DCHC

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

Member Governments
Town of Carrboro
Town of Chapel Hill
County of Chatham
City of Durham
County of Durham
Town of Hillsborough
NC Department of Transportation
County of Orange

DURHAM – CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION TRANSPORTATION ADVISORY COMMITTEE (TAC)

August 13, 2008 **Committee Room**
9:00 AM **2nd Floor Durham City Hall**

1. **Roll Call**
2. **Adjustments to the Agenda**
3. **Public Comments**
4. **Directives to Staff (Attachment 4)**

ACTION ITEMS

5. **June 11, 2008 TAC Meeting Minutes**
(Attachment 5)

A copy of the June 11, 2008 TAC meeting minutes is enclosed as Attachment 5.

TAC Action: Approve minutes of the June 11, 2008 TAC meeting.

6. **2035 Long Range Transportation Plan and Comprehensive Transportation Plan**
(Attachment 6)
Andy Henry, LPA Staff

At the June 11th TAC meeting, staff presented the 2035 LRTP Land Use Scenarios, project Alternatives, and the proposed public input process. At that time, the travel demand model data for all of the Alternatives, which provides the performance and congestion evaluation for the Alternatives, was not complete so the Alternatives could not be released for public review. The TAC voted to permit the TAC Chair to release the Alternatives for public review once the model data was complete.

In June and July, staff continued to focus on the 2035 LRTP Alternatives by refining the transit networks, preparing the networks for input into the travel demand model, reviewing the subsequent model output data, and transforming output data into performance, congestion and transit ridership data for public review. This process took longer than anticipated, and as a result the 2035 Alternatives were not released in June or July.

The 2035 LRTP Alternatives are completed and ready for release to the public in the attached Alternatives Analysis Report (Attachment 6). The following table lists the report sections and indicates whether the TAC has reviewed the information at previous meetings. The new information, which is the analysis data, has been placed at the front of the report.

Report Section	TAC Received Previously?
1 – Introduction (with updated public involvement schedule)	New Information
2 – Alternatives – Model Data	New Information
3 – Financial Information	New Information
4 – Alternatives – Detailed Description	Reviewed at 6/11/08 TAC meeting
5 – Land Use Scenarios	Reviewed at 6/11/08 TAC meeting

The next table provides the overall schedule for finishing and approving the 2035 LRTP:

Action	Date
TAC release Alternatives Analysis for public review	8/13/08
TAC hold public hearing for Alternatives Analysis	9/10/08, **7 pm**
TAC release Preferred Option for public review	10/8/08
TAC hold public hearing for Preferred Option	11/12/08, **7 pm**
TAC approve 2035 LRTP	12/12/08
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

TCC Recommendation: That the TAC release the 2035 LRTP Alternatives for public comment and schedule a public hearing for the September TAC meeting.

TAC Action: Approve release of the 2035 LRTP Alternatives (Attachment 6) for public review; schedule a public hearing in the evening for the 2035 LRTP Alternatives at the September TAC meeting; and, approve the revised 2035 LRTP schedule (above) and public involvement schedule (in Section 1 of Attachment 6).

7. <u>FY 2009-2015 Metropolitan Transportation Improvement Program</u>
(Attachment 7, 7A, 7B, 7C, 7D, 7E, 7F)
Ellen Beckmann, LPA Staff

The State Board of Transportation released the draft FY 2009-2015 STIP on October 31, 2007. The DCHC MPO released the supplement to the draft STIP as the draft MTIP in January and held a public hearing in February. In addition, NCDOT held public comment meetings on the STIP in February. One-on-one meetings for Division 5 and Division 7 were held in February and March.

The State Board of Transportation approved the final FY 2009-2015 STIP on June 5, 2008. A staff memo on the final FY 2009-2015 STIP and MTIP is provided as Attachment 7. In addition,

notes on Attachment 7C and 7D explain how NCDOT addressed the issues discussed during the one-on-one meetings in the final STIP. Based on the June TAC meeting, the recommended final FY 2009-2015 MTIP (Attachment 7A) is the same as the final FY 2009-2015 STIP with the addition of "provide bicycle, pedestrian, and transit accommodations as appropriate" to the descriptions of several highway projects. A resolution adopting the FY 2009-2015 MTIP is included as Attachment 7B.

At the June TAC meetings, several concerns were raised regarding the Triangle Parkway. The TAC sent letters to the MPO's State delegation (Attachment 17) and to the NC Turnpike Authority (Attachment 18) communicating these concerns. The NC Turnpike Authority has responded to the MPO's letter (Attachment 18A).

In addition to approving the final FY 2009-2015 MTIP, the TAC must also approve the Air Quality Conformity Determination report for the FY 2009-2015 MTIP (Attachment 7E). There are several appendixes available on the Triangle Air Quality Partnership website: http://www.triangleair.org/topics.htm#transconf. In March, the TAC released the report for public comment and held a public hearing for the April TAC meeting. The DCHC MPO TAC must approve the 2009-2015 MTIP and conformity report by September 2008. A resolution finding the MTIP in conformance is included as Attachment 7F.

TCC Recommendation: That the TAC approve the resolution adopting the FY 2009-2015 Metropolitan Transportation Improvement Program (Attachment 7B) and the resolution finding the FY 2009-2015 Metropolitan Transportation Improvement Program in conformity with the North Carolina State Implementation Plan (Attachment 7F).

TAC Action: Approve the resolution adopting the FY 2009-2015 Metropolitan Transportation Improvement Program (Attachment 7B) and the resolution finding the FY 2009-2015 Metropolitan Transportation Improvement Program in conformity with the North Carolina State Implementation Plan (Attachment 7F).

8. <u>Triangle Regional Model</u>
(Attachment 8, 8A, 8B)
Felix Nwoko, LPA Staff

The Triangle Regional Model version TCV4-2008 has been released to the stakeholders for review since January of 2008. This version is the result of a three-year effort undertaken by the Triangle Regional Model Service Bureau at ITRE, in partnership with NCDOT, Triangle Transit, CAMPO and DCHC MPO. Attachment 8 summarizes the major changes between the new version and the old version of the model including the validation measures and targets. The TCC recommends that the TAC approve a resolution adopting the Triangle Regional Model version TCV4-2008 (Attachment 8A) and send a letter to the Triangle Model Service Bureau (Attachment 8B). The DCHC MPO will use this version of the model for the 2035 Long Range Transportation Plan.

TCC Recommendation: That the TAC approve a resolution adopting the Triangle Regional Model version TCV4-2008 (Attachment 8A) and send a letter to the Triangle Model Service Bureau (Attachment 8B).

TAC Action: Approve a resolution adopting the Triangle Regional Model version TCV4-2008 (Attachment 8A) and send a letter to the Triangle Model Service Bureau (Attachment 8B).

9. FY 2011-2017 Transportation Improvement Program – Regional Priority List – Ranking Methodology

(Attachment 9, 9A, 9B)
Ellen Beckmann, LPA Staff

NCDOT has requested that MPOs provide their Regional Priority Lists for the FY 2011-2017 Transportation Improvement Program (TIP) by December 31, 2008. Attachment 9 is a staff memo that provides an overview and describes the recommended changes in the Ranking Methodology. The TCC has proposed a schedule for the development and approval of the Ranking Methodology and Regional Priority List to meet this deadline (Attachment 9A). The TCC has also reviewed the Ranking Methodology used for the FY 2009-2015 Transportation Improvement Program and has proposed several updates.

Attachment 9B is the TCC's recommended methodology. As with the previous methodology, three separate methodologies are used for highway, bicycle/pedestrian, and transit projects. Slight changes were made to the highway and bicycle/pedestrian methodologies. More significant changes were made to the transit methodology.

TCC Recommendation: That the TAC approve the FY 2011-2017 Transportation Improvement Program Regional Priority List Ranking Methodology (Attachment 9B).

TAC Action: Approve the FY 2011-2017 Transportation Improvement Program Regional Priority List Ranking Methodology (Attachment 9B).

10. Memorandum of Agreement between the DCHC MPO, DATA, Chapel Hill Transit and Triangle Transit

(Attachment 10)
Felix Nwoko, LPA Staff

The purpose of this agreement is to specify cooperative procedures for carrying out transportation planning and programming in the DCHC metropolitan planning area in compliance and conformance with federal planning regulations (23 CFR 450, Subpart C). This Memorandum of Agreement (MOA), which is Attachment 10, is intended to make explicit and expand upon existing cooperating planning and programming procedures and activities, and to establish new or expanded cooperative procedures where necessary in order to meet federal requirements for a continuing, cooperative and comprehensive urban transportation planning process.

TCC Recommendation: That the TAC authorize the Chair to execute the Memorandum of Agreement between the DCHC MPO, DATA, Chapel Hill Transit, and Triangle Transit.

TAC Action: Authorize the Chair to execute the Memorandum of Agreement between the DCHC MPO, DATA, Chapel Hill Transit, and Triangle Transit.

REPORTS:

11. **Report from the TAC Chair**
Alice Gordon, TAC Chair

TAC Action: Receive Report from TAC Chair

12. **Report from Staff**
(Attachment 12)
Felix Nwoko, LPA Staff

TAC Action: Receive Report from Staff

13. **Report from the TCC Chair**
Mark Ahrendsen, TCC Chair

TAC Action: Receive Report from TCC Chair

14. **NCDOT Report**
(Attachment 14)
Wally Bowman, Division 5 – NCDOT
Mike Mills, Division 7 – NCDOT
Bill Barlow, Public Transportation Division – NCDOT

TAC Action: Receive NCDOT report

INFORMATIONAL ITEMS

15. **Recent News Articles and Updates**
(Attachment 15)

16. **Letter to State Delegation regarding the Congestion Relief Intermodal Transportation Fund – June 2, 2008**
(Attachment 16)

17. **Letter to State Delegation regarding U-4763B Triangle Parkway Gap Funding – June 11, 2008**
(Attachment 17)

18. Letter to the NC Turnpike Authority regarding U-4763B Triangle Parkway – June 19, 2008 and Letter from the NC Turnpike Authority regarding U-4763B Triangle Parkway – July 23, 2008
(Attachment 18, 18A)

19. NCDOT Report – Preliminary Evaluation of the Construction of a Roundabout at the Intersection of NC 751 and SR 1307 – Old Erwin Road in Durham County
(Attachment 19)

20. 21st Century Transportation Committee – Meeting Notice
(Attachment 20)

Adjourn

Next meeting: September 10, 2008

TAC Directives to Staff

06/11/03 – 12/31/06 (Pending/In Progress/On Going)
01/01/07 – Present (Completed/Pending/In Progress)

Meeting Date	Directive	Status
06/11/03	(TAC) Letter to Durham City Council and Jon Nance requesting they take some action to address the safety issue for pedestrians at US 15-501/ Garrett Road Service Road relocation project.	Completed/Pending – Letter sent to Council and NCDOT. Staff has met with NCDOT. Under consideration by NCDOT. Plan to include pedestrian improvements in the US 15-501 widening project (U-4012)
03/10/04	Send letter to NCDOT expressing concern over NC-147 /I-40 interchange and concern over backups occurring on NC-147.	Completed/Pending - Letter sent 03/17/04. Staff has discussed with NCDOT various alternatives under consideration by NCDOT.
08/25/04	Metropolitan Area Boundary	Completed/In Progress – TAC approved MAB for the 2030 LRTP. Staff to bring back proposal for MAB expansion for the next LRTP update.
08/25/04	Further study of Farrington Road/Stagecoach Road corridor to move projects forward for funding.	In Progress – See Attachment 11 of 6/11/08 TAC Agenda.
08/25/04	Further study of Latta Road/Infinity Road/Roxboro Road intersection.	In Progress – To be evaluated as part of the next (2035) LRTP update.
09/14/05	Staff to check with DATA about the possibility of designating a Park-and-Ride in northern Durham.	In Progress
04/12/06	Investigate use of peer review for Triangle Regional Model (TRM)	In Progress: TRM committee has taken up this project
04/12/06	Address cost splits for TRM tasks at next DCHC MPO/CAMPO joint TAC meeting	In Progress:
08/09/06	Follow up with the BPAC and DATA Boards regarding public involvement for MPO activities.	In Progress:
10/11/06	Provide information on if a municipality can accelerate resurfacing using local funding.	In Progress
01/10/07	Work with the TAC officers to identify candidates for the Joint MPO Special Advisory Commission for Transit. Recommend appointments	Completed: See Attachment 6 of the 02/14/07 TAC Agenda.

01/10/07	Work with NCDOT to resolve the remaining concerns with the design of U-3308 Alston Avenue	In Progress: See Attachment 11A of 02/14/07 TAC Agenda, Attachment 20 of 4/11/07 TAC Agenda, and Attachment 18 of 6/13/07 TAC Agenda
02/14/07	Send a letter to NCDOT and state legislative delegation requesting the NCDOT reconsider its decision not to relocate the Durham Amtrack station	Completed: See Attachment 23 of 4/11/07 TAC Agenda
02/14/07	Send a letter to the Governor, state legislative delegation, and NCDOT on TIP funding issues.	Completed: See Attachment 23 of 3/14/07 TAC Agenda
02/14/07	Develop a long-term and short-term strategy for addressing funding needs working with other MPOs and the Metropolitan Coalition	In Progress: See 10/31/07 Joint TAC Agenda.
03/14/07	Review Phil Post's proposed adjustments to the Southwest Durham Southeast Chapel Hill Collector Street Plan/Southwest Durham Drive. Develop a recommended final plan.	Completed: See Attachment 7A of 4/11/07 TAC Agenda
04/11/07	Review Chapel Hill's request for one crossing on I-40 on the Southwest Durham Southeast Chapel Hill Collector Street Plan.	Completed: See Attachment 10 of 5/09/07 TAC Agenda.
04/11/07	Provide information on the effect of the Triangle Parkway on alleviating traffic on I-40.	Completed: See Attachment 16 of 6/13/07 TAC Agenda.
04/11/07	Send a letter to the DCHC MPO state legislative delegation regarding transportation bills introduced in the General Assembly	Completed: See Attachment 20 of 6/13/07 TAC Agenda.
05/09/07	Review the STP-DA allocation procedure including eligible projects and geographic distribution	Completed: See Attachment 7C of 6/13/07 TAC Agenda, Attachment 8 of 3/12/08 TAC Agenda, Attachment 8 of 4/09/08 TAC Agenda, and Attachment 6 of 5/14/08 TAC Agenda.
05/09/07	Send a letter to the DCHC MPO state legislative delegation regarding H1462 (Municipal Street Provisions) and the Land Transfer Tax	Completed: See Attachment 20 of 6/13/07 TAC Agenda.
05/09/07	Send a letter of support for the Durham, Chapel Hill, and NCDOT earmark requests	Completed: See Attachment 15 of 8/8/07 TAC Agenda
08/08/07	Provide a summary of transportation-related development review regulations from member jurisdictions	Completed: See Attachment 17 of 10/10/07 TAC Agenda
08/08/07	Add information on student employment, employment-to-population ratios, and household size to the SE Data	Completed: See Attachment 6 of 9/12/07 TAC Agenda
08/08/07	Provide an update on damage to NC-147 due to the I-40 detour	Completed: NCDOT staff replied via email to TAC members

09/12/07	Develop final goals and objectives for the 2035 LRTP considering public comments and the Chapel Hill resolution	Completed: See Attachment 8 of 10/10/07 TAC Agenda
10/10/07	Send a letter to thank the NCDOT for the I-40 repair project	Completed: See Attachment 17 of 11/14/07 TAC Agenda.
11/14/07	Develop a strategy for pursuing regional bicycle routes between MPO jurisdictions. Include public input and identify funding sources.	In Progress: Corridors to be identified as part of the 2035 LRTP process. STP-DA funding has been reserved.
11/14/07	Develop a combined mode 2009-2015 TIP regional priority list by division with costs.	Completed: See Attachment 7 and 7A of 1/09/08 TAC Agenda.
12/12/07	Provide a presentation and update on the 21st Century Transportation Committee	Completed: See Attachment 6 of 3/12/08 TAC Agenda.
12/12/07	Send a letter to NCDOT regarding U-3804 Hillandale Road widening using similar language as the Durham Board of County Commissioners.	Completed: See Attachment 15 of 1/09/08 TAC Agenda.
02/13/08	Present to the JCCPC and planning boards on the LRTP targets and the importance of land use.	In Progress:
03/12/08	Present to the JCCPC and Orange County Assembly of Governments on the LRTP Deficiency Analysis	Completed: Presentations given at the 4/2/08 JCCPC and 3/31/08 Assembly of Governments.
03/12/08	Provide an update on the state's human services transportation plan	In Progress:
04/09/08	Provide a report on Triangle Transit's funding sources from the DCHC MPO and CAMPO	Completed: See Attachment 6C of 5/14/08 TAC Agenda.
04/09/08	Consider the Morgan Creek Greenway project in Chapel Hill when evaluating projects for the STP-DA regional bicycle and pedestrian category	In Progress: To be considered as part of the evaluation of regional bicycle and pedestrian corridors during the 2035 LRTP.
04/09/08	Develop a list of principles that should be considered in the proposed Congestion Intermodal Transportation Fund legislation.	Completed: See Attachment 10B of 5/14/08 TAC agenda.
05/14/08	Develop a recommendation for funding regional bicycle and pedestrian projects with STP-DA.	In Progress: To be considered as part of the evaluation of regional bicycle and pedestrian corridors during the 2035 LRTP.
06/11/08	Send a letter to the NC Turnpike Authority expressing the TAC's concerns regarding Triangle Parkway.	Completed: See Attachment 18 and 18A of the 8/13/08 TAC agenda.
06/11/08	Send a letter to the MPO's state delegation stating the MPO's position on the Triangle Parkway.	Completed: See Attachment 17 of the 8/13/08 TAC agenda.

TRANSPORTATION ADVISORY COMMITTEE

June 11, 2008

MINUTES OF MEETING

The Transportation Advisory Committee met on June 11, 2008, at 9:00 a.m. in the Council Chambers on the first floor of Durham City Hall. The following attended:

**William V. "Bill" Bell	City of Durham
*Diane Catotti	City of Durham
**Kevin Foy	Town of Chapel Hill
**Alice Gordon	Orange County (TAC Chair)
**Eric Hallman	Town of Hillsborough
*Ed Harrison	Town of Chapel Hill
**Becky Heron	Durham County
**Lydia Lavelle	Town of Carrboro
*Ellen Reckhow	Durham County
*Bill Strom	Triangle Transit
**Mike Woodard	City of Durham (TAC Vice-Chair)

**Voting Members
*Alternate or Non-Voting Member

Mark Ahrendsen	City of Durham/Transportation
Jamal Alavi	NCDOT – TPB
Allison Anderson	Durham Chamber of Commerce
Ellen Beckmann	City of Durham/Transportation
Martha Brockwell	City of Durham/Transportation
John Hodges-Copple	Triangle J COG
Tobin Freid	Durham County
Craig Gresham	Kimley-Horn
Andy Henry	City of Durham/Transportation
Karen Lincoln	Orange County Planning
Patrick McDonough	Triangle Transit
Dale McKeel	City of Durham/Transportation
Adena Messinger	Town of Chapel Hill
Ryan Mickles	Town of Chapel Hill
Felix Nwoko	City of Durham/Transportation
Dawn Qiu	City of Durham/Transportation
Mike Shiflett	STAC Member
Jill Stark	FHWA
John Suddath	Metro Magazine

Alice Gordon, TAC Chair, called the meeting to order at 9:10 a.m. and the Roll Call was conducted.

PRELIMINARIES

Adjustments to the Agenda:

There were no adjustments to the agenda. Handouts were distributed prior to the meeting regarding the Farrington Road Corridor Study and Comprehensive Transportation Plan Highway Projects.

Public Comments:

There were no public comments.

Directives to Staff (Attachment 4):

There were no comments regarding the Directives to Staff.

ACTION ITEMS

May 14, 2008, TAC Meeting Minutes (Attachment 5):

A motion was made by Mike Woodard and seconded by Kevin Foy to approve the TAC Meeting Minutes for May 14, 2008. The motion passed unanimously.

May 21, 2008, Joint TAC Meeting Minutes (Attachment 6):

A motion was made by Becky Heron and seconded by Lydia Lavelle to approve the Joint TAC Meeting Minutes for May 21, 2008. The motion passed unanimously.

Special Transit Advisory Commission Final Report – Public Hearing (Attachment 7, 7A, 7B, 7C, 7D):

The public hearing was opened. Mike Shiflett addressed the committee and wanted to thank DCHC and CAMPO for sponsoring the STAC. Mr. Shiflett reported that a lot of issues in detail were discussed and concerns from different municipalities and agencies in the Triangle

were addressed. He hopes that the plan is acted upon quickly. A significant push was made to have a project that could be built quickly, Ninth Street to Triangle Metro Center Project. The small investment in having a light rail project between the airport and Durham would be the best way to start off with a successful project. Mr. Shiflett thanked the TAC for allowing him to comment.

Ellen Reckhow suggested that the staff look at alternatives and other regions and revenue ideas for the 2035 plan. Becky Heron inquired as to how much emphasis was put on bus service compared with the rail. Mark Ahrendsen responded that there was a fair amount of debate and discussion on the bus service, and it was recognized that it needed to be a part of the transit vision.

Mike Woodard thanked Mr. Shiflett for his service on the STAC and transportation issues. He also recommended that the Durham Chamber of Commerce and Chapel Hill-Carrboro Chamber of Commerce coordinate a trip for the MPO to visit Charlotte and see the success they have had with their program and understand more deeply some of their strategies. A day trip was suggested by taking the early Amtrak to downtown Charlotte, ride the rail, have a series of meetings, and return in the evening. Mr. Woodard also suggested inviting the legislative delegation. He stated a lot of business leaders are interested and that their help is needed for finding alternative revenue sources.

No other public comments were made. It was the consensus of the TAC to close the public hearing.

FY 2007-2013 Metropolitan Transportation Improvement Program Administrative Modification #3 (Attachment 8, 8A):

Ellen Beckmann stated that this action was to amend the FY 2007-2013 MTIP to add funding for transit projects in 2008. The state identified some CMAQ funds that were set to lapse and needed to be expended. The transit agencies are the recipients of these funds. Chapel Hill Transit, DATA, and Triangle Transit identified projects using this funding on Page 3 of the Resolution. Attachment 8A is a letter to PTD asking that these funds be flexed to FTA to be used on transit projects.

A motion was made by Mike Woodard and seconded by Kevin Foy to adopt the Resolution, as presented, shown as Attachment 8. The motion passed unanimously.

FY 2009-2015 Metropolitan Transportation Improvement Program (Attachment 9, 9A, 9B, 9C, 9D, 9E, 9F):

Ellen Beckmann explained the attachments. In terms of what is in the final STIP for highway projects, the major difference was adding construction funding for the East End Connector in FY 2013. Also, we requested that language be added to the descriptions of certain highway projects such as "provide bicycle, pedestrian, and transit accommodations as appropriate." This was not added. We could adopt the final MTIP with that language in it. FHWA said that would not cause a major problem, but we need to follow up with NCDOT to assure that. That is one option to consider. There were no major changes on bicycle-pedestrian projects. There were a number of changes on transit. Ellen Beckmann would recommend adopting the MTIP, as is, and then addressing those changes through MTIP amendments. Many transit projects are initially listed as unfunded in the STIP and once they become funded, we have to adopt an amendment to add funding to those projects. Therefore, we will have to do amendments as we go along and will be able to fix some of those errors. Ellen stated that we

could adopt the resolution with the language in there, and in August if we need to amend it to take the language out, then we could. The MTIP has to be approved no later than September.

Ed Harrison had concerns regarding the Triangle Parkway and one was putting transit facilities in the corridor. Alice Gordon remarked that she did write a letter to the Turnpike Authority regarding several TAC concerns but has never received an answer. Bill Strom raised similar questions to Triangle Transit. Patrick McDonough of Triangle Transit announced that they had approached the Turnpike Authority regarding their position toward buses and vanpools using the parkway for free. The general response from the Turnpike Authority was that they seemed confident that buses would not be a problem and could enter the Triangle Parkway free of charge, but they wanted to meet with some of their finance people on vanpools to determine the revenue impact. Mr. McDonough stated that David Joyner of NCTA answered this question in a meeting and said this was not his position but an initial assessment and that he would get back with the Board. However, Mr. McDonough does not know if he ever came back to the Board. His sense from David Joyner was that buses would probably not be a problem, but they had to do a financial analysis. Ellen Reckhow suggested that the Chair send another letter, and Kevin Foy added to request a response within a specific period of time.

Ellen Reckhow stressed that we needed to get on the same page with NCDOT related to design issues. Our projects must be multi-modal with surging gas prices and people looking for alternatives. Jill Stark with the Federal Highway Administration updated the TAC that they were addressing design issues. In the last certification review that was a recommendation that NCDOT work more with the MPO's to incorporate their vision. There will be a team starting up, which will consist of the Transportation Planning Branch, Design, and the MPO that will work on ways to address those issues. There has to be progress made in the next four years. If not, it

is a corrective action. That means it would be addressed within one year or they withhold funding. Regarding the TIP, Mark Ahrendsen stated that it is our recommendation based on the feedback from Jill Stark and the position of the Federal Highway to suggest that we include that language in the Metropolitan TIP in the project descriptions (Attachment 9) for the bicycle and pedestrian and transit accommodations as appropriate. This will express the position of this MPO with those accommodations, not as conflict but rather more information. Ed Harrison remarked that most of the streets that concern people are state roads, not local, and that we need to educate the public.

Returning to the issue of the Triangle Parkway, Diane Catotti added that we are essentially asking for clarification from the Turnpike Authority about these transit facilities and to reiterate the language that is in the previous letter, it is not the MPO's highest priority, and that we object to any diversion of funds from any higher priority projects. She stated that we need to go on record contacting our delegation with a letter from the TAC reiterating that we are opposed to the diversion of funds. The consensus was that our senators and representatives need to know what our conditions were for supporting toll roads. Kevin Foy said, as he recalled, the DCHC agreed to the toll road idea, and our support was on condition that the toll roads accommodate transit. That would include buses, vans, and any other future transportation. The tradeoff was that the toll road gets built, but it also helps the Triangle deal with providing incentives for public transportation. If that is not part of the deal, which it sounds like we do not know since we have not received a response from the Turnpike Authority, then our legislative delegation should know. Alice Gordon commented that when the Triangle Parkway is built, we want to have these accommodations for transit (definite and written). If there are no accommodations for transit, then we have to reassess our position.

A motion was made by Kevin Foy and seconded by Becky Heron for the TAC Chair to send a letter to our senators and representatives stating the DCHC MPO's position regarding the Triangle Parkway. The motion passed unanimously.

A motion was made by Kevin Foy and seconded by Lydia Lavelle for the TAC Chair to send a letter to the Turnpike Authority with a copy of the original letter to which we never received a response, restate our concerns, and request a reply within a week. The motion passed unanimously.

A motion was made by Mike Woodard and seconded by Becky Heron to instruct the staff to bring to the August meeting an MTIP and resolution that reflects the additional language about the bicycle pedestrian projects to the STIP, which we will adopt as our MTIP. The motion passed unanimously.

2035 Long Range Transportation Plan and Comprehensive Transportation Plan – Alternatives Analysis (Attachment 10, 10A, 10B, 10C):

Andy Henry presented this item and stated they were eager to initiate the public review process that would start in July. They would release the LRTP alternatives in July, have a public hearing at the TAC meeting in August, and in September present the Draft 2035 LRTP Preferred Option. That would go through a similar public review process to the various local elected boards and planning commissioners. The final 2035 LRTP should be back for approval in November and then that will go to the Air Quality Conformity Analysis. Andy explained the three main pieces: 1) Land Use Scenarios, 2) Alternatives, and 3) Public Involvement. What we do not have today is the analysis information from the Travel Demand Model. Bill Strom questioned headway times being inconsistent in some of the scenarios and the land use and densities on transit corridors. Andy assured him that the data was pretty accurate, and as they

develop the preferred option, it would be fine tuned. Bill Strom asked if they were confident about the mix of alternatives, and Andy replied that they were. He also said that the LRTP Subcommittee would take their time in looking at what the model is producing and that he did not expect any large changes.

The review process for the alternatives is open through September. If TAC members have comments that they want changes made before it is sent out to the public, they can submit those to Andy Henry by July 3rd. Andy said they worked with the planning department on the socio-economic data that was developed. The baseline socio-economic data is based on current land use plans and policies. That is one the TAC saw several months ago and approved for use in the development of the 2035 LRTP. The planning department developed those scenarios.

Lydia Lavelle asked Andy to double check the land use scenario with regard to both population and employment with Orange County, and Alice Gordon asked him to double check the Chatham County line as well. Ellen Reckhow called attention to LRTP alternatives and wondered if we were being ambitious enough with the transit mode share performance targets of good, better and best, if all the STAC recommendations are plugged in and if this is the result of that vision. Mark Ahrendsen responded that the STAC recommendations are in there.

Ellen Beckmann said that the October meeting scheduled for 7:00 p.m. conflicts with Yom Kippur, which begins that evening. The consensus was to change the October meeting back to 9:00 a.m.

A motion was made by Mike Woodard and seconded by Eric Hallman to approve and release the 2035 LRTP Alternatives when the evaluation analysis data is completed contingent upon the review and approval of the TAC Chair, and schedule a public hearing for the 2035 LRTP Alternatives for the August meeting at 7pm. The motion passed unanimously.

Farrington Road Corridor Study (Attachment 11):

Felix Nwoko introduced Craig Gresham, a consultant with Kimley-Horn, who presented a report on the Farrington Road Corridor Study. Becky Heron asked questions regarding open space. Ed Harrison stated he hoped one of the goals was to reduce traffic on NC 54, Farrington Road, and the I-40 intersection complex. Ellen Reckhow raised the issue of land use. Jordan Lake needs more protection, and a regional discussion of density in Jordan Lake critical area is needed. Meetings regarding Jordan Lake should include Orange County and Chatham County.

Diane Catotti wanted to know if there was a planned presentation to the Chatham County Commissioners. Mr. Gresham said there was not, however, they could accommodate that. She also asked Mr. Gresham to explain the difference between short-term and long-term. Short-term is within five to seven years and long-term will be ten years plus. Other comments were urban service boundaries need to be shown, and roundabouts can help in the right scenarios. Alice Gordon requested that Mr. Gresham provide the additional slides of the PowerPoint to the TAC members and to provide a key on the maps to show what the colors mean.

A motion was made by Diane Catotti and seconded by Mike Woodard to receive the report and refer to staff. The motion passed unanimously.

REPORTS

Report from the TAC Chair:

The TAC Chair skipped her comments in the interest of time.

Report from Staff (Attachment 13):

There were no reports from the staff.

Report from the TCC Chair:

Mark Ahrendsen provided a couple of project updates. The Environmental Reevaluation Study for the East End Connector is completed and under review by the Federal Highway Administration and is expected to be completed by the end of June. Mark stated they are still dealing with NCDOT on some design issues at Alston Avenue widening regarding right turn lanes and bike lanes on that project. He mentioned the road widening from I-85 to Carver Street and a design issue of bicycle accommodations on Glendale Road. The City has requested striping that widening project for bike lanes, but NCDOT is not supportive of that request.

Mark also referenced the Congestion Relief Intermodal Fund legislation that is in both the House and the Senate. This is the legislation that creates a public transportation fund on a state level to help support transit investments and also provides the authority for local option ½ cent sales tax in three metropolitan areas (Charlotte, Triad, and Triangle). It provides the authority to hold a referendum on sales tax in Wake, Durham, and Orange counties.

NCDOT Report (Attachment 15):

Mark Ahrendsen received an email from Wally Bowman, Division 5, who explained they would not be at the meeting and that they did not have anything further to report other than the contract to resurface US 70 from Miami Boulevard into Wake County. The contractor should begin that project in early August. Alice Gordon stated there was a written report from both Division 5 and Division 7.

INFORMATIONAL ITEMS

Recent News Articles and Updates (Attachment 16):

The recent news articles and updates are attached.

Legislative Alert from NC Go! On Gas Tax Holiday (Attachment 17):

A legislative alert from NC Go! on gas tax holiday is attached.

Adjournment:

There being no further business before the Transportation Advisory Committee, the meeting adjourned at 12:05 p.m.

Respectfully submitted,

TAC MINUTES APPROVED:

Martha P. Brockwell
City of Durham
Transportation Division
Public Works Department



Durham-Chapel Hill-Carrboro Metropolitan Planning Organization

Member Governments:
Town of Carrboro
Town of Chapel Hill
County of Chatham
City of Durham
County of Durham
Town of Hillsborough
N.C. Department of Transportation
County of Orange

2035 Long Range Transportation Plan Alternatives Analysis Report

August 13, 2008

Direct Questions and Comments to:

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www.dchcmpo.org

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2035 LRTP and CTP
Alternatives -- Introduction

What is the 2035 LRTP?

The 2030 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 2030 LRTP recommends major transportation projects, policies and strategies designed to maintain existing transportation systems and serve the region's future travel needs. The 2030 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 2030 LRTP in order to receive state and federal transportation funding through the North Carolina Transportation Improvement Program (TIP).

What is the CTP?

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:

- LRTP lists only proposed highway improvements and transit services, whereas the CTP maps out both the current and proposed projects;
- LRTP must be fiscally-constrained, i.e., the anticipated revenues must cover the anticipated costs, but the CTP has no fiscal element.

The development process for these two documents, which includes the use of a travel demand model and extensive public involvement, are very similar. As a result, the DCHC MPO will complete the development process for both documents at the same time.

What are Alternatives?

The DCHC MPO plans to develop and evaluate several Alternatives in the process to create the 2035 Long Range Transportation Plan. Each Alternative will be a combination of a Transportation System, which includes a set of highway, transit and other transportation improvements, and a Land Use Scenario that distributes the forecasted

population and employment for the year 2035. These Alternatives will be run in the Triangle Regional Model (TRM) to produce a set of transportation performance measures that describe how the transportation system will handle the travel demand generated by a particular population and employment distribution in the year 2035. These performance measures, such as the level of roadway congestion, average travel time, and transit ridership, will be used to evaluate and compare the various Alternatives.

It should be noted that it is very unlikely that one of the Alternatives in its entirety would be advanced as the Preferred Option. These Alternatives have been designed to emphasize a particular mode in meeting the future travel demands so that the public and technical staff can understand how well the designated mode works.

How can Citizens Participate?

There are many opportunities for citizens to review and comment on the Alternatives and Preferred Option at a series of public workshops and public hearings that will take place from August 2008 through April 2009. The public involvement calendar for the Alternatives 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.

Alternatives Analysis – Public Involvement Calendar

Jurisdiction	Elected Board	Planning Board	Transportation Board	Bicycle/ Pedestrian Board	Transit Board	Public Workshops
City of Durham	9/18/2008	9/9/2008	n/a	8/19/2008	9/3/2008	9/11 Main Library*, 4-7pm 9/2 Northern H.S., 6:30-8:30pm 9/4 Jordan H.S. ., 6:30-8:30pm
Durham County	9/1/2008 or 9/8/2008	9/9/2008	n/a	8/19/2008	n/a	
Chapel Hill	9/8 (Forum) and 9/22	8/19	8/28	9/11 (Active Living)	n/a	9/9 Chapel Hill Main Library, 4-7pm
Carrboro	9/2/2008	8/21/2008	8/21/2008			
Hillsborough	9/24 (workshop)	9/18	n/a	n/a	n/a	8/28 "The Barn", 4-7 pm
Orange County	9/16/2008	Can attend Transportation Bd. meeting	8/27/2008 (special mtg.)	n/a	n/a	
Chatham County	(to be determined)	(to be determined)	n/a	n/a	n/a	8/22 Ag Center in Pittsboro, 4-7pm

*One workshop will be focused for environmental justice organizations

Note: Check DCHC MPO Web site for any meeting date and time updates – www.dchcmpo.org

What is the Next Step in the 2035 LRTP Process?

In the next major step in the 2035 LRTP development process, the public, elected officials and technical staff will use the evaluation and comparison of the Alternatives to create a single Alternative that best meets the MPO's Goals and Objectives and the fiscal constraint requirements. These requirements demand that the project costs do not exceed the expected funding revenues. This final Alternative is called the Preferred Option, and it will also go through an extensive public review process similar to that of the Alternatives.

Development of Alternatives

The table on page 4 shows the combinations of Transportation Systems and Land Use Scenarios that will be modeled for the 2035 LRTP development process. Each of these Transportation Systems will be combined with one, or more, Land Use Scenarios to create an Alternative.

- The first two Transportation Systems (#1 and #2), the 2030 LRTP and Comprehensive Transportation Plan, will be used as benchmarks to compare with the 2035 LRTP Alternatives, and therefore will not form Alternatives.
- The next five Transportation Systems (#3 through #7), are Alternatives for the 2035 LRTP.

There is a unique set of Socioeconomic Data (SE Data) for each Land Use Scenario. The Baseline Land Use Scenario, for example, is the SE Data approved by the Transportation Advisory Committee (TAC) for use in developing the 2035 LRTP and is based on the current land use plans and policies of the local jurisdictions in the DCHC MPO's planning area. The other Land Use Scenarios assume certain changes to current land use policies.

Summary Description of Transportation Systems

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 page 5 provides a summary of the major projects in each of the Transportation Systems to highlight the level and type of investment in the three major modes – highway, bus transit and fixed-guideway.

Section 4 of this report, called *Alternatives – Detailed Description*, presents maps and project tables for each of the transportation systems used in the Alternatives.

Combinations of Transportation Systems and Land Use Scenarios (1)

No.	Transportation System	Land Use Scenarios				
		Baseline	**Constrained**	**Buildout**	**Corridor**	**Transit Nodes**
Benchmarks for comparison						
1	**2030 Adopted LRTP** Currently adopted plan	**1a**				
2	**Comprehensive Transportation Plan** Vision Plan to address population and employment buildout beyond the year 2035; no budget constraint	**2a**		**2b**		
2035 LRTP Alternatives						
3	**Intensive Highway** Emphasize highway investment to address transportation needs	**3a**	**3b**		**3c**	
4	**Intensive Fixed Guideway** Light rail and other grade separated transit	**4a**			**4b**	**4c**
5	**Intensive Bus Transit** Emphasize bus transit service to address transportation needs	**5a**			**5b**	**5c**
6	**Moderate Multimodal** Continue current investment trends with some shift to non-automobile modes	**6a**			**6b**	**6c**
7	**System Preservation** (2) Preserve effectiveness of existing transportation using ITS, TDM, and CMS-TSM projects and policies					

(1) Each combination of a Transportation System and Land Use Scenario creates an Alternative and will require a unique travel demand model run.

(2) The Triangle Regional Model (TRM) is not designed to be very sensitive to changes in ITS, TDM, and CMS-TSM projects and policies. Therefore, the System Preservation Alternative will not require additional model runs.

Summary of Transportation Systems (Alternatives)(1)

Transportation System	Highway	Bus Transit	Fixed Guideway
2030 LRTP	• **518** lane miles added • HOV/HOT on I-40 and part of NC 147 • Triangle Parkway (toll) • US 15-501 freeway • 7 "loop" projects	• Major regular, express and regional bus expansion • Peak headways **10-15 minutes** • Off-Peak headways **20-30 minutes**	• Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill
CTP	• **703** lane miles added • HOV/HOT on I-40, NC 147, East End Connector, US 70 and I-85 • Triangle Parkway (toll) • US 15-501 freeway • 7 "loop" projects	• Major regular, express and regional bus expansion • Peak headways **5-7 minutes** • Off-Peak headways **7-15 minutes** • BRT in Chapel Hill • Includes all **STAC** recommendations	• Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill • Includes all **STAC** recommendations
Intensive Highway	• **665** lane miles added • HOV/HOT on I-40, I-85 and part of NC 147 • Triangle Parkway (toll) • US 15-501 freeway • 7 "loop" projects	• Minor regular, express and regional bus expansion • Peak headways **15-30 minutes** • Off-Peak headways **30-45 minutes**	• No fixed guideway service
Intensive Fixed Guideway	• **276** lane miles added • No HOV/HOT • Triangle Parkway (toll) • 6 "loop" projects	• Moderate regular, express and regional bus expansion • Peak headways **7-10 minutes** • Off-Peak headways **15-20 minutes** • BRT in Chapel Hill • Includes all **STAC** recommendations	• Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill • Includes all **STAC** recommendations
Intensive Bus Transit	• **324** lane miles added • HOV/HOT on I-40 • Triangle Parkway (toll) • 6 "loop" projects	• Major regular, express and regional bus expansion • Peak headways **5-7 minutes** • Off-Peak headways **10-15 minutes**	• No fixed guideway service
Moderate Multimodal	• **285** lane miles added • No HOV/HOT • Triangle Parkway (toll) • 7 "loop" projects	• Moderate regular, express and regional bus expansion • Peak headways **15 minutes** • Off-Peak headways **30 minutes**	• Commuter Rail – Burlington to Raleigh; and Selma to Durham

(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.

2035 LRTP and CTP
Alternatives – Performance Measures

Purpose of Performance Measures

Performance Measures provide a general indicator of the a transportation system from a variety of perspectives such as mobility, travel time, congestion, mode choice, air quality, financial, and environmental justice (i.e., perspective of minority and low-income populations). The measures are not specific to a particular travel corridor but instead cover the entire transportation system, and therefore are useful for comparing the efficiency and effectiveness of the different transportation Alternatives. Most of the data used for calculating the Performance Measures comes from the Triangle Regional Model, which is a travel demand model that forecasts future travel statistics based on a set of assumptions concerning the highway network, transit service and other transportation facilities.

The tables in this section provide the Performance Measures for the fifteen different transportation Alternatives that are being analyzed. Each Alternative is a combination of one of the five transportation systems, including:

- Comprehensive Transportation Plan;
- Intensive Highway;
- Intensive Fixed Guideway;
- Intensive Bus Transit; and,
- Moderate Multimodal,

And, one of the five Land Use Scenarios, including:

- Baseline;
- Constrained;
- Buildout;
- Travel Corridors; and,
- Transit Node.

(Note: For additional information on the development of the Alternatives, see Section 4, "Alternatives – Detailed Description" in this report.)

Performance Measures Tables

For comparison purposes, the Performance Measure tables are organized by transportation system type, plus the first table compares all the Alternatives that use the Baseline Land Use Scenario. The order of the tables on the following pages is:

1. Alternatives using Baseline SE Data
2. Comprehensive Transportation Plan (CTP) Alternatives
3. Intensive Highway Alternatives
4. Intensive Fixed Guideway Alternatives
5. Intensive Bus Transit
6. Moderate Multimodal Alternatives

Use of E+C

The column in the table designated as E+C indicates Existing plus Committed. The E+C is composed of a transportation network of the existing and committed highway and transit facilities, and the 2035 socioeconomic data (i.e., population and employment in the year 2035). Thus, the E+C serves as a benchmark for comparing how much the performance measures improve with the transportation investments in the different Alternatives.

Targets

The DCHC MPO set Targets – Good, Better and Best – for each Performance Measure. The Target values are shown in the right side columns and serve as another benchmark for comparing the different Alternatives.

2035 Long Range Transportation Plan
Alternatives Using Baseline Land Use Scenario

		7a	2a	3a	4a	5a	6a	Targets		
		E+C	CTP	Highway	Fixed Guideway	Bus Transit	Mod. Multimodal	Good	Better	Best
1	**Mobility Targets**									
1.1	VMT Per Capita (daily miles)	31.6	31.2	32.1	31.4	31.5	31.3	29.1	27.5	24.5
1.2	Total VMT Change from 2035 Baseline	N/A	-1.1%	1.8%	-0.4%	-0.2%	-0.8%	5%	10%	20%
1.3	VHT per capita (daily minutes)	50.0	42.3	43.7	45.9	46.0	45.4	50.5	47.9	42.5
1.4	Total VHT Change from 2035 Baseline	N/A	-15.4%	-12.5%	-8.0%	-7.8%	-9.1%	5%	10%	20%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	10.4%	2.8%	2.8%	5.3%	5.7%	5.3%	12%	8%	4%
1.6	Average Travel Time (work trips) (daily minutes)	25.8	22.6	22.6	23.5	23.5	23.5	24	22	20
1.7	Average Travel Time (all trips) (daily minutes)	17.2	16.2	16.2	16.4	16.5	16.5	15	14	13
1.8	Average Travel Time (all peak trips) (daily minutes)	20.5	18.6	18.5	19.1	19.1	19.2	19	17	15
2	**Transit Targets**									
2.1	Transit Mode Share (all trips)	2.3%	3.6%	2.8%	3.5%	3.3%	2.9%	3.0%	5.0%	8.0%
2.2	Percent Ridership change from 2035 Baseline	N/A	77.6%	23.4%	78.3%	61.8%	26.5%	100%	200%	400%
2.3	Transit Mode Share (peak trips)	2.5%	4.0%	3.1%	3.8%	3.6%	3.2%	5.0%	8.0%	12.0%
2.4	Daily Transit Trips per Capita	0.13	0.20	0.15	0.19	0.18	0.16	0.29	0.43	0.72
3	**TDM Targets**									
3.1	Percent SOV Trip Share (all trips)	54.8%	53.5%	54.3%	53.8%	53.9%	54.1%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Change from 2035 Baseline	N/A	-1.0%	0.6%	-1.5%	-1.4%	-0.3%	5%	10%	20%
3.3	Percent SOV Trip Share (peak trips)	58.8%	57.3%	58.1%	57.7%	57.7%	57.9%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.7%	6.7%	6.8%	6.8%	6.7%	9%	11%	15%
3.5	Percent Non-motorized trip change from 2035 Baseline	N/A	0.2%	0.2%	0.0%	0.0%	0.0%	30%	59%	117%
4	**Air Quality and Environmental Targets** (Guide data is the federal Air Quality Conformity budget)									
4.1	Carbon Monoxide - CO (kg/day)	N/A	N/A	N/A	N/A	N/A	N/A	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)	N/A	N/A	N/A	N/A	N/A	N/A			
4.3	Greenhouse Gas Reduction (community target)	N/A	N/A	N/A	N/A	N/A	N/A	10%	20%	30%
5	**Financial/Economics Targets**									
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)	N/A	N/A	N/A	N/A	N/A	N/A	0.90	0.95	1.00
5.2	Cost per Trip	N/A	N/A	N/A	N/A	N/A	N/A	$0.20	$0.18	$0.16
5.3	Daily Cost of Congestion (in million $)	730	355	385	537	538	521	1,030	848	666
6	**Environment Justice/Land Use Targets**									
6.1	Percent of EJ Population within 1/4 mile of transit	31%	35%	33%	34%	33%	33%	65%	75%	85%
6.2	Percent of Employment within 1/4 mile of transit	75%	86%	80%	84%	83%	81%	75%	80%	90%
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	N/A	N/A	N/A	N/A	N/A	N/A	1.00	0.95	0.90

2035 Long Range Transportation Plan
Comprehensive Transportation Plan Alternatives

Setting the Alternatives Model Determination Financial Measures

		7a	2a	2b	Targets		
		E+C	Baseline	Buildout	Good	Better	Best
1	**Mobility Targets**						
1.1	VMT Per Capita (daily miles)	31.6	31.2	32.2	29.1	27.5	24.5
1.2	Total VMT Change from 2035 Baseline	N/A	-1.1%	49.4%	5%	10%	20%
1.3	VHT per capita (daily minutes)	50.0	42.3	55.1	50.5	47.9	42.5
1.4	Total VHT Change from 2035 Baseline	N/A	-15.4%	61.3%	5%	10%	20%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	10.4%	2.8%	15.9%	12%	8%	4%
1.6	Average Travel Time (work trips) (daily minutes)	25.8	22.6	25.7	24	22	20
1.7	Average Travel Time (all trips) (daily minutes)	17.2	16.2	18.3	15	14	13
1.8	Average Travel Time (all peak trips) (daily minutes)	20.5	18.6	21.8	19	17	15
2	**Transit Targets**						
2.1	Transit Mode Share (all trips)	2.3%	3.6%	2.4%	3.0%	5.0%	8.0%
2.2	Percent Ridership change from 2035 Baseline	N/A	77.6%	108.4%	100%	200%	400%
2.3	Transit Mode Share (peak trips)	2.5%	4.0%	2.6%	5.0%	8.0%	12.0%
2.4	Daily Transit Trips per Capita	0.13	20.3%	13.0%	0.29	0.43	0.72
3	**TDM Targets**						
3.1	Percent SOV Trip Share (all trips)	54.8%	53.5%	53.8%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Change from 2035 Baseline	N/A	-1.0%	-1.8%	5%	10%	20%
3.3	Percent SOV Trip Share (peak trips)	58.8%	57.3%	58.9%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.7%	8.0%	9%	11%	15%
3.5	Percent Non-motorized trip change from 2035 Baseline	N/A	0.2%	69.3%	30%	59%	117%
4	**Air Quality and Environmental Targets** (Guide data is the federal Air Quality Conformity budget)						
4.1	Carbon Monoxide - CO (kg/day)	N/A	N/A	N/A	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)	N/A	N/A	N/A			
4.3	Greenhouse Gas Reduction (community target)	N/A	N/A	N/A	10%	20%	30%
5	**Financial/Economics Targets**						
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)	N/A	N/A	N/A	0.90	0.95	1.00
5.2	Cost per Trip	N/A	N/A	N/A	$0.20	$0.18	$0.16
5.3	Cost of Congestion (in million $)	730	355	1283	1,030	848	666
6	**Environment Justice/Land Use Targets**						
6.1	Percent of EJ Population within 1/4 mile of transit	31%	0.3	0.3	65%	75%	85%
6.2	Percent of Employment within 1/4 mile of transit	75%	$1	$1	75%	80%	90%
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	N/A	N/A	N/A	1.00	0.95	0.90

2035 Long Range Transportation Plan
Highway Intensive Alternatives

		7a	3a	3b	3c	Targets		
		E+C	Baseline-Test	Constrained	Corridor	Good	Better	Best
1	**Mobility Targets**							
1.1	VMT Per Capita (daily miles)	31.6	32.1	32.4	31.9	29.1	27.5	24.5
1.2	Total VMT Reduction from 2035 Baseline	N/A	1.8%	-7.0%	0.8%	5%	10%	20%
1.3	VHT per capita (daily minutes)	50.0	43.7	42.7	43.3	50.5	47.9	42.5
1.4	Total VHT Reduction from 2035 Baseline	N/A	-12.5%	-22.6%	-13.5%	5%	10%	20%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	10.4%	2.8%	2.4%	2.9%	12%	8%	4%
1.6	Average Travel Time (work trips) (daily minutes)	25.8	22.6	21.4	21.9	24	22	20
1.7	Average Travel Time (all trips) (daily minutes)	17.2	16.2	15.7	15.9	15	14	13
1.8	Average Travel Time (all peak trips) (daily minutes)	20.5	18.5	17.9	18.2	19	17	15
2	**Transit Targets**							
2.1	Transit Mode Share (all trips)	2.3%	2.8%	3.0%	2.8%	3.0%	5.0%	8.0%
2.2	Percent Ridership Increase from 2035 Baseline	N/A	23.4%	18.5%	25.4%	100%	200%	400%
2.3	Transit Mode Share (work trips)	2.5%	3.1%	3.4%	3.2%	5.0%	8.0%	12.0%
2.4	Daily Transit Trips per Capita	0.13	15.4%	16.5%	15.6%	0.29	0.43	0.72
3	**TDM Targets**							
3.1	Percent SOV Trip Share (all trips)	54.8%	54.3%	54.4%	54.3%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Change from 2035 Baseline	N/A	0.6%	-9.5%	-0.9%	5%	10%	20%
3.3	Percent SOV Trip Share (peak trips)	58.8%	58.1%	58.0%	58.2%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.7%	6.7%	6.9%	9%	11%	15%
3.5	Percent Non-motorized trip change from 2035 Baseline	N/A	0.2%	-10.8%	1.1%	30%	59%	117%
4	**Air Quality and Environmental Targets** (Guide data is the federal Air Quality Conformity budget)							
4.1	Carbon Monoxide - CO (kg/day)	N/A	N/A	N/A	N/A	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)	N/A	N/A	N/A	N/A			
4.3	Greenhouse Gas Reduction (community target)	N/A	N/A	N/A	N/A	10%	20%	30%
5	**Financial/Economics Targets**							
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)	N/A	N/A	N/A	N/A	0.90	0.95	1.00
5.2	Cost per Trip	N/A	N/A	N/A	N/A	$0.20	$0.18	$0.16
5.3	Cost of Congestion (in million $)	730	385	287	383	1,030	848	666
6	**Environment Justice/Land Use Targets**							
6.1	Percent of EJ Population within 1/4 mile of transit	31%	33%	35%	35%	65%	75%	85%
6.2	Percent of Employment within 1/4 mile of transit	75%	80%	80%	82%	75%	80%	90%
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	N/A	N/A	N/A	N/A	1.00	0.95	0.90

2035 Long Range Transportation Plan
Intensive Bus Transit Alternatives

		7a	5a	5b	5c	Targets		
		E+C	Baseline	Corridor	Transit Nodes	Good	Better	Best
1	**Mobility Targets**							
1.1	VMT Per Capita (daily miles)	31.6	31.5	31.4	31.4	29.1	27.5	24.5
1.2	Total VMT Reduction from 2035 Baseline	N/A	-0.2%	-0.8%	-0.8%	5%	10%	20%
1.3	VHT per capita (daily minutes)	50.0	46.0	45.8	45.8	50.5	47.9	42.5
1.4	Total VHT Reduction from 2035 Baseline	N/A	-7.8%	-8.5%	-8.5%	5%	10%	20%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	10.4%	5.7%	5.5%	5.5%	12%	8%	4%
1.6	Average Travel Time (work trips) (daily minutes)	25.8	23.5	22.7	22.7	24	22	20
1.7	Average Travel Time (all trips) (daily minutes)	17.2	16.5	16.3	16.3	15	14	13
1.8	Average Travel Time (all peak trips) (daily minutes)	20.5	19.1	18.8	18.8	19	17	15
2	**Transit Targets**							
2.1	Transit Mode Share (all trips)	2.3%	3.3%	3.4%	3.4%	3.0%	5.0%	8.0%
2.2	Percent Ridership Increase from 2035 Baseline	N/A	83.7%	87.2%	87.2%	100%	200%	400%
2.3	Transit Mode Share (work trips)	2.5%	3.6%	3.7%	3.7%	5.0%	8.0%	12.0%
2.4	Daily Transit Trips per Capita	0.13	18.4%	18.5%	19.1%	0.29	0.43	0.72
3	**TDM Targets**							
3.1	Percent SOV Trip Share (all trips)	54.8%	53.9%	53.8%	53.8%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Change from 2035 Baseline	N/A	-1.4%	-1.5%	-1.5%	5%	10%	20%
3.3	Percent SOV Trip Share (peak trips)	58.8%	57.7%	57.8%	57.6%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.8%	6.9%	6.9%	9%	11%	15%
3.5	Percent Non-motorized trip change from 2035 Baseline	N/A	-1.1%	1.0%	0.5%	30%	59%	117%
4	**Air Quality and Environmental Targets** (Guide data is the federal Air Quality Conformity budget)							
4.1	Carbon Monoxide - CO (kg/day)	N/A	N/A	N/A	N/A	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)	N/A	N/A	N/A	N/A			
4.3	Greenhouse Gas Reduction (community target)	N/A	N/A	N/A	N/A	10%	20%	30%
5	**Financial/Economics Targets**							
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)	N/A	N/A	N/A	N/A	0.90	0.95	1.00
5.2	Cost per Trip	N/A	N/A	N/A	N/A	$0.20	$0.18	$0.16
5.3	Cost of Congestion (in million $)	730	538	539	539	1,030	848	666
6	**Environment Justice/Land Use Targets**							
6.1	Percent of EJ Population within 1/4 mile of transit	31%	33%	35%	35%	65%	75%	85%
6.2	Percent of Employment within 1/4 mile of transit	75%	83%	84%	84%	75%	80%	90%
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	N/A	N/A	N/A	N/A	1.00	0.95	0.90

2035 Long Range Transportation Plan
Moderate Multimodal Alternatives

		7a	6a	6b	6c	Targets		
		E+C	Baseline	Corridor	Transit Nodes	Good	Better	Best
1	**Mobility Targets**							
1.1	VMT Per Capita (daily miles)	31.6	31.3	31.5	31.4	29.1	27.5	24.5
1.2	Total VMT Reduction from 2035 Baseline	N/A	-0.8%	-0.4%	-1.7%	5%	10%	20%
1.3	VHT per capita (daily minutes)	50.0	45.4	45.3	45.4	50.5	47.9	42.5
1.4	Total VHT Reduction from 2035 Baseline	N/A	-9.1%	-9.6%	-10.1%	5.0%	10.0%	20.0%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	10.4%	5.3%	5.6%	5.7%	12.0%	8.0%	4.0%
1.6	Average Travel Time (work trips) (daily minutes)	25.8	23.5	22.6	23.2	24.0	22.0	20.0
1.7	Average Travel Time (all trips) (daily minutes)	17.2	16.5	16.2	16.4	15.0	14.0	13.0
1.8	Average Travel Time (all peak trips) (daily minutes)	20.5	19.2	18.7	19.0	19.0	17.0	15.0
2	**Transit Targets**							
2.1	Transit Mode Share (all trips)	2.3%	2.9%	2.6%	2.6%	3.0%	5.0%	8.0%
2.2	Percent Ridership Increase from 2035 Baseline	N/A	26.5%	10.3%	12.0%	100%	200%	400%
2.3	Transit Mode Share (work trips)	2.5%	3.2%	2.8%	2.9%	5.0%	8.0%	12.0%
2.4	Daily Transit Trips per Capita	0.13	15.8%	14.0%	14.5%	0.29	0.43	0.72
3	**TDM Targets**							
3.1	Percent SOV Trip Share (all trips)	54.8%	54.1%	54.0%	53.8%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Change from 2035 Baseline	N/A	-0.3%	-2.6%	-1.8%	5%	10%	20%
3.3	Percent SOV Trip Share (peak trips)	58.8%	57.9%	58.2%	57.9%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.7%	7.0%	6.9%	9%	11%	15%
3.5	Percent Non-motorized trip change from 2035 Baseline	N/A	0.0%	0.9%	1.6%	30%	59%	117%
4	**Air Quality and Environmental Targets** (Guide data is the federal Air Quality Conformity budget)							
4.1	Carbon Monoxide - CO (kg/day)	N/A	N/A	N/A	N/A	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)	N/A	N/A	N/A	N/A			
4.3	Greenhouse Gas Reduction (community target)	N/A	N/A	N/A	N/A	10%	20%	30%
5	**Financial/Economics Targets**							
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)	N/A	N/A	N/A	N/A	0.90	0.95	1.00
5.2	Cost per Trip	N/A	N/A	N/A	N/A	$0.20	$0.18	$0.16
5.3	Cost of Congestion (in million $)	730	521	514	513	1,030	848	666
6	**Environment Justice/Land Use Targets**							
6.1	Percent of EJ Population within 1/4 mile of transit	31%	33%	35%	36%	65%	75%	85%
6.2	Percent of Employment within 1/4 mile of transit	75%	81%	83%	83%	75%	80%	90%
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	N/A	N/A	N/A	N/A	1.00	0.95	0.90

2035 LRTP and CTP
Alternatives – Evaluation Measures

Purpose of Evaluation Measures

Evaluation Measures are very similar to Performance Measures. Evaluation Measures indicate the general performance of a transportation system and therefore are useful for comparing the efficiency and effectiveness of the different transportation Alternatives. All of the data used for calculating the Evaluation Measures comes from the Triangle Regional Model. The Evaluation Measures provides a more detailed set of statistics than the Performance Measures.

The tables in this section are presented in the same order as the Performance Measures in the preceding pages. The only significant difference in the format will be:

- The Performance Measures compares the Alternatives' values to a set of Targets, while the Evaluation Measures compares the Alternatives' values to the E+C values. The E+C is composed of a transportation network of the existing and committed highway and transit facilities, and the 2035 socioeconomic data (i.e., population and employment in the year 2035). Thus, the E+C serves as a benchmark for comparing how much the evaluation measures improve with the transportation investments in the different Alternatives.
- The Evaluation Measures table has columns are in the right-hand side that calculate the difference between the E+C and Alternatives values.

Please note that there are two pages for each Evaluation Measure table.

DCHC MPO Alternatives

Evaluation Measures -- Baseline vs. E+C

	Measures	2035 E+C	Baseline SE Data					(Percent change from 2035 E+C)				
			CTP	Highway	Fixed Guideway	Bus Transit	Mod. Multi.	CTP	Highway	Fixed Guideway	Bus Transit	Mod. Multi.
1	**Performance Measures**											
1.1	Total VMT (daily)	17,397,077	17,204,339	17,703,440	17,333,966	17,366,268	17,264,268	-1%	2%	0%	0%	-1%
1.2	Total VHT (daily)	459,072	388,572	401,467	422,181	423,072	417,458	-15%	-13%	-8%	-8%	-9%
1.3	Average Speed by Facility (miles/hour)											
1.3.1	- Freeway	57	61	61	59	59	59	7%	6%	4%	4%	4%
1.3.2	- Arterial	36	40	40	38	38	38	13%	13%	6%	6%	6%
1.3.3	- All Facility	45	49	49	47	47	48	11%	11%	6%	6%	7%
1.4	Peak Average Speed by Facility (miles/hour)											
1.4.1	- Freeway	54	60	59	58	57	57	10%	9%	6%	6%	6%
1.4.2	- Arterial	34	39	39	36	36	36	17%	16%	8%	8%	8%
1.4.3	- All Facility	42	48	48	45	45	46	14%	14%	7%	7%	8%
1.5	Average Travel Time - All Trips	17	16	16	16	16	17	-5%	-6%	-4%	-4%	-4%
1.6	Average Travel Time - Work Trips	26	23	23	23	23	23	-13%	-12%	-9%	-9%	-9%
1.7	Peak Average Travel Time - All Trips	21	19	19	19	19	19	-9%	-10%	-7%	-7%	-6%
1.8	Hours of Delay (daily)	112,862	54,365	58,666	81,929	82,216	79,980	-52%	-48%	-27%	-27%	-29%
1.8.1	CV Hours of Delay (daily)	4,580	2,329	2,566	3,551	3,563	3,377	-49%	-44%	-22%	-22%	-26%
1.9	Percent of VMT experiencing congestion - All Day											
1.9.1	- Freeway	5.8%	1.9%	1.8%	2.9%	3.3%	3.0%	-67%	-69%	-50%	-43%	-48%
1.9.2	- Arterial	9.2%	2.2%	2.6%	5.2%	5.3%	5.3%	-76%	-72%	-43%	-42%	-42%
1.9.3	- All Facility	6.4%	1.8%	1.9%	3.5%	3.7%	3.5%	-72%	-70%	-45%	-42%	-45%
1.10.	Percent of VMT experiencing congestion - Peak											
1.10.1	- Freeway	10.5%	3.2%	2.9%	5.0%	5.7%	5.0%	-70%	-72%	-52%	-46%	-52%
1.10.2	- Arterial	13.8%	3.1%	3.4%	7.4%	7.6%	7.5%	-78%	-75%	-46%	-45%	-46%
1.10.3	- All Facility	10.4%	2.8%	2.8%	5.3%	5.7%	5.3%	-73%	-73%	-49%	-45%	-49%
1.10.4	Degree of congestion (V/C >1) on designated truck routes	8.4%	2.0%	2.1%	5.5%	5.6%	5.0%	-76%	-75%	-35%	-33%	-40%
1.10.5	Degree of congestion (V/C >1) on facilities w/bus routes	8.7%	2.1%	2.9%	4.3%	4.9%	4.1%	-76%	-67%	-51%	-44%	-53%
2	**Mode Share Measures**											
2.1	Number Mode Choice - All Trips											
2.1.1	- Drive alone (single occupant vehicle -SOV)	1,660,787	1,644,098	1,669,973	1,635,486	1,638,253	1,656,077	-1%	1%	-2%	-1%	0%
2.1.2	- Carpool (Share ride)	1,095,943	1,107,693	1,112,086	1,090,378	1,095,342	1,109,840	1%	1%	-1%	0%	1%
2.1.3	- Bus	69,664	97,883	85,115	95,266	101,323	87,345	41%	22%	37%	45%	25%
2.1.4	- Rail	-	14,086	-	11,752	-	-	0%	0%	0%	0%	0%
2.1.5	- Non-Motorized (Bike and Walk)	206,552	206,971	206,969	206,616	206,616	206,533	0%	0%	0%	0%	0%

DCHC MPO Alternatives

Evaluation Measures -- Baseline vs. E+C

	Measures	2035 E+C	Baseline SE Data					(Percent change from 2035 E+C)				
			CTP	Highway	Fixed Guideway	Bus Transit	Mod. Multi.	CTP	Highway	Fixed Guideway	Bus Transit	Mod. Multi.
2.2	Number Mode Choice - Peak Hours											
2.2.1	- Drive alone (single occupant vehicle -SOV)	834,496	833,192	844,070	823,194	824,154	831,906	0%	1%	-1%	-1%	0%
2.2.2	- Carpool (Share ride)	550,209	562,135	563,600	549,562	551,949	558,949	2%	2%	0%	0%	2%
2.2.3	- Bus	35,228	49,505	45,174	47,618	51,832	45,738	41%	28%	35%	47%	30%
2.2.4	- Rail	-	8,279	-	6,851	-	-	0%	0%	0%	0%	0%
2.2.5	- Non-Motorized (Bike and Walk)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2.3	Number Mode Choice - Non Work Trips											
2.3.1	- Drive alone (single occupant vehicle -SOV)	1,098,746	1,083,925	1,102,354	1,080,093	1,082,954	1,096,473	-1%	0%	-2%	-1%	0%
2.3.2	- Carpool (Share ride)	998,378	1,011,159	1,014,171	995,906	1,000,043	1,012,646	1%	2%	0%	0%	1%
2.3.3	- Bus	53,261	69,047	61,392	67,895	72,103	62,953	30%	15%	27%	35%	18%
2.3.4	- Rail	-	10,462	-	8,974	-	-	0%	0%	0%	0%	0%
2.3.5	- Non-Motorized (Bike and Walk)	199,646	200,049	200,047	199,712	199,712	199,632	0%	0%	0%	0%	0%
2.4	Daily Bicycle and Pedestrian Trips	206,552	206,971	206,969	206,616	206,616	206,533	0%	0%	0%	0%	0%
3	**Transit Measures**											
3.1	Average Weekday Transit Ridership											
3.1.1	- TTA (Including Rail)	4,900	37,963	7,649	29,079	9,084	8,181	675%	56%	493%	85%	67%
3.1.2	- CAT	22,874	20,676	26,059	37,936	39,493	22,512	-10%	14%	66%	73%	-2%
3.1.3	- CHT	44,990	71,431	55,560	67,194	65,020	55,113	59%	23%	49%	45%	23%
3.1.4	- DATA	23,312	68,911	38,099	66,833	66,704	47,937	196%	63%	187%	186%	106%
3.1.5	- NCSU	20,080	19,866	21,148	18,429	17,581	20,043	-1%	5%	-8%	-12%	0%
3.1.6	- DUKE	14,642	11,526	13,331	11,045	11,498	11,123	-21%	-9%	-25%	-21%	-24%
3.1.7	- C-Tran	1,557	4,648	1,441	5,515	4,816	2,528	199%	-7%	254%	209%	62%
3.1.8	Total	132,358	235,025	163,291	236,035	214,200	167,442	78%	23%	78%	62%	27%
3.2	Rail											
4	**Demographics Measures**											
4.1	Population	551,362	551,362	551,362	551,362	551,362	551,362	0%	0%	0%	0%	0%
4.2	Employment	389,249	389,249	389,249	389,249	389,249	389,249	0%	0%	0%	0%	0%
4.3	Total Daily Trips	3,032,947	3,070,733	3,074,145	3,039,499	3,041,534	3,059,795	1%	1%	0%	0%	1%
4.4	Total Daily Work Trips	682,913	696,088	696,180	686,918	686,721	688,090	2%	2%	1%	1%	1%
4.5	Total Daily Non-Work Trips	2,350,033	2,374,644	2,377,965	2,352,580	2,354,813	2,371,705	1%	1%	0%	0%	1%

DCHC MPO Alternatives

Evaluation Measures -- CTP vs. E+C

	Measures	2035 E+C	Comprehensive Transportation Plan		(Percent change from 2035 E+C)	
			Baseline	Buildout	Baseline	Buildout
1	Performance Measures					
1.1	Total VMT (daily)	17,397,077	17,204,339	25,987,013	-1%	49%
1.2	Total VHT (daily)	459,072	388,572	740,388	-15%	61%
1.3	Average Speed by Facility (miles/hour)					
1.3.1	- Freeway	57	61	53	7%	-7%
1.3.2	- Arterial	36	40	35	13%	0%
1.3.3	- All Facility	45	49	43	11%	-4%
1.4	Peak Average Speed by Facility (miles/hour)					
1.4.1	- Freeway	54	60	49	10%	-9%
1.4.2	- Arterial	34	39	33	17%	-3%
1.4.3	- All Facility	42	48	39	14%	-7%
1.5	Average Travel Time - All Trips	17.2	16	18	-5%	6%
1.6	Average Travel Time - Work Trips	25.8	23	26	-13%	0%
1.7	Peak Average Travel Time - All Trips	20.5	19	22	-9%	6%
1.8	Hours of Delay (daily)	112,862	54,365	228,383	-52%	102%
1.8.1	CV Hours of Delay (daily)	4,580	2,329	10,258	-49%	124%
1.9	Percent of VMT experiencing congestion - All Day					
1.9.1	- Freeway	5.8%	1.9%	11.6%	-67%	100%
1.9.2	- Arterial	9.2%	2.2%	10.6%	-76%	15%
1.9.3	- All Facility	6.4%	1.8%	10.4%	-72%	63%
1.10.	Percent of VMT experiencing congestion - Peak					
1.10.1	- Freeway	10.5%	3.2%	17.1%	-70%	63%
1.10.2	- Arterial	13.8%	3.1%	16.7%	-78%	21%
1.10.3	- All Facility	10.4%	2.8%	15.9%	-73%	53%
1.10.4	Degree of congestion (V/C >1) on designated truck routes	8.4%	2.0%	11.1%	-76%	32%
1.10.5	Degree of congestion (V/C >1) on facilities w/bus routes	8.7%	2.1%	11.4%	-76%	31%
2	Mode Share Measures					
2.1	Number Mode Choice - All Trips					
2.1.1	- Drive alone (single occupant vehicle -SOV)	1,660,787	1,644,098	2,358,740	-1%	42%
2.1.2	- Carpool (Share ride)	1,095,943	1,107,693	1,571,327	1%	43%
2.1.3	- Bus	69,664	97,883	89,791	41%	29%
2.1.4	- Rail		14,086	14,776		
2.1.5	- Non-Motorized (Bike and Walk)	206,552	206,971	349,685	0%	69%

DCHC MPO Alternatives

Evaluation Measures -- CTP vs. E+C

	Measures	2035 E+C	Comprehensive Transportation Plan		(Percent change from 2035 E+C)	
			Baseline	Buildout	Baseline	Buildout
2.2	Number Mode Choice - Peak Hours					
2.2.1	- Drive alone (single occupant vehicle -SOV)	834,496	833,192	1,224,859	0%	47%
2.2.2	- Carpool (Share ride)	550,209	562,135	799,873	2%	45%
2.2.3	- Bus	35,228	49,505	44,740	41%	27%
2.2.4	- Rail	0	8,279	8,716		
2.2.5	- Non-Motorized (Bike and Walk)	N/A	N/A	N/A	N/A	N/A
2.3	Number Mode Choice - Non Work Trips					
2.3.1	- Drive alone (single occupant vehicle -SOV)	1,098,746	1,083,925	1,480,548	-1%	35%
2.3.2	- Carpool (Share ride)	998,378	1,011,159	1,422,126	1%	42%
2.3.3	- Bus	53,261	69,047	57,212	30%	7%
2.3.4	- Rail	0	10,462	9,994		
2.3.5	- Non-Motorized (Bike and Walk)	199,646	200,049	336,060	0%	68%
2.4	Daily Bicycle and Pedestrian Trips	206,552	206,971	349,685	0%	69%
3	Transit Measures					
3.1	Average Weekday Transit Ridership					
3.1.1	- TTA (Including Rail)	4,900	37,963	56,879	675%	1061%
3.1.2	- CAT	22,874	20,676	39,444	-10%	72%
3.1.3	- CHT	44,990	71,431	63,733	59%	42%
3.1.4	- DATA	23,312	68,911	75,688	196%	225%
3.1.5	- NCSU	20,080	19,866	21,000	-1%	5%
3.1.6	- DUKE	14,642	11,526	9,104	-21%	-38%
3.1.7	- CARY	1,557	4,648	9,967	199%	540%
3.1.8	Total	132,358	235,025	275,819	78%	108%
3.2	Rail	0				
4	Demographics Measures					
4.1	Population	551,362	551,362	806,286	0%	46%
4.2	Employment	389,249	389,249	570,835	0%	47%
4.3	Total Daily Trips	3,032,947	3,070,733	4,384,321	1%	45%
4.4	Total Daily Work Trips	682,913	696,088	1,078,378	2%	58%
4.5	Total Daily Non-Work Trips	2,350,033	2,374,644	3,305,942	1%	41%

