Transit HS

Improvement: Add weekend service

Description: Adds weekend service every 70 minutes from 8 AM - 6:30 PM

Cost: $160,038

Net New Revenue Hours: 1,177

Implementation Year: 2023

Improvements to the HS route adds weekend transit services and provides connections to higher-density neighborhoods and multifamily housing. The HS route covers a large area of Chapel Hill and this project improves transit access to key destinations along Martin Luther King Jr. Boulevard. The service improvement benefits lower-income communities and fulfills a stated public need for weekend service in transit reliant neighborhoods.

core values.

Equity: Provides improved transit service near lower-income housing and in/near historically African-American neighborhoods

Environmental Sustainability: Improves transit access along corridors with existing higher-density development

Economic Prosperity: Improves access to jobs

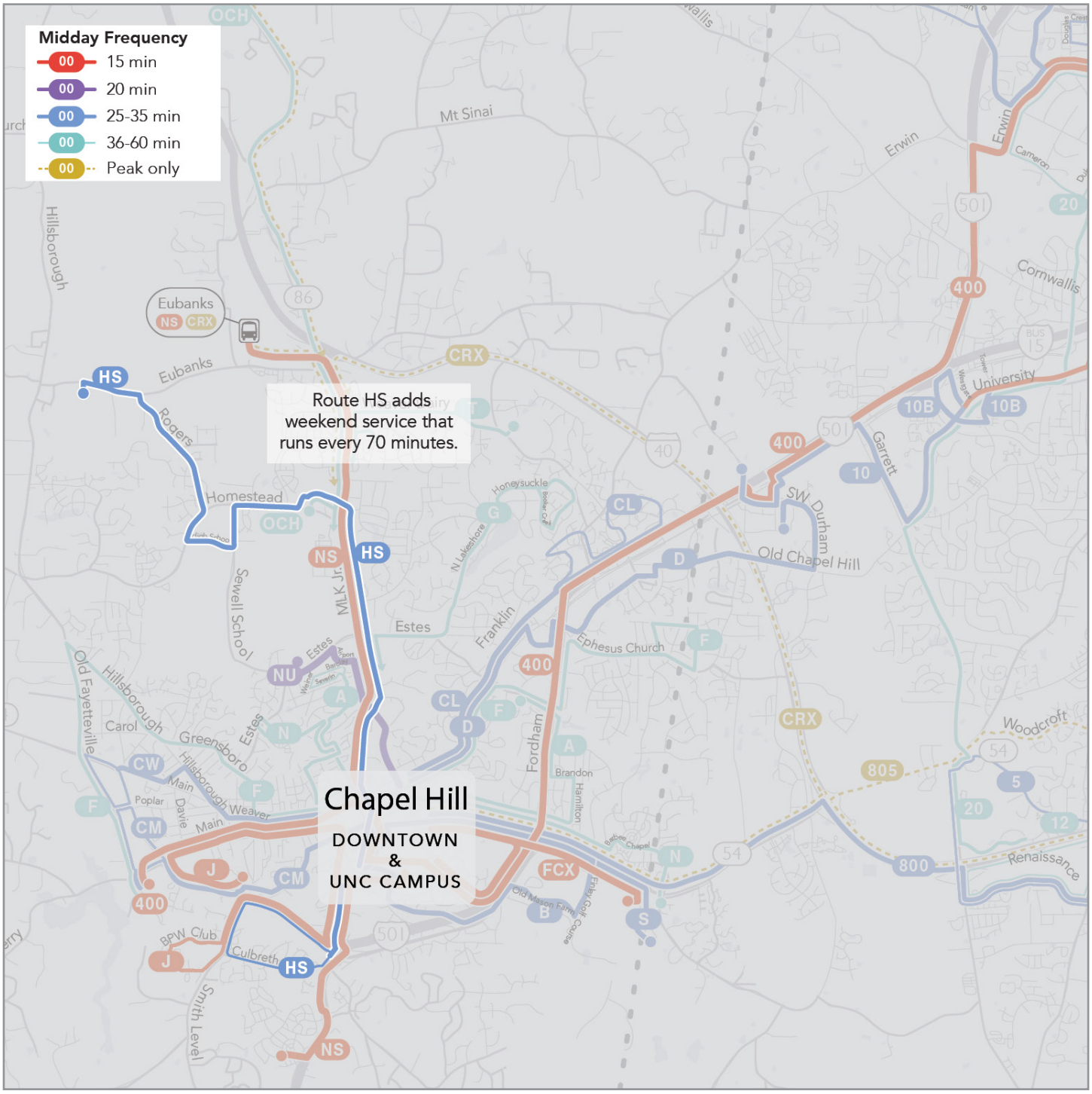
Affordable and Attainable Quality of Life: Improves transit service near multifamily housing and naturally-occurring affordable housing.

Transportation and Access for All: Fulfills stated need for weekend service in transit-reliant neighborhoods.

HS

CHAPEL HILL TRANSIT

SERVICE IMPROVEMENT



NS

CHAPEL HILL TRANSIT

SERVICE IMPROVEMENT

The NS route provides high-frequency service between Eubanks Road Park & Ride and Southern Village Park & Ride via NC Highway 86 – a planned Bus Rapid Transit (BRT) route.

Route: Chapel Hill Transit NS

Improvement: Frequency and span

Description: Increases morning peak frequency to every 6 minutes; extends Saturday service until 11 PM; and extends Sunday service until 9 PM.

Operating Cost: $314,741
Vehicle Costs: $1,855,583
(3 vehicles - acquisition, repower, replacement for service enhancements)

Net New Revenue Hours: 2,300

Implementation Year: 2026

The NS route serves a corridor with existing high transit ridership numbers, particularly commuters. This improvement increases frequency at a time when many people travel to work. The route also connects to two commuter Park & Ride lots. More frequent transit service attracts more riders, helping to reduce congestion on key travel corridors. The longer hours in the evening and on Saturday help meet a stated public need.

core values.

Equity: Route serves areas with existing public housing and naturally-occurring affordable housing

Environmental Sustainability: Improves transit access and service along a high-ridership corridor with existing higher density development.

Economic Prosperity: Improves access to local and regional job centers.

