



May 10, 2022

**To:** Members of the Carrboro Town Council

**From:** Caroline Dwyer, AICP, Project Manager, Renaissance Planning

**Re:** Update Memo for the Orange County Transit Plan Update

## Background

In 2012, the Orange County Board of County Commissioners (BOCC), the Durham-Chapel Hill Carrboro Metropolitan Planning Organization (DCHC MPO), and GoTriangle adopted the Orange County's first comprehensive Transit Plan allocating the Article 43 Half-Cent Sales Tax dedicated to funding public transportation improvements in Orange County. The 2012 plan included investments in new and expanded bus service and capital projects such as the Chapel Hill North-South Bus Rapid Transit (N-S BRT), the Hillsborough Train Station, and the Durham-Orange Light Rail Transit (D-O LRT) project connecting employment, education, and health care centers in Durham and Chapel Hill.

The Orange County Transit Plan was last updated in 2017 to adjust financial projections and cost share information related to the D-O LRT. The subsequent discontinuation of D-O LRT in 2019 compelled the need for an additional update of the Orange County Transit Plan to confirm transit-related priorities and projects in Orange County, and to reallocate revenues collected through the County's half-cent transit sales tax.

Renaissance Planning was selected in 2020 to lead the team developing the Orange County Transit Plan Update. Team members include internationally-recognized transit planning firm Jarrett Walker & Associates (JWA) and the equity and inclusion experts at McClaurin Solutions. The project encompassed two main phases of planning. In Phase 1, the consulting team introduced key transit planning concepts and framed investment decisions within community values generating two conceptual transit scenarios (a high-ridership focused scenario and a geographic coverage-focused scenario). The project's second phase proposed a set of projects aligned with community values and priorities to include in the Plan update. These projects were thoroughly vetted with transit service providers, key stakeholders, the public, and the Plan's Policy Steering Committee (PSC). A plan and schedule for project implementation was also created.

The Transit Plan Update also includes a conceptual transit vision map in addition to projects that can be funded using transit tax revenues. The conceptual vision shows longer-term, regional, capital projects, such as bus rapid transit routes, that will require substantial funding support beyond what is generated through the County transit tax and close cooperation between regional partners.

Tasks by Phase		
Phase 1	T1	PSC Coordination
	T2	Transit Choices Brochure
	T2	Regional Connections Opportunities Report
	T3	Engagement Preparations
	T4	Engagement Wave 1
Phase 2	T4	Conceptual Scenario Development
	T5	Identify projects
	T5	Prioritization process development
	T5	Preferred Scenario
	T6	Engagement wave 2 prep
	T6	Engagement Wave 2
	T7	Revenue forecasting
	T7	Implementation Plan
	T8	Final Report

Figure 1 Project Tasks



The Orange County Transit Plan Update has eight primary tasks and numerous subtasks (Figure 1). The consulting team has completed seven of the eight tasks. Remaining tasks include drafting the plan's documentation and providing updates on the project to the BOCC, GoTriangle, Town of Chapel Hill, Town of Carrboro, and the Town of Hillsborough; an update was delivered to DCHC MPO in March 2022. Durham County is also currently updating their transit plan, and both counties plus DCHC MPO and GoTriangle are in the process of updating the governance plan underlying regional decisions and investments requiring joint cooperation, cost-sharing and more. The final Orange County Transit Plan Update documentation will be completed by the end of June. Plan approval and adoption will be conducted in the fall of 2022 to accommodate the ongoing governance plan update and the need to coordinate approval and adoption processes with multiple parties (Figure 2).

The remainder of this memo describes:

- Funding assumptions
- Outreach and engagement
- Transit projects included in the update
- Conceptual transit vision map
- Outline of transit plan documentation.