DCHC MPO Alternatives

Evaluation Measures -- Highway vs. E+C

	Measures	2035 E+C	Highway			(Percent Change from 2035 E+C)		
			Baseline	Constrained	Corridor	Baseline	Constrained	Corridor
1	**Performance Measures**							
1.1	Total VMT (daily)	17,397,077	17,703,440	16,185,055	17,533,311	2%	-7%	1%
1.2	Total VHT (daily)	459,072	401,467	355,259	397,097	-13%	-23%	-14%
1.3	Average Speed by Facility (miles/hour)							
1.3.1	- Freeway	57	61	62	61	6%	8%	6%
1.3.2	- Arterial	36	40	41	40	13%	14%	12%
1.3.3	- All Facility	45	49	50	49	11%	13%	11%
1.4	Peak Average Speed by Facility (miles/hour)							
1.4.1	- Freeway	54	59	60	59	9%	11%	9%
1.4.2	- Arterial	34	39	40	39	16%	19%	16%
1.4.3	- All Facility	42	48	49	48	14%	17%	14%
1.5	Average Travel Time - All Trips	17.2	16.2	15.7	15.9	-6%	-8%	-7%
1.6	Average Travel Time - Work Trips	25.8	22.6	21.4	21.9	-12%	-17%	-15%
1.7	Peak Average Travel Time - All Trips	20.5	18.5	17.9	18.2	-10%	-13%	-11%
1.8	Hours of Delay (daily)	112,862	58,666	43,854	58,308	-48%	-61%	-48%
1.8.1	CV Hours of Delay (daily)	4,580	2,566	1,885	2,568	-44%	-59%	-44%
1.9	Percent of VMT experiencing congestion - All Day							
1.9.1	- Freeway	5.8%	1.8%	1.8%	1.9%	-69%	-69%	-67%
1.9.2	- Arterial	9.2%	2.6%	1.6%	2.7%	-72%	-83%	-71%
1.9.3	- All Facility	6.4%	1.9%	1.5%	2.0%	-70%	-77%	-69%
1.10.	Percent of VMT experiencing congestion - Peak			0.0%	0.0%			
1.10.1	- Freeway	10.5%	2.9%	3.0%	3.2%	-72%	-71%	-70%
1.10.2	- Arterial	13.8%	3.4%	2.4%	3.6%	-75%	-83%	-74%
1.10.3	- All Facility	10.4%	2.8%	2.4%	2.9%	-73%	-77%	-72%
1.10.4	Degree of congestion (V/C >1) on designated truck routes	8.4%	2.1%	1.6%	2.4%	-75%	-81%	-71%
1.10.5	Degree of congestion (V/C >1) on facilities w/bus routes	8.7%	2.9%	1.8%	3.0%	-67%	-79%	-66%
2	**Mode Share Measures**							
2.1	Number Mode Choice - All Trips							
2.1.1	- Drive alone (single occupant vehicle -SOV)	1,660,787	1,669,973	1,502,374	1,645,095	1%	-10%	-1%
2.1.2	- Carpool (Share ride)	1,095,943	1,112,086	994,680	1,090,070	1%	-9%	-1%
2.1.3	- Bus	69,664	85,115	82,181	85,581	22%	18%	23%
2.1.4	- Rail							
2.1.5	- Non-Motorized (Bike and Walk)	206,552	206,969	184,201	208,789	0%	-11%	1%

DCHC MPO Alternatives

Evaluation Measures -- Highway vs. E+C

	Measures	2035 E+C	Highway			(Percent Change from 2035 E+C)		
			Baseline	Constrained	Corridor	Baseline	Constrained	Corridor
2.2	Number Mode Choice - Peak Hours							
2.2.1	- Drive alone (single occupant vehicle -SOV)	834,496	844,070	759,681	836,024	1%	-9%	0%
2.2.2	- Carpool (Share ride)	550,209	563,600	505,496	554,471	2%	-8%	1%
2.2.3	- Bus	35,228	45,174	43,901	45,498	28%	25%	29%
2.2.4	- Rail	0				0%	0%	0%
2.2.5	- Non-Motorized (Bike and Walk)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2.3	Number Mode Choice - Non Work Trips							
2.3.1	- Drive alone (single occupant vehicle -SOV)	1,098,746	1,102,354	992,933	1,076,109	0%	-10%	-2%
2.3.2	- Carpool (Share ride)	998,378	1,014,171	906,371	992,104	2%	-9%	-1%
2.3.3	- Bus	53,261	61,392	59,509	61,232	15%	12%	15%
2.3.4	- Rail	0				0%	0%	0%
2.3.5	- Non-Motorized (Bike and Walk)	199,646	200,047	177,950	201,482	0%	-11%	1%
2.4	Daily Bicycle and Pedestrian Trips	206,552	206,969	184,201	208,789	0%	-11%	1%
3	**Transit Measures**							
3.1	Average Weekday Transit Ridership							
3.1.1	- TTA (Including Rail)	4,900	7,649	7,338	7,733	56%	50%	58%
3.1.2	- CAT	22,874	26,059	23,734	26,649	14%	4%	17%
3.1.3	- CHT	44,990	55,560	53,004	55,265	23%	18%	23%
3.1.4	- DATA	23,312	38,099	36,956	39,465	63%	59%	69%
3.1.5	- NCSU	20,080	21,148	21,565	22,097	5%	7%	10%
3.1.6	- DUKE	14,642	13,331	13,040	13,336	-9%	-11%	-9%
3.1.7	- C-Tran	1,557	1,441	1,218	1,400	-7%	-22%	-10%
3.1.8	Total	132,358	163,291	156,858	165,948	23%	19%	25%
3.2	Rail	0						
4	**Demographics Measures**							
4.1	Population	551,362	551,362	499,321	550,205	0%	-9%	0%
4.2	Employment	389,249	389,249	353,712	389,208	0%	-9%	0%
4.3	Total Daily Trips	3,032,947	3,074,145	2,763,437	3,029,536	1%	-9%	0%
4.4	Total Daily Work Trips	682,913	696,180	626,672	698,607	2%	-8%	2%
4.5	Total Daily Non-Work Trips	2,350,033	2,377,965	2,136,765	2,330,928	1%	-9%	-1%

DCHC MPO Alternatives

Evaluation Measures -- Fixed Guideway vs. E+C

	Measures	2035 E+C	Fixed Guideway			(Percent Change from 2035 E+C)		
			Baseline	Corridor	TransitNode	Baseline	Corridor	TransitNode
1	**Performance Measures**							
1.1	Total VMT (daily)	17,397,077	17,333,966	17,188,087	17,302,220	0%	-1%	-1%
1.2	Total VHT (daily)	459,072	422,181	417,700	423,775	-8%	-9%	-8%
1.3	Average Speed by Facility (miles/hour)							
1.3.1	- Freeway	57	59	59	59	4%	4%	4%
1.3.2	- Arterial	36	38	38	38	6%	6%	6%
1.3.3	- All Facility	45	47	47	47	6%	6%	5%
1.4	Peak Average Speed by Facility (miles/hour)							
1.4.1	- Freeway	54	58	57	57	6%	6%	6%
1.4.2	- Arterial	34	36	36	36	8%	8%	7%
1.4.3	- All Facility	42	45	45	45	7%	7%	7%
1.5	Average Travel Time - All Trips	17.2	16.4	16.2	16.4	-4%	-6%	-4%
1.6	Average Travel Time - Work Trips	25.8	23.5	22.7	23.4	-9%	-12%	-9%
1.7	Peak Average Travel Time - All Trips	20.5	19.1	18.7	19.0	-7%	-9%	-7%
1.8	Hours of Delay (daily)	112,862	81,929	81,070	84,689	-27%	-28%	-25%
1.8.1	CV Hours of Delay (daily)	4,580	3,551	3,572	3,628	-22%	-22%	-21%
1.9	Percent of VMT experiencing congestion - All Day							
1.9.1	- Freeway	5.8%	2.9%	2.8%	2.8%	-50%	-52%	-52%
1.9.2	- Arterial	9.2%	5.2%	5.5%	5.8%	-43%	-40%	-37%
1.9.3	- All Facility	6.4%	3.5%	3.6%	3.8%	-45%	-44%	-41%
1.10.	Percent of VMT experiencing congestion - Peak			0.0%	0.0%			
1.10.1	- Freeway	10.5%	5.0%	4.9%	4.9%	-52%	-53%	-53%
1.10.2	- Arterial	13.8%	7.4%	7.7%	8.3%	-46%	-44%	-40%
1.10.3	- All Facility	10.4%	5.3%	5.5%	5.7%	-49%	-47%	-45%
1.10.4	Degree of congestion (V/C >1) on designated truck routes	8.4%	5.5%	5.6%	6.0%	-35%	-33%	-29%
1.10.5	Degree of congestion (V/C >1) on facilities w/bus routes	8.7%	4.3%	5.1%	5.5%	-51%	-41%	-37%
2	**Mode Share Measures**							
2.1	Number Mode Choice - All Trips							
2.1.1	- Drive alone (single occupant vehicle -SOV)	1,660,787	1,635,486	1,614,140	1,627,932	-2%	-3%	-2%
2.1.2	- Carpool (Share ride)	1,095,943	1,090,378	1,071,425	1,089,572	-1%	-2%	-1%
2.1.3	- Bus	69,664	95,266	95,842	97,374	37%	38%	40%
2.1.4	- Rail		11,752	11979	12457			
2.1.5	- Non-Motorized (Bike and Walk)	206,552	206,616	208,488	209,968	0%	1%	2%

DCHC MPO Alternatives

Evaluation Measures -- Fixed Guideway vs. E+C

	Measures	2035 E+C	Fixed Guideway			(Percent Change from 2035 E+C)		
			Baseline	Corridor	TransitNode	Baseline	Corridor	TransitNode
2.2	Number Mode Choice - Peak Hours			0	0			
2.2.1	- Drive alone (single occupant vehicle -SOV)	834,496	823,194	818,748	818,409	-1%	-2%	-2%
2.2.2	- Carpool (Share ride)	550,209	549,562	542,628	548,250	0%	-1%	0%
2.2.3	- Bus	35,228	47,618	48,070	48,612	35%	36%	38%
2.2.4	- Rail	0	6851	6979	7188	0%	0%	0%
2.2.5	- Non-Motorized (Bike and Walk)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2.3	Number Mode Choice - Non Work Trips							
2.3.1	- Drive alone (single occupant vehicle -SOV)	1,098,746	1,080,093	1,054,678	1,076,549	-2%	-4%	-2%
2.3.2	- Carpool (Share ride)	998,378	995,906	976,229	994,902	0%	-2%	0%
2.3.3	- Bus	53,261	67,895	67,633	68,826	27%	27%	29%
2.3.4	- Rail	0	8974	9090	9452	0%	0%	0%
2.3.5	- Non-Motorized (Bike and Walk)	199,646	199,712	201,203	202,994	0%	1%	2%
2.4	Daily Bicycle and Pedestrian Trips	206,552	206,616	208,488	209,968	0%	1%	2%
3	**Transit Measures**							
3.1	Average Weekday Transit Ridership							
3.1.1	- TTA (Including Rail)	4,900	29,079	29,512	30,436	493%	502%	521%
3.1.2	- CAT	22,874	37,936	38,837	39,266	66%	70%	72%
3.1.3	- CHT	44,990	67,194	66,904	68,041	49%	49%	51%
3.1.4	- DATA	23,312	66,833	68,399	68,723	187%	193%	195%
3.1.5	- NCSU	20,080	18,429	18,999	19,015	-8%	-5%	-5%
3.1.6	- DUKE	14,642	11,045	11,252	11,506	-25%	-23%	-21%
3.1.7	- C-Tran	1,557	5,515	5,331	5,442	254%	242%	250%
3.1.8	Total	132,358	236,035	239,236	242,432	78%	81%	83%
3.2	Rail	0						
4	**Demographics Measures**							
4.1	Population	551,362	551,362	550,205	545,552	0%	0%	-1%
4.2	Employment	389,249	389,249	389,208	390,416	0%	0%	0%
4.3	Total Daily Trips	3,032,947	3,039,499	3,001,875	3,037,304	0%	-1%	0%
4.4	Total Daily Work Trips	682,913	686,918	693,040	684,579	1%	1%	0%
4.5	Total Daily Non-Work Trips	2,350,033	2,352,580	2,308,834	2,352,725	0%	-2%	0%

DCHC MPO Alternatives

Evaluation Measures -- Bus Transit vs. E+C

	Measures	2035 E+C	Bus Transit			(Percent change from 2035 E+C)		
			Baseline	Corridor	TransitNode	Baseline	Corridor	TransitNode
1	**Performance Measures**							
1.1	Total VMT (daily)	17,397,077	17,366,268	17,254,460	17,364,161	0%	-1%	0%
1.2	Total VHT (daily)	459,072	423,072	420,239	426,402	-8%	-8%	-7%
1.3	Average Speed by Facility (miles/hour)							
1.3.1	- Freeway	57	59	59	59	4%	4%	4%
1.3.2	- Arterial	36	38	38	37	6%	6%	5%
1.3.3	- All Facility	45	47	47	47	6%	6%	5%
1.4	Peak Average Speed by Facility (miles/hour)							
1.4.1	- Freeway	54	57	57	57	6%	6%	6%
1.4.2	- Arterial	34	36	36	36	8%	8%	7%
1.4.3	- All Facility	42	45	45	45	7%	7%	7%
1.5	Average Travel Time - All Trips	17.2	16.5	16.3	16.4	-4%	-5%	-4%
1.6	Average Travel Time - Work Trips	25.8	23.5	22.7	23.4	-9%	-12%	-9%
1.7	Peak Average Travel Time - All Trips	20.5	19.1	18.8	19.1	-7%	-8%	-7%
1.8	Hours of Delay (daily)	112,862	82,216	82,189	86,015	-27%	-27%	-24%
1.8.1	CV Hours of Delay (daily)	4,580	3,563	3,604	3,683	-22%	-21%	-20%
1.9	Percent of VMT experiencing congestion - All Day							
1.9.1	- Freeway	5.8%	3.3%	3.0%	3.2%	-43%	-48%	-45%
1.9.2	- Arterial	9.2%	5.3%	5.3%	6.3%	-42%	-42%	-32%
1.9.3	- All Facility	6.4%	3.7%	3.6%	4.1%	-42%	-44%	-36%
1.10.	Percent of VMT experiencing congestion - Peak			0.0%	0.0%			
1.10.1	- Freeway	10.5%	5.7%	5.3%	5.7%	-46%	-50%	-46%
1.10.2	- Arterial	13.8%	7.6%	7.4%	9.0%	-45%	-46%	-35%
1.10.3	- All Facility	10.4%	5.7%	5.5%	6.3%	-45%	-47%	-39%
1.10.4	Degree of congestion (V/C >1) on designated truck routes	8.4%	5.6%	5.6%	6.2%	-33%	-33%	-26%
1.10.5	Degree of congestion (V/C >1) on facilities w/bus routes	8.7%	4.9%	5.1%	5.9%	-44%	-41%	-32%
2	**Mode Share Measures**							
2.1	Number Mode Choice - All Trips							
2.1.1	- Drive alone (single occupant vehicle -SOV)	1,660,787	1,638,253	1,617,838	1,631,331	-1%	-3%	-2%
2.1.2	- Carpool (Share ride)	1,095,943	1,095,342	1,077,404	1,095,519	0%	-2%	0%
2.1.3	- Bus	69,664	101,323	102,061	103,972	45%	47%	49%
2.1.4	- Rail							
2.1.5	- Non-Motorized (Bike and Walk)	206,552	206,616	208,488	209,968	0%	1%	2%

DCHC MPO Alternatives

Evaluation Measures -- Bus Transit vs. E+C

	Measures	2035 E+C	Bus Transit			(Percent change from 2035 E+C)		
			Baseline	Corridor	TransitNode	Baseline	Corridor	TransitNode
2.2	Number Mode Choice - Peak Hours							
2.2.1	- Drive alone (single occupant vehicle -SOV)	834,496	824,154	820,305	819,569	-1%	-2%	-2%
2.2.2	- Carpool (Share ride)	550,209	551,949	545,858	551,343	0%	-1%	0%
2.2.3	- Bus	35,228	51,832	52,397	53,138	47%	49%	51%
2.2.4	- Rail	0				0%	0%	0%
2.2.5	- Non-Motorized (Bike and Walk)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2.3	Number Mode Choice - Non Work Trips							
2.3.1	- Drive alone (single occupant vehicle -SOV)	1,098,746	1,082,954	1,058,369	1,080,326	-1%	-4%	-2%
2.3.2	- Carpool (Share ride)	998,378	1,000,043	981,192	999,823	0%	-2%	0%
2.3.3	- Bus	53,261	72,103	71,898	73,362	35%	35%	38%
2.3.4	- Rail	0				0%	0%	0%
2.3.5	- Non-Motorized (Bike and Walk)	199,646	199,712	201,203	202,994	0%	1%	2%
2.4	Daily Bicycle and Pedestrian Trips	206,552	206,616	208,488	209,968	0%	1%	2%
3	**Transit Measures**							
3.1	Average Weekday Transit Ridership							
3.1.1	- TTA (Including Rail)	4,900	9,084	9,070	9,187	85%	85%	87%
3.1.2	- CAT	22,874	39,493	40,427	41,022	73%	77%	79%
3.1.3	- CHT	44,990	65,020	64,865	66,150	45%	44%	47%
3.1.4	- DATA	23,312	66,704	68,524	68,787	186%	194%	195%
3.1.5	- NCSU	20,080	17,581	18,349	18,211	-12%	-9%	-9%
3.1.6	- DUKE	14,642	11,498	11,363	11,856	-21%	-22%	-19%
3.1.7	- C-Tran	1,557	4,816	4,678	4,767	209%	200%	206%
3.1.8	Total	132,358	214,200	217,279	219,982	62%	64%	66%
3.2	Rail	0						
4	**Demographics Measures**							
4.1	Population	551,362	551,362	550,205	545,552	0%	0%	-1%
4.2	Employment	389,249	389,249	389,208	390,416	0%	0%	0%
4.3	Total Daily Trips	3,032,947	3,041,534	3,005,791	3,040,791	0%	-1%	0%
4.4	Total Daily Work Trips	682,913	686,721	693,128	684,285	1%	1%	0%
4.5	Total Daily Non-Work Trips	2,350,033	2,354,813	2,312,662	2,356,506	0%	-2%	0%

DCHC MPO Alternatives

Evaluation Measures -- Moderate Multimodal vs. E+C

	Measures	2035 E+C	Moderate Multimodal			(Percent change from 2035 E+C)		
			Baseline	Corridor	TransitNode	Baseline	Corridor	TransitNode
1	**Performance Measures**							
1.1	Total VMT (daily)	17,397,077	17,264,268	17,323,513	17,103,212	-1%	0%	-2%
1.2	Total VHT (daily)	459,072	417,458	415,073	412,714	-9%	-10%	-10%
1.3	Average Speed by Facility (miles/hour)							
1.3.1	- Freeway	57	59	59	60	4%	4%	4%
1.3.2	- Arterial	36	38	38	37	6%	6%	5%
1.3.3	- All Facility	45	48	48	48	7%	7%	7%
1.4	Peak Average Speed by Facility (miles/hour)							
1.4.1	- Freeway	54	57	57	57	6%	5%	6%
1.4.2	- Arterial	34	36	36	36	8%	8%	7%
1.4.3	- All Facility	42	46	46	46	8%	8%	8%
1.5	Average Travel Time - All Trips	17.2	17	16	16	-4%	-5%	-4%
1.6	Average Travel Time - Work Trips	25.8	23	23	23	-9%	-12%	-10%
1.7	Peak Average Travel Time - All Trips	20.5	19	19	19	-6%	-9%	-7%
1.8	Hours of Delay (daily)	112,862	79,980	78,604	79,018	-29%	-30%	-30%
1.8.1	CV Hours of Delay (daily)	4,580	3,377	3,371	3,269	-26%	-26%	-29%
1.9	Percent of VMT experiencing congestion - All Day							
1.9.1	- Freeway	5.8%	3.0%	3.0%	3.2%	-48%	-48%	-45%
1.9.2	- Arterial	9.2%	5.3%	4.9%	5.2%	-42%	-47%	-43%
1.9.3	- All Facility	6.4%	3.5%	3.4%	3.7%	-45%	-47%	-42%
1.10.	Percent of VMT experiencing congestion - Peak							
1.10.1	- Freeway	10.5%	5.0%	5.4%	5.5%	-52%	-49%	-48%
1.10.2	- Arterial	13.8%	7.5%	7.7%	7.7%	-46%	-44%	-44%
1.10.3	- All Facility	10.4%	5.3%	5.6%	5.7%	-49%	-46%	-45%
1.10.4	Degree of congestion (V/C >1) on designated truck routes	8.4%	5.0%	4.6%	4.9%	-40%	-45%	-42%
1.10.5	Degree of congestion (V/C >1) on facilities w/bus routes	8.7%	4.1%	4.0%	4.1%	-53%	-54%	-53%
2	**Mode Share Measures**							
2.1	Number Mode Choice - All Trips							
2.1.1	- Drive alone (single occupant vehicle -SOV)	1,660,787	1,656,077	1,616,862	1,631,379	0%	-3%	-2%
2.1.2	- Carpool (Share ride)	1,095,943	1,109,840	1,089,630	1,109,398	1%	-1%	1%
2.1.3	- Bus	69,664	87,345	77,038	78,877	25%	11%	13%
2.1.4	- Rail		-	-	-			
2.1.5	- Non-Motorized (Bike and Walk)	206,552	206,533	208,407	209,919	0%	1%	2%

DCHC MPO Alternatives

Evaluation Measures -- Moderate Multimodal vs. E+C

	Measures	2035 E+C	Moderate Multimodal			(Percent change from 2035 E+C)		
			Baseline	Corridor	TransitNode	Baseline	Corridor	TransitNode
2.2	Number Mode Choice - Peak Hours							
2.2.1	- Drive alone (single occupant vehicle -SOV)	834,496	831,906	824,773	825,024	0%	-1%	-1%
2.2.2	- Carpool (Share ride)	550,209	558,949	553,009	560,236	2%	1%	2%
2.2.3	- Bus	35,228	45,738	40,157	40,806	30%	14%	16%
2.2.4	- Rail	0	-	-	-	0%	0%	0%
2.2.5	- Non-Motorized (Bike and Walk)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2.3	Number Mode Choice - Non Work Trips							
2.3.1	- Drive alone (single occupant vehicle -SOV)	1,098,746	1,096,473	1,051,438	1,074,026	0%	-4%	-2%
2.3.2	- Carpool (Share ride)	998,378	1,012,646	991,374	1,011,445	1%	-1%	1%
2.3.3	- Bus	53,261	62,953	51,648	53,181	18%	-3%	0%
2.3.4	- Rail	0	-	-	-	0%	0%	0%
2.3.5	- Non-Motorized (Bike and Walk)	199,646	199,632	201,123	202,944	0%	1%	2%
2.4	Daily Bicycle and Pedestrian Trips	206,552	206,533	208,407	209,919	0%	1%	2%
3	**Transit Measures**							
3.1	Average Weekday Transit Ridership							
3.1.1	- TTA (Including Rail)	4,900	8,181	5,632	5,714	67%	15%	17%
3.1.2	- CAT	22,874	22,512	21,150	21,427	-2%	-8%	-6%
3.1.3	- CHT	44,990	55,113	49,682	50,806	23%	10%	13%
3.1.4	- DATA	23,312	47,937	41,951	42,569	106%	80%	83%
3.1.5	- NCSU	20,080	20,043	15,767	15,677	0%	-21%	-22%
3.1.6	- DUKE	14,642	11,123	9,369	9,600	-24%	-36%	-34%
3.1.7	- C-Tran	1,557	2,528	2,421	2,463	62%	55%	58%
3.1.8	Total	132,358	167,442	145,974	148,260	27%	10%	12%
3.2	Rail	0						
4	**Demographics Measures**							
4.1	Population	551,362	551,362	550,205	545,552	0%	0%	-1%
4.2	Employment	389,249	389,249	389,208	390,416	0%	0%	0%
4.3	Total Daily Trips	3,032,947	3,059,795	2,991,938	3,029,573	1%	-1%	0%
4.4	Total Daily Work Trips	682,913	688,090	696,354	687,975	1%	2%	1%
4.5	Total Daily Non-Work Trips	2,350,033	2,371,705	2,295,583	2,341,597	1%	-2%	0%

2035 LRTP and CTP
Alternatives – Congestion Maps (V/C maps)

Use of Congestion Maps

The Performance Measures provide a general indicator of the overall transportation system. On the other hand, the Congestion Maps show the forecasted level of service on specific road segments and corridors based on the afternoon peak hour. These maps are sometimes called "V/C" maps (V over C maps) because the level of service, or existence of congestion, is derived by dividing the traffic volume by the traffic capacity of the road segment. For example, a volume of 9,000 vehicles on a road that is capable of carrying 10,000 vehicles will produce a V/C of 0.9. A V/C of 1.0 is equal to a Level of Service (LOS) of "E", which can be described as:

> Limit of acceptable delay, unstable flow, poor signal progression, traffic near roadway capacity, frequent cycle failures.

Although the term traffic congestion is subjective in that it means different levels of delay to different people, it can be said that any road segment approaching a V/C of 1.0, which is indicated on the maps with an **orange color**, experiences some delays. A V/C greater than 1.0, which is indicated on the maps by the **purple color**, means frequent delays for the motorist, and a V/C greater than 1.1, which is indicated by the **red color** on the maps, translates into unacceptable travel delays.

The Triangle Regional Model (the travel demand model for the Triangle Region) uses travel behavior data for the Triangle Region, future transportation system networks, and future population and employment data, to forecast the volume and capacity values needed to produce these maps. The forecasts are for the year 2035. Each Congestion Map represents one of the Alternatives, which are comprised of a specific transportation system (Intensive Highway, Fixed Guideway, etc.) and Socioeconomic Data (Baseline, Buildout, etc.).

Review and comparison of the Congestion Maps for the various Alternatives will show how well a particular Alternative addresses travel demand on the key roadway segments and corridors in the MPO planning area.

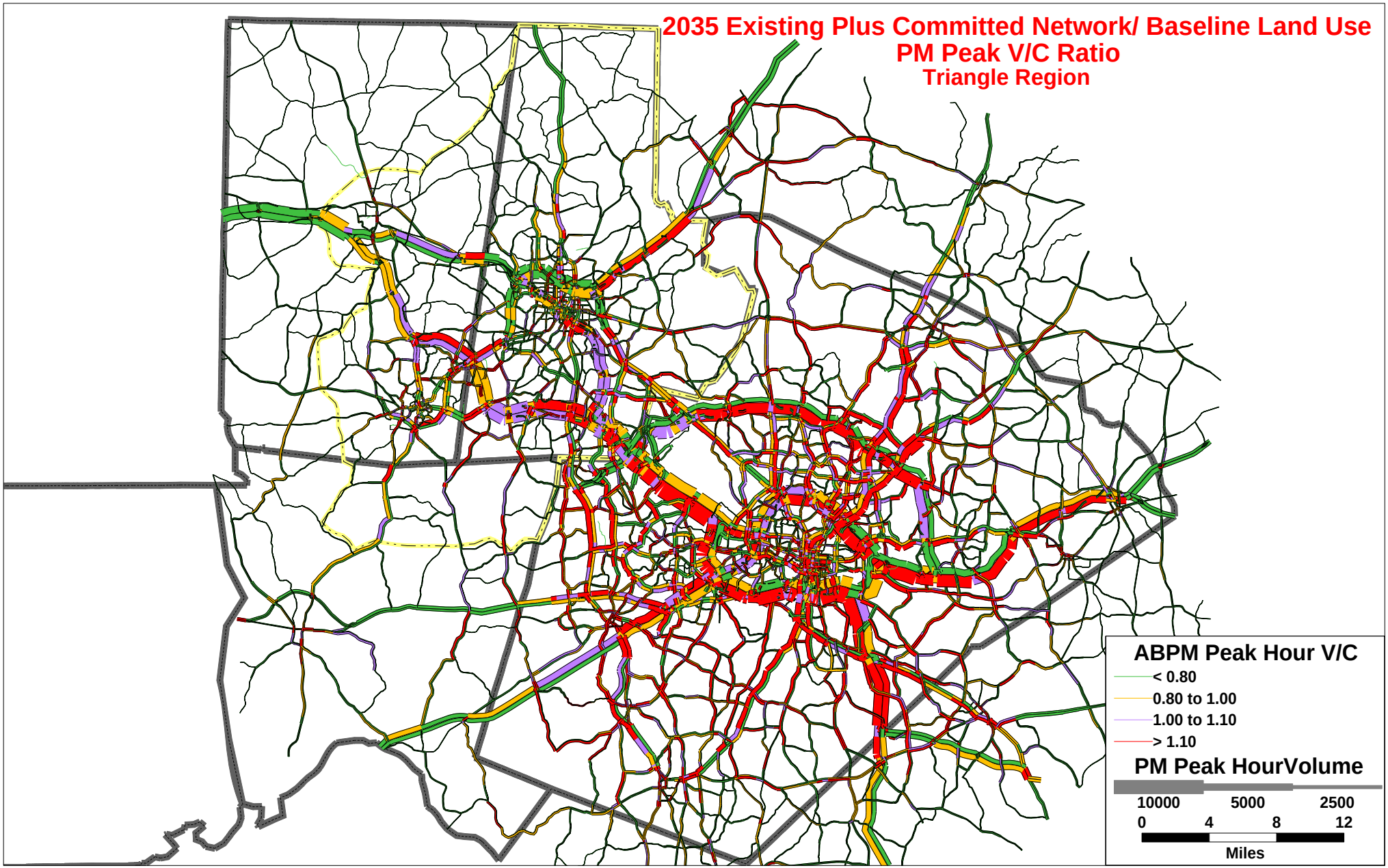
Of particular importance is the comparison of any one Alternative with the **E+C map** (Existing plus Committed), which can be considered a benchmark. The E+C map uses a transportation network with the current roadways and transit services plus any others that have been committed to being implemented, and the Socioeconomic Data (i.e., population and employment) for the year 2035. This map shows the level of service to be experienced if no additional roadways improvements or transit services are implemented, and thus helps to answer the question, "When we make our next transportation investment decision, where do we need to focus our investment?" Furthermore, by

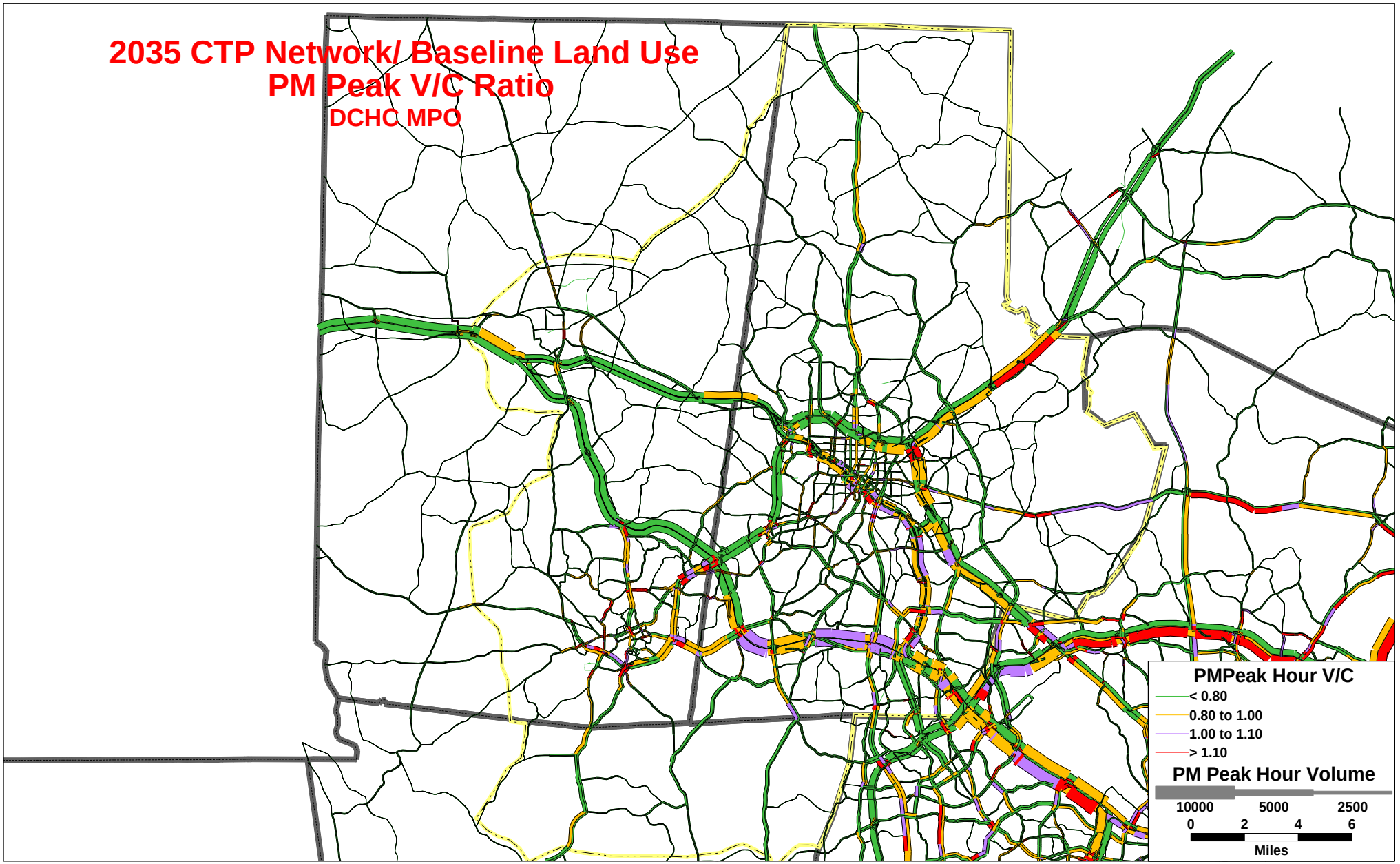
comparing the E+C Congestion Map with the other Alternatives, you can see how well the transportation investments in that Alternative address the congestion in the E+C.

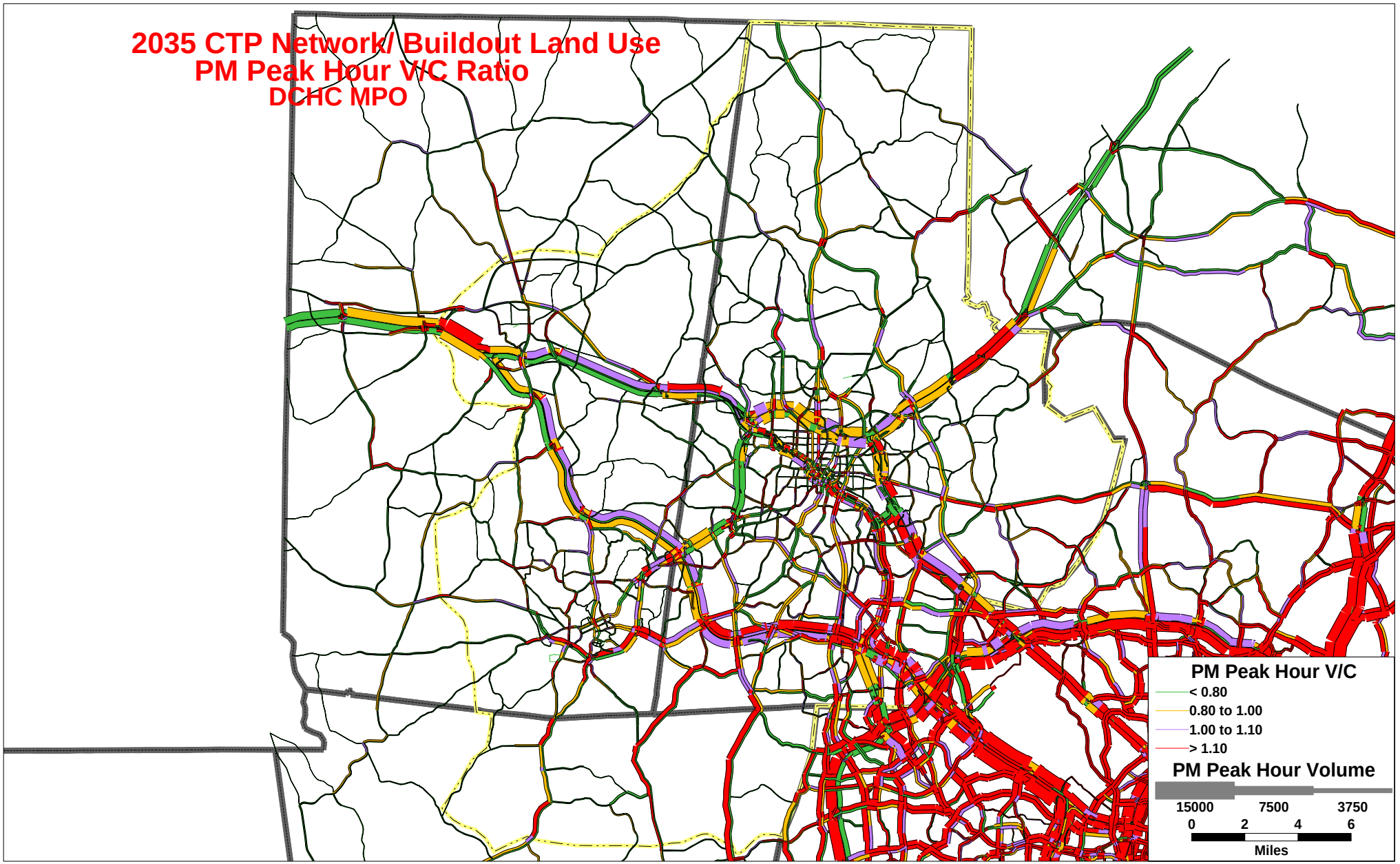
Congestion Maps for Alternatives

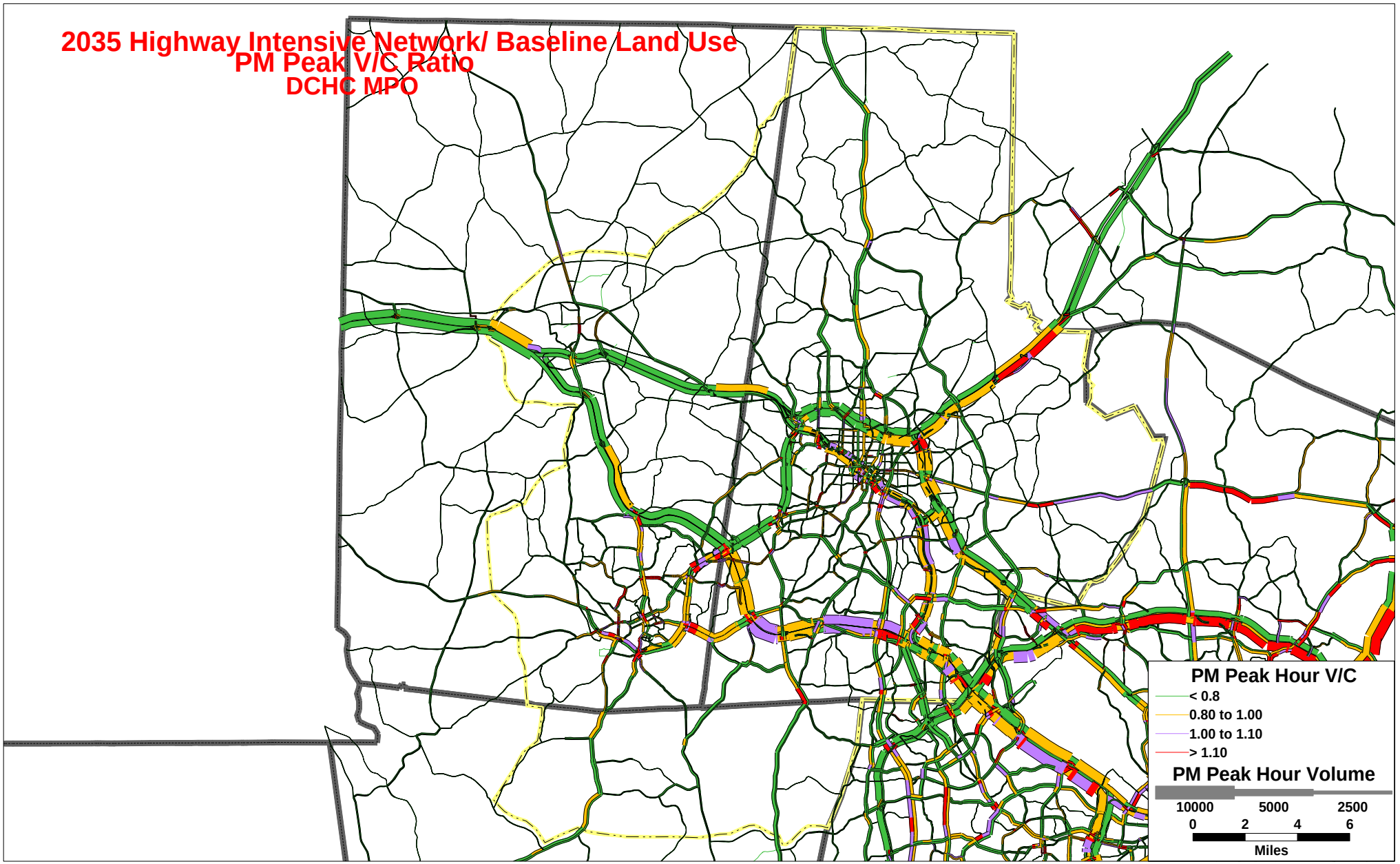
On the following pages, the Congestion Maps are presented in the order shown on the table below.

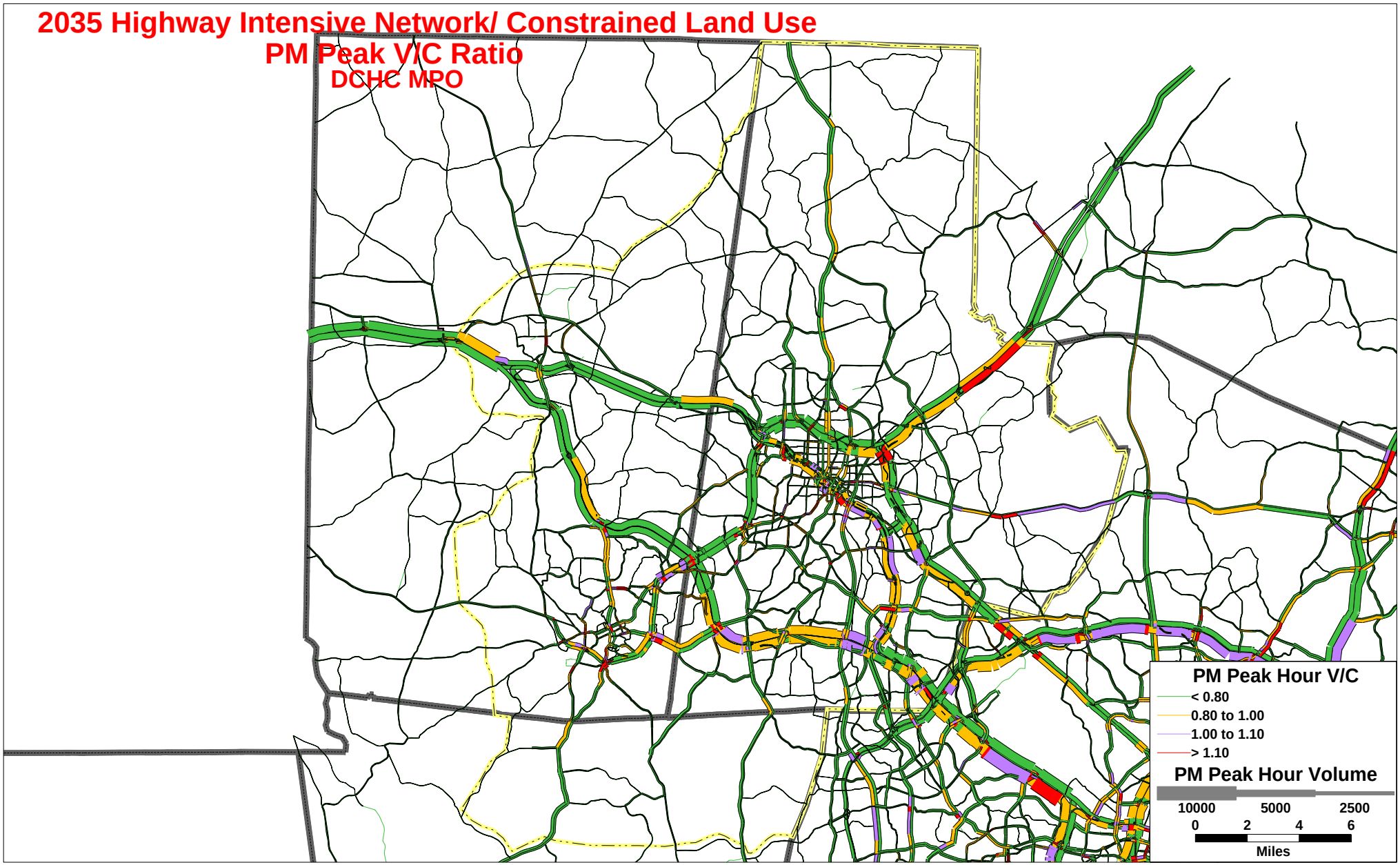
	Alternative:	
ID	Transportation System	Land Use Scenario
N/A	Existing Plus Committed	Baseline
2–A	Comprehensive Transportation Plan	Baseline
2-B	Comprehensive Transportation Plan	Buildout
3–A	Intensive Highway	Baseline
3–B	Intensive Highway	Constrained
3-C	Intensive Highway	Travel Corridor
4-A	Intensive Fixed Guideway	Baseline
4-B	Intensive Fixed Guideway	Travel Corridor
4-C	Intensive Fixed Guideway	Transit Node
5-A	Intensive Bus Transit	Baseline
5-B	Intensive Bus Transit	Travel Corridor
5-C	Intensive Bus Transit	Transit Node
6-A	Moderate Multimodal	Baseline
6-B	Moderate Multimodal	Travel Corridor
6-C	Moderate Multimodal	Transit Node

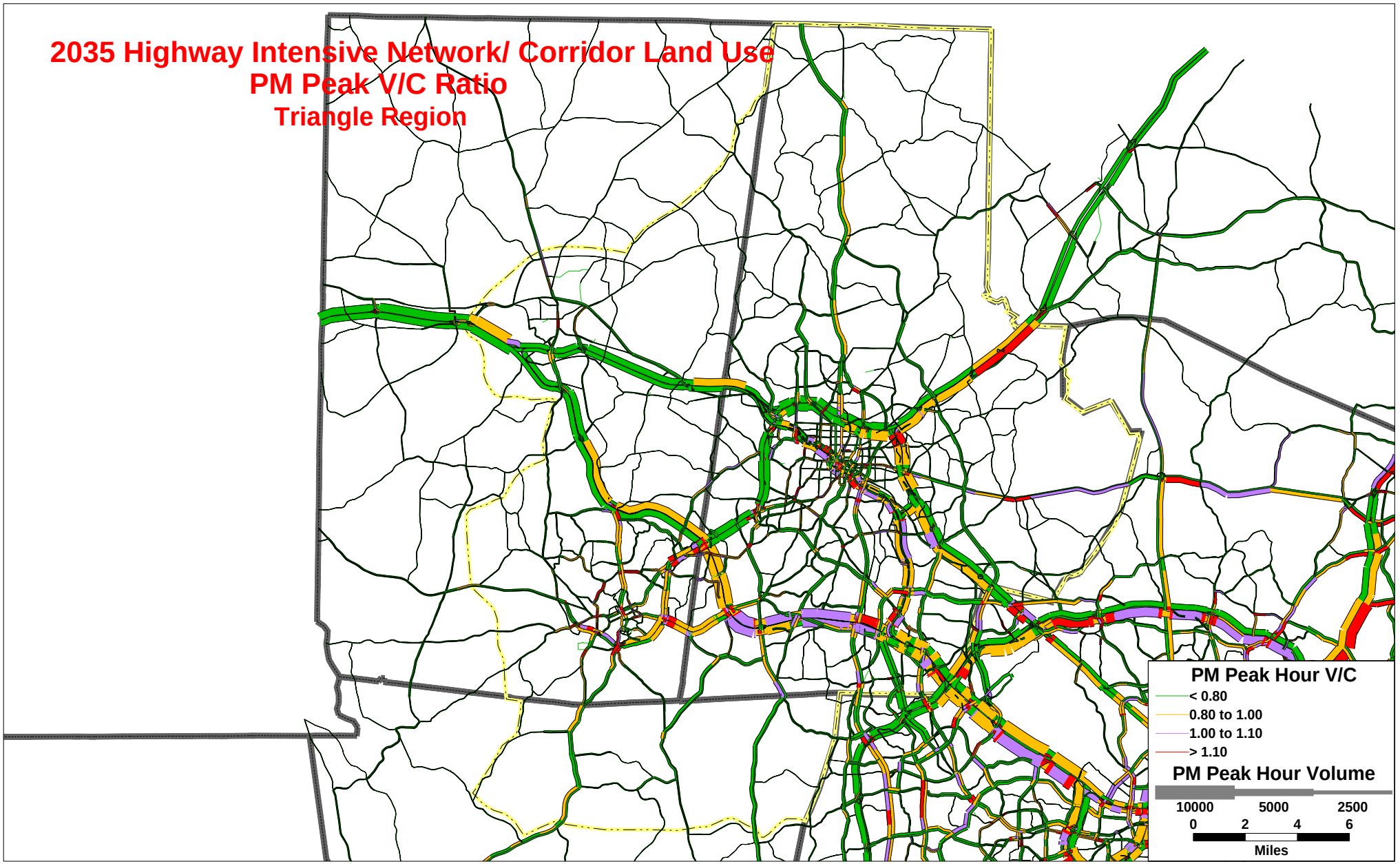

2035 Existing Plus Committed Network/ Baseline Land Use
PM Peak V/C Ratio
Triangle Region
ABPM Peak Hour V/C
< 0.80
0.80 to 1.00
1.00 to 1.10
> 1.10
PM Peak HourVolume
10000
5000
2500
0
4
8
12
Miles

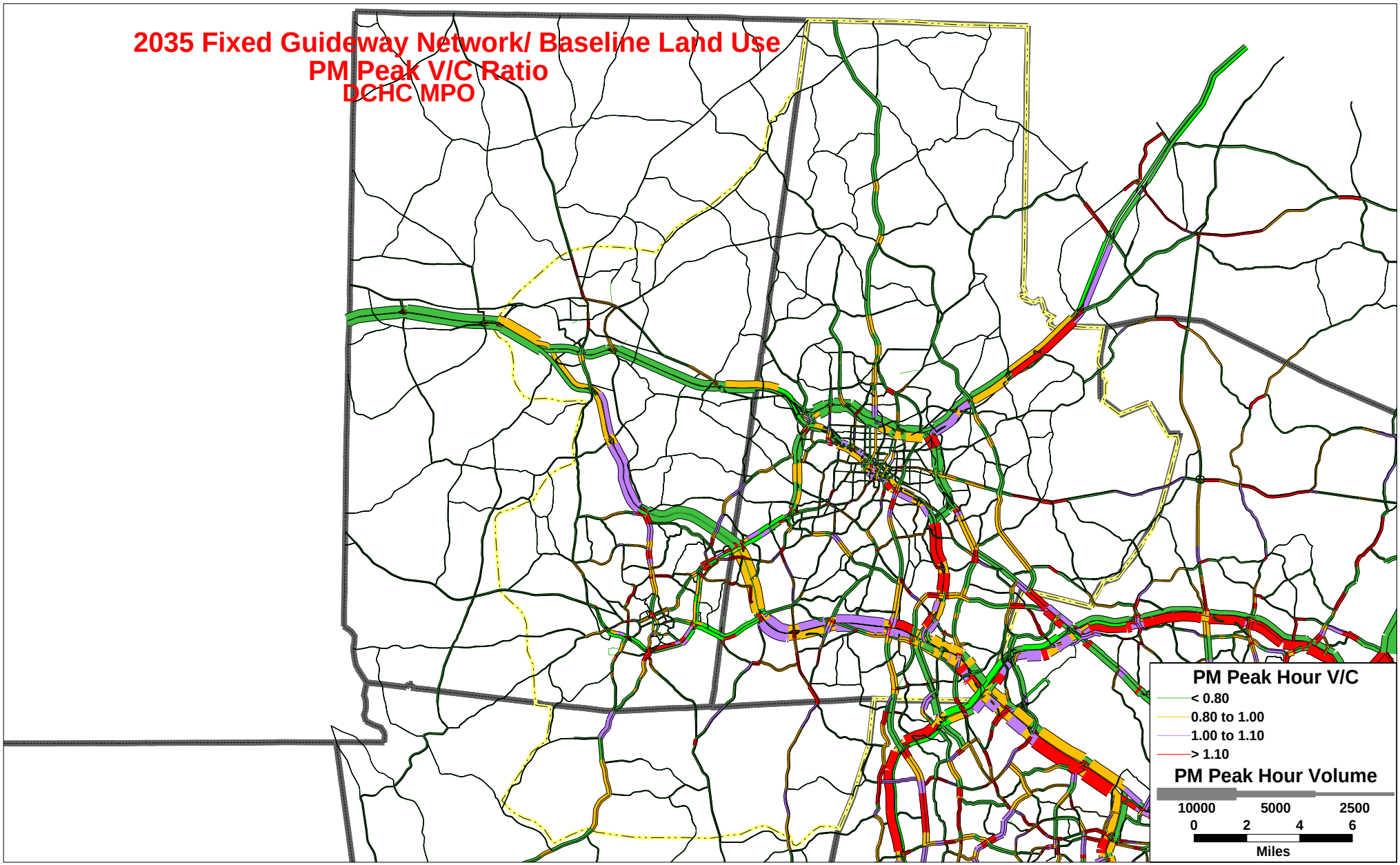

2035 CTP Network/ Baseline Land Use
PM Peak V/C Ratio
DCHC MPO
PMPeak Hour V/C
< 0.80
0.80 to 1.00
1.00 to 1.10
> 1.10
PM Peak Hour Volume
10000
5000
2500
0
2
4
6
Miles


2035 CTP Network/ Buildout Land Use
PM Peak Hour V/C Ratio
DCHC MPO
PM Peak Hour V/C
< 0.80
0.80 to 1.00
1.00 to 1.10
> 1.10
PM Peak Hour Volume
15000
7500
3750
0
2
4
6
Miles

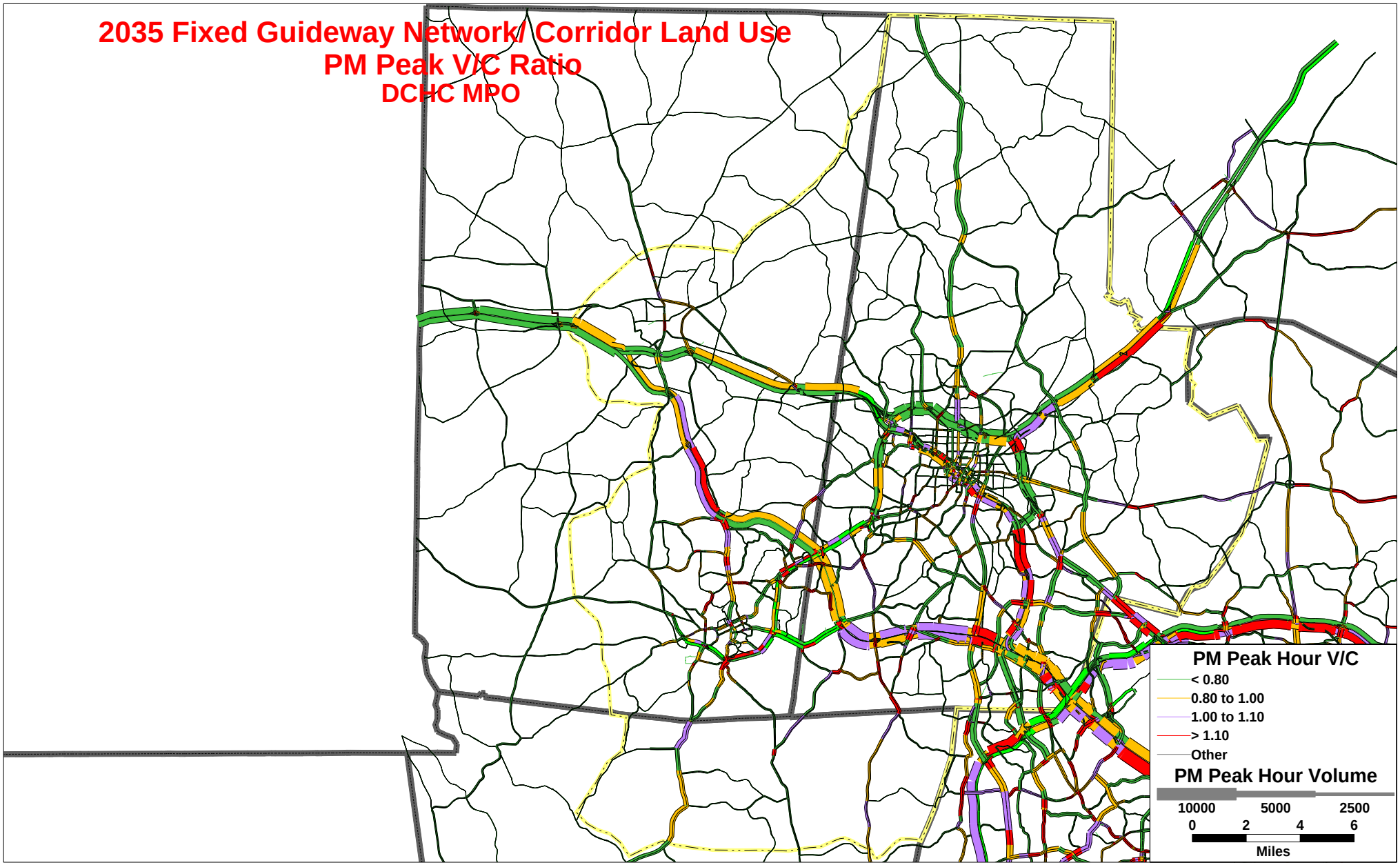

2035 Highway Intensive Network/ Baseline Land Use
PM Peak V/C Ratio
DCHC MPO
PM Peak Hour V/C
< 0.8
0.80 to 1.00
1.00 to 1.10
> 1.10
PM Peak Hour Volume
10000
5000
2500
0
2
4
6
Miles

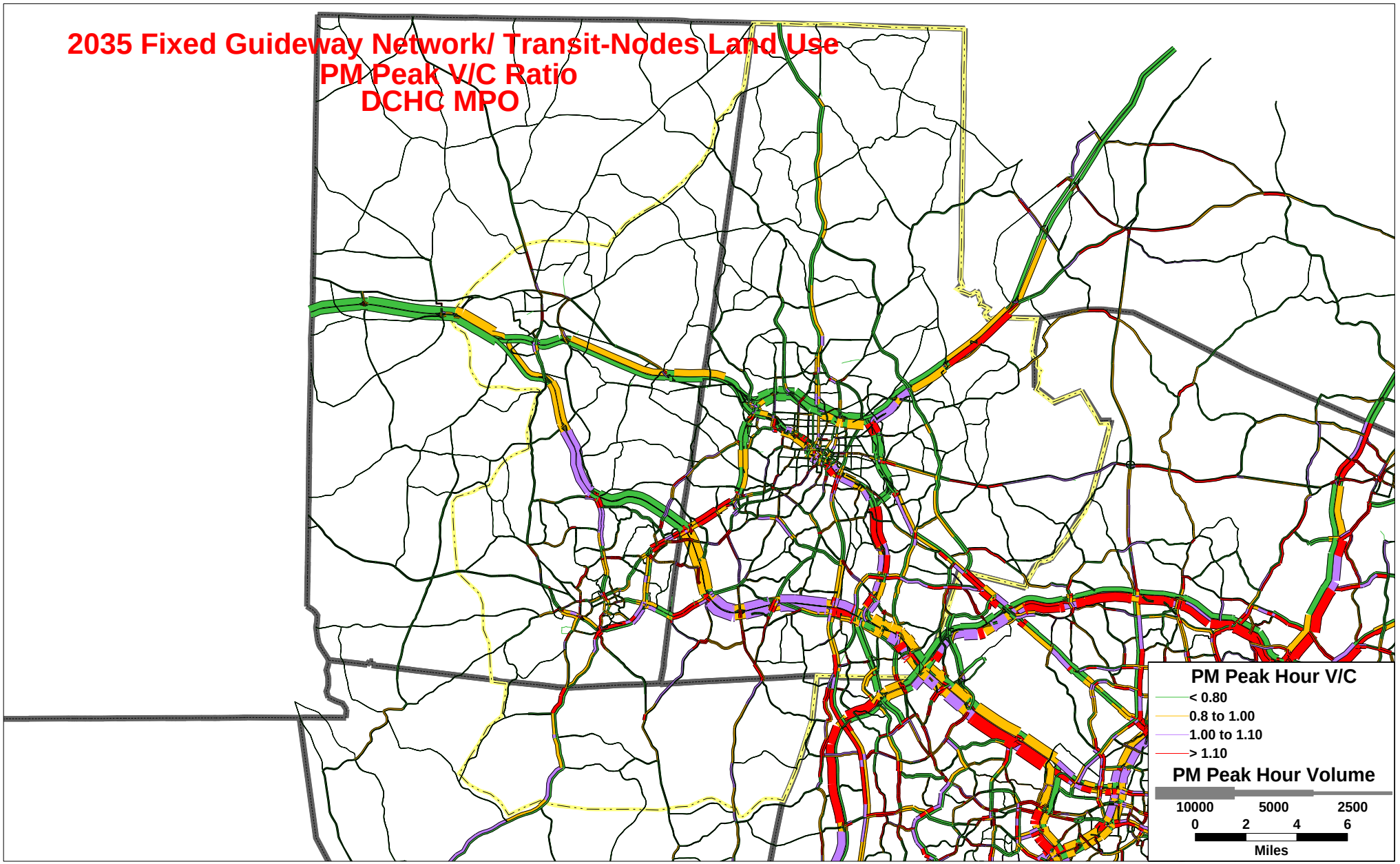

2035 Highway Intensive Network/ Constrained Land Use
PM Peak V/C Ratio
DCHC MPO
PM Peak Hour V/C
< 0.80
0.80 to 1.00
1.00 to 1.10
> 1.10
PM Peak Hour Volume
10000
5000
2500
0
2
4
6
Miles

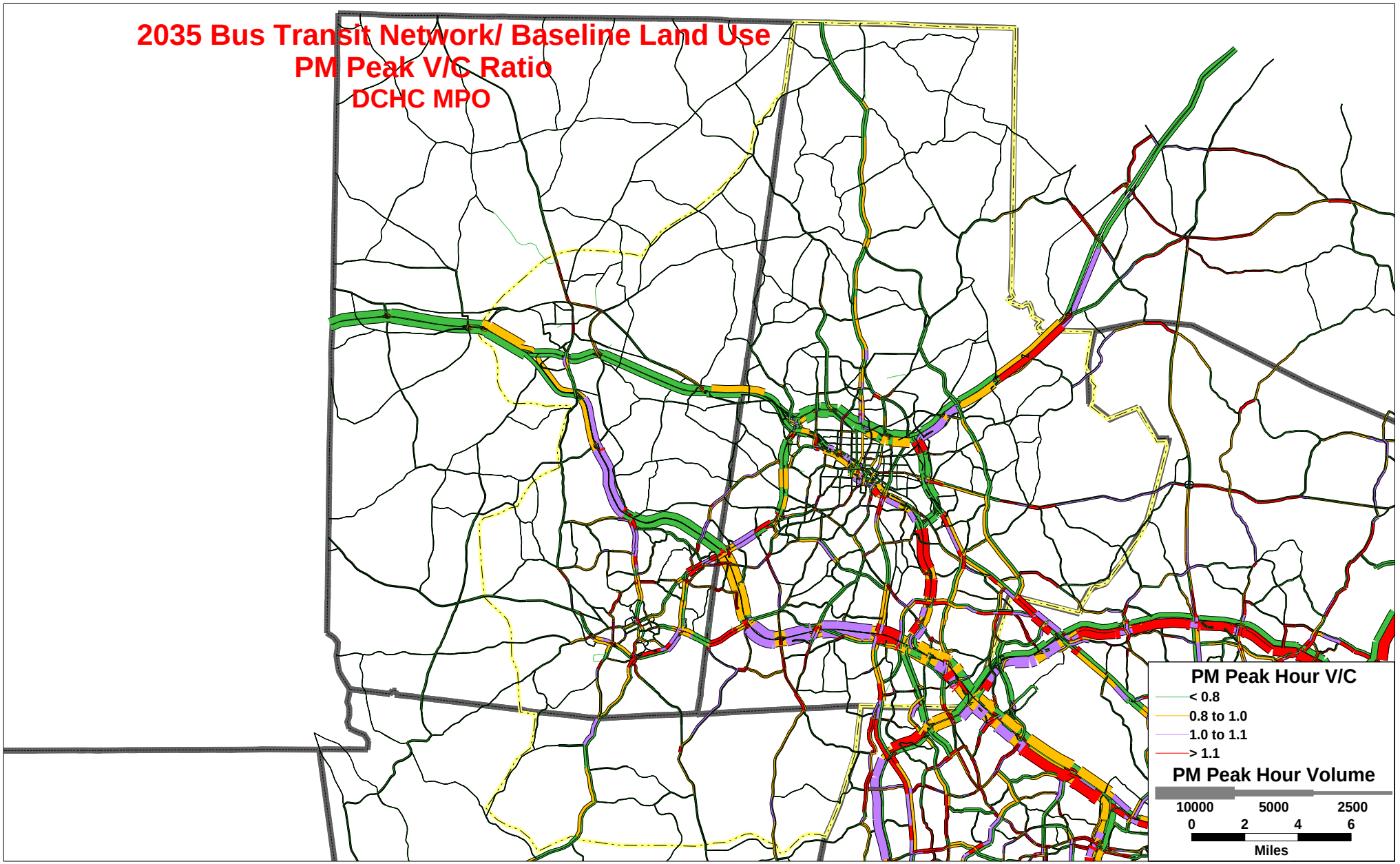

2035 Highway Intensive Network/ Corridor Land Use
PM Peak V/C Ratio
Triangle Region
PM Peak Hour V/C
< 0.80
0.80 to 1.00
1.00 to 1.10
> 1.10
PM Peak Hour Volume
10000
5000
2500
0
2
4
6
Miles

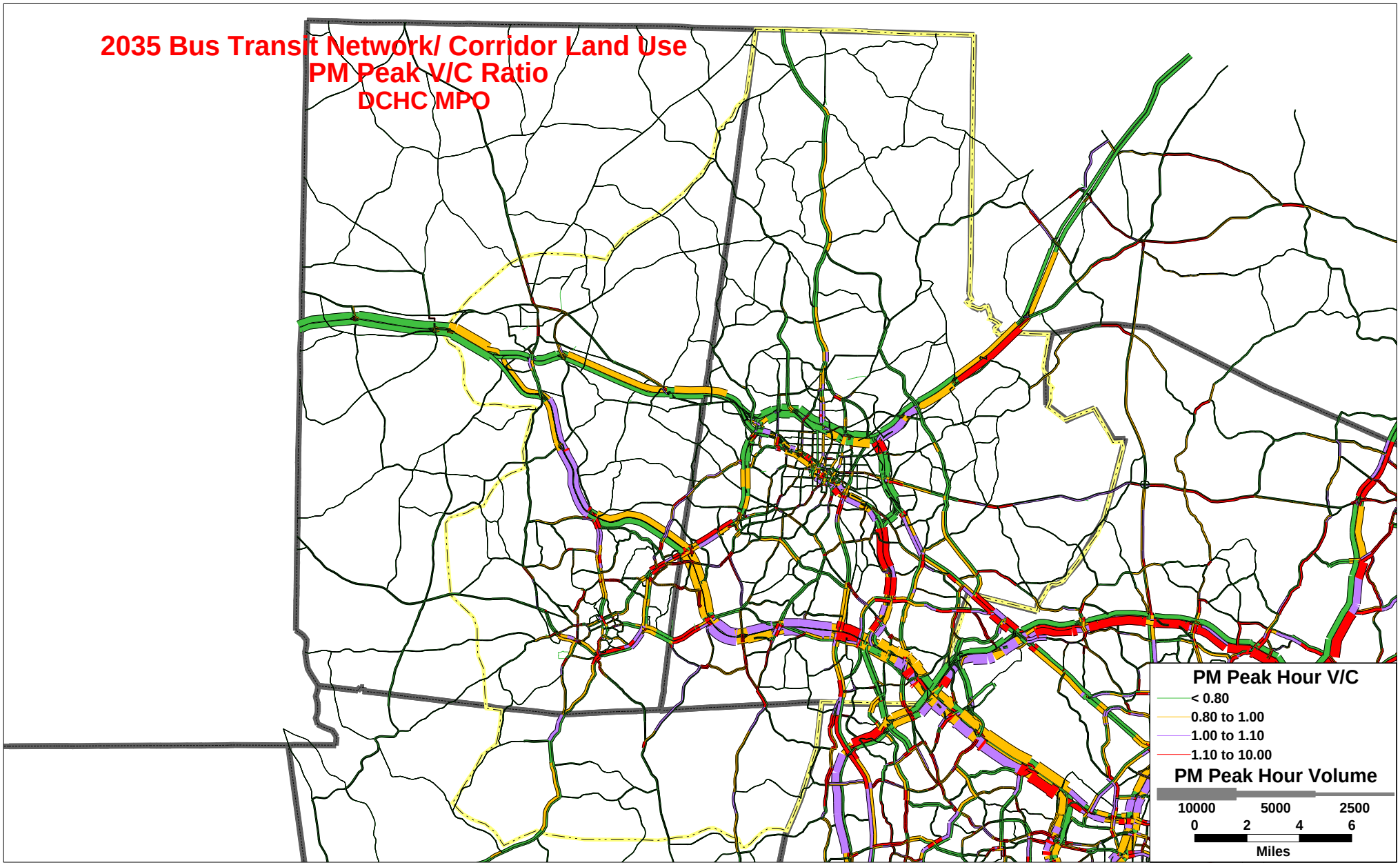

2035 Fixed Guideway Network/ Baseline Land Use
PM Peak V/C Ratio
DCHC MPO
PM Peak Hour V/C
< 0.80
0.80 to 1.00
1.00 to 1.10
> 1.10
PM Peak Hour Volume
10000
5000
2500
0
2
4
6
Miles