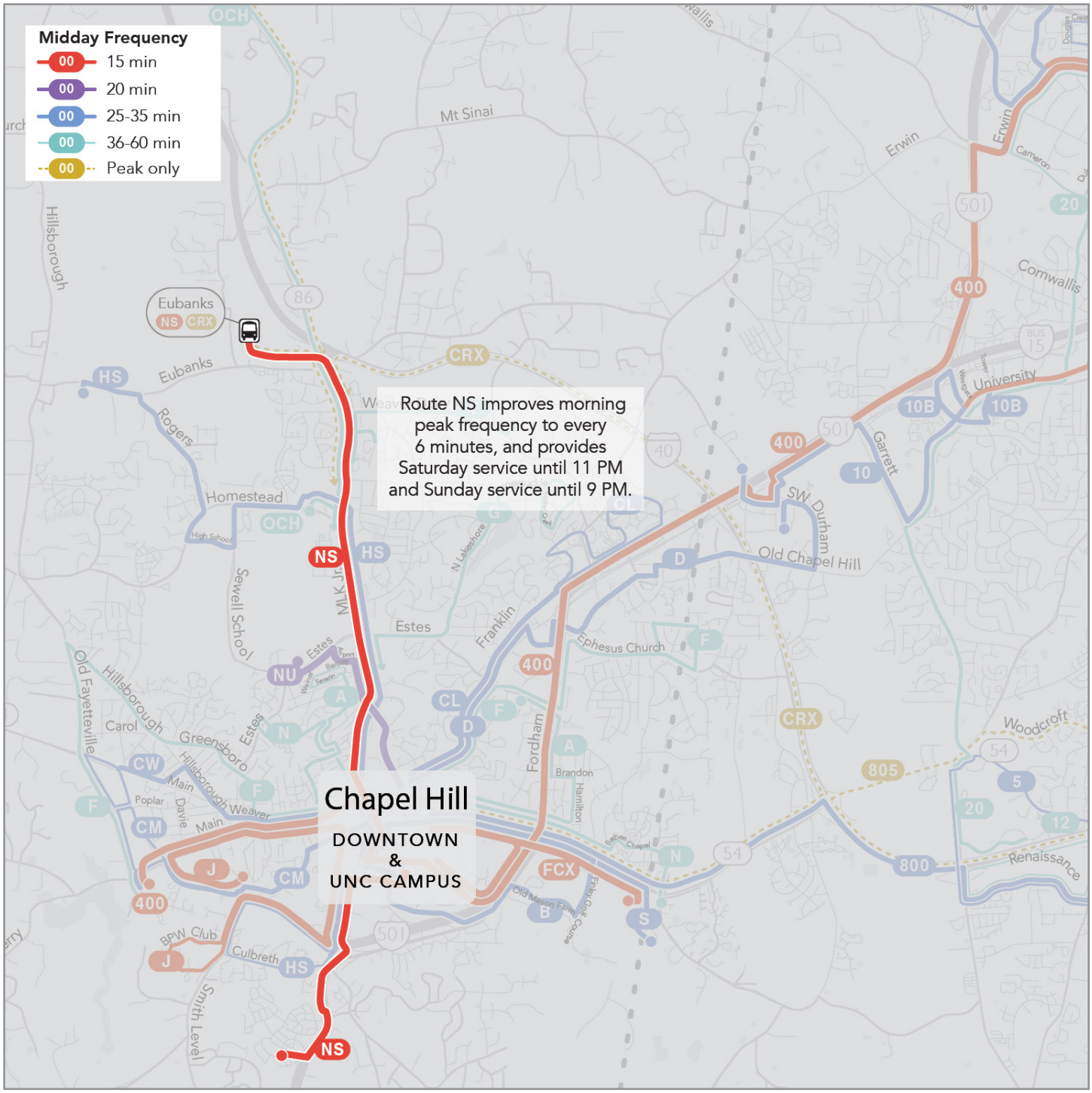
Affordable and Attainable Quality of Life: Expands transit access for existing public housing and naturally-occurring affordable housing.

Transportation and Access for All: Fulfills a stated public need for more frequent transit and longer weekend service hours.

NS

CHAPEL HILL TRANSIT

SERVICE IMPROVEMENT



MOD

ORANGE COUNTY PUBLIC TRANSPORTATION

SERVICE IMPROVEMENT

OCPT's Mobility-on-Demand (MOD) service provides life-line service in difficult to serve locations currently lacking transit options.

Route: Orange County Public Transportation MOD

Improvements: Two (2) phases extending service hours and coverage

Description:
Phase 1: Expand hours of service and coverage area;
Phase 2: Improve coverage area, expand hours and days of service

Cost: $438,741 (*Phase 1*) increasing to $650,588 (*Phase 2*)

Net New Revenue Hours: 4,400

Implementation Year: 2024 (*Phase 1*), 2026 (*Phase 2*)

The Mobility-On-Demand service provides a critical on-demand transit option for Orange County residents living in areas that lack fixed-route transit service. This projects expands the days and hours when this affordable transportation option is available for ALL residents of Orange County in two phases.

core values.

Equity: Provides transit service in locations that currently have little to no service, including lower income, rural communities.

Affordable and Attainable Quality of Life: Provides an affordable life-line transportation option for all.

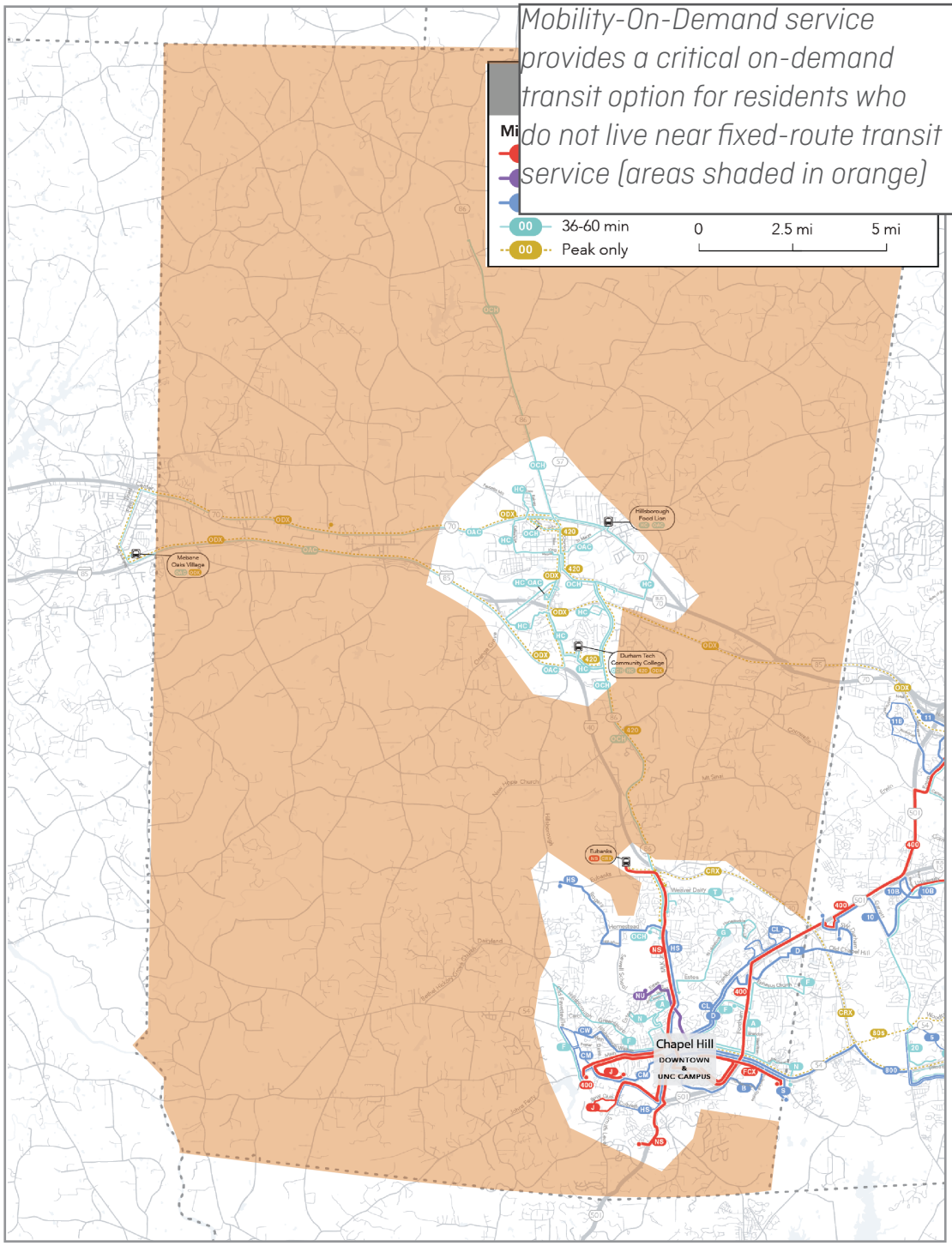
Transportation and Access for All: Provides a transit service option reaching all residents of Orange County.

MOD

SERVICE IMPROVEMENT

ORANGE COUNTY PUBLIC TRANSPORTATION

Mobility-On-Demand service provides a critical on-demand transit option for residents who do not live near fixed-route transit service (areas shaded in orange)



US 15-501

MULTIPLE SERVICE IMPROVEMENTS

Bundled and phased service improvements for the US 15-501 corridor including GoTriangle routes 400/405 and Chapel Hill Transit D and J routes.

The service improvements proposed for US 15-501 prioritize routes with high ridership potential and regional connections between Chapel Hill and Durham. Collectively, the proposed projects increase transit services near naturally-occurring affordable housing, multifamily housing, and public housing in two counties and connect residents to employment and recreational centers. The projects also fulfill a stated need for more frequent transit service, longer weekend service hours, and improved commuter services.

GOTRIANGLE *PHASE 1 & 2*

400/405

CHAPEL HILL TRANSIT

D,J

core values.