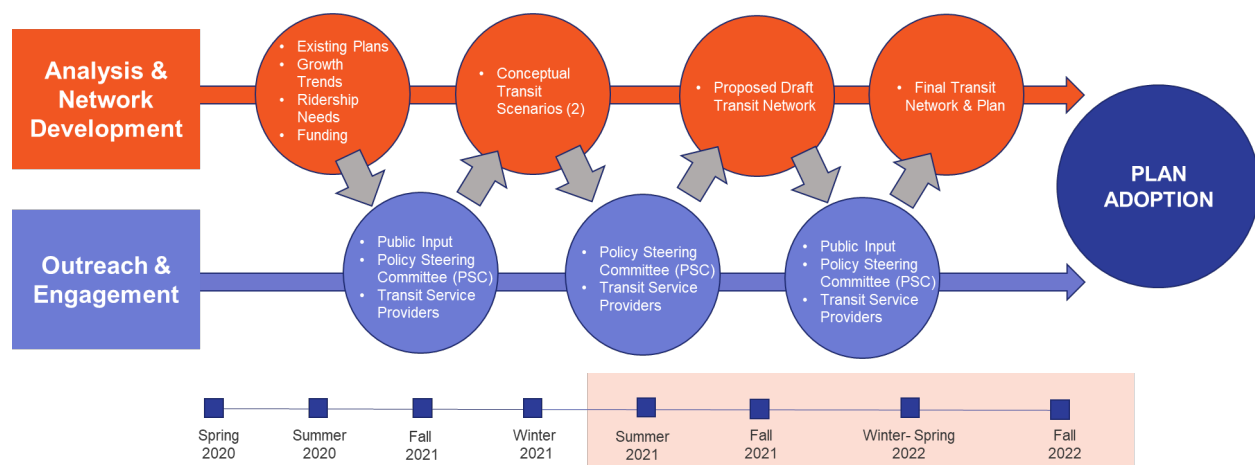


Figure 2 Project Schedule

## Project Outreach and Engagement

### Phase 1: Identify Needs & Priorities

The first phase of project outreach and engagement was conducted during the fall of 2020. Opportunities to participate included a virtual Transit Summit and a public survey. A more robust program of outreach and engagement was originally planned but had to be scaled back due to the emerging COVID-19 pandemic and related uncertainties. The Transit Summit was held on October 1, 2020 from 5-8 PM via Zoom. Participants were asked to pre-register and simultaneous translation (English/Spanish) was provided. Over ninety people registered and 58 participated during the event. The Summit featured lots of questions and answers and live polling; a recording is available on [www.octransit2020.com](http://www.octransit2020.com). An online survey was also conducted during the month



of September 2020. Over two hundred individuals responded, 93% of whom live and/or work in Orange County and 62% who currently ride transit. The survey asked key questions to help guide investment decisions such as whether Orange County should prioritize investments on routes with higher ridership or if the County should prioritize expanding service to areas that don't currently have transit available, even if ridership is lower. The highest percentage of respondents (40%) indicated they thought service should be balanced between higher ridership and higher coverage service, even if it means less service overall.

Respondents also indicated a preference for:

- More service on Saturdays/weekends (most frequent request for improved service)
- Longer service hours (i.e., earlier in the morning and later in the evening)
- More frequent service/ less wait time between buses
- More amenities at transit stops (benches, shelters, lighting)
- More accessible information about routes and vehicle arrival times at stations/ stops

The feedback from this first round of engagement directly informed the identification of the projects proposed for the Transit Plan Update.

