





Chatham County
Durham County
Orange County
Town of Carrboro
Town of Chapel Hill
City of Durham
Town of Hillsborough







Amendment #4

# Durham-Chapel Hill-Carrboro Metropolitan Planning Organization

Comprehensive Transportation Plan March 9, 2022

# Comprehensive Transportation Plan (CTP)

Amendment #4 – (March 9, 2022)

#### Amendment #4

The Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) hereby amends the Comprehensive Transportation Plan (CTP) to remove the Durham-Orange Light Rail Transit (D-O LRT) alignment, delete and modify planned roadway segments as detailed in this document, designate four Transit Emphasis Corridors (TECs), and incorporate North Carolina Department of Transportation's (NCDOT) updated Complete Streets Policy.

This document first presents the reasons for the amended segments, followed by updated tables. Interactive maps are available on the MPO's <u>CTP web page</u>.

#### **Public Involvement**

<u>Schedule</u> – The MPO's Public Involvement Policy requires that a major amendment to the CTP be released for a minimum of 42 days for public comment. The Amendment #4 schedule is as follows:

- January 12, 2022 DCHC MPO Board released Amendment #4 for public input
- February 9, 2022

   DCHC MPO Board conducted a public hearing on Amendment #4
- February 22, 2022 Public involvement period ended
- February 23, 2022 TC made a recommendation on Amendment #4
- March 9, 2022 DCHC MPO Board adopts Amendment #4
- April 7, 2022 NCBOT adopts Amendment #4

<u>Notification</u> – The MPO posted the amendment and schedule to its web site and social media sites (including Twitter and Facebook), published public affair notices at local jurisdictions and counties, sent notices to the MPO contact list, and published in local newspapers.

#### **Complete Streets**

CTP Amendment #4 hereby incorporates the updated North Carolina Department of Transportation (NCDOT) Complete Streets policy (adopted by the Board of Transportation in 2019) and implementation guide. On the basis of the policy, this amended CTP identifies options to address the access, mobility, and safety needs of motorists, transit users, bicyclists, and pedestrians of all ages and abilities. Unless there is a clear reason for an exception, the Complete Streets Policy requires facilities such as sidewalks, bike lanes, sidepaths, and bus stops to be considered and incorporated as part of a roadway project where it is appropriate.

Incorporating the updated Complete Streets policy is just the first step to achieving bicycle and pedestrian infrastructure on roadways. The MPO will continue to identify specific bicycle and pedestrian changes in the CTP that will be added in a future amendment.

More information on the Complete Streets policy and implementation guide is available <u>here</u>.

## Removal of the Durham-Orange Light Rail Transit (D-O LRT) Alignment

In 2017 the DCHC MPO Board adopted its first CTP in conjunction with the North Carolina Department of Transportation (NCDOT). One element that was included in the CTP was the Locally Preferred Alternative (LPA) alignment for the D-O LRT. In 2019, the D-O LRT project was discontinued was discontinued most notably because the Duke University and Medical Center (DUMC) refused to sign necessary agreements with GoTriangle, the project sponsor. Several changes to state law reduced the state contribution to the project from 25 percent to less than 8 percent, and required non-federal funding commitments within a difficult time frame. In addition, estimated project costs continued to climb and a necessary agreement with the North Carolina Railroad was not forthcoming. No further work has been done to advance the project. The City of Durham expressed concerns about the continued enforcement of the alignment for a project which is widely known to no longer be viable, and for which no specific future use of the corridor has been identified in an adopted plan. The Durham City-County Planning Department, on behalf of the City of Durham, has requested that the D-O LRT corridor be removed from the CTP due to concerns about this requirement. Amendment #4 removes the D-O LRT alignment and the associated rail stops.

# Roadway Update

#### University Drive (from MLK Jr. Parkway to Shannon Road)

Due to the suspension of the D-O LRT project, modifications are no longer needed to adapt the University Drive segment to accommodate the D-O LRT rail line, which was to run down the centerline of the roadway, and station safety and access. Therefore, the University Drive segment no longer needs improvement.

#### US 15-501 BUS (Durham Chapel Hill Boulevard)

In the segment from Chapel Hill Road to University Drive, a road diet has been constructed and is complete. The road diet was constructed as a three lane roadway with bicycle lanes. Amendment #4 reflects existing conditions.

#### **Ellis-Glover Connector**

The alignment of the Ellis-Glover Connector has been compromised with development, and it is recommended to be removed from the CTP.