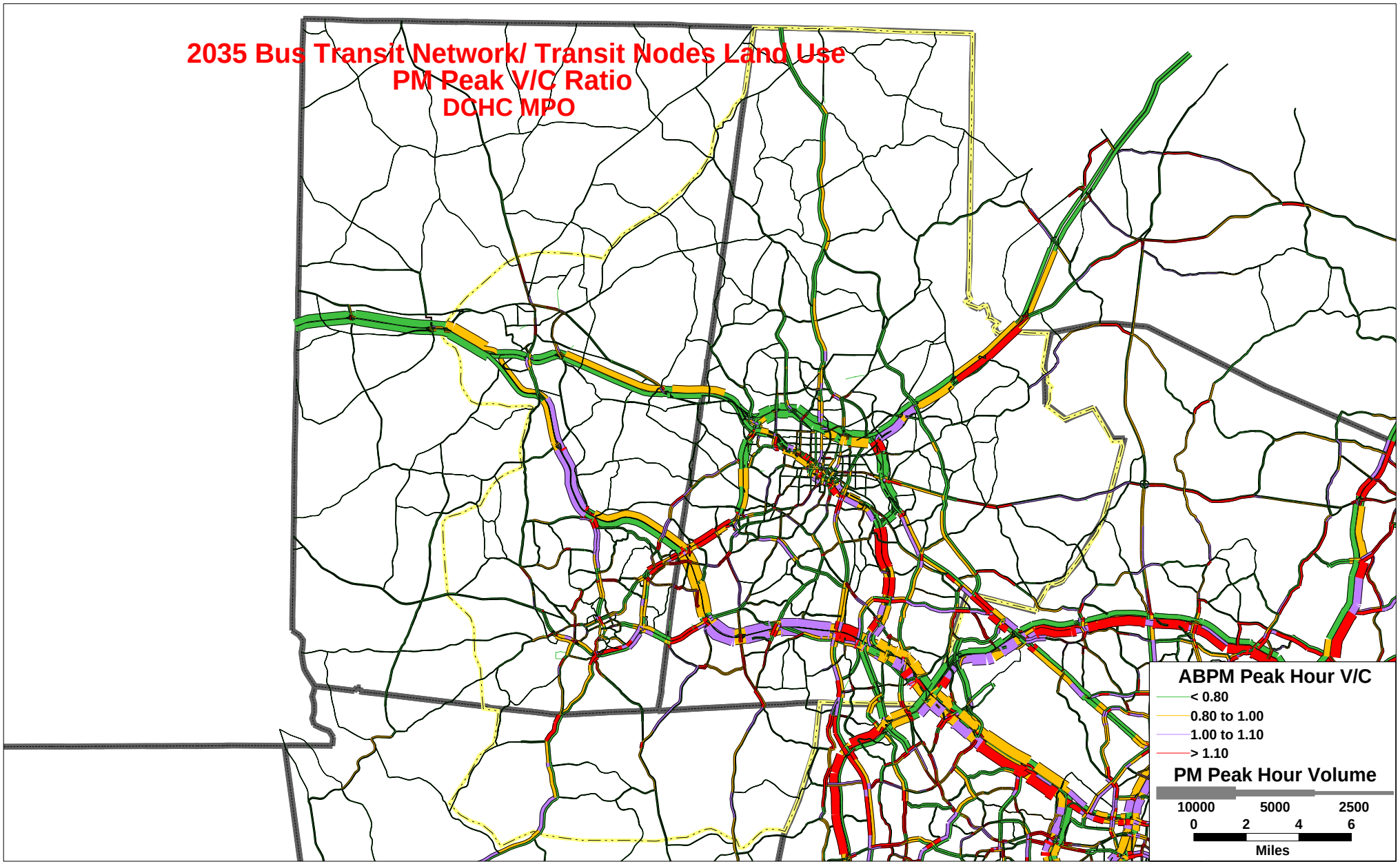
2035 Fixed Guideway Network/ Corridor Land Use
PM Peak V/C Ratio
DCHC MPO

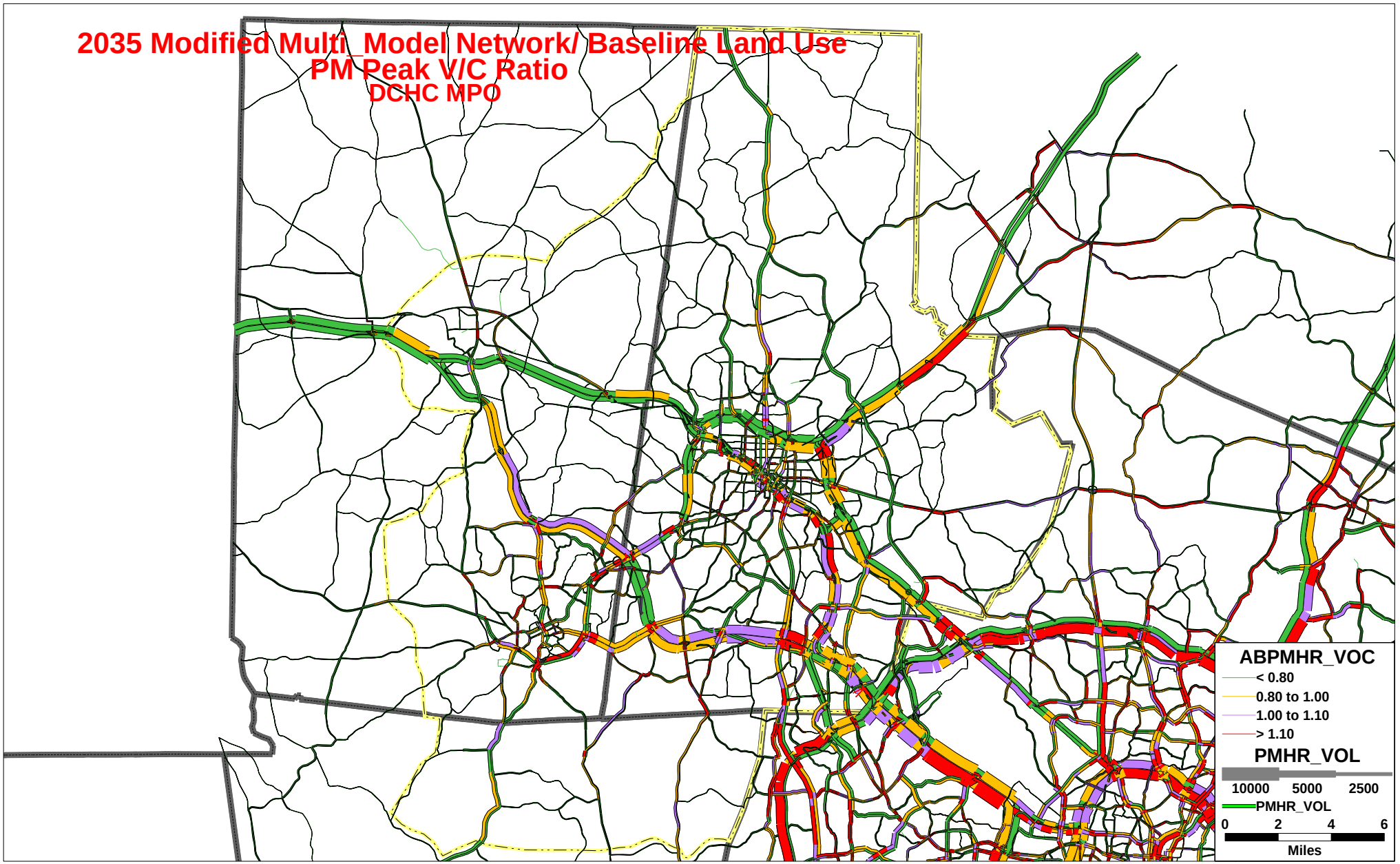


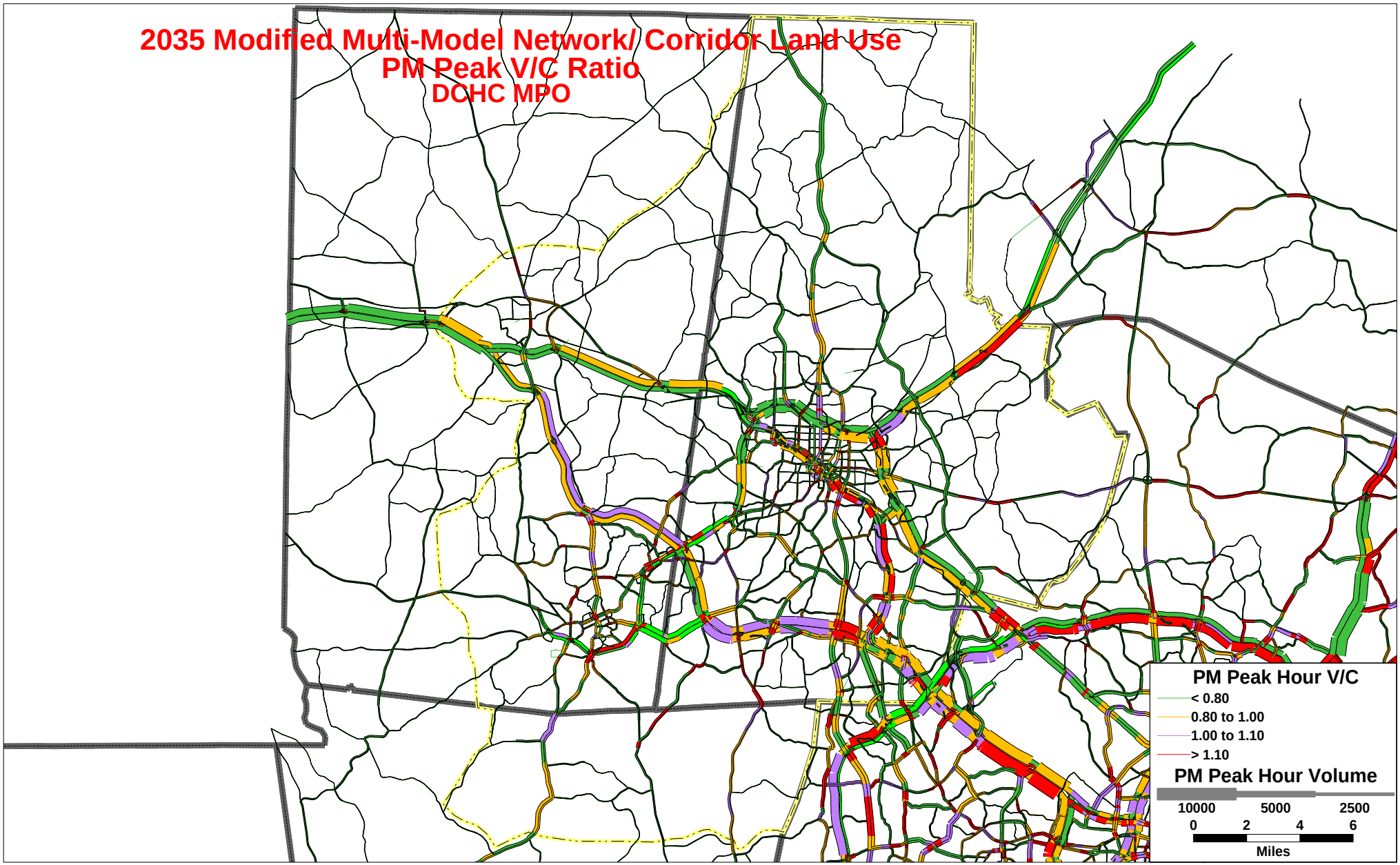

2035 Fixed Guideway Network/ Transit-Nodes Land Use
PM Peak V/C Ratio
DCHC MPO
PM Peak Hour V/C
< 0.80
0.8 to 1.00
1.00 to 1.10
> 1.10
PM Peak Hour Volume
10000
5000
2500
0
2
4
6
Miles

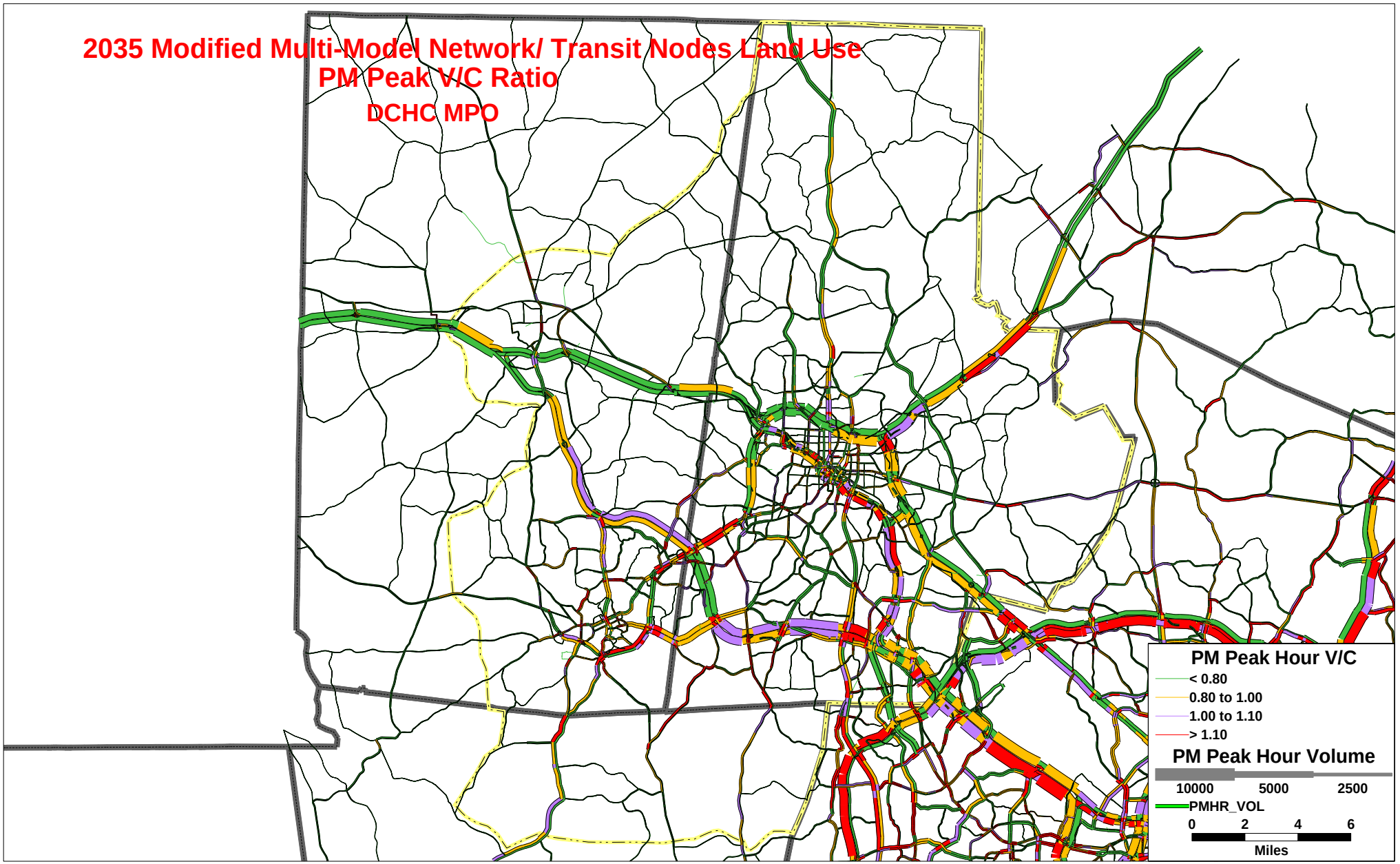

2035 Bus Transit Network/ Baseline Land Use
PM Peak V/C Ratio
DCHC MPO
PM Peak Hour V/C
< 0.8
0.8 to 1.0
1.0 to 1.1
> 1.1
PM Peak Hour Volume
10000
5000
2500
0
2
4
6
Miles


2035 Bus Transit Network/ Corridor Land Use
PM Peak V/C Ratio
DCHC MPO
PM Peak Hour V/C
< 0.80
0.80 to 1.00
1.00 to 1.10
1.10 to 10.00
PM Peak Hour Volume
10000
5000
2500
0
2
4
6
Miles


2035 Bus Transit Network/ Transit Nodes Land Use
PM Peak V/C Ratio
DCHC MPO
ABPM Peak Hour V/C
< 0.80
0.80 to 1.00
1.00 to 1.10
> 1.10
PM Peak Hour Volume
10000
5000
2500
0
2
4
6
Miles


2035 Modified Multi_Model Network/ Baseline Land Use
PM Peak V/C Ratio
DCHC MPO
ABPMHR_VOC
< 0.80
0.80 to 1.00
1.00 to 1.10
> 1.10
PMHR_VOL
10000 5000 2500
PMHR_VOL
0 2 4 6
Miles


2035 Modified Multi-Model Network/ Corridor Land Use
PM Peak V/C Ratio
DCHC MPO
PM Peak Hour V/C
< 0.80
0.80 to 1.00
1.00 to 1.10
> 1.10
PM Peak Hour Volume
10000
5000
2500
0
2
4
6
Miles


2035 Modified Multi-Model Network/ Transit Nodes Land Use
PM Peak V/C Ratio
DCHC MPO
PM Peak Hour V/C
< 0.80
0.80 to 1.00
1.00 to 1.10
> 1.10
PM Peak Hour Volume
10000
5000
2500
PMHR_VOL
0
2
4
6
Miles

2035 LRTP and CTP
Alternatives – Financial Information

Preliminary Costs and Revenues

The 2035 LRTP must be fiscally-constrained. This requirements means that the cost of the various highway, transit and other transportation facilities must be covered by the reasonably-expected state, federal, local and private transportation revenues. The Alternatives presented at this stage of the 2035 LRTP development process do not have to be fiscally-constrained because these are draft proposals that are used to analyze the performance of the various transportation facility types. Nonetheless, knowing the costs and revenues related to an Alternative will help inform us to where that particular Alternative stands in relation to being fiscally-constrained.

Therefore, preliminary costs and revenue estimates have been developed. It must be stressed that these figures are preliminary, and therefore could change significantly as the project details of the Preferred Option (i.e., final Alternative) are decided. Certainty in cost and revenue estimates for Alternatives is difficult because so many project details are unknown. For example, moving the implementation year of several fixed-route transit services, say five years, can change the system life cost by millions of dollars. Therefore, the costs and revenue presented at this point are to be used to get an idea of an order of magnitude presented for each Alternative.

The table on the next page presents the total costs and revenues for each Alternative, including a breakdown by highway and transit facilities, and shows the difference between the total cost and revenue.

Local Options Revenue Estimates

There are several local options for raising revenue that could be targeted to finance transportation projects. The tables on pages 3 and 4 present the estimated annual and 25-year total revenues for each option. The 25-year total assumes that the option would be implemented in the year 2011, and therefore produce 25 years of revenue from 2011 through 2035 (horizon year for the 2035 LRTP). These figures are illustrative and not intended to be final estimates for use in the 2035 LRTP. Thus, no assumptions have been made for independent variables such as future population and vehicle ownership growth. One of more of these options could be selected for inclusion in the 2035 LRTP and will be further refined at that time.

Page 5 shows the 25-year totals for the local options in a chart format.

Preliminary Revenue Estimate					
Highway Sources	**Comprehensive Trans. Plan**	**Intensive Highway**	**Intensive Fixed Guideway**	**Intensive Bus Transit**	**Moderate Multimodal**
Highway Funding Programs	$ 3,095,599,272	$ 3,095,599,272	$ 3,095,599,272	$ 3,095,599,272	$ 3,095,599,272
Other-CIP, private, etc.	$ 237,000,000	$ 237,000,000	$ 237,000,000	$ 237,000,000	$ 237,000,000
Highway Trust Fund ("Loop")	$ 621,959,553	$ 621,959,553	$ 498,845,607	$ 498,845,607	$ 621,959,553
Triangle Parkway (tolls & "gap" funding)	$ 84,747,784	$ 84,747,784	$ 84,747,784	$ 84,747,784	$ 84,747,784
Total Highway Revenue ($ Billions)	**$ 4.0**	**$ 4.0**	**$ 3.9**	**$ 3.9**	**$ 4.0**
Transit Sources					
Transit Funding Programs	$ 721,783,746	$ 721,783,746	$ 721,783,746	$ 721,783,746	$ 721,783,746
New Start (Fixed Guideway)	$ 294,950,000	$ -	$ 294,950,000	$ -	$ -
Fares and Other	$ 218,875,000	$ 124,125,000	$ 186,125,000	$ 156,875,000	$ 124,125,000
Total Transit Revenue ($ Billions)	**$ 1.2**	**$ 0.8**	**$ 1.2**	**$ 0.9**	**$ 0.8**
Total Highway and Transit Revenue ($ Billions)	**$ 5.27**	**$ 4.89**	**$ 5.12**	**$ 4.79**	**$ 4.89**
Preliminary Cost Estimate					
Highway Costs	**Comprehensive Trans. Plan**	**Intensive Highway**	**Intensive Fixed Guideway**	**Intensive Bus Transit**	**Moderate Multimodal**
Highwya Capital & Maintenance	$ 5,433,009,723	$ 4,887,493,386	$ 1,725,554,817	$ 2,585,934,958	$ 1,901,388,490
Bicycle, TDM, ITS, etc.	$ 196,197,958	$ 196,197,958	$ 196,197,958	$ 196,197,958	$ 196,197,958
Total Highway Costs ($ Billions)	$ 5.6	$ 5.1	$ 1.9	$ 2.8	$ 2.1
Transit Costs					
Fixed Guidesay (Capital and O&M)	$ 1,569,800,000	$ -	$ 1,569,800,000	$ -	$ -
Bus Transit (Capital and O&M)	$ 9,151,690,647	$ 1,546,305,187	$ 4,701,481,896	$ 5,340,500,669	$ 2,300,066,801
Total Transit Costs ($ Billions)	$ 10.7	$ 1.5	$ 6.3	$ 5.3	$ 2.3
Total Highway and Transit Costs ($ Billions)	**$ 16.35**	**$ 6.63**	**$ 8.19**	**$ 8.12**	**$ 4.40**
Difference (Revenue - Costs)	**$ (11.08)**	**$ (1.74)**	**$ (3.07)**	**$ (3.33)**	**$ 0.49**
(Note: Negative values in parenthesis					

Local Options Revenue Estimates
Transportation and Infrastructure (values in $millions)

(Source: Regional Transportation Alliance; updated January 10, 2008)

➢ Sales and Use Tax*

	¼% sales tax**	½% sales tax	1% sales tax
Durham:	$9.3 m	$18.5 m	$37.0 m
Orange:	$2.6 m	$5.3 m	$10.5 m
Chatham:	$1.1 m	$2.1 m	$4.2 m
Revenue per year:	**$13.0 m**	**$25.9 m**	**$51.7 m**
Revenue over 25 years: (2011 through 2035)	**$325.0 m**	**$647.5 m**	**$1,292.5 m**

* The statewide Sales and Use Tax rate is currently 4.25%, with the addition of the local rate of 2.5%, there is an overall 6.75% Sales and Use Tax for Durham, Wake and Orange Counties.

** In 2007, the State Legislature authorized an additional Article 39 (point-of-sale-based) local option sales and use tax of ¼%.

➢ Motor Fuels Tax

	1¢ / gal	5¢ / gal	11.9¢ / gal
Durham:	$1.2 m	$5.9 m	$14.2 m
Orange:	$0.6 m	$3.1 m	$7.4 m
Chatham:	$0.4 m	$2.0 m	$4.8 m
Revenue per year:	**$2.2 m**	**$11.0 m**	**$26.4 m**
Revenue over 25 years:	**$55.0 m**	**$275 m**	**$660.0 m**

➢ Vehicle Registration Fee*

	(additional) $20
Durham:	$3.8 m
Orange:	$2.0 m
Chatham:	$1.3 m
Revenue per year:	**$7.1 m**
Revenue over 25 years:	**$177.5 m**

* The current cost of vehicle registration renewal is $20 plus a $5 Triangle Transit Authority tax. Refer to GS 160A-613, 623-624.

➢ Rental Car Tax*

	(additional) 5%	(additional) 10%
3 County:	**$8.7 m**	**$17.5 m**
Revenue over 25 years:	**$217.5 m**	**$437.5 m**

* Revenue for future Triangle Transit fixed-guideway project(a) are based on a 5% car rental tax levied.

➢ Real Estate Property Tax

	$0.05 / $100 (0.05%)	$0.10 / $100 (0.1%)
Durham:	$8.7 m	$17.3 m
Orange:	$5.5 m	$10.9 m
Revenue per year:	**$14.2 m**	**$28.2 m**
Revenue over 25 years:	**$355 m**	**$705 m**

➢ Real Estate Transfer Tax

	$0.20 / $100 (0.2%)*	$0.40 / $100 (0.4%)**
Durham:	$5.1 m	$10.2 m
Orange:	$2.0 m	$4.1 m
Revenue per year:	**$7.1 m**	**$14.3 m**
Revenue over 25 years:	**$177.5 m**	**$357.5 m**

* *The State of North Carolina currently levies a 0.2% tax on any real estate transfer.*

** *In 2007, the State Legislature authorized an additional 0.4% local option real estate transfer tax.*

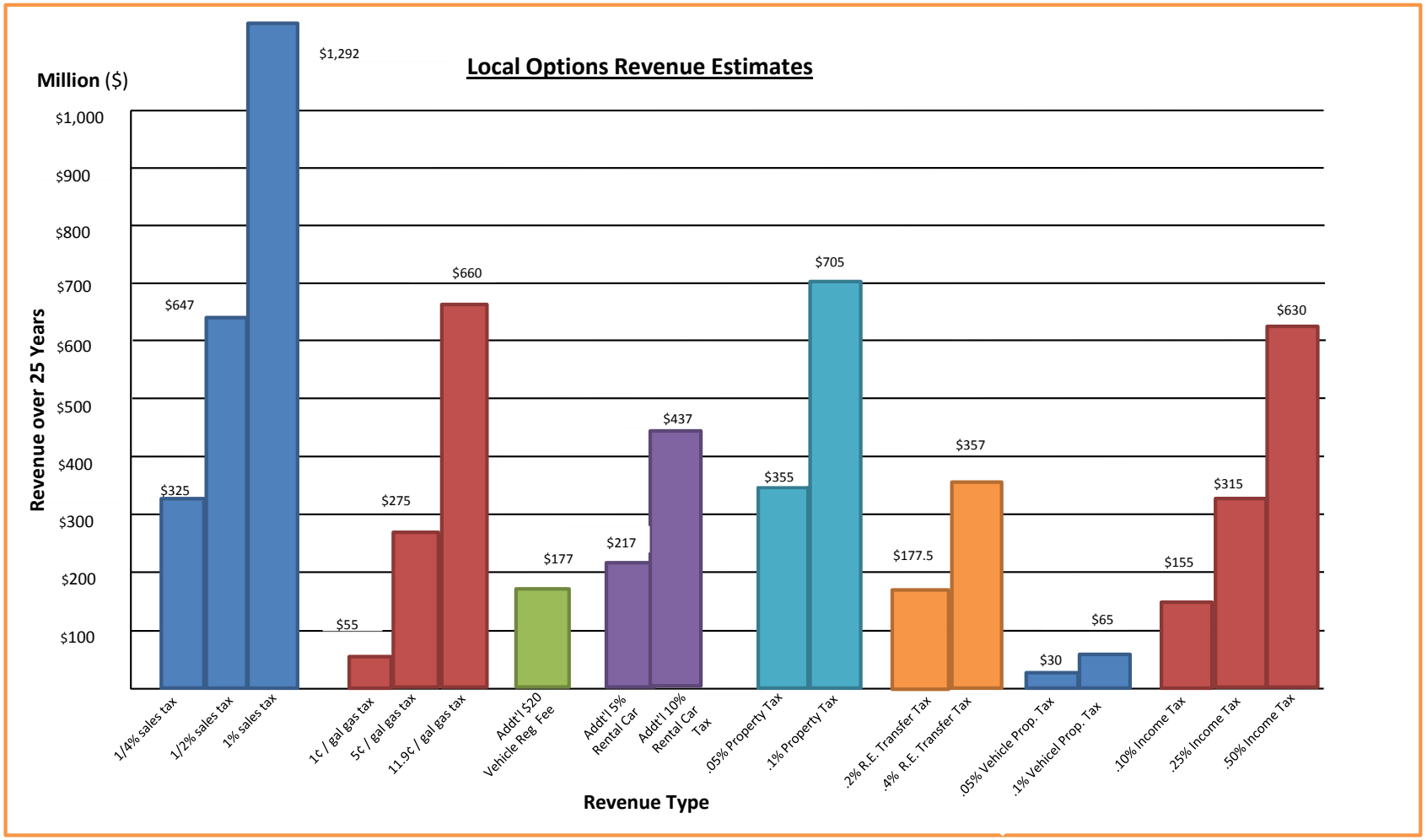
➢ Vehicle Property Tax

	$0.05 / $100 (.05%)	$0.10 / $100 (0.1%)
Durham:	$0.8 m	$1.7 m
Orange:	$0.4 m	$0.9 m
Revenue per year:	**$1.2 m**	**$2.6 m**
Revenue over 25 years:	**$30 m**	**$65 m**

* Personal/Vehicle property tax must be congruent with Real (Estate) property tax rates per Art. 5 of the NC Constitution

➢ Income Tax

	0.10 %	0.25 %	0.50 %
Durham:	$3.6 m	$7.4 m	$14.8 m
Orange:	$2.6 m	$5.2 m	$10.4 m
Revenue per year:	**$6.2 m**	**$12.6 m**	**$25.2 m**
Revenue over 25 years:	**$155 m**	**$315 m**	**$630 m**


Local Options Revenue Estimates
Million ($)
Revenue over 25 Years
$1,000
$900
$800
$700
$600
$500
$400
$300
$200
$100
$325
$647
$1,292
$55
$275
$660
$177
$217
$437
$355
$705
$177.5
$357
$30
$65
$155
$315
$630
1/4% sales tax
1/2% sales tax
1% sales tax
1¢ / gal gas tax
5¢ / gal gas tax
11.9¢ / gal gas tax
Addt'l $20 Vehicle Reg. Fee
Addt'l 5% Rental Car Tax
Addt'l 10% Rental Car Tax
.05% Property Tax
.1% Property Tax
.2% R.E. Transfer Tax
.4% R.E. Transfer Tax
.05% Vehicle Prop. Tax
.1% Vehicel Prop. Tax
.10% Income Tax
.25% Income Tax
.50% Income Tax
Revenue Type

2035 LRTP and CTP
Alternatives – Detailed Description

Purpose of Alternatives

The DCHC MPO plans to develop and evaluate several Alternatives in the process to create the 2035 Long Range Transportation Plan. Each Alternative will be a combination of a Transportation System, which includes a set of highway, transit and other transportation improvements, and a Land Use Scenario that distributes the forecasted population and employment for the year 2035. These Alternatives will be run in the Triangle Regional Model (TRM) to produce a set of transportation performance measures that describe how the transportation system will handle the travel demand generated by a particular population and employment distribution in the year 2035. These performance measures, such as the level of roadway congestion, average travel time, and transit ridership, will be used to evaluate and compare the various Alternatives.

In the next major step in the 2035 LRTP development process, the public, elected officials and technical staff will use this evaluation and comparison information to create a single Alternative that best meets the MPO's Goals and Objectives and the fiscal constrain requirement that demands that the project costs do not exceed the expected funding revenues. This final Alternative is called the Preferred Option, and it will also go through an extensive public review process similar to that of the Alternatives.

It should be noted that it is very unlikely that one of the Alternatives in its entirety would be advanced as the Preferred Option. These Alternatives have been designed to emphasize a particular mode in meeting the future travel demands so that the public and technical staff can understand how well the designated mode works. For example, the Intensive Highway Alternative has a high level of High-Occupancy Vehicle/Toll (HOV/HOT), road widenings and new roads, a relatively low level of bus transit and no fixed-guideway (e.g., light rail) to meet the future demands. The Alternative is helpful in understanding the effect of increased roadway capacity on specific corridor congestion, travel time, mode share and other performance measures. This knowledge will be used to develop the Preferred Option, which is likely to have a lower level of roadway expansion than the Intensive Highway Alternative and a more balanced modal approach.

Development of Alternatives

The table on the page 3 shows the combinations of Transportation Systems and Land Use Scenarios that will be modeled for the 2035 LRTP development process. Each of these Transportation Systems will be combined with one, or more, Land Use Scenarios to create an Alternative.

- The first two Transportation Systems (#1 and #2), the 2030 LRTP and Comprehensive Transportation Plan, will be used to compare with the 2035 LRTP Alternatives, and therefore will not form Alternatives.
- The next five Transportation Systems (#3 through #7), are Alternatives for the 2035 LRTP.

There is a unique set of Socioeconomic Data (SE Data) for each Land Use Scenario. The Baseline Land Use Scenario, for example, is the SE Data approved by the Transportation Advisory Committee (TAC) for use in developing the 2035 LRTP and is based on the current land use plans and policies of the local jurisdictions in the DCHC MPO's planning area. The other Land Use Scenarios assume certain changes to current land use policies.

The Transportation System and Land Use Scenarios have only been combined into logical matches. For example, the Intensive Highway Transportation System assumes many highway improvements, relatively few transit improvements and no fixed-guideway service. Thus, this System was not matched with the Transit Node Land Use Scenario, which is designed to support fixed-guideway stations. There are 15 combinations of Transportation Systems and Land Use Scenarios to for the Alternatives. The System Preservation (#7) will not require separate travel demand data because the TRM (model) is not designed to be sensitive to the levels of Intelligent Transportation Systems (ITS), Travel Demand Management (TDM) and the other related programs and policies inherent in the System Preservation Alternative. The impact of these particular programs and polices will be accounted for after the model is run (these are sometimes called off-model credits).

Description of Transportation Systems

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 page 4 provides a summary of the major projects in each of the Transportation Systems to highlight the level and type of investment in the three major modes – highway, bus transit and fixed-guideway.

The detailed Highway and Transit project lists are presented at the end of this section.

To compute the transportation system performance measures, the Triangle Regional Model (TRM) does not account for transportation facilities and services related to bicycles, pedestrians, Travel Demand Management (TDM), Transportation System Management (TSM), and Intelligent Transportation System (TSM). These facilities and services are accounted for after the model process occurs (called post processing adjustments), and therefore they are not listed in the Transportation System project lists.

Combinations of Transportation Systems and Land Use Scenarios (1)

No.	Transportation System	Land Use Scenarios				
		Baseline	**Constrained**	**Buildout**	**Corridor**	**Transit Nodes**
Benchmarks for comparison						
1	**2030 Adopted LRTP** Currently adopted plan	**1a**				
2	**Comprehensive Transportation Plan** Vision Plan to address population and employment buildout beyond the year 2035; no budget constraint	**2a**		**2b**		
2035 LRTP Alternatives						
3	**Intensive Highway** Emphasize highway investment to address transportation needs	**3a**	**3b**		**3c**	
4	**Intensive Fixed Guideway** Light rail and other grade separated transit	**4a**			**4b**	**4c**
5	**Intensive Bus Transit** Emphasize bus transit service to address transportation needs	**5a**			**5b**	**5c**
6	**Moderate Multimodal** Continue current investment trends with some shift to non-automobile modes	**6a**			**6b**	**6c**
7	**System Preservation** (2) Preserve effectiveness of existing transportation using ITS, TDM, and CMS-TSM projects and policies					

(1) Each combination of a Transportation System and Land Use Scenario creates an Alternative and will require a unique travel demand model run.

(2) The Triangle Regional Model (TRM) is not designed to be very sensitive to changes in ITS, TDM, and CMS-TSM projects and policies. Therefore, the System Preservation Alternative will not require additional model runs.

Summary of Transportation Systems (Alternatives)(1)

Transportation System	Highway	Bus Transit	Fixed Guideway
2030 LRTP	• **518** lane miles added • HOV/HOT on I-40 and part of NC 147 • Triangle Parkway (toll) • US 15-501 freeway • 7 "loop" projects	• Major regular, express and regional bus expansion • Peak headways **10-15 minutes** • Off-Peak headways **20-30 minutes**	• Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill
CTP	• **703** lane miles added • HOV/HOT on I-40, NC 147, East End Connector, US 70 and I-85 • Triangle Parkway (toll) • US 15-501 freeway • 7 "loop" projects	• Major regular, express and regional bus expansion • Peak headways **5-7 minutes** • Off-Peak headways **7-15 minutes** • BRT in Chapel Hill • Includes all **STAC** recommendations	• Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill • Includes all **STAC** recommendations
Intensive Highway	• **665** lane miles added • HOV/HOT on I-40, I-85 and part of NC 147 • Triangle Parkway (toll) • US 15-501 freeway • 7 "loop" projects	• Minor regular, express and regional bus expansion • Peak headways **15-30 minutes** • Off-Peak headways **30-45 minutes**	• No fixed guideway service
Intensive Fixed Guideway	• **276** lane miles added • No HOV/HOT • Triangle Parkway (toll) • 6 "loop" projects	• Moderate regular, express and regional bus expansion • Peak headways **7-10 minutes** • Off-Peak headways **15-20 minutes** • BRT in Chapel Hill • Includes all **STAC** recommendations	• Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill • Includes all **STAC** recommendations
Intensive Bus Transit	• **324** lane miles added • HOV/HOT on I-40 • Triangle Parkway (toll) • 6 "loop" projects	• Major regular, express and regional bus expansion • Peak headways **5-7 minutes** • Off-Peak headways **10-15 minutes**	• No fixed guideway service
Moderate Multimodal	• **285** lane miles added • No HOV/HOT • Triangle Parkway (toll) • 7 "loop" projects	• Moderate regular, express and regional bus expansion • Peak headways **15 minutes** • Off-Peak headways **30 minutes**	• Commuter Rail – Burlington to Raleigh; and Selma to Durham

(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. Loop = Highway projects funded by the N.C. Highway Trust Fund – this funding is in addition to the standard transportation budget (i.e., Transportation Equity Formula).

Maps of Transportation Systems

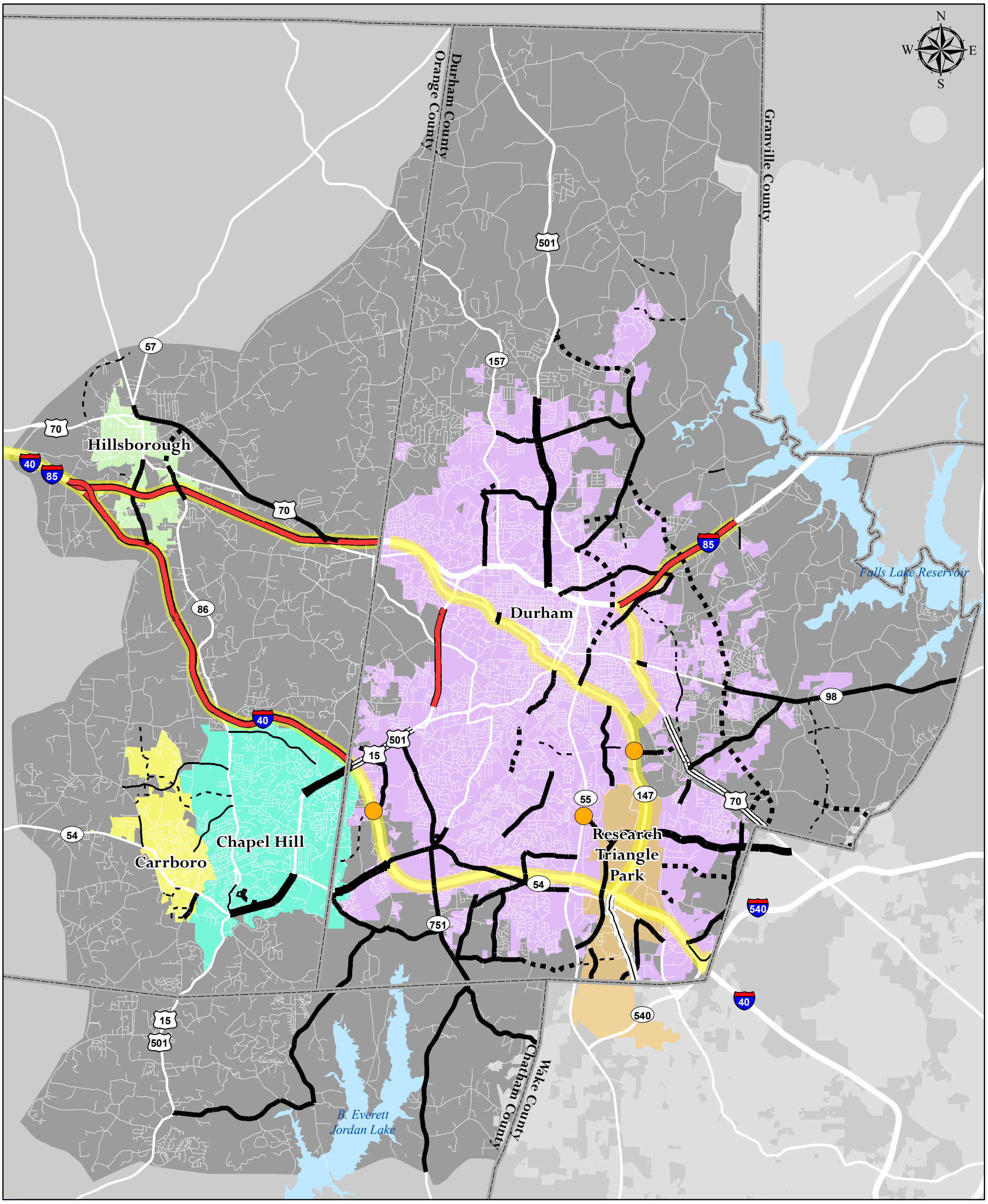
This section presents one highway and one transit map for each of the five proposed transportation systems, including:

- Comprehensive Transportation Plan (CTP);
- Intensive Highway;
- Intensive Fixed-Guideway;
- Intensive Bus Transit; and,
- Moderate Multimodal.

In addition, there is a one bicycle facility and one off-road facility map. The various transportation systems have the same set of bicycle and off-road facility projects, and therefore, these maps don't vary from one system to another.

Durham Chapel Hill Carrboro Metropolitan Planning Organization

Roadway Improvements in CTP Alternative



New/Improved Intersections
HOV Projects
Interstates
US and NC Highways

Roadways in CTP Alternative

2-3 Lane New Location
2-3 Lane Improvement
4-5 Lane Divided New Location
4-5 Lane Divided Improvement
6-Lane Divided Improvement
Upgrade to Freeway
New Freeway/Expressway
Upgrade Existing Freeway

Carrboro
Chapel Hill
Durham
Hillsborough
Other Municipalities
Research Triangle Park

MPO Boundary
County Boundaries

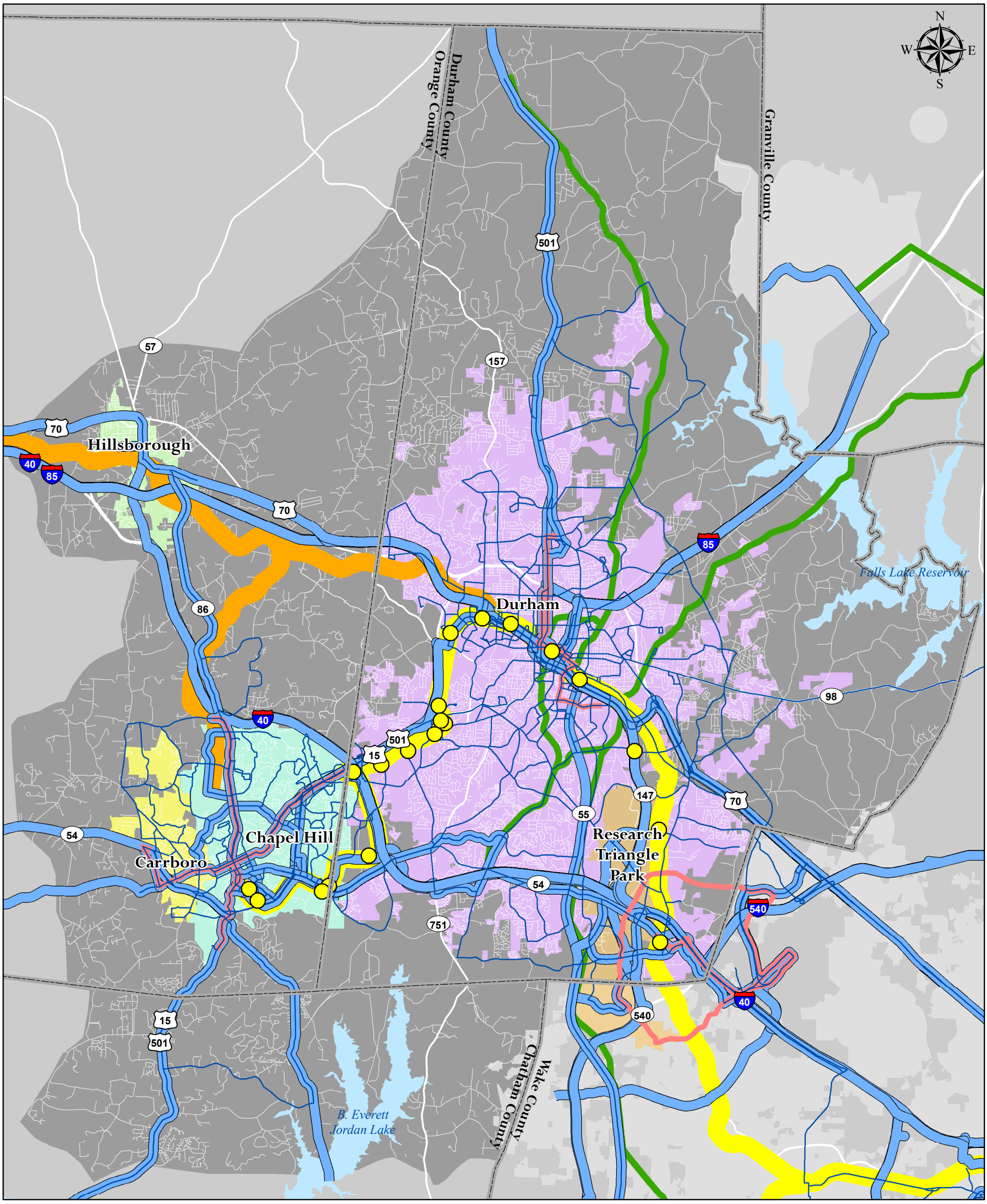
Transportation Plan 2035

The Louis Berger Group, Inc.
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0 1.25 2.5 5 Miles

Durham Chapel Hill Carrboro Metropolitan Planning Organization

Transit Services in CTP Alternative



Transit Services in CTP Alternative

- Fixed Guideway Stations
- Interstates
- US and NC Highways
- MPO Boundary
- County Boundaries
- Local Bus
- Express Bus
- Circulator
- Fixed Guideway
- Fixed Guideway (Commuter Rail)
- Rail Corridor Preservation
- Carrboro
- Chapel Hill
- Durham
- Hillsborough
- Other Municipalities
- Research Triangle Park

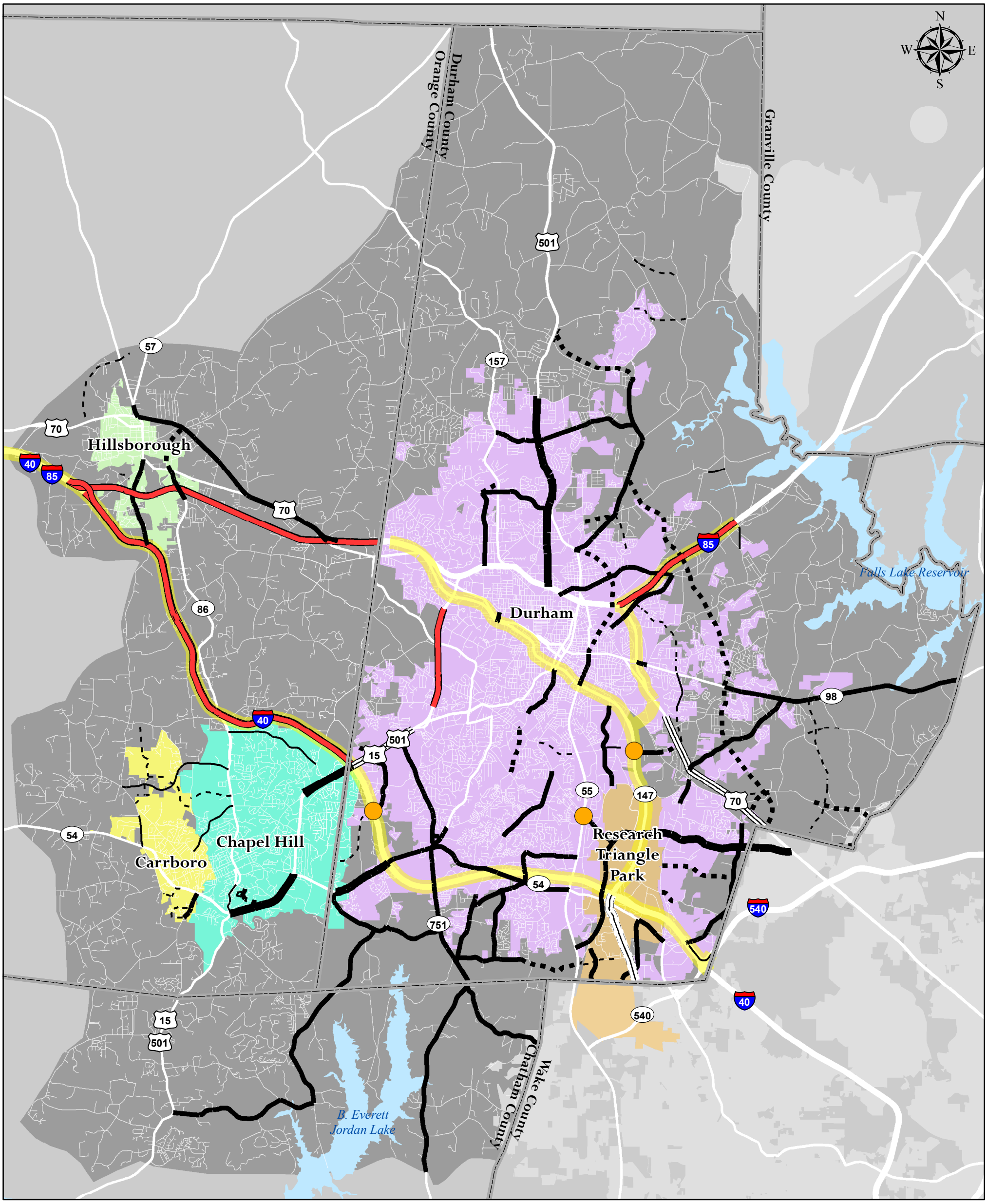
Transportation Plan 2035

The Louis Berger Group, Inc.
8.6.2008

0 1 2 4 Miles

Durham Chapel Hill Carrboro Metropolitan Planning Organization

Roadway Improvements in Highway Intensive Alternative



New/Improved Intersections
HOV Projects
Interstates
US and NC Highways

Roadways in Highway Intensive Alternative

2-3 Lane New Location
2-3 Lane Improvement
4-5 Lane Divided New Location
4-5 Lane Divided Improvement
6-Lane Divided Improvement
Upgrade to Freeway
New Freeway/Expressway
Upgrade Existing Freeway

Carrboro
Chapel Hill
Durham
Hillsborough
Other Municipalities
Research Triangle Park

MPO Boundary
County Boundaries

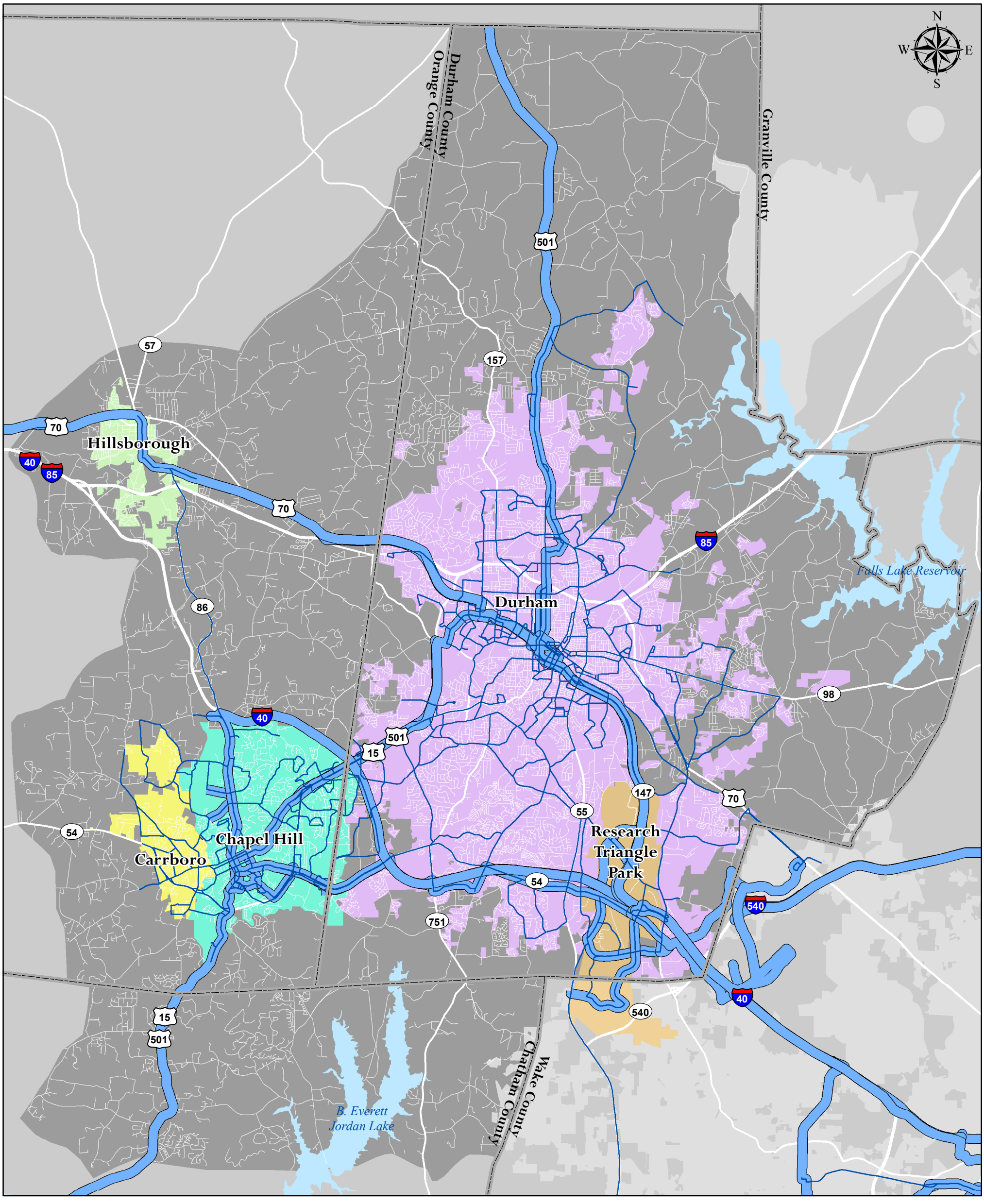
Transportation Plan 2035

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0 1.25 2.5 5 Miles

Durham Chapel Hill Carrboro Metropolitan Planning Organization

Transit Services in Highway Intensive Alternative



Interstates
US and NC Highways
MPO Boundary
County Boundaries

Transit in Highway Intensive Alternative

Local Bus
Express Bus

Carrboro
Chapel Hill
Durham
Hillsborough
Other Municipalities
Research Triangle Park

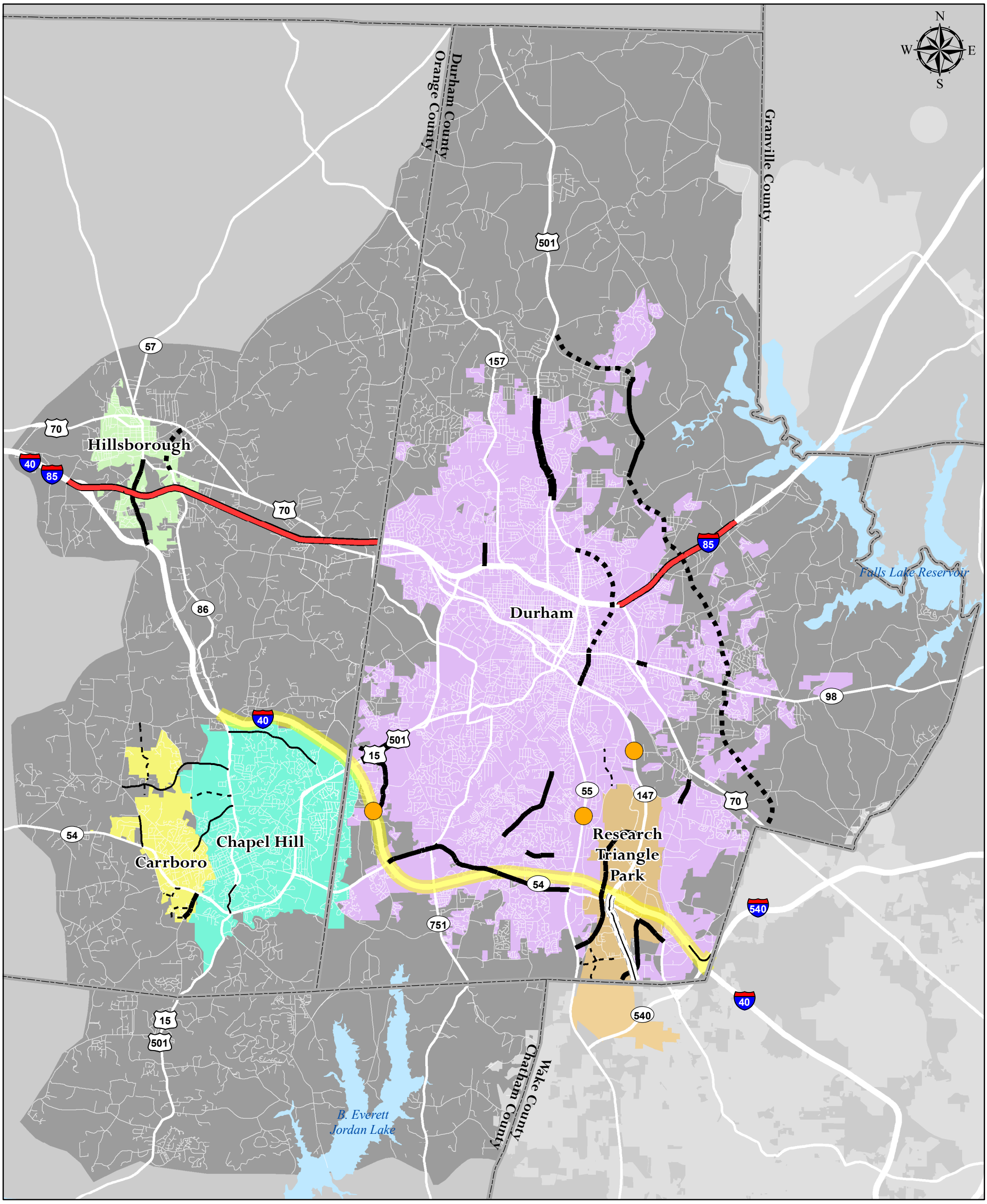
Transportation Plan 2035

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0 1.25 2.5 5 Miles

Durham Chapel Hill Carrboro Metropolitan Planning Organization

Roadway Improvements in Fixed Guideway Alternative



- New/Improved Intersections
- HOV Projects
- Interstates
- US and NC Highways

Roadways in Fixed Guideway Alternative

- 2-3 Lane New Location
- 2-3 Lane Improvement
- 4-5 Lane Divided New Location
- 4-5 Lane Divided Improvement
- 6-Lane Divided Improvement
- Upgrade to Freeway
- New Freeway/Expressway
- Upgrade Existing Freeway
- Carrboro
- Chapel Hill
- Durham
- Hillsborough
- Other Municipalities
- Research Triangle Park
- MPO Boundary
- County Boundaries

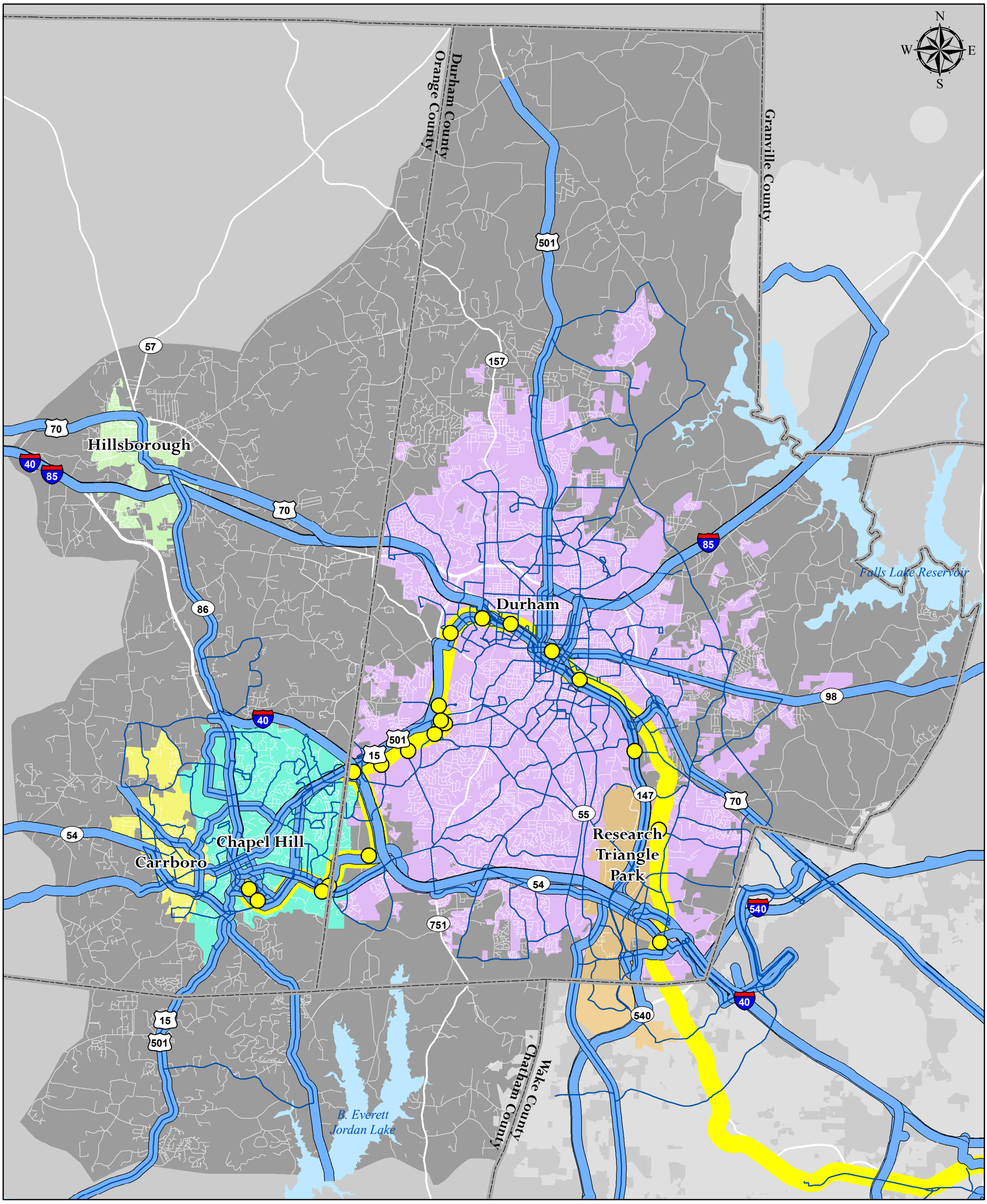
Transportation Plan 2035

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0 1.25 2.5 5 Miles

Durham Chapel Hill Carrboro Metropolitan Planning Organization

Transit Services in Fixed Guideway Alternative



Transit in Fixed Guideway Alternative

- Fixed Guideway Stations
- Interstates
- US and NC Highways
- MPO Boundary
- County Boundaries
- Local Bus
- Express Bus
- Fixed Guideway
- Carrboro
- Chapel Hill
- Durham
- Hillsborough
- Other Municipalities
- Research Triangle Park

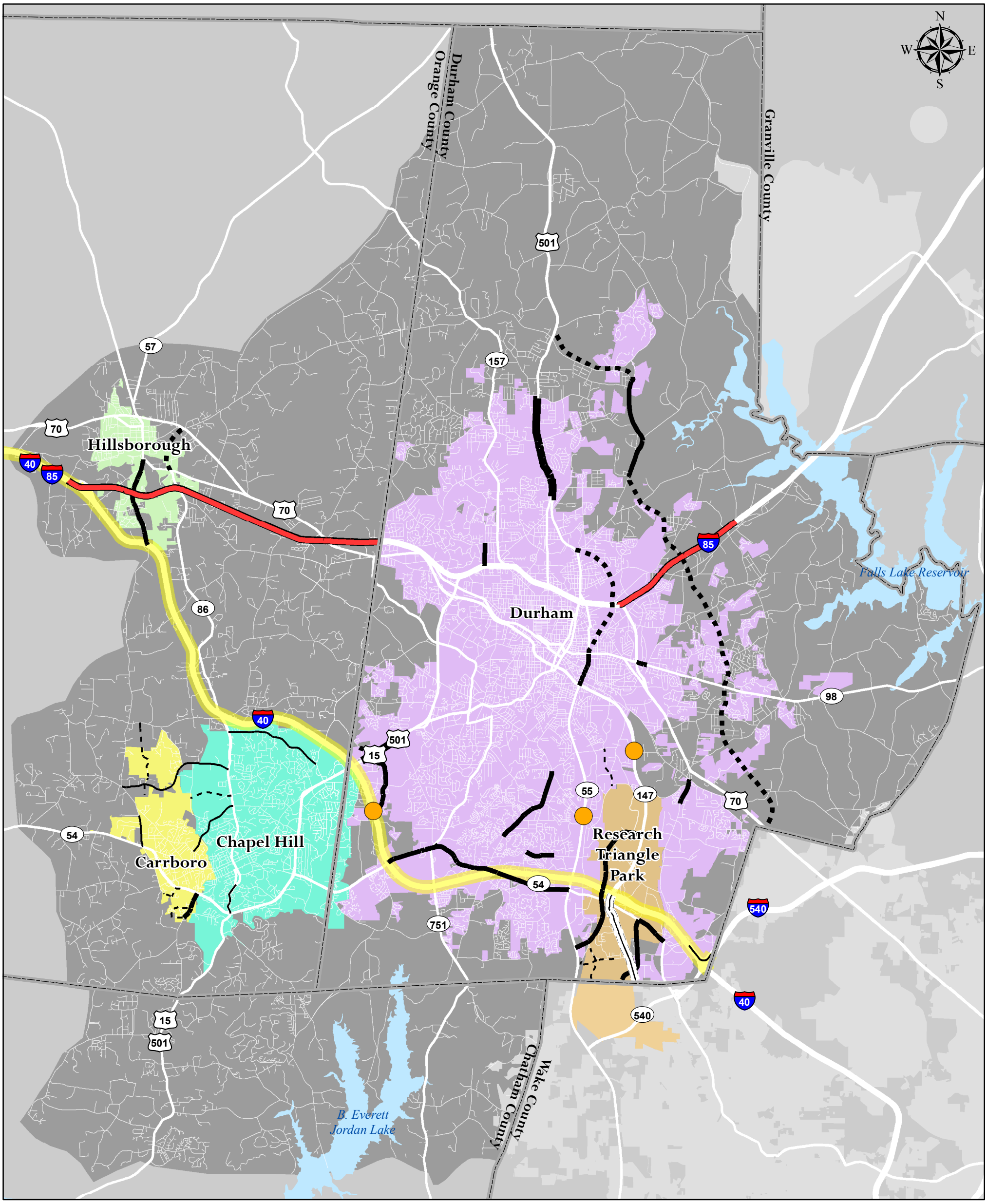
Transportation Plan 2035

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0 1.25 2.5 5 Miles

Durham Chapel Hill Carrboro Metropolitan Planning Organization

Roadway Improvements in Bus Intensive Alternative



New/Improved Intersections
HOV Projects
Interstates
US and NC Highways

Roadways in Bus Intensive Alternative

2-3 Lane New Location
2-3 Lane Improvement
4-5 Lane Divided New Location
4-5 Lane Divided Improvement
6-Lane Divided Improvement
Upgrade to Freeway
New Freeway/Expressway
Upgrade Existing Freeway

Carrboro
Chapel Hill
Durham
Hillsborough
Other Municipalities
Research Triangle Park

MPO Boundary
County Boundaries

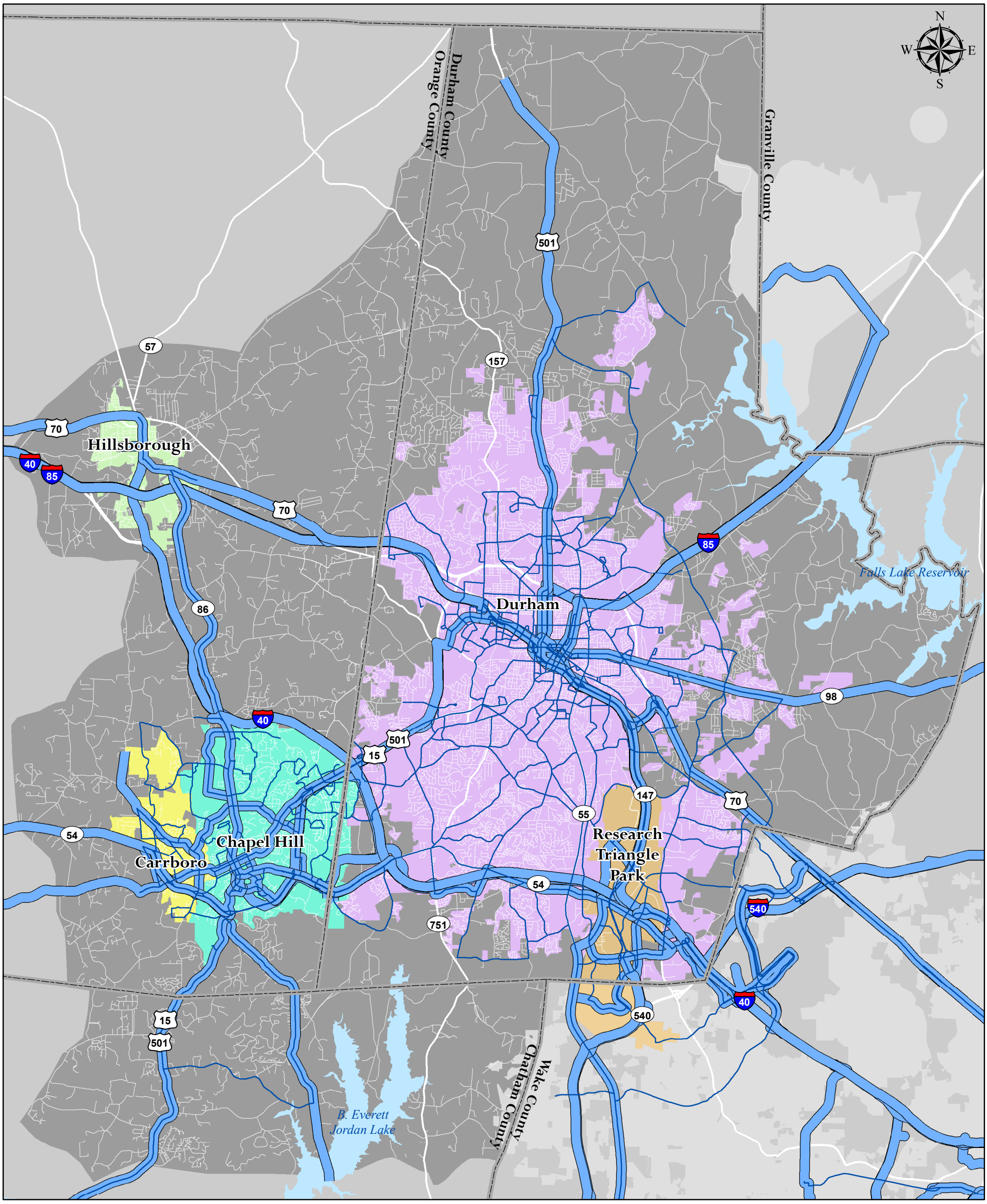
Transportation Plan 2035

The Louis Berger Group, Inc.
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0 1.25 2.5 5 Miles