## Phase 2: Vet Proposed Projects

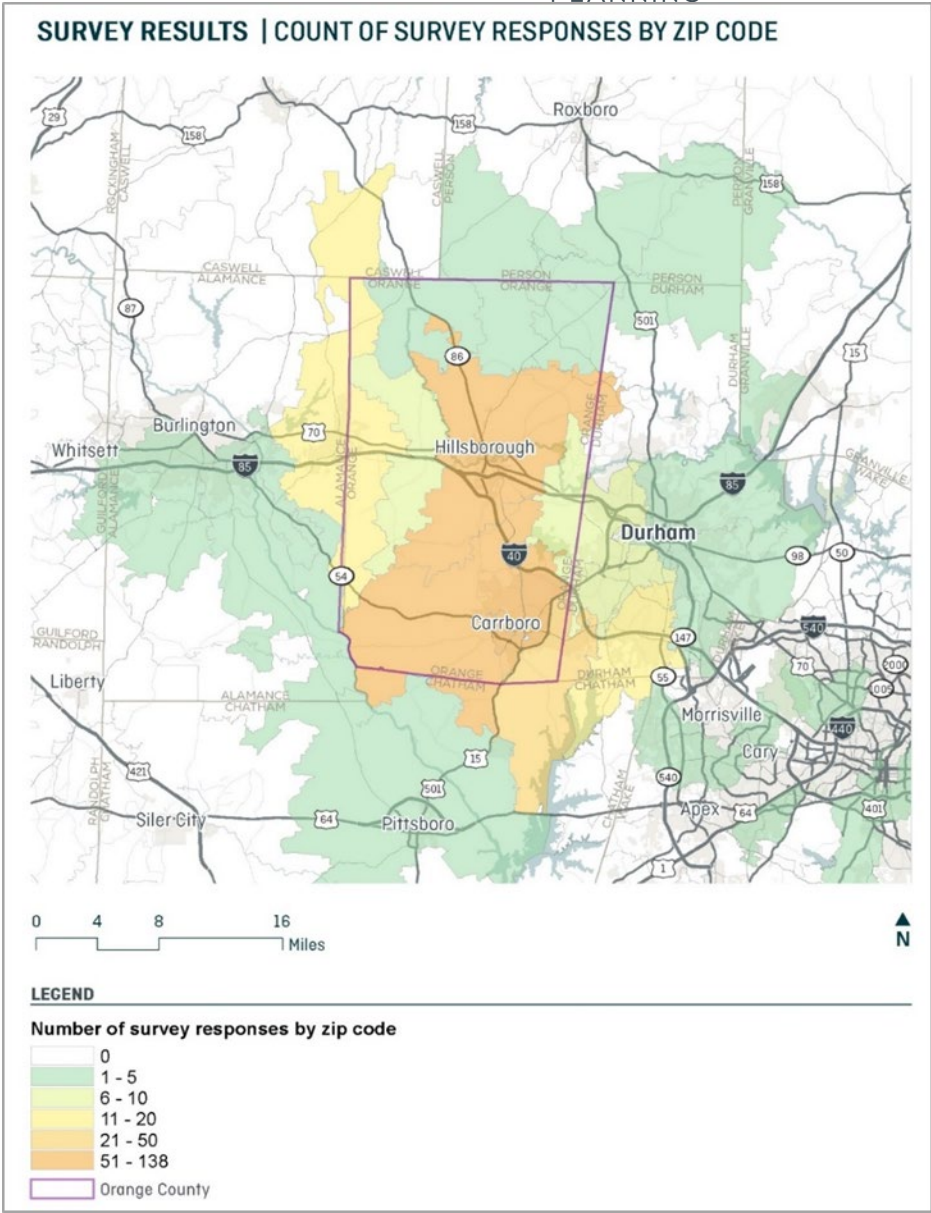
The second phase of outreach and engagement for Orange County's Transit Plan Update focused on gathering feedback on the draft proposed transit projects and a conceptual transit vision plan, guiding future investments. Outreach was conducted both in-person and online, in English and in Spanish, to maximize visibility and accessibility. In-person outreach prioritized key transit corridors and stops, which were identified with input from contacts at GoTriangle, Chapel Hill Transit, Orange County Public Transportation, and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization.

Several methods were used to gather feedback including direct discussions with transit service providers and key stakeholders; two (2) virtual focus group discussions; an online survey (in English and Spanish); and in-person pop-ups at transit stops. Mobility on Demand (MOD) improvements received the strongest support out of the proposed service improvements. Overall, more respondents expressed stronger support for infrastructure projects compared to service improvements. Comments indicate a desire to strengthen regional connections and to prioritize equity considerations with any future projects.

