

2035 LRTP – Transportation Options Introduction

What is the 2035 LRTP?

The 2035 Long-Range Transportation Plan (LRTP) is the guide for major transportation investments in the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC-MPO) area. The DCHC-MPO area covers the entire Durham County and the urbanized portions of Orange and Chatham Counties. The 2035 LRTP recommends major transportation projects, policies and strategies designed to maintain existing transportation systems and serve the region's future travel needs. The 2035 LRTP is also designed to support land use and air quality goals for the urban area, and must be prepared in accordance with Federal transportation and environmental requirements. Projects must be in the 2035 LRTP in order to receive state and federal transportation funding through the North Carolina Transportation Improvement Program (TIP).

What are the Transportation Options?

The transportation options are the draft 2035 LRTP. It shows the highway, transit, bicycle and other transportation projects that are to be included in the Plan, and the costs and revenues associated with the proposed set of projects. In addition, the Triangle Regional Model (TRM) uses the proposed set of projects to create a future transportation network and combines that network with a future Land Use Scenario (i.e., forecasted location of population and employment) to produce evaluation measures and congestion maps. These measures, such as the level of roadway congestion, average travel time, and transit ridership, will be used to evaluate the extent to which the proposed set of projects will meet the MPO's Goals and Objectives.

The MPO staff and policy board (Transportation Advisory Committee – TAC) will review the transportation options and consider public comments to develop the final 2035 LRTP.

How Can Citizens Participate?

There are many opportunities for citizens to review and comment on the transportation options at a series of public workshops and public hearings that will take place from October through December 2009. The public involvement calendar for the transportation options is displayed below. The DCHC MPO Website will continue to post a detailed list of these public involvement opportunities in the 2035 LRTP section of the Website – www.dchcmpo.org. For more information, citizens can also contact Andy Henry, (919) 560-4366, andrew.henry@durhamnc.gov.

Transportation Options – Local Board Review and Public Workshops

Jurisdiction	Elected Board	Planning Board	Transportation Board	Bicycle/Pedestrian Board	Transit Board	Public Workshops
City of Durham	11/20 City Hall Committee Room 2PM	11/11	n/a	11/18 City Hall Committee Room 7PM	11/5 1907 Faye St. 7:15PM	10/30 Jordan H.S., 6:30PM to 8:30PM 12/03 Durham County Library – Main Branch, 4:30PM to 7:30PM*
Durham County	12/1	11/11	n/a	11/18 7PM	n/a	10/28 Northern H.S., 6:30PM to 8:30PM
Chapel Hill	11/10	10/21	10/23			12/02 Town Hall, 1 st Fl. Conf. Room, 5:00PM to 8:00PM
Carrboro	11/18	11/06	11/06			
Hillsborough	11/24	11/20	n/a	n/a	n/a	11/25 Town Barn on Town Hall Campus, 101 E. Orange St. (parking and access off of Corbin St.) 4:00PM to 7:00PM
Orange County	11/18 7PM	Can attend Transportation Board meeting	11/19 7PM	n/a	n/a	
Chatham County	11/17 2PM		n/a	n/a	n/a	11/13 Ag. Center 4:00PM-7:00PM

*This workshop will be focused for environmental justice organizations.

For meeting details and updates, please see the MPO Web site – www.dchcmo.org

What is the Next Step in the 2035 LRTP Process?

In the next major step in the 2035 LRTP development process, the MPO's board (TAC) and technical staff will evaluate the transportation options and consider public input to develop the draft 2035 LRTP. After approving the 2035 LRTP in early December 2008, the 2035 LRTP will go through an evaluation and public input process to ensure that the Plan meets air quality conformity regulations.

Remaining Steps/Actions in LRTP Process

Action	Date
TAC release Preferred Option for public review	10/8/08
MPO releases full Preferred Option Report	10/28/08
TAC hold public hearing for Preferred Option	11/12/08, 7 pm
Public Comment period ends	12/09/08
TAC approve 2035 LRTP	12/10/08
TAC release 2035 LRTP Air Quality Conformity Report	2/11/09
TAC hold public hearing for Conformity Report	3/11/09
TAC approve 2035 LRTP Air Quality Conformity Report	4/8/09
Federal approval of 2035 LRTP	Before 6/15/09

Summary Description of Transportation Options

The MPO believes that evaluation beyond the Alternatives Analysis phase of the LRTP process is needed to identify the transit services for the 2035 LRTP. As a result, there are actually four transit options in the Preferred Option:

1. Bus Transit – using the *Baseline* Land Use Scenario
2. Commuter Rail – using the *Baseline* Land Use Scenario
3. Rail Transit using DMU (Diesel Multiple Unit) – using the *Transit Node* Land Use Scenario; and,
4. Light Rail Transit using Electric rail cars – using the *Transit Node* Land Use Scenario.

There is only a single option for the highway, bicycle and other transportation modes.

Each Transportation System is composed of many highway, transit and other transportation projects. A review of the long list of projects is a difficult task. The table on the next page provides a summary of the major projects in each of the options for the Preferred Option. Subsequent sections of this report present detailed maps and project tables for each of the options.

The Baseline Land Use Scenario projects population and employment location to the year 2035 based on the local land use plans and policies. The Transit Node Land Use Scenario assumes changes in those plans and policies that would permit and provide incentives for more intense residential and employment development close to the rail transit stations. For more information on the characteristics of the Land Use Scenarios, see Section 5 of the MPO's 2035 LRTP Alternatives Analysis, which is on the MPO's Web site or by contacting the MPO staff.