Durham Chapel Hill Carrboro Metropolitan Planning Organization

Transit Services in Bus Intensive Alternative



Interstates
US and NC Highways
MPO Boundary
County Boundaries

Transit in Bus Intensive Alternative

Local Bus
Express Bus

Carrboro
Chapel Hill
Durham
Hillsborough
Other Municipalities
Research Triangle Park

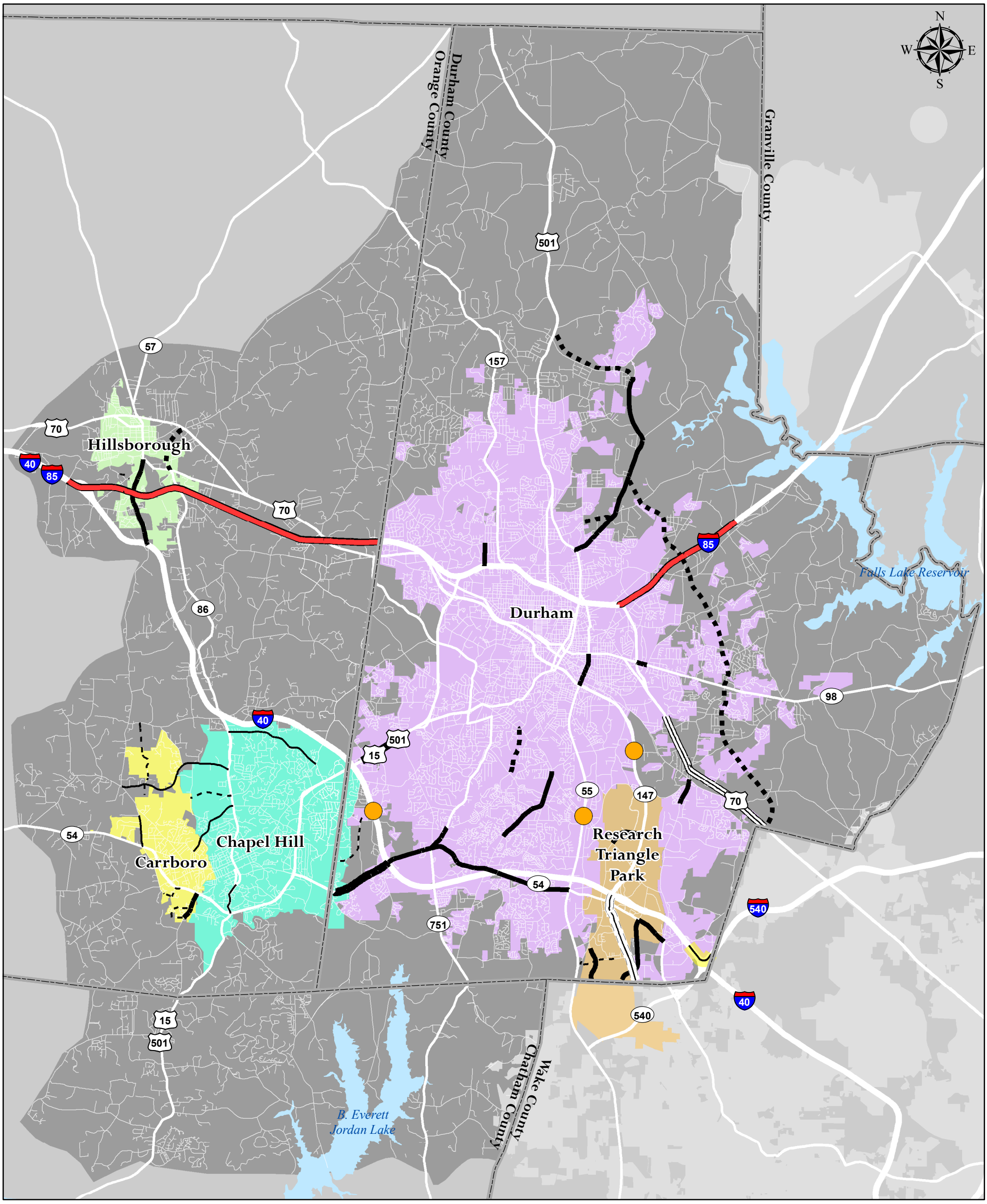
Transportation Plan 2035

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0 1.25 2.5 5 Miles

Durham Chapel Hill Carrboro Metropolitan Planning Organization

Roadway Improvements in Modified Alternative



New/Improved Intersections
HOV Projects
Interstates
US and NC Highways

Roadways in Modified Alternative

2-3 Lane New Location
2-3 Lane Improvement
4-5 Lane Divided New Location
4-5 Lane Divided Improvement
6-Lane Divided Improvement
Upgrade to Freeway
New Freeway/Expressway
Upgrade Existing Freeway
Carrboro
Chapel Hill
Durham
Hillsborough
Other Municipalities
Research Triangle Park
MPO Boundary
County Boundaries

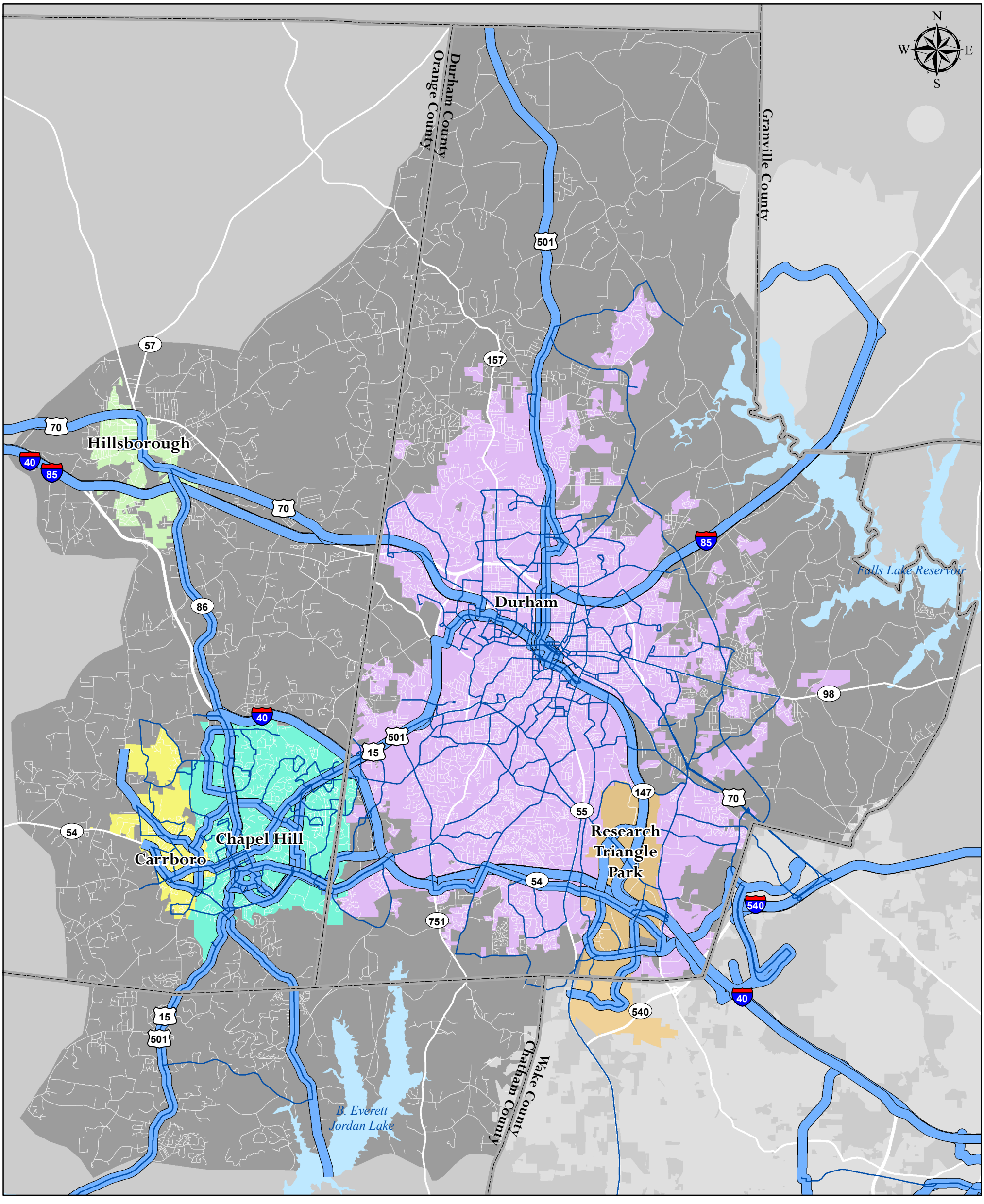
Transportation Plan 2035

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8.6.2008

0 1.25 2.5 5 Miles

Durham Chapel Hill Carrboro Metropolitan Planning Organization

Transit Services in Modified Alternative



Interstates
US and NC Highways
MPO Boundary
County Boundaries

Transit in Modified Alternative
Local Bus
Express Bus

Carrboro
Chapel Hill
Durham
Hillsborough
Other Municipalities
Research Triangle Park

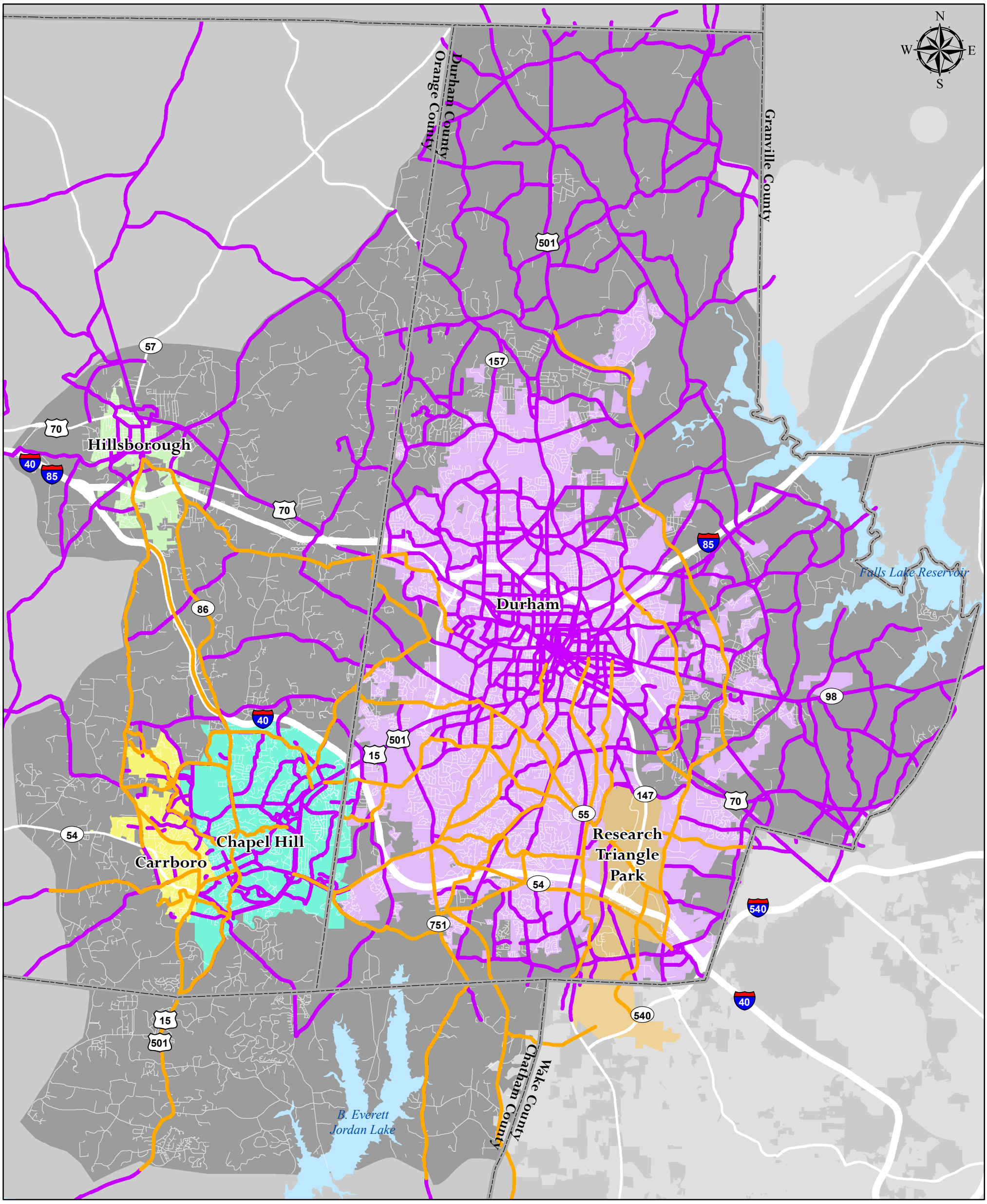
Transportation Plan 2035

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8.6.2008

0 1.25 2.5 5 Miles

Durham Chapel Hill Carrboro Metropolitan Planning Organization

On-Road Bicycle Facilities



Interstates
US and NC Highways
MPO Boundary
County Boundaries
Regional Bicycle Facilities
On-Road Bicycle Facilities
Carrboro
Chapel Hill
Durham
Hillsborough
Other Municipalities
Research Triangle Park

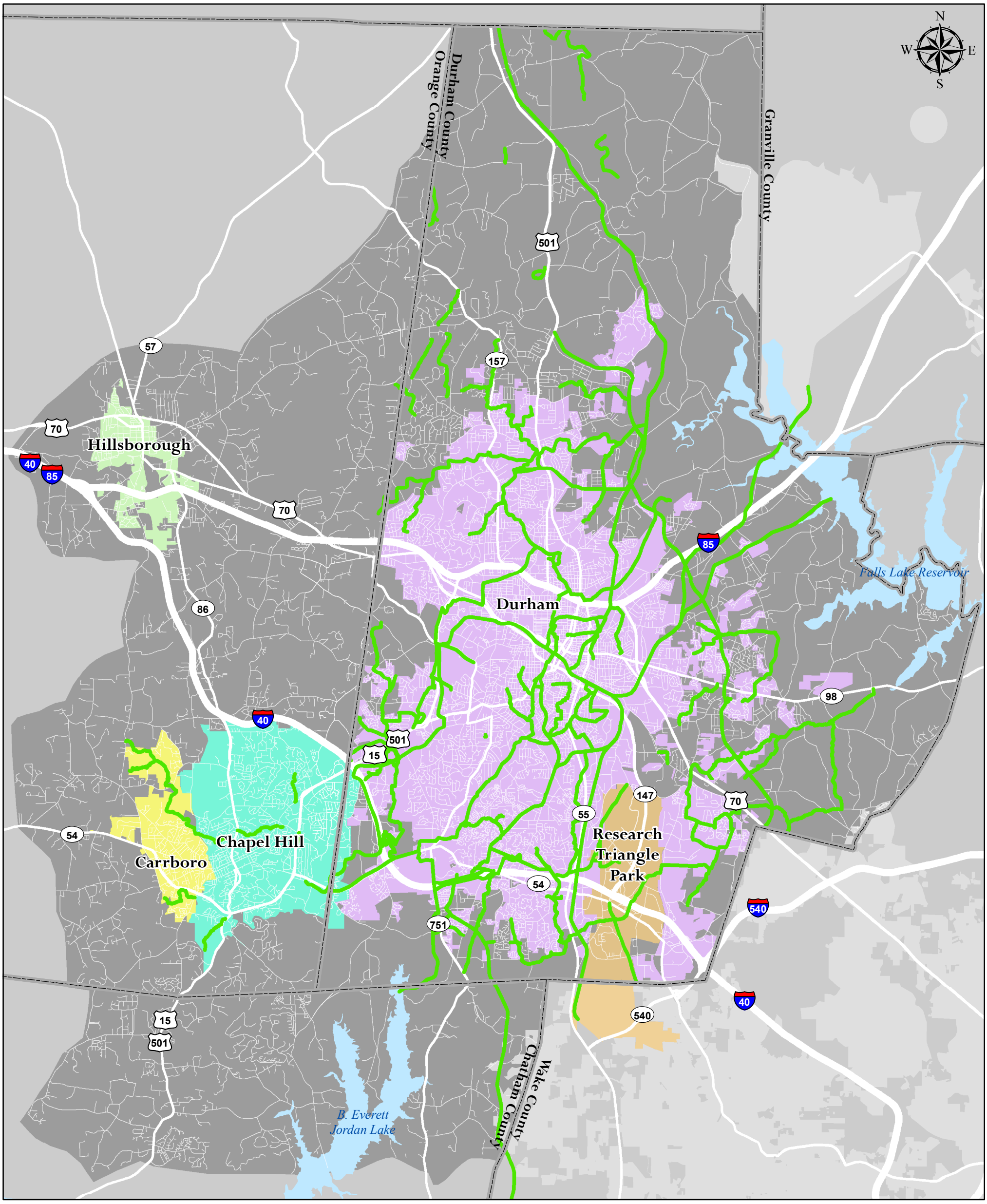
Transportation Plan 2035

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8.6.2008

0 1.25 2.5 5 Miles

Durham Chapel Hill Carrboro Metropolitan Planning Organization

Off-Road Bicycle Facilities



Interstates
US and NC Highways
MPO Boundary
County Boundaries
Off-Road Bicycle Facilities
Carrboro
Chapel Hill
Durham
Hillsborough
Other Municipalities
Research Triangle Park

Transportation Plan 2035

The Louis Berger Group, Inc.
8.6.2008

0 1.25 2.5 5 Miles

Tables of Transportation Systems

This section presents one highway project and one transit project table that shows which project are in each of the five proposed transportation systems and in the benchmark systems such as the Existing plus Committed (E+C) and 2030 LRTP (the current long range plan that is to be updated by the 2035 LRTP).

2035 LRTP and CTP

Highway Projects and Alternatives

									Benchmarks			LRTP Alternatives				
Old ID	**New ID**	**Project**	**Project Limits**	**Existing Cross-Section**	**CTP 2040 Proposed Cross-Section**	**TIP No.**	**County**	**Proposed Improvement**	**0--E+C**	**1--2030**	**2--CTP**	**3--Hwy**	**4--FG**	**5--Bus**	**6--Mod**	**7--Pres**
1	1	Alexander Dr	Cornwallis Rd to NC 147	2-lane	4-lane divided	U-3309	Durham	Widening	0	1	1	1	1	1	1	1
2	2	Alexander Dr	NC 147 to Miami Blvd	2-lane	4-lane divided	U-3309	Durham	Widening	1	1	1	1	1	1	1	1
	2.1	Alexander Dr	NC 147 to Miami Blvd	4-lane divided	6-lane divided	U-3310	Durham	Widening	0	0	1	1	0	0	0	0
3	3	Alexander Dr	NC 54 to NC 55	2-lane	4-lane divided		Durham	Widening	0	1	1	1	1	1	0	0
4	4	Alexander Dr	NC 54 to Cornwallis Rd	2-lane	4-lane divided		Durham	Widening	0	1	1	1	1	1	0	0
5	5	Alston Ave Ext	Holloway St to Old Oxford/Roxboro	New	4-lane divided	CIP/ Bond	Durham	New	0	1	1	1	1	1	0	0
	5.1	Anderson St Ext (15th St)	Erwin Rd to Hillsborough Rd. (US 70 Bus)	2-lane	4-lane		Durham	Widening	0	0	1	1	0	0	0	0
	5.2	Barbee Road	E Woodcroft Pkwy to Herndon Rd	2-lane	4-lane		Durham	Widening	0	0	1	1	0	0	0	0
	5.3	Barbee Chapel Road	NC 54 to Farrington Mill Rd.	2-lane	4-lane		Durham	Widening	0	0	1	1	0	0	0	0
6	6	Berryhill/Old Fayetteville Conn.	Old Fayetteville Rd to NC 54 Bypass	New	2-lane	Private	Orange	New	1	1	1	1	1	1	1	1
7	7	BPW Club/Rock Haven Conn.	Loop at Smith Level Road	New	2-lane	Private	Orange	New	1	1	1	1	1	1	1	1
	7.1	Briggs Ave Ext	Lawson-NE Creek Pkway	2-lane	4-lane divided		Durham	Widening	0	0	1	1	0	0	0	0
8	8	Briggs Ave Ext	So-Hi Dr to Riddle Rd	New	*4-lane*	U-2831	Durham	New	0	1	1	1	1	1	0	0
	8.1	Burton Road Ext	Burton Rd to Red Mill Rd/I-85	new	2-lane		Durham	New	0	0	1	1	0	0	0	0
	8.2	Carpenter Fletcher	Woodcroft Pkwy ext to NC 55	2 lane	4-lane divided		Durham	Widening	0	0	1	1	0	0	0	0
9	9	Carver Street Ext	Armfield St to Old Oxford Rd	New	4-lane divided		Durham	New	0	1	1	1	0	0	1	1
10	10	Chin Page Ext.	Page Rd to Wake County Line	New	4-lane		Durham	New	0	1	1	1	0	0	0	0
11	11	Churton Connector	Old NC 86 to NC 86 (Between I-85 & I-40)	New	4-lane divided		Orange	New	1	1	1	1	1	1	1	1
	11.1	Club Blvd	Washington to Roxboro	2-lane	4-lane divided		Durham	Widening	0	0	1	1	0	0	0	0
	11.2	Club Blvd	Roxboro to Geer St	2-lane	4-lane divided		Durham	Widening	0	0	1	1	0	0	0	0
12	12	Cornwallis Rd	MLK to Alexander Dr	2-lane	4-lane divided		Durham	Widening	0	1	1	1	0	0	0	0
13	13	Cornwallis Rd Ext	Miami Blvd to Chin Page Rd	New	4-lane divided		Durham	New	0	1	1	1	0	0	0	0
14	14	Davis Dr	NC 54 to County Line	2-lane	4-lane divided	U-4026	Durham	Widening	1	1	1	1	1	1	1	1
	14.1	Duke Street (North)	I-85 to N Roxboro split	4-lane	*6-lane*		Durham	Widening	0	0	1	1	0	0	0	0
15	15	East End Connector (EEC)	NC 147 to US 70 E; US 70:EEC to NC 98	New	4-lane freeway	U-71	Durham	New	0	1	1	1	1	1	1	1
	15.1	East End Connector (EEC) HOV	NC 147 to US 70 E; US 70:EEC to NC 99	6-lane freeway	6-lane HOV freeway	U-72	Durham	Widening	0	0	1	1	0	0	0	0
16	16	Elizabeth Brady Rd Ext	US 70 Business to St Mary's Rd	New	4-lane divided	U-3808	Orange	New	0	1	1	1	1	1	1	1
	16.1	Eno Mountain Rd./Mayo Rd.	Orange Grove Rd. intersection	2-lane	2-lane	U-3436	Orange	Realignment	0	0	1	1	0	0	1	1
17	17	Estes Dr	Greensboro Rd to NC 86	2-lane	3-lane	U-2909	Orange	Widening	0	1	1	1	1	1	1	1
18	18	FarmHouse/Tramore Conn.	Old NC 86 to Stratford Drive	New	2-lane	Private	Orange	New	0	1	1	1	0	0	0	0
19	19	Farrington Mill Rd	Jack Bennett Rd to Durham Co line	2-lane	4-lane divided		Durham	Widening	0	0	1	1	0	0	0	0
20	20	Farrington Mill Rd	Barbee Chapel Rd to Chatham Co. line	2-lane	4-lane divided		Durham	Widening	0	0	1	1	0	0	0	0

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2035 LRTP and CTP

Highway Projects and Alternatives

									Benchmarks			LRTP Alternatives				
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21	21	Farrington Rd	Barbee Chapel Rd to Stagecoach Rd	2-lane	4-lane divided		Durham		0	0	1	1	0	0	0	0
22	22	Fayetteville Rd	Woodcroft Pkwy to Renaissance Pkwy	2-lane	4-lane divided	CIP/ Bond	Durham	Widening	1	1	1	1	1	1	1	1
	22.1	Fayetteville Rd	Renaissance Pkwy to NC 751	2-lane	4-lane divided		Durham	Widening	1	1	1	1	0	0	0	0
23	23	Fayetteville Rd	Woodcroft Pkwy to Cornwallis Rd	2-lane	4-lane divided		Durham	Widening	0	1	1	1	1	1	1	1
24	24	Garrett Rd	NC 751 to US 15-501	2-lane	4-lane divided		Durham	Widening	0	1	1	1	0	0	0	0
	25	Garrett Rd/Chapel Hill Rd.	Garrett Rd/Chapel Hill Rd.	Intersection	4-lane	U-3105	Durham	Widening	0	0	1	1	1	1	1	1
	25.1	Geer Street	Club Blvd to Cheek	2-lane	4-lane		Durham	Widening	0	0	1	1	0	0	0	0
26	26	Globe St Ext. (Brier Creek Pkway)	Miami Blvd. To Wake County Line	New	4-lane		Durham	New	0	1	1	1	0	0	0	0
27	27	Glover Rd	Glover Rd/NC 147 interchange; 147 to Angier	2-lane	Interchg/4-lane divided		Durham	Widen/interchg	0	1	1	1	0	0	0	0
28	28	Glover Rd	Angier to US 70	New	4-lane divided		Durham	New	0	1	1	1	0	0	0	0
29	29	Guess Rd	Carver St to Umstead Rd	2-lane	5-lane/4-lane divided	U-2102	Durham	Widening	1	1	1	1	1	1	1	1
	29.1	Hamlin Road Ext	Glenn Rd to Red Mill Rd	new	2-lane		Durham	New	0	0	1	1	0	0	0	0
	29.2	Herndon Rd	Scott King to Barbee Rd/Massey Chapel	2-lane	4-lane divided		Durham	Widening	0	0	1	1	0	0	0	0
30	30	Hillandale Rd	I-85 to Carver St.	2-lane	4-lane divided	U-3804	Durham	Widening	1	1	1	1	1	1	1	1
31	31	Hillandale Rd	Carver to Horton Rd	2-lane	4-lane divided		Durham	Widening	0	1	1	1	0	0	0	0
32	32	Hillandale Rd Ext	Horton Rd to Guess Rd	New	4-lane divided		Durham	New	0	1	1	1	0	0	0	0
33	33	Hillsborough Rd/Old Fayetteville	Lorraine St to Old Fayetteville/NC 54	2-lane	2-lane (36-ft curb/gutter)	U-3100	Orange	Widening	0	1	1	1	1	1	1	1
34	34	Holloway Street	US 70 to east of Junction Rd	2-lane	5-lane	U-4010	Durham	Widening	1	1	1	1	1	1	1	1
35	35	Homestead Rd	High School Rd to NC 86	2-lane	3-lane	U-2805	Orange	Widening	0	1	1	1	1	1	1	1
36	36	Homestead Rd	Old NC 86 to High School Rd	2-lane	3-lane		Orange	Widening	0	1	1	1	1	1	1	1
37	37	Hopson Rd. realignment (RTP)	Louis Stephens Dr to NC 55	2-lane	2-lane	U-4410	Durham	Realignment	1	1	1	1	1	1	1	1
39	39	Horton Rd	Duke St to Hillandale Rd	2-lane	4-lane divided		Durham	Widening	0	1	1	1	0	0	0	0
40	40	(Horace Williams Network) Carolina North	Carolina North Campus (this is not an extension of Weaver Dairy Rd.)	New	2-lane		Orange	New	0	1	1	1	1	1	1	1
	41	I-40/Farrington Rd interchange	I-40/Farrington Interchange	New	Interchange		Durham	New	0	0	1	1	0	0	0	0
42	42	I-40	US 15-501 to NC 147	4-lane freeway	6-lane freeway	I-3306	Durham	Widening	1	1	1	1	1	1	1	1
43	43	I-40	US 15-501 to NC 86	4-lane freeway	6-lane freeway	I-3307	Orange	Widening	0	1	1	1	0	0	0	0
44	44	I-40	NC 86 to I-85	4-lane freeway	6-lane freeway	I-3306	Orange	Widening	0	1	1	1	0	0	0	0
45	45	I-40 HOV	Wake County Line to NC 86	New	HOV/HOT lane		Durham	New	0	1	1	1	1	1	0	0

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Highway Projects and Alternatives

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	45.1	I-40 HOV	NC 86 to I-85/Orange County Line	New	HOV/HOT lane		Orange	New	0	0	1	1	0	1	0	0
46	46	I-540	Ramp improvement: I-540 W to I-40 W	1-lane ramp	*2-lane ramp*	R-2000	Durham	Widening	0	1	1	1	1	1	1	1
47	47	I-85	US 15-501 Bypass N to US 70	4-lane freeway	8-lane freeway	I-306	Durham	Widening	1	1	1	1	1	1	1	1
48	48	I-85	I-40 to the Durham Co line	4-lane freeway	*6-lane freeway*	I-305	Orange	Widening	0	1	1	1	1	1	1	1
	48.1	I-85 HOV	I-40 to the Durham Co line	6-lane freeway	*8-lane HOV freeway*		Orange	Widening	0	0	1	0	0	0	0	0
49	49	I-85	US 70 to Red Mill Rd.	4-lane freeway	*6-lane freeway*	I-4743	Durham	Widening	0	1	1	1	1	1	1	1
	49.1	I-85 HOV	US 70 to Red Mill Rd.	6-lane freeway	*8-lane HOV freeway*		Durham	Widening	0	1	1	1	0	0	0	0
50	50	Infinity Rd	Roxboro Rd to Snow Hill Rd	2-lane	4-lane divided		Durham	Widening	0	1	1	1	0	0	0	0
	50.1	Jack Bennet Rd/Lystra Rd.	US 15-5501 South to Farrington Mill/Point Rd	2-lane	4-lane divided		Chatham	Widening	0	0	1	1	0	0	0	0
	50.2	Kemp Road (SR 1902)	SR 1809 to Olive Branch	New	2-lane		Durham	New	0	0	1	1	0	0	0	0
51	51	Lake Hogan Farms Rd	Eubanks Road to Homestead Rd.	New	2-lane	Private	Orange	New	0	1	1	1	1	1	1	1
52	52	Latta Rd	Guess Rd to Roxboro Rd	2-lane	4-lane divided		Durham	Widening	0	1	1	1	0	0	0	0
53	53	Leesville Rd Ext	Northern Parkway to US 70/Page Rd.	New	*4-lane*		Durham	New	0	1	1	1	0	0	0	0
54	54	Leesville Rd Realignment	East of Olive Branch Rd to County line	2-lane	*4-lane*		Durham	Realignment	0	1	1	1	0	0	0	0
	54.1	Leesville Rd	US 70 to Panoramic Dr	New	*2-lane*		Durham	New	0	0	1	1	0	0	0	0
55	56	Louis Stephens Drive (RTP)	Hopson Rd to County Line	New	2-lane		Durham	New	0	1	1	1	1	1	1	1
56	56.1	Louis Stephens Drive (RTP)	Hopson Rd to County Line	2-lane	*4-lane*		Durham	Widening	0	0	1	1	0	0	1	1
57	57	Lynn Rd. Ext	NC 98/Glover Rd Ext to Existing Lynn Rd.	New	2-lane		Durham	New	0	1	1	1	0	0	0	0
	57.1	Massey Chapel Rd	Fayetteville Rd. to Herndon Rd	2-lane	4-lane		Durham		0	0	1	1	0	0	0	0
58	58	Mason Farm Rd Realignment	Near S Columbia St	2-lane	2-lane		Orange	Realignment	0	1	1	1	0	0	0	0
59	59	Miami Blvd.	Methodist Dr to Angier Ave	2-lane	5-lane	U-4011	Durham	Widening	1	1	1	1	1	1	1	1
60	60	Midland Terrace	NC 98 to Geer St	New	2-lane		Durham	New	0	1	1	1	0	0	0	0
61	61	Midland Terrace	Dearborn to Old Oxford Rd/Hamlin Junction	New	2-lane		Durham	New	0	1	1	1	0	0	0	0
62	62	MLK Parkway	Old Chapel Hill Rd to NC 55	2-lane/new	4-lane divided	CIP/ Bond	Durham	New	1	1	1	1	1	1	1	1
63	63	MLK Pkwy (NC 55 interchange)	NC 55 to Cornwallis Rd connector	New	4-lane divided	U-2405	Durham	New	0	1	1	1	0	0	0	0

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64	64	NC 147 HOV	Alston Ave to East End Conn	4-lane freeway	*6-lane HOV freeway*		Durham	Widening	0	1	1	1	0	0	0	0
	64.1	NC 147 HOV	Alston Ave to I-85	4-lane freeway	*6-lane HOV freeway*		Durham	Widening	0	0	1	1	0	0	0	0
65	65	NC 147 HOV	East End Conn to I-40	4-lane freeway	*6-lane HOV freeway*		Durham	Widening	0	1	1	1	0	0	0	0
66	66	NC 147 South Ext (Triangle Pkwy -toll)	I-40 to County Line	New	6-lane freeway		Durham	New	0	1	1	1	1	1	1	1
67	67	NC 54	Burning Tree to Barbee Chapel	4-lane	6-lane divided	Private	Durham	Widening	1	1	1	1	1	1	1	1
68	68	NC 54	Miami Blvd to Wake Co line	2-lane	4-lane divided		Durham	Widening	1	1	1	1	1	1	1	1
69	69	NC 54	I-40 Interchange to NC 55	2-lane	4-lane divided		Durham	Widening	0	1	1	1	1	1	1	1
70	70	NC 54	I-40 to Barbee Chapel Rd	4-lane	6-lane divided		Durham	Widening	0	1	1	1	0	0	1	1
71	71	NC 54/NC 751/Garrett Rd	NC 751/Garrett to NC 54	Intersection	Upgrade		Durham	Upgrade	1	1	1	1	1	1	1	1
72	72	NC 54/Page Rd	Davis Dr to Miami Blvd	2-lane	4-lane divided	R-2904	Durham	Widening	1	1	1	1	1	1	1	1
73	73	NC 54/US 15-501 Bypass	NC 54 to US 15-501	4-lane	6-lane divided		Orange	Widening	0	1	1	1	0	0	0	0
74	74	NC 55	Cornwallis Rd to Wake Co.	2-lane	4-lane divided	R-2906	Durham	Widening	1	1	1	1	1	1	1	1
75	75	NC 55 (Alston Ave.)	NC 147 to NC 98	2-lane	4-lane divided	U-3308	Durham	Widening	1	1	1	1	1	1	1	1
76	76	NC 751	US 64 (MAB) to Durham Co. line	2-lane	4-lane divided		Chatham	Widening	0	1	1	1	0	0	0	0
77	77.1	NC 751	S Roxboro St to NC 54	2-lane	4-lane divided		Durham	Widening	0	1	1	1	0	0	1	1
77	77.2	NC 751	NC 54 to Renaissance Pkwy	2-lane	4-lane divided		Durham	Widening	0	1	1	1	0	0	0	0
77	77.3	NC 751	Renaissance Pkwy to Fayetteville/Scott King Rd	2-lane	4-lane divided		Durham	Widening	0	1	1	1	0	0	0	0
78	78	NC 751	Chatham Co. Line to Fayetteville/Scott King Rd	2-lane	4-lane divided		Durham		0	1	1	1	0	0	0	0
80	80	NC 86	Old NC 10 to US 70 Business	2-lane	4-lane divided		Orange	Widening	0	1	1	1	0	0	0	0
81	81	NC 86	US 70 Bypass to NC 57	2-lane	4-lane divided		Orange	Widening	0	1	1	1	0	0	0	0
	81.1	NC 98 (Holloway St)	Wake County Line to Mineral Springs	2-lane	4-lane		Durham	Widening	0	0	1	1	0	0	0	0
83	83	Northern Durham Pkwy	US 70 E to I 85 N	New	4-lane divided	U-4721[A]	Durham	New	0	1	1	1	1	1	1	1
84	84	Northern Durham Pkwy	I 85 North to Old Oxford Hwy	New	4-lane divided	U-4721[B]	Durham	New	0	1	1	1	1	1	1	1
85	85	Northern Durham Pkwy	Old Oxford Hwy to Roxboro Rd	New	*4-lane divided*	U-4721 [C]	Durham	New	0	1	1	1	1	1	1	1
	85.1	Oakdale Rd.	Old NC 85 to Old NC 86	New	*2-lane*		Orange		0	0	1	1	0	0	0	0
	85.2	O'kelly Chapel Rd.	NC 751 to Wake Co. line	2-lane	4-lane divided		Chatham	Widening	0	0	1	1	0	0	0	0
86	86	Old NC 86	I-40 to Lafayette Dr.	2-lane	4-lane divided	R-2825	Orange	Widening	0	1	1	1	1	1	1	1
87	87	Old NC 86	Lafayette Dr to US 70 Business	2-lane	4-lane divided	R-2825	Orange	Widening	0	1	1	1	1	1	1	1
88	88	Old Oxford Rd	Roxboro Rd to Snow Hill Rd	2-lane	4-lane divided		Durham	Widening	0	1	1	1	0	0	1	1
89	89	Olive Branch Rd Ext	NC 98 to US 70	New	2-lane		Durham	New	0	1	1	1	0	0	0	0
	89.1	Orange Factory Road	Snow Hill to Orange Factory	New	2-lane		Durham	New	0	0	1	1	0	0	0	0
	89.2	Orange Factory Road	Treyburn to Staggsville Connector	New	2-lane		Durham	New	0	0	1	1	0	0	0	0

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90	90	Page Rd	I-40 to Page Rd Ext	2-lane	4-lane divided		Durham	Widening	0	1	1	1	0	0	0	0
91	91	Riddle Rd. Extension	Briggs Ave. to NC 147	New	2-lane		Durham	New	0	1	1	1	0	0	0	0
	91.1	Riddle Rd. Extension	Cornwallis to NC 55	New	2-lane		Durham	New	0	0	1	1	0	0	0	0
92	92	Roxboro Road (501N)	Duke Street to Goodwin Rd	4-lane divided	6-lane divided	U-4722	Durham	Widening	0	1	1	1	1	1	0	0
93	93	Roxboro St Ext	Hope Valley Farms to MLK Pkwy	2-lane	4-lane divided	Private	Durham	Widening	1	1	1	1	1	1	1	1
94	94	Roxboro St	Cornwallis Rd to MLK Pkwy	2-lane	4-lane divided		Durham	New	0	1	1	1	0	0	1	1
	94.1	Roxboro St South	Summit to E. Lakewood	2-lane	4-lane divided		Durham	Widening	0	0	1	1	0	0	0	0
95	95	Scott King Rd	Grandale Dr to Hopson Rd	New	4-lane divided		Durham	New	0	1	1	1	0	0	0	0
	95.1	Scott King Rd	Grandale Dr to Fayetteville Rd	2-lane	4-lane divided		Durham	Widening	0	0	1	1	0	0	0	0
96	96	Seawell School Connector	Lake Hogan Farms Rd to Seawell School Rd	New	2-lane	Private	Orange	New	0	1	1	1	0	0	0	0
	96.1	Sherron Rd.	Us 70 to NC 98	2-lane	4-lane divided		Durham	Widening	0	0	1	1	0	0	0	0
97	97	Smith Level Rd	Rock Haven Rd to NC 54 bypass	2-lane	Multilanes	U-2803	Orange	Widening	0	1	1	1	1	1	1	1
	97.1	Snow Hill Rd (SR 1631)	Infinity Rd to Old Oxford Ext	new	2-lane		Durham	New	0	0	1	1	0	0	0	0
98	98	South Columbia St	NC 54 to Manning Dr.	2-lane	turn lanes/bike facilities	U-624	Orange	Widening	0	1	1	1	1	1	1	1
100	100	Stadium Drive Ext	Shaftsbury Dr to Kirkwood Dr	2-lane	3-lane curb & gutter	CIP/ Bond	Durham	Widening	1	1	1	1	1	1	1	1
101	101	Stagecoach Rd	Farrington Mill Rd to NC 751	2-lane	4-lane divided		Durham	Widening	0	0	1	1	0	0	0	0
	101.1	Staggville Rd (SR 1615)	SR 1619 to SR 1626	New	2-lane		Durham	New	0	0	1	1	0	0	0	0
102	102	SW Durham Dr	Meadowmont Dr to I-40	New	*2-lane divided*	Private /Public	Durham	New	0	1	1	1	0	0	1	1
103	103	SW Durham Pkwy	Farrington Rd (I-40 to Old Chapel Hill Rd)	2-lane	*4-lane divided*		Durham	Widening	0	1	1	1	1	1	0	0
104	104	SW Durham Pkwy	Watkins Rd (Old Chapel Hill Rd to US 15-501	2-lane	4-lane divided	Private /Public	Durham	Widening	0	1	1	1	1	1	0	0
105	105	SW Durham Pkwy	NC 54 to Rizzo Conf. Driveway	New	4-lane divided	Private	Durham	New	1	1	1	1	1	1	1	1
106	106	SW Durham Pkwy	15-501 to Mt. Moriah Rd.	New	4-lane divided	Private	Durham	New	0	1	1	1	1	1	0	0
	106.1	T. W. Alexander Dr	Miami Blvd to US 70	4-lane divided	6-lane divided	Private/Public	Durham	Widening	0	0	1	1	0	0	0	0
107	107	T. W. Alexander Dr Ext	US 70 to Carpenter Ponds (Durham Portion)	New	4-lane divided	Private/Public	Durham	New	0	1	1	1	0	0	0	0
108	108	UNC Access to the Bypass	Manning Dr to 54/15-501 Bypass	New	4-lane divided		Orange	New	0	1	1	1	0	0	0	0
109	109	US 15-501	Pittsboro Bypass (MAB) to Orange Co. line	2-lane	4-lane divided	R-942	Chatham	Widening	1	1	1	1	1	1	1	1
110	110	US 15-501	Mt Moriah Rd to Garrett Rd	4-lane divided	6-lane divided	U-4012	Durham	Widening	1	1	1	1	1	1	1	1
111	111	US 15-501	I-40 to Franklin St	4-lane divided	6-lane divided	U-2807	Orange	Widening	0	1	1	1	0	0	0	0
112	112	US 15-501	Orange Co line to Chapel Hill Bypass	2-lane	4-lane divided	R-942	Orange	Widening	1	1	1	1	1	1	1	1

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113	113	US 15-501	Bypass to I-40 (freeway conversion)	6-lane divided	6-lane freeway	U-2807	Durham	Widening	0	1	1	1	0	0	0	0
114	114	US 15-501 Bypass	Pickett Rd to Morreene Rd	4-lane freeway	6-lane freeway		Durham	Widening	0	1	1	1	0	0	0	0
115	115	US 15-501 Service Rd (SR 1126)	Relocation of existing service road.	2-lane	2-lane	U-4009	Durham	Realignment	1	1	1	1	1	1	1	1
	115.1	US 70 HOV	I-85 to East End Connector	6-lane freeway	*8-lane HOV freeway*		Durham	Widening	0	0	1	1	0	0	0	0
116	116	US 70	Lynn Rd to Wake Co line	4-lane divided	6-lane freeway	U-4720	Durham	Widening	0	1	1	1	0	0	1	1
117	117	US 70 Bypass	NC 86 to I-85 (exit 170)	2-lane	4-lane divided		Orange	Widening	0	1	1	1	0	0	0	0
118	118	US 70/Miami Blvd/Mineral	Intersection Upgrade	Existing	Upgrade	U-2808	Durham	New	1	1	1	1	1	1	1	1
119	119	Weaver Dairy Rd	NC 86 to Erwin Rd	2-lane	3-lane	U-3306	Orange	Widening	0	1	1	1	1	1	1	1
120	120	Western Bypass	US 70 to NC 86	New	2-lane		Orange		0	1	1	1	0	0	0	0
121	121	Western Bypass	NC 86 to Stroud Creek Rd	New	2-lane		Orange		0	1	1	1	0	0	0	0
	122.1	Woodcroft Pkwy	Barbee Rd to Carpenter-Fletcher Rd.	2-lane divided	4-lane divided	Private	Durham	Widening	0	0	1	1	1	1	0	0
123	123	Woodcroft Pkwy Ext	Garrett Rd to Hope Valley Rd	New	*4-lane divided*		Durham	New	0	1	1	1	0	0	0	0

1 = In Alternative 0 = Not in Alternative Shaded Project Name = New Project (not in 2030 LRTP)

2030 LRTP and CTP

Transit Projects and Alternatives

							Benchmarks:			LRTP Alternatives:				
ID	**Route Name**	**System**	**CTP Peak Headway**	**CTP Off-Peak Headway**	**Reg. Fare**	**Service Type**	**0-- E+C**	**1-- 2030**	**2-- CTP**	**3-- Hwy**	**4-- FG**	**5-- Bus**	**6-- Mod**	**7-- Pres**
STAC	Burlington to Downtown Raleigh	MTC	45	NA	NA	Commuter Rail	0	0	1	0	0	0	1	0
STAC	Selma to Downtown Durham	MTC	45	NA	NA	Commuter Rail	0	0	1	0	0	0	1	0
STAC	Carolina North to Durham Multimodal Center Corridor	MTC	10	20	NA	LRT or BRT	0	1	1	0	1	0	0	0
STAC	UNC Hospital to Carolina North	MTC	10	20	NA	Local	0	0	1	0	0	0	0	0
STAC	Burlington to Carolina North:	MTC	45	NA	NA	Commuter Rail	0	0	1	0	0	0	0	0
STAC	Hillsborough to Carolina North	MTC	30	60	NA	Regional	0	0	1	0	0	1	0	0
STAC	Triangle Expressway/Apex I40 to Triangle Metro Center	MTC	20	60	NA	Regional	0	0	1	0	0	1	0	0
STAC	Duke to Triangle Metro Center via NC 147	MTC	20	60	NA	Regional	0	0	1	0	0	1	0	0
STAC	Durham to North Durham	MTC	30	60	NA	Express	0	0	1	0	0	1	0	0
STAC	Duke to Triangle Metro Center	MTC	10	20	NA	Regional Rail (DMU)	0	0	1	0	1	0	0	0
STAC	Triangle Metro Center to NW Cary	MTC	10	20	NA	Regional Rail (DMU)	0	0	1	0	1	0	0	0
STAC	I-540 Northern Arc	MTC	20	60	NA	Regional	0	0	1	0	0	1	0	0
STAC	Southern Arc 540 Eastern/Southern Segments	MTC	20	60	NA	Regional	0	0	1	0	0	0	0	0
STAC	Pittsboro to Chapel Hill	MTC	30	60	NA	Regional	0	0	1	0	0	0	0	0
STAC	Triangle Metro Center to Carolina North	MTC	10	20	NA	Bus Rapid Transit	0	0	1	0	1	1	0	0
STAC	Raleigh to Durham via US 70	MTC	30	60	NA	Regional	0	0	1	0	0	0	0	0
STAC	Chapel Hill Circulator	MTC	10	10	NA	Local	0	0	1	1	1	1	1	0

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2030 LRTP and CTP

Transit Projects and Alternatives

							Benchmarks:			LRTP Alternatives:				
ID	**Route Name**	**System**	**CTP Peak Headway**	**CTP Off-Peak Headway**	**Reg. Fare**	**Service Type**	**0--E+C**	**1--2030**	**2--CTP**	**3--Hwy**	**4--FG**	**5--Bus**	**6--Mod**	**7--Pres**
STAC	Durham Circulator	MTC	10	10	NA	Local	0	0	1	0	1	1	1	0
STAC	RTP-RDU Circulator	MTC	10	10	NA	Bus Rapid Transit	0	0	1	0	1	1	1	0
23	DATA Treyburn Station Feeder	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
24	DATA Woodcroft Feeder IB	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
25	DATA Woodcroft Feeder OB	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
26	DATA Meridian Pkwy Feeder IB	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
27	DATA Meridian Pkwy Feeder OB	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
28	DATA Joyner-Club-Duke IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
29	DATA Joyner-Club-Duke OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
30	DATA S Square Feeder IB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
31	DATA S Square Feeder OB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
32	DATA S Square Shuttle IB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
33	DATA S Square Shuttle OB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
34	DATA 17 Feeder Eno Loop	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
35	DATA 17 Feeder OB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
36	DATA 17 Feeder IB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
37	DATA 30R Duke Hospital IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
38	DATA 30 Duke Hospital OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
39	DATA 28R RTP E IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
40	DATA 28 RTP E OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
41	DATA 27R Ngate-RTP W IB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
42	DATA 27 Ngate-RTP W OB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
43	DATA 25 DurReg-DukeMed OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
44	DATA 25R DurReg-DukeMed IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
45	DATA 20 Ngate-RTP OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
46	DATA 20R Ngate-RTP IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
47	DATA 15R Willowdale IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
48	DATA 15 Willowdale OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
49	DATA 20 UniDr-RTP IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
50	DATA 20 UniDr-RTP OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
51	DATA 17 Roxboro-Davinci SB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
52	DATA 17 Roxboro-Davinci NB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
53	DATA Durham XT NWB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1

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2030 LRTP and CTP

Transit Projects and Alternatives

							Benchmarks:			LRTP Alternatives:				
ID	Route Name	System	CTP Peak Headway	CTP Off-Peak Headway	Reg. Fare	Service Type	0--E+C	1--2030	2--CTP	3--Hwy	4--FG	5--Bus	6--Mod	7--Pres
54	DATA Durham XT SEB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
63	DATA Treyburn NB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
64	DATA Treyburn SB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
65	DATA Bethesda SB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
66	DATA Bethesda NB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
67	DATA 17 Horton-Davinci SEB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
68	DATA 17 Horton-Davinci NWB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
69	DATA 21 Ngate-Spoint OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
70	DATA 21 Ngate-Spoint IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
71	DATA Holoway/The Village OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
72	DATA Holoway/The Village IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
73	DATA Riddle Station Feeder IB	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
74	DATA Riddle Station Feeder OB	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
75	DATA NC98 - US70 - Miami OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
76	DATA NC98 - US70 - Miami IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
77	DATA Dtech-Snow IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
78	DATA Dtech-Snow OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
79	DATA Dtown Terminal Shuttle IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
80	DATA Dtown Terminal Shuttle OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
81	DATA Dtown Terminal Feeder IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
82	DATA Dtown Terminal Feeder OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
83	DATA EPA IB	DATA	7	15	$ 1.	Express bus		1	1	1	1	1	1	1
84	DATA EPA OB	DATA	7	15	$ 1.	Express bus		1	1	1	1	1	1	1
85	DATA 19 Feeder OB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
86	DATA 19 Feeder IB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
87	DATA 18 Feeder OB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
88	DATA 18 Feeder IB	DATA	7	15	$ 1.	Local bus		1	1	0	1	1	0	0
89	DATA 12XR DTT-EPA IB	DATA	7	15	$ 1.	Express bus		1	1	1	1	1	1	1
90	DATA 12X DTT-EPA OB	DATA	7	15	$ 1.	Express bus		1	1	1	1	1	1	1
91	DATA 7SPR Southpoint Mall IB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
116	DATA 7SP Southpoint Mall OB	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
327	DATA 1-3 OB:Hillndal-Guess-Mdlnd	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
328	DATA 3-1 IB:Mdlnd-Guess-Hillndal	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
329	DATA 13 IB:Fayette-Birchwood	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
330	DATA 12 OB:Downtown-TTATerm	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1

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2030 LRTP and CTP

Transit Projects and Alternatives

							Benchmarks:			LRTP Alternatives:				
ID	Route Name	System	CTP Peak Headway	CTP Off-Peak Headway	Reg. Fare	Service Type	0--E+C	1--2030	2--CTP	3--Hwy	4--FG	5--Bus	6--Mod	7--Pres
331	DATA 7 OB:Downtown-Southpointe	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
332	DATA 14 OB:NCCUShuttle	DATA	7	15	Free	Local bus		1	1	1	1	1	1	1
333	DATA 14 IB:NCCUShuttle	DATA	7	15	Free	Local bus		1	1	1	1	1	1	1
334	DATA 17 IBTreyburn-Horton	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
335	DATA 16 OB:Downtown-MineralSprng	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
336	DATA 4-2 OB:Horton-Angier	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
337	DATA 2-4 IB:Angier-Horton	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
354	DATA 15 OB:WellonsVlg-Briarcreek	DATA	7	15	$ 1.	Local bus		1	1	1	1	1	1	1
355	DATA 15 IB:Briarcreek-WellonsVlg	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
356	DATA 11-9 IB:Bennett-DRHosp	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
357	DATA 5-6 OB:Emrld-Crnw-Cnstitutn	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
358	DATA 10-8 IB:Woodcroft-DrhmTech	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
359	DATA 1-3 OB:Hillndal-Point-Mdlnd	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
360	DATA 6-5 IB:Cnstitutn-HV-Emerald	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
361	DATA 5-6 OB:Emerald-HV-Cnstitutn	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
366	DATA 13 OB: Birchwood-Fayette	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
405	DATA 12 IB:TTATerm-Downtown	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
406	DATA 7 IB:Southpointe-Downtown	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
407	DATA 17 OB:Horton-Treyburn	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
408	DATA 16 IB:MineralSprng-Downtown	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
409	DATA 9-11 OB:DRHosp-Bennett	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
410	DATA 8-10 OB:DrhmTech-Woodcroft	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
411	DATA 8-10 OB:DrhmTech-NewHopeCmn	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
419	DATA 3-1 IB:Mdlnd-Point-Hillndal	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
420	DATA 10-8 IB:NewHopeCmn-DrhmTech	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
441	DATA 6-5 IB:Cnstitutn-Crnw-Emrld	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
L1	NDP: Carver Street ext via old oxfor	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L1	NDP: Carver Street ext via old oxfor	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L2	North Creek Pkway:Cornwallis-Brier C	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
L2	North Creek Pkway:Cornwallis-Brier C	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
L3	S Alston Glover:Cornwallis/S Alston-	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L3	S Alston Glover:Cornwallis/S Alston-	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L4	S Roxboro/NC 751:W Cornwallis- South	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
L4	S Roxboro/NC 751:W Cornwallis- South	DATA	7	15	$ 1.	Local bus		1	1	1	1	0	1	1
L5	SW Durham Dr: Mt Moraih- NC 54/Hunti	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0

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2030 LRTP and CTP

Transit Projects and Alternatives

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ID	Route Name	System	CTP Peak Headway	CTP Off-Peak Headway	Reg. Fare	Service Type	0--E+C	1--2030	2--CTP	3--Hwy	4--FG	5--Bus	6--Mod	7--Pres
L5	SW Durham Dr: Mt Moraih- NC 54/Hunti	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L6	University Drive: Morehead-Cornwalli	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L6	University Drive: Morehead-Cornwalli	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L7	W Trinity/Buchanan: Avondale- Chapel	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L7	W Trinity/Buchanan: Avondale- Chapel	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L8	Sparger/Cole Mill:hillsborough rd N-	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L8	Sparger/Cole Mill:hillsborough rd N-	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L9	Scott King RD: Rennaisance pkway- Ho	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
L9	Scott King RD: Rennaisance pkway- Ho	DATA	7	15	$ 1.	Local bus		1	1	0	1	0	0	0
427	TTA Rail: Dur-CH SB	TTA	7	15	$ 2.	Rail		1	1	0	1	0	0	0
428	TTA Rail: Dur-CH NB	TTA	7	15	$ 2.	Rail		1	1	0	1	0	0	0
425	TTA Rail: Ral-Dur EB	TTA	7	15	$ 2.	Rail		1	1	0	1	0	0	0
426	TTA Rail: Ral-Dur WB	TTA	7	15	$ 2.	Rail		1	1	0	1	0	0	0
c3a	dchc: durham beltline -Treyburn NB	DCHC	7	15	$ 2.	Rail		1	1	0	1	0	0	0
c3b	dchc: durham beltline-Treyburn SB	DCHC	7	15	$ 2.	Rail		1	1	0	1	0	0	0
c4a	dchc: durham beltline-Creedmor-butne	DCHC	7	15	$ 2.	Rail		1	1	0	1	0	0	0
c4b	dchc: durham beltline-Creedmor-butne	DCHC	7	15	$ 2.	Rail		1	1	0	1	0	0	0
c5a	dchc: durham beltline-briggs ave-dow	DCHC	7	15	$ 2.	Rail		1	1	0	1	0	0	0
c5b	dchc: durham beltline-briggs ave-dow	DCHC	7	15	$ 2.	Rail		1	1	0	1	0	0	0
c6	dchc: durham beltline-briggs ave-dun	DCHC	7	15	$ 2.	Rail		1	1	0	1	0	0	0
c7a	dchc: durham beltline-NC 147- briggs	DCHC	7	15	$ 2.	Rail		1	1	0	1	0	0	0
c7b	dchc: durham beltline-NC 147- briggs	DCHC	7	15	$ 2.	Rail		1	1	0	1	0	0	0
c8a	Chapel Hill/Carrboro - Hillsborough/	DCHC	7	15	$ 2.	Rail		0	1	0	1	0	0	0
c8b	Chapel Hill/Carrboro - Hillsborough/	DCHC	7	15	$ 2.	Rail		0	1	0	1	0	0	0
c9a	Burlington to Duke Commuter rail NB	DCHC	7	15	$ 2.	Rail		1	1	0	1	0	0	0
c9b	Burlington to Duke Commuter rail NB	DCHC	7	15	$ 2.	Rail		1	1	0	1	0	0	0
cb1	downtown durham DATA terminal via du	DCHC	7	15	$ 1.	local		1	1	0	0	0	0	0
cb2	downtown durham DATA terminal via du	DCHC	7	15	$ 1.	local		1	1	0	0	0	0	0
cb3	Duke univ to mebane: erwin/fulton vi	DCHC	7	15	$ 1.	local		1	1	0	0	0	0	0
cb4	Chapel Hill from Columbia St via MLK	DCHC	7	15	$ 1.	local		1	1	0	0	0	0	0
cb5	RDU -Hillborough: RDU via I40 NC 86	DCHC	7	15	$ 1.	local		1	1	0	0	0	0	0
cb5a	Chapel Hill	DCHC	7	15	$ 1.	local		0	1	0	0	0	0	0
cb6	NC54 W to Alance Co:from US15501 via	DCHC	7	15	$ 1.	local		0	1	0	0	0	0	0
cb7	NC54 W to Alamance: jones ferry rd t	DCHC	7	15	$ 1.	local		0	1	0	0	0	0	0
cb8	Chapel to Pittsboro: columbia via US	DCHC	7	15	$ 1.	local		1	1	0	1	0	0	0

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2030 LRTP and CTP

Transit Projects and Alternatives

							Benchmarks:			LRTP Alternatives:				
ID	Route Name	System	CTP Peak Headway	CTP Off-Peak Headway	Reg. Fare	Service Type	0--E+C	1--2030	2--CTP	3--Hwy	4--FG	5--Bus	6--Mod	7--Pres
cb9	Mt carmel church rd: us15501 to old	DCHC	7	15	$ 1.	local		1	1	0	1	0	0	0
cb10	nc98 wake forest rd: DATA terminal t	DCHC	7	15	$ 1.	express		1	1	0	1	0	0	0
cb11	US70 Glenwood Ave:DATA term via chap	DCHC	7	15	$ 1.	local		1	1	0	0	0	0	0
cb12	NC 147 Triangle Parkway: from Duke/F	DCHC	7	15	$ 1.	local		1	1	0	0	0	0	0
cb13	NC 55 to Apex : Alston rail station	DCHC	7	15	$ 1.	local		1	1	0	0	0	0	0
cb14	Western Wake RDU via aviation pkway	DCHC	7	15	$ 1.	local		1	1	0	0	0	0	0
cb16	NC 54-RDU: Southpoint mail, via slat	DCHC	7	15	$ 1.	local		1	1	0	1	0	0	0
162	CHT Gateway Feeder 2	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
163	CHT Gateway Feeder 3	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
164	CHT HW 2B Feeder	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
165	CHT HW 2A Feeder	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
166	CHT HW 1B Feeder	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
167	CHT HW 1A Feeder	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
168	CHT Eubanks Station 1B Feeder	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
169	CHT Eubanks Station 1A Feeder	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
170	CHT MOD 10 XPS OB	CHT	5	10	Free	Express bus		1	1	1	1	0	1	1
171	CHT MOD 10 XPS IB	CHT	5	10	Free	Express bus		1	1	1	1	0	1	1
172	CHT Meadowmont Feeder OB	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
173	CHT Meadowmont Feeder IB	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
174	CHT CH MODY	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
175	CHT CARR 2 Feeder	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
176	CHT Base 11 S Orange OB	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
177	CHT Base 11 S Orange IB	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
178	CHT MOD 8 OB-1	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
179	CHT MOD 8 IB-1	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
180	CHT MOD 8 OB-2	CHT	5	10	Free	Express bus		1	1	1	1	0	1	1
181	CHT MOD 8 IB-2	CHT	5	10	Free	Express bus		1	1	1	1	0	1	1
182	CHT MOD 1 OB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
183	CHT MOD 1 IB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
184	CHT Meadowmont Feeder 3	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
185	CHT Meadowmont Feeder 2	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
186	CHT MODV OB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
187	CHT MODV IB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
188	CHT MOD 22 Exp OB	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
189	CHT MOD 22 Exp IB	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1

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2030 LRTP and CTP

Transit Projects and Alternatives

							Benchmarks:			LRTP Alternatives:				
ID	Route Name	System	CTP Peak Headway	CTP Off-Peak Headway	Reg. Fare	Service Type	0--E+C	1--2030	2--CTP	3--Hwy	4--FG	5--Bus	6--Mod	7--Pres
190	CHT MOD 21 OB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
191	CHT MOD 21 IB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
192	CHT HW 3B Feeder	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
193	CHT HW 3A Feeder	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
194	CHT EW Crosstown	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
195	CHT Carr 1B Feeder	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
196	CHT Carr 1A Feeder	CHT	5	10	Free	Local bus		1	1	0	1	0	0	0
197	CHT Base 9 Mason Farm Exp OB	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
198	CHT Base 9 Mason Farm Exp IB	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
199	CHT Base 8 UNC Exp OB	CHT	5	10	Free	Express bus		1	1	1	1	0	1	1
200	CHT Base 8 UNC Exp IB	CHT	5	10	Free	Express bus		1	1	1	1	0	1	1
201	CHT Base 2 New Hope Commons OB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
202	CHT Base 2 New Hope Commons IB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
203	CHT Base 13 Hills. Exp OB	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
204	CHT Base 13 Hills. Exp IB	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
205	CHT Base 1 Carr N OB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
206	CHT Base 1 Carr N IB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
207	CHT Base 4 Laurel Hills OB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
208	CHT Base 4 Laurel Hills IB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
209	CHT Base 3 Estes-Carrboro OB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
210	CHT Base 3 Estes-Carrboro IB	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
211	CHT MOD 20 Pitt. Exp OB	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
212	CHT MOD 20 Pitt. Exp IB	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
253	CHT A OB:MLKBlvd-Weiner	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
254	CHT A IB:Weiner-MLKBlvd	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
255	CHT CW OB:JonesFerry-Pittsboro	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
256	CHT CW IB:Pittsboro-JonesFerry	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
257	CHT CM IB:FamPrac-JonesFerry	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
258	CHT CM OB:JonesFerry-FamPrac	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
259	CHT CPX OB:CarrboroP&R-UNC	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
260	CHT CPX IB:UNC-CarborroP&R	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
261	CHT D OB:SmithLevel-Providence	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
262	CHT D IB:Providence-SmithLevel	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
263	CHT CL OB: UNCHosp-WaldenGrnflds	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
264	CHT CL IB: WaldenGrnflds-UNCHosp	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1

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2030 LRTP and CTP

Transit Projects and Alternatives

							Benchmarks:			LRTP Alternatives:				
ID	Route Name	System	CTP Peak Headway	CTP Off-Peak Headway	Reg. Fare	Service Type	0--E+C	1--2030	2--CTP	3--Hwy	4--FG	5--Bus	6--Mod	7--Pres
265	CHT FCX OB:FridayCntr-Pittsboro	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
266	CHT FCX IB:Pittsboro-FridayCntr	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
267	CHT F IB:ColonyWoods-McDougle	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
268	CHT F OB:McDougle-ColonyWoods	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
269	CHT G OB:BookerCreek-Briarcliff	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
270	CHT G IB:Briarcliff-BookerCreek	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
271	CHT HS OB:Hghsch-VarsityTheater	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
272	CHT HS IB:VarsityTheater-Hghsch	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
273	CHT HUX OB:HedrickBldg-UNCHosp	CHT	5	10	Free	Express bus		1	1	1	1	0	1	1
274	CHT HUX IB:UNCHosp-HedrickBldg	CHT	5	10	Free	Express bus		1	1	1	1	0	1	1
275	CHT J OB:RockCrkApt-SGreensboro	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
276	CHT J IB:SGreensboro-RockCrkApt	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
277	CHT JFX OB:JonesFerry-Pittsboro	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
278	CHT JFX IB:Pittsboro-JonesFerry	CHT	NA	NA	Free	Express bus		1	1	1	0	0	1	1
279	CHT NS IB:SVillage-Eubanks	CHT	NA	NA	Free	Local bus		1	1	1	0	0	1	1
280	CHT NUX OB: PRLot-UNCHosp	CHT	5	10	Free	Express bus		1	1	1	1	0	1	1
281	CHT NUX IB:UNCHosp-PR Lot	CHT	5	10	Free	Express bus		1	1	1	1	0	1	1
282	CHT T OB:ECHHghSch-UNCHosp	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
283	CHT T IB:UNCHosp-ECHHghSch	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
284	CHT U OB:FranklinSt-BowlesDr	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
285	CHT U IB:BowlesDr-FranklinSt	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
286	CHT RU OB:FamilyPract-Columbia	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
287	CHT RU IB:Columbia-FamilyPract	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
288	CHT V OB:SVillage-Meadowmont	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
289	CHT V IB:Meadowmont-SVillage	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
290	CHT N OB:FamilyPract-EstsPrkApt	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
291	CHT N IB:EstsParkApt-FamilyPract	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
292	CHT M IB:UnivMall-CrestCole	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
293	CHT M OB:CrestCole-UnivMall	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
308	CHT NS OB:Eubanks-SVillage	CHT	NA	NA	Free	Local bus		1	1	1	0	0	1	1
362	CHT S OB: HedrickBldg-UNCHosp	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
363	CHT S IB: UNCHosp-HedrickBldg	CHT	5	10	Free	Local bus		1	1	1	1	0	1	1
c1	BRT 1 IB I40_Rosemary_UNC	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c2	BRT 1 OB UNC- Rosemary - I40	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c3	BRT 3A IB I40 to UNC via US 15	CHT	3	10	free	BRT		0	1	0	1	0	0	0

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2030 LRTP and CTP

Transit Projects and Alternatives

							Benchmarks:			LRTP Alternatives:				
ID	Route Name	System	CTP Peak Headway	CTP Off-Peak Headway	Reg. Fare	Service Type	0--E+C	1--2030	2--CTP	3--Hwy	4--FG	5--Bus	6--Mod	7--Pres
c4	BRT 3A OB UNC to I40 via US15	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c5	BRT 3B IB I40-Elizabeth-UNC	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c6	BRT 3B OB UNC-Elizabeth-I40	CHT	3	10	free	BRT		1	1	0	1	0	0	0
c7	BRT 3C IB I40 to Carolina N	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c8	BRT 3C OB Carolina N to I40	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c9	BRT 4 IB City Boundary to UNC	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c10	BRT 4 OB UNC to City Boundary	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c11	BRT 5 IB I40 to UNC	CHT	3	10	free	BRT		0	1	0	0	0	0	0
c12	BRT 5 OB UNC to I40	CHT	3	10	free	BRT		0	1	0	0	0	0	0
c13	BRT 6 IB to Carolina North	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c14	BRT 6 OB from Carolina North	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c15	BRT 7 IB to Carolina North	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c16	BRT 7 IB to UNC	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c17	BRT 7 OB from Carolina North	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c18	BRT 7 OB from UNC	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c19	BRT 8 IB to UNC	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c20	BRT 8 OB from UNC	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c21	BRT 8 IB to Carolina North	CHT	3	10	free	BRT		0	1	0	1	0	0	0
c22	BRT 8 OB from Carolina North	CHT	3	10	free	BRT		0	1	0	1	0	0	0
117	Duke Med 1 WB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
118	Duke Med 1 EB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
119	Duke Villa NB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
120	Duke Villa SB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
121	Duke Med 4 WB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
122	Duke Med 4 EB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
123	Duke Student Park WB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
124	Duke Student Park EB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
125	Duke Med 3 SB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
126	Duke Med 3 NB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
127	Duke Science Loop CW	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
128	Duke Science Loop CCW	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
129	Duke E/Cent./W WB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
130	Duke E/Cent./W EB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
131	Duke E/W WB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
132	Duke E/W EB	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1

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2030 LRTP and CTP

Transit Projects and Alternatives

							Benchmarks:			LRTP Alternatives:				
ID	**Route Name**	**System**	**CTP Peak Headway**	**CTP Off-Peak Headway**	**Reg. Fare**	**Service Type**	**0--E+C**	**1--2030**	**2--CTP**	**3--Hwy**	**4--FG**	**5--Bus**	**6--Mod**	**7--Pres**
309	DUKE C2 OB:WestCampus-EastCampus	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
310	DUKE C2 IB:EastCampus-WestCampus	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
311	DUKE C3 OB:ScienceDr-EastCampus	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
312	DUKE C3 IB:EastCampus-ScienceDr	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
313	DUKE H1 IB:Entry11-PG3	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
314	DUKE H1 OB:PG3-Entry11	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
315	DUKE H2 IB:HospNorth-PG3	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
316	DUKE H3 OB:HospNorth-HillsbghRd	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
317	DUKE H3 IB:HillsbghRd-HospNorth	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
318	DUKE H5 OB:MillBldg-HockPlaza	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
319	DUKE PR1 IB:Entry11-BassettDr	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
320	DUKE PR2 IB:ScienceDr-BassettDr	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
321	DUKE H2 OB:PG3-HospNorth	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
322	DUKE PR1 OB:BassettDr-Entry11	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
323	DUKE PR2 OB:BassettDr-ScienceDr	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
324	DUKE H6 OB: LaSalleStLot-Entry11	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
325	DUKE C1 IB:WestCampus-EastCampus	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
326	DUKE C1 OB:EastCampus-WestCampus	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
364	DUKE H5 IB: HockPlaza-MillBldg	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
365	DUKE H6 IB: Entry11-LasalleStLot	Duke	5	10	Free	Local bus		1	1	1	1	0	1	1
156	NCCU Circular	NCCU	5	10	Free	Local bus		1	1	1	1	0	1	1
157	NCCU Shuttle SB	NCCU	5	10	Free	Local bus		1	1	1	1	0	1	1
158	NCCU Shuttle NB	NCCU	5	10	Free	Local bus		1	1	1	1	0	1	1
159	OPT Hillsborough-Chapel Hill SB	OPT	7	15	NA	Express bus		1	1	1	1	0	1	1
160	OPT Hillsborough-Chapel Hill NB	OPT	7	15	NA	Express bus		1	1	1	1	0	1	1

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2035 LRTP and CTP
Land Use Scenarios

Land Use Scenarios Proposed

Background

The Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) prepared Socioeconomic Data (SE Data) based on the current land use plans and policies of local jurisdictions for the year 2005 and 2035. The SE Data shows the location of population and employment throughout the planning area. The Transportation Advisory Committee (TAC – the DCHC MPO policy board) approved this SE Data for use with the Triangle Regional Model (TRM) at their meeting on September 12, 2007. The TRM uses the SE Data to generate trips and show how those trips will be accommodated on highways, transit and other transportation modes, and then produces transportation system performance data, such as the level of congestion and vehicle miles traveled, for the Long Range Transportation Plan (LRTP) and Comprehensive Transportation Plan (CTP).

The question is often asked during the development process – How might changes in land use plans or policies affect the design and performance of future transportation system? And, how might local jurisdictions change their land use plans and policies to realize a desired outcome in the future transportation system?