#### **Hopson Road Extension**

The Hopson Road Extension proposed cross-section has been changed from 2K (includes median) to 2E (does not include median) with MB (10-foot multiuse path on both sides). The multiuse path will be physically separated from auto traffic to optimize safety of the facility for bicyclists and pedestrians. This cross-section is included in a current developer site plan for part of the Hopson Road Extension and in order to provide continuity, the CTP recommends the same cross-section. The higher roadway capacity of a 2K cross-section is not required to address future traffic volume. Additionally, the multimodal facilities in the 2E cross-section will serve as an important link between residential areas to the west and Research Triangle Park employment destinations to the east. The problem statement is included on pages 6-8.

# Add Transit Emphasis Corridors (TEC)

A Transit Emphasis Corridor (TEC) is a corridor in which buses frequently travel along major roads to connect bus riders to popular destinations such as work, doctors, school, shopping, community services, as well as to connect to other bus routes. TECs have easily accessible bus stops that are located conveniently to various destinations. Bus stop improvements help riders feel safe and comfortable traveling to the bus stop and waiting for the bus. Additionally, bus priority improvements help buses arrive often and on time. CTP Amendment #4 recommends bus route operational improvements and pedestrian facilities such as sidewalks, crosswalks, curb ramps, pavement markings, shelters, benches, and systems such as prioritized traffic signals in TECs as appropriate.

The City of Durham has designated four Transit Emphasis Corridors (TEC). The Durham County Transit Plan includes funding for bus and pedestrian infrastructure improvements within designated TECs. The 2014 Access to Transit Plan included recommendations for access to transit improvements on the Fayetteville St TEC, the Holloway St TEC, and the Roxboro St TEC. The Transit Plan is currently funding access to transit projects in the Chapel Hill TEC, the Fayetteville TEC, and the Holloway TEC. The four TECs are listed here:

#### • Fayetteville St (GoDurham Route 5, Durham Station to Riddle Rd)

The Fayetteville Street Transit Corridor is served by GoDurham Route 5 and has
the second highest ridership in the GoDurham system. Route 5 provides 15minute service between Durham Station and MLK Jr Pkwy. Route 5 connects
local neighborhoods to Downtown and many popular businesses and community
resources along Fayetteville Street.

#### Holloway St (GoDurham Route 3, Durham Station to Junction Rd)

 The Holloway Street Transit Corridor has the highest ridership in the GoDurham system and now provides 15-minute service. The Holloway Street Transit Corridor connects East Durham with Downtown, The Village, and other destinations along the Holloway commercial corridor.

### • Roxboro St (GoDurham Route 4, Durham Station to Duke St)

 The Roxboro Street Transit Corridor connects North Durham with Downtown and destinations along the Roxboro commercial corridor. Route 4 will soon provide 15-minute service.

#### • Chapel Hill Rd (GoDurham Route 10, Durham Station to Shannon Rd)

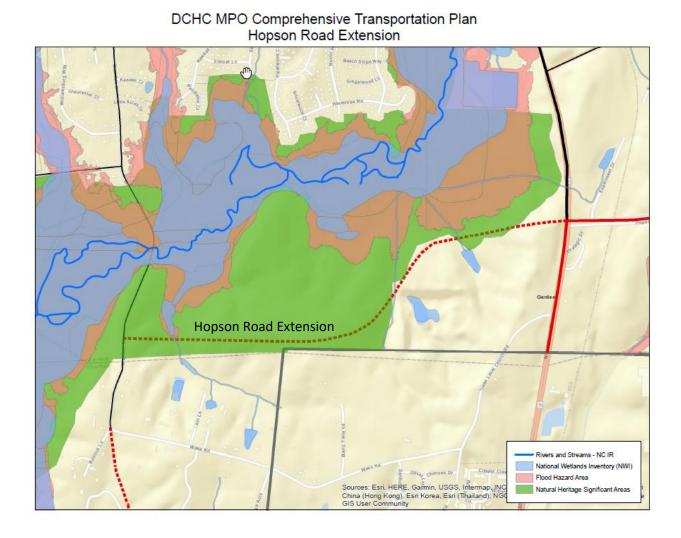
 The Chapel Hill Rd Transit Corridor connects South Durham with Downtown and destinations along the Chapel Hill Rd and University Dr. Route 10 currently provides 15-minute service between Durham Station Shannon Rd.