The feedback gathered during this phase helps County staff and the planning team prioritize new transit investments, fund transit service improvements, and improve the resiliency of the transit network in Orange County and directly informed the recommendations for the draft plan and conceptual transit vision.



RENAISSANCE  
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**New Investments in Transit**

Seven (7) transit improvement projects are proposed for the Orange County Transit Plan Update. Two (2) are capital investments and five (5) are improvements to existing service. These projects are summarized below, including net new revenue hours and vehicles required to support service improvements (Table 1).

Transit Project/Service	Net New Revenue Hours	Additional peak vehicles	Impl. Year	Operations (Annual) Cost	Capital Cost
Service Improvements					



# RENAISSANCE PLANNING

<b>Chapel Hill Transit CW:</b> Improve weekday midday service to 30 minutes.	1,500	0	FY23	\$181,425	N/A
<b>Chapel Hill Transit HS:</b> add weekend service with 1 bus (70 min frequency) (8 am until 6:30 pm)	1,177	0	FY23*	\$152,326*	N/A
<b>Orange County Public Transportation Mobility-on-Demand Service</b>	3,200	0	FY24	\$228,616	
<b>Chapel Hill Transit NS:</b> Improve morning peak frequency to every 6 minutes. Provide Saturday service until 11 PM and Sunday service until 9 PM.	2,300	3	FY26	\$299,575	\$1,855,583
<b>US 15-501 Project Bundle</b>					
<i>GoTriangle 400/405:</i> Consolidate into one pattern via Manning Dr. to Carrboro and Jones Ferry Park and Ride. Schedule effective 15-minute service midday, and improved Sunday and evening service.	20,067**	2**	FY29	\$1,594,591**	\$2,748,477**
<i>Chapel Hill Transit D:</i> Extend service to Patterson Place and provide Saturday service until 9 PM.	5,300	1		\$446,042	
<i>Chapel Hill Transit J:</i> 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		\$448,848	
<b>Capital Improvements</b>					
Fordham/Ephesus Church Improvements (400/D/F Connection)	N/A	N/A	FY 26-28	N/A	\$6,000,000
Fordham/Manning Queue Jump and Shoulder Running Improvements	N/A	N/A	FY 26-28	N/A	\$6,000,000
<i>*By amendment to FY23 Work Plan</i>					
<i>**Half of these revenue hours and costs are assumed to be shared with Durham County.</i>					

Table 1 Project Summary

To select projects, the following questions were considered:

- Is the project identified as an unfunded or emerging priority by transit service providers?
- Does the improvement meet needs expressed by public?
- Does the improvement reflect values identified by PSC? (Equity, environmental sustainability, economic prosperity, affordable and attainable quality of life, transportation, and access for all)
- Does the project support the conceptual transit vision or fill a regional connectivity gap?



Accessibility analyses were used to assess the potential impacts of proposed projects by location, by job type, and by a variety of sociodemographic characteristics, as measured in improvements to transit frequency, improvements to weekend and evening service, and transfer opportunity improvements.

The proposed service improvements reflect near-term investments that can be funded with transit tax revenues, projected by GoTriangle's financial model. Some outside funding will be required to support the capital improvements (except for vehicles needed to support improved service, which are included in the implementation plan). Costs for each transit improvement in the plan have been developed based on coordination with the three transit providers and building off previously estimated costs for improvements in each agency's Short Range Transit Plan. We have calculated revenue hours of service for each proposed improvement (Table 1) and converted revenue hours to costs in dollars based on the assumptions in Table 2. For improvements requiring additional peak vehicles, it is assumed that new vehicles for GoTriangle or Chapel Hill Transit cost approximately \$560,000 and inflate in future years at a rate of 3.1%. Table 3 shows the estimated cost for each improvement project included in the plan.