The DCHC MPO has created land use scenarios as part of the 2035 LRTP and CTP development process to evaluate the impacts that land use changes might have on the transportation system performance data of the TRM (travel demand model). That is, the MPO has developed alternative land use assumptions that change the SE Data that was approved in September 2007. The SE Data approved in September 2007 is often referred to as the Baseline SE data.

Contents of this Document

This presentation of the land use scenarios is detailed and lengthy. Therefore, therefore it will help the reader to know the principal contents of this document:

- Summary of Land Use Scenarios -- The concept of the proposed land use scenarios are summarized in the table on page 2. Begins on page 2.

- Scenario Review – Tables and maps show how the future population and employment would change to achieve each Scenario. Tables begin on page 3 and maps begin on page 7.

2035 LRTP and CTP
Land Use Scenarios

No.	Name	Description	Purpose	SE Data Changes	Land Use Plan Changes	Control Total Changes
1	**Baseline**	Uses current land use plans, policies and official actions. Most likely future reality.	Produces adopted LRTP and Air Quality Conformity Determination	None	None	No change -- Use baseline control totals
2	**Build-out**	Assumes all available land is developed as proposed in existing long range land use plans, policies and official actions.	Identify needs in CTP, which does not have time horizon, and show long range trajectory of current plans	Realize buildout for each TAZ	None	No control totals used because there is no time horizon
3	**Constrained Growth**	Assume overall slower growth than current forecasts (could include only "existing plus committed" transportation network)	Impact of slower growth because of congestion (reduced mobility)	Decrease development in specified TAZs	Recommend policy changes to reduce overall development	Reduce population and employment control totals
4	**Travel Corridors**	Increase population and employment development in key corridors (perhaps those identified by Special Transit Advisory Commission)	Impact of new policies that direct development to existing transportation infrastructure	Increase development in identified TAZs, and reduce in other TAZs	Recommended specific policy changes that encourage and permit more development in corridors	No change -- Use baseline control totals
5	**Transit Nodes**	Increase population and employment development in transit oriented areas (distinct nodes)	Impact of new policies that direct development to existing and appropriate transportation infrastructure	Increase development in identified TAZs, and reduce in other TAZs	Recommended specific policy changes that encourage and permit more development in corridors	No change -- Use baseline control totals

- Recommended Policies – There is a discussion of the objectives of each scenario and a list of sample policy directions to realize the scenarios. Begins on page 21.

Additional Information

There are a few additional points that are important to understanding the use of these scenarios:

CAMPO Participation – The Capital Area Metropolitan Planning Organization (CAMPO) has developed SE Data for a set of land use scenarios that complement the four DCHC MPO land use scenarios. The SE Data for these scenarios has been combined and checked by the Triangle Regional Model Service Bureau.

Scenario Implementation -- The TAC might be able to adopt the SE Data produced by a favorable land use scenario. The 2035 LRTP and Air Quality Conformity Determination would also be based on this newly adopted SE Data.

Scenario Review

This section presents several methods for reviewing the Scenarios.

Total Comparison

The two tables on page 4 compare the total employment and population for each Scenario with the Baseline SE Data (the data approved by the TAC for use in the 2035 LRTP development and that is based on the current land use plans and policies of the jurisdictions). The tables demonstrate that the overall totals for the Travel Corridor and Transit Nodes Scenarios remain equal to the Baseline SE Data, and that the Buildout and Constrained Scenarios show expected increases and decreases, respectively, compared to the Baseline SE Data.

Population

	Baseline		Buildout		Constrained		Travel Corridors		Transit Nodes	
Jurisdiction	2005	2035	Pop.	% Change	Pop.	% Change	Pop.	% Change	Pop.	% Change
Durham (1)	244,022	354,164	545,514	54%	325,325	-8%	354,163	0%	354,164	0%
Orange (2)	44,904	57,649	217,359	277%	50,346	-13%	57,649	0%	57,649	0%
Chatham (3)	34,067	117,130	140,583	20%	75,986	-35%	117,130	0%	117,150	0%
Chapel Hill (4)	58,339	80,483	86,957	8%	72,373	-10%	80,466	0%	80,483	0%
Carrboro	20,858	28,269	28,269	0%	24,626	-13%	28,255	0%	28,269	0%
Hillsborough	12,438	22,380	22,380	0%	21,262	-5%	22,380	0%	22,382	0%
Total	**414,628**	**660,075**	**1,041,062**	**58%**	**569,918**	**-14%**	**660,043**	**0%**	**660,097**	**0%**

Employment

	Baseline		Buildout		Constrained		Travel Corridors		Transit Nodes	
Jurisdiction	2005	2035	Emp.	% Change	Emp.	% Change	Emp.	% Change	Emp.	% Change
Durham (1)	175,487	282,571	440,830	56%	258,653	-8%	282,583	0%	282,601	0%
Orange (2)	4,290	10,087	*34,347*	241%	9,204	-9%	10,087	0%	10,087	0%
Chatham (3)	8,199	23,863	47,035	97%	17,606	-26%	23,863	0%	23,853	0%
Chapel Hill (4)	36,702	74,875	82,313	10%	67,735	-10%	74,875	0%	74,923	0%
Carrboro	4,390	6,857	6,945	1%	5,734	-16%	6,856	0%	6,856	0%
Hillsborough	5,679	14,453	14,625	1%	13,916	-4%	14,452	0%	14,426	0%
Total	**234,747**	**412,706**	**626,095**	**52%**	**372,848**	**-10%**	**412,716**	**0%**	**412,746**	**0%**

(1) Durham County does not include Chapel Hill jurisdiction
(2) Includes parts of Orange County that are not in Carrboro, Chapel Hill and Hillsborough

(3) Includes eastern half of Chatham County

(4) Includes parts of Chapel Hill in Orange County and Durham County

Movement Comparison

The total population and employment in the Travel Corridor and Transit Node Scenarios remains the same as that of the Baseline SE Data. However, the individual TAZ totals increase and decrease to depict a shift, or movement, of the population and employment from one TAZ to another. The two tables on page 6 show the amount of population and employment movement that occurs in these two Scenarios for the various jurisdictions, and indicates what percentage of the total this movement represents.

TAZ Maps

The remaining pages in this section present ten maps:

- A population and employment map showing the forecasted growth in each TAZ from the year 2005 through 2035 for the Baseline Scenario. There is one map for each county.
- A population and employment map for each of the four Scenarios.

The map coloring depicts the level of increase or decrease of population and employment in each TAZ (Traffic Analysis Zone) for that Scenario. The reader can distinguish the expected patterns such as the increases around transit stations and along corridors for the Transit Node and Travel Corridor Scenarios, and decreases in areas of low transportation access for the Constrained Scenario.

TAZ Tables

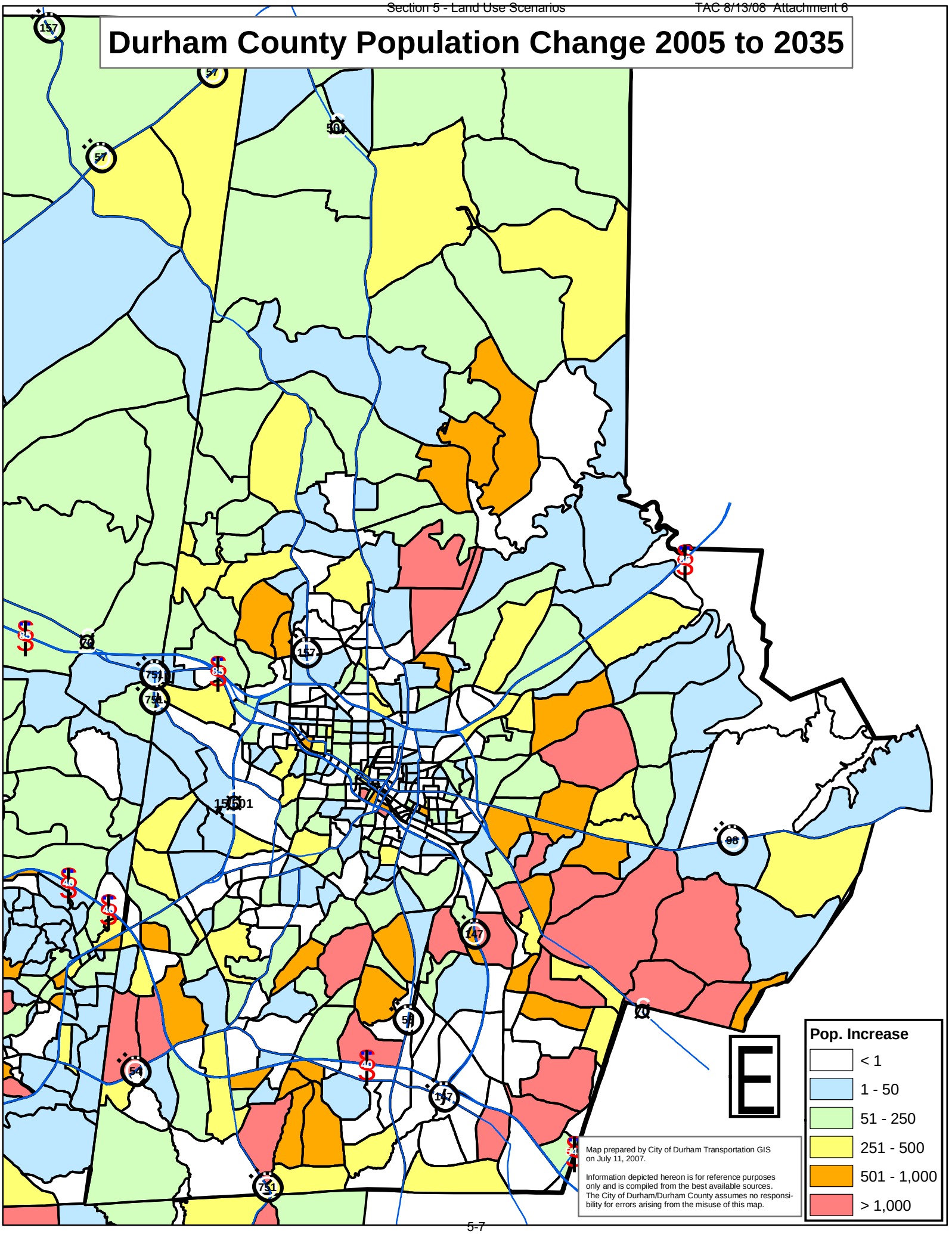
The tables showing the detailed SE Data for each of the four scenarios are voluminous and therefore are not included in this document. The tables are available on the MPO's Web site – www.dchhcmpo.org, or by contacting Andy Henry, (919) 560-4366, andrew.henry@durhamnc.gov.

Travel Corridor Movement

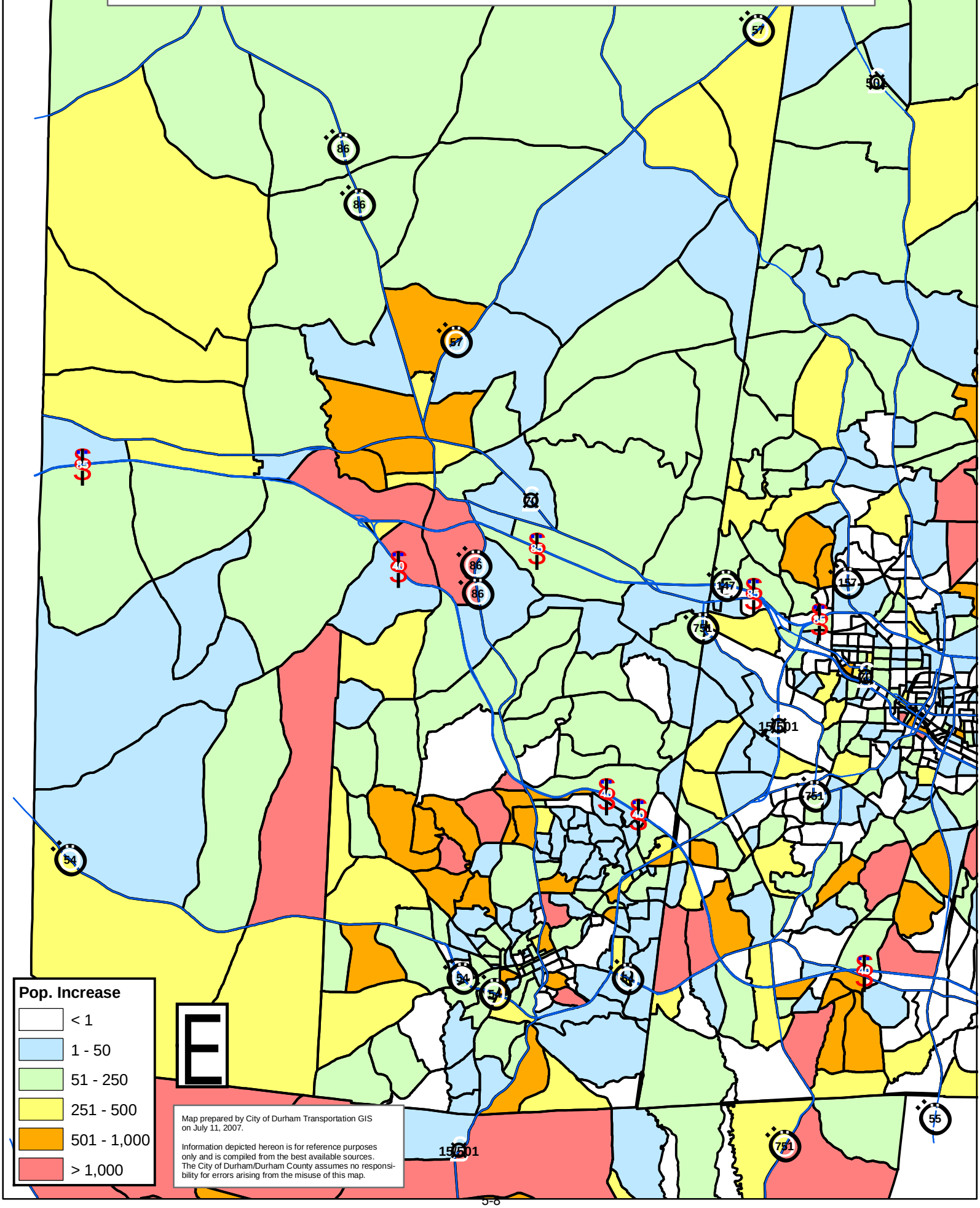
	Population			Employment		
Jurisdiction	**Total**	**Movement**	**Percent Move**	**Total**	**Movement**	**Percent Move**
Durham (1)	354,163	20,002	6%	282,583	13,138	5%
Orange (2)	57,649	4,780	8%	10,087	297	3%
Chatham (3)	117,130	0	0%	23,863	0	0%
Chapel Hill (4)	80,466	2,140	3%	74,875	1,371	2%
Carrboro	28,255	928	3%	6,856	230	3%
Hillsborough	22,380	849	4%	14,452	421	3%
Total	**660,043**	**28,699**	**4%**	**412,716**	**15,457**	**4%**

Transit Node Movement

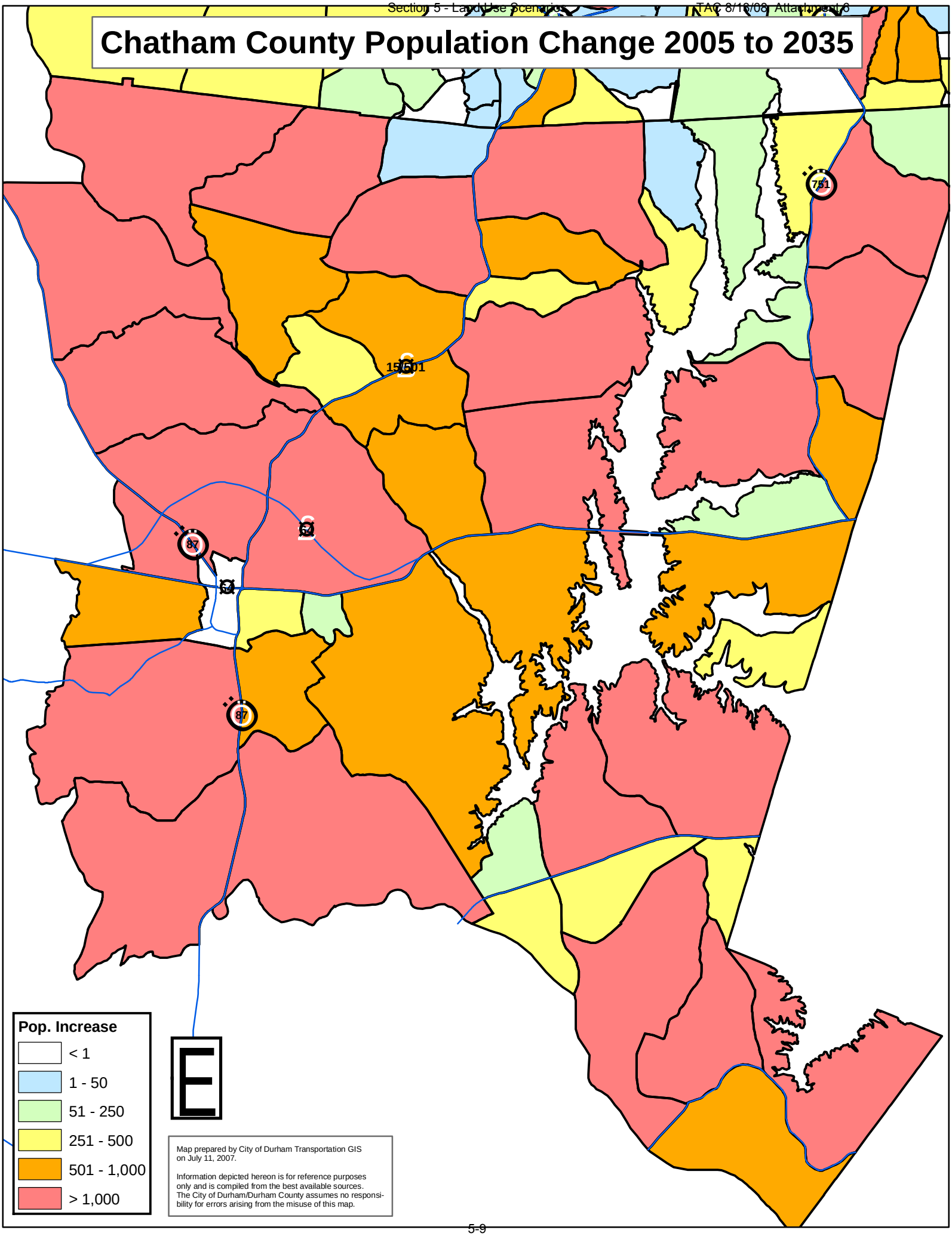
	Population			Employment		
Jurisdiction	**Total**	**Movement**	**Percent Move**	**Total**	**Movement**	**Percent Move**
Durham (1)	354,164	15,842	4%	282,601	20,535	7%
Orange (2)	57,649	5,370	9%	10,087	848	8%
Chatham (3)	117,150	24,671	21%	23,853	14,556	61%
Chapel Hill (4)	80,483	5,643	7%	74,923	1,532	2%
Carrboro	28,269	26	0%	6,856	830	12%
Hillsborough	22,382	842	4%	14,426	803	6%
Total	**660,097**	**52,394**	**8%**	**412,746**	**39,104**	**9%**


Durham County Population Change 2005 to 2035
Pop. Increase
< 1
1 - 50
51 - 250
251 - 500
501 - 1,000
> 1,000
Map prepared by City of Durham Transportation GIS on July 11, 2007.
Information depicted hereon is for reference purposes only and is compiled from the best available sources. The City of Durham/Durham County assumes no responsibility for errors arising from the misuse of this map.

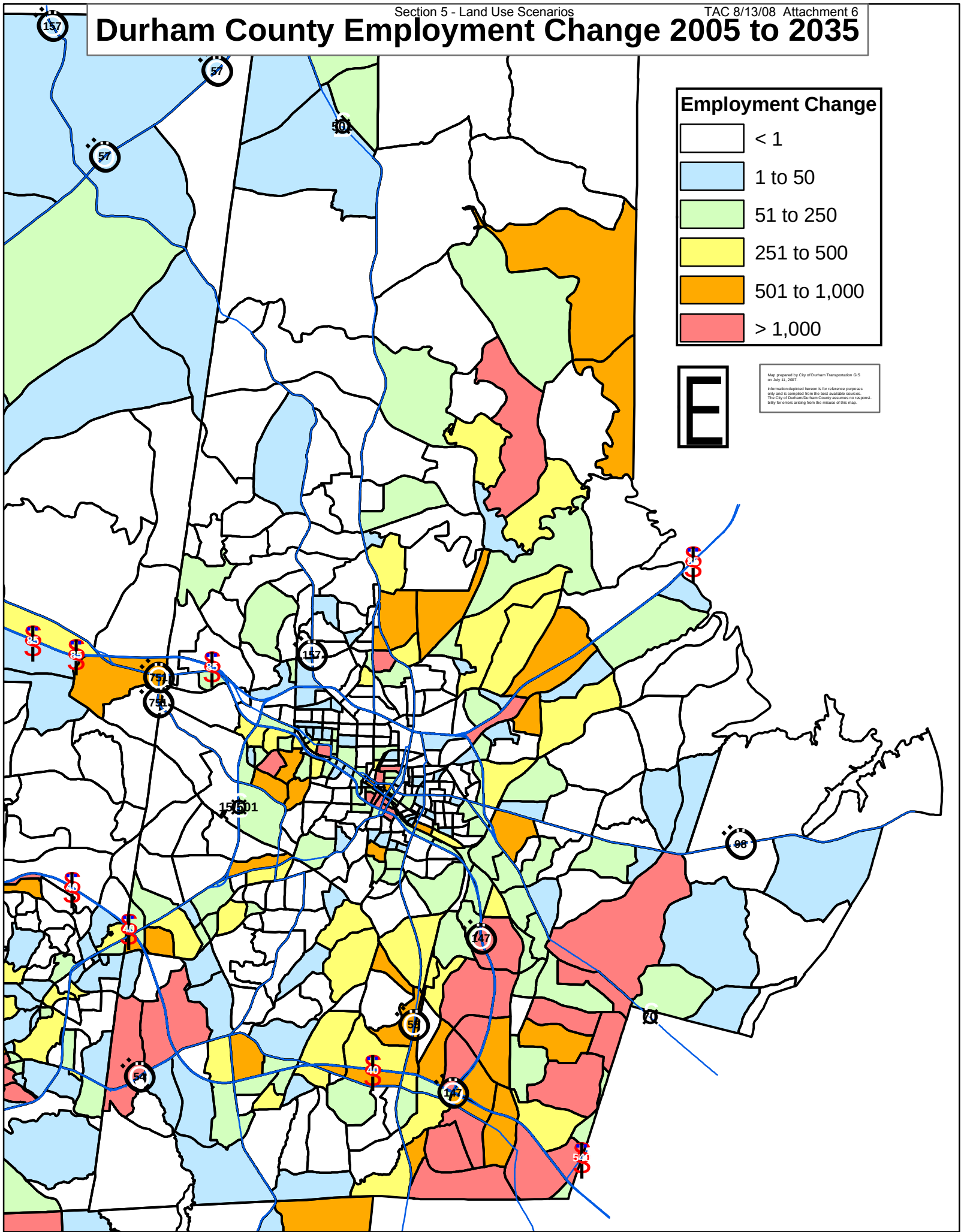
Orange County Population Change 2005 to 2035

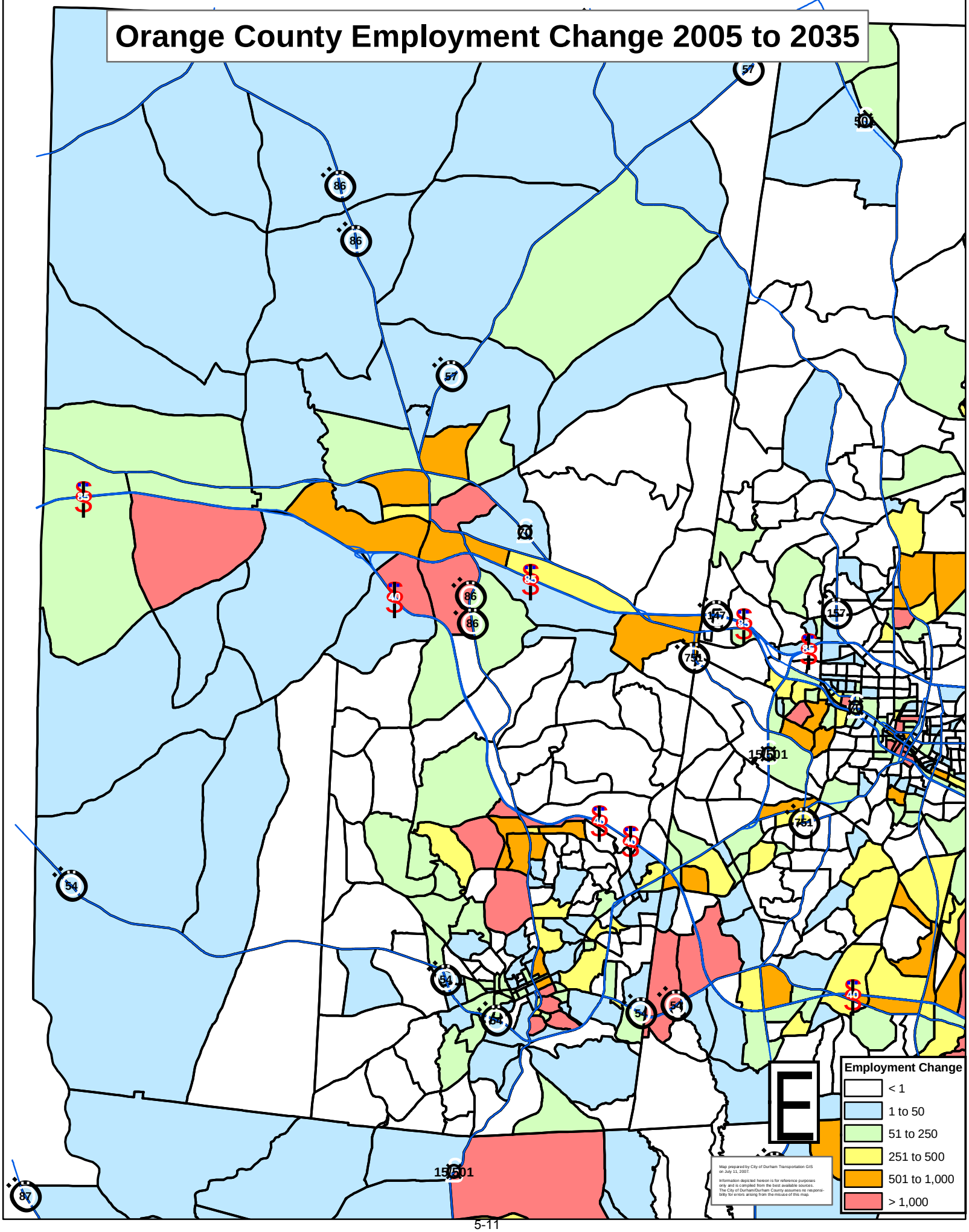


Chatham County Population Change 2005 to 2035

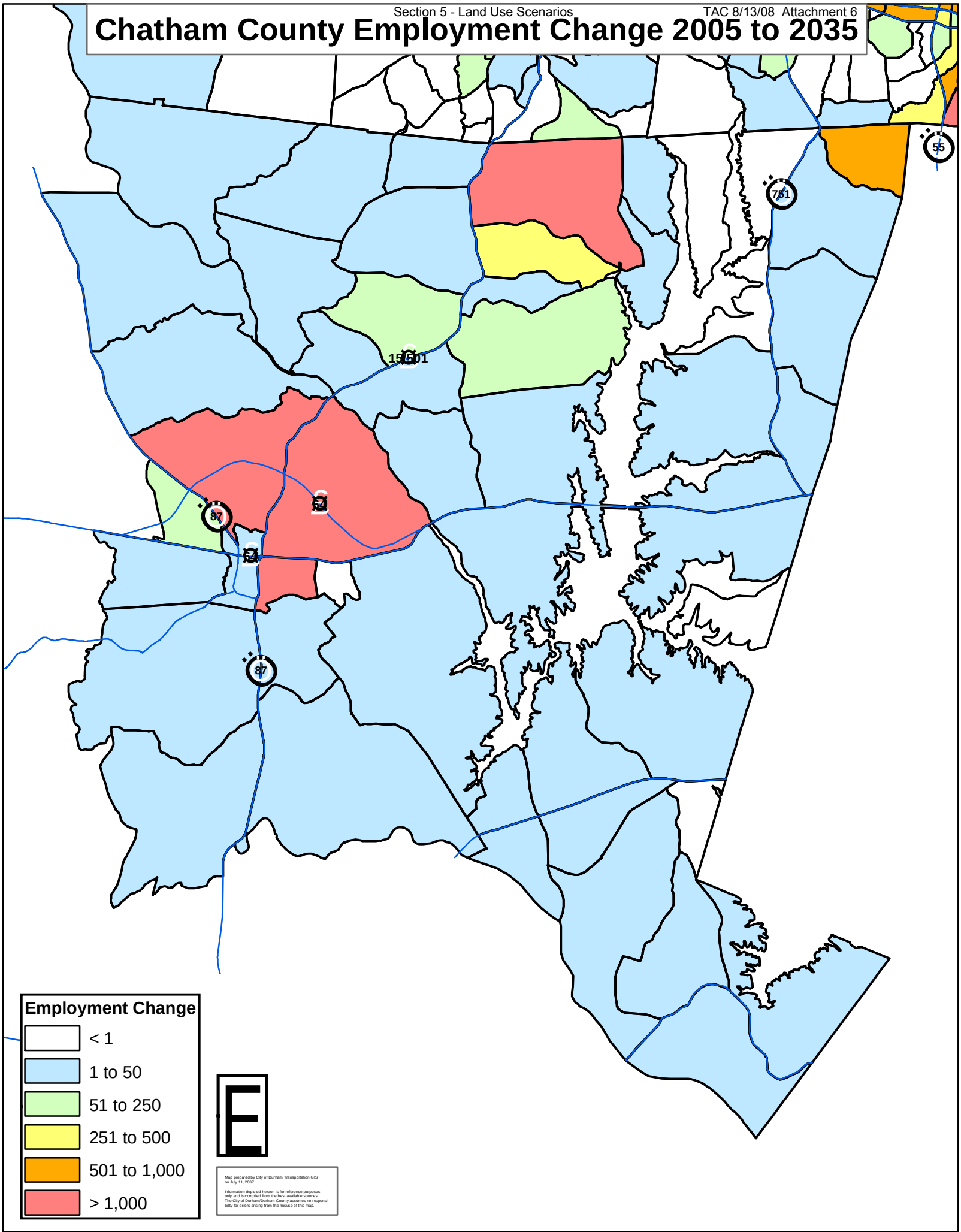


Durham County Employment Change 2005 to 2035

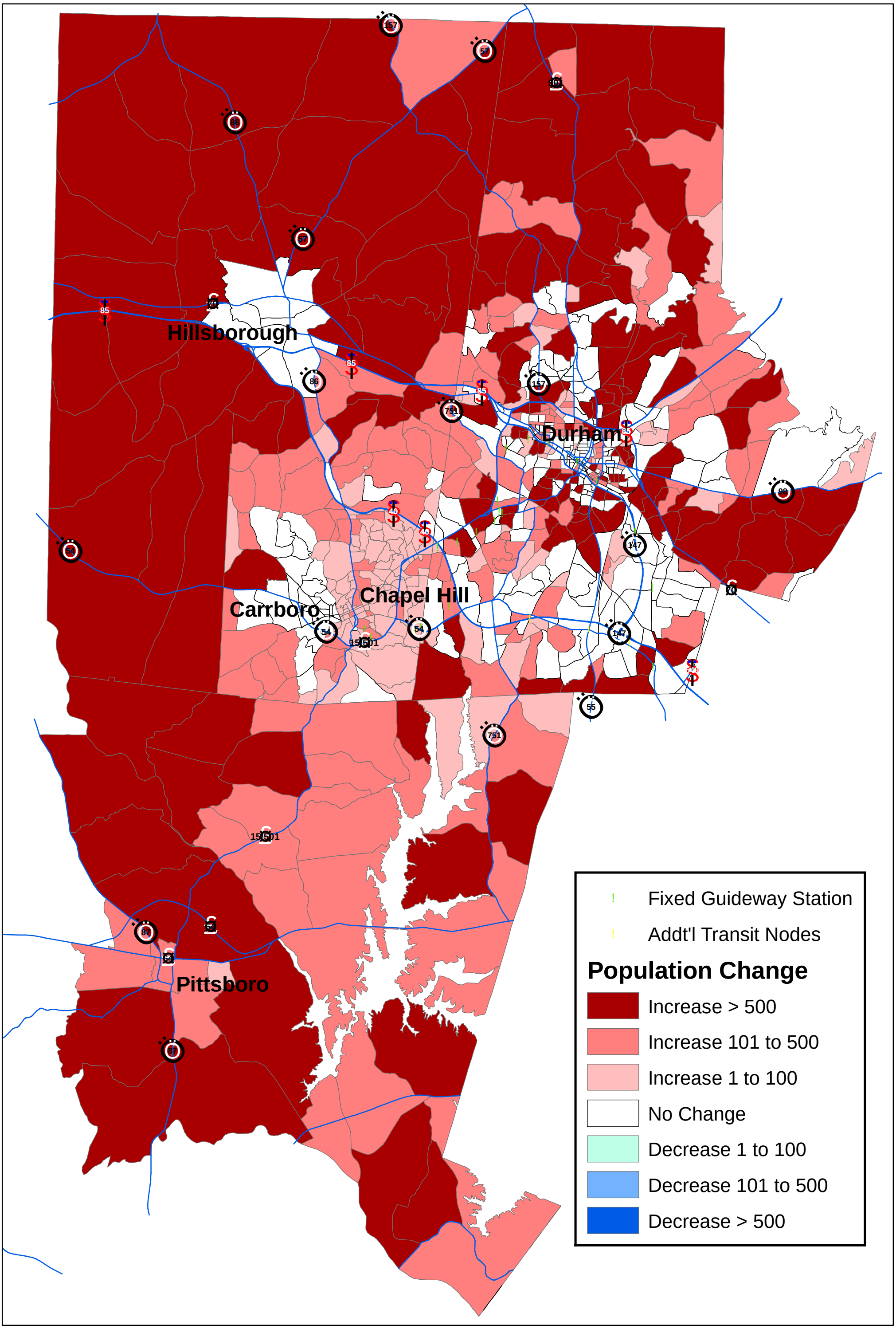



Orange County Employment Change 2005 to 2035
Employment Change
< 1
1 to 50
51 to 250
251 to 500
501 to 1,000
> 1,000
Map prepared by City of Durham Transportation GIS on July 11, 2007.
Information depicted hereon is for reference purposes only and is compiled from the best available sources. The City of Durham/Durham County assumes no responsibility for errors arising from the misuse of this map.

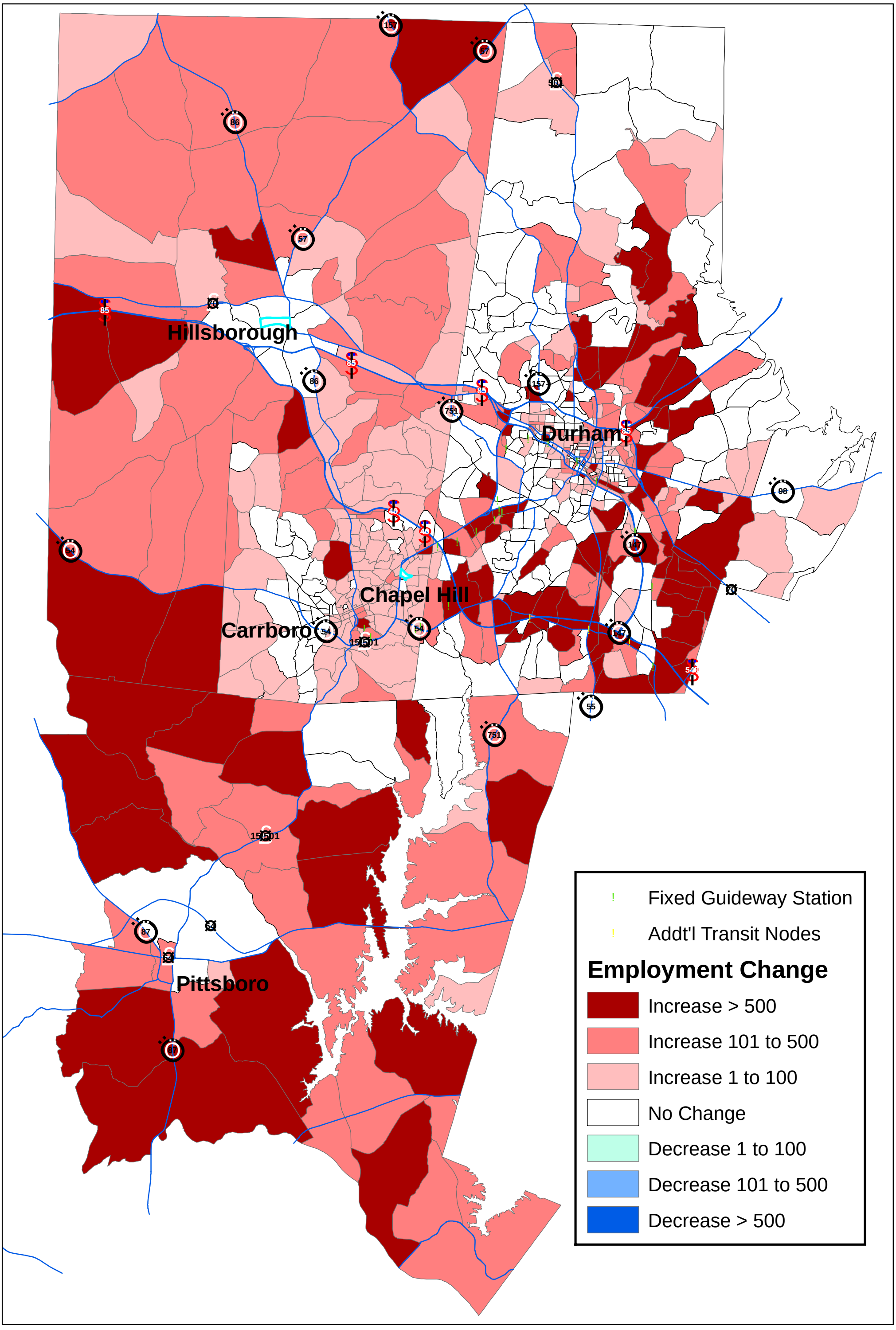
Chatham County Employment Change 2005 to 2035



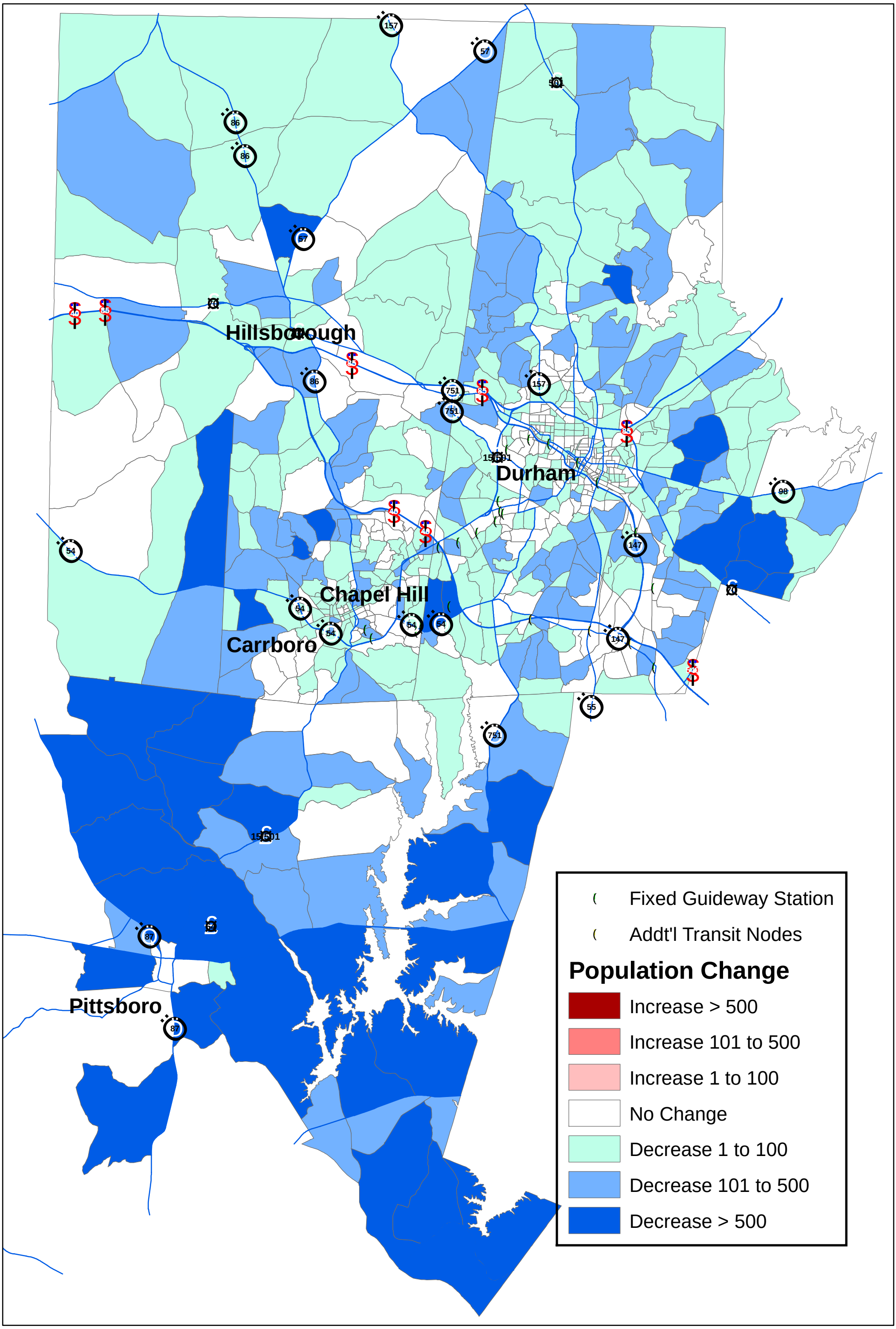
Buildout L.U. Scenario -- Population Compared to Baseline



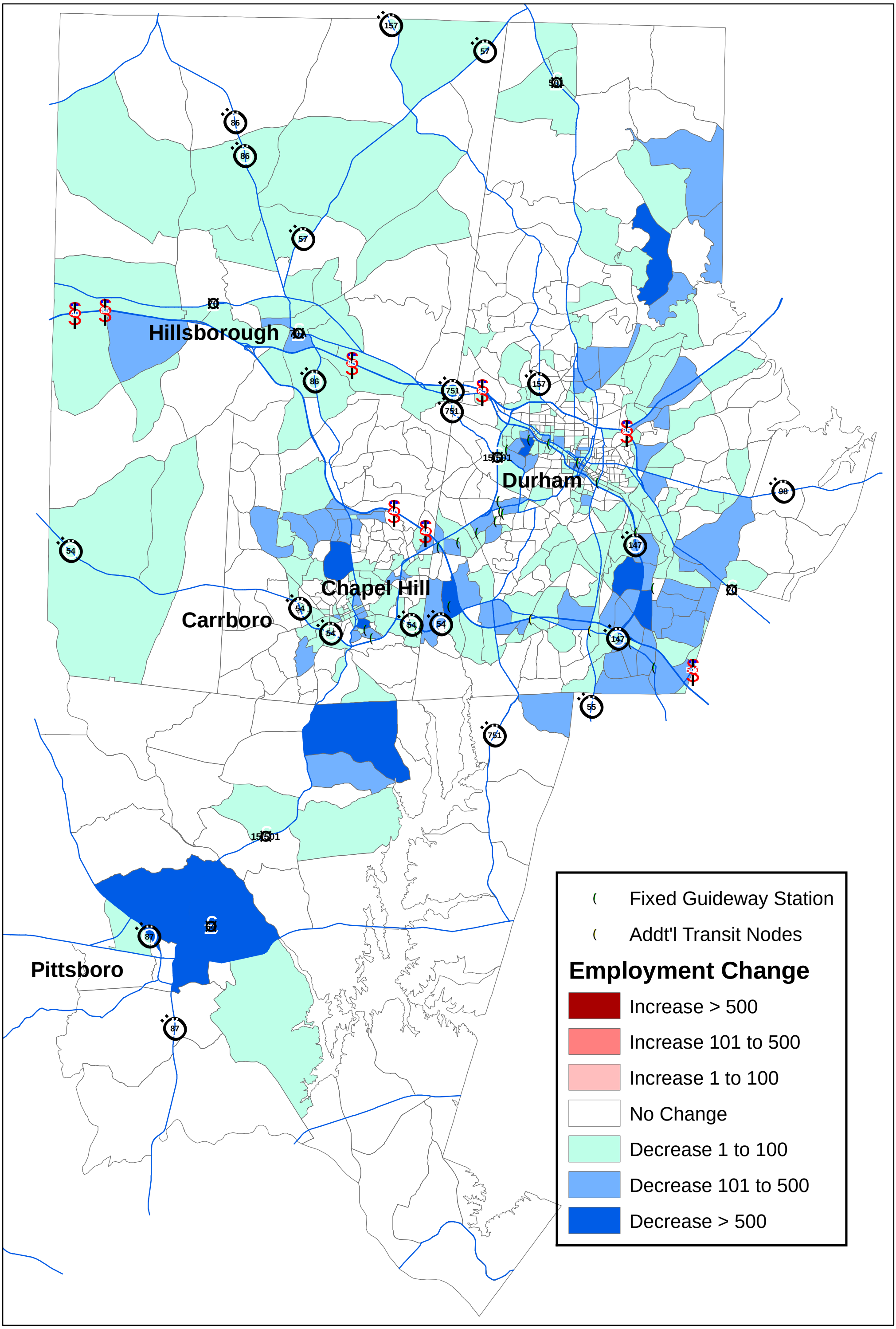
Buildout L.U. Scenario -- Employment Compared to Baseline



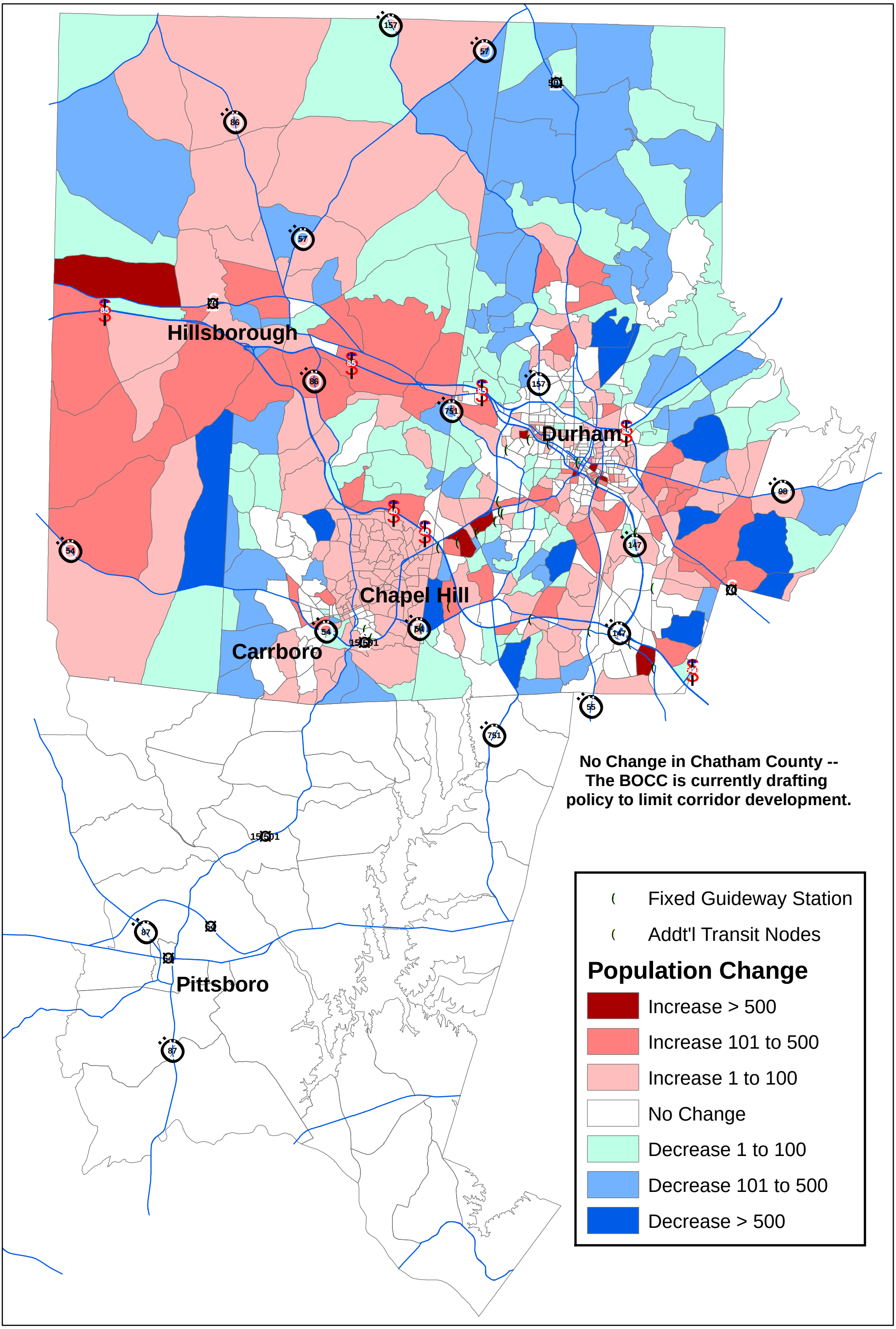
Constrained L.U. Scenario -- Population Compared to Baseline



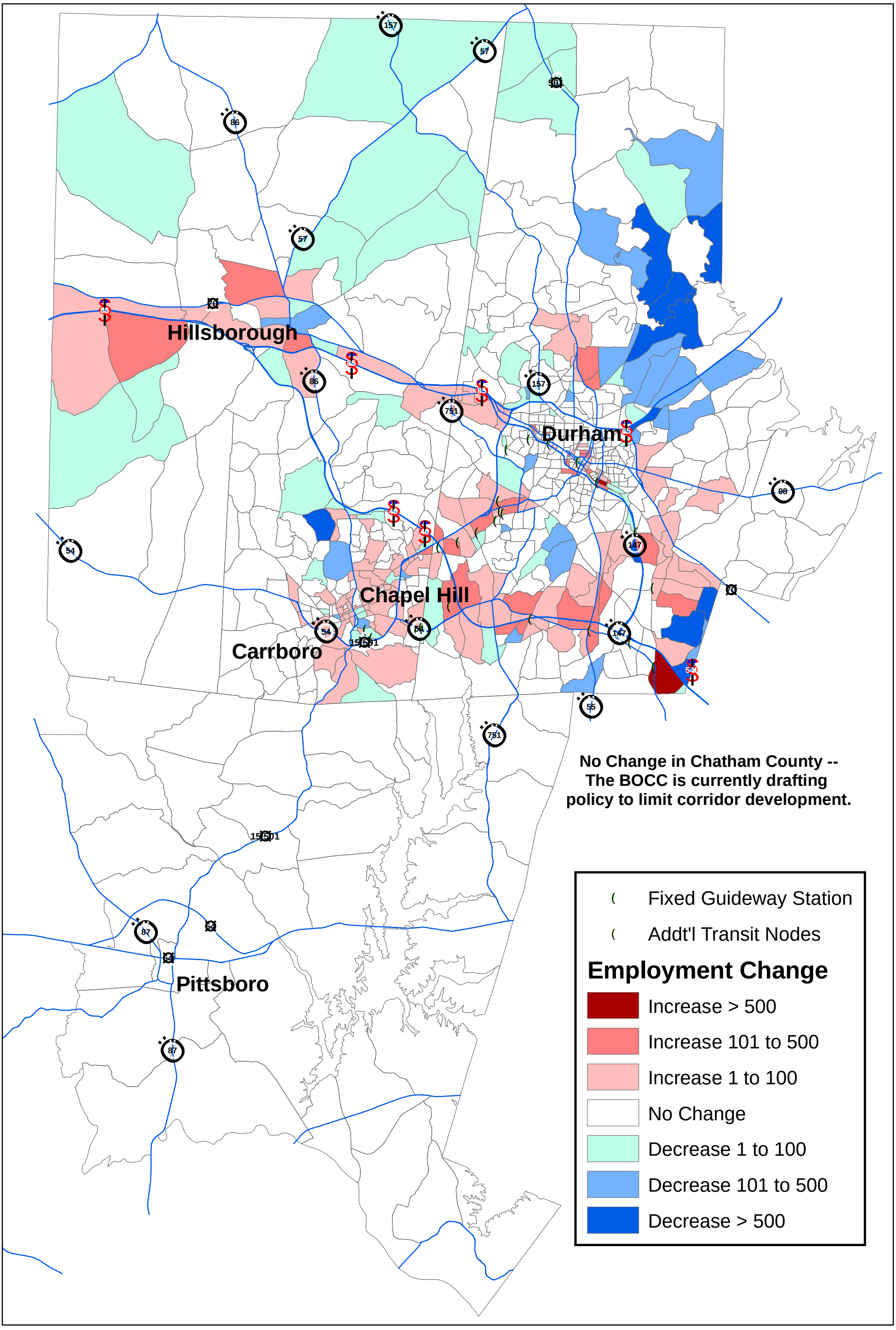
Constrained L.U. Scenario --Employment Compared to Baseline



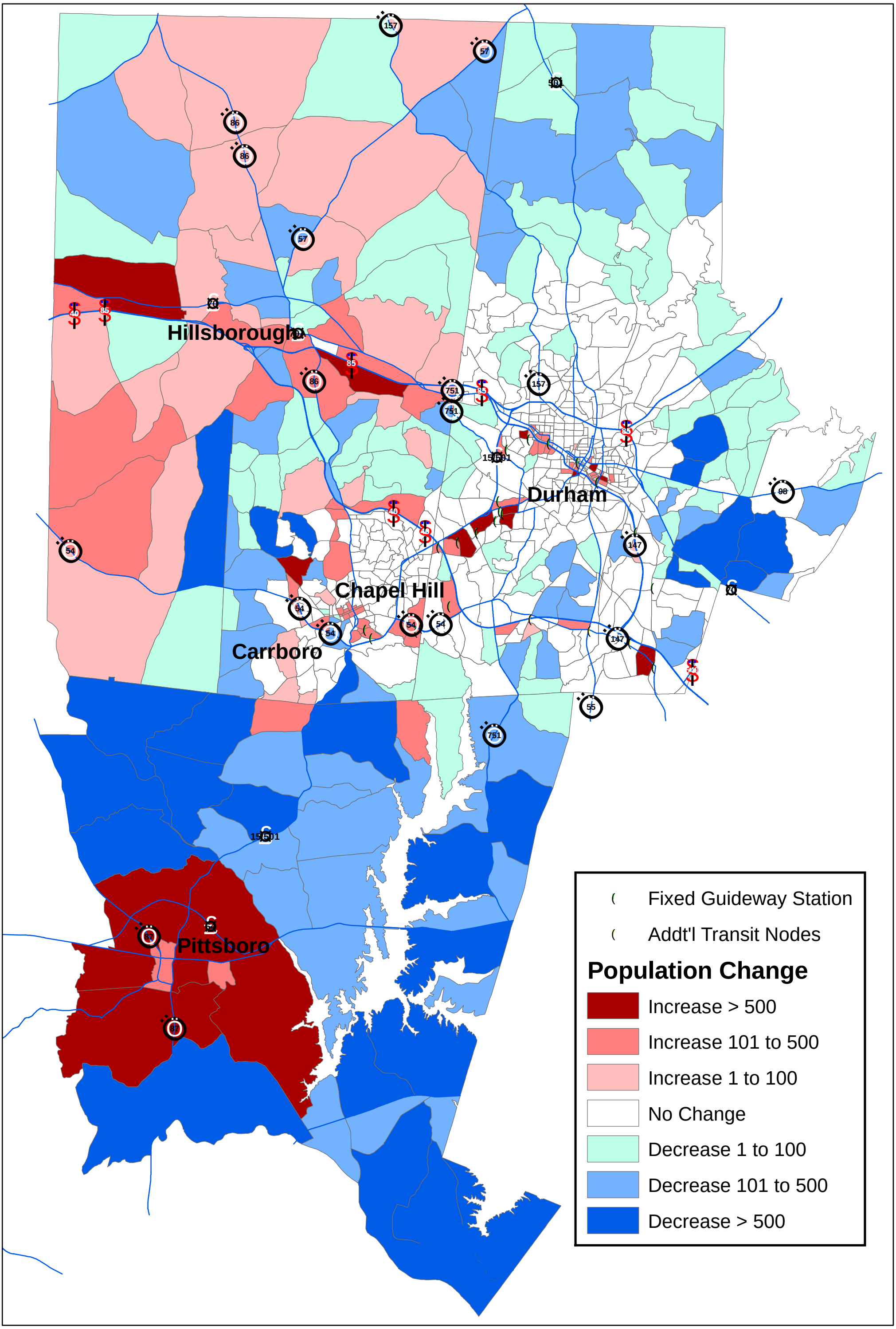
Travel Corridor L.U. Scenario -- Population Compared to Baseline



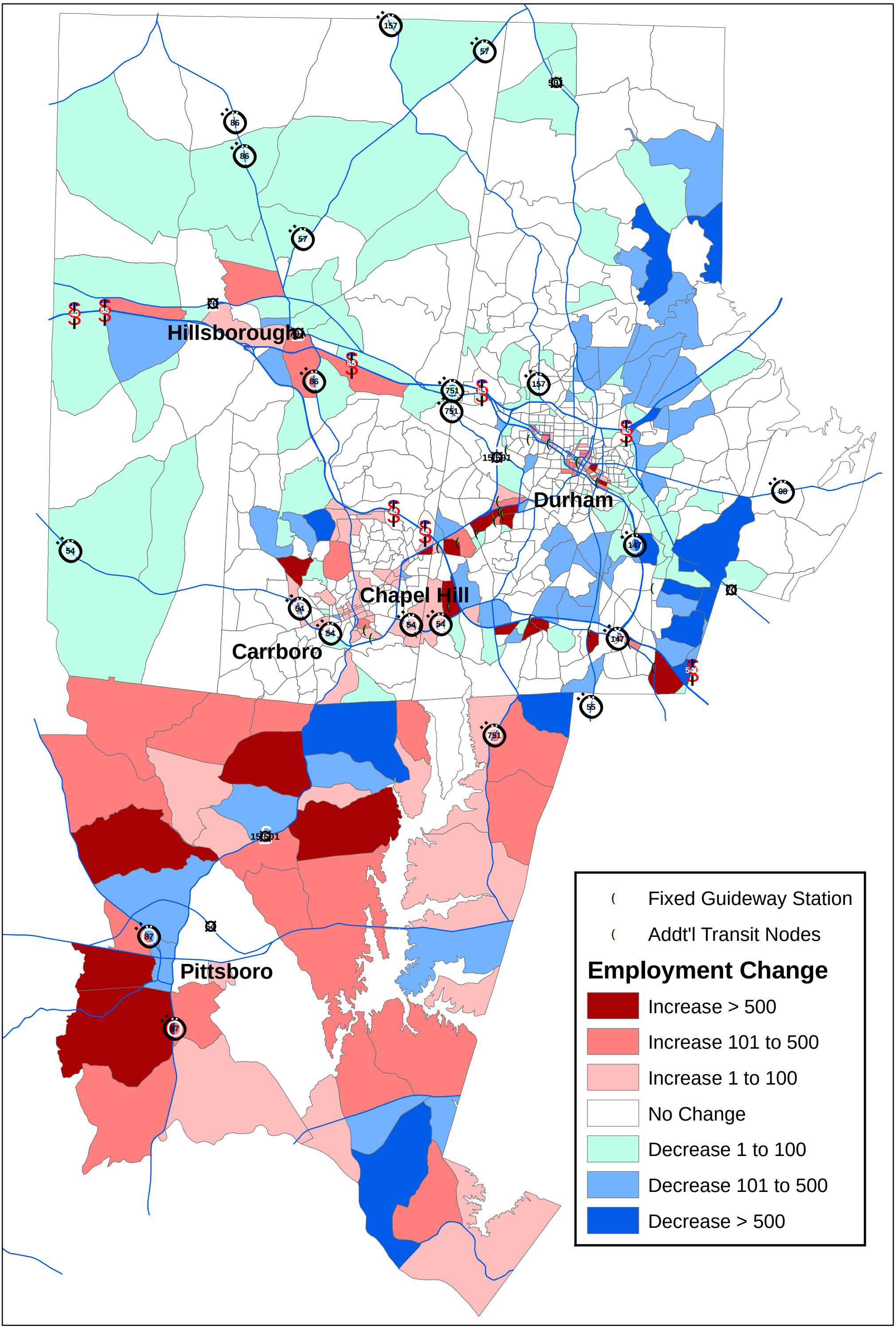
Travel Corridor L.U. Scenario -- Employment Compared to Baseline



Transit Node L.U. Scenario -- Population Compared to Baseline



Transit Node L.U. Scenario -- Employment Compared to Baseline



Policy Direction for Land Use Scenarios

Introduction

In preparing the Long Range Transportation Plan (LRTP), the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (MPO) has developed a series of alternative land use scenarios. The purpose of these scenarios is to explore how patterns of land use different from those reflected in adopted land use plans would affect travel demand. The MPO staff presented those scenarios to the Transportation Advisory Committee (TAC) in spring 2008.

A reasonable question that follows is, "What objectives and policies would the MPO's jurisdictions have to put into place to begin moving the community in the direction outlined in the scenario?" Below is a preliminary response to the question. This memo presents various sample policy directions that local governments could pursue to begin to implement the scenarios.

The policy directions suggested below span a range of complexity and political acceptability. Some are relatively easy to implement, while others may require complex planning studies and revisions to land use codes. They may require significant research, legal advice, and potentially enabling legislation to implement. Some may be inexpensive, while others may require a significant shift in priorities for operating and capital budgets. Note that this list of policy directions is preliminary and not exhaustive. Other policy directions or variations of these might be the best fit for the implementing the changes that the scenarios envision. Clearly, broader discussion with a variety of stakeholders about long range community goals and objectives would be needed to reach agreement how best to proceed.

Scenario 1 -- Baseline

The baseline scenario represents the fundamental projection of the MPO's future for purposes of transportation modeling. Fundamentally, the scenario assumes that land is developed over the next few decades in a manner consistent with the adopted land use plans, policies, and official actions of MPO jurisdictions. Projections of employment and housing were developed by determining what amount of housing and employment could be expected from each of several hundred traffic analysis zones, based on the future land use anticipated. Assumptions are used to account for: a) land undevelopable for environmental reasons (floodplains, stream buffers, etc.); b) the density and intensity of future development; and c) the proportion of development that might be expected by the 2035 planning horizon of the LRTP. The Baseline Scenario forms the basis for the adopted LRTP and the Air Quality Conformity Determination.

Scenario 2 -- Build-Out

The Build-Out Scenario is similar to the Baseline Scenario in that it represents the amount of housing and employment that could be expected if the MPO area were to develop in a manner consistent with adopted land use plans, policies, and official actions of MPO jurisdictions. However, the Build-Out Scenario is not "time constrained." It does not focus on a future

year, 2035, as the Baseline Scenarios does, but instead on an end state. It assumes that the entire scope of the MPO is developed.

Scenario 3 -- Constrained Growth

The Constrained Growth Scenario is the first of three that asks the question, "What might the future projections of employment and housing, and ultimately travel demand, be if the MPO was to alter its land use and development policies?" This scenario assumes that long range land use plans and development regulations would be consciously changed to scale down the amount of new development allowed each year. It also assumes that mechanisms be established to prevent growth beyond a certain annual target level.

Scenario Objective: Local governments in the MPO should employ conscious planning and policy actions to constrain growth in certain locations, resulting in forecast housing and employment by 2035 of approximately 10 percent less than for the Baseline Scenario, and up to 35 percent in Chatham County.

A. Land Use Planning

1. Develop a systematic and defensible method for determining the maximum amount of development that the local jurisdiction wants to accommodate each year and the basis for that determination.
2. Change local urban growth area boundaries to limit the extent of urban and suburban development.
3. Restrict the extension of sewer and water utilities.

B. Land Use Regulation

1. Develop a systematic and defensible method of evaluating and selecting highly desirable development projects that will be considered for legislative approval each year.

Scenario 4 -- Travel Corridors

The Travel Corridors Scenario speculates about what might be the effect on housing, employment, and travel demand from a conscious effort to achieve a different land use pattern in the MPO area. The focus in this scenario is on new development along major arterial roadways. This approach assumes the same amount of employment and housing growth, but assigns it to locations different than in the Baseline Scenario.

Scenario Objective: Local governments in the MPO should employ conscious planning and policy actions to focus a significant portion of future growth into transit-oriented corridors, including Downtown Durham. Ensure that new development is located and designed in an appropriate manner and that appropriate regional and local transit service are available. Develop effective strategies to encourage new development in Corridor areas and discourage new development elsewhere.

A. Land Use Planning

1. Through the Comprehensive Plan Future Land Use Map, identify transit oriented corridors as the land within a certain distance (perhaps ¼ mile) from major arterial streets. Examples in Durham include Roxboro Road, Main Street/Hillsborough Road, University Drive/Chapel Hill Road, Alston Avenue/NC 55, Holloway Street/NC 98, Miami Blvd, and NC 54. Other examples include: US 15-501 (Gateway area) in Chapel Hill; I-85 in Orange County; NC 54 by-pass in Carrboro; and Old NC 86 in the southern part of Hillsborough.
2. Prepare detailed small area plans to identify locations in transit-oriented corridor areas for mixed use and high intensity development, transit stops/stations, structured parking, pedestrian/bicycle facilities, other infrastructure, etc.

B. Land Use Regulation

1. Create a transit-oriented corridor zoning overlay district or base district.
2. Establish minimum land use intensity (residential density in dwelling units per acre and non-residential floor area ratios) for new development in the transit-oriented corridor district.
3. Require a high level of pedestrian and bicycle connections within the transit-oriented corridor district and between the district and surrounding neighborhoods.
4. Require accommodation for bus transit in specific locations identified in the small area plan for the transit-oriented corridor.
5. Prepare design guidelines and review new development against the guidelines to ensure that new development is transit, pedestrian, and bicycle friendly.
6. Prohibit auto-intensive land uses.
7. Significantly restrict surface parking and encourage/require structured parking.
8. Amend the development review and approval process to provide a higher priority and reduced application fees to new development in transit-oriented corridors and a lower priority and higher application fees for new development outside of transit-oriented corridors.

C. Transportation System Management (TSM)

1. Systematically assess the designated transit-oriented corridors to identify opportunities for TSM and roadway improvements to better coordinate traffic flow, especially with increased bus traffic.
2. Incorporate a program of TSM and roadway improvements into the jurisdiction's CIP.

D. Transportation Demand Management (TDM)

1. Prepare a TDM Plan for each transit-oriented corridor, including objectives and strategies to reduce traffic congestion; manage parking; and make the corridor area a desirable place to live, work, and visit.
2. Require that TDM improvements and programs be included in any new development in accordance with the TDM Plan.

E. Transit Service

1. Provide a high level of bus transit service along the arterials in the transit-oriented corridors.
2. Ensure that transit amenities are convenient and comfortable to encourage transit use. Amenities could include benches, shelters, lighting, landscaping, public art and graphics, ticket vending machines, rider information displays, bicycle facilities, etc.

F. Parking

1. Prohibit commercial parking lots as a stand-alone use in transit-oriented corridors.
2. Reduce or eliminate required parking in transit-oriented corridors.
3. Establish a maximum parking requirement in transit-oriented corridors.

Scenario 5 -- Transit Compact Zone

The Transit Compact Zone Scenario also speculates about what might be the affect on housing, employment, and travel demand from a conscious effort to achieve a different land use pattern. The focus in this scenario is on new development in transit-oriented compact neighborhoods in strategic location in the MPO. Likewise, this approach assumes the same amount of employment and housing growth as the Baseline Scenario, but assigns it to different locations.

Scenario Objective: Focus a significant proportion of future growth in compact neighborhoods. Ensure that that new development is located and designed in an appropriate manner and that appropriate regional and local transit service are available. Develop effective strategies to encourage new development in Transit Compact Zones and discourage new development elsewhere.

A. Land Use Planning

1. Through the Comprehensive Plan Future Land Use Map, identify transit-oriented compact neighborhoods as the land within a certain distance (perhaps ½ mile) from regional transit stops or stations. Examples in Durham include Roxboro Road, Main Street/Hillsborough Road, University Drive/Chapel Hill Road, Alston Avenue/NC 55, Holloway Street/NC 98, Miami Blvd, and NC 54. Other examples include: US 15-501 (Gateway area), Carolina North, and UNC Hospitals in Chapel Hill; I-85 in Orange County; NC 54 by-pass in Carrboro; and Old NC 86 in the southern part of Hillsborough
2. Prepare detailed small area plans to identify locations in transit-oriented compact neighborhoods for mixed use and high intensity development, transit stops/stations, structured parking, pedestrian/bicycle facilities, other infrastructure, etc.

B. Land Use Regulations

1. Create a transit-oriented compact neighborhood zoning district.

2. Establish minimum land use intensity (residential density in dwelling units per acre and non-residential floor area ratios) for new development in the transit-oriented compact neighborhood district.
3. Require a high level of pedestrian and bicycle connections within the transit-oriented compact neighborhood district and between the district and surrounding neighborhoods.
4. Require accommodation for bus transit in specific locations identified in the small area plan for the transit-oriented compact neighborhood.
5. Prepare design guidelines and review new development against the guidelines to ensure that new development is transit-, pedestrian-, and bicycle-friendly.
6. Prohibit auto-intensive land uses.
7. Significantly restrict surface parking and encourage/require structured parking.
8. Amend the development review and approval process to give a higher priority and reduced application fees for new development in transit compact zones and a lower priority and higher application fees for new development outside of transit compact zones.

C. Transportation System Management (TSM)

1. Systematically assess the designated transit-oriented compact neighborhood districts to identify opportunities for TSM and roadway improvements to better coordinate traffic flow, especially with increased bus traffic.
2. Incorporate a program of TSM and roadway improvements into the jurisdiction's CIP.

D. Transportation Demand Management (TDM)

1. Prepare a TDM Plan for each transit-oriented compact neighborhood district, including objectives and strategies to reduce traffic congestion; manage parking; and make the corridor area a desirable place to live, work, and visit.
2. Require that TDM improvements and programs be included in any new development in accordance with the TDM Plan.

E. Transit Service

1. Provide a high level of regional transit between and bus feeder transit services to the transit-oriented compact neighborhoods.
2. Ensure that transit amenities are convenient and comfortable to encourage transit use. Amenities could include benches, shelters, lighting, landscaping, public art and graphics, ticket vending machines, rider information displays, bicycle facilities, etc.

F. Parking

1. Prohibit commercial parking lots as a stand-alone use in transit-oriented compact neighborhood districts.
2. Reduce or eliminate required parking in transit-oriented compact neighborhood districts.

MEMORANDUM

TO: Transportation Advisory Committee (TAC)
DCHC MPO

FROM: Lead Planning Agency

DATE: August 13, 2008

RE: FY 2009-2015 Metropolitan Transportation Improvement Program

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The State Board of Transportation released the draft FY 2009-2015 STIP on October 31, 2007. The DCHC MPO released the supplement to the draft STIP as the draft MTIP in January and held a public hearing in February. In addition, NCDOT held public comment meetings on the STIP in February. One-on-one meetings for Division 5 and Division 7 were held in February and March.