Equity: Provide better transit service near lower-income housing and public housing in two counties.

Environmental Sustainability: Improves regional transit access along a high-ridership corridor with existing higher-density development.

Economic Prosperity: Improves access to local and regional employment and activity centers.

Affordable and Attainable Quality of Life: Expands transit access near multifamily housing and enhances connections between UNC-CH and Durham.

Transportation and Access for All: Fulfills a stated public need for more frequent transit, longer weekend service hours, and improved regional connections.

400/405

PHASE 1 GOTRIANGLE

SERVICE IMPROVEMENT

Routes 400 and 405 provide inter-county service between Carrboro and Durham Station via the UNC-CH campus and Patterson Place.

Routes: GoTriangle 400/405

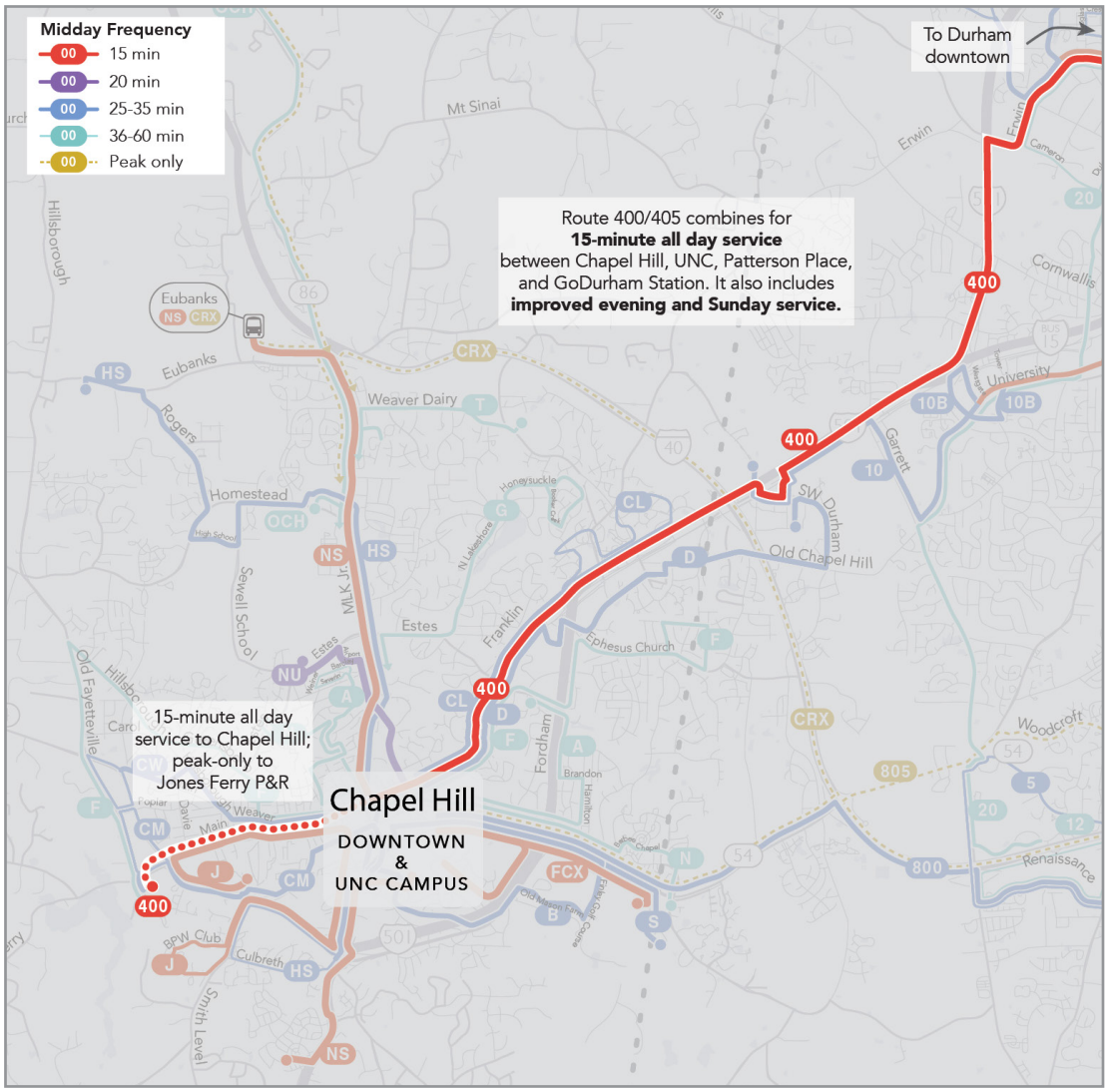
Improvements: Consolidate routes 400/405 into one pattern (discontinue service to Old Chapel Hill Road/University Drive); schedule effective 15-minute service midday and improved Sunday and evening service.

Operating Cost: $823,878

Net New Revenue Hours: 10,663*

Implementation Year: 2026

** 50/50 cost share with Durham County*



400

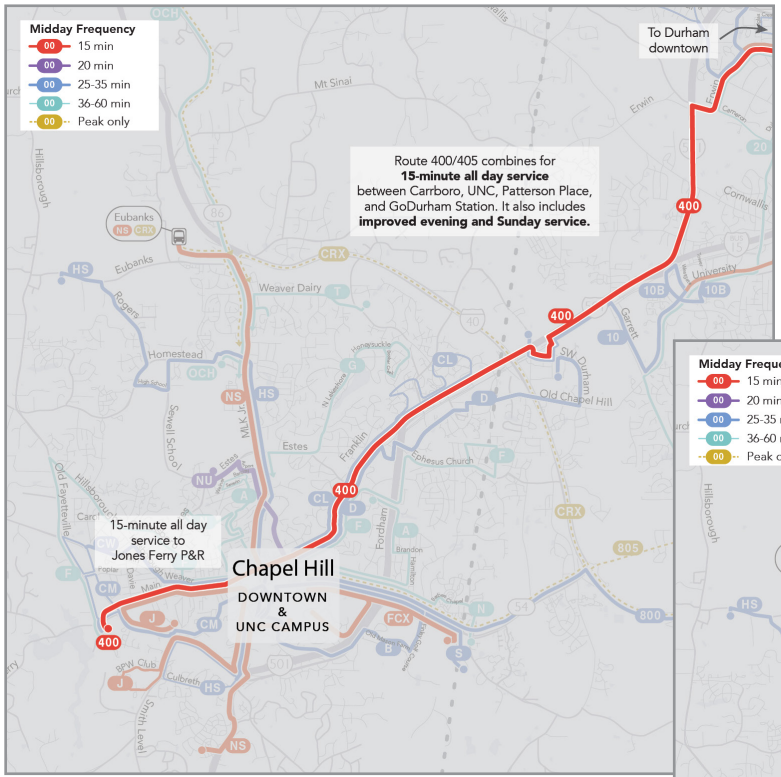
SERVICE IMPROVEMENT

GOTRIANGLE PHASE 2

Route 400 provides inter-county service between Carrboro and Durham Station via the UNC-CH campus and Patterson Place.