#### Hopson Road Extension (Grandale Drive (SR 1100) to NC 55)

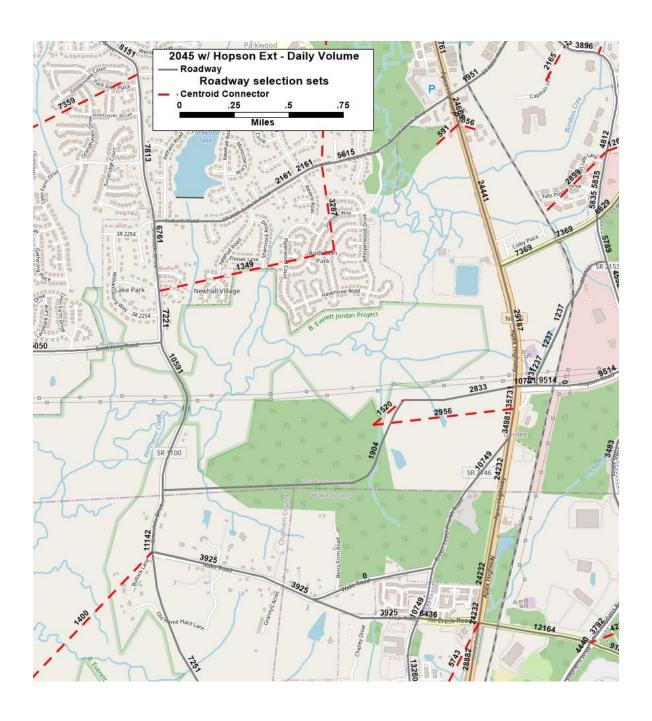
Hopson Road (SR 1978) is proposed to be extended from NC 55 to Grandale Drive (SR 1100) to improve mobility and connectivity in southern Durham County. The extension will provide an important east-west connection to NC 55 and the Research Triangle Park (RTP).

The extension would provide a quicker connection to NC 55 from the west, versus using existing Sedwick Drive (SR 1102) and Wake Road (SR 1730/SR 1631). It would also provide access from residential areas west of NC 55 to commercial, office, research, and industrial land uses east of NC 55.

To minimize impacts to the natural environment, the proposed connection to Grandale Drive (SR 1100) is south of Northeast Creek. Environmental features and the Hopson Road Extension alignment are shown in the image below.



During the public comment period for the 2017 DCHC MPO CTP, the North Carolina Wildlife Resources Commission (NCWRC) commented on the impacts of new road projects on the fragmentation of wildlife habitats. The Hopson Road Extension new location road project between Grandale Drive (SR 1100) and NC 55 will likely impact Natural Heritage Natural Areas and the NCWRC recommends avoiding building roads through these important natural areas and large areas of connected blocks of habitat. When a new road cannot be avoided, the NCWRC requires NCDOT to consider building wildlife crossing structures where land is permanently conserved on either side of the new road to reduce habitat fragmentation.



Additionally, the NCWRC commented on the impacts of new road projects on the degradation of aquatic wildlife in streams and wetlands. The NCWRC encourages the use of Low Impact Development (LID) techniques and other important measures to minimize negative impacts from roads and development along the proposed Hopson Road Extension. The NCWRC also provided their standard recommendations for bridges, if this project has the opportunity to build bridges or improve existing bridges.

The 2017 CTP recommended Hopson Road Extension to be a two-lane median divided facility (cross-section 2K) to continue the mobility of the median divided Hopson Road (SR 1978) facility east of NC 55 in the RTP. However, the projected 2045 daily volume of about 3,200 to 6,000 vpd (depending on development access locations, current TRM 2045 model projections and AADT) and the future land use, low density residential and industrial, along Hopson Road Extension do not require the additional capacity and mobility a median provides. The 2022 CTP Amendment #4 thus recommends a two-lane undivided facility, 2E cross-section, for the Hopson Road Extension with multiuse paths on both sides.

With the recommended 2E cross-section, multiuse paths, MB cross-section, are proposed along both sides of Hopson Road Extension with anticipation of this area being annexed. These bicycle and pedestrian facility recommendations have changed from the 2017 CTP recommendation. A developer plans to build more than 80% of the roadway extension including multiuse paths on both sides. To provide continuity, the CTP recommends the same cross-section.