At the May meeting, the TCC recommended that the TAC approve the final STIP as the final MTIP. After the May TCC meeting, on June 5, 2008, the final STIP was approved and released by the State Board of Transportation. LPA staff identified several issues and errors in the final STIP. Most are relatively minor and could be addressed through STIP/MTIP amendments. These issues were discussed at the June TAC meeting. At the June TAC meeting, the TAC did not approve the final MTIP and directed the LPA to bring the final MTIP back to the August TAC meeting for approval.

The TAC must approve the final MTIP in August to meet the federal deadlines for air quality conformity. In addition, federal regulations require that the MTIP and STIP are consistent in the first four years.

The issue concerning the description of highway projects in the DCHC MPO has been addressed since the June TAC meeting. The descriptions of several highway projects in the final MTIP have been changed to include "provide bicycle, pedestrian, and transit accommodations as appropriate". This is considered an acceptable difference between the STIP and MTIP by the Federal Highway Administration.

The TCC recommends approving Attachment 7A as the final FY 2009-2015 MTIP. Attachment 7A is identical to the final FY 2009-2015 STIP with the exception of the additional language added to the descriptions of several highway projects. Attachment 7B is a resolution adopting the final FY 2009-2015 MTIP. The TCC also recommends that the TAC approve the resolution finding the FY 2009-2015 MTIP in conformity with the North Carolina State Implementation Plan (Attachment 7F).

Final FY 2009-2015 MTIP/STIP

LPA Staff have reviewed the final FY 2009-2015 STIP. The issues that were discussed during the one-on-one meetings and a description of how NCDOT addressed these issues in the final STIP is included as Attachments 7C and 7D. In addition to the comments on Attachments 7C and 7D, the LPA offers the following additional comments.

Highway Projects

- Additional construction funding for U-0071 (East End Connector) is programmed for FY 2013. This is consistent with the request of the City of Durham and Durham County TAC members.

- NCDOT has said that they will consider adding language to highway project descriptions indicating that bicycle, pedestrian, and transit improvements should be included in the design of the project. LPA staff recommend adding language such as "provide bicycle, pedestrian, and transit accommodations as appropriate" to the descriptions of the highway projects listed below. This language was not in the final FY 2009-2015 STIP, but has been added to the final FY 2009-2015 MTIP. This is considered an acceptable difference between the STIP and MTIP by the Federal Highway Administration.

<u>Orange County</u>
I-3306, I-40
I-0305, I-85
R-3438, Hillsborough Western Bypass
R-2825, S. Churton St.
U-2803, Smith Level Rd.
U-2805, Homestead Rd.
U-2909, Estes Dr.
U-3306, Weaver Dairy Rd.
U-0624, S. Columbia St.
U-2807, US 15-501
U-3808, Elizabeth Brady Rd.
U-3436, Eno Mountain Rd./Mayo St.
B-4962, US 70 Bypass/Eno River bridge
B-4216, SR 1002/Strouds Creek bridge
B-4592, SR 1561/Eno River bridge

<u>Durham County</u>
I-4743, I-85
R-2000, I-540/I-40
U-4720, US 70
U-2405, MLK/NC 55 Interchange
U-4721, Northern Durham Parkway
U-4722, Roxboro Rd.
U-2807, US 15-501
U-3309, T.W. Alexander
U-3804, Hillandale Rd.
U-0071, East End Connector
U-4716, Hopson Rd./Church St.
U-3308, Alston Ave.
U-4012, US 15-501
U-4009, US 15-501 Service Rd.
U-4011, Miami Blvd.
U-2831B, Briggs Ave. Extension
U-4763B, Triangle Parkway
B-3638, US 70 Business/Campus Drive bridge
B-4943, SR 1616/Sandy Creek bridge

Bicycle and Pedestrian Projects

- STP-DA funding matches the table that the TAC approved in May.

Transit Projects *– The LPA and transit staff have identified several errors in the transit project listings. Many transit projects are listed as unfunded and must be amended when funding is identified. The LPA recommends approving the MTIP as is, and addressing the following errors through MTIP amendments.*

STP-DA funding comments

- STP-DA funding generally matches the table that the TAC approved in May. There are two exceptions:
  - CHT: $400,000 STPDA in FY 2009 for TG-4731 should be deleted. CHT switched the $400,000 from a "miscellaneous capital/buses" project to "up to 5 replacement vans". These STPDA funds are shown in TA-4748.
  - DATA: TG-4958 Passenger Amenities in FY 2009 should list STP-DA funding of $86,000 and local funding of $22,000. Project is funded.
- CHT: TA-4748 is partially funded – the $400,000 STPDA in FY 2009.
- CHT: TA-4726 is partially funded – the $2,242,000 STPDA in FY 2010.

CMAQ funding comments

- DATA and CHT: On C-5103 and C-5104, the table only shows a 20% C ("city") match for capital and operating. Suggest labeling this L for "local". The 20% consists of a local and state match for the capital portion of these projects.
- Based on the new funding provided to TTA, DATA, and CHT by the CMAQ funds in the FY 2007-2013 STIP/MTIP Administrative Modification #3, the following projects in the FY 2009-2015 STIP/MTIP need to be updated.
  - TTA: TA-4992 Vanpool Fleet Expansion
  - TTA: TA-4818 Replacement Buses
  - CHT: TA-4726 Replacement Buses
  - DATA: TA-4923 Replacement Buses
- DATA: TA-4923 is labeled as 11 replacement buses. It is actually a total of 34 replacement buses. This should be displayed like the Chapel Hill Transit buses with 4 replacement buses in FY 2009 and 30 replacement buses in 2013. With the additional Statewide CMAQ funds being provided in FY 2008 for 7 hybrid electric replacement buses, the FY 2009 needs are now only 4 replacement buses.
- DATA: TA-4755 includes CMAQ funding in FY 2009. This is double-counting CMAQ funding that is already shown in other projects and should be deleted.

JARC/New Freedom funding comments:

- CHT: CHT included TM-5123 and TM-5129 to account for future JARC and NF projects that they will request. The DCHC MPO TAC has not approved funding for CHT projects in years FY 2010-2015 yet and it is premature to list this future funding. This project should be labeled unfunded for FY 2010-2015.
- DATA: The DCHC MPO approved two new DATA projects for JARC in FY 2009 that are not included in the final STIP.

Other funding comments:

- CHT: TA-4979 is partially redundant with TA-4748 (in FY 2010 and 2014) and partially not matching CHT's requests (in FY 2011). This project should be deleted.
- CHT: TA-4995 FEDU funding in FY 2013 should be 1333 not 1233

TAC Action:

Approve the resolution adopting the FY 2009-2015 Metropolitan Transportation Improvement Program (Attachment 7B) and the resolution finding the FY 2009-2015 Metropolitan Transportation Improvement Program in conformity with the North Carolina State Implementation Plan (Attachment 7F).



Transportation

ORGANIZATION OF THE STIP

The State Transportation Improvement Program (STIP) contains funding information and schedules for transportation divisions including: Highways, Aviation, Enhancements, Public Transportation, Rail, Bicycle and Pedestrians, and the Governor's Highway Safety Program. A separate summary of funding of major highway projects is available as a companion document to the STIP.

The transportation program in the STIP is organized by highway divisions. At the beginning of each of the 14 divisions, a map is provided with a color-coded key to the major highway funded projects in that division. Projects are listed by county within each division. This results in some duplication since highway projects frequently extend across county and division lines. When this duplication occurs, a project is listed in each county in which it is found.

Specific projects in each county are listed under Highway and Public Transportation Programs. The Highway Program projects are subdivided by category: interstate, rural, urban, federal bridge, municipal bridge, mitigation, bicycle and pedestrian, congestion mitigation, enhancement, ferry, hazard elimination, safe routes to school, passenger rail and roadside environmental. Interstate, rural, federal bridge and ferry projects are listed in order of route number. Urban, municipal bridge and bike and pedestrian projects are listed by city or county and enhancement projects are listed by city while mitigation projects are listed by county. Congestion mitigation, passenger rail projects are listed alphabetically by city or county. Hazard elimination projects may be listed by route, city or county.

Prefix	*Program*	*Funding Source*
I	Interstate	Interstate Construction (I) Interstate Maintenance (IM) National Highway System (NHS)
R, A **M, X**	Rural Special	NHS, Surface Transportation Program (STP), State, Highway Trust Fund (T)
U	Urban	NHS, STP, State and T
B	Bridge Replacement	Replacement and Rehabilitation, State, Federal and Municipal
C	Congestion Mitigation	Federal, Local and Other
E, EB **EL, ER, L S**	Enhancements Call, Roadside, Bike-Pedestrian and Local	State, Federal (STP), Local and Other
EE	Mitigation	State, Federal and Other
K **L**	Rest Area Landscape	Interstate Maintenance, NHS, STP Personalized License Plate Funds
P, SB	Passenger Rail	State and Federal
SR	Safe Routes to School	State and Federal
W, SF **SI**	Highway Hazard (Highway Safety)	Safety, State and Federal (HES) High Risk Routes (HRR)
Y, Z	Railroad-Highway Crossings	State and Federal
F	Ferry	Ferry, State and Federal
FS	Feasibility Study	State
T	Public Transportation	State, Federal and Local

GARVEE (Federal Revenue Bonds) Projects are designated as such in the project's comment field. The Aviation Program consists of State-Aid to Airports and Block Grants. Projects are listed alphabetically by county and subdivided under commercial Services and General Aviation Airports. The Public Transportation Program list projects first by county, secondly alphabetically by city and then by planning authorities or other agencies. The Governor's Highway Safety project list is comprised of various safety programs.

In the Highway Program projects in the Intrastate or Urban Loop System are listed under the appropriate funding program, but are identified with an asterisk (*) following the project I.D. number. North Carolina's Strategic Highway Corridor projects are designated by comment under the work type-funding source columns. Ferry projects are also part of the highway program and have been assigned to their respective connecting highway route numbers where possible and the division where they are assigned to operate.

The fiscal year scheduled for planning and design are shown as FY. The type or phase of work is shown for each interstate, rural and urban project in the county-by-county listing. Right of way and construction phases of each project are shown as FFY (Federal) or SFY (State). The F or S designation is dependent upon the type of funding to be used for that particular phase of work. The cost of right of way and construction and their anticipated funding sources also are listed.

The Secondary Roads Program (County Construction) is not included in this statewide highway improvement program. NCDOT and the respective county boards of commissioners develop this program annually. Similarly, the Small Urban Program is developed annually by the department and municipal officials and is excluded from this statewide transportation improvement program.

A separate map book is available that includes general maps showing a **corridor** for each of the funded projects in the interstate, rural, urban and bridge programs. The descriptions and maps for most projects are preliminary and subject to change. All major projects require extensive planning, environmental impact and design studies. **The location and exact type of improvements are subject to refinement and modification during the planning and design phases.**

The State Transportation Improvement Program is available on-line at **www.ncdot.org/~tip**

The State Transportation Program

This STIP budget is based on the certified budget and projections developed by NCDOT and the Office of State Budget and Management in the summer of 2007. These estimates were used to develop the draft program and are the basis for air quality and fiscal constraint tests. The Trust Fund revenues available for all programs are projected to be about $1 billion for FY 2009 and $7.9 billion during the seven-year period. Of this $7.9 billion in revenue, $5.8 billion is allocated to the Intrastate and Urban Loop STIP programs. The remainder is utilized for non-STIP purposes. The existing federal bill (SAFETEA-LU) expires September 30, 2009. Estimates of federal funds beyond that date are conservative, but may change greatly both in amount and program structure as Congress works to pass a new Federal Surface Transportation Bill.

Inflation has not been factored into the above revenue estimates. However, when programming projects in the STIP the following inflation factors for future construction and right of way cost increases were used to reserve the budget at an overall inflation rate of 5%. Project costs and revenue projections shown in this planning document budget are in constant 2008 dollars. Therefore, to find the true anticipated future year project costs, multiply the 2008 cost shown in the STIP by the following inflation factors: 2009 - 1.025, 2010 - 1.076, 2011 - 1.130, 2012 - 1.187, 2013 - 1.246, 2014 - 1.308, and 2015 - 1.374.

In 2005, House Bill 254 authorized NCDOT to issue Grant Anticipation Revenue Vehicles (GARVEE bonds) to finance federal aid highway projects. All funds derived from GARVEE bonds are backed by the receipt of future federal funds and no state funds may be committed to the debt service. In October 2007, the Department received $287.6 million in GARVEE bond proceeds. It is anticipated that an additional $548 million in bonds will be sold as shown programmed in this seven year STIP.

COUNTY **TRANSPORTATION PROGRAM**

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK FISCAL YEARS

ROUTE/CITY/ SYSTEM COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJECT COST (THOU)	PRIOR YEARS COST (THOU)	FUNDS	*"DELIVERABLE STIP"* FY 2009	FY 2010	FY 2011	*"DEVELOPMENTAL STIP"* FY 2012	FY 2013	FY 2014	FY 2015	*"UNFUNDED" FUTURE YEARS*
NC 00 WAKE COUNTY	R-0000	* I-40 TO NC 211 EAST OF HOMETOWN. WIDEN TO A MULTI-LANE FACILITY WITH A BYPASS OF HOMETOWN ON NEW LOCATION. (7.3 MILES)	33,450	250	NHS	R 4000 A							
					NHS	M 700							
					NHS	U 1500							
					NHS			C 9000 A					
					NHS					R 3000 B			
					NHS							C 5000 B	C 10000 B

ROUTE NUMBER Listed in order of **I, US, NC, SR, CITY** or **NEW ROUTE**

IDENTIFICATION NUMBER Assigned to each project at conception and remains with project until completion.

INDICATES INTRASTATE PROJECT

LOCATION/DESCRIPTION/MILEAGE Project termini, general description of project and length in miles.

FUNDING See Highway or Public Transportation Funding Key for an explanation of funding categories designated for each project phase.

WORK TYPE (ACTIVITY) Phases of implementation: preliminary engineering, right of way, mitigation, utilities or construction. For **Other Work Types** or **Activities** see **Work Type (Activity)** box below.

PROJECT BREAKS

A — I-40 to NC 3.
I
B — NC 3 to NC 211.

ESTIMATED COST Preliminary engineering, right of way, utilities, mitigation and construction cost estimates by funding category in current dollars. Cost may include one or more funding types. Multi-year funding of a project segment indicates **Cash-Flow Funding** with proposed work type or activity beginning in the initial scheduled year.

UNFUNDED FUTURE COMMITMENT

WORK TYPE (ACTIVITY)

A - Acquisition
AD - Administration
B - Booklets
C - Construction
CG - Construction (GARVEE)
CP - Capital
F - Feasibility Study
G - Grading and Structures
I - Inspections
L - Landscaping
M - Mitigation
MP - Mapping
N - Implementation
O - Operations
P - Paving
PE - Preliminary Engineering
PL - Planning
R - Right of way
RG - Right of way (GARVEE)
S - Structures
SG - Signing
T - Training
U - Utilities

KEY TO HIGHWAY FUNDING SOURCE

APD - Appalachian Development
BIA - Bureau of Indian Affairs
BRGI - Bridge Inspection
C - City
CMAQ - Congestion Mitigation
DP - Discretionary or Demonstration
FA - Bridge Replacement On-Federal-Aid System
FLP - Federal Lands Program
HES - High Hazard Safety
HP - Federal-Aid High Priority
HRRR - High Risk Rural Roads
IM - Interstate Maintenance
L - Local
NFA - Bridge Replacement Off-Federal-Aid System
NFAM - Municipal Bridge Replacement Program
NHS - National Highway System
NRT - National Recreational Trails
O - Others
PLF - Personal Automobile License Plate Funds
RR - Rail/Highway Safety
S - State
S(M) - State Match
S(5) - State (Highway) Trust Funds
SF - State Ferries
SG - Safety Grant
SRTS - Safe Routes to School
STP - Surface Transportation Program
STP - Surface Transportation Program - Direct Attributable
STP - Surface Transportation Program - Enhancements
T - Highway Trust Funds
T-2001 - State Rail Funds

KEY TO PUBLIC TRANSPORTATION FUNDING SOURCES

CMAQ - Congestion Mitigation
EDTAP - State Elderly and Disabled Transportation
FBUS - Capital Program - Bus Earmark (5309)
FED - Federal
FEDPO - Special Elderly and Disabled
FMLP - Metropolitan Planning (5303)
FNF - New Freedom Program
FNS - Capital Program - New Start
FNU - Non Urbanized Area Formula Program (5311)
FSPR - State Planning and Research
FUZ - Urbanized Area Formula Program (5307)
HSTM - State Administrative Assistance - Human Services
JARC - Job Assistance and Reverse Commute (3037)
L - Local
OAWF - Operating Assistance (Work First)
RGP - Rural General Public Program
RIMA - Regional and Inter-City Maintenance Assistance
RTAP - Rural Transit Assistance Program
RTCH - Rural Technology
SFCP - State Rural Facility Program
SMAP - State Maintenance Assistance Program
STAT - State
STCP - State Rural Capital Program
STP - Surface Transportation Program
UTCH - Urban Technology

FUNDING SOURCES MAY CHANGE TO ACCOMMODATE REVENUE VARIATIONS

COST AND SCHEDULES ARE PRELIMINARY AND SUBJECT TO SIGNIFICANT CHANGE AS MORE INFORMATION BECOMES AVAILABLE

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
INTERSTATE PROJECTS													
I-40 DURHAM ORANGE	I-3306	I-85 IN ORANGE COUNTY TO NC 147 (BUCK DEAN FREEWAY) IN DURHAM COUNTY. ADD ADDITIONAL LANES. (20.7 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	128452	81452	IM NHS								C 18800 A C 28200 A
STRATEGIC HIGHWAY CORRIDOR					A I-85 TO DURHAM COUNTY LINE. B ORANGE COUNTY LINE TO NC 147 (BUCK DEAN FREEWAY) IN DURHAM - UNDER CONSTRUCTION (OPEN TO TRAFFIC).								
I-40 ORANGE	I-4716	I-85 TO DURHAM COUNTY LINE. GRIND AND RESEAL JOINTS. (11 MILES)	1725	225	IMPM	C 1500							
STRATEGIC HIGHWAY CORRIDOR					DIVISION PROJECT - PLANNING/DESIGN IN PROGRESS								
I-85 DURHAM GRANVILLE	I-4903	SOUTH OF DURHAM/GRANVILLE COUNTY LINE IN DURHAM COUNTY TO US 15 IN GRANVILLE COUNTY. PAVEMENT REPAIR. (1 MILE)	530	530									
STRATEGIC HIGHWAY CORRIDOR					UNDER CONSTRUCTION - DIVISION PROJECT								
I-85 ORANGE	I-0305*	I-40 AT HILLSBOROUGH TO DURHAM COUNTY LINE. WIDEN TO SIX LANES AND RECONSTRUCT INTERCHANGES AND STRUCTURES. (7.5 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	212582	1800	NHS NHS NHS NHS NHS IM IM								R 30400 A U 1225 A R 19700 B U 560 B M 538 M 359 C 158000
					A SR 1006 NEAR HILLSBOROUGH TO EAST OF SR 1709. B EAST OF SR 1709 TO DURHAM COUNTY LINE.								
STRATEGIC HIGHWAY CORRIDOR					PLANNING/DESIGN IN PROGRESS								
DURHAM DURHAM	I-4743*	I-85, US 70 TO SR 1632 (RED MILL ROAD), EXIT 182. ADD LANES. (6.4 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE											
STRATEGIC HIGHWAY CORRIDOR					THE CROSS SECTION FOR THIS PROJECT WILL BE ESTABLISHED BY MUTUAL AGREEMENT OF THE MPO AND NCDOT THROUGH THE STATE AND FEDERAL ENVIRONMENTAL REVIEW PROCESS.								

* INDICATES INTRASTATE PROJECT

COST AND SCHEDULES ARE PRELIMINARY AND SUBJECT TO SIGNIFICANT CHANGE AS MORE INFORMATION BECOMES AVAILABLE

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
RURAL PROJECTS													
I-540 NC 540 DURHAM WAKE	R-2000*	NORTHERN WAKE FREEWAY, NC 55 WEST OF MORRISVILLE TO US 64 EAST NEAR KNIGHTDALE. FREEWAY ON NEW LOCATION. (29 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	762550	757620	IM R 100 AF IM U 30 AF IM C 4800 AF								

AA NC 55 WEST OF MORRISVILLE TO RESEARCH TRIANGLE PARK EAST LIMITS - COMPLETE.
AB RESEARCH TRIANGLE PARK EAST LIMITS TO SOUTHWEST OF I-40 - COMPLETE).
AC SOUTHWEST OF I-40 TO I-40 - COMPLETE.
AD TOLL PLAZA BETWEEN NC 55 AND NC 54 - PLANNING IN PROGRESS. NORTH CAROLINA TURNPIKE AUTHORITY PROJECT.
AE ITS DEVICES, I-540 AND NC 54/EMPEROR BOULEVARD - UNDER CONSTRUCTION.
AF I-540 / I-40 INTERCHANGE IMPROVEMENTS.
BA I-40 TO NORTHEAST OF I-40 - COMPLETE.
BB NORTHEAST OF I-40 TO SOUTHWEST OF LUMLEY ROAD - COMPLETE.
BD SOUTHWEST OF LUMLEY ROAD TO NORTHEAST OF LUMLEY ROAD - COMPLETE.
BE NORTHEAST OF LUMLEY ROAD TO NORTHEAST OF US 70 - COMPLETE.
CA NORTHEAST OF US 70 TO SOUTHWEST OF SR 1826 (RAY ROAD) - COMPLETE.
CB SOUTHWEST OF SR 1826 (RAY ROAD) TO EAST OF NC 50 - COMPLETE.
D EAST OF NC 50 TO WEST OF SR 2000 (FALLS OF NEUSE ROAD) - COMPLETE.
EA WEST OF SR 2000 (FALLS OF NEUSE ROAD) TO EAST SR 2013 (GRESHAM LAKE ROAD) - COMPLETE.
EB EAST OF SR 2013 (GRESHAM LAKE ROAD) TO EAST OF US 1 - COMPLETE.
F EAST OF US 1 TO SOUTH OF SR 2215 (BUFFALOE ROAD) - COMPLETE.
G SOUTH OF SR 2215 (BUFFALOE ROAD) TO US 64 EAST NEAR KNIGHTDALE - COMPLETE.

STRATEGIC HIGHWAY CORRIDOR

US 15-501, US 29, US 158, US 220, US 421, NC 68 CASWELL GUILFORD ORANGE ROCKINGHAM	R-4403	NATIONAL HIGHWAY SYSTEM GUARD-RAIL REHABILITATION. UPGRADE SUB-STANDARD GUARDRAIL, END TREATMENTS AND BRIDGE ANCHOR UNITS.	1068	1068	DIVISION PROJECT - UNDER CONSTRUCTION
NC 54 SR 1973 DURHAM	R-2904	NC 54, SR 1999 (DAVIS DRIVE) TO SR 1959 (MIAMI BOULEVARD) AND SR 1973 (PAGE ROAD), NC 54 TO I-40. WIDEN TO MULTI-LANES AND REPLACE RAILROAD STRUCTURE. (1.1 MILES)	6006	6006	UNDER CONSTUCTION - PROJECT LET WITH U-4026

* INDICATES INTRASTATE PROJECT

COST AND SCHEDULES ARE PRELIMINARY AND SUBJECT TO SIGNIFICANT CHANGE AS MORE INFORMATION BECOMES AVAILABLE

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
RURAL PROJECTS													
NC 55 DURHAM WAKE	R-2906	US 64 IN WAKE COUNTY TO SR 1121 (CORNWALLIS ROAD) IN DURHAM COUNTY. WIDEN TO MULTI-LANES. (13 MILES)	65816	65816									
					A	NORTH OF US 64 TO SOUTH OF NC 540 - UNDER CONSTRUCTION (OPEN TO TRAFFIC).								
					C	NORTH OF NC 540 IN WAKE COUNTY TO SR 1121 (CORNWALLIS ROAD) IN DURHAM - UNDER CONSTRUCTION (OPEN TO TRAFFIC).								
SR 1004 DURHAM	R-4752A	SR 2602 (RED MILL ROAD) TO THE MERCK PHAMACEUTICAL PLANT. STRENGTHEN PAVEMENT AND RESURFACE, ADD TURN LANES, AND INSTALL THERMOPLASTIC PAVEMENT MARKINGS.	900	900									
					DIVISION PROJECT - UNDER CONSTRUCTION								
NEW ROUTE ORANGE	R-3438	HILLSBOROUGH WESTERN BYPASS, US 70 TO NC 57. TWO LANES ON NEW LOCATION. (2.9 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	7450		STP								R 200
					STP								C 7250
SR 1009 (SOUTH CHURTON STREET) ORANGE	R-2825	I-40 TO ENO RIVER. WIDEN TO MULTI-LANES AND WIDEN BRIDGE NO. 240 OVER SOUTHERN RAILROAD. (1.8 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	19300		STP								R 4400
					STP								C 14900
URBAN PROJECTS													
VARIOUS DURHAM	U-4729	CONGESTION MANAGEMENT STUDY FOR DURHAM COUNTY.	100	100									
					IN PROGRESS								
VARIOUS CHATHAM DURHAM ORANGE	U-4727	DURHAM-CHAPEL HILL-CARRBORO URBAN AREA PLANNING (DCHC) ALLOCATION AND UNIFIED WORK PROGRAM.	16238	7522	STPDA	C 2504	C 945	C 664	C 684	C 704	C 725	C 747	
					O	C 626	C 236	C 166	C 171	C 176	C 181	C 187	
					IN PROGRESS								

* INDICATES INTRASTATE PROJECT

COST AND SCHEDULES ARE PRELIMINARY AND SUBJECT TO SIGNIFICANT CHANGE AS MORE INFORMATION BECOMES AVAILABLE

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
URBAN PROJECTS													
VARIOUS CHATHAM DURHAM ORANGE	U-5023	DURHAM-CHAPEL HILL-CARRBORO (DCHC) DA FUNDS - RESERVED FOR FUTURE PROGRAMMING.	3576		STPDA				C 3576				
CARRBORO CHAPEL HILL ORANGE	U-2805	SR 1777 (HOMESTEAD ROAD), SR 1834 (HIGH SCHOOL ROAD) TO NC 86. WIDEN TO MULTI-LANES. (1.4 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	10600	300	STP STP								R 4000 C 6300
CARRBORO ORANGE	U-2803	SR 1919 (SMITH LEVEL ROAD), ROCK HAVEN ROAD TO BRIDGE NO. 88. WIDEN TO MULTI-LANES. (0.6 MILE) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	5871	471	S S		R 600	C 4800					
					PLANNING/DESIGN IN PROGRESS								
CHAPEL HILL CARRBORO ORANGE	U-2909	SR 1780 (ESTES DRIVE), SR 1772 (GREENSBORO STREET) TO NC 86. WIDEN TO MULTI-LANES. (1.7 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	7600	1000	STP STP								R 1600 C 5000
CHAPEL HILL ORANGE	U-4008	US 15-501/ERWIN ROAD. INTERSECTION IMPROVEMENT.	6220	6220									
STRATEGIC HIGHWAY CORRIDOR					UNDER CONSTRUCTION								
CHAPEL HILL ORANGE	U-0624	NC 86 (SOUTH COLUMBIA STREET), SR 1906 PUREFOY ROAD) TO SR 1902 (MANNING DRIVE). CORRIDOR UPGRADE TO INCLUDE BICYCLE LANES. (0.7 MILE) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	6660	3010	STP C 3650								
					RIGHT OF WAY IN PROGRESS								
CHAPEL HILL DURHAM ORANGE	U-4704	CHAPEL HILL-CARRBORO COMPUTERIZED TRAFFIC SIGNAL SYSTEM.	5000		STP C 4550 C C 450								
					PLANNING/DESIGN IN PROGRESS								

* INDICATES INTRASTATE PROJECT

COST AND SCHEDULES ARE PRELIMINARY AND SUBJECT TO SIGNIFICANT CHANGE AS MORE INFORMATION BECOMES AVAILABLE

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK FISCAL YEARS

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
URBAN PROJECTS													
CHAPEL HILL ORANGE	U-3306	SR 1733 (WEAVER DAIRY ROAD), NC 86 TO SR 1734 (ERWIN ROAD). CORRIDOR UPGRADE, PART ON NEW LOCATION. (2.8 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	15995	4925	STP STP	M 270	C 5400	C 5400					
					RIGHT OF WAY IN PROGRESS								
DURHAM CHAPEL HILL DURHAM ORANGE	U-2807	US 15-501, SR 1010 (FRANKLIN STREET) IN CHAPEL HILL TO US 15-501 BYPASS IN DURHAM. MAJOR CORRIDOR UPGRADE. (3.8 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	124653	1653	STP STP								R 25000 C 98000
STRATEGIC HIGHWAY CORRIDOR													
CHAPEL HILL ORANGE	U-4449	REAL-TIME TRANSPORTATION INFORMATION SYSTEM.	1248	1248									
					IN PROGRESS								
DURHAM DURHAM	U-4011	SR 1959 (SOUTH MIAMI BOULEVARD), SOUTH OF SR 2112 (METHODIST STREET) TO NORTH OF SR 1960 (BETHESDA AVENUE). WIDEN TO FIVE LANES TO PROVIDE CENTER TURN LANE. (0.7 MILE) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	6477	3577	STP	C 2900							
					RIGHT OF WAY IN PROGRESS								
DURHAM DURHAM	U-4720*	US 70, LYNN ROAD TO THE PROPOSED NORTHERN DURHAM PARKWAY. (COORDINATE WITH U-4721) (7.8 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE											
STRATEGIC HIGHWAY CORRIDOR					THE CROSS SECTION FOR THIS PROJECT WILL BE ESTABLISHED BY MUTUAL AGREEMENT OF THE MPO AND NCDOT THROUGH THE STATE AND FEDERAL ENVIRONMENTAL REVIEW PROCESS.								
DURHAM DURHAM WAKE	U-4721*	NORTHERN DURHAM PARKWAY, I-540 TO ROXBORO ROAD. (COORDINATE WITH U-4720) (29.4 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE											
STRATEGIC HIGHWAY CORRIDOR					THE CROSS SECTION FOR THIS PROJECT WILL BE ESTABLISHED BY MUTUAL AGREEMENT OF THE MPO AND NCDOT THROUGH THE STATE AND FEDERAL ENVIRONMENTAL REVIEW PROCESS.								
DURHAM DURHAM	U-4446	NC 147 (DURHAM FREEWAY), I-40 TO I-85. INSTALL ITS INFRASTRUCTURE IMPROVEMENTS.	1502	1502									
STRATEGIC HIGHWAY CORRIDOR					UNDER CONSTRUCTION								

* INDICATES INTRASTATE PROJECT

COST AND SCHEDULES ARE PRELIMINARY AND SUBJECT TO SIGNIFICANT CHANGE AS MORE INFORMATION BECOMES AVAILABLE

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
URBAN PROJECTS													
DURHAM DURHAM	U-4722*	US 501 (ROXBORO ROAD), US 501 BYPASS (DUKE STREET) TO SR 1640 (GOODWIN ROAD). (4.4 MILES)											
STRATEGIC HIGHWAY CORRIDOR		PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE				THE CROSS SECTION FOR THIS PROJECT WILL BE ESTABLISHED BY MUTUAL AGREEMENT OF THE MPO AND NCDOT THROUGH THE STATE AND FEDERAL ENVIRONMENTAL REVIEW PROCESS.							
DURHAM DURHAM	U-4716	SR 1978 (HOPSON ROAD) AND SR 1980 (CHURCH STREET). CONSTRUCT A GRADE SEPARATION, EXTEND CHURCH STREET AND CLOSE CHURCH STREET CROSSING 734 748M OF THE NORFOLK SOUTHERN-NORTH CAROLINA RAILROAD. PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	6500		RR								C 6500
DURHAM DURHAM	U-2405	M. L. KING, JR. PARKWAY AND NC 55. CONSTRUCT INTERCHANGE. PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	25800		STP STP								R 12000 C 13800
						FEASIBILITY STUDY RE-EVALUATION IN PROGRESS							
DURHAM DURHAM	U-3308	NC 55 (ALSTON AVENUE), NC 147 (I. L. "BUCK" DEAN FREEWAY) TO US 70 BUSINESS-NC 98 (HOLLOWAY STREET). WIDEN TO FOUR LANE DIVIDED FACILITY AND REPLACE NORFOLK-SOUTHERN RAILROAD BRIDGES. (1 MILE) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	25916	2596	STP STP		M 20 C 7767		C 7767	C 7766			
						RIGHT OF WAY IN PROGRESS							
DURHAM DURHAM	U-3804	SR 1321 (HILLANDALE ROAD), I-85 TO SR 1407 (CARVER STREET). WIDEN TO MULTI-LANES. (0.7 MILE) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	11191	248	STP STP STP	R 5614 U 1429	C 1950	C 1950					
						PLANNING/DESIGN IN PROGRESS							
DURHAM DURHAM	U-4009	SR 1126 (SERVICE ROAD) PARALLEL TO US 15-501. RELOCATE EXISTING SERVICE ROAD. (0.3 MILE) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	5683	5683									
STRATEGIC HIGHWAY CORRIDOR						UNDER CONSTRUCTION							

* INDICATES INTRASTATE PROJECT

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DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
URBAN PROJECTS													
DURHAM DURHAM	U-0071*	EAST END CONNECTOR, NC 147 (BUCK DEAN FREEWAY) TO NORTH OF NC 98. MULTI-LANE DIVIDED, PART ON NEW LOCATION. (2.5 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	161792	6391	T T T STP T		R 6876 U 2877	R 6876 U 2877	M 2895	C 33250	C 33250	C 33250	C 33250
STRATEGIC HIGHWAY CORRIDOR					**PLANNING/DESIGN IN PROGRESS**								
DURHAM DURHAM	U-3309	SR 2028 (T.W. ALEXANDER DRIVE), SR 1121 (CORNWALLIS ROAD) TO SR 1959 (MIAMI BOULEVARD). WIDEN TO A FOUR LANE DIVIDED FACILITY. (1.7 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	13961	5061	STP	C 4450 A	C 4450 A						
					A SR 1121 (CORNWALLIS ROAD) TO EAST OF NC 147 - RIGHT OF WAY IN PROGRESS. B EAST OF NC 147 TO SR 1959 (MIAMI BOULEVARD) - COMPLETE.								
					RIGHT-OF-WAY IN PROGRESS								
DURHAM DURHAM	U-4012	US 15-501, NORTH OF MT. MORIAH ROAD TO SOUTH OF GARRETT ROAD. ADD AN ADDITIONAL NORTH AND SOUTHBOUND LANE AND CONSTRUCT AN ADDITIONAL RIGHT TURN LANE IN THE SOUTHEAST QUADRANT OF INTERCHANGE AT I-40 (EXIT 270). (0.9 MILE) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	15609	15609									
STRATEGIC HIGHWAY CORRIDOR					**UNDER CONSTRUCTION**								
DURHAM DURHAM	U-4010	NC 98 (HOLLOWAY STREET), EAST OF US 70 TO EAST OF JUNCTION ROAD. WIDEN FOR CENTER TURN LANE. (0.3 MILE)	6241	6241									
					UNDER CONSTRUCTION								
DURHAM DURHAM	U-2831B	BRIGGS AVENUE EXTENSION, RIDDLE ROAD TO SR 1951 (SO-HI DRIVE). TWO LANES ON MULTI-LANE RIGHT OF WAY. (1 MILE) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	10685	6185	S S								R 1200 C 3300
					PROJECT U-2831A - COMPLETE								
HILLSBOROUGH ORANGE	U-3436	SR 1148 (ENO MOUNTAIN ROAD) AND SR 1192 (MAYO STREET) AT SR 1006 (ORANGE GROVE ROAD). REALIGN INTERSECTION AND MAKE SAFETY IMPROVEMENTS. PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	2350		STP STP								R 600 C 1750

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FISCAL YEARS

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
URBAN PROJECTS													
HILLSBOROUGH ORANGE	U-3808	ELIZABETH BRADY ROAD EXTENSION, SOUTH OF US 70 BUSINESS TO NORTH OF US 70 BYPASS AT SR 1002 (ST. MARY'S ROAD). MULTI-LANES WITH A NEW CROSSING OF ENO RIVER. (1.4 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	33994	400	STP STP STP	R 2995 M 599			C 10000	C 10000	C 10000		
					PLANNING/DESIGN IN PROGRESS								
RESEARCH TRIANGLE PARK DURHAM WAKE	U-4026	SR 1613-SR 1999 (DAVIS DRIVE), SR 3014 (MORRISVILLE-CARPENTER ROAD) IN WAKE COUNTY TO NC 54 IN DURHAM COUNTY. WIDEN TO MULTI-LANES. (5.7 MILES)	38706	38706									
					A SR 3014 (MORRISVILLE-CARPENTER ROAD) TO SR 1635 (KOPPERS ROAD-MCCRIMMON PARKWAY) - UNDER CONSTRUCTION. B SR 1635 (KOPPERS ROAD-MCCRIMMON PARKWAY) IN WAKE COUNTY TO NC 54 IN DURHAM COUNTY - UNDER CONSTRUCTION.								
					UNDER CONSTRUCTION - PROJECT LET WITH R-2904								
RESEARCH TRIANGLE PARK DURHAM WAKE	U-4763B	NEW ROUTE - TRIANGLE PARKWAY, I-540 TO I-40. MULTI-LANE FACILITY ON NEW LOCATION. (3.5 MILES) PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	190610	90610	O	C 50000	C 50000						
STRATEGIC HIGHWAY CORRIDOR					NORTH CAROLINA TURNPIKE AUTHORITY PROJECT (DESIGN-BUILD PROJECT) - IN PROGRESS								
FEDERAL BRIDGE PROJECTS													
US 70 BUSINESS DURHAM	B-3638	CAMPUS DRIVE. REPLACE BRIDGE NO. 316 PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	1355	120	FA FA	R 260 C 975							
US 70 BYPASS ORANGE	B-4962	ENO RIVER. REPLACE BRIDGE NO. 46 PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	6200		FA FA						R 500 C 2850		C 2850
SR 1002 ORANGE	B-4216	STROUDS CREEK. REPLACE BRIDGE NO. 66 PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	1125	150	FA FA	R 100 C 875							
SR 1116 DURHAM	B-3450	NEW HOPE CREEK. REPLACE BRIDGE NO. 217, SANDY CREEK. REPLACE BRIDGE NO. 122.	4986	4986									
					UNDER CONSTRUCTION								

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FEDERAL BRIDGE PROJECTS													
SR 1303 DURHAM	B-4109	MUD CREEK. REPLACE BRIDGE NO. 120	1115	1115									
					UNDER CONSTRUCTION								
SR 1402 DURHAM	B-3169	CREEK. REPLACE BRIDGE NO. 158	740	740									
					UNDER CONSTRUCTION								
SR 1561 ORANGE	B-4592	ENO RIVER. REPLACE BRIDGE NO. 64 PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	1880	280	NFA	C 1600							
					RIGHT OF WAY IN PROGRESS								
SR 1616 DURHAM	B-4110	MOUNTAIN CREEK. REPLACE BRIDGE NO. 5	1594	1594									
					UNDER CONSTRUCTION								
SR 1616 DURHAM	B-4943	SANDY CREEK. REPLACE BRIDGE NO. 20 PROVIDE BICYCLE, PEDESTRIAN, AND TRANSIT FACILITIES AS APPROPRIATE	415		NFA NFA				R 40 	C 375			
SR 1730 ORANGE	B-4218	NEW HOPE CREEK. REPLACE BRIDGE NO. 108	1008	1008									
					UNDER CONSTRUCTION								
SR 1839 WAKE	B-3528	SYCAMORE CREEK. REPLACE BRIDGE NO. 429	1810	1810									
					UNDER CONSTRUCTION								
MITIGATION PROJECTS													
VARIOUS CHATHAM HOKE LEE MONTGOMERY MOORE RANDOLPH RICHMOND SCOTLAND	EE-4908	ECOSYSTEM ENHANCEMENT PROGRAM FOR DIVISION 8 PROJECT MITIGATION.	8756	8756									
					IN PROGRESS								

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MITIGATION PROJECTS													
VARIOUS DURHAM FRANKLIN GRANVILLE PERSON VANCE WAKE WARREN	EE-4905	ECOSYSTEM ENHANCEMENT PROGRAM FOR DIVISION 5 PROJECT MITIGATION.	5167	5167									
					IN PROGRESS								
VARIOUS ALAMANCE CASWELL GUILFORD ORANGE ROCKINGHAM	EE-4907	ECOSYSTEM ENHANCEMENT PROGRAM FOR DIVISION 7 PROJECT MITIGATION.	7221	7221									
					IN PROGRESS								
BICYCLE AND PEDESTRIAN PROJECTS													
VARIOUS ORANGE	EB-5108	SR 1112 (DAIRYLAND ROAD), SR 1111 UNION (CHAPEL GROVE ROAD) TO SR 1006 (ORANGE GROVE ROAD). ADD WIDE PAVED SHOULDERS.											
					SCHEDULED FOR FEASIBILITY STUDY								
CARRBORO CHAPEL HILL ORANGE	EB-5021	SR 1780 (ESTES DRIVE), SR 1772 (GREENSBORO STREET) TO SR 1843 (SEAWELL SCHOOL ROAD). ADD PAVED SHOULDERS TO ACCOMMODATE BICYCLES. (0.94 MILE)	480	480									
					DIVISION PROJECT - UNDER CONSTRUCTION								
CARRBORO ORANGE	U-3100B	SR 1107 (OLD FAYETTEVILLE ROAD), NC 54 TO SR 1106 (STROUD LANE). PROVIDE BICYCLE AND PEDESTRIAN FACILITIES AND TRANSIT ACCOMMODATIONS. (0.5 MILE)	1800		S S				R 300				C 1500
					PROJECT U-3100A COMPLETE - PLANNING/DESIGN IN PROGRESS								

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BICYCLE AND PEDESTRIAN PROJECTS													
CHAPEL HILL ORANGE	EB-5110	BOLIN CREEK GREENWAY, NC 86 (MARTIN LUTHER KING, JR. BOULEVARD TO UMSTEAD PARK.											
					SCHEDULED FOR FEASIBILITY STUDY								
CHAPEL HILL ORANGE	EB-4710	SEAWELL SCHOOL ROAD BICYCLE IMPROVEMENTS, HOMESTEAD ROAD TO ESTES DRIVE (1.9 MILES)	2000		STPEB								C 2000
DURHAM CHAPEL HILL DURHAM ORANGE	EB-4707	SR 2220 (OLD CHAPEL HILL ROAD)-SR 1838 (OLD DURHAM ROAD), SR 1116 (GARRETT ROAD) IN DURHAM COUNTY TO US 15-501 IN ORANGE COUNTY. BICYCLE IMPROVEMENTS. (2.7 MILES)	3828		STPEB C 400 STPDA C 1371 O C 343		C 1371 C 343						
COUNTYWIDE ORANGE	EB-3606	BICYCLE ROUTE MAPPING AND SIGNING.	50	50									
					IN PROGRESS								
DURHAM CHATHAM	EB-2921F	AMERICAN TOBACCO RAIL TRAIL. DURHAM COUNTY LINE TO WAKE COUNTY LINE. CONSTRUCT A MULTI-PURPOSE TRAIL.	2392	2392									
					UNDER CONSTRUCTION								
SR 1006 ORANGE GROVE ROAD ORANGE	EB-4980	CONSTRUCT PEDESTRIAN BRIDGE OVER I-40.											
STRATEGIC HIGHWAY CORRIDOR					SCHEDULED FOR FEASIBILITY STUDY								
CONGESTION MITIGATION PROJECTS													
NC 54 DURHAM	C-4402	I-40 WEST OF NC 751 TO TRIANGLE DRIVE IN RESEARCH TRIANGLE PARK. CONSTRUCT ON-ROAD BICYCLE FACILITY.	1035		CMAQ R 100 L R 25 CMAQ C 728 L C 182								
					PLANNING, DESIGN, RIGHT OF WAY AND CONSTRUCTION BY OTHERS								

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DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

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CONGESTION MITIGATION PROJECTS													
CHAPEL HILL DURHAM ORANGE	C-5104	PURCHASE TWO (2) HYBRID ELECTRIC BUSES AND PROVIDE PORTION OF OPERATING EXPENSE FOR THREE YEARS.	2052		CMAQ A C A CMAQ O C O	1360 340 91 23	O 94 O 23	O 97 O 24					
TRIANGLE J COUNCIL OF GOVERNMENTS CHATHAM DURHAM FRANKLIN GRANVILLE HARNETT JOHNSTON ORANGE	C-5102	TRIANGLE TRANSPORTATION DEMAND MANAGEMENT PROGRAM SERVICES FOR EMPLOYERS AND ORGANIZATIONS IN THE TRIANGLE OZONE NON-ATTAINMENT REGION. MARKETING AND OUTREACH.	3243		CMAQ N O N CMAQ N O N	340 A 85 A 275 B 69 B	N 382 A N 96 A N 304 B N 76 B	N 343 A N 86 A N 279 B N 70 B	N 371 A N 93 A N 299 B N 75 B				
					A CAPITAL AREA MPO PARTICIPATION. B DURHAM-CHAPEL HILL-CARRBORO MPO PARTICIPATION.								
TRIANGLE J COUNCIL OF GOVERNMENTS DURHAM ORANGE WAKE	C-4924	TRIANGLE J COUNCIL OF GOVERNMENTS (COG). DEVELOP A FLEXIBLE WORK SCHEDULE FOR EMPLOYEES AND ORGANIZATIONS IN TRIANGLE OZONE NON-ATTAINMENT AREA FOR THREE YEARS.	300	300									
					A DEVELOP FLEXIBLE WORK SCHEDULES FOR EMPLOYEES IN CAPITAL AREA MPO (CAMPO) - IN PROGRESS. B DEVELOP FLEXIBLE WORK SCHEDULES FOR EMPLOYEES IN DURHAM-CHAPEL HILL-CARRBORO (DCHC) - IN PROGRESS.								
					IN PROGRESS								
COUNTYWIDE HILLSBOROUGH ORANGE	C-4932A	CONSTRUCT A 125 SPACE PARK AND RIDE LOT. SECTION A: DURHAM-CHAPEL HILL-CARRBORO (DCHC) MPO TO PARTICIPATE IN CONSTRUCTION AND OPERATING ASSISTANCE FOR THREE YEARS FOR A NEW TRANSIT SERVICE.	275	29	CMAQ O L O	41 41	O 41 O 41	O 41 O 41					
					UNDER CONSTRUCTION								
DURHAM DURHAM	C-5103	PURCHASE TWO (2) HYBRID ELECTRIC BUSES AND PROVIDE PORTION OF OPERATING ASSISTANCE FOR TWO YEARS.	1686		CMAQ A C A CMAQ O C O	864 216 238 59	O 247 O 62						

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CONGESTION MITIGATION PROJECTS													
DURHAM DURHAM	C-4927	PURCHASE 5 HYBRID ELECTRIC BUSES.	500		CMAQ A 400 C A 100								
					CMAQ FUNDS TO BE TRANSFERRED TO FTA								
DURHAM DURHAM	C-4929	BICYCLE PARKING PROGRAM. INSTALL BIKE RACKS AT VARIOUS LOCATIONS.	48	48									
					IN PROGRESS								
DURHAM DURHAM	C-4928	MORREENE ROAD, NEAL ROAD TO ERWIN ROAD. CONSTRUCT BIKE LANES AND SIDEWALKS.	2116		STPDA C 1248 CMAQ C 222 C 222 C C 56 C 368								
DURHAM DURHAM	C-4702	TEN (10) - REPLACEMENT BUSES.	3000		CMAQ A 3000								
ENHANCEMENT PROJECTS													
SR 1002 ST. MARY'S ROAD ORANGE	E-4779	ACQUIRE SCENIC CONSERVATION EASEMENTS AT SELECTED LOCATIONS.	194	194									
					IN PROGRESS								
DURHAM DURHAM	E-4924	CLUB BOULEVARD, OVAL DRIVE TO OAKLAND AVENUE AT THE INTERSECTIONS OF WEST CLUB BOULEVARD WITH OVAL DRIVE AND OAKLAND AVENUE. CONSTRUCT A PEDESTRIAN MEDIAN AND A REFUGE ISLAND.	95	95									
					UNDER CONSTRUCTION								
DURHAM DURHAM	E-4529	WEST POINT ON THE ENO PARK TO PENNY'S BEND NATURE RESERVE. CONSTRUCT OFF-ROAD MULTI-USE TRAIL.	569	569									
					UNDER CONSTRUCTION								

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ENHANCEMENT PROJECTS (LOCAL PROJECTS)													
VARIOUS CHATHAM DURHAM ORANGE	U-4726	DCHC URBAN AREA BICYCLE AND PEDESTRIAN ALLOCATION.	7419	154	STPDA	C 849	C 2716	C 2133	C 47	C 67			
					O	C 212	C 679	C 533	C 12	C 17			
		PLANNING, DESIGN, RIGHT OF WAY AND CONSTRUCTION BY OTHERS - IN PROGRESS											
CARRBORO ORANGE	EL-4828	MORGAN CREEK GREENWAY (WEST). SMITH LEVEL ROAD TO UNIVERSITY LAKE. CONSTRUCT GREENWAY.	40	40									
		PLANNING, DESIGN, RIGHT OF WAY AND CONSTRUCTION BY OTHERS - IN PROGRESS											
CARRBORO CHAPEL HILL ORANGE	EL-4995	DRY CREEK GREENWAY.	700	700									
		UNDER CONSTRUCTION - PLANNING, DESIGN, RIGHT OF WAY AND CONSTRUCTION BY OTHERS											
CARRBORO ORANGE	EL-4994	BOLIN CREEK GREENWAY.	738	738									
		UNDER CONSTRUCTION - PLANNING, DESIGN, RIGHT OF WAY AND CONSTRUCTION BY TOWN											
CHAPEL HILL ORANGE	EL-4601	MORGAN CREEK GREENWAY (EAST). US 15-501-CULBETH ROAD TO SMITH LEVEL ROAD. TEN FOOT MULTI-USE ASPHALT PATH INCLUDING ACCESS TO MERRITT PASTURE.	151	151									
		PLANNING, DESIGN, RIGHT OF WAY AND CONSTRUCTION BY OTHERS - IN PROGRESS											
CHAPEL HILL ORANGE	EL-5022	UPPER BOOKER CREEK GREENWAY.	720		STPDA								C 576
					O								C 144
		PLANNING, DESIGN, RIGHT OF WAY AND CONSTRUCTION BY OTHERS											
CHAPEL HILL DURHAM ORANGE	U-5119	BUS RAPID TRANSIT OPERATIONAL IMPROVEMENTS	626		O		C 63	C 63					
					STPDA		C 250	C 250					
		PLANNING, DESIGN, RIGHT OF WAY, AND CONSTRUCTION BY OTHERS											

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ENHANCEMENT PROJECTS (LOCAL PROJECTS)													
DURHAM DURHAM	EL-4999	BICYCLE AND PEDESTRIAN TRAILS IN DURHAM AND DURHAM COUNTY. ACQUISITION OF RAIL CORRIDORS AND CONSTRUCTION.											
					PROGRAMMED FOR PLANNING AND ENVIRONMENTAL STUDY ONLY - PLANNING, DESIGN, RIGHT OF WAY AND CONSTRUCTION BY OTHERS								
DURHAM DURHAM	EL-2921E	AMERICAN TOBACCO RAIL TRAIL. NC 54 TO CHATHAM COUNTY LINE. CONSTRUCT A MULTI-PURPOSE TRAIL.	4753		DP R 241		R 241						
					HP C 1118		C 1118						
					STPDA C 591		C 590						
					L C 427		C 427						
					PARTS A-D COMPLETE; PLANNING/DESIGN IN PROGRESS; PLANNING, DESIGN, RIGHT OF WAY AND CONSTRUCTION BY CITY								
DURHAM DURHAM	U-4445	NC 147 (DURHAM FREEWAY), NEAR ALSTON AVENUE. CONSTRUCT PEDESTRIAN BRIDGE OVER NC 147 AND REMOVE EXISTING SUBSTANDARD PEDESTRIAN BRIDGE.	2000	2000									
STRATEGIC HIGHWAY CORRIDOR					IN PROGRESS BY OTHERS								
DURHAM DURHAM	U-4724	CORNWALLIS ROAD, SOUTH ROXBORO ROAD TO UNIVERSITY DRIVE. BIKE AND PEDESTRIAN FEATURES.	2270		STPDA C 1816								
					O C 454								
					PLANNING, DESIGN, RIGHT OF WAY AND CONSTRUCTION BY OTHERS								
HAZARD ELIMINATION PROJECTS													
I-40 DURHAM	W-5125	EAST OF NC 147. INSTALL MEDIAN BARRIER. (0.25 MILE)	150		HES C 150								
STRATEGIC HIGHWAY CORRIDOR													
US 501 DURHAM	SF-4905A	SR 1601 (MOORES MILL ROAD)-SR 1468 (QUAIL ROOST FARM ROAD). INSTALL TRAFFIC SIGNAL.	98	98									
					DIVISION PROJECT - UNDER CONSTRUCTION								
NC 57 NC 157 ORANGE	SF-4907C	INSTALL CENTER TRAFFIC ISLANDS WITH STOP SIGNS AND MAKE SIGHT DISTANCE IMPROVEMENTS.	195	195									
					IN PROGRESS								

* INDICATES INTRASTATE PROJECT

COST AND SCHEDULES ARE PRELIMINARY AND SUBJECT TO SIGNIFICANT CHANGE AS MORE INFORMATION BECOMES AVAILABLE

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
HAZARD ELIMINATION PROJECTS													
US 70 NC 751 ORANGE	SF-4907B	INSTALL RIGHT TURN LANE.	165	165									
					IN PROGRESS								
NC 751 CHATHAM	SF-4908I	INTERSECTION WITH SR 1731 (O'KELLY CHURCH ROAD). INSTALL TRAFFIC SIGNAL AND LEFT TURN LANE.	156	156									
					IN PROGRESS								
I-85, US 70, US 15-501 AND NC 147 DURHAM GRANVILLE	W-4811	SECTIONS OF I-85 (DURHAM AND GRANVILLE COUNTIES), US 70, US 15-501 AND NC 147 (DURHAM COUNTY). INSTALL MILLED RUMBLE STRIPS ON THE INSIDE AND OUTSIDE PAVED SHOULDERS.	285	285									
STRATEGIC HIGHWAY CORRIDOR					UNDER CONSTRUCTION								
DURHAM DURHAM	W-5110	NC 55 (ALSTON AVENUE) AT LAWSON STREET. CONSTRUCT LEFT TURN LANES ON NC 55. (0.2 MILE)	975		HES R 500 HES C 475								
SR 1548 SCHLEY ROAD ORANGE	SI-4807	SR 1538 (NEW SHARON CHURCH ROAD). INSTALL CENTER ISLAND WITH STOP SIGN.	56	56									
					DIVISION PROJECT - UNDER CONSTRUCTION								
PASSENGER RAIL PROJECTS													
AMTRAK ALAMANCE CABARRUS DURHAM GUILFORD MECKLENBURG ROWAN WAKE	P-2918	TRAIN 73/74 OPERATIONS BETWEEN CHARLOTTE AND RALEIGH AND CAPITAL YARD MAINTENANCE FACILITY.	85752	39552	S(5) O 2600 T2001 O 4000	O 2600 O 4000	O 2600 O 4000	O 2600 O 4000	O 2600 O 4000	O 2600 O 4000	O 2600 O 4000	O 2600 O 4000	
STRATEGIC HIGHWAY CORRIDOR					IN PROGRESS								

* INDICATES INTRASTATE PROJECT

COST AND SCHEDULES ARE PRELIMINARY AND SUBJECT TO SIGNIFICANT CHANGE AS MORE INFORMATION BECOMES AVAILABLE

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
PASSENGER RAIL PROJECTS													
AMTRAK ALAMANCE CABARRUS DURHAM EDGECOMBE GUILFORD JOHNSTON MECKLENBURG NASH ROWAN WAKE WILSON	P-2908	CAPITAL AND OPERATIONS COST OF TRAIN 79/80 BETWEEN CHARLOTTE AND ROCKY MOUNT.	47795	30995	S(5)	O 2400	O 2400	O 2400	O 2400	O 2400	O 2400	O 2400	
STRATEGIC HIGHWAY CORRIDOR					IN PROGRESS								
CARRBORO ORANGE	Z-4007B	SR 1927 (BREWER ROAD) IN CARRBORO AT NORFOLK SOUTHERN RAILWAY CROSSING 735 179M. SAFETY IMPROVEMENTS.	95	95									
					FUNDED - CONSTRUCTION NOT AUTHORIZED								
DURHAM DURHAM	P-3802	STATION CONSTRUCTION.	1250	1250	CMAQ								
					UNDER CONSTRUCTION								
PUBLIC TRANSPORTATION PROJECTS													
TRIANGLE TRANSIT AUTHORITY DURHAM ORANGE WAKE	TA-4994	PARATRANSIT FLEET REPLACEMENT.	32		FEDU CP 26 L CP 3 STAT CP 3								
					UNFUNDED PROJECT								
TRIANGLE TRANSIT AUTHORITY DURHAM ORANGE WAKE	TA-4992	VANPOOL FLEET EXPANSION.	890		FEDU CP 712 L CP 178								
					UNFUNDED PROJECT								

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COST AND SCHEDULES ARE PRELIMINARY AND SUBJECT TO SIGNIFICANT CHANGE AS MORE INFORMATION BECOMES AVAILABLE

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
PUBLIC TRANSPORTATION PROJECTS													
TRIANGLE TRANSIT AUTHORITY DURHAM ORANGE WAKE	TA-4993	PARATRANSIT FLEET EXPANSION.	67		FEDU L STAT	CP 53 CP 7 CP 7							
					UNFUNDED PROJECT								
TRIANGLE TRANSIT AUTHORITY DURHAM ORANGE WAKE	TA-4818	REPLACEMENT BUSES. 17 - FY 2009 15 - FY 2011 11 - FY 2012	14620		FED L STAT	CP 4624 CP 578 CP 578		CP 4080 CP 510 CP 510	CP 2992 CP 374 CP 374				
					UNFUNDED PROJECT								
TRIANGLE TRANSIT AUTHORITY DURHAM WAKE	TD-4944	I-40 BUS BYPASS SHOULDER PROJECT.	800		FEDU L STAT	CP 640 CP 80 CP 80							
					UNFUNDED PROJECT								
TRIANGLE TRANSIT AUTHORITY DURHAM ORANGE WAKE	TE-4903	ALTERNATIVES ANALYSIS FOR MAJOR TRANSIT CORRIDOR PROJECT.	2000		L STAT	CP 500 CP 500	CP 500 CP 500						
					UNFUNDED PROJECT								
TRIANGLE TRANSIT AUTHORITY DURHAM ORANGE	TE-4706B	FIXED GUIDEWAY PROJECT FOR US 15-501 PRELIMINARY ENGINEERING AND DESIGN.	2749		FED L STAT							CP 1649 CP 550 CP 550	
					UNFUNDED PROJECT								

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DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
PUBLIC TRANSPORTATION PROJECTS													
TRIANGLE TRANSIT AUTHORITY DURHAM ORANGE WAKE	TG-4821	PREVENTIVE MAINTENANCE AND ROUTINE CAPITAL ITEMS - SPARE PARTS, OFFICE AND SHOP EQUIPMENT, PASSENGER AMENTIES, SERVICE VEHICLE, ETC.	7000		FUZ	CP 800	CP 800	CP 800	CP 800	CP 800	CP 800	CP 800	
					L	CP 200	CP 200	CP 200	CP 200	CP 200	CP 200	CP 200	
TRIANGLE TRANSIT AUTHORITY DURHAM ORANGE WAKE	TP-4732	PLANNING ASSISTANCE---UPWP. TOTAL PROJECT COST SHOWN.	7000		FUZ	PL 800	PL 800	PL 800	PL 800	PL 800	PL 800	PL 800	
					L	PL 100	PL 100	PL 100	PL 100	PL 100	PL 100	PL 100	
					STAT	PL 100	PL 100	PL 100	PL 100	PL 100	PL 100	PL 100	
TRIANGLE TRANSIT AUTHORITY DURHAM ORANGE WAKE	TT-4911	ITS PROJECT - REAL TIME PASSENGER INFORMATION PROJECT.	700		FED		CP 560						
					L		CP 140						
					UNFUNDED PROJECT								
CHAPEL HILL ORANGE	TA-4726	REPLACEMENT BUSES. 11 - FY 2009 26 - FY 2010 13 - FY 2011 17 - FY 2013 10 - FY 2014	31495		FED	CP 4130	CP 7190	CP 3897		CP 5406	CP 3275		
					L	CP 448	CP 1023	CP 423		CP 586	CP 355		
					STAT	CP 398	CP 909	CP 376		CP 521	CP 316		
					STPDA		CP 2242						
					UNFUNDED PROJECT								
CHAPEL HILL ORANGE	TA-4981	SEDANS/WAGONS/4X4 - 3 - FY 2010 3 - FY 2014	234		FED		CP 88				CP 99		
					L		CP 22				CP 25		
					UNFUNDED PROJECT								

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DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	*"DELIVERABLE STIP"* FY 2009	FY 2010	FY 2011	*"DEVELOPMENTAL STIP"* FY 2012	FY 2013	FY 2014	FY 2015	*"UNFUNDED"* FUTURE YEARS
PUBLIC TRANSPORTATION PROJECTS													
CHAPEL HILL ORANGE	TA-4995	EXPANSION BUSES. 3 - FY 2010 (HYBRIDS) 3 - FY 2011 3 - FY 2012 (2 HYBRIDS) 3 - FY 2013 (2 HYBRIDS) 3 - FY 2014 (2 HYBRIDS) 3 - FY 2015 (2 HYBRIDS)	9188		FEDU L STAT	CP 1394 CP 151 CP 134	CP 900 CP 98 CP 87		CP 1295 CP 140 CP 125	CP 1233 CP 145 CP 128	CP 1374 CP 149 CP 132	CP 1414 CP 153 CP 136	
		UNFUNDED PROJECT											
CHAPEL HILL ORANGE	TA-4748	REPLACEMENT VANS. 9 - FY 2009 6 - FY 2010 9 - FY 2013 6 - FY 2014	3548		FED L STAT STPDA	CP 320 CP 90 CP 90 CP 400	CP 563 CP 70 CP 70			CP 923 CP 115 CP 115	CP 634 CP 79 CP 79		
		UNFUNDED PROJECT											
CHAPEL HILL ORANGE	TA-4979	REPLACEMENT VANS. 6 - FY 2010 4 - FY 2011 6 - FY 2014	1685		FED L STAT	CP 563 CP 70 CP 70	CP 160 CP 15 CP 15				CP 634 CP 79 CP 79		
		UNFUNDED PROJECT											
CHAPEL HILL ORANGE	TD-4710B	PARK AND RIDE LOT. CONSTRUCTION - FY 2009, DESIGN AND LAND ACQUISITION - FY 2011 CONSTRUCTION - FY 2012	7000		FEDU L STAT	CP 1600 CP 200 CP 200	CP 1600 CP 200 CP 200		CP 2400 CP 300 CP 300				
		UNFUNDED PROJECT											
CHAPEL HILL ORANGE	TG-4731	PREVENTIVE MAINTENANCE, ASSOCIATED CAPITAL MAINTENANCE ITEMS, ROUTINE CAPITAL ITEMS--OFFICE AND SHOP EQUIPMENT, PASSENGER AMENITIES, SERVICE VEHICLES, ETC.	9121		FUZ L STPDA	CP 900 CP 325 CP 400	CP 927 CP 232	CP 955 CP 239	CP 984 CP 246	CP 1013 CP 253	CP 1043 CP 261	CP 1074 CP 269	
CHAPEL HILL ORANGE	TG-4732	REPLACEMENT SUPPORT VEHICLES. 13 - FY 2009 1 - FY 2010 1 - FY 2011 13 - FY 2013 1 - FY 2014	1204		FEDU L	CP 387 CP 97	CP 56 CP 14	CP 32 CP 8		CP 432 CP 108	CP 56 CP 14		
		UNFUNDED PROJECT											

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DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
PUBLIC TRANSPORTATION PROJECTS													
CHAPEL HILL ORANGE	TM-5123	JOB ACCESS / REVERSE COMMUTE OPERATING COST	1382		JARC	O 85	O 89	O 94	O 98	O 103	O 108	O 114	
					L	O 85	O 89	O 94	O 98	O 103	O 108	O 114	
CHAPEL HILL ORANGE	TM-5129	NEW FREEDOM OPERATING COST.	816		FNF	O 50	O 53	O 55	O 58	O 61	O 64	O 67	
					L	O 50	O 53	O 55	O 58	O 61	O 64	O 67	
COUNTYWIDE DURHAM	TJ-4931	PROVIDE OPERATING ASSISTANCE TO COUNTIES AND COMMUNITY TRANSPORTATION SYSTEMS TO MEET WORK FIRST AND EMPLOYMENT TRANSPORTATION NEEDS.	56		OAWF	O 8	O 8	O 8	O 8	O 8	O 8	O 8	
COUNTYWIDE DURHAM	TL-4931	PROVIDE OPERATING ASSISTANCE FOR ADDITIONAL TRANSPORTATION SERVICES TO THE ELDERLY AND DISABLED.	665		EDTAP	O 95	O 95	O 95	O 95	O 95	O 95	O 95	
COUNTYWIDE DURHAM	TR-4931	PROVIDE MAINTENANCE ASSISTANCE FOR COMMUNITY TRANSPORTATION SYSTEMS TO SERVE THE RURAL GENERAL PUBLIC.	245		RGP	O 35	O 35	O 35	O 35	O 35	O 35	O 35	
DURHAM DURHAM	TA-4923	11 - REPLACEMENT BUSES.	15850		CMAQ	CP 3080							
					FED					CP 9600			
					L	CP 385				CP 1200			
					STAT	CP 385				CP 1200			
					UNFUNDED PROJECT - FY 2013								
DURHAM DURHAM	TA-4755	EXPANSION BUSES 13 - FY 2009	7020		CMAQ	CP 3024							
					L	CP 702							
					STAT	CP 702							
					STPDA	CP 2592							
DURHAM DURHAM	TG-4958	PASSENGER AMENITIES - SHELTERS, BENCHES, TRASH CANS, SOLAR LIGHTS, SIDEWALKS.	154		L	CP 26							
					STPDA	CP 128							
					UNFUNDED PROJECT								

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DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	*"DELIVERABLE STIP"* FY 2009	FY 2010	FY 2011	*"DEVELOPMENTAL STIP"* FY 2012	FY 2013	FY 2014	FY 2015	*"UNFUNDED"* FUTURE YEARS
PUBLIC TRANSPORTATION PROJECTS													
DURHAM	TG-4738	PREVENTIVE MAINTENANCE AND	22260		FUZ	CP 2414	CP 2535	CP 2535	CP 2535	CP 2535	CP 2582	CP 2670	
DURHAM		ROUTINE CAPITAL ITEMS, SPARE PARTS, OFFICE AND SHOP EQUIPMENT, PASSENGER AMENITIES, SERVICE VEHICLES, ETC.			L	CP 604	CP 634	CP 634	CP 634	CP 634	CP 646	CP 668	
DURHAM	TD-4945	PARK AND RIDE LOT IN NORTHERN	1176		FEDU	CP 940							
COUNTYWIDE		DURHAM.			L	CP 118							
DURHAM					STAT	CP 118							
					UNFUNDED PROJECT								

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STIP Statewide

COUNTY **TRANSPORTATION PROGRAM**

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK FISCAL YEARS

ROUTE/CITY/ SYSTEM COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJECT COST (THOU)	PRIOR YEARS COST (THOU)	FUNDS	*"DELIVERABLE STIP"* FY 2009	FY 2010	FY 2011	*"DEVELOPMENTAL STIP"* FY 2012	FY 2013	FY 2014	FY 2015	*"UNFUNDED" FUTURE YEARS*
NC 00 WAKE COUNTY	R-0000	* I-40 TO NC 211 EAST OF HOMETOWN. WIDEN TO A MULTI-LANE FACILITY WITH A BYPASS OF HOMETOWN ON NEW LOCATION. (7.3 MILES)	33,450	250	NHS	R 4000 A							
					NHS	M 700							
					NHS	U 1500							
					NHS			C 9000 A					
					NHS					R 3000 B			
					NHS							C 5000 B	C 10000 B

ROUTE NUMBER Listed in order of **I, US, NC, SR, CITY** or **NEW ROUTE**

IDENTIFICATION NUMBER Assigned to each project at conception and remains with project until completion.

INDICATES INTRASTATE PROJECT

LOCATION/DESCRIPTION/MILEAGE Project termini, general description of project and length in miles.

FUNDING See Highway or Public Transportation Funding Key for an explanation of funding categories designated for each project phase.

WORK TYPE (ACTIVITY) Phases of implementation: preliminary engineering, right of way, mitigation, utilities or construction. For **Other Work Types** or **Activities** see **Work Type (Activity)** box below.

PROJECT BREAKS

A — I-40 to NC 3.
I
B — NC 3 to NC 211.

ESTIMATED COST Preliminary engineering, right of way, utilities, mitigation and construction cost estimates by funding category in current dollars. Cost may include one or more funding types. Multi-year funding of a project segment indicates **Cash-Flow Funding** with proposed work type or activity beginning in the initial scheduled year.