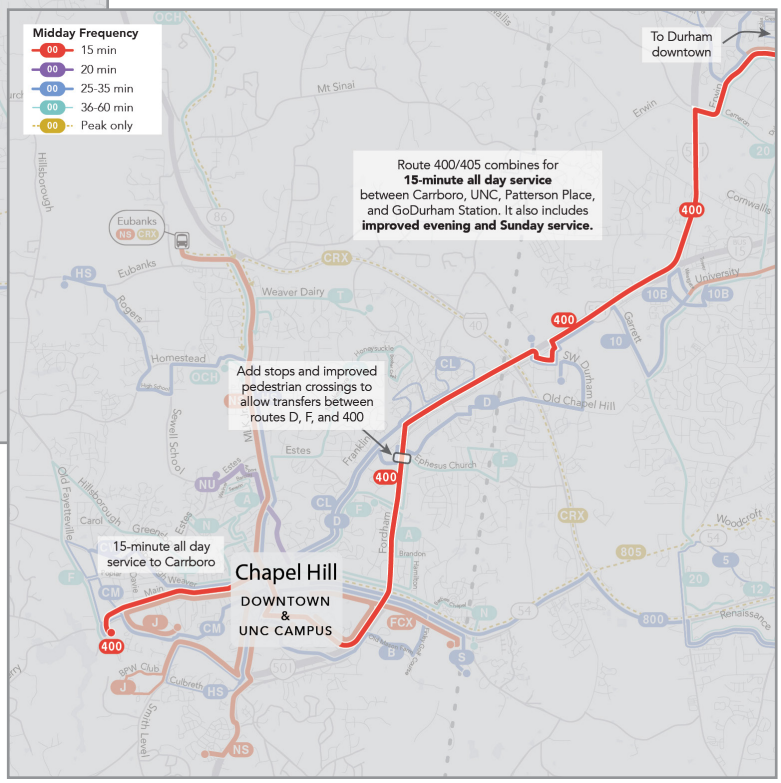
Route: GoTriangle 400
Improvements: Provide all day service to Jones Ferry Park and Ride; shift route to Fordham Boulevard and Manning Drive
Operating Cost: $467,296

Vehicle Costs: $1,642,735* **
Net New Revenue Hours: 5,616**
Implementation Year: 2029
** Acquisition, repower, and replacement to serve improvements on routes 400, D, J (4 vehicles)*
*** 50/50 cost share with Durham County (service and 1 vehicle)*



All day, 15-minute service to Jones Ferry Park and Ride via Franklin Street and Main Street (existing route)

All day service, 15-minute service to Jones Ferry Park and Ride via Fordham Boulevard, Manning Drive, and Main Street



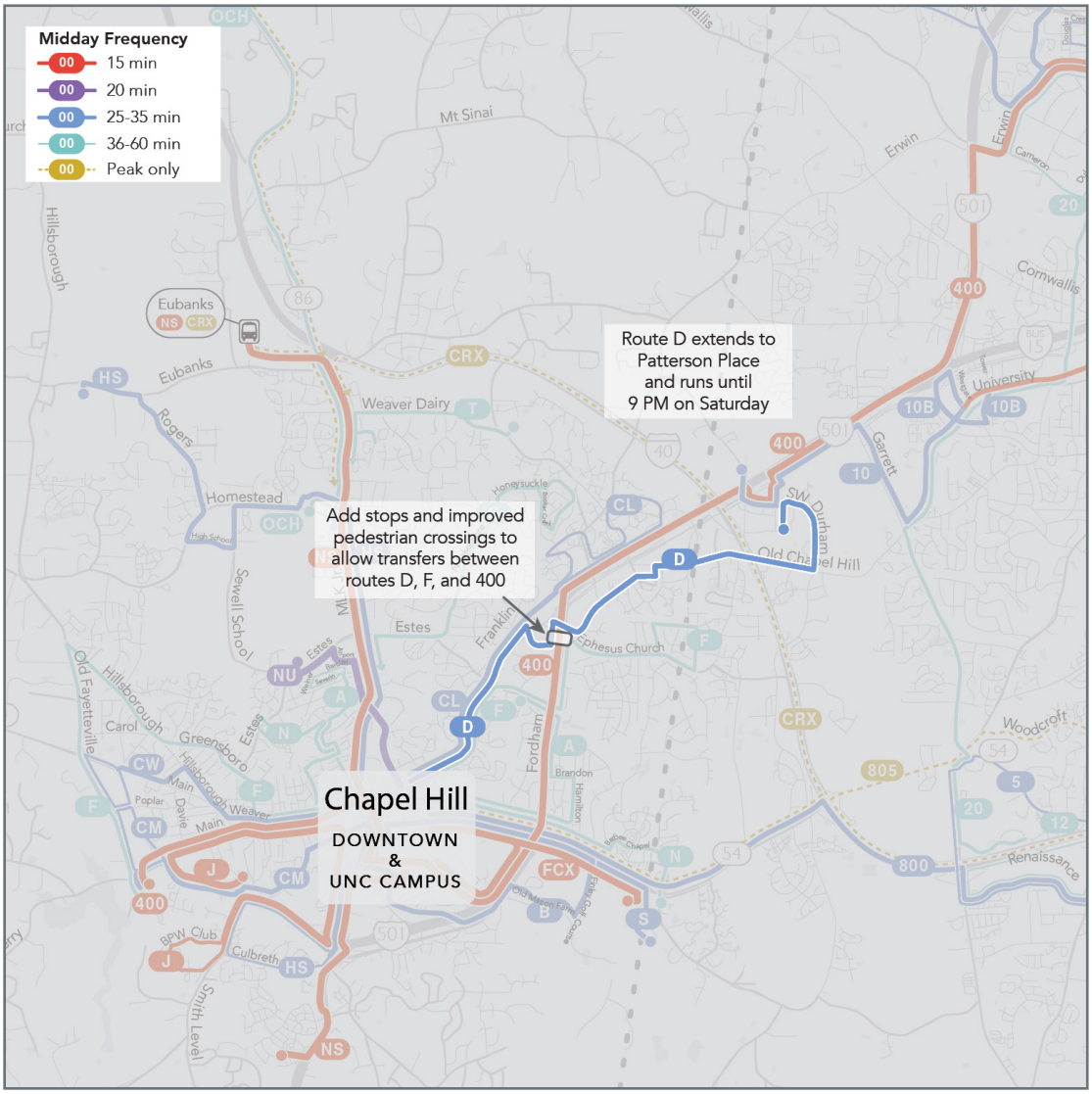
SERVICE IMPROVEMENT

D
CHAPEL HILL TRANSIT

The D route provides service between Mason Farm Road on the UNC-CH campus and Pope Road, west of Interstate 40.

Route: Chapel Hill Transit Route D
Improvements: Extend service to Patterson Place and provide Saturday service until 9 PM
Operating Cost: $453,602

Vehicle Costs: see Route 400 improvements
Net New Revenue Hours: 5,300
Implementation Year: 2026
*** 60/40 cost share with Durham County*