Summary of Preferred Options⁽¹⁾

Preferred Option	Highway	Bus Transit	Fixed Guideway
Bus Transit (from Bus Intensive Alternative)	<ul style="list-style-type: none"> • HOV/HOT on I-40 (from Wake Co. to NC 86) • Triangle Parkway (toll) • US 15-501 freeway • 7 Highway Trust Fund “loop” projects (including East End Connector) 	<ul style="list-style-type: none"> • Local bus expansion <ul style="list-style-type: none"> ○ Peak headways 10-20 minutes ○ Off-Peak headways 15-30 minutes • Express bus expansion • Regional bus expansion (to outlying communities) • Employment center circulators 	<ul style="list-style-type: none"> • No fixed guideway service
Commuter Rail (from Moderate multi-modal alternative)	<ul style="list-style-type: none"> • Same as above 	<ul style="list-style-type: none"> • Same with addition of <u>bus feeder</u> service to commuter stations 	<ul style="list-style-type: none"> • Commuter Rail – Hillsborough to Downtown Durham to RTP to Downtown Raleigh to Clayton • Commuter Rail – Downtown Durham to Carrboro via Carolina North • Bus Rapid Transit – Downtown Durham to UNC-Chapel Hill
STAC – DMU ((from Fixed Guideway alternative)	<ul style="list-style-type: none"> • Same as above 	<ul style="list-style-type: none"> • Same with addition of <u>bus feeder</u> service to rail transit stations 	<ul style="list-style-type: none"> • Rail Transit -- Duke to Downtown Raleigh using Diesel Multiple Units (DMU) starting in <u>2019</u> • Light Rail Transit – Duke to UNC-Chapel Hill using electric rail cars starting in <u>2025</u>
STAC – Electric (New alternative – the only Preferred Option not evaluated as part the Alternatives Analysis	<ul style="list-style-type: none"> • Same as above 	<ul style="list-style-type: none"> • Same with addition of <u>bus feeder</u> service to rail transit stations 	<ul style="list-style-type: none"> • Light Rail Transit – UNC-Chapel Hill to Duke to Downtown Durham starting in <u>2019</u>, then to NCCU to RTP to Downtown Raleigh using electric rail cars starting in <u>2025</u>

(1) Some helpful definitions: HOV/HOT = High Occupancy Vehicle/Toll; lanes that can only be used by vehicles that pay a toll or have at least a specified number of passengers. Headway = minutes to wait before next bus arrives. Peak = period of highest travel, generally 7am-9am and 4pm-6pm. BRT = Bus Rapid Transit, which are buses on a separate roadway. Fixed Guideway = transit vehicles on traveling on separate track or roadway. STAC = Special Transit Advisory Commission, which was a regional commission that recommended major transit investments. Highway Trust Fund “loop” = Highway projects designated in state legislation to receive special funding, in DCHC MPO these include: a) East End Connector; b) US 70 widening and freeway upgrade between Wake County and East End Connector; c) I-85 widening in Durham County; d) all three section of the Northern Durham Parkway; and, e) North Roxboro Road widening. DMU = Diesel Multiple Unit; each car carries own propulsion capacity and thus trains can be scaled more easily to meet demand. However, the DMUs are relatively large and heavy, and cannot be mixed on streets with regular traffic. Electric = Using electric rail cars (often called light rail transit) that can be, to some extent, mixed on streets with regular traffic. Commuter Rail = Locomotive passenger trains running on mainline rail tracks that have stations relatively far apart and typically only run during peak commute hours.

What is the CTP?

At this time, the DCHC MPO is completing the development and public input process for adopting the 2035 LRTP by June 2009. The same process for the Comprehensive Transportation Plan (CTP) will be carried out from June 2009 through December 2009, or once the 2035 LRTP is adopted, and the CTP adoption process will be completed from December 2009 through June 2010. The development process for the LRTP and the Comprehensive Transportation Plan (CTP), which includes the use of a travel demand model and the development of project attributes, are very similar. As a result, the 2035 LRTP transportation options documentation will often identify highway projects that are not in the 2035 LRTP but are expected to be part of the CTP. This identification process helps the MPO match future projects with their partner MPO centered in Raleigh, the Capital Area Metropolitan Planning Organization (CAMPO), and to get a good start on the CTP development process.

A description of the CTP and comparison with the LRTP might help to understand this relationship. North Carolina General Statute 136-66.2 requires each municipality or Metropolitan Planning Organization (MPO), with the cooperation of the NCDOT, to develop a Comprehensive Transportation Plan (CTP) serving present and anticipated travel demand in and around the MPO. The CTP is a series of 5 sheets that include: Adoption Sheet, Highway Map, Public Transportation and Rail Map, Bicycle Map, and Pedestrian Map. These sheets show current and future transportation facilities. The principal differences between the LRTP and CTP include:

- Planning Horizon -- LRTP has a 2035 planning horizon and thus only shows new projects to be operational by the year 2035, whereas the CTP has no planning horizon and thus shows projects to be implemented beyond the year 2035.
- Fiscal Constraint -- LRTP must be fiscally-constrained, i.e., the anticipated revenues must cover the anticipated costs, but the CTP has no fiscal element and thus will contain more projects than the LRTP;
- Current and New Projects -- LRTP lists only proposed highway improvements and transit services, whereas the CTP maps out both the current and proposed projects;
- Air Quality -- LRTP must pass Air Quality Conformity but the CTP does not.
- Approval -- LRTP is a federal requirement and must be approved by the MPO and federal oversight agencies, whereas the CTP is a state requirement and must be approved by the North Carolina Board of Transportation and the MPO.

A list of highway projects that will be considered for inclusion in the CTP are provided in Appendix A – *Highway Project Not Included in the 2035 LRTP*.

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