UNFUNDED FUTURE COMMITMENT

WORK TYPE (ACTIVITY)

A - Acquisition
AD - Administration
B - Booklets
C - Construction
CG - Construction (GARVEE)
CP - Capital
F - Feasibility Study
G - Grading and Structures
I - Inspections
L - Landscaping
M - Mitigation
MP - Mapping
N - Implementation
O - Operations
P - Paving
PE - Preliminary Engineering
PL - Planning
R - Right of way
RG - Right of way (GARVEE)
S - Structures
SG - Signing
T - Training
U - Utilities

KEY TO HIGHWAY FUNDING SOURCE

APD - Appalachian Development
BIA - Bureau of Indian Affairs
BRGI - Bridge Inspection
C - City
CMAQ - Congestion Mitigation
DP - Discretionary or Demonstration
FA - Bridge Replacement On-Federal-Aid System
FLP - Federal Lands Program
HES - High Hazard Safety
HP - Federal-Aid High Priority
HRRR - High Risk Rural Roads
IM - Interstate Maintenance
L - Local
NFA - Bridge Replacement Off-Federal-Aid System
NFAM - Municipal Bridge Replacement Program
NHS - National Highway System
NRT - National Recreational Trails
O - Others
PLF - Personal Automobile License Plate Funds
RR - Rail/Highway Safety
S - State
S(M) - State Match
S(5) - State (Highway) Trust Funds
SF - State Ferries
SG - Safety Grant
SRTS - Safe Routes to School
STP - Surface Transportation Program
STP - Surface Transportation Program - Direct Attributable
STP - Surface Transportation Program - Enhancements
T - Highway Trust Funds
T-2001 - State Rail Funds

KEY TO PUBLIC TRANSPORTATION FUNDING SOURCES

CMAQ - Congestion Mitigation
EDTAP - State Elderly and Disabled Transportation
FBUS - Capital Program - Bus Earmark (5309)
FED - Federal
FEDPO - Special Elderly and Disabled
FMLP - Metropolitan Planning (5303)
FNF - New Freedom Program
FNS - Capital Program - New Start
FNU - Non Urbanized Area Formula Program (5311)
FSPR - State Planning and Research
FUZ - Urbanized Area Formula Program (5307)
HSTM - State Administrative Assistance - Human Services
JARC - Job Assistance and Reverse Commute (3037)
L - Local
OAWF - Operating Assistance (Work First)
RGP - Rural General Public Program
RIMA - Regional and Inter-City Maintenance Assistance
RTAP - Rural Transit Assistance Program
RTCH - Rural Technology
SFCP - State Rural Facility Program
SMAP - State Maintenance Assistance Program
STAT - State
STCP - State Rural Capital Program
STP - Surface Transportation Program
UTCH - Urban Technology

FUNDING SOURCES MAY CHANGE TO ACCOMMODATE REVENUE VARIATIONS

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TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
INTERSTATE PROJECTS													
I-95 STATEWIDE	M-0412	CORRIDORS OF THE FUTURE PROGRAM. INTERSTATE MAINTENANCE DISCRETIONARY FUNDS (IMD) FOR IMPROVEMENTS TO I-95 FROM FLORIDA TO VIRGINIA. NORTH CAROLINA TO PROVIDE FUNDS TO ADJOINING STATES UNDER TERMS OF AN AGREEMENT.	16800		S	PE 8400	PE 8400						
STRATEGIC HIGHWAY CORRIDOR													
VARIOUS STATEWIDE	I-9998	INTERSTATE PREVENTATIVE MAINTENANCE.	125000		IMPM			C 25000	C 25000	C 25000	C 25000	C 25000	
STRATEGIC HIGHWAY CORRIDOR													
RURAL PROJECTS													
VARIOUS STATEWIDE	M-0360	DESIGN SERVICES, PRELIMINARY ENGINEERING FOR MISCELLANEOUS PROJECTS.	12000	5000	S	PE 1000	PE 1000	PE 1000	PE 1000	PE 1000	PE 1000	PE 1000	
					IN PROGRESS								
VARIOUS STATEWIDE	M-0391	STRUCTURE DESIGN, PRELIMINARY ENGINEERING FOR MISCELLANEOUS PROJECTS	3000	900	S	PE 300	PE 300	PE 300	PE 300	PE 300	PE 300	PE 300	
					IN PROGRESS								
VARIOUS STATEWIDE	M-0405	STATEWIDE MOWING MAINTENANCE CONTRACTS FOR PROPERTIES ACQUIRED BY NCDOT IN ADVANCE OF STIP PROJECTS.	1800	400	S	N 200	N 200	N 200	N 200	N 200	N 200	N 200	
					IN PROGRESS								
VARIOUS STATEWIDE	M-0386	STATEWIDE TRANSPORTATION MANAGEMENT CENTER.											
					SCHEDULED FOR FEASIBILITY STUDY ONLY								
VARIOUS STATEWIDE	M-0377	ENVIRONMENTAL STREAMLINING. COORDINATE, PLAN, FACILITATE, IMPLEMENT AND TRACK INITATIVES.	3000	3000									
					IN PROGRESS								
VARIOUS STATEWIDE	M-0281	CENTER FOR TRANSPORTATION AND THE ENVIRONMENT	1500	1500									
					IN PROGRESS								

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TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
RURAL PROJECTS													
VARIOUS STATEWIDE	M-0376	STATEWIDE GEOTECHNICAL STUDIES AND INVESTIGATIONS PROJECT TO COVER NON-PROJECT SPECIFIC WORK.	13750	5000	S	PE 1250	PE 1250	PE 1250	PE 1250	PE 1250	PE 1250	PE 1250	
					IN PROGRESS								
VARIOUS STATEWIDE	M-0392	HYDRAULICS, PRELIMINARY ENGINEERING FOR MISCELLANEOUS PROJECTS.	3000	900	S	PE 300	PE 300	PE 300	PE 300	PE 300	PE 300	PE 300	
					IN PROGRESS								
VARIOUS STATEWIDE	R-4958	STATEWIDE ENVIRONMENTAL MITIGATION AND MINIMIZATION (APPALACHIAN DEVELOPMENT).	479	84	APD	A 5 A	A 5 A	A 5 A	A 5 A	A 5 A	A 5 A	A 5 A	
					APD	M 60 B	M 60 B	M 60 B	M 60 B		M 60 B	M 60 B	
					A ON-SITE MITIGATION.								
					B ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT.								
					IN PROGRESS - SEGMENT A - ON-SITE MITIGATION, SEGMENT B - ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT								
VARIOUS STATEWIDE	R-4956	STATEWIDE ENVIRONMENTAL MITIGATION AND MINIMIZATION (BRIDGE PROGRAM).	787	259	FA	A 7 A	A 7 A	A 7 A	A 7 A	A 7 A	A 7 A	A 7 A	
					FA				M 90 B	M 27 B	M 90 B	M 86 B	
					NFA	A 8 A	A 8 A	A 8 A	A 8 A	A 8 A	A 8 A	A 8 A	
					NFA				M 8 B		M 34 B	M 88 B	
					A ON-SITE MITIGATION.								
					B ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT.								
					IN PROGRESS - SEGMENT A - ON-SITE MITIGATION, SEGMENT B - ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT								
VARIOUS STATEWIDE	R-4950	STATEWIDE ENVIRONMENTAL MITIGATION AND MINIMIZATION (STATE CONSTRUCTION).	99055	90674	S	A 100 A	A 100 A	A 100 A	A 100 A	A 100 A	A 100 A	A 100 A	
					S	M 1045 B	M 852 B	M 1155 B	M 1029 B	M 1200 B	M 1200 B	M 1200 B	
					A ON-SITE MITIGATION.								
					B ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT.								
					IN PROGRESS - SEGMENT A - ON-SITE MITIGATION, SEGMENT B - ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT								
VARIOUS STATEWIDE	R-4955	STATEWIDE ENVIRONMENTAL MITIGATION AND MINIMIZATION (INTERSTATE MAINTENANCE).	2538	721	IM	A 25 A	A 25 A	A 25 A	A 25 A	A 25 A	A 25 A	A 25 A	
					IM		M 300 B	M 300 B	M 300 B	M 300 B	M 142 B	M 300 B	
					A ON-SITE MITIGATION.								
					B ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT.								
					IN PROGRESS - SEGMENT A - ON-SITE MITIGATION, SEGMENT B - ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT								

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TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
RURAL PROJECTS													
VARIOUS STATEWIDE	R-4954	STATEWIDE ENVIRONMENTAL MITIGATION AND MINIMIZATION (SURFACE TRANSPORTATION PROGRAM).	123041	36129	STP	A 1500 A	A 1500 A	A 1500 A	A 1500 A	A 1500 A	A 1500 A	A 1500 A	
					STP	M 9495 B	M 14677 B	M 8828 B		M 10871 B	M 15874 B	M 16667 B	
					A ON-SITE MITIGATION.								
					B ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT.								
					IN PROGRESS - SEGMENT A - ON-SITE MITIGATION, SEGMENT B - ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT								
VARIOUS STATEWIDE	R-4436	NPDES PERMIT, RETROFIT FOURTEEN SITES PER YEAR TO PROTECT WATER QUALITY.	36367	10267	STP	N 3100	N 3500	N 3900	N 3900	N 3900	N 3900	N 3900	
					IN PROGRESS								
VARIOUS STATEWIDE	R-4957	STATEWIDE ENVIRONMENTAL MITIGATION AND MINIMIZATION (HIGH PRIORITY).	599	144	HP	A 5 A	A 5 A	A 5 A	A 5 A	A 5 A	A 5 A	A 5 A	
					HP	M 60 B	M 60 B	M 60 B	M 60 B	M 60 B	M 60 B	M 60 B	
					A ON-SITE MITIGATION.								
					B ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT.								
					IN PROGRESS - SEGMENT A - ON-SITE MITIGATION, SEGMENT B - ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT								
VARIOUS STATEWIDE	R-2929	NATIONAL PARKS SERVICE SPOT SAFETY AND SIGN REHABILITATION.	1800	1100	FLPP	C 100	C 100	C 100	C 100	C 100	C 100	C 100	
					UNDER CONSTRUCTION BY FEDERAL HIGHWAY ADMINISTRATION								
VARIOUS STATEWIDE	R-4073	ASPHALT MATERIALS TESTING LABORATORIES CORRECTIVE ACTION PLAN FOR GROUNDWATER CLEAN-UP AT 54 SITES.	14558	8258	STP	C 900	C 900	C 900	C 900	C 900	C 900	C 900	
					IN PROGRESS								
VARIOUS STATEWIDE	R-4067	POSITIVE GUIDANCE PROGRAM (PAVEMENT MARKINGS AND MARKERS, LED SIGNAL HEAD REPLACEMENT)	99427	53227	STP	C 6600	C 6600	C 6600	C 6600	C 6600	C 6600	C 6600	
					IN PROGRESS								
VARIOUS STATEWIDE	R-4701	TRAFFIC SYSTEM OPERATIONS PROGRAM (SIGNAL MAINTENANCE).	210000	84000	STP	C 18000	C 18000	C 18000	C 18000	C 18000	C 18000	C 18000	
					IN PROGRESS								

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
RURAL PROJECTS													
VARIOUS STATEWIDE	R-4066	WETLAND RESTORATION PROGRAM. COMPLETION OF WATERSHED ASSESSMENT PLANS IN ALL SEVENTEEN (17) RIVER BASINS TO IDENTIFY WETLAND AND STREAM RESTORATION PROJECTS FOR MITIGATION.	17500	17500									
					IN PROGRESS								
VARIOUS STATEWIDE	R-4951	STATEWIDE ENVIRONMENTAL MITIGATION AND MINIMIZATION (INTRASTATE).	124352	44167	T	A 2000 A	A 2000 A	A 2000 A	A 2000 A	A 2000 A	A 2000 A	A 2000 A	
					T	M 12543 B	M 6937 B	M 23013 B		M 4626 B	M 2266 B	M 16800 B	
					A ON-SITE MITIGATION. B ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT.								
					IN PROGRESS - SEGMENT A - ON-SITE MITIGATION, SEGMENT B - ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT								
VARIOUS STATEWIDE	R-4454	IMPROVEMENT PROJECTS THAT FURTHER ECONOMIC GROWTH AND DEVELOPMENT IN SMALL URBAN AND RURAL AREAS.	47000	47000									
					IN PROGRESS								
VARIOUS STATEWIDE	R-8888	STATEWIDE PLANNING FOR TRAFFIC FORCASTING, PRE-TIP PLANNING AND PURPOSE AND NEED STUDIES.	7132	3632	S	F 500	F 500	F 500	F 500	F 500	F 500	F 500	
					IN PROGRESS								
VARIOUS STATEWIDE	R-2930	NATIONAL PARKS SERVICE EMERGENCY PAVEMENT REHABILITATION.	1260	770	FLPP	C 70	C 70	C 70	C 70	C 70	C 70	C 70	
					UNDER CONSTRUCTION BY FEDERAL HIGHWAY ADMINISTRATION								
VARIOUS STATEWIDE	R-4049	TRAFFIC OPERATIONS (INCIDENT MANAGEMENT, 511, SMARTLINK, TEC, TMC)	226300	100300	IM	C 13500	C 13500	C 13500	C 13500	C 13500	C 13500	C 13500	
					NHS	C 4500	C 4500	C 4500	C 4500	C 4500	C 4500	C 4500	
					IN PROGRESS								
VARIOUS STATEWIDE	R-4953	STATEWIDE ENVIRONMENTAL MITIGATION AND MINIMIZATION (NATIONAL HIGHWAY SYSTEM).	65261	21343	NHS	A 750 A	A 750 A	A 750 A	A 750 A	A 750 A	A 750 A	A 750 A	
					NHS	M 5093 B		M 7894 B	M 4342 B	M 3425 B	M 8914 B	M 9000 B	
					A ON-SITE MITIGATION. B ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT.								
					IN PROGRESS - SEGMENT A - ON-SITE MITIGATION, SEGMENT B - ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT								

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
RURAL PROJECTS													
VARIOUS STATEWIDE	R-4500	ECONOMIC DEVELOPMENT.	36101	21101	S		C 5000	C 5000	C 5000				
					UNDER CONSTRUCTION								
VARIOUS STATEWIDE	R-4952	STATEWIDE ENVIRONMENTAL MITIGATION AND MINIMIZATION (URBAN LOOP).	45061	9513	T A 600 A	A 600 A	A 600 A	A 600 A	A 600 A	A 600 A	A 600 A	A 600 A	
					T M 3664 B		M 987 B	M 5097 B	M 7200 B	M 7200 B	M 7200 B	M 7200 B	
					A ON-SITE MITIGATION.								
					B ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT.								
					IN PROGRESS - SEGMENT A - ON-SITE MITIGATION, SEGMENT B - ECOSYSTEMS ENHANCEMENT PROGRAM (EEP) HOLDOUT								
VARIOUS STATEWIDE	R-9999WM	ENVIRONMENTAL MITIGATION AND MINIMIZATION.	4800	600	STP M 600	M 600	M 600	M 600	M 600	M 600	M 600	M 600	
					IN PROGRESS								
STATEWIDE	M-0359	PROGRAM DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH. DEVELOP A PROCEDURES MANNUAL.	300	300									
					IN PROGRESS								
URBAN PROJECTS													
VARIOUS STATEWIDE	U-4500	ECONOMIC DEVELOPMENT.	44430	20175	S		C 9405	C 10000	C 4850				
					IN PROGRESS								
FEDERAL BRIDGE PROJECTS													
VARIOUS STATEWIDE	B-4693	STATEWIDE SURVEY OF HISTORICAL BRIDGES.	1000	1000									
					IN PROGRESS								
VARIOUS STATEWIDE	B-4700	BRIDGE PRESERVATION ISSUES AT SELECTED SITES.	42500	7500	FA C 2500	C 2500	C 2500	C 2500	C 2500	C 2500	C 2500	C 2500	
					NFA C 2500	C 2500	C 2500	C 2500	C 2500	C 2500	C 2500	C 2500	
					IN PROGRESS								
VARIOUS STATEWIDE	B-9999	BRIDGE INSPECTION PROGRAM.	183300	106300	BRGI I 11000	I 11000	I 11000	I 11000	I 11000	I 11000	I 11000	I 11000	
					IN PROGRESS								
VARIOUS STATEWIDE	M-0379	SCOUR EVALUATION PROGRAM OF EXISTING BRIDGES.	1000	1000									
					IN PROGRESS								

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STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
BICYCLE AND PEDESTRIAN PROJECTS													
VARIOUS STATEWIDE	EB-3119	LOCAL BICYCLE MAPS: UPDATE, REVISE AND REPRINT.	479	304	STPEB	MP 25	MP 25	MP 25	MP 25	MP 25	MP 25	MP 25	
					IN PROGRESS								
VARIOUS STATEWIDE	EB-2966	SAFETY-EDUCATION PROJECTS.	745	445	STPEB	B 25	B 50	B 25	B 50	B 50	B 50	B 50	
					IN PROGRESS								
VARIOUS STATEWIDE	EB-2956	STATEWIDE BICYCLE PROGRAM.	25029	17553	STPEB	C 1068	C 1068	C 1068	C 1068	C 1068	C 1068	C 1068	
					IN PROGRESS								
VARIOUS STATEWIDE	EB-3314	STATEWIDE PEDESTRIAN FACILITIES PROGRAM.	8250	4750	STPEP	C 500	C 500	C 500	C 500	C 500	C 500	C 500	
					IN PROGRESS								
VARIOUS STATEWIDE	EB-4013	SPOT IMPROVEMENTS: SHORT PAVEMENT SECTIONS, BICYCLE RACKS AND SIGNING NEEDS.	7700	4200	STPEB	C 500	C 500	C 500	C 500	C 500	C 500	C 500	
					IN PROGRESS								
VARIOUS STATEWIDE	EB-4411	ROADWAY IMPROVEMENTS FOR BICYCLE SAFETY ON STATE AND LOCAL DESIGNATED BIKE ROUTES.	25000	6500	STPEB	C 2000	C 2250	C 2500	C 2750	C 3000	C 3000	C 3000	
					IN PROGRESS								
VARIOUS STATEWIDE	EB-4409	MAP AND SIGN: URBAN, COUNTY AND REGIONAL BIKE ROUTES. IN CALDWELL, CARTERET (MOREHEAD CITY), CATAWBA, DUPLIN, COLUMBUS (WHITEVILLE), DUPLIN,GOLDSBORO MPO, HALIFAX, IREDELL, MADISON, MONTGOMERY, PAMLICO, POLK, ROCKINGHAM, SCOTLAND, TYRELL AND WILKES COUNTIES.	2625	1225	STPEB	C 200	C 200	C 200	C 200	C 200	C 200	C 200	
					IN PROGRESS								
VARIOUS STATEWIDE	EB-3120	NORTH CAROLINA BICYCLING HIGHWAYS MAPS: UPDATE AND REPRINT.	506	331	STPEB	MP 25	MP 25	MP 25	MP 25	MP 25	MP 25	MP 25	
					IN PROGRESS								

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BICYCLE AND PEDESTRIAN PROJECTS													
VARIOUS STATEWIDE	EB-4012	NORTH CAROLINA BICYCLING HIGHWAYS NO. 10 (SANDHILLS SECTOR): MAPPING AND SIGNING.	25	25									
					IN PROGRESS								
REGIONAL STATEWIDE	EB-4410	AREA-WIDE BICYCLE IMPROVEMENTS FEASIBILITY STUDIES.	650	300	STPEB	F 50	F 50	F 50	F 50	F 50	F 50	F 50	
					IN PROGRESS								
CONGESTION MITIGATION PROJECTS													
NC RAILROAD STATEWIDE	C-4901	RAIL DIVISION, CONSTRUCT A SECOND MAIN LINE BETWEEN THOMASVILLE AND LEXINGTON IN DAVIDSON COUNTY.	9500		CMAQ	C 1750	C 1750						
					L	C 3000	C 3000						
STRATEGIC HIGHWAY CORRIDOR													
VARIOUS STATEWIDE	C-4982	TRANSPORTATION OPERATIONS CENTER TO ALLOW COORDINATED STATE AND REGIONAL TRANSPORTATION FUNCTIONS IN CONJUNCTION WITH THE STATE HIGHWAY PATROL COMMUNICATIONS CENTER AND OTHER EMERGENCY SERVICES PROVIDERS.	6900	6900									
					IN PROGRESS								
VARIOUS STATEWIDE	C-3600	DEPARTMENT OF MOTOR VEHICLES (DMV), VEHICLE EMISSION COMPLIANCE SYSTEM. UPGRADE NORTH CAROLINA'S MOTOR VEHICLE EMISSIONS INSPECTION AND MAINTENANCE (I/M) PROGRAM.	6702	6702									
					IN PROGRESS								
NORTH CAROLINA DIVISION OF AIR QUALITY STATEWIDE	C-4903	NORTH CAROLINA AIR AWARENESS OUTREACH PROGRAM TO PROVIDE EDUCATION AND PRODUCE DAILY AIR QUALITY FORECAST.	3125		CMAQ	N 500	N 500	N 500	N 500	N 500			
					O	N 125	N 125	N 125	N 125	N 125			
					IN PROGRESS								

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CONGESTION MITIGATION PROJECTS													
NON-ATTAINMENT AND MAINTENANCE AREAS STATEWIDE	C-5100	SCHOOL BUS DIESEL PARTICULATE FILTER AND CLOSED CASE VENTILATION SYSTEM RETROFITS.	2500		CMAQ N L N	2000 500							
ENHANCEMENT PROJECTS													
VARIOUS STATEWIDE	E-4599	INSTALL RIVER BASIN HIGHWAY SIGNS.	187	187									
					IN PROGRESS								
VARIOUS STATEWIDE	E-3821	PRESERVE HISTORIC BRIDGES FROM DEMOLITION.	250	250									
					IN PROGRESS								
VARIOUS STATEWIDE	E-4018	NATIONAL RECREATIONAL TRAILS.	16770	8370	NRT	C 1200	C 1200	C 1200	C 1200	C 1200	C 1200	C 1200	
					IN PROGRESS								
VARIOUS STATEWIDE	E-4603	ECOSYSTEMS ENHANCEMENT PROGRAM. STRUCTURED MITIGATION FOR PROTECTION, ENHANCEMENT AND RESTORATION OF ECOLOGICAL FUNCTIONS AS COMPENSATION FOR PROJECT IMPACTS AT THE WATERSHED LEVEL.	625	625									
					SCHEDULED FOR PLANNING AND PROGRAM DEVELOPMENT ONLY								
VARIOUS STATEWIDE	E-4602	GIS ARCHAEOLOGICAL DATABASE. STATEWIDE DATABASE TO CALCULATE ARCHAEOLOGICAL SITES LOCATED WITHIN OR NEAR NCDOT PROJECTS.	750	750									
					IN PROGRESS								
ENHANCEMENT PROJECTS (ROADSIDE)													
VARIOUS STATEWIDE	ER-3611	COLOR CANOPY AND TREE PLANTING STATEWIDE.	9865	3765	STPEL	L 800	L 800	L 900	L 900	L 900	L 900	L 900	
					IN PROGRESS								
VARIOUS STATEWIDE	ER-3419	NORTH CAROLINA STATE BYWAYS BOOKLET PRINTING.	50	50									
					IN PROGRESS								

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STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
ENHANCEMENT PROJECTS (ROADSIDE)													
VARIOUS STATEWIDE	ER-3101	SPECIAL EVENTS PLANTING STATEWIDE.	15375	9775	STPEL	L 800	L 800	L 800	L 800	L 800	L 800	L 800	
					IN PROGRESS								
VARIOUS STATEWIDE	ER-2973	ROADSIDE BEAUTIFICATION PROJECTS IN ALL FOURTEEN HIGHWAY DIVISIONS.	81958	57458	STPEL	L 3500	L 3500	L 3500	L 3500	L 3500	L 3500	L 3500	
					IN PROGRESS								
VARIOUS STATEWIDE	ER-2971	SIDEWALK PROGRAM IN ALL FOURTEEN HIGHWAY DIVISIONS.	27947	18147	STPER	C 1400	C 1400	C 1400	C 1400	C 1400	C 1400	C 1400	
					IN PROGRESS								
VARIOUS STATEWIDE	ER-3102	IMPLEMENTATION OF STATEWIDE SCENIC BYWAYS PROGRAM.	2900	1850	STPEL	N 150	N 150	N 150	N 150	N 150	N 150	N 150	
					IN PROGRESS								
VARIOUS STATEWIDE	ER-3100	PLANTING OF WILDFLOWERS AND PERENNIAL BULBS ON FEDERAL-AID SYSTEM.	15700	9000	STPEL	L 850	L 900	L 950	L 1000	L 1000	L 1000	L 1000	
STRATEGIC HIGHWAY CORRIDOR					IN PROGRESS								
BLUE RIDGE PARKWAY STATEWIDE	ER-3817	SCENIC ENHANCEMENT AND VIEWSHED PROTECTION. (101.4 MILES)	2200	2200									
					IN ACQUISITION								
HAZARD ELIMINATION PROJECTS													
VARIOUS STATEWIDE	SI-4901	NO NEED 2 SPEED SAFETY INITIATIVE. SIGNING, EVALUATION, AND IMPLEMENTATION.	280	280									
					IMPLEMENTATION IN PROGRESS								
VARIOUS STATEWIDE	SI-4735	SAFETY MANAGEMENT INITIATIVES.	1107	1107									
					IN PROGRESS								
VARIOUS STATEWIDE	SI-4900	BLUE STAR MEMORIAL HIGHWAY SIGNING. INSTALL SIGNS AT VARIOUS LOCATIONS STATEWIDE.	250	250									
STRATEGIC HIGHWAY CORRIDOR					UNDER CONSTRUCTION								

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TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
HAZARD ELIMINATION PROJECTS													
VARIOUS STATEWIDE	SI-4902	FREEWAY SIGNING INITIATIVE. INSTALL OR REPLACE CRITICAL DIRECTIONAL SIGNS.	200	200									
STRATEGIC HIGHWAY CORRIDOR					UNDER CONSTRUCTION								
VARIOUS STATEWIDE	W-4716	MEDIAN INLET REPLACEMENT PROJECT.	650		HES	C 650							
VARIOUS STATEWIDE	W-4714	RUMBLE STRIPS, SHOULDERS, ROADSIDE SAFETY IMPROVEMENTS, AUXILIARY TURN LANES, RAISED PAVEMENT MARKERS AND PROFILE PAVEMENT MARKINGS.	6050	50	HES		C 1000	C 1000	C 1000	C 1000	C 1000	C 1000	
VARIOUS STATEWIDE	W-4715	POSITIVE MEDIAN BARRIER PROJECTS.	4000		HES			C 500	C 500	C 1000	C 1000	C 1000	
VARIOUS STATEWIDE	W-4447	SAFETY MANAGEMENT PROGRAM, PROJECT IDENTIFICATION, ANALYSIS AND PRELIMINARY ENGINEERING.	51500	16500	HES	PE 5000	PE 5000	PE 5000	PE 5000	PE 5000	PE 5000	PE 5000	
					IN PROGRESS								
SAFE ROUTES TO SCHOOLS													
VARIOUS STATEWIDE	SR-5000	SAFE ROUTES TO SCHOOL PROGRAM. EDUCATIONAL,TRAINING AND OTHER NON-INFRASTRUCTURE NEEDS.	8772	2402	SRTS	N 970	N 900	N 900	N 900	N 900	N 900	N 900	
					IN PROGRESS								
VARIOUS STATEWIDE	SR-5001	SAFE ROUTES TO SCHOOL PROGRAM. PROJECTS TO IMPROVE SAFETY, REDUCE TRAFFIC, FUEL COMSUMPTION AND AIR POLLUTION IN VICINITY OF SCHOOLS.	35822	7942	SRTS	C 3880	C 4000	C 4000	C 4000	C 4000	C 4000	C 4000	
					IN PROGRESS								
PASSENGER RAIL PROJECTS													
VARIOUS STATEWIDE	P-4404	SOUTHEAST HIGH SPEED RAIL CORRIDOR. UPDATE RAIL CROSSING INVENTORY FROM SOUTH CAROLINA STATE LINE TO THE VIRGINIA STATE LINE VIA RALEIGH AND CHARLOTTE AND THE APEX/CARY BYPASS SEGMENT.	150	150									
STRATEGIC HIGHWAY CORRIDOR					IN PROGRESS								

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PASSENGER RAIL PROJECTS													
VARIOUS STATEWIDE	P-5004	SOUTHEASTERN NORTH CAROLINA PASSENGER RAIL SERVICE, RALEIGH TO WILMINGTON VIA GOLDSBORO.	192087	500	T2001 T2001	R 1543 	R 1043 	 	 	 	 	 	 C 189001
					RIGHT OF WAY IN PROGRESS								
VARIOUS STATEWIDE	P-3809	RAILROAD SAFETY INSPECTIONS IN ALL FOURTEEN (14) DIVISIONS.	7110	3309	RR T2001	I 60 I 431	I 62 I 448	I 64 I 466	I 66 I 485	I 68 I 505	I 68 I 505	I 68 I 505	
					IN PROGRESS								
VARIOUS STATEWIDE	P-3418	PLANNING, MANAGEMENT AND RESEARCH STUDIES.	11967	6367	T2001	F 800	F 800	F 800	F 800	F 800	F 800	F 800	
					IN PROGRESS								
VARIOUS STATEWIDE	P-4001	RAIL INDUSTRIAL ACCESS PROGRAM.	14000	7000	T2001	C 1000	C 1000	C 1000	C 1000	C 1000	C 1000	C 1000	
					IN PROGRESS								
VARIOUS STATEWIDE	P-3815	CROSSING CONSOLIDATION PROJECTS AS IDENTIFIED IN NEWTON-HICKORY-CONOVER MPO TRAFFIC SEPARATION STUDY.	1620	1620									
					UNDER CONSTRUCTION								
VARIOUS STATEWIDE	P-3814	CROSSING CONSOLIDATION PROJECTS AS IDENTIFIED IN SOUTH END SEHSRC TRAFFIC SEPARATION STUDY. RIGHT OF WAY TO BE ACQUIRED BY MUNICIPALITIES.	597	597									
					UNDER CONSTRUCTION								
VARIOUS STATEWIDE	P-3812	INSTALLATION AND EVALUATION OF INNOVATIVE CROSSING WARNING DEVICE AT A LOCATION TO BE SELECTED.	105	105									
					UNDER CONSTRUCTION								
VARIOUS STATEWIDE	P-4702	MAINTENANCE OF RAILROAD TRACK AND SIGNAL IMPROVEMENTS.	10430	4082	T2001	C 804	C 844	C 884	C 924	C 964	C 964	C 964	
					IN PROGRESS								

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PASSENGER RAIL PROJECTS													
VARIOUS STATEWIDE	P-3419	SEALED CORRIDOR-SELECTED SEHSRC CROSSINGS. MEDIAN BARRIERS, ARTICULATED GATES, FOUR- QUADRANT GATES, WARNING DEVICE REVISIONS, SIGNAGE AND CAMERA SYSTEMS.	12307	12307									
					UNDER CONSTRUCTION								
VARIOUS STATEWIDE	P-4405	PRIVATE CROSSING SAFETY INITIATIVE TO CLOSE OR ENHANCE PROTECTION AT RAILROAD CROSSINGS BETWEEN RALEIGH AND CHARLOTTE.	1400	1400									
STRATEGIC HIGHWAY CORRIDOR					IN PROGRESS								
VARIOUS STATEWIDE	P-3309	AT-GRADE CROSSING ELIMINATION AND IMPROVEMENT PROJECTS, CORRIDOR INVENTORIES AND STUDIES IN ALL FOURTEEN (14) DIVISIONS.	10208	5110	RR T2001	C 329 C 329	C 342 C 342	C 356 C 356	C 370 C 370	C 384 C 384	C 384 C 384	C 384 C 384	
					IN PROGRESS								
VARIOUS STATEWIDE	P-5003	SOUTHEASTERN NORTH CAROLINA PASSENGER RAIL SERVICE, RALEIGH TO WILMINGTON VIA FAYETTEVILLE.	132357	500	T2001 T2001	R 1178	R 678						C 130001
					RIGHT OF WAY IN PROGRESS								
VARIOUS STATEWIDE	P-4701	CAPACITY AND TRAVEL TIME IMPROVEMENTS TO FREIGHT AND PASSENGER RAIL CORRIDORS, NEW EQUIPMENT AND MATCH FOR FEDERAL FUNDS.	117323	65165	T2001	C 7462	C 7446	C 7450	C 7450	C 7450	C 7450	C 7450	
					IN PROGRESS								
VARIOUS STATEWIDE	P-4700	RAILROAD STATION REHABILITATION PROJECTS.	22900	6900	STPER	C 2800	C 2600	C 2400	C 2200	C 2000	C 2000	C 2000	
					IN PROGRESS								
VARIOUS STATEWIDE	P-3806	WESTERN NORTH CAROLINA PASSENGER RAIL SERVICE ASHEVILLE AND SALISBURY. ENVIRONMENTAL STUDY, PRELIMINARY ENGINEERING, RIGHT OF WAY, DESIGN, CONSTRUCTION AND EQUIPMENT. (139 MILES)	194472	3441	T2001								C 191031
STRATEGIC HIGHWAY CORRIDOR					PHASE 1 - COMPLETE; PHASE 2 - UNFUNDED								

* INDICATES INTRASTATE PROJECT

COST AND SCHEDULES ARE PRELIMINARY AND SUBJECT TO SIGNIFICANT CHANGE AS MORE INFORMATION BECOMES AVAILABLE

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
PASSENGER RAIL PROJECTS													
VARIOUS STATEWIDE	SB-4100	SAFE ROADS FOR SAFE SCHOOLS PROGRAM. INSTALL RAIL-HIGHWAY CROSSINGS AT SIXTY LOCATIONS ON SCHOOL BUS ROUTES.	6000	6000									
					UNDER CONSTRUCTION								
VARIOUS STATEWIDE	Y-4800	TRAFFIC SEPARATION STUDY IMPLEMENTATION AND CLOSURES.	28410	12835	RR	C 2225	C 2225	C 2225	C 2225	C 2225	C 2225	C 2225	
					IN PROGRESS								
VARIOUS STATEWIDE	Y-4415	HIGHWAY-RAIL CROSSING INVENTORY.	4306	1925	RR	C 325	C 325	C 338	C 343	C 350	C 350	C 350	
					IN PROGRESS								
VARIOUS STATEWIDE	Y-4100	HIGHWAY-RAIL CROSSINGS SAFETY IMPROVEMENTS AND INVENTORY (FFY 00 AND 01), PASSENGER ROUTES.	4100	4100									
					UNDER CONSTRUCTION								
VARIOUS STATEWIDE	Y-9999	HIGHWAY-RAIL CROSSING SAFETY IMPROVEMENTS, PASSENGER ROUTES.	11732	8315	RR	C 490	C 490	C 489	C 487	C 487	C 487	C 487	
STRATEGIC HIGHWAY CORRIDOR					IN PROGRESS								
VARIOUS STATEWIDE	Z-4100	HIGHWAY-RAIL CROSSING SAFETY IMPROVEMENTS AND INVENTORY.	9000	9000									
					IN PROGRESS								
VARIOUS STATEWIDE	Z-4500	HIGHWAY-RAIL CROSSING SAFETY IMPROVEMENTS.	71162	25511	RR	C 6566	C 6548	C 6528	C 6509	C 6500	C 6500	C 6500	
					IN PROGRESS								
CSX "S" LINE STATEWIDE	P-3816	RIDGEWAY-APEX-DURHAM, ACQUIRE RAIL RIGHT OF WAY AND TRACK. (86 MILES)	100	100									
					IN PROGRESS								
CSX STATEWIDE	P-5005	HIGH PRIORITY NORTH-SOUTH RAIL CORRIDOR OF THE FUTURE.	48000	12000	T2001	C 4000	C 4000	C 4000					
					O	C 8000	C 8000	C 8000					
					IN PROGRESS								

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TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	FISCAL YEARS "DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
PASSENGER RAIL PROJECTS													
NCRR STATEWIDE	P-3414	TRAVEL TIME IMPROVEMENTS TO FREIGHT AND PASSENGER RAIL CORRIDORS BETWEEN RALEIGH AND CHARLOTTE AND MATCH FEDERAL FUNDS.	61500	61500									
STRATEGIC HIGHWAY CORRIDOR					IN PROGRESS								
NCRR-CSX STATEWIDE	P-3819	FEDERALLY-DESIGNATED HIGH SPEED RAIL CORRIDOR BETWEEN CHARLOTTE AND VIRGINIA STATE LINE, ENVIRONMENTAL STUDY, PRELIMINARY ENGINEERING, RIGHT OF WAY, DESIGN AND CONSTRUCTION. (260 MILES)	2034373	8523	O O T2001 T2001	PE 1050 	PE 1000 	 R 1300 R 500 	 	 	 	 	 C 2022000
STRATEGIC HIGHWAY CORRIDOR					IN PROGRESS								
ROADSIDE ENVIRONMENTAL PROJECTS (REST AREA)													
VARIOUS STATEWIDE	K-4704	INTERSTATE REST AREA SYSTEM PRESERVATION. PAVEMENT, PAVEMENT MARKING, CURB AND GUTTER, SIDEWALKS AND OTHER REHABILITATION ITEMS.	8495	1895	IM	C 800	C 800	C 1000	C 1000	C 1000	C 1000	C 1000	
STRATEGIC HIGHWAY CORRIDOR					IN PROGRESS								
ROADSIDE ENVIRONMENTAL PROJECTS (SCENIC)													
VARIOUS STATEWIDE	L-1000	REPLACEMENT PLANTS AT SELECTED LOCATIONS WITHIN THE 14 HIGHWAY DIVISIONS. LANDSCAPE.	2352	1662	PLF	L 90	L 100	L 100	L 100	L 100	L 100	L 100	
					IN PROGRESS								
VARIOUS STATEWIDE	L-2500	COLOR AND CANOPY AND TREE PLANTING.	6068	1968	PLF	L 500	L 600	L 600	L 600	L 600	L 600	L 600	
					IN PROGRESS								
VARIOUS STATEWIDE	L-2133	PLANTING OF PERENNIAL BULBS AND WILDFLOWERS WITHIN THE 14 HIGHWAY DIVISIONS. LANDSCAPE.	13542	8042	PLF	L 700	L 800	L 800	L 800	L 800	L 800	L 800	
					IN PROGRESS								

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
ROADSIDE ENVIRONMENTAL PROJECTS (SCENIC)													
VARIOUS STATEWIDE	S-5001	NORTH CAROLINA SCENIC BYWAYS LAND CONSERVATION INITIATIVE TO IMPLEMENT RESOURCE PROTECTION AND HERITAGE TOURISM DEVELOPMENT TO ENHANCE AND PRESERVE SCENIC VISTAS AND TOURISM CORRIDORS ALONG 26 OF NORTH CAROLINA'S SCENIC BYWAYS.	316	316	IN PROGRESS								
PUBLIC TRANSPORTATION PROJECTS													
STATEWIDE	TB-4900	PROVIDE FUNDS FOR THE PURCHASE OF CAPITAL EQUIPMENT TO SUPPORT HUMAN SERVICE AND GENERAL PUBLIC TRANSPORTATION SERVICES PROVIDED BY COMMUNITY TRANSPORTATION SYSTEMS.	43055		L	CP 861	CP 861	CP 861	CP 861	CP 861			
					STCP	CP 7750	CP 7750	CP 7750	CP 7750	CP 7750			
STATEWIDE	TF-4900	PROVIDE FUNDS TO CONSTRUCT AND/OR IMPROVE PUBLIC TRANSPORTATION FACILITIES IN RURAL AREAS.	3330		L	CP 66	CP 66	CP 66	CP 66	CP 66			
					SFCP	CP 600	CP 600	CP 600	CP 600	CP 600			
STATEWIDE	TI-4900	STATEWIDE PROGRAM TO PROVIDE OPERATING ASSISTANCE TO EXPAND AND IMPROVE REGIONAL AND INTER-CITY PUBLIC TRANSPORTATION	4000		FNU	O 400	O 400	O 400	O 400	O 400			
					RIMA	O 400	O 400	O 400	O 400	O 400			
STATEWIDE	TK-4900Z	PROVIDE FUNDS TO SUPPORT THE ON-GOING ADMINISTRATION AND CAPITAL FOR PUBLIC TRANSPORTATION SERVICES IN RURAL AND SMALL URBAN AREAS. INCLUDES TRANSFER FROM SECTION 5310 ELDERLY AND PERSONS WITH DISABILITIES PROGRAM.	114890		FNU	AD 18382	AD 18382	AD 18382	AD 18382	AD 18382			
					L	AD 3217	AD 3217	AD 3217	AD 3217	AD 3217			
					STAT	AD 1379	AD 1379	AD 1379	AD 1379	AD 1379			
STATEWIDE	TM-5112	PROVIDE FUNDING FOR NEW PUBLIC TRANSPORTATION SERVICES BEYOND THOSE REQUIRED BY ADA THAT ASSIST INDIVIDUALS WITH DISABILITIES.	8320		FNF	O 832	O 832	O 832	O 832	O 832			
					L	O 832	O 832	O 832	O 832	O 832			
STATEWIDE	TM-5103	JOB ACCESS/REVERSE COMMUTE IN RURAL AREAS.	13780		JARC	O 1378	O 1378	O 1378	O 1378	O 1378			
					L	O 1378	O 1378	O 1378	O 1378	O 1378			

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TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	FY 2010	FY 2011	"DEVELOPMENTAL STIP" FY 2012	FY 2013	FY 2014	FY 2015	"UNFUNDED" FUTURE YEARS
PUBLIC TRANSPORTATION PROJECTS													
STATEWIDE	TM-5001	NEW FREEDOM CAPITAL AND OPERATING COST.			IN PROGRESS								
STATEWIDE	TM-5000	JOB ACCESS / REVERSE COMMUTE CAPITAL,PLANNING AND OPERATIONAL COST.			IN PROGRESS								
STATEWIDE	TN-4900	PROVIDE ADMINISTRATIVE ASSISTANCE FOR COMMUNITY TRANSPORTATION SYSTEMS.	15880		HSTM	AD 2700	AD 2700	AD 2700	AD 2700	AD 2700			
					L	AD 476	AD 476	AD 476	AD 476	AD 476			
STATEWIDE	TP-4901	STATEWIDE PLANNING AND RESEARCH PROGRAM TO PROVIDE STATE ADMINISTRATION AND PLANNING ASSISTANCE FOR THE URBANIZED AREAS OF GREATER THAN 50,000 POPULATION.	1850		FSPR	PL 296	PL 296	PL 296	PL 296	PL 296			
					STAT	PL 74	PL 74	PL 74	PL 74	PL 74			
STATEWIDE	TP-4900	PLANNING PROGRAM (SECTION 5303) TO SUPPORT THE PLANNING ACTIVITIES OF MPOS ACROSS THE STATE.	7095		FMPL	PL 1135	PL 1135	PL 1135	PL 1135	PL 1135			
					L	PL 142	PL 142	PL 142	PL 142	PL 142			
					STAT	PL 142	PL 142	PL 142	PL 142	PL 142			
STATEWIDE	TQ-4900	PROVIDE FUNDS FOR STATE ADMINISTRATION OF THE PROGRAM AND SUPPORT OF ONGOING PUBLIC TRANSPORTATION PLANNING ACTIVITIES IN RURAL AND SMALL URBAN AREAS.	12500		FNU	PL 2000	PL 2000	PL 2000	PL 2000	PL 2000			
					L	PL 250	PL 250	PL 250	PL 250	PL 250			
					STAT	PL 250	PL 250	PL 250	PL 250	PL 250			
STATEWIDE	TS-4900	STATEWIDE PROGRAM TO DEVELOP AND IMPLEMENT TRAINING AND OTHER SUPPORT SERVICES FOR RURAL, SMALL URBAN AREA AND PARATRANSIT OPERATIONS.	1205		L	AD 24	AD 24	AD 24	AD 24	AD 24			
					RTAP	AD 217	AD 217	AD 217	AD 217	AD 217			
STATEWIDE	TT-4900	PROVIDE FUNDING FOR THE PURCHASE OF ADVANCED TECHNOLOGIES IN URBAN AREAS THAT WILL INCREASE OVERALL SYSTEM EFFICIENCY AND EFFECTIVENESS.	8890		L	CP 178	CP 178	CP 178	CP 178	CP 178			
					UTCH	CP 1600	CP 1600	CP 1600	CP 1600	CP 1600			

TYPE OF WORK / ESTIMATED COST IN THOUSANDS / PROJECT BREAK

FISCAL YEARS

STATEWIDE ROUTE/CITY COUNTY	ID NUMBER	LOCATION / DESCRIPTION (LENGTH)	TOTAL PROJ COST (THOU)	PRIOR YEARS COST (THOU)	FUNDING SOURCE	"DELIVERABLE STIP" FY 2009	"DELIVERABLE STIP" FY 2010	"DELIVERABLE STIP" FY 2011	"DEVELOPMENTAL STIP" FY 2012	"DEVELOPMENTAL STIP" FY 2013	"DEVELOPMENTAL STIP" FY 2014	"DEVELOPMENTAL STIP" FY 2015	"UNFUNDED" FUTURE YEARS
PUBLIC TRANSPORTATION PROJECTS													
STATEWIDE	TU-4900	PROVIDE FUNDING FOR THE PURCHASE OF COMPUTERS AND ADVANCED TECHNOLOGIES IN RURAL AREAS THAT WILL INCREASE OVERALL SYSTEM EFFICIENCY AND EFFECTIVENESS.	2775		L	CP 55	CP 55	CP 55	CP 55	CP 55			
					RTCH	CP 500	CP 500	CP 500	CP 500	CP 500			
STATEWIDE	TV-4903	PROVIDE OPERATING ASSISTANCE FOR SERVICE TO THE ELDERLY AND DISABLED.	10460		FED	O 1046	O 1046	O 1046	O 1046	O 1046			
					STAT	O 1046	O 1046	O 1046	O 1046	O 1046			

RESOLUTION ADOPTING THE DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM FOR FY 2009-2015

A motion was made by _____and seconded by_____ for adoption of the following resolution, and upon being put to a vote was duly adopted.

WHEREAS, the Transportation Advisory Committee has found that the Metropolitan Planning Organization is conducting transportation planning in a continuous, cooperative, and comprehensive manner in accordance with 23 U.S.C. 134 and 49 U.S.C. 1607; and

WHEREAS, the Transportation Advisory Committee has found that the Transportation Improvement Program conforms to the purposes of the North Carolina State Implementation Plan (or interim emissions tests in areas where no SIP has been approved or found adequate) for maintaining the National Ambient Air Quality Standards in accordance with 40 CFR 51 & 93; and

WHEREAS, the Transportation Advisory Committee has found that the Transportation Improvement Program to be in full compliance with Title VI Civil Rights Act of 1964 and the Title VI Assurance executed by each State under 23 U.S.C. 324 and 29 U.S.C. 749; and

WHEREAS, the Transportation Advisory Committee has considered how the Transportation Improvement Program will affect the involvement of Disadvantaged Business Enterprises in the FHWA and the FTA funded projects (Sec. 105(f), Pub. L. 97-424,96 Stat 2100, 49 CFR part 23); and

WHEREAS, the Transportation Advisory Committee has considered how the Transportation Improvement Program will affect the elderly and disabled per the provisions of the Americans With Disabilities Act of 1990 (Pub. L. 101-336, 104 Stat.327, as amended) and the U.S. DOT implementing regulations; and

WHEREAS, the Metropolitan Transportation Improvement Program of the Durham–Chapel Hill–Carrboro (DCHC) Metropolitan Planning Organization is a direct subset of the currently conforming DCHC MPO 2030 Long Range Transportation Plan; and

WHEREAS, the Transportation Plan has a planning horizon year of 2030, and meets all the requirements for an adequate Transportation Plan, and

WHEREAS, the Transportation Advisory Committee has solicited public and private transportation provider comment and provided for 45-day public comment period for the proposed Transportation Improvement Program; and

WHEREAS, for years one and two (i.e., years 2009 and 2010), it is recognized that the Transportation Improvement Program will serve as the project selection document for transportation projects within the Durham- Chapel Hill- Carrboro Urban Area Metropolitan Area Boundary, and the NCDOT may move projects and phases of projects without additional programming or project selection approval by the MPO within that two-year period, providing that transportation conformity and financial constraint criteria are still met.

NOW, THEREFORE, be it resolved that the Transportation Advisory Committee adopts the FY 2009-2015 Metropolitan Transportation Improvement Program, dated August 13, 2008, for the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization on this the 13th day of August, 2008.

TAC Chair

STATE of: North Carolina
COUNTY of: _____

I,_____, a Notary Public of _____ County, North Carolina do hereby certify that _____ personally appeared before me on the 13th day of August, 2008 to affix her signature to the foregoing document.

Notary Public for the State of NC
Residing at: _____
My commission expires _____

(Seal)

Division 5 One-on-One Meeting
FY 2008-2015 Transportation Improvement Program

Agenda

1. **2008-2015 TIP Items for Discussion**
    a. **General Funding and Design Issues**
    b. **Major Project Schedules and Funding**
    c. **Project Design**
    d. **Project Study and Project Management Requests**

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1. 2008-2015 TIP Items for Discussion

The DCHC MPO has reviewed the 2008-2015 Draft STIP and developed the following list of issues for discussion. The MPO is developing the 2008-2015 MTIP which will be approved in late spring 2008.

a. General Funding and Design Issues

1. **Need additional funding for transportation**
   The DCHC MPO has only two new highway or bicycle/pedestrian projects in Division 5 funded in the draft FY 2008-2015 STIP (I-5104 and B-4943, neither of which is in our Regional Priority List) while population and employment continue to grow. It is imperative the NCDOT and the General Assembly work to increase transportation funding for the State's urban areas.

Final STIP: I-4903 (pavement repair on I-85) added. P-3802 (Durham train station) funded.

2. **Prioritize funding for bicycle, pedestrian, and transit projects**
   The DCHC MPO strongly supports multi-modal transportation. Many of the MPO's top priorities are bicycle, pedestrian, and transit projects (see Regional Priority List). Many of the traditional funding sources for these projects have disproportionately been the target for rescissions. We understand that recent federal legislation now requires that rescissions be proportionately distributed among funding programs. In addition to the traditional funding sources for these projects, the DCHC MPO would like these projects to receive funds traditionally used for highway projects such as STP funds. Bicycle/pedestrian projects are typically far less costly than highway projects. With so little revenue available for new projects, it would be a good opportunity to use limited resources on more less expensive bicycle/pedestrian projects.

Final STIP: No new bicycle/pedestrian projects added other than STP-DA funded projects.

3. **All highway projects**
   NCDOT has changed its approach to highway design from accommodating motor vehicles only to providing for a multi-modal transportation system. However, on roadway projects that include widening and multi-modal facilities, the project descriptions in the TIP continue to say "widen to multi-lanes" with no mention of multi-modal facilities. The DCHC MPO continues to believe that the TIP would better communicate to the public and to NCDOT departments the actual project scope if the project descriptions said "widen to multi-lanes and include bicycle, pedestrian, and transit facilities" where appropriate.

Final STIP: Description on highway projects has not been changed. NCDOT said that it would consider this during the one-on-one meetings and in subsequent staff conversations. The DCHC MPO will continue to work with NCDOT to include this language in the FY 2011-2017 TIP.

b. Major Project Schedules and Funding

4. **U-0071 (East End Connector)**
   The DCHC MPO is concerned about the schedule delay and unfunded cost increase for U-0071. The project cost increased from $99,292,000 in the FY 2007-2013 STIP to $161,792,000 in the draft FY 2008-2015 STIP. None of the $62,500,000 cost increase is funded. In addition, the first year for construction was delayed two years from 2012 to 2014. This project is Durham's highest priority and would greatly improve safety, congestion, and access through Durham. The environmental document for U-0071 is on schedule to be complete in 2008. Public awareness of the project is high due to several well-attended community meetings and the formation of the Ad Hoc Committee. The DCHC MPO requests that construction for this project not be delayed and that it be fully funded in the final STIP.

Final STIP: Funding added in response to DCHC MPO, City of Durham, and Durham County request. Construction accelerated from FY 2014 to FY 2013. One year of construction funding added $33,250,000 using STP funding (subject to the equity formula). Mitigation delayed from FY 2011 to FY 2012.

5. **U-3808 (NC 55/Alston Avenue, NC 147 to Holloway St.)**
   The DCHC MPO is concerned about the design of U-3808. A recommendation is pending Durham City Council action.

Final STIP: Cost decreased slightly. Durham City Council and staff continue to discuss the design issues with NCDOT.

6. **New Project (Fayetteville Road, Woodcroft Parkway to Riddle Rd.)**

A recommendation is pending Durham City Council action.

Final STIP: This project was not added based on response from DCHC MPO, City of Durham, and Durham County. Instead STP funding was added to U-0071.

7. **I-5104/R-2000 (I-540/I-40 Interchange Improvements)**
   The DCHC MPO would like the bottleneck at the ramp from NC 147 south to I-40 east addressed in addition to this project. U-5104, which primarily serves commuters from Wake County to RTP, is the only new highway project funded in Durham County and it is not on the MPO's Regional Priority List.

Final STIP: No change.

8. **DATA Buses**
   DATA has recently had difficulty meeting its peak bus pullout due to mechanical problems with its bus fleet. The draft FY 2008-2015 STIP includes 11 replacement buses for DATA in FY 2011. DATA requests that the replacement schedule be accelerated and the number of replacement buses be increased. DATA requested 12 expansion buses in 2009 and 31 replacement buses in 2012 in the MPO's Regional Priority List.

Final STIP: Additional CMAQ funding for replacement and expansion buses has been provided in the final STIP and in the Administrative Modification #3 to the FY 2007-2013 MTIP/STIP.

9. **U-4763B (Triangle Parkway)**
   The DCHC MPO continues to be concerned about the provision of gap funding for the Triangle Parkway and the design of the project. The Triangle Parkway is not the MPO's highest priority highway project and thus the MPO objects to any diversion of funds from any higher priority projects to the Triangle Parkway. The DCHC MPO urges the NCTA and the General Assembly to identify new sources of revenue to fill the funding gap. In addition, the DCHC MPO urges the NCTA to include transit facilities in the design of the project and consider free use of the facility by buses, vanpools, and carpools (3+). Planned and existing bicycle and pedestrian facilities on all Y-lines should be accommodated by the project design. Other local access issues related to the Triangle Parkway have also been raised by citizens.

Final STIP: Cost increased. The NC General Assembly is currently considering options for providing gap funding to the Triangle Parkway. The NCTA has made some design changes to reflect the DCHC MPO and citizen concerns.

10. **U-4011 (S. Miami Blvd., Methodist St. to Bethesda St.)**
    The draft STIP incorrectly shows $2,861,000 in STP-DA funding for this project in FY 2008. The DCHC MPO has only approved the use of $1,874,000 in STP-DA funding for this project. The DCHC MPO objects to this increase in STP-DA

funding that has not been approved by the MPO. The DCHC MPO is in the process of deciding how to allocate its STP-DA funds for FY 2008-2015. Increasing the STP-DA funding for U-4011 is not being considered. STP-DA funding will be approved by the MPO in April 2008 and forwarded to NCDOT for inclusion in the final STIP.

Final STIP: FY 2008 is not shown in the final STIP. NCDOT staff has said that the error in the STP-DA funding in FY 2008 was fixed to reflect what the MPO has approved.

c. Project Design

11. **U-3804 (Hillandale Rd., I-85 to Carver St.)**
    A letter was sent to NCDOT outlining the DCHC MPO's concerns regarding the design of this project in January 2008. The DCHC MPO requests that NCDOT work with the adjoining property and business owners to develop a solution which safely accommodates traffic traveling along Hillandale Road, provides good access to properties in the area, and addresses other concerns that have been raised.

Final STIP: Right-of-way delayed from FY 2008 to FY 2009. NCDOT has revised the design to address the DCHC MPO's concerns.

d. Planning Study and Project Management Requests

12. **U-4720 (US 70) and U-4721 (Northern Durham Parkway)**
    With the East End Connector (U-71) included in the draft FY 2008-2015 TIP, it is important to initiate the planning process for the next priority Highway Trust Fund projects in Durham – US 70 and the Northern Durham Parkway. Because the design of one of these Highway Trust Fund projects could affect the design of the other, it is important that the planning process study these two projects together.

Final STIP: No change.

13. **C-4402 (NC 54 Bicycle Improvements)**
    NCDOT previously agreed to manage EB-4707 (Old Durham-Chapel Hill Road Bicycle and Pedestrian Improvements) if the City of Durham would agree to manage C-4402. However, the DCHC MPO requests that NCDOT reconsider managing C-4402. NC 54 is a major State route. The MPO and the City of Durham do not have the resources to manage a project of this magnitude on the State system.

Final STIP: No change in project management. Right-of-way delayed from FY 2008 to FY 2009. Construction delayed from FY 2009 to FY 2010.

14. **U-2405 (M. L. King Jr. Parkway and NC 55 Interchange)**
    With the completion of M. L. King Jr. Parkway from US 15-501 to NC 55, it is appropriate to complete the last link of this important project from NC 55 to Cornwallis Road to serve Research Triangle Park. The TAC would like to consider lower cost alternatives to the $25.8 million unfunded interchange identified in the draft FY 2008-2015 STIP. The DCHC MPO requests that NCDOT provide information regarding the feasibility study re-evaluation in progress.

Final STIP: No change. NCDOT informed at the one-on-one meeting that the feasibility study re-evaluation will be complete in fall 2008.

15. **U-4724 (Cornwallis Rd., S. Roxboro Rd. to Chapel Hill Rd.)**
    This project is currently funded using the MPO's STP-DA funds. Additional funding may be needed depending on a revised cost estimate.

Final STIP: No change.

Division 7 One-on-One Meeting
FY 2008-2015 Transportation Improvement Program

Agenda

FY 2008-2015 TIP Items for Discussion
a. General Funding and Design Issues
b. Project Schedules and Funding
c. Funding for Transit Planning

FY 2008-2015 TIP Items for Discussion

The DCHC MPO has reviewed the FY 2008-2015 Draft STIP and developed the following list of issues for discussion. The MPO is developing the FY 2008-2015 MTIP which will be approved in late spring/early summer 2008.

a. General Funding and Design Issues

1. **Need additional funding for transportation**
   The DCHC MPO is pleased that many of the cost increases on previously funded projects in Division 7 were funded in the draft FY 2008-2015 STIP and that several priority projects were accelerated (U-4704 – Chapel Hill/Carrboro Signal System, U-0624 – NC 86/South Columbia Street). However, the DCHC MPO has no new highway or bicycle/pedestrian projects in Division 7 funded in the draft FY 2008-2015 STIP while population and employment continue to grow. It is imperative the NCDOT and the General Assembly work to increase transportation funding for the State's urban areas.

Final STIP: Construction funding added for B-4962 (US 70 Bypass bridge over the Eno River)

2. **Prioritize funding for bicycle, pedestrian, and transit projects**
   The DCHC MPO strongly supports multi-modal transportation. Many of the MPO's top priorities are bicycle, pedestrian, and transit projects (see Regional Priority List). In addition, the Town of Chapel Hill recently updated its long range transit plan. This document recommends a significant expansion of service for which additional funding is needed. The DCHC MPO is concerned that many of the traditional funding sources for bicycle, pedestrian, and transit projects have disproportionately been the target for rescissions. In fact, we understand that recent federal legislation now requires that rescissions be proportionately distributed among funding programs. Therefore, the DCHC MPO has two requests to increase the resources for multi-modal projects. First, in addition to the traditional funding sources, the DCHC MPO would like these projects to

receive funds traditionally used for highway projects such as STP funds. Second, bicycle/pedestrian projects are typically far less costly than highway projects. Thus, with so little revenue available for new projects, we believe that the limited resources should be used to fund a greater number of the less expensive bicycle/pedestrian projects.

Final STIP: EB-5108 (Feasibility study for wide paved shoulders on Dairyland Road) added. EB-5110 (Feasibility study for Bolin Creek Greenway) added.

3. **All highway projects (especially R-2825, U-2803, U-3306, U-2805, U-2909)**
   NCDOT has changed its approach to highway design from accommodating motor vehicles only to providing for a multi-modal transportation system. However, on roadway projects that include widening and multi-modal facilities, the project descriptions in the TIP continue to say "widen to multi-lanes" with no mention of multi-modal facilities. The DCHC MPO continues to believe that the TIP would better communicate to the public and to NCDOT departments the actual project scope if the project descriptions said "widen to multi-lanes and include bicycle, pedestrian, and transit facilities" where appropriate.

Final STIP: Description on highway projects has not been changed. NCDOT said that it would consider this during the one-on-one meetings and in subsequent staff conversations. The DCHC MPO will continue to work with NCDOT to include this language in the FY 2011-2017 TIP.

b. Project Schedules and Funding

4. **FS-0307A (Mason Farm Rd. Relocation)**
   Neither the DCHC MPO nor the Town of Chapel Hill requested this project. The Town requests that the project be removed from the FY 2008-2015 TIP. This project should be reviewed by the Town and the DCHC MPO and have more public input before it is programmed in the TIP.

Final STIP: Project has been deleted.

5. **Bolin Creek Greenway (NC 86 to Umstead Park in Chapel Hill)**
   The DCHC MPO requests that this project be programmed in the FY 2008-2015 TIP. It is estimated to cost $1,500,000. This is the Chapel Hill section of the Bolin Creek Greenway. The Carrboro section of the Bolin Creek Greenway is already programmed in the FY 2008-2015 TIP (EL-4994).

Final STIP: EB-5110 (Feasibility study for Bolin Creek Greenway) added.

6. **I-0305 (I-85 widening)**
   The DCHC MPO would like to change the phase descriptions to prioritize the rebuilding of interchanges at NC 86, SR 1009 (Old NC 86), and US 70.
   Phase A: Rebuild interchanges at NC 86, SR 1009 (Old NC 86), and US 70.

Phase B: Widening
We also request a status report on the environmental study for this project.

Final STIP: Right-of-way funding moved to future years (was 250 in FY 2013 and 960 in FY 2015). Cost increase.

7. **U-3306 (Weaver Dairy Road improvements)**
   The DCHC MPO requests that NCDOT fully fund this project with STP funds due to a change in the purpose of the project. A previous version of the Weaver Dairy Road project was focused on increasing capacity. For this previous version, the DCHC MPO had earmarked $566,000 of STP-DA funds for specific bicycle, pedestrian, and transit enhancements. The current design of the project is less focused on increasing capacity and is now primarily a bicycle, pedestrian, and transit improvement. Since the bicycle, pedestrian, and transit improvements are now the primary purpose of the project, the DCHC MPO's STP-DA funds should not be needed. The 2007-2013 TIP reflected this with all of the $10,800,000 for construction funded with STP funds. In the draft FY 2008-2015 STIP, this project is funded with $10,092,000 of STP, $566,000 STP-DA, and $142,000 from the Town of Chapel Hill for construction, but we believe that all of the resources should come from STP funds.

Final STIP: All funding has been changed to STP.

8. **B-4218 (Bridge No. 108 over New Hope Creek on SR 1730 Turkey Farm Rd.)**
   The DCHC MPO and Orange County request that NCDOT proceed with this bridge project with the utmost attention to the environmentally sensitive nature of this location. This reach of New Hope Creek is home to six species listed with the North Carolina Natural Heritage Program, three of which are designated as endangered. In addition, it is adjacent to conservation land in Duke Forest and land owned by the Triangle Land Conservancy. NCDOT has previously responded to concerns of the local jurisdictions and citizens regarding the design of the US 15-501 bridge over New Hope Creek in Durham County based on the uniqueness of the corridor.

Final STIP: No change.

9. **EB-5021 (Estes Dr., Greensboro St. to Seawell School Rd.)**
   The FY 2007-2013 STIP programmed $650,000 for this project. The draft FY 2008-2015 STIP programs $480,000. The DCHC MPO and the Town of Chapel Hill request that the difference, $170,000, be reserved for other DCHC MPO projects such as the Bolin Creek Greenway or potential cost overruns on EB-4707 (Old Durham-Chapel Hill Road).

Final STIP: *EB-5110 (Feasibility study for Bolin Creek Greenway) added.*

10. U-3100B (Old Fayetteville Rd., NC 54 to Stroud Lane)

The draft FY 2008-2015 STIP programs $300,000 for right-of-way acquisition in 2012. The DCHC MPO and the Town of Carrboro request that this project be accelerated and that construction be fully funded. This project is ranked high on the DCHC MPO's Regional Priority List and is a top priority for the Town of Carrboro.

Final STIP: No change.

c. Funding for Transit Planning

11. Special Transit Advisory Commission (STAC) Recommendations

The Special Transit Advisory Commission (STAC) is a citizens' advisory committee established by the DCHC MPO and the Capital Area MPO to make recommendations concerning major transit investments in the Triangle. The STAC will soon be forwarding its recommendations to the DCHC MPO and the Capital Area MPO so that they may be considered for inclusion in the 2035 Long Range Transportation Plans for the two MPOs. Any major transit investment will require extensive planning and design work. There are two placeholders for alternatives analysis, engineering, and design for major transit investments in the draft FY 2008-2015 TIP (TE-4903 and TE-4706B). The DCHC MPO requests that NCDOT revise these projects as needed for the final FY 2008-2015 TIP based on the forthcoming STAC recommendation. DCHC MPO staff will provide specific details on these revisions in late March.

Final STIP: Since the STAC report was not finalized until late April, there was not adequate time to revise the placeholders for alternatives analysis, engineering, and design for major transit investments (TE-4903 and TE-4706B) in the final STIP. These placeholders are unchanged from the draft STIP. The DCHC MPO and Capital Area MPO will need to amend the STIP/MTIP as these activities become funded.

DRAFT

Conformity Determination Report

2009–2015 Transportation Improvement Program

- **Capital Area Metropolitan Planning Organization**
- **Durham-Chapel Hill-Carrboro Metropolitan Planning Organization**
- **Burlington-Graham Metropolitan Planning Organization**
  (for the portion of Orange County within the Burlington Graham MPO)
- **North Carolina Department of Transportation**
  (for the portions of the Triangle Ozone Maintenance Area in Chatham, Franklin, Granville, Johnston, Orange and Person Counties outside of MPO boundaries)

February 19, 2008

Digital versions of this report and its appendices are available at:
http://www.triangleair.org/topics.htm#transconf

This report was coordinated by the Triangle J Council of Governments for the North Carolina Department of Transportation, the Capital Area Metropolitan Planning Organization, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization and the Burlington Graham Metropolitan Planning Organization, in cooperation with the Kerr-Tar Rural Planning Organization, the Triangle Area Rural Planning Organization and the Upper Coastal Plain Rural Planning Organization.

1.0 Introduction

The purpose of this report is to document compliance with the provisions of the Clean Air Act Amendments of 1990 (CAAA) and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005. The conformity determination for the 2009–2015 Transportation Improvement Program (TIP) is based on a regional emissions analysis that utilized the transportation networks in adopted and conforming 2030 Long Range Transportation Plans (LRTPs) and the emissions factors developed by the North Carolina Department of Environment and Natural Resources (NCDENR). All regionally significant federally funded projects in areas designated by the United States Environmental Protection Agency (USEPA) as air quality nonattainment or maintenance areas must come from a conforming LRTP and TIP.

MPOs and the NCDOT are required by 23 CFR 134 and 40 CFR Parts 51 and 93 to make a conformity determination on any newly adopted or amended fiscally-constrained long range transportation plans and TIPs. Appendix A contains relevant portions of 40 CFR part 93. The intent of this report is to document the conformity determinations for the 2009–2015 TIPs for the Capital Area MPO, the Durham-Chapel Hill-Carrboro MPO, the Burlington Graham MPO, and the rural portions of the Triangle Ozone Maintenance Area that are the responsibility of the North Carolina Department of Transportation (NCDOT). In addition, the United States Department of Transportation (USDOT), specifically, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), must make a conformity determination on the LRTPs and TIPs in all non-attainment and maintenance areas. The Research Triangle Region is a maintenance area for ozone.

Conformity Determinations for the amended 2030 Long Range Transportation Plans in the Triangle Ozone Maintenance Area were most recently approved as follows:

- Burlington Graham MPO: April 12, 2005
- Capital Area MPO: May 16, 2007
- Durham-Chapel Hill-Carrboro MPO: May 9, 2007
- The NCDOT (for the rural portions of Chatham and Orange Counties in the Triangle Ozone Maintenance Area): June 7, 2007
- The NCDOT (for Franklin, Granville, Johnston and Person Counties): June 1, 2007

By these actions, the MPOs and NCDOT demonstrated that the amended 2030 Long Range Transportation Plans are consistent with Section 176(c) of the Clean Air Act, the State Implementation Plan, the Transportation Equity Act for the 21st Century, and 40 CFR Parts 51 and 93. These conformity demonstrations were documented by the MPOs and NCDOT in the report entitled *Conformity Analysis and Determination Report.* That report included the regional emissions test comparison prepared for the 2030 Long Range Transportation Plans demonstrating that emissions in each of the analysis years of the long range plan (2002, 2005, 2007, 2009, 2010, 2012, 2020 and 2030) are less than or equal to, the motor vehicle emissions budget established by the State Implementation Plan (or base year emissions, in areas where no State Implementation Plan was approved or found adequate by EPA) in accordance with 40 CFR Part 93) and approved by USEPA for the corresponding year.

USDOT made its conformity determination on the amended 2030 Long Range Transportation Plans listed above on June 29, 2007. A copy of the letter approving the conformity determinations is

included in Appendix B.

The TIP for Fiscal Years 2009-2015 developed by the Burlington Graham MPO and adopted by the TAC on _____, 2008 is a subset of the conforming 2030 LRTP documented in this report.

The TIP for Fiscal Years 2009-2015 developed by the Capital Area MPO and adopted by the TAC on _____, 2008 is a subset of the conforming 2030 LRTP documented in this report.

The TIP for Fiscal Years 2009-2015 developed by the Durham-Chapel Hill-Carrboro MPO and adopted by the TAC on _____, 2008 is a subset of the conforming 2030 LRTP documented in this report.

The rural (donut area) county projects from the STIP for Fiscal Years 2009-2015 developed by the NCDOT and adopted by the Board of Transportation on _____, 2008, are consistent with the rural (donut area) projects from the 2007-2013 STIP (for the donut area counties of Chatham, Franklin, Granville, Johnston, Orange and Person) that were modeled and found to conform by the USDOT on June 29, 2007.

2.0 Relationship of the LRTP and TIP

In accordance with 40 CFR Parts 51 and 93, no further regional emissions analysis is required for the Transportation Improvement Program if the TIP is a subset of the LRTP and if the following conditions are met:

- The TIP is consistent with the conforming LRTP such that the regional emissions analysis performed on the LRTP applies to the TIP;
- The TIP contains all projects which must be started in the TIP's timeframe to implement the highway and transit system envisioned by the LRTP in each of its horizon years;
- All federally funded TIP projects which are regionally significant are part of the specific highway or transit system envisioned in the LRTP horizon years; and
- The design concept and scope of each regionally significant project identified in the TIP is not significantly different from that described in the LRTP.

This report documents that the Transportation Improvement Programs for Fiscal Years 2009-2015 are subsets of the 2030 LRTPs for the Capital Area MPO, the Durham-Chapel Hill-Carrboro MPO, the Burlington Graham MPO, and the rural portions of the Triangle Ozone Maintenance Area that are the responsibility of the North Carolina Department of Transportation (NCDOT). The 2030 LRTPs for each of these areas are fiscally constrained and are consistent with 23 CFR Part 450 Subpart C. These conformity determinations are based on the most recent estimates of the emissions and the most recent planning assumptions (including population, employment, travel and congestion estimates available) as determined by the appropriate MPOs and NCDOT. It has been demonstrated in the Conformity Determination Report that the LRTPs conform to the provisions of the Clean Air Act Amendments of 1990 and the Transportation Equity Act (TEA 21) approved by the USDOT on June 29, 2007. Also, these LRTPs conform to the purpose of the State Implementation Plan (SIP in

accordance with 40 CFR Part 93. Although as subsets of LRTPs, no further regional emissions analysis (emissions budget comparison) is typically required for TIPs, new emissions budgets for NO_x were published on December 26, 2007; therefore comparisons to these new budgets are provided below. All areas for all years conform to the new budgets.

Chatham County

Analysis Year	Model	Off-Model	Comparison Amount	Budget Amount	
2002	1,783	0			
2008	**1,387**	**0**	**1,387**	**1,565**	**OK**
2010	1,255	0	1,255	1,565	OK
2017	**799**	**0**	**799**	**948**	**OK**
2020	603	0	603	948	OK
2030	448	0	448	948	OK

Durham County

NOx Comparison Table (kg/day)					
Analysis Year	Model	Off-Model (reduction)	Comparison Amount	Budget Amount	
2002	18,938	73			
2007	13,081	72	13,009		
2008	**11,913**	**72**	**11,841**	**13,106**	**OK**
2009	10,744	71	10,673	13,106	OK
2010	9,470	71	9,399	13,106	OK
2012	7,439	64	7,375	13,106	OK
2015	5,097	53	5,045	13,106	OK
2017	**4,371**	**45**	4,326	**4,960**	**OK**
2020	3,282	34	3,248	**4,960**	OK
2030	2,750	34	2,716	**4,960**	OK

Franklin County

NOx Comparison Table (kg/day)					
Analysis Year	Model	Rural portion	Total County	Budget Amount	
2002	619	2,524	3,143		
2008	455	1,578	2,033	2,048	OK
2010	400	1,263	1,663	2,048	OK
2017	271	755	1,026	1,139	OK
2020	216	538	754	1,139	OK
2030	178	359	537	1,139	OK

Johnston County

NOx Comparison Table (kg/day)					
Analysis Year	Model	Rural portion	Comparison Amount	Budget Amount	
2002		12,534			
2008		10,658	10,658	**12,583**	
2010		10,032	10,032	**12,583**	OK
2017		5,724	5,724	5,958	OK
2020		3,877	3,877	5,958	OK
2030		2,347	2,347	5,958	OK

Granville County

NOx Comparison Table (kg/day)					
Analysis Year	**Model**	**Rural portion**	**Comparison Amount**	**Budget Amount**	
2002	207	4,414			
2008	138	2,472	2,610	**4,649**	
2010	115	1,825	1,940	**4,649**	OK
2017	70	925	995	1,714	OK
2020	51	539	590	1,714	OK
2030	47	383	430	1,714	OK

Orange County

NOx Comparison Table (kg/day)					
Analysis Year	**Model**	**Off-Model**	**Comparison Amount**	**Budget Amount**	
2002	14,391	0			
2008	**8,967**	**0**	**8,967**	**9,933**	**OK**
2010	7,159	0	7,159	9,933	OK
2017	**3,578**	**0**	**3,578**	**3,742**	**OK**
2020	2,043	0	2,043	3,742	OK
2030	1,382	0	1,382	3,742	OK

Person County

NOx Comparison Table (kg/day)					
Analysis Year	**Model**	**Rural portion**	**Comparison Amount**	**Budget Amount**	
2002		1,837			
2008		1,283	1,283	**1,359**	
2010		1,099	1,099	**1,359**	OK
2017		746	746	791	OK
2020		594	594	791	OK
2030		474	474	791	OK

Wake County

NOx Comparison Table (kg/day)					
Analysis Year	**Model**	**Off-Model (reduction)**	**Comparison Amount**	**Budget Amount**	
2002	81,638	284			
2007	36,429	212	36,218		
2008	**33,415**	**209**	**33,206**	**36,615**	**OK**
2009	30,400	206	30,194	**36,615**	OK
2010	26,739	168	26,571	**36,615**	OK
2012	21,850	197	21,653	**36,615**	**OK**
2015	15,216	240	14,977	**36,615**	OK
2017	**13,263**	**268**	**12,995**	**16,352**	**OK**
2020	10,334	311	10,023	16,352	OK
2030	9,419	276	9,143	16,352	OK

The Burlington Graham MPO Transportation Advisory Committee (TAC), as the decision making body of the Burlington Graham MPO, finds that the FY 2009-15 TIP is a subset of the 2030 LRTP for the Burlington Graham MPO, meets these conditions, and thus conforms to the purpose of the SIP (or base year emissions, in areas where no State Implementation Plan is approved or found adequate by EPA) in accordance with 40 CFR Part 93).