J

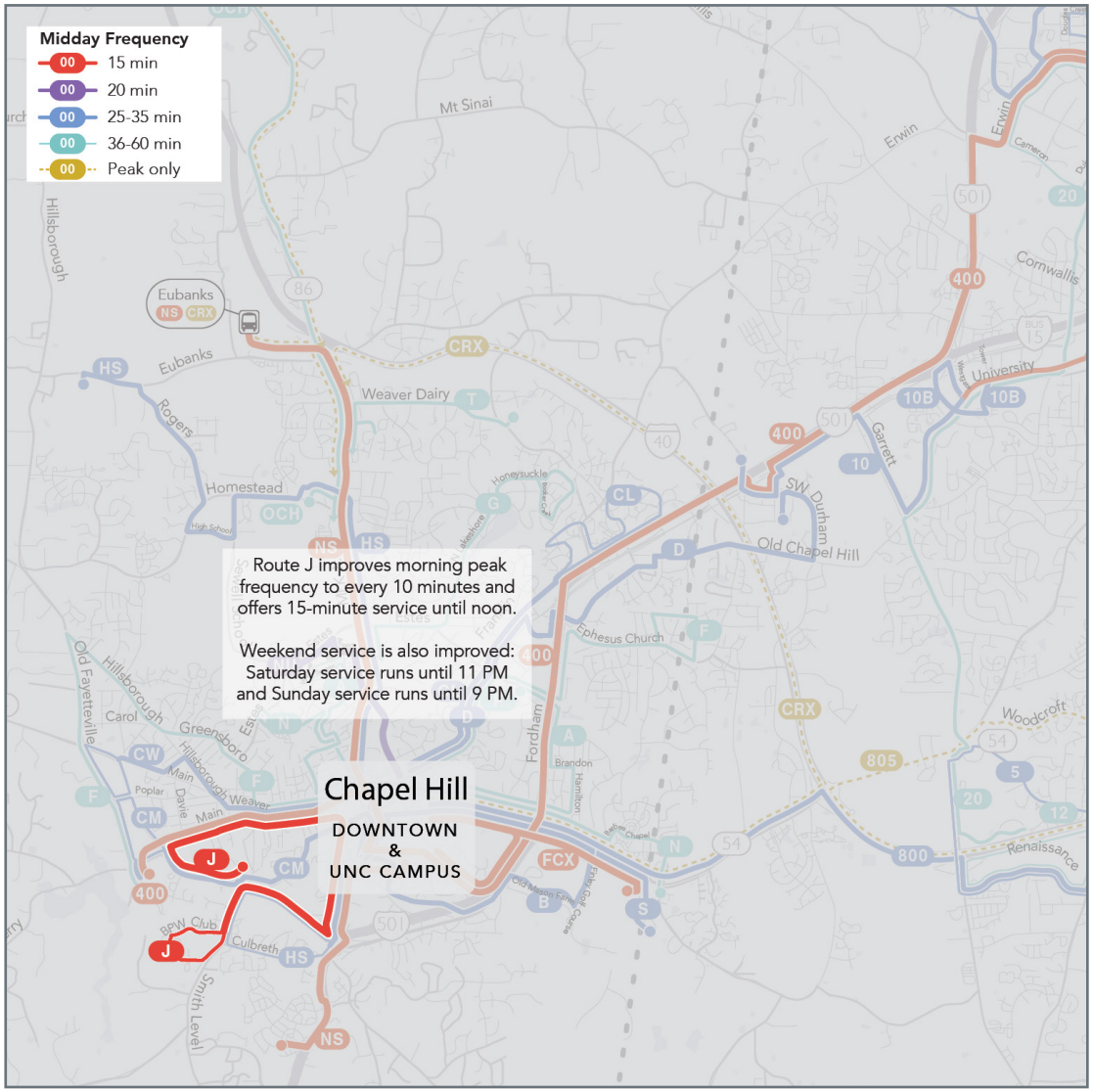
SERVICE IMPROVEMENT

CHAPEL HILL TRANSIT

The J route provides service between Rock Haven Road and UNC-CH via Jones Ferry Road and Smith Level Road.

Route: Chapel Hill Transit Route J
Improvements: Improve morning peak frequency to every 10 minutes and offer 15-minute service until noon. Provide Saturday service until 11 PM and Sunday service until 9 PM.

Operating Cost: $460,069
Vehicle Costs: see Route 400 improvements
Net New Revenue Hours: 3,200
Implementation Year: 2028



FORDHAM/ US 15-501 at MANNING

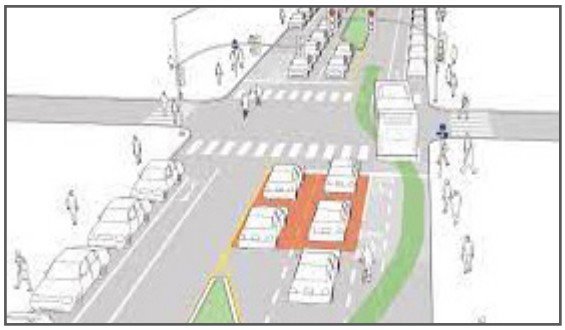
CAPITAL IMPROVEMENT

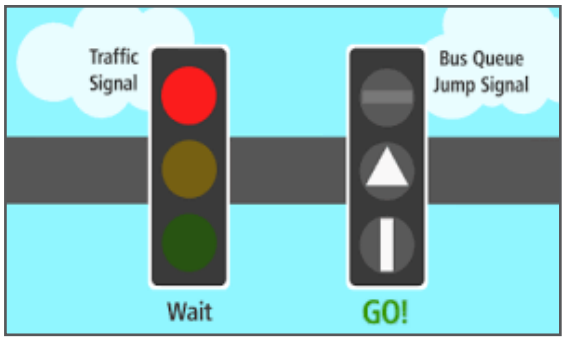
Improve service reliability and reduce travel times between Durham and Chapel Hill by constructing a queue jump lane and signal on Manning Drive and shoulder running bus lane on Fordham Boulevard.

Estimated Cost: $4,000,000 (local share)*
Implementation Year: 2027-2028

** May require additional funding sources based on final cost*

A queue jump lane and signal on Manning Drive and bus-on-shoulder lane(s) and signage along Fordham Boulevard from Manning Drive to Raleigh Road (or, ideally, north to Ephesus Church Road) will help outbound buses (from Chapel Hill) avoid backups on US 15-501 and Fordham Blvd. and support the service improvements to GoTriangle's 400/405 route and Chapel Hill Transit's D and J routes This project strengthens transit connections between Orange County and the greater Triangle region.





core values.

Equity: Provides faster and more reliable transit service on corridors with lower-income and public housing and public housing.

Environmental Sustainability: Helps mitigate vehicle congestion in existing transit corridors.

Economic Prosperity: Provides faster and more reliable transit service to local and regional activity centers.

Affordable and Attainable Quality of Life: Provides faster and more reliable transit service near multifamily housing.

Transportation and Access for All: Fulfills a stated need for faster and more reliable transit service.

FORDHAM/ US 15-501 at EPHESUS CHURCH

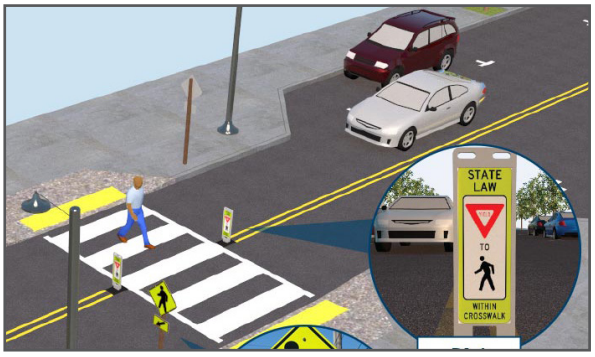
CAPITAL IMPROVEMENT

Improve regional transfer opportunities with crossing and bus shelter improvements on US 15-501/ Fordham Boulevard at Ephesus Church Road

Estimated Cost: $1,000,000 (local share)*
Implementation Year: 2026

** May require additional funding sources based on final cost*

Crossing and shelter improvements near the intersection of Ephesus Church Road and US 15-501/ Fordham Blvd. support service improvements to GoTriangle's 400/405 route and Chapel Hill Transit's D and J routes by enhancing pedestrian and transit safety along a corridor with transit dependent populations and high transit ridership.



core values.

Equity: Improves transit amenities and enhances safety.

Environmental Sustainability: Improves regional transit access along a high-ridership corridor with existing higher-density development.

Economic Prosperity: Improves access to local and regional employment and activity centers.

Affordable and Attainable Quality of Life: Enhances transit safety near multifamily housing and enhances regional connections.

Transportation and Access for All: Improves transit amenities and enhances safety in a high ridership transit corridor.

ORANGE COUNTY
NORTH CAROLINA

vision.

quick•*take*

The next generation of transit investments in Orange County require regional cooperation and innovative funding solutions.

SECTION
06
vision.

What is the future of transit in Orange County and the region?

vis·ion
a view into the future with hope and a positive outlook;an inspirational, long-term plan

This section describes a long-term, conceptual vision for transit service and investments in Orange County, including priority projects that remain unfunded for each transit provider.