Recommended multiuse paths would connect the many residential neighborhoods, including Lake Park, Lyon's Farm, Grandale and Kingsley Estates, along Grandale Drive and Scott King Rd of over 1000 households to future anticipated office and commercial development along the proposed Hopson Road Extension, to existing office and research development in southern RTP, such as JMC, Credit Suisse, Lenovo, the National Institute of Environmental Health Sciences (NIEHS), the Environmental Protection Agency (EPA), and also to the future Apple campus in southern RTP in Wake County.

The recommended multiuse paths would also connect future residential to future anticipated office and commercial development along the proposed Hopson Road Extension. Multiuse paths along the extension would also connect future residential to the existing Global Montessori Academy on the east side of NC 55.

# CTP Amendment #4 Project Tables

				RAIL	1								
					Speed		Ex	sting System		Proposed System			
			Agency		Limit	Dist.			Trains		ROW	Trains per	Other
Local ID	Facility/ Route	Section (From - To)	(Operator)	Class	(mph)	(mi)	Type	ROW (ft)	per day	Type	(ft)	day	Modes
	D-O LRT NEPA Preferred												
	Alternative [Mason Farm Rd,												
	US 15-501 (Fordham Blvd),	UNC Hospital on Mason Farm Rd,											
	NC 54, I-40, University Dr,	Chapel Hill, Orange Co to NCCU-											
	Erwin Rd, E Pettigrew St, NC	Durham Tech on Alston Ave,			avg					Fixed Guideway	approx	High-	
TE-5205	55 (S Alston Ave)]	Durham	GoTriangle		<del>20-35</del>	<del>17.9</del>				(Light Rail Transit)	<del>28-62</del>	Frequency	· M
	Alston Avenue Station [D-O												
	LRT Station, Eastern	At Pettigrew St, West of Alston											
TE-5205	Terminus, Durham]	Avenue, Durham, Durham Co	GoTriangle							Rail Stop (D-O LRT)			Ŧ
	Buchanan Boulevard Station	At Buchanan Boulevard, North of NC								,			
TE-5205	[D-O LRT Station]	147, Durham, Durham Co	GoTriangle			-				Rail Stop (D-O LRT)			
	Dillard Street Station [D-O	At Dillard Street and Pettigrew St,											
TE-5205	LRT Station]	Durham, Durham Co	GoTriangle			1			-	Rail Stop (D-O LRT)			Ŧ
		At Erwin Rd, East of Trent Dr and											
	Duke / VA Medical Centers	Duke/VA Medical Centers, Durham,											
TE-5205	Station [D-O LRT Station]	<del>Durham Co</del>	GoTriangle							Rail Stop (D-O LRT)			
		At Durham Station Transit Center,											
	Durham Station [D-O LRT	Pettigrew St and Chapel Hill St,					Bus-			Multimodal Connector			
TE-5205	Station]	<del>Durham, Durham Co</del>	GoTriangle			1	Station			(D-O LRT)	-		_
	Friday Center Drive Station	At Friday Center Drive, Chapel Hill,					Park and						
TE-5205	[D-O LRT Station]	Orange Co	GoTriangle				Ride			Rail Stop (D-O LRT)			Ŧ
		At Gateway, Old Chapel Hill Rd and											
	Gateway Station [D-O LRT	White Oak Rd, Chapel Hill, Durham											
TE-5205	Station]	Ce	GoTriangle			-				Rail Stop (D-O LRT)			Ŧ
	Hamilton Road Station [D-O	At Hamilton Road, Chapel Hill,											
TE-5205	LRT-Station]	Orange Co	GoTriangle			-				Rail Stop (D-O LRT)			
	LaSalle Street Station [D-O	At Erwin Rd and LaSalle Street,											
TE-5205	<del>LRT Station]</del>	<del>Durham Co</del>	GoTriangle		-	-				Rail Stop (D-O LRT)			