<b>Constants</b>	<b>Value</b>
Operating Cost Annual Inflation Factor	2.50%
Current cost of OPT per hour	\$68.00
Current cost of GoT per hour	\$133.70
Current cost of CHT per hour	\$118.00
Cost of vehicle	\$560,000

*Table 2 Assumptions*

### **Conceptual Transit Vision Map**

A conceptual transit vision map was created to illustrate aspirational, un-programmed, longer-term transit capital investments (Figure 4). These are projects that have been included in regional plans, such as the 2050 Metropolitan Transportation Plan (MTP) and other local and regional transit plans. The represented corridors are illustrative and should be used to help prioritize future transit investments. The final transit plan will include plan-level estimates for premium transit service in various conceptual corridors.



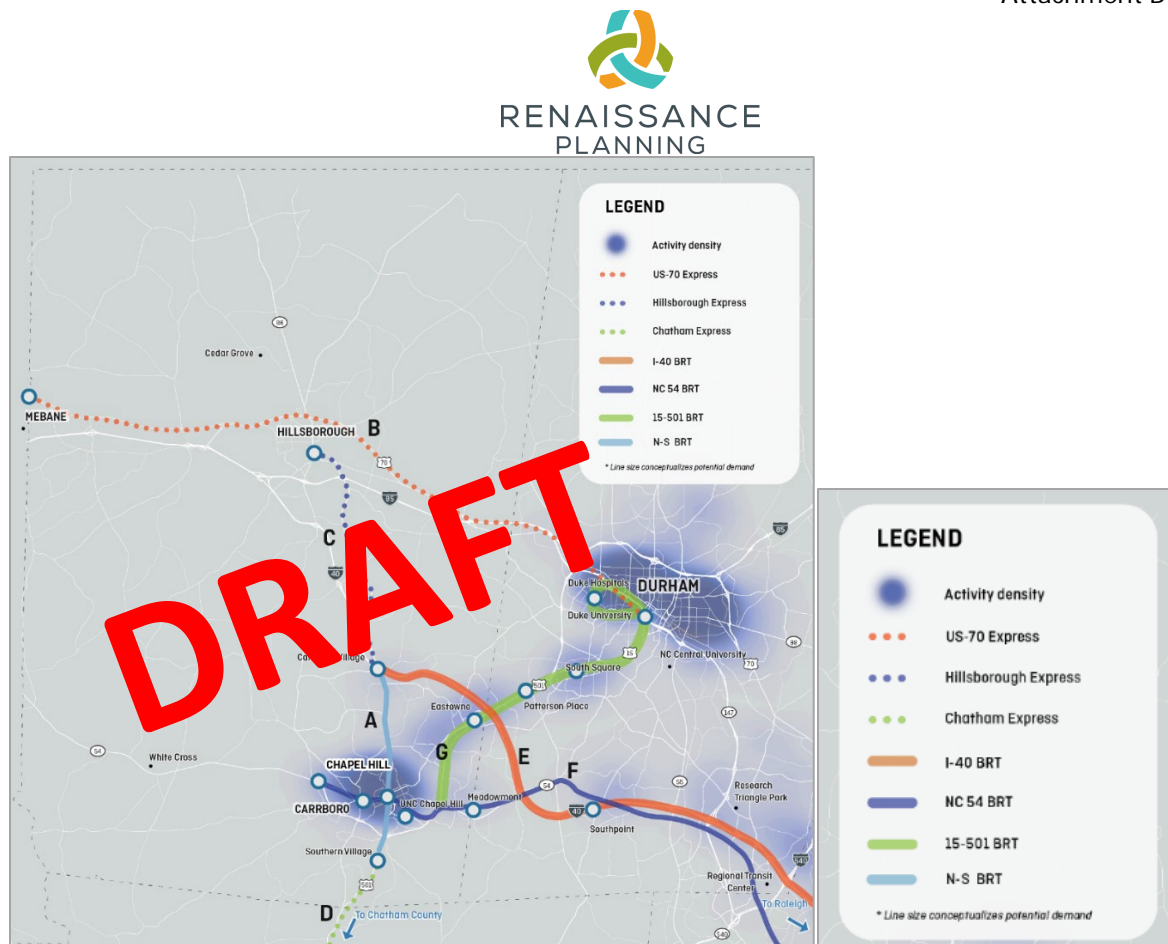


Figure 3 Conceptual Transit Vision Map

## Implementation and Next Steps

### Implementation Steps:

Formal approval and adoption of the plan is anticipated to take place in the fall of 2022, following adoption of the Transit Plan Governance Study and planned summer meeting breaks of elected boards. This process will be coordinated and facilitated by Orange County planning department staff. The Orange County Transit Plan Update document will include the following components:

- Executive summary (also functions as a standalone document describing the plan update and projects)
- About the Plan
- Purpose, values, and goals
- Equity – woven throughout the plan, in all sections
- Key players and parties
- Planning history and process, including engagement
- Regional and County Snapshots
  - Socioeconomic drivers
  - Spatial trends and dynamics
- Transit inventory and performance
- Project Descriptions
- Unfunded Priorities
- Budget, Implementation Plan, and Schedule
- Next Steps



GoTriangle Financial Model Revenues Used

Orange - Revenues	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40
Local Revenue (Not Project Specific) (\$ 000)																				
1/2 Cent Sales Tax	8,532,844	7,402,100	8,532,844	8,888,652	9,204,950	9,530,008	9,819,265	10,092,012	10,452,461	10,871,747	11,307,834	11,745,697	12,176,496	12,621,721	13,106,314	13,664,308	14,272,610	14,910,045	15,576,387	16,275,734
\$3 Increase Regional Registration Fee	350,958	337,000	350,958	356,222	361,566	366,989	372,494	378,081	383,753	389,509	395,352	401,282	407,301	413,411	419,612	425,906	432,295	438,779	445,361	452,041
\$7 County Vehicle Registration Fee	818,895	786,800	818,895	831,178	843,646	856,301	869,145	882,182	895,415	908,846	922,479	936,316	950,361	964,616	979,086	993,772	1,008,679	1,023,809	1,039,166	1,054,753
Rental Car Tax (Orange County Allocated)	481,695	432,400	481,695	493,737	506,081	518,733	531,701	544,994	558,619	572,584	586,899	601,571	616,610	632,026	647,826	664,022	680,622	697,638	715,079	732,956
Total Transit Tax Revenue	\$ 10,184,392	\$ 8,958,300	\$ 10,184,392	\$ 10,569,790	\$ 10,916,243	\$ 11,272,031	\$ 11,592,605	\$ 11,897,270	\$ 12,290,247	\$ 12,742,686	\$ 13,212,564	\$ 13,684,867	\$ 14,150,769	\$ 14,631,774	\$ 15,152,838	\$ 15,748,007	\$ 16,394,205	\$ 17,070,271	\$ 17,775,993	\$ 18,515,484
Sales Tax Growth Rate (Moody's Baseline FY24-FY50)	FY21 Actual	FY22 Adopted Plan	Match FY21 Actual	4.17%	3.56%	3.53%	3.04%	2.78%	3.57%	4.01%	4.01%	3.87%	3.67%	3.66%	3.84%	4.26%	4.45%	4.47%	4.47%	4.49%
\$3 Car Registration	FY21 Actual	FY22 Adopted Plan	Match FY21 Actual	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
\$7 Car Registration	FY21 Actual	FY22 Adopted Plan	Match FY21 Actual	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Rental Car Tax	FY21 Actual	FY22 Adopted Plan	Match FY21 Actual	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%

Additional information on financial projects provided by Sandra Freeman (GoTriangle) on 1/5/22:

“The attached [table] is what I plan on using for the FY23 Orange County Transit Work Plan model.

- FY21 – Actuals
- FY22 – What was adopted on the Transit Work Plan
- FY23 – Matched FY21 Actuals
- FY24-FY50 – Moody’s Baseline

FY23 methodology is similar to what I have done for Wake and Durham. The thought process is that FY21 was higher than anticipated but it can be due to the stimulus / enhanced benefits or just rebounding from a rough FY20. FY23 actuals matching can be conservative as inflationary prices will add to the sales tax % + the region in general is still adding people.”