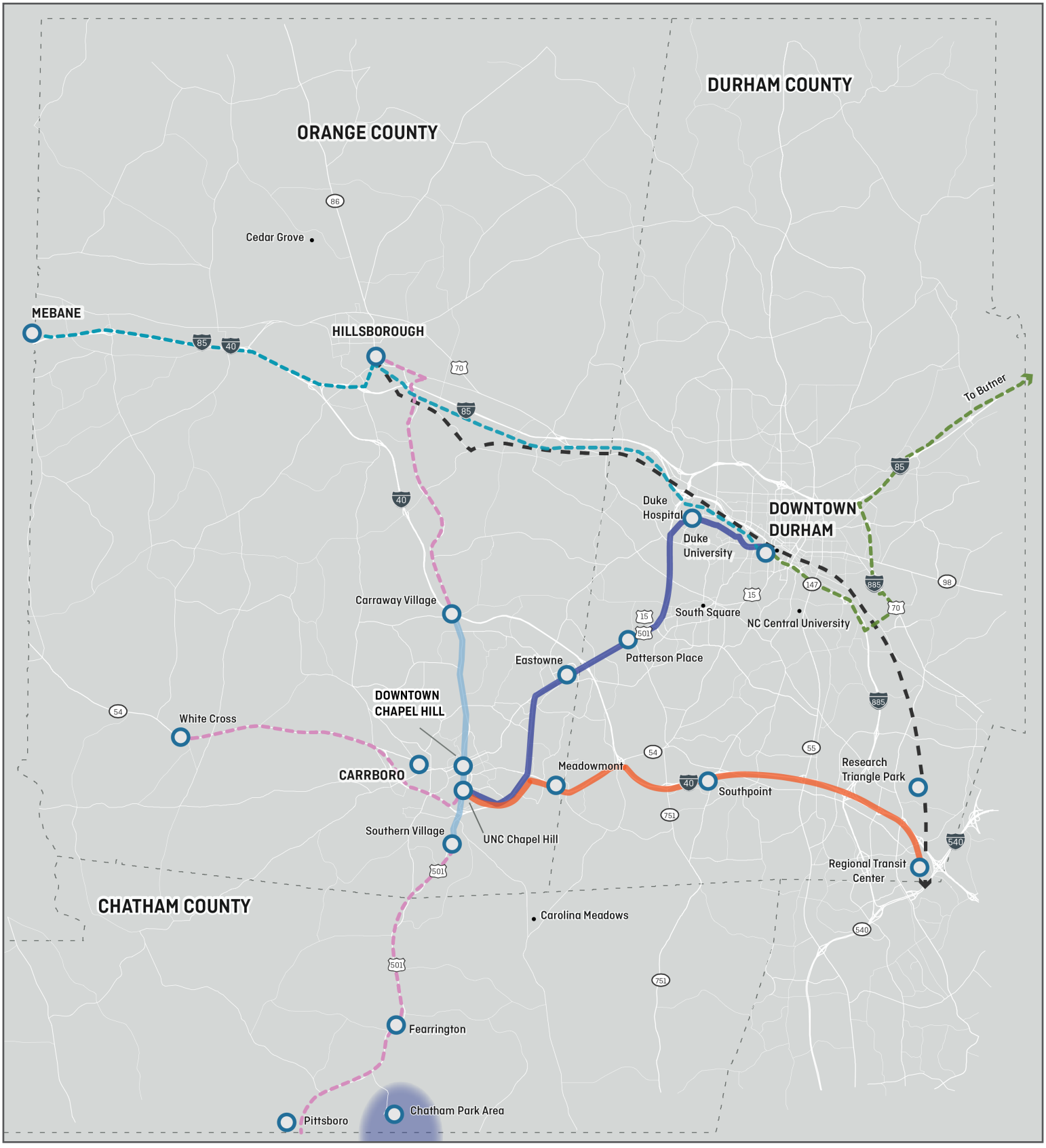
While the Plan Update's primary aim is identifying improvements that can be implemented in the next twenty years using existing Transit Tax District revenues, it is also important to consider longer-term projects. Projects included in Orange County's *Next Generation* transit vision map (facing page) focus on improving regional transit connections and enhancing transit service options through investments in service like bus rapid transit (BRT). Projects were identified through discussions with staff and decision-makers and by regional long-range transportation plans like DCHC's 2050 Metropolitan Transportation Plan (MTP). All the *Next Generation* projects require further study, discussion, consideration, and funding beyond what is generated by Orange County's dedicated transit revenue sources.

Cost estimates are identified for projects on the Next Generation transit vision map. If a cost estimate was not available, a low-to-high range was estimated using industry averages. The cost ranges reflect the diversity of BRT service and infrastructure specifications such as bus-only lanes vs. mixed traffic; existing infrastructure and development; corridor length; type of vehicles and stations; supportive infrastructure; and more. The Institute for Transportation & Development Policy's (ITDP) BRT Standard scoring system provides additional information for a range of BRT best practices. Unless otherwise indicated, these costs reflect construction only; they do not include planning and other project development costs or annual costs of operating and maintaining premium transit service.

Next Generation Transit Vision Projects

LEAD AGENCY/ PROJECT	DESCRIPTION	TIME FRAME	ESTIMATED COST
GoTriangle Commuter Rail Transit (CRT)	About 40 miles of existing NCRR corridor; eight trips each direction peak; two trips each direction midday/ evening	2030 (West Durham to Clayton) miles); 2050 extend to Hillsborough and Selma	$1.7 - $2.1 billion to build, $37 million/year operations and maintenance; if extended, $2.5-$3.2 billion to build, $57 million/year operations and maintenance
Chapel Hill Transit North-South Bus Rapid Transit (N-S BRT)	NC 86/ Martin Luther King, Jr. Blvd. in Chapel Hill; Eubanks Road to Southern Village; bus-only lanes and mixed traffic; approx. 8 miles	2026: Construction planned to begin; 2028: commence revenue service	$150 million total ($40 million local share - $35 million requested from NCDOT, remainder from Orange County Transit Tax District); $3.4 million/ year operations and maintenance
DCHC MPO Durham/ Chapel Hill Bus Rapid Transit (BRT)	UNC to Duke University & Hospitals via US 15-501; bus-only lanes, possible bus-on-shoulder system (BOSS), and mixed-traffic; approx. 12 miles	2050	$180-$600 million total (construct) ($15-50 million/mile)
DCHC MPO Chapel Hill/ RTP Bus Rapid Transit (BRT)	UNC to RTP/ Regional Transit Center via NC 54 and I-40; mixed traffic and bus-on-shoulder system (BOSS); approx. 12.5 miles	2050	$187.5-625 million total (construct) ($15-50 million/mile)
DCHC MPO Express Bus Corridors	Eubanks P&R/ Hillsborough (approx. 9.0 miles); UNC/ White Cross (approx. 9.5 miles; UNC/ Pittsboro (approx. 16.5 miles); Durham/ Butner (approx. 15.5 miles)	*2040:* Chapel Hill/ Hillsborough; White Cross/UNC; Chapel Hill/ Hillsborough; Chapel Hill/ Pittsboro *2050:* Durham/Butner	Approx. $5 million/ mile for upgrades to support express service (shoulder widening, transit signal priority, potential queue jump lanes, premium transit stations)
Lead TBD Express Bus to Mebane	Future express bus service between Durham and Mebane via Hillsborough	TBD (23 miles total)	Approx. $5 million/ mile for upgrades to support express service (shoulder widening, transit signal priority, potential queue jump lanes, premium transit stations)

NEXT GENERATION TRANSIT VISION MAP



Unfunded Priorities

The revenue generated by the Transit Tax District is not enough to meet all of the region's transit needs. This section identifies those unfunded needs. Documenting these projects can help prioritize investments if additional transit funding becomes available. Projects were provided by transit service providers and by reviewing each agency's short range transit plan. Estimated project costs are provided when available. This list of projects is subject to changes as agencies and municipalities continue to evaluate transit need and available resources.