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				RAIL	. 1								
							E	isting Syst	em	Proposed System			
			Agency		Speed Limit	Dist.			Trains		ROW	Trains per	Other
Local ID	Facility/ Route	Section (From - To)	(Operator)	Class	(mph)	(mi)	Type	ROW (ft)	per day	Type	(ft)	day	Modes
	Leigh Village Station [D-O	, ,	,				•	` ′		,,		•	
TE-5205	LRT Station]	At Leigh Village, Durham Co	GoTriangle							Rail Stop (D-O LRT)			Ŧ
	Martin Luther King Jr.	At Martin Luther King Jr. Parkway											
	Parkway Station [D-O LRT	and University Dr, Durham, Durham											
TE-5205	Station]	Co	GoTriangle							Rail Stop (D-O LRT)			Ŧ
	Ninth Street Station [D-O LRT	At Erwin Rd, South of Ninth Street,											
TE-5205	Station]	<del>Durham, Durham Co</del>	GoTriangle							Rail Stop (D-O LRT)			
	Patterson Place Station [D-O	At Patterson Place, McFarland Dr,											
TE-5205	LRT Station]	Durham, Durham Co	GoTriangle							Rail Stop (D-O LRT)			Ŧ
	South Square Station [D-O	At South Square, Shannon Rd,											
<del>TE-5205</del>	LRT Station]	<del>Durham, Durham Co</del>	GoTriangle							Rail Stop (D-O LRT)		-	Ŧ
	UNC Hospitals Station [D-O												
	LRT Station, Western	At Mason Farm Rd, Chapel Hill,											
<del>TE-5205</del>	Terminus, Chapel Hill]	Orange Co	GoTriangle							Rail Stop (D-O LRT)		-	
	Mason Farm Road Station [D-	At Mason Farm Road, Chapel Hill,											
TE-5205	O LRT Station]	Orange Co	GoTriangle							Rail Stop (D-O LRT)			
	Woodmont Station [D-O LRT	At Woodmont, Stancell Dr, Chapel											
TE-5205	Station]	Hill, Durham Co	GoTriangle							Rail Stop (D-O LRT)			
	NCCU-Durham Tech at												
TE-5205	Lawson Station	At Lawson St, Durham, NC	GoTriangle						-	Rail Stop (D-O LRT)			
		Near Blackwell St and Mangum St,	GoTriangle/										
DURH0006-R	Blackwell-Mangum St Station	Durham, Durham Co, NC	GoDurham							Rail Stop (Light Rail)			

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	PUBLIC TRANSPORTATION (Operational Strategies)												
					Existing System				Proposed				
								Off Peak					
				Dist.			Headway	Headway			Other		
Local ID	Facility/ Route	Section (From - To)	Agency	(mi)	Type	Headway	(min.)	(min.)	Type	Headway	Modes		
	Fayetteville Street Transit	Fayetteville Street Corridor			Fixed				Operational				
	Emphasis Corridor	(Route 5)	GoDurham		route	15	15	30	Strategies	Regular			
		Holloway Street Corridor and											
	Holloway Street Transit	Village Transit Center (Route			<b>Fixed</b>				Operational				
	Emphasis Corridor	3)	GoDurham		route	15	15	30	Strategies	Regular			
	Roxboro Street Transit	Roxboro Street Corridor			Fixed				Operational				
	Emphasis Corridor	(Route 4)	GoDurham		route	15	15	30	Strategies	Regular			
	Chapel Hill Street Transit	Chapel Hill Street Corridor			Fixed				Operational				
	Emphasis Corridor	(Route 6)	GoDurham		route	15	15	30	Strategies	Regular			

	Highway														
	Segment	u <sub>o</sub>		2015 Existing System 2040 Pro								m		ıt	
Facility	From	То	Jurisdictic	Dist. (mi)	Lanes	ROW	Width	Existing Capacity (vpd)	2011 Volume	2040 Volume E+C	2040 V/C	Status	Cross- Section	CTP Class	Problem Statemer
US 15-501 BUS (Durham Chapel Hill Blvd)	Chapel Hill Rd	University Dr	DurCity	0.8	4 2	100	36-56	26,000	12,000	16,000	0.62	<del>NI</del> EX	4Đ ADQ	<del>Blvd</del> Maj	None
Ellis-Glover Connector	Ellis Rd	Glover	Đur	-1.3	0	-	-	<del></del>			0.00	Rec	<del>2E</del>	Min	None
Hopson Rd Extension	NC 55	Grandale Dr	Dur	1.4	0	-	-	-	_	_	0.00	Rec	<del>2K</del> – <b>2E</b>	<del>Blvd</del> Min	Yes
University Dr	MLK Jr Pkwy	Shannon Rd	DurCity	0.5	4	-	-	26,000	17,000	23,800	0.92	<del>NI</del> Ex	4 <del>D</del> ADQ	<del>Blvd</del> Maj	None

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