Type	Project	Description	Cost Estimate
Orange County Public Transportation			
Operations	Vanpool Subsidy Program	Provide additional vanpool subsidy for Orange County residents	
	Expand Hillsborough Circulator Service	Expand service span and frequency on existing route to operate Monday to Saturday from 7:00 AM - 8:00 PM	
	Additional Hillsborough Circulator Route	Alternative alignment for the Hillsborough Circulator with two partially overlapping loops	
	Hillsborough-Durham Connector	New fixed-route service between Hillsborough and Durham with connections to the Duke VA Hospital operating hourly on weekdays between 9:00 AM - 4:00 PM	
	Cedar Grove Peak Connector	New peak only fixed-route service between Hillsborough and Cedar Grove on weekdays between 6:00 AM - 9:00 AM and 3:30 PM - 7:00 PM	
	White Cross Commuter Service	New peak only fixed-route service between Chapel Hill and White Cross operating on weekdays between 6:30 AM - 9:30 AM and between 3:30 PM - 6:30 PM	
Capital	Transit Amenities	New transit amenities in Hillsborough including a new transfer center and a new park-and-ride facility	
Chapel Hill Transit*			
Operations	US 15-501 BRT Major Investment Study and Alternatives Analysis	Planning for potential BRT or high-capacity transit on US 15-501	
	Route CL**	Add weekend service 6:30 AM - 10:00 PM (M-F), 8:00 AM - 9:00 PM (Sat), 8:00 AM - 7:00 PM (Sun)	$130,000
	New Service: West NC 54	New weekday peak-only service from White Cross to UNC-Chapel Hill 6:30 AM - 9:30 AM; 3:30 PM - 6:30 PM (M-F)	$150,000
	New Service: Estes Drive Crosstown	New service connecting UNC-Chapel Hill, University Place, and Glen Lennox via Estes Drive 6:30 AM - 8:30 PM (M-F), 8:00 AM - 7:00 PM (Sat-Sun)	$1,290,000
	EZ Rider	Same Day Customer Trips 6:30 AM - 10:00 PM (M-F) 8:00 AM - 7:00 PM (Sat) 8:00 AM - 7:00 PM (Sun)	$624,000
	On-Demand Service	Midday/Evening trips to/from service area with no bus routes, 10:00 AM - 2:00 PM; 6:00 PM - 11:00 PM (M-F)	$850,000
	Senior Shuttle	Bi-Directional Service utilizing 2nd vehicle, 8:00 AM - 7:00 PM	$220,500
	Route A	Improve weekday service to 30 minutes frequency, 6:30 AM - 10:00 PM (M-F) 8:00 AM - 7:00 PM (Sat) 8:00 AM - 7:00 PM (Sun)	$340,000
	Route CL	Improve weekday peak service to 10 minutes frequency, 6:30 AM- 10:00 PM	$900,000
	Route D*	Improve weekday peak service to 10 minutes frequency, 6:00 AM - 11:00 PM	$900,000
	Route F	Improve weekday service to 30 minutes frequency 6:30 AM - 10:00 PM (M-F); add Weekend service. 8:00 AM - 9:00 PM (Sat) 8:00 AM - 7:00 PM (Sun)	$740,000 (weekday) $130,000 (weekend)
	Route G	Extend evening service to 9:00 PM, 7:00 AM - 9:00 PM (M-F)	$75,000
	Route HS***	Add weekend service, 8:00 AM - 9:00 PM (Sat) 8:00 AM - 7:00 PM (Sun)	$130,000
	Route N	Improve weekday service to 30 minutes frequency, 6:30 AM - 10:00 PM (M-F) 8:00 AM - 7:00 PM (Sat) 8:00 AM - 7:00 PM (Sun)	$330,000
	Route NS	Improve mid-day to 10 minutes frequency, 5:30 AM - 11:30 PM (M-F) 8:00 AM - 11:00 PM (Sat) 8:00 AM - 9:00 PM (Sun)	$375,000
	N-S BRT	Operation of N-S BRT, 5:30 AM - 11:30 PM (M-F) 8:00 AM - 11:00 PM (Sat) 8:00 AM - 9:00 PM (Sun)	$1,400,000
	Route T	Extend service to Fordham Boulevard, Improve peak service to 30 minutes, 7:00 AM - 6:00 PM (M-F)	$400,000
	New Service: Chatham Park Express	Service to/ from Chatham Park and UNC campus (weekday only), 6:00 AM - 9:00 AM (M-F) 4:00 PM - 7:00 PM (M-F)	$625,000

** Estimated costs are in 2020 dollars ** Identified by CHT as a priority unfunded project *** Connected to proposed projects*

Type	Project	Description	Cost Estimate
Chapel Hill Transit continued*			
Operations	Improve Weekend Service**, ***	Improve weekend service on A, CM, CW, D, J, N, NS and NU (Saturday and Sunday; increased frequency on existing routes 8:00 AM - 9:00 PM (Sat) 8:00 AM - 7:00 PM (Sun)	$1,200,000
	Improve Weekday Service	Improve weekday service; 7:00 PM - 11:30 PM (M-F)	$500,000
	Seamless Regional Paratransit**	Partnership with GoTriangle to provide seamless paratransit service.	$500,000
Town of Carrboro			
Capital	Homestead Road multi-use path and crossing	Short section of multi-use path and crossing; identified as a priority in Carrboro's bicycle plan update (2020)	$938,437
	Old Fayetteville Road sidewalk connections	Complete the missing sections of sidewalk on Old Fayetteville Road (behind Carrboro Plaza); identified as an unfunded priority in 2017 transit plan	$750,000
	Starlite Drive sidewalk	Pedestrian safety improvements on Starlite Drive, sidewalk on north side or roadway; identified as a priority by residents of Starlite Drive	$270,106
	Baldwin Park connector	10-foot wide multi-use path, approximately 0.7 mi long, extending through Baldwin Park and connecting Carrboro and Chapel Hill.	$299,000
	203 Connector	Bike and pedestrian connection from East Main Street to Roberson (new public facilities including library)	$172,500
	Morgan Creek Greenway Phase 2	20% local match; provides off-road access to University Lake and eventually Carrboro High School for residents living in apartments along NC 54	$366,800
	BPW Road sidewalk connections	Complete missing sections of sidewalk	$170,000
GoTriangle			
	US 15-501 BRT Study	Major Investment Study, Alternatives Analysis, and design and operational concepts as a follow-on to the DCHC's draft 15-501 Corridor Study	$1,000,000
Operations	Improvements to 400/405 service on 15-501 Corridor***	Incremental or phased service improvements on these routes (ex. adjust peak service to provide consistent 15-minute frequencies and improve early evening span)	
	Midday and Evening service on route 420	Make route more user friendly by providing a consistent service pattern between peak and off-peak service (coordinate with OCPT service)	
	Provide all day service on Route 805		
	Weekend Service on 420		
	Increase Frequency on Route 800	Increase route frequency to support higher ridership, future BRT as included in the 2050 MTP, and transit oriented development at Southpoint, HUB RTP and other locations in south Durham (medium – long term)	
	Regional Transit Center (CON)	Included in 2050 MTP; funded in Durham and Wake Transit Plans; (10% of local share)	$1,120,000
	Regional Bus Operations and Maintenance Facility	Feasibility Study funded by Orange, Wake, Durham plans; PE funded in Durham and Wake; (10% of local share)	$50,000
	Regional Bus Operations and Maintenance Facility	Funded in Durham and Wake Plans; (10% of local share)	$500,000
	Bus stop improvements (10 stops)	Planning and engineering, right of way, and construction of ten (10) bus stops serving GoTriangle, CHT and/or OCPT (selected based on ridership, demographics, and community assets); can be scaled and phased in batches	$500,000
	Chapel Hill / Carrboro Layover and Electric Charging Facility	Shared charging facility with Chapel Hill Transit; local match (20/80) for federal grant application for Lo-No Emission vehicles and fleet transition, including on-route charging facilities; location/ scope to be determined in ongoing Regional Fleet and Facilities Study; cost accounts for escalation through 2030	$2,000,000
	NC 54 / Farrington Park and Ride (property owned by GoTriangle)	Additional park and ride capacity in NC 54 / I-40 corridor serving UNC and Raleigh; includes bus ramp to I-40 EB; requires coordination with UNC, Durham, and NCDOT project I-6006; cost accounts for escalation through 2030	$1,000,000 (Orange County portion of cost share)
	Arterial Bus Rapid Transit on US 15-501 (UNC Hospitals to Orange County Line) 2030+	Incremental step towards BRT on US 15-501 corridor; includes shoulder widening, transit signal priority, potential queue jump lanes, premium transit stations; coordinate with NCDOT Project (STIP ID U-5304); cost accounts for escalation.	$25,000,000 (est. $5,000,000 /mi.)
	Arterial Bus Rapid Transit on NC 54 East (US 15-501 to Orange County Line) 2027+	Incremental step towards BRT on NC 54 East corridor. Includes includes shoulder widening, transit signal priority, potential queue jump lanes, premium transit stations; coordinate with NCDOT project (STIP ID-U774); cost accounts for escalation.	$5,000,000 (est. $5,000,000 /mi.)
	Full BRT on NC 54 and US 15-501 2040+	Build on incremental projects to achieve full BRT build-out (silver or better on ITDP scale) as envisioned in the 2050 MTP Implement; cost accounts for escalation.	$300,000,000 (est. $50 million/mi.)

** Estimated costs are in 2020 dollars ** Identified by CHT as a priority unfunded project *** Connected to proposed projects*

EQUITY CONNECTION

BUS STOP

advancing transit equity.

Despite the fact that transit equity was a cornerstone of the American Civil Rights Movement, the concept did not join the policy lexicon until the 1990s. Since then, equity advocates have promoted deeper analysis to determine who is being impacted by, and benefiting from, transit investments and where those impacts and benefits are being actualized.

Practicing transit equity requires familiarity with the social characteristics that help identify those most in need of transit service. And it is not enough to rely on a single characteristic because vulnerable populations are often affected by multiple systems of oppression that intersect and overlap in their lives("intersectionality").

Discussions advancing transit equity are not intended to generate guilt or critique transportation systems simply for sake of criticism. Change requires transparency and honest reckoning with the past; corrective measures will not generate sustainable solutions without trust. We must openly acknowledge that our systems have treated people unfairly. Without reconciliation and restorative justice, transit equity in the present cannot hope to achieve transit equality in the future.

EQUITY FACTOR 1:
Transportation investments will improve access to housing, jobs, services, recreation, and education, addressing remaining inequities created by redlining.

EQUITY FACTOR 2:
Transportation investments will reconnect and revitalize communities to address inequities created by the highway system's dissection of neighborhoods.

EQUITY FACTOR 3:
Transportation investments will improve neighborhood connectivity and revitalize the fabric of the communities negatively impacted by urban renewal.

EQUITY FACTOR 4:
Transportation investments will improve access to housing, jobs, services, and education to address the isolation of low-income inner ring suburbs where families are pushed.

EQUITY FACTOR 5:
Transportation investments will address gaps in the multimodal network and will utilize new planning tools to improve safety and accessibility deficiencies stemming from traditional car-centric planning.

EQUITY FACTOR 6:
Transportation investments will equitably increase the safety and comfort of cyclists and pedestrians, connecting communities of concern to opportunities.

EQUITY FACTOR 7:
Transportation investments will improve reliability of transit and other non-car services to increase access and remove barriers to opportunities for communities of concern.

EQUITY FACTOR 8:
Transportation investments will prioritize the needs of socially vulnerable users and address climate and environmental equity (heat island effect, air-quality, water-quality) as identified in RVAGreen 2050.

EQUITY FACTOR 9:
Transportation investments will prioritize densely populated areas of communities of concern including communities of color, low-income communities, senior and limited mobility populations, families traveling with children, and at-risk youth.

EQUITY FACTOR 10:
Transportation improvements will focus on improving climate resiliency for the most impacted communities.

Credit: City of Richmond Path to Equity

ORANGE COUNTY
NORTH CAROLINA

implement.

quick•*take*

Implementing proposed service and capital improvements requires next steps for coordination, planning, and programming.

SECTION
07

What are the next steps?

annual·work·*plan*
Documentation and budget for allocating transit Tax District Revenues each year; developed by the Staff Working Group (SWG)

This section describes the steps and coordination needed to implement the projects proposed in Orange County's Transit Plan Update.

Service Improvements

Implementation steps for the transit service improvements should be relatively simple:

- Transit service provider coordination with the Staff Working Group (SWG) to finalize cost assumptions for each service improvement
- Program service improvements in Orange County's Annual Work Plan and financial model
- Develop new route schedules and promote new services through typical agency protocols
- Implement the new service and track performance; tweak service as needed to meet goals.

Proposed service improvements in the Plan Update can be fully funded with revenues Transit Tax District revenues between 2023 and 2029.

Capital Improvements

The proposed capital improvement projects require more significant coordination prior to implementation.

Improvements for Fordham Boulevard and Manning Drive include a queue jump lane and bus signal on Manning Drive for outbound buses from Chapel Hill to help avoid backups and more quickly reach Fordham Boulevard. Proposed improvements also include a bus-on-shoulder or similar bus-only lane along Fordham Boulevard at least from Manning Drive to Raleigh Road, but ideally further north to Ephesus Church Road. These improvements would substantially improve the reliability of bus service between Durham and Chapel Hill, allowing transit vehicles to bypass significant roadway congestion and reducing overall travel time.

Proposed improvements at Fordham Boulevard and Ephesus

EQUITY CONNECTION

BUS STOP

implementing transit equity.

Disparate access to transportation services also leads to unequal economic and social outcomes. Transit planning must seek to undo past harm by actively working to improve and enhance access and opportunities for those who have been historically disadvantaged. This requires using metrics such as improved environmental, economic, and social outcomes instead of more traditional measures of success (ex. cost per rider). It also requires understanding community vulnerabilities, acknowledging network disparities, and considering solutions to mitigate disparities.

Successful examples include:

- BikeDurham Transit Equity Campaign
- The Minnesota Tribal Nations Government-to-Government Relationship with MnDOT
- CTUIR Public Transit Confederated Tribes of the Umatilla Indian Reservation

Church Road include an upgraded transit shelter and pedestrian crossing enhancements to facilitate transfer connections between Chapel Hill Transit routes D and F and GoTriangle Route 400.

The overlap between the two capital improvement projects creates synergies if the projects are implemented simultaneously, meaning there are benefits to combining the planning, design, engineering, funding acquisition, and construction for the projects.

More substantial coordination and planning is needed to refine the scope of the two proposed capital improvement projects. This includes:

- Discussions and coordination between the Town of Chapel Hill, City of Durham, Orange County, Durham County, DCHC MPO, and NCDOT for preliminary project scope, goals, cost share options, and funding streams
- Programming and funding a planning and design study to review and analyze alternatives for the proposed improvements (Major Investment Study, Alternatives Analysis, and design and operational concepts as a follow-on to the DCHC's draft 15-501 Corridor Study); this may require a formal National Environmental Policy Act (NEPA) assessment and determination
- Identification and description of preliminary specifications for each project
- Pursuit of formula or discretionary grant funding (including strategic coordination and/or application preparation) through the US Department of Transportation (US DOT); Federal Transit Administration (FTA); Federal Highway Administration; DCHC MPO; and/or NCDOT
- Development of final design, scope of work, bidding, and construction for each project.

Implementation Summary

Transit Project/ Service	Net New Revenue Hours	Add. Vehicles	Vehicle/ Capital Cost	Service Cost	Funding Source	Implem. Year	Lead Agency
Service Improvements							
Chapel Hill Transit CW	1,500	0	N/A	$190,610	Tax District Revenue	2023	Chapel Hill Transit (CHT)
Chapel Hill Transit HS	1,177	0	N/A	$160,083	Tax District Revenue	2023	CHT
Orange County Public Transportation MOD	4,400	N/A	N/A	$650,588 (two phases)	Tax District Revenue	2024 & 2026	Orange County Public Transportation (OCPT)
Chapel Hill Transit NS	2,300	3	$1,855,583	$314,741	Tax District Revenue	2026	CHT
GoTriangle 400/405 ***(Phase 1)***	10,663*	0	$1,642,735	$823,878	Tax District Revenue	2026	GoTriangle
GoTriangle 400 ***(Phase 2)***	5,616*	1*		$467,296	Tax District Revenue	2029	GoTriangle
Chapel Hill Transit D	5,300**	1**		$453,602	Tax District Revenue	2026	CHT
Chapel Hill Transit J	3,200	2		$460,069	Tax District Revenue	2028	CHT
Capital Projects							
Crossing and Shelter Improvements on US 15-501/ Fordham Boulevard at Ephesus Church Road			$1,000,000 (local share)	-	Tax District Revenue + additional TBD funding	2026	Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO)
Fordham/Manning Queue Jump and Shoulder Running Improvements			$4,000,000 (local share)	-	Tax District Revenue + additional TBD funding	2027-2028	DCHC MPO

** Half of these revenue hours and costs are assumed to be shared with Durham County*