The Capital Area MPO Transportation Advisory Committee (TAC), as the decision making body of the Capital Area MPO, finds that the FY 2009-15 TIP is a subset of the 2030 LRTP for the Capital Area MPO, meets these conditions, and thus conforms to the purpose of the SIP in accordance with 40 CFR Part 93).

The Durham-Chapel Hill-Carrboro MPO Transportation Advisory Committee (TAC), as the decision making body of the Durham-Chapel Hill-Carrboro MPO, finds that the FY 2009-15 TIP is a subset of the 2030 LRTP for the Durham-Chapel Hill-Carrboro MPO, meets these conditions, and thus conforms to the purpose of the SIP in accordance with 40 CFR Part 93.

The North Carolina Department of Transportation, as the decision making body for STIP projects within the Triangle Area Ozone Maintenance Area that are outside of MPO boundaries, finds that rural (donut area) county projects from the FY 2009-15 STIP are consistent with the rural (donut area) projects from the FY 2007-2013 STIP (for the donut area counties of Chatham, Franklin, Granville, Johnston, Orange and Person) that were modeled and found to conform by the USDOT on June 29, 2007.

A copy of 2009-2015 TIP projects is attached to this report (Appendix C).

3.0 Latest Planning Assumptions

The planning assumptions used to develop the Conformity Determination Report are the latest planning assumptions approved by the respective MPOs and NCDOT. Estimates of future population and employment are less than five years old. The vehicle age distribution and fleet mix distributions used as input to the emission model were based on the current data from North Carolina Division of Motor Vehicles. This data is also less than five years old.

4.0 Interagency Consultation

The 2009-15 TIPs have undergone interagency consultation as required in the North Carolina Administrative Code Title 15A Subpart 2D 2002-2003 inclusive. An interagency consultation meeting involving the MPOs, NCDOT, NCDENR, FHWA and USEPA- Region 4 was held on November 29, 2007. A summary of issues raised and responses, along with any written agency comments, are provided in Appendix D. In addition, Conformity Technical Meetings were held on December 14, 2007 and February 15, 2008 and were attended by staff of FHWA, NCDENR, NCDOT, MPO and RPO partners to discuss 2009-15 TIP conformity requirements and timelines.

5.0 Public Involvement

The 2009-15 TIPs were reviewed by the public in accordance with the Public Involvement Policies of

the Capital Area MPO, the Durham-Chapel Hill-Carrboro MPO, the Burlington Graham MPO and the North Carolina Department of Transportation (NCDOT). This report was also made available for public review by the Kerr-Tar Rural Planning Organization, Triangle Area Rural Planning Organization and Upper Coastal Plain Rural Planning Organization. Copies of citizen comments and agency responses to them are attached to this report in Appendix E.

6.0 Findings of Conformity

6.1. The Burlington Graham MPO TAC, as the decision making body of the Burlington Graham MPO, finds that the FY 2009-15 TIP is a subset of the 2030 LRTP for the Burlington Graham MPO Metropolitan Area. The TIP meets the conditions described earlier in this document and thus conforms to the intent of the Clean Air Act and the requirements of 40 CFR §93.

6.2. The Durham-Chapel Hill-Carrboro MPO TAC, as the decision making body of the Durham-Chapel Hill-Carrboro MPO, finds that the FY 2009-15 TIP is a subset of the 2030 LRTP for the Durham-Chapel Hill-Carrboro MPO Metropolitan Area. The TIP meets the conditions described earlier in this document and thus conforms to the intent of the Clean Air Act and the requirements of 40 CFR §93.

6.3. The Capital Area MPO TAC, as the decision making body of the Capital Area MPO, finds that the FY 2009-15 TIP is a subset of the 2030 LRTP for the Capital Area MPO Metropolitan Area. The TIP meets the conditions described earlier in this document and thus conforms to the intent of the Clean Air Act and the requirements of 40 CFR §93.

6.4. The North Carolina Department of Transportation, as the decision making body for STIP projects within the Triangle Area Ozone Maintenance Area that are outside of MPO boundaries, finds that rural (donut area) county projects from the FY 2009-15 STIP are consistent with the rural (donut area) projects from the FY 2007-2013 STIP (for the donut area counties of Chatham, Franklin, Granville, Johnston, Orange and Person) that were modeled and found to conform by the USDOT on June 29, 2007, in accordance with 40 CFR Part 93.

Copies of adopting and endorsing resolutions and conformity findings for 2009-15 TIP projects are attached in Appendix F.

Appendix A: Air Quality Regulations

40 CFR 93.122(g)

(g) *Reliance on previous regional emissions analysis.*

(1) Conformity determinations for a new transportation plan and/or TIP may be demonstrated to satisfy the requirements of §§93.118 ("Motor vehicle emissions budget") or 93.119 ("Interim emissions in areas without motor vehicle emissions budgets") without new regional emissions analysis if the previous regional emissions analysis also applies to the new plan and/or TIP. This requires a demonstration that:

(i) The new plan and/or TIP contain all projects which must be started in the plan and TIP's timeframes in order to achieve the highway and transit system envisioned by the transportation plan;

(ii) All plan and TIP projects which are regionally significant are included in the transportation plan with design concept and scope adequate to determine their contribution to the transportation plan's and/or TIP's regional emissions at the time of the previous conformity determination;

(iii) The design concept and scope of each regionally significant project in the new plan and/or TIP are not significantly different from that described in the previous transportation plan; and

(iv) The previous regional emissions analysis is consistent with the requirements of §§93.118 (including that conformity to all currently applicable budgets is demonstrated) and/or 93.119, as applicable.

(2) A project which is not from a conforming transportation plan and a conforming TIP may be demonstrated to satisfy the requirements of §93.118 or §93.119 without additional regional emissions analysis if allocating funds to the project will not delay the implementation of projects in the transportation plan or TIP which are necessary to achieve the highway and transit system envisioned by the transportation plan, the previous regional emissions analysis is still consistent with the requirements of §93.118 (including that conformity to all currently applicable budgets is demonstrated) and/or §93.119, as applicable, and if the project is either:

(i) Not regionally significant; or

(ii) Included in the conforming transportation plan (even if it is not specifically included in the latest conforming TIP) with design concept and scope adequate to determine its contribution to the transportation plan's regional emissions at the time of the transportation plan's conformity determination, and the design concept and scope of the project is not significantly different from that described in the transportation plan.

(3) A conformity determination that relies on paragraph (g) of this section does not satisfy the frequency requirements of §93.104(b) or (c).

Appendix B: Federal Conformity Finding on Long Range Transportation Plans

The accompanying pages include the conformity finding on the amended 2030 LRTPs from FHWA. For digital versions of this document, the following pdf file contains the conformity letter:

Fhwaletter2007

Appendix C: 2009-2015 Transportation Improvement Program Projects

In printed versions of this report, the accompanying pages include project listings, by MPO, RPO or County. For digital versions of this document, the following pdf files contain the project lists:

C1 Durham-Chapel Hill-Carrboro MPO
C2 Capital Area MPO
C3 Triangle Area RPO (Chatham and Orange Counties)
C4 Kerr Tar RPO (Franklin, Granville and Person Counties)
C5 Johnston County
C6 Burlington-Graham MPO (no projects that add capacity in the Orange County section of the MPO)

For the draft version of this document, pdf files are available for the DCHC MPO (Appendix C1) and the Capital Area MPO (Appendix C2). There are no 2009-15 projects in the portion of Orange County within the Burlington-Graham MPO, although the MPO project list is included for reference. Project listings for areas of counties outside of MPO boundaries are found in the RPO or Division summaries of the draft STIP: Kerr-Tar RPO for Franklin, Granville and Person Counties, Division 4 for Johnston County and TARPO for Chatham and Orange Counties.

Appendix D: Comments from Interagency Consultation meeting

TRIANGLE MAINTENANCE AREA

2009 – 2015 TIP REVIEW
INTERAGENCY CONSULTATION MEETING
NOVEMBER 29, 2007
NCDOT Boardroom

12/4/07 version

Meeting Attendees:

- EPA: Amanetta Wood
- FHWA: Bill Marley, Loretta Barren, Eddie Dancausse Jill Stark
- NCDOT: Dan Thomas, Terry Arellano, Rockne Bryant, Mike Stanley, Atefe Northcutt, Michael Abuya, Linda Dosse, Mike Orr, Andy Bailey, Rick Lakata, Julie Bollinger, Van Argabright, Hemal Shah, Scott Walston, Julie Bollinger, Jonathan Parker, Shannon Ransom, Linh Nguyen, Sarah Smith, Ray McIntyre
- NCDAQ: Heather Hildebrandt
- Winston Salem MPO: Wendy Miller (via phone), Greg Errett (via phone) Fred Haith (via phone)
- High Point MPO: David Hyder
- Greensboro MPO: Lydia McIntyre (via phone)
- Burlington Graham MPO: Mike Nunn (via phone)
- CAMPO: Kenneth Withrow
- DCHC MPO: Ellen Beckman, Andy Henry (via phone)
- MUMPO: Bob Cook, Bob Cook (via phone), Tim Gibbs (via phone), Andy Grzymski (via phone), Joe McLelland (via phone), Barry Mosley (via phone)
- Gaston MPO: Hank Graham (via phone)
- Cabarrus Rowan MPO: Phil Conrad (via phone)
- Hickory MPO: John Tippett (via phone)
- Rocky Mount MPO: Bob League
- FCEAD: Carey Gentry (via phone)
- TJCOG: John Hodges-Copple
- Rocky River RPO: Dana Stoogenke (via phone)
- Lake Norman RPO: Rebecca Yarbrough (via phone)

FHWA Review Comments:

TRIANGLE AREA

DCHC

- **R-2000** *(Durham County STIP)* mileage in STIP is 29 and in LRTP is 0.69. Please explain.
  - The R-2000 mileage in the STIP (29 miles) is for the entire length of the project, while the mileage in the Amended 2030 LRTP (.0.69) is for the portion of the R-2000 project that is in the DCHC MPO planning area (i.e., Durham County).

BG MPO

- No comments

CAMPO

- **R-2814** *(Franklin County STIP)* mileage in STIP is 18.5 and in LRTP is 8.29. Please explain.
  - The 8.29 miles represents projects in the 2030 LRTP (From Ligon Mill Road to Franklin County) that were within the Capital Area MPO jurisdiction at that time. Franklin County at the time of the 2030 LRTP completion was not a member of the Capital Area MPO

- **I-4745** *(Johnston County STIP)* not in LRTP. Please explain.
  - Johnston County was not a member of the Capital Area MPO at the time of completion of the 2030 LRTP.

- **U-3334** *(Johnston County STIP)* not in LRTP. Please explain.
  - Johnston County was not a member of the Capital Area MPO at the time of completion of the 2030 LRTP.

- **R-2000** *(Wake County STIP)* mileage in STIP is 29 and in LRTP is 11. Please explain.
  - The CAMPO LRTP does not list completed projects. The LRTP has project F1a that corresponds to sections F and G of R-2000. Project F4a corresponds to sections AA, AB, and AC of R-2000. As this date, sections F and G of R-2000 are open to traffic.

- **R-2809** *(Wake County STIP)* mileage in STIP is 4.7 and in LRTP is 1.39. Please explain.
  - The draft STIP description includes the length of the whole project (Wake Forest Bypass). As of the completion of the 2030 LRTP, 3.31 miles of the project had been completed. The 1.39 miles of project in the LRTP were not under construction.

- **U-5024** *(Wake County STIP)* not in LRTP. Please explain.
  - Project U-5024 (Green Oaks Parkway in Holly Springs) is an economic development project that is partially being funded using economic development funds from the State of North Carolina. This project is not regionally significant and no Federal funds will be used.

- **U-4901** *(Wake County STIP)* not in LRTP. Please explain.
  - In 2020 HY as segments A12 and A13b

- **R-2257** *(Granville County STIP)* not in LRTP. Please explain.
  - Granville County was not a member of the Capital Area MPO at the time of completion of the 2030 LRTP.

DONUT AREAS

- Chatham
  - No comments
- Franklin
  - No comments
- Granville
  - No comments
- Johnston
  - No comments
- Orange
  - No comments
- Person
  - No comment

Division of Air Quality Comments on the 2009-2015 STIPs

Triangle Area

CAMPO

- I could not find the following projects in the TIP:
  - **U-2908**, NC 54
    - This project was constructed and completed by the Town of Cary.
  - **U-4410**, South Loop Road
    - This project is partially complete in the LRTP. The portion that should have been in the TIP is complete. That is why it is not included in the TIP.
  - **U-4026**, Davis Drive
    - It is in the TIP under page 5-36.
  - **R-2906**, NC 55
    - This project is complete.
  - **R-2907**, NC 55
    - This project is complete.
  - **U-3344**, Airport Blvd
    - It is in the TIP under page 5-34.
  - **R-2641**, I-540 (Eastern)
    - This project is complete.
  - **U-3101**, US 1- 64
    - This project is complete.

- I could not find **U-5024**, Green Oaks Parkway, or **U-4901**, Falls of the Neuse Road, in the plan.
  - Project U-5024 (Green Oaks Parkway in Holly Springs) is an economic development project that is partially being funded using economic development funds from the State

of North Carolina. This project is not regionally significant and no Federal funds will be used.
  - Project U-4901 In 2020 HY as segments A12 and A13b

DCHC

- I could not find the following projects in the TIP:
  - **U-3105**, Garrett Road/ Chapel Hill Road
    - This project is complete
  - **U-2102**, Guess Road
    - This project is complete
  - **U-3853**, Hopson-Page Rd Ext
    - This project is complete
  - **I-2204**, I-40
    - This project is complete
  - **U-2302**, NC 86
    - This project is complete
  - **R-942**, US 15-501
    - This project is complete
  - **U-2808**, Us 70/Miami Blvd/ Mineral
    - This project is complete

  - **U-4410**, Hopson Rd realignment
    - **This project is will be completed in 2008**

- I could not find **I-5104**, I-540/I-40 intersection improvements, in the plan. Construction begins in 2010.
  - I-5104 will be folded into project R-2000. It does not impact the way that R-2000 was modeled for conformity.

- I could not find **U-4763B**, Triangle Parkway, in the plan. Is the part shown on the TIP not in Durham County?
  - This project in the amended LRTP (#66)

- Is the part of **U-2831** in the 2009 horizon year of the plan, the part complete?
  - The part of U-2831 in the LRTP is complete

Burlington Graham MPO

- No Comments

Donuts

- No comments for Person County.
- No comments for Orange County.
- No comments for Chatham County.
- No comments for Franklin County.
- No comments for Granville County.

- No comments for Johnston County.

EPA Comments for 09-15 TIP

Overall Comments

- Provide more description in future to determine if bridge projects are exempt or not. Any change for capacity would make the project nonexempt. For future descriptions, please provide existing and proposed lanes and the length for the bridge projects.
    - EPA is recommending that this be done for future LRTP updates/conformity determinations. FHWA will set up a conference call with EPA and NCDOT to discuss the details of this request and how it can be implemented.
    - In NC Federal Bridge Replacement does not allow for increased capacity. For additional capacity it will have a different project number associated with it.
- Recommend complete listing of exempt projects and enough information for IAC to make a determination on whether this project is truly exempt per the transportation conformity rule. In the exempt listing it would be helpful for the projects to be categorized as exempt per 93.126, 93.127 or 93.128 of the transportation conformity rule.
    - EPA is recommending that this be done for future LRTP updates/conformity determinations. FHWA will set up a conference call with EPA and NCDOT to discuss the details of this request and how it can be implemented.
- For multi-county projects it is going to be even more important when subarea budgets are available to account for the portion of the project in a particular county in that particular county's regional emissions. This will mean that more detail on what the terminus for the projects are based on the county and not the entire project.
    - EPA is recommending that this be done for future LRTP updates/conformity determinations. FHWA will set up a conference call with EPA and NCDOT to discuss the details of this request and how it can be implemented.
- Our recommendation for donut county projects in the future will be to have a listing of projects in the donut area that were considered in the regional emissions analysis for the LRTP adoptions so that subsequently we can compare these projects for future conformity determinations. For projects in LRTP it is easier to find the legacy listing.
    - EPA is recommending that this be done for future LRTP updates/conformity determinations. FHWA will set up a conference call with EPA and NCDOT to discuss the details of this request and how it can be implemented.
- For donut areas it is highly recommend an addendum table which provides complete project description (i.e., number of existing versus proposed lanes; terminus; whether the project is exempt; whether the project is regionally significant; and year for which the projects were considered open-to-traffic for the purpose of the regional emissions analysis.
    - EPA is recommending that this be done for future LRTP updates/conformity determinations. FHWA will set up a conference call with EPA and NCDOT to discuss the details of this request and how it can be implemented.

TRIANGLE AREA

DURHAM

- Could not find **U-4763B** in Durham County in the LRTP. Please Explain.
    - This project is in the amended LRTP (#66)

CHATHAM

- No comments

ORANGE

- No comments

WAKE

- Could not find **U-5024** in Wake County in the LRTP. Please Explain.
    - Project U-5024 (Green Oaks Parkway in Holly Springs) is an economic development project that is partially being funded using economic development funds from the State of North Carolina. This project is not regionally significant and no Federal funds will be used.
- Could not find **U-4901** in Wake County in the LRTP. Please Explain.
    - Project U-4901 In 2020 HY as segments A12 and A13b
- For project R-2000 in Wake County, please explain why the TIP has the project listed as 29 miles whereas the LRTP has it listed as 11.
    - The CAMPO LRTP does not list completed projects. The LRTP has project F1a that corresponds to sections F and G of R-2000. Project F4a corresponds to sections AA, AB, and AC of R-2000. As this date, sections F and G of R-2000 are open to traffic.
- For project **R-2814** in Wake County, please explain why the TIP has the project listed as 18.5 miles whereas the LRTP has it listed as 8.
    - The 8.29 miles represents projects in the 2030 LRTP (From Ligon Mill Road to Franklin County) that were within the Capital Area MPO jurisdiction at that time. Franklin County at the time of the 2030 LRTP completion was not a member of the Capital Area MPO

JOHNSTON

- Could not find **I-4754** in Johnston County in the LRTP. Please Explain.
    - This project is in Johnston County outside of the MPO boundary.
- Could not find **U-3334** in Johnston County in the LRTP. Please Explain.
    - Johnston County was not a member of the Capital Area MPO at the time of completion of the 2030 LRTP.

GRANVILLE

- No comments

FRANKLIN

- No comments

Appendix E: Comments and Responses from Public Involvement Process

[NOTE: Appendix E will be included in the Final Report.]

Appendix F: TIP Adoption and Conformity Resolutions

Appendix F includes TIP adoption/endorsement and conformity finding resolutions for applicable MPOs (adoption), RPOs (endorsement) and the NCDOT (conformity findings for rural counties, since TIP adoption has already occurred).

For digital versions of this document, the following pdf files contain these actions:

F1 Burlington-Graham MPO 2009-15 TIP adoption
F2 Burlington-Graham MPO 2009-15 TIP conformity finding
F3 Durham-Chapel Hill-Carrboro MPO 2009-15 TIP adoption
F4 Durham-Chapel Hill-Carrboro MPO 2009-15 TIP conformity finding
F5 Capital Area MPO 2009-15 TIP adoption
F6 Capital Area MPO 2009-15 TIP conformity finding
F7 NCDOT Chatham County (rural portion) 2009-15 TIP conformity finding
F8 NCDOT Franklin County 2009-15 TIP conformity finding
F9 NCDOT Granville County 2009-15 TIP conformity finding
F10 NCDOT Johnston County 2009-15 TIP conformity finding
F11 NCDOT Orange County (rural portion) 2009-15 TIP conformity finding
F12 NCDOT Person County 2009-15 TIP conformity finding
F13 Kerr-Tar RPO 2009-15 TIP conformity endorsement
F14 Upper Coastal Plain RPO 2009-15 TIP conformity endorsement
F15 Triangle Area RPO 2009-15 TIP conformity endorsement

[NOTE: this appendix will be included in the final report]

Appendix G: Public Notifications

Appendix G includes public notifications of the draft TIP. [NOTE: this appendix to be added in the final report]

For digital versions of this document, the following files contain these actions:

G1 Burlington-Graham MPO 2009-15 TIP notification
G2 Durham-Chapel Hill-Carrboro MPO 2009-15 TIP notification
G3 Capital Area MPO 2009-15 notification

Appendix H: Motor Vehicle Emission Budgets

Appendix H includes a copy of the Federal Register Notice for the Motor Vehicle Emission Budgets promulgated on December 26, 2007.

Appendix I: Motor Vehicle Emission Budgets

Appendix I includes comparisons between the emissions generated by the transportation network in each county for each analysis year and the Motor Vehicle Emission Budgets promulgated on December 26, 2007.

Chatham County

Analysis Year	Model	Off-Model	Comparison Amount	Budget Amount	
2002	1,783	0			
2008	**1,387**	**0**	**1,387**	**1,565**	**OK**
2010	1,255	0	1,255	1,565	OK
2017	**799**	**0**	**799**	**948**	**OK**
2020	603	0	603	948	OK
2030	448	0	448	948	OK

Durham County

NOx Comparison Table (kg/day)					
Analysis Year	Model	Off-Model (reduction)	Comparison Amount	Budget Amount	
2002	18,938	73			
2007	13,081	72	13,009		
2008	**11,913**	**72**	**11,841**	**13,106**	**OK**
2009	10,744	71	10,673	13,106	OK
2010	9,470	71	9,399	13,106	OK
2012	7,439	64	7,375	13,106	OK
2015	5,097	53	5,045	13,106	OK
2017	**4,371**	**45**	4,326	**4,960**	**OK**
2020	3,282	34	3,248	**4,960**	OK
2030	2,750	34	2,716	**4,960**	OK

Franklin County

NOx Comparison Table (kg/day)					
Analysis Year	Model	Rural portion	Total County	Budget Amount	
2002	619	2,524	3,143		
2008	455	1,578	2,033	2,048	OK
2010	400	1,263	1,663	2,048	OK
2017	271	755	1,026	1,139	OK
2020	216	538	754	1,139	OK
2030	178	359	537	1,139	OK

Johnston County

NOx Comparison Table (kg/day)					
Analysis Year	Model	Rural portion	Comparison Amount	Budget Amount	
2002		12,534			
2008		10,658	10,658	**12,583**	
2010		10,032	10,032	**12,583**	OK
2017		5,724	5,724	5,958	OK
2020		3,877	3,877	5,958	OK
2030		2,347	2,347	5,958	OK

Granville County

NOx Comparison Table (kg/day)					
Analysis Year	**Model**	**Rural portion**	**Comparison Amount**	**Budget Amount**	
2002	207	4,414			
2008	138	2,472	2,610	**4,649**	
2010	115	1,825	1,940	**4,649**	OK
2017	70	925	995	1,714	OK
2020	51	539	590	1,714	OK
2030	47	383	430	1,714	OK

Orange County

NOx Comparison Table (kg/day)					
Analysis Year	**Model**	**Off-Model**	**Comparison Amount**	**Budget Amount**	
2002	14,391	0			
2008	**8,967**	**0**	**8,967**	**9,933**	**OK**
2010	7,159	0	7,159	9,933	OK
2017	**3,578**	**0**	**3,578**	**3,742**	**OK**
2020	2,043	0	2,043	3,742	OK
2030	1,382	0	1,382	3,742	OK

Person County

NOx Comparison Table (kg/day)					
Analysis Year	**Model**	**Rural portion**	**Comparison Amount**	**Budget Amount**	
2002		1,837			
2008		1,283	1,283	**1,359**	
2010		1,099	1,099	**1,359**	OK
2017		746	746	791	OK
2020		594	594	791	OK
2030		474	474	791	OK

Wake County

NOx Comparison Table (kg/day)					
Analysis Year	**Model**	**Off-Model (reduction)**	**Comparison Amount**	**Budget Amount**	
2002	81,638	284			
2007	36,429	212	36,218		
2008	**33,415**	**209**	**33,206**	**36,615**	**OK**
2009	30,400	206	30,194	**36,615**	OK
2010	26,739	168	26,571	**36,615**	OK
2012	21,850	197	21,653	**36,615**	**OK**
2015	15,216	240	14,977	**36,615**	OK
2017	**13,263**	**268**	**12,995**	**16,352**	**OK**
2020	10,334	311	10,023	16,352	OK
2030	9,419	276	9,143	16,352	OK

RESOLUTION FINDING THE DURHAM-CHAPEL HILL-CARRBORO (DCHC) METROPOLITIAN TRANSPORTATION IMPROVEMENT PROGRAM FOR FY 2009-2015 IN CONFORMITY WITH THE NORTH CAROLINA STATE IMPLEMENTATION PLAN (SIP) OR INTERIM EMISSIONS TESTS IN AREAS WHERE NO SIP HAS BEEN APPROVED OR FOUND ADEQUATE

A motion was made by _____and seconded by _____ for adoption of the following resolution, and upon being put to a vote was duly adopted.

WHEREAS, the Transportation Advisory Committee is the duly recognized transportation decision making body for the 3-C transportation planning process (i.e., continuous, cooperative, and comprehensive) of the Durham–Chapel Hill–Carrboro Metropolitan Planning Organization; and

WHEREAS, the United States Environmental Protection Agency redesignated Durham County as a maintenance area for ozone on December 26, 2007 and redesignated Durham County as a maintenance area for carbon monoxide on September 18, 1995; and

WHEREAS, the Durham–Chapel Hill–Carrboro Metropolitan Planning Organization's amended 2030 long range transportation plan conforms to the intent of the North Carolina State Implementation Plan (or interim emissions tests in areas where no SIP has been approved or found adequate); and

WHEREAS, that conformity determination used the latest planning assumptions approved by the Durham–Chapel Hill–Carrboro Metropolitan Planning Organization; and

WHEREAS, that conformity determination used the latest emissions model approved by the United States Environmental Protection Agency; and

WHEREAS, there are no transportation control measures listed in North Carolina's State Implementation Plan; and

WHEREAS, that conformity determination was made according to the established interagency consultation procedures for North Carolina; and

WHEREAS, the programs and projects included in the Durham-Chapel Hill-Carrboro Metropolitan Transportation Improvement Program for FY 2009-2015 are financially constrained in accordance with State and Federal law; and

WHEREAS, the programs are projects included in the Durham–Chapel Hill–Carrboro Metropolitan Transportation Improvement Program for FY 2009- 2015 are a direct subset of the amended 2030 Long Range Transportation Plan.

NOW THEREFORE, be it resolved that the Durham–Chapel Hill–Carrboro Metropolitan Transportation Improvement Program for FY 2009-2015 conforms to the intent of the North Carolina State Implementation Plan (or interim emissions tests in areas where no SIP has been approved or found adequate) in accordance with the clean Air Act as Amended, on this the 13th day of August, 2008.

TAC Chair

STATE of: North Carolina
COUNTY of: _____

I,_____, a Notary Public of _____ County, North Carolina do hereby certify that _____ personally appeared before me on the 13th day of August, 2008 to affix her signature to the foregoing document.

Notary Public for the State of NC
Residing at: _____
My commission expires _____

(Seal)

MEMORANDUM

TO: Transportation Advisory Committee
DCHC MPO

FROM: DCHC MPO Lead Planning Agency

DATE: August 13, 2008

SUBJECT: Triangle Regional Model Version TCV4-2008

The Triangle Regional Model version TCV4-2008 has been released to the stakeholders for review since January of 2008. This version is the result of a three-year effort undertaken by the Triangle Regional Model Service Bureau at ITRE, in partnership with NCDOT, Triangle Transit, CAMPO and DCHC MPO.

The Triangle Regional Model version TCV4-2008 is updated and recalibrated from the 2004 TransCAD model, using the 2005 population and employment data , traffic count data, highway and transit network information, and the 2006 household survey and transit on-board survey data. This model utilizes the new travel behavior-oriented modeling techniques and greatly improves highway and transit assignments over the previous TranPlan and TransCAD models. The major model improvements are summarized as:

1. A household stratification model is applied for trip generation vs. the old cross classifications model, and trip frequency choice is based on individual behavior vs. the old zonal aggregated average;
2. A destination choice model is used for trip distribution instead of the gravity model;
3. A more sophisticated mode choice model – 3-tier nested logit structure replaces the old 2-tier structure;
4. The TTA New Start model is recalibrated with the improved kiss and ride approach, average transit fares and asserted constants, and
5. HOV/HOT toll features are tested and added for the MPO long range plan updates.

The Triangle Regional Model version TCV4-2008 meets the validation measures and targets recommended by FHWA's validation manual. The overall model performance measures in version TCV4-2008 are better than the previous model. In the tables on the following pages, the performance of the latest version of the model, TCV4-2008, is shown in calibration year 2005. For comparison, performance data for older versions of the model are shown in calibration years 2002 and 1995. In Table 1, the modeled volumes at the screenlines meet the targets for the percent deviation from the observed Average Daily Traffic (ADT) for nine of twelve screenlines. In Table 2, the modeled volumes by facility type meet the targets for percent deviation from the observed for all facility types. In Table 3, the modeled volumes by volume group meet the targets for percent deviation from the observed for all but the lowest volume roads. In Tables 4 and 5, the root mean square errors for traffic volumes also meet the targets except for the

lowest volume roads. In Table 6, the percent deviation for transit ridership is greatly improved for all transit systems.

In January of 2008 the Model Executive Committee recommended all signatory agencies approve the new Triangle Regional Model upon completion of the MTIP 2009-2015 conformity analysis. Upon adoption, the DCHC MPO can use the most updated model for its 2035 Long Range Transportation Plan update and the air quality conformity analysis.

TAC Action: Approve a resolution adopting the Triangle Regional Model version TCV4-2008 (Attachment 8A) and send a letter to the Triangle Model Service Bureau (Attachment 8B).

Table 1: Screenline Volume/ Count Comparsion

			TCV V4-2008	Older TRM Versions		
Screenlines	2005 Model	2005 ADT	2005 Model	2002 Model	1995 model	Target
	Volume	Count	% Deviation	% Deviation	% Deviation	% Deviation
SW Durham	166,667	143,280	16%	11%	-4%	+/- 10%
Durham	470,965	451,800	4%	-9%	7%	+/- 10%
North Durham	296,051	295,840	0%	-17%	-11%	+/- 10%
Johnston Co.	210,951	186,890	13%	6%	-15%	+/- 10%
Chatham Co.	28,588	28,000	2%	-25%	-17%	+/- 10%
I-40	942,884	903,250	4%	0%	0%	+/- 10%
N. Raleigh	481,781	458,900	5%	-4%	-9%	+/- 10%
East Wake	176,538	189,190	-7%	-5%	-2%	+/- 10%
US 1 South	203,601	219,380	-7%	8%	-4%	+/- 10%
Wake/Durham Co. Line	411,156	438,290	-6%	-4%	-3%	+/- 10%
North Wake	105,508	105,600	0%	2%	7%	+/- 10%
US 70	130,487	151,500	-14%	-12%	2%	+/- 10%

Table 2: Percent Difference for Daily Traffic Volumes by Facility Type

	TCV V4-2008	Older TRM Versions		
Facility Type	2005 Model	2002 Model	1995 Model	Target
	% Deviation	% Deviation	% Deviation	% Deviation
Freeway	-2%	3%	10%	+/- 7%
Major Arterial	4%	-11%	-5%	+/- 10%
Minor Arterial	-2%	-11%	-5%	+/- 15%
Collector	-5%	3%	-5%	+/- 25%
Locals	-1%	-9%	-17%	+/- 25%

Table 3: Percent Difference for Daily Traffic Volumes by Volume Group

	TCV V4-2008	Older TRM Versions		
Volume Group	2005 Model	2002 Model	1995 Model	Target
	% Deviation	% Deviation	% Deviation	% Deviation
> 50, 000	-7%	-9%	-8%	+/- 10%
25,000 - 50,000	-1%	1%	-5%	+/- 15%
10,000 - 25,000	-2%	-14%	1%	+/- 20%
5,000 - 10,000	4%	0	3%	+/- 25%
2,500 - 5,000	-2%	2%	2%	+/- 30%
1,000 - 2,500	31%	-9%	-10%	+/- 50%
< 1,000	128%	40%	-11%	+/- 55%
All Groups	**-1%**	**-5%**	**-3%**	**+/- 5%**

Table 4: Validation Root Mean Square Error (RMSE) Summary

				TCV V4-2008	Older TRM Versions		
Federal Functional Class	# of Counts 2005	Traffic Count Average 2005	Modeled Volume 2005	%RMSE 2005	%RMSE 2002	%RMSE 1995	%RMSE Target
Freeway	137	34,389	33,761	13%	0	27%	N/A
Principal Arterial	264	19,225	19,994	27%	0	40%	N/A
Minor Arterial	266	14,572	14,221	29%			N/A
Collector	352	6,143	5,854	48%	1	61%	N/A
Local	288	4,270	4,241	51%	1	83%	N/A
All Roads	**1,307**	**13,049**	**12,983**	**29%**	**45%**	**47%**	**32% ~39%**

N/A = no federal guidance exists regarding targets for these functional classes

Table 5: Validation Root Mean Square Error Summary by Volume Group

				TCV V4-2008	Older TRM Versions		
Volume Group	# of Counts 2005	Traffic Count Average 2005	Modeled Volume 2005	%RMSE 2005	%RMSE 2002	%RMSE 1995	%RMSE Target
≥ 25,001	178	38,739	37,681	15%	23%	13%	20% ~ 25%
10,001 - 25,000	404	16,957	16,693	25%	31%	38%	25% ~ 35%
5,001 - 10,000	295	7,504	7,767	47%	51%	41%	35% ~45%
2,501 - 5,000	207	3,715	3,629	61%	63%	63%	45% ~ 55%
1,001 - 2,500	156	1,792	2,354	102%	80%	69%	N/A
1 - 1,000	68	697	1,590	328%	116%	69%	N/A
All Groups	**1,307**	**11,567**	**11,619**	**29%**	**45%**	**47%**	**32% ~39%**

N/A = no federal guidance exists regarding targets for these volume groups

Table 6: Transit Ridership

			TCV V4-2008	Older TRM Versions	
Transit Operator	Observed Ridership 2005	Modeled Daily Ridership TRM 2005	% Deviation 2005	% Deviation 2002	% Deviation 1995
TTA	3,272	3,391	3.6%	135%	103%
CAT	12,911	12,832	-0.6%	5%	20%
CHT	27,209	29,804	9.5%	-30%	15%
DATA	13,514	13,467	-0.3%	-18%	-34%
NCSU	11,313	12,758	12.8%		
Duke	13,211	9,334	-29.3%		
Total	**81,430**	**81,587**	**0.2%**	**-9.30%**	**5%**

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION
(DCHC MPO)

RESOLUTION ADOPTING TRM V4-2008 AS THE OFFICIAL TRIANGLE REGIONAL MODEL

WHEREAS, The Triangle Regional Model Executive Committee at its April 22, 2008 meeting voted to recommend adopting the new TransCAD model; which is recognized as "TRM V4-2008"; and

WHEREAS, The Triangle Regional Model Protocol requires the official Triangle Regional Model to be adopted by the signatories to the agreement as needed for new versions of the model but not more than every six months; and

WHEREAS, the signatories through their individual approval processes officially adopt the model by letter to the Triangle Regional Model Service Bureau; and

WHEREAS, the DCHC MPO Transportation Advisory Committee at its meeting on August 13, 2008, endorsed the Triangle Regional Model TRM V4-2008 as the current official model for urban travel demand forecasting to be used as appropriate as the basis for transportation studies and related analyses; and

NOW THEREFORE, BE IT RESOLVED by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) Transportation Advisory Committee (TAC) that the Program Manager for the Triangle Regional Model Services Bureau proceed to use Triangle Regional Model TRM V4-2008 as a tool to provide appropriate transportation analyses necessary for improving the region's transportation infrastructure and land use planning.

_____	_____
Alice Gordon, PhD, Chair	Mark Ahrendsen, Chair
Transportation Advisory Committee	Technical Coordinating Committee

County of Durham
State of North Carolina

I, _____, a Notary Public for _____ County, North Carolina, do hereby certify that on this 13th day of August, 2008, personally appeared before Alice Gordon and acknowledged the due execution of the foregoing Resolution to adopt the Triangle Regional Model TRM V4-2008.

Witness my hand and official seal, this the 13th day of August, 2008.

(Official Seal)

_____
Notary Public

My commission expires _____.

DCHC

DURHAM • CHAPEL HILL • CARRBORO METROPOLITAN PLANNING ORGANIZATION

Member Governments
Town of Carrboro
Town of Chapel Hill
County of Chatham
City of Durham
County of Durham
Town of Hillsborough
NC Department of Transportation
County of Orange

August 13, 2008

Mr. Joe Huegy
Program Manager
Triangle Regional Model Service Bureau
Institute for Transportation Research and Education
North Carolina State University
Centennial Campus Box 8601
Raleigh, NC 27695-8601

Re: Letter Adopting the Triangle Region Model (TRM V4-2008)

Dear Mr. Huegy,

The Triangle Regional Model Executive Committee at its April 22, 2008 meeting voted to recommend adopting the new TransCAD model; which is recognized as "TRM V4-2008". The Triangle Regional Model Protocol states, "The official Triangle Regional Model shall be adopted by the signatories to this agreement as needed for new versions of the model but not more than every six months. The signatories through their individual approval processes officially adopt the model by letter to the Triangle Regional Model Service Bureau".

At its meeting on August 13, 2008, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) Transportation Advisory Committee (TAC) endorsed the Triangle Regional Model TRM V4-2008 as the current official model for urban travel demand forecasting to be used as appropriate as the basis for transportation studies and other technical analyses. This letter and accompanying resolution is provided to serve as documentation of the DCHC MPO approval.

On behalf of the DCHC MPO, we thank you and all the staff who work in the Triangle Regional Model Service Bureau. Should you have questions or comments, or need additional information or assistance, please contact Felix Nwoko.

Sincerely,

Alice Gordon, PhD
Chair, Transportation Advisory Committee

Enclosure

City of Durham ▪ Department of Transportation ▪ 101 City Hall Plaza ▪ Durham, North Carolina 27701 ▪ (919) 560-4366 ▪ Facsimile (919) 560-4561

MEMORANDUM

TO: Transportation Advisory Committee
DCHC MPO

FROM: DCHC MPO Lead Planning Agency

DATE: August 13, 2008

SUBJECT: FY 2011-2017 Transportation Improvement Program – Regional Priority List – Ranking Methodology

NCDOT is back on a two year cycle for the development of the Transportation Improvement Program (TIP). In order to provide input on the development of the draft FY 2011-2017 State TIP which will be released in spring 2009, the DCHC MPO needs to begin development of its Regional Priority List. The Regional Priority List is the document that communicates the MPO's priorities for the funding of transportation projects. NCDOT has requested that the MPOs provide Regional Priority Lists for the FY 2011-2017 TIP by December 31, 2008. See Attachment 9A for a detailed schedule for the development of the DCHC MPO's Regional Priority List.

The Ranking Methodology is used to create the MPO's Regional Priority List. The Ranking Methodology uses quantitative data to assess the relative necessity and merits of transportation projects. The results of the Ranking Methodology will form the basis of the Regional Priority List. The Ranking Methodology uses project data that is easy to compile and compare for a large number of varied projects. While the methodology is intended to be comprehensive and fair, it is difficult to include all relevant information. In addition, some project information is difficult to quantify. As a result, the TAC is encouraged to use the results of the Ranking Methodology as the starting point for the final Regional Priority List. The TAC will have the opportunity to reorder projects to account for factors that are not included in the methodology.

The TCC and TCC subcommittee have reviewed the Ranking Methodology used for the FY 2009-2015 TIP Regional Priority List. The TCC recommends making some clarifications and changes to this methodology. Attachment 9B is the TCC's recommended ranking methodology. Differences between the FY 2009-2015 TIP Ranking Methodology and the proposed FY 2011-2017 TIP Ranking Methodology are described below and are highlighted in Attachment 9B.

Differences between the FY 2009-2015 TIP Ranking Methodology and the FY 2011-2017 TIP Ranking Methodology

Highway

No significant changes were made to the highway project Ranking Methodology. In some point categories, the written procedures for providing project data were clarified to ensure consistent application by all local jurisdictions.

Bicycle / Pedestrian

Traffic Volume – The point categories were changed from Federal Functional Classification facility types to traffic volumes. This better accounts for the actual traffic on roadways since there are some "local" roads that carry significant traffic volumes.

Right-of-Way Availability – The written procedures for providing project data were clarified to include review of the NCDOT right-of-way database.

Travel Demand from Local Land Uses - The written procedures for providing project data were clarified to ensure consistent application by all local jurisdictions.

Local Connectivity to Existing Bicycle and Pedestrian Facilities – No changes were made.

Regional Connectivity – This is a new point category added in response to TAC comments. This category awards points to bicycle projects that are part of or connect to regional routes as recognized in the 1992 Regional Bicycle Plan. This category also awards points to pedestrian projects that connect to regional transit routes. The LPA will be requesting public feedback on regional bicycle routes as part of the 2035 LRTP process. Project points will be reevaluated based on the result of this process in fall 2008.

Environmental Impacts - The written procedures for providing project data were clarified to ensure consistent application by all local jurisdictions.

Community Impacts - The written procedures for providing project data were clarified to ensure consistent application by all local jurisdictions.

Environmental Justice Impacts - The written procedures for providing project data were clarified to ensure consistent application by all local jurisdictions.

Funding Status – No changes were made.

Transit

While the transit project Ranking Methodology for the FY 2009-2015 TIP was easy to use, it did not provide for enough differentiation between projects and the resulting list did not reflect the MPO's transit priorities. The TCC recommends making significant changes to the transit methodology.

Year Needed – This is a new point category. The year requested reflects the transit agency's perceived urgency of the project. For many transit projects this is the most critical piece of information about the project. This category is weighted double and has a higher maximum point level than the other point categories.

Service Type – This is a new point category that replaces the Essential Services category used last time. Last time projects received the maximum points if it was a project needed to maintain the current level of transit service (i.e. replacement buses and operating and maintenance expenses). Other projects received zero points. The new point category still

awards the maximum points for these essential services, but now awards some points to other projects. Projects that expand transit capacity receive three points and projects that enhance transit services receive two points.

Annual Ridership – This is a new point category that replaces two categories, Expansion of Existing Routes and Enhancement of Existing Service or New Service. These two categories were designed to award points based on the ridership on existing or future routes or the number of riders benefited by a service enhancement. These two categories did not work well because they did not apply to all projects and were partially redundant. The new point category is intended to award points based on a comparison of the number of riders that benefit from the proposed project on an annual basis. This includes both existing riders and projected new riders. The method for estimating riders varies by project type.

Regional Connectivity - The written procedures for providing project data were clarified to ensure consistent application by all local jurisdictions.

Environmental Impacts - The written procedures for providing project data were clarified to ensure consistent application by all local jurisdictions.

Community Impacts - The written procedures for providing project data were clarified to ensure consistent application by all local jurisdictions.

Environmental Justice Impacts – This is a new point category for the transit Ranking Methodology. This was added to be consistent with the other modes.

Funding Status – No changes were made.

TAC Action: Approve the FY 2011-2017 Transportation Improvement Program Regional Priority List Ranking Methodology (Attachment 9B).

Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO)

Development Schedule

FY 2011-2017 Metropolitan Transportation Improvement Program

Due Date	Task
July-August 2008	TCC Subcommittee develops Regional Priority List Ranking Methodology
23-July-2008	TCC recommends Regional Priority List Ranking Methodology
13-Aug-2008	**TAC approves the Regional Priority List Ranking Methodology**
August - September 2008	Jurisdictions develop local priority lists
1-Oct-2008	TCC receives local priority lists from member jurisdictions/agencies with application of the Ranking Methodology
October 2008	Development of the Draft Regional Priority List
22-Oct-2008	TCC recommends Draft Regional Priority List.
12-Nov-2008	**TAC releases Draft Regional Priority List for a minimum 21-day public comment period**
November – December 2008	Local jurisdictions offer comments on the Regional Priority List
10-Dec-2008	**TAC holds a Public Hearing on Draft Regional Priority List. TAC may approve the Final Regional Priority List.**
17-Dec-2008	TCC considers TAC comments, public comments and input from local governments on the Regional Priority List. TCC makes recommendations as needed.
14-Jan-2008	**TAC approves Final Regional Priority List**
31-Dec-2008	**NCDOT deadline for Regional Priority Lists (NCDOT has given the DCHC MPO permission to approve in January if necessary.)**
January-March 2009	NCDOT holds Statewide public comment and One-on-One project priority review session with the MPO
TBD (spring 2009)	**NCDOT releases Draft 2011-2017 State Transportation Improvement Program (STIP)**

DURHAM-CHAPEL HILL-CARRBORO MPO
DRAFT
METHODOLOGY FOR RANKING
METROPOLITAN TRANSPORATION IMPROVEMENT PROGRAM
PRIORITY PROJECT REQUESTS (FY 2011-2017)

INTRODUCTION

The purpose of the Regional Priority List is to facilitate determination of the region's project priorities to be used in development of a fiscally constrained Transportation Improvement Program (TIP). SAFETEA-LU calls for a TIP development process that documents a methodology for ranking project requests, reflects local and metropolitan goals, and addresses mobility, environmental and air quality goals.

OBJECTIVE

The methodology outlined below is designed to address multi-modal transportation needs and to ensure regional balance through the use of specific technical criteria. The Technical Coordinating Committee (TCC) will use the methodology to develop a draft Regional Priority List. This draft Priority List is to be used as a starting point or a reference base by the Transportation Advisory Committee (TAC) for the approval of a final Regional Priority List.

The TAC may reorder projects at its discretion to promote jurisdictional and geographical balance, or based upon the TAC members' knowledge of the urban area and the policies of their communities. Therefore, the TCC will make its technical recommendation on a draft Priority List based on the methodology described in this document, and the TAC will then be afforded the opportunity to make any changes it deems appropriate.

METHODOLOGY GOALS

- Produce a program of projects (or project priorities) which satisfies MPO, local and state goals, and addresses SAFETEA-LU policies of system preservation, operational efficiency in the movement of people and goods, multi/inter-modalism, and air quality mandates.

- Be simple enough for project-level analysis without requiring unnecessary data collection.

- Be understandable by the general public.

PROCEDURE FOR RANKING PROJECTS

1. Goal Setting For Regional Priority List

Since the Regional Priority List should be a subset of the DCHC MPO Long Range Transportation Plan (LRTP), the goals for the regional priority list are the same as the DCHC MPO goals and objectives in the 2035 LRTP.

2. Submission of Local Priority Lists

All MPO member jurisdictions and Triangle Transit will submit a local priority list to the MPO. The DCHC MPO requests that the local jurisdictions apply screening criteria during the development of these lists. The screening criteria are:

a. Regional Goals - How well does the project meet the adopted regional goals? Is the project an element of the current long-range plan? Does it implement community objectives (for the intrastate system, does it meet NCDOT mobility objectives)? Does the project have a broad base of local support?

b. Cost Effectiveness - How much benefit does the project offer compared to the estimated cost?

c. Timing Factor – Is the project needed within the TIP funding cycle? Is timing a critical element for the project (one-time opportunity)? Will the opportunity to do the project be lost if it is not in the current priority cycle?

Local jurisdictions may also elect to use the ranking methodology to create their local priority lists but are not required to do so. The TCC will review local priority lists for adherence to these screening criteria before applying the ranking methodology.

Local jurisdictions shall provide the DCHC MPO a list of projects in priority order. The list may be grouped by mode (highway, transit, bicycle and pedestrian), but does not need to be. The local jurisdictions shall provide a short description of the project, including the project limits, name, mileage, and cost. The description should note any essential elements of the project such as bike lanes, sidewalks, transit accommodations, vehicle types, etc. Local jurisdictions are also asked to gather information about their projects and apply the ranking methodology by using the input spreadsheet.

3. Development of the Regional Priority List

DCHC MPO staff will combine the local priority lists into a regional priority list by mode and complete the application of the ranking methodology. Projects will be listed in order of the points on the draft regional priority list. This draft list will be presented at a TCC meeting. The TCC first examines the consistency in which local jurisdictions have responded to the screening criteria and applied the methodology. If the methodology is not applied consistently, the TCC can agree to change some responses for consistency among all projects. The draft Regional Priority List is then forwarded to the TAC, as the TCC's recommended project priorities for the urban area.

The TAC will release the draft list for public comment and hold a public hearing at a TAC meeting. The TAC may reorder projects at its discretion to promote jurisdictional and geographical balance, or based upon the TAC members' knowledge of the urban area and the policies of their communities. After review and public comment, the TAC will approve the final Regional Priority List and forward this to NCDOT.

The TCC and TAC may also develop a combined mode comprehensive Regional Priority List. This list would be based on policy priorities, not the ranking methodology because the points are not comparable across different modes.

APPLICATION OF THE METHODOLOGY

1. There are three separate ranking methodologies based on the primary mode of transportation: 1) highway; 2) bicycle and pedestrian; and 3) transit. ITS, TSM, and TDM projects would be included in whichever mode best fits the specific project. The three ranking methodologies are independent of each other. Points for different modes are on different scales and are not comparable.

2. Points are weighted and totaled for each project using the three modal ranking methodologies outlined on the last pages of this document.

3. Projects are listed in order of points. Projects receiving the same number of points are ordered by the local ranking. If the local ranking is also the same (for example, Orange County-1 vs. Chapel Hill-1), then the project with the most additional local rankings will be ranked higher. If the projects also have the same number of additional local rankings, then the project with the highest additional local ranking will be ranked higher.

MODAL RANKING METHODOLOGIES IN DETAIL

Highway

All seven point categories are weighted equally. A maximum of four points can be received for each point category.

1. *Travel Demand* - This category awards points to projects based on the level of travel demand. For road projects, travel demand is measured by the volume to capacity (V/C) ratio based on the 2035 socio-economic data on the existing plus committed network. For new road facilities in which traffic counts are not available, volumes on a parallel existing facility may be used. Projects must have a V/C ratio of at least 0.80 to receive points. All projects with a V/C greater than 0.80 will be divided equally into four quartiles based on V/C ratio. Assigning points by quartile will ensure that points are distributed evenly and that projects are compared relative to each other. Traffic signal systems, Intelligent Transportation Systems (ITS), and Transportation Demand Management (TDM) projects receive four points because these projects reduce congestion system-wide.

   Local jurisdictions are asked to provide the V/C ratio for their local priorities. MPO staff will divide the projects into quartiles and award points.

2. *Safety (Crashes/100 Million Vehicle Miles)* - Safety points are awarded to projects with reported crash rates significantly greater than statewide averages for urban road segments – the statewide average is 330 to 370 crashes per 100 million vehicle miles (or, 330-370 CRASHES/100 MVM). Projects must have a crash rate of at least 300 CRASHES/100 MVM to receive points. All projects with a crash rate of at least 300 ACC/100 MVM will be divided equally into four quartiles based on crash rate. Assigning points by quartile will ensure that points are distributed evenly and that projects are compared relative to each other. Traffic signal systems, Intelligent Transportation Systems (ITS), and Transportation Demand Management (TDM) projects receive four points because these projects improve safety system-wide.

   Local jurisdictions are asked to provide the crash rate for their local priorities using the NCDOT database. MPO staff will divide the projects into quartiles and award points.

3. *Benefits to Other Modes of Transportation or Use of New Technology* – Points are awarded to projects based on how they benefit other modes of transportation and deploy new technology (carpool, transit, bicycle, pedestrian, ITS, and TDM). For example, a road widening that adds additional travel lanes, bicycle lanes, and sidewalks on a transit route would benefit three other modes.

   Local jurisdictions are asked to describe the benefits and apply the ranking methodology.

4. *Environmental Impacts* - Points are awarded based on the impact on wetlands, streams, water supply watersheds, wildlife habitat, parks, and air quality.

   The MPO will provide local jurisdictions a base map of environmental areas. Local jurisdictions are asked to use the environmental impacts worksheet to assess the impact of projects based on a GIS analysis.

5. *Community Impacts* – Points are awarded based on the impact on neighborhoods, communities, schools, parks, recreation facilities, historic resources, and cemeteries.

   The MPO will provide local jurisdictions a base map of community resources and 2005 population density by Traffic Analysis Zone. Local jurisdictions are asked to use the community impacts worksheet to assess the impact of projects based on a GIS analysis.

6. *Environmental Justice*- Points are awarded based on the impact on low-income and minority populations. This item is designed to penalize projects that may have negative impacts on low income areas or federally recognized disadvantaged groups.

   The MPO will provide local jurisdictions a base map that indicates which Traffic Analysis Zones have a high percentage of minority and low income populations. Local jurisdictions are asked to use the environmental justice worksheet to assess the impact of projects based on a GIS analysis.

7. *Funding Status in the Transportation Improvement Program (TIP)* - Points are awarded to projects based on the percentage of the total project cost that is funded in the currently adopted Transportation Improvement Program (TIP), or if the project has postyear status in the TIP.

   Local jurisdictions are asked to provide funding status and apply the ranking methodology.

Bicycle and Pedestrian

All nine point categories are weighted equally. A maximum of three points can be received for each point category.

1. *Traffic Volume* - This category awards points to projects based on the amount of vehicular traffic on the road that the bicycle and pedestrian facility is provided on. Off-road greenways are based on the parallel or alternate roadways. More points are provided for higher volume facilities to reflect the safety hazard for bicyclists and pedestrians on larger busier roadways. The traffic counts should be taken from the latest Annual Average Daily Traffic (AADT) maps on the NCDOT website.

   Local jurisdictions are asked to provide the AADT and apply the ranking methodology.

2. *Right-of-Way Availability* – This category awards points to projects based on the right-of-way available for the project. Right-of-way should be estimated based on the local jurisdiction's best knowledge of the area and the NCDOT right-of-way database. Extensive research into property deeds is not required.

   Local jurisdictions are asked to provide an estimate of right-of-way and apply the ranking methodology.

3. *Travel Demand from Local Land Uses* – This category awards points to projects based on the proximity to schools, colleges, parks, major retail centers, transit routes, and major employment centers. The bicycle and pedestrian project travel demand worksheet will be used to assign interim points for each project. Projects will be divided equally into four quartiles based on the interim points. Final points will be assigned by quartile to ensure that points are distributed evenly and that projects are compared relative to each other.

   The interim points are assigned using two different tables for bicycle and pedestrian projects to reflect the different travel times and accessibility of the two modes. The numbers of land uses or amenities within the specified distance for the project are recorded on the worksheet. The worksheet multiplies the number of land uses by the appropriate points and total points are calculated by the worksheet. The land uses considered are schools (public or private elementary, middle, or high schools), colleges and universities, major retail centers (over 100,000 square feet or locally recognized shopping districts – i.e. downtown areas), major employment centers (Traffic Analysis Zones over 1,000 in employment in 2005), and fixed transit routes. If a project includes both bicycle and pedestrian improvements, the travel demand points are added together for a total.

   Local jurisdictions are asked to provide the number of land uses served by the project in the travel demand worksheet. MPO staff will divide the projects into quartiles and award final points.

4. *Local Connectivity to Existing Bicycle and Pedestrian Facilities* - Points are awarded based on if projects connect to existing bicycle and pedestrian facilities. This will reward projects that extend the existing bicycle and pedestrian network. Connections are to be counted by street and greenway centerlines (i.e. if a project connects to a street that has sidewalks on both sides of the street, it is only counted as one connection). Projects will be divided equally into four quartiles based on the number of connections. Final points will be assigned by quartile to ensure that points are distributed evenly and that projects are compared relative to each other.

   Local jurisdictions are asked to provide a list of facilities that the project will connect. MPO staff will divide the projects into quartiles and award final points.

5. *Regional Connectivity* – Points are awarded to bicycle based on if the project is a part of the regional routes recognized in the 1992 Regional Bicycle Plan (these routes will be reevaluated as part of the 2035 LRTP process). Projects part of a regional bicycle route that partially exists receive three points. Projects part of a regional bicycle route that does not currently exist receive two points. Projects not part of a regional bicycle route that connect to a regional bicycle route receive one points. Projects that are not part of a regional bicycle route and do not connect to a regional bicycle route receive zero points.

Points are awarded to pedestrian only projects based on if the project provides a pedestrian connection to regional and local buses. Project limits that include a bus stop for an existing Triangle Transit regional route receive three points. Project limits that include a station area for a future regional rail receive two points. Project limits that include a bus stop for a local bus route receive one point. Project limits that do not include a bus stop for a transit route receive zero points.

6. *Environmental Impacts* - Points are awarded based on the impact on wetlands, streams, water supply watersheds, and wildlife habitat.

   The MPO will provide local jurisdictions a base map of environmental areas. Local jurisdictions are asked to use the environmental impacts worksheet to assess the impact of projects based on a GIS analysis.

7. *Community Impacts* – Points are awarded based on the impact on neighborhoods, communities, schools, parks, and recreation facilities. Since bicycle and pedestrian facilities are perceived as amenities and usually require little right-of-way acquisition, projects that serve more dense neighborhoods and community facilities receive more points.

   The MPO will provide local jurisdictions a base map of community resources and 2005 population density by Traffic Analysis Zone. Local jurisdictions are asked to use the community impacts worksheet to assess the impact of projects based on a GIS analysis.

8. *Environmental Justice* - Points are awarded based on the impact on low-income and minority populations. Since bicycle and pedestrian facilities are perceived as amenities and usually require little right-of-way acquisition, projects that serve low income and minority areas will receive more points.

   The MPO will provide local jurisdictions a base map that indicates which Traffic Analysis Zones have a high percentage of minority and low income populations. Local jurisdictions are asked to use the environmental justice worksheet to assess the impact of projects based on a GIS analysis.

9. *Funding Status in the Transportation Improvement Program (TIP)* - Points are awarded to projects based on the percentage of the total project cost that is funded in the currently adopted Transportation Improvement Program (TIP), or if the project has postyear status in the TIP.

   Local jurisdictions are asked to provide funding status and apply the ranking methodology.

Transit

Transit projects are awarded points based on eight categories. A maximum of four points can be received for each point category except for the year needed category. The year needed category has a maximum of seven points and is weighted double the other point categories.

1. *Year Needed* – Projects receive points based on the year that they are needed by the transit agencies. This category is weighted double and is out of 7 possible points. Projects in earlier years receive more points.

   Local jurisdictions are asked to provide the year needed and apply the ranking methodology.

2. *Service Type* – This category is designed to award points to projects that are essential to maintaining the current transit service. Service expansion and enhancements receive fewer points.
   Local jurisdictions are asked to categorize projects and apply the ranking methodology.

3. *Annual Ridership* – This category awards points to projects that serve more riders. Ridership is calculated on an annual basis. The method of calculating riders varies by project type:

   Replacement Vehicles = # of vehicles * average annual ridership per vehicle
   Operating & Maintenance Expenses = annual system ridership
   Expansion Vehicles = model output OR # of vehicles * system minimum standard for annual ridership per vehicle
   Fixed Guideway / BRT / Express Bus = model output
   Park & Ride Lots = spaces * service days/year
   Passenger Amenities = # of stops * average daily boarding per stop * service days/year
   ITS = annual ridership on affected vehicles

   Local jurisdictions are asked to provide the annual ridership. MPO staff will divide the projects into quartiles and award points.

4. *Regional Connectivity* – Projects receive points based on the number of connections to other transit systems. The transit systems considered are: DATA, Chapel Hill Transit, TTA, Orange Public Transit, and Duke University Transit. These are the fixed route systems in the MPO.

   Local jurisdictions are asked to apply the ranking methodology.

5. *Environmental Impacts* - Points are awarded based on the impact on the natural environment. Since most transit projects use existing roadway facilities and thus do not require construction, projects are assessed based on their relative positive air quality impacts. This varies by project type as displayed on the environmental impacts worksheet. Transit projects that require construction such as fixed guideway, BRT, and park and ride lots should have points deducted if significant environmental impacts may occur due to construction.

   The MPO will provide local jurisdictions a base map of environmental areas. Local jurisdictions are asked to use the environmental impacts worksheet to assess the impact of projects based on project type and a GIS analysis for construction projects.

6. *Community Impacts* – Points are awarded based on the impact on neighborhoods, communities, schools, parks, and recreation facilities. Since transit projects are community amenities and usually require little right-of-way acquisition, projects that serve more dense neighborhoods and community facilities receive more points.

   The MPO will provide local jurisdictions a base map of community resources and 2005 population density by Traffic Analysis Zone. Local jurisdictions are asked to use the community impacts worksheet to assess the impact of projects based on a GIS analysis.

7. *Environmental Justice* - Points are awarded based on the impact on low-income and minority populations. Since transit projects are community amenities and usually require little right-of-way acquisition, projects that serve low income and minority areas will receive more points.

The MPO will provide local jurisdictions a base map that indicates which Traffic Analysis Zones have a high percentage of minority and low income populations. Local jurisdictions are asked to use the environmental justice worksheet to assess the impact of projects based on a GIS analysis.

8. *Funding Status in the Transportation Improvement Program (TIP)* - Points are awarded to projects based on the percentage of the total project cost that is funded in the currently adopted Transportation Improvement Program (TIP), or if the project has post year status in the TIP.

   Local jurisdictions are asked to provide funding status and apply the ranking methodology.

OBSERVATIONS

The order of transit priorities could vary significantly from year to year if anticipated funding sources are reduced or eliminated by Congress.

- Mandates (e.g., the American's with Disabilities Act) may take precedence when programming projects from the Regional Priority List in the TIP.

- The fiscal constraints of programming projects in the TIP may result in the programming of less expensive, lower ranked projects.

- Some lower ranking projects may be implemented earlier than a higher ranked, large project due to the time constraints associated with a more complex project (i.e., major investment studies, preparing environmental documents, designing the project, right-of way acquisition, etc.).

- The utility of ranking more than 25 projects is minimal due to the availability of project funds.

ROADWAY

	RANKING CRITERIA (MEASURES)	SCORE (points)	Category Weight
1	***Travel Demand***		1
	2035 volume to capacity ratio (v/c) on existing or parallel roadway		
	Traffic Signal System, TDM, ITS Projects	4	
	First quartile of ranked projects, v/c >0.80	4	
	Second quartile of ranked projects, v/c >0.80	3	
	Third quartile of ranked projects, v/c >0.80	2	
	Fourth quartile of ranked projects, v/c >0.80	1	
	v/c <= 0.80	0	
2	***Safety***		1
	Crash rate (accidents/100 million VMT)		
	Traffic Signal System, TDM, ITS Projects	4	
	First quartile of ranked projects, Crash Rate >300 accidents/100 million VMT	4	
	Second quartile of ranked projects, Crash Rate >300 accidents/100 million VMT	3	
	Third quartile of ranked projects, Crash Rate >300 accidents/100 million VMT	2	
	Fourth quartile of ranked projects, Crash Rate >300 accidents/100 million VMT	1	
	Crash Rate <=300 accidents/100 million VMT	0	
3	***Benefits to Other Modes of Transportation or Deployment of New Technology***		1
	Any 4 or more modes (Carpool, transit, bike, pedestrian, ITS, TDM)	4	
	Any 3 modes (Carpool, transit, bike, pedestrian, ITS, TDM)	3	
	Any 2 modes (Carpool, transit, bike, pedestrian, ITS, TDM)	2	
	Any 1 mode (Carpool, transit, bike, pedestrian, ITS, TDM)	1	
	No other modes	0	
4	***Environmental Impacts***		1
	Based air quality impacts and GIS analysis including wetlands, stream crossings, wildlife habitat, parks, and water supply watersheds. Uses environmental impacts worksheet.		
	No negative or adverse impacts or positive impact	4	
	Low negative or adverse impacts	3	
	Medium negative or adverse impacts	2	
	Medium-High negative or adverse impacts	1	
	High negative or adverse impacts	0	
5	***Community Impacts***		1
	Based on GIS analysis including population density, schools, parks and recreation, historic resources, and cemeteries. Uses community impacts worksheet.		
	No negative or adverse impacts or positive impact	4	
	Low negative or adverse impacts	3	
	Medium negative or adverse impacts	2	
	Medium-High negative or adverse impacts	1	
	High negative or adverse impacts no mitigation	0	
6	***Environmental Justice Impacts***		1
	Based on GIS analysis of low-income and minority areas (TAZ). Uses environmental justice impacts worksheet.		
	Positive impact	4	
	No negative or adverse impacts	3	
	Low negative or adverse impacts	2	
	Medium negative or adverse impacts	1	
	High negative or adverse impacts	0	
7	***Funding Status in TIP***		1
	Partially funded in current TIP cycle at least 25% of total cost (construction & ROW)	4	
	Partially funded in current TIP cycle at least 10% of total cost (construction & ROW)	3	
	Partially funded in current TIP cycle at least 5% of total cost (construction & ROW)	2	
	Partially funded in post year (construction & ROW)	1	
	Not programmed in TIP	0	

BIKE/PED

	RANKING CRITERIA (MEASURES)	SCORE (points)	Category Weight
1	***Traffic Count***		1
	2005 AADT on existing or parallel roadway		
	10,000 or greater AADT	3	
	2,000 to 10,000 AADT	2	
	Under 2,000 AADT	1	
2	***Right-of-Way Availability***		1
	Adequate right-of-way available	3	
	Some right-of-way available	2	
	Much right-of-way needed	1	
	Major barriers to right-of-way acquisition	0	
3	***Travel Demand from Local Land Uses***		1
	Based on proximity to schools, colleges, parks, major retail centers, transit, and major employment centers. Uses bike/ped travel demand worksheet.		
	First quartile of ranked projects	3	
	Second quartile of ranked projects	2	
	Third quartile of ranked projects	1	
	Fourth quartile of ranked projects	0	
4	***Local Connectivity to Existing Bicycle and Pedestrian Facilities***		1
	Based on number of connections to existing bicycle and pedestrian facilities		
	First quartile of ranked projects	3	
	Second quartile of ranked projects	2	
	Third quartile of ranked projects	1	
	Fourth quartile of ranked projects	0	
5	***Regional Connectivity***		1
	Based on recognized regional bicycle routes AND/OR pedestrian connections to transit		
	Part of regional bicycle route that already partially exists AND/OR pedestrian connection to TT regional route	3	
	Part of regional bicycle route that does not partially exist AND/OR pedestrian connection to future regional rail	2	
	Local bicycle route that connects to an existing regional bicycle route AND/OR pedestrian connection to local bus	1	
	Local bicycle route OR no pedestrian connection to transit	0	
6	***Safety***		1
	Based on number of crashes involving pedestrians and bicyclists on existing or parallel roadway.		
	First quartile of ranked projects	3	
	Second quartile of ranked projects	2	
	Third quartile of ranked projects	1	
	Fourth quartile of ranked projects	0	
7	***Environmental Impacts***		1
	Based air quality impacts and GIS analysis including wetlands, stream crossings, wildlife habitat, and water supply watershed. Uses environmental impacts worksheet.		
	High positive impact	3	
	Medium positive impact	2	
	Low positive impact	1	
	Negative impact	0	
8	***Community Impacts***		1
	Based on GIS analysis including population density, schools, and parks and recreation facilities. Uses community impacts worksheet.		
	High positive impact	3	
	Medium positive impact	2	
	Low positive impact	1	
	Negative impact	0	
9	***Environmental Justice Impacts***		1
	Based on GIS analysis of low-income and minority areas (TAZ). Uses environmental justice impacts worksheet.		
	High positive impact	3	
	Medium positive impact	2	
	Low positive impact	1	
	Negative impact	0	
10	***Funding Status in TIP***		1
	Partially funded in current TIP cycle at least 25% of total cost (construction & ROW)	3	
	Partially funded in current TIP cycle at least 10% of total cost (construction & ROW)	2	
	Partially funded in post year (construction & ROW)	1	
	Not programmed in TIP	0	

TRANSIT

	RANKING CRITERIA (MEASURES)	SCORE (points)	Category Weight
1	***Year Needed***		2
	Based on year that the transit operator requests the project.		
	2011	7	
	2012	6	
	2013	5	
	2014	4	
	2015	3	
	2016	2	
	2017	1	
2	***Service Type***		1
	Replacement vehicles, operating and maintenance expenses (provides an essential service to maintain the current level of transit service)	4	
	Expansion vehicles, new fixed guideway, BRT, or express bus, new park and ride lots	3	
	Enhancements, passenger amenities, ITS	2	
3	***Ridership***		1
	Estimated number of new or benefited riders per year		
	First quartile of ranked projects	4	
	Second quartile of ranked projects	3	
	Third quartile of ranked projects	2	
	Fourth quartile of ranked projects	1	
4	***Connectivity***		1
	Connections to fixed route transit systems (CAT, CHT, DATA, Duke, OPT, TT, Wolfline)		
	Provides 5 or more connections	4	
	Provides 4 connections	3	
	Provides 3 connections	2	
	Provides 2 connections	1	
	Provides 1 connection	0	
5	***Environmental Impacts***		1
	Based on vehicle type, air quality impacts and GIS analysis including wetlands, stream crossings, wildlife habitat, parks, etc. Uses environmental impacts worksheet.		
	Very high positive impact	4	
	High positive impact	3	
	Medium positive impact	2	
	Low negative impact	1	
	High Negative impact	0	
6	***Community Impacts***		1
	Based on GIS analysis including population density, schools, and parks and recreation. Uses community impacts worksheet.		
	High positive impact	4	
	Medium positive impact	3	
	Low positive impact	2	
	Low negative impact	1	
	High Negative impact	0	
7	***Environmental Justice Impacts***		1
	Based on GIS analysis of low-income and minority areas (TAZ). Uses environmental justice impacts worksheet.		
	High positive impact	4	
	Medium positive impact	3	
	Low positive impact	2	
	Neutral	1	
	Negative impact	0	
8	***Funding Status in TIP***		1
	Partially funded in current TIP cycle at least 25% of total cost	4	
	Partially funded in current TIP cycle at least 10% of total cost	3	
	Partially funded in current TIP cycle at least 5% of total cost	2	
	Partially funded in post year	1	
	Not programmed in TIP	0	

ENVIRONMENTAL IMPACTS WORKSHEET

For BikePed Projects:	
Stream Crossings	#
	+
Major Wetland Crossings	#
	+
Natural Heritage Element Occurances within 1000 feet	#
	+
In critical water supply watershed	2 or
In protected water supply watershed	1 or
Not in water supply watershed protection	0
	= Score

	Score
High+	0
Medium+	1-2
Low+	3
Negative	4+

For Transit Projects:		
Replacement Vehicle		
Standard fuel vehicle	Medium+	
Lower emission vehicle (specify in project description)	High+	
Expansion Vehicle		
Standard fuel vehicle	High+	
Lower emission vehicle (specify in project description)	Very High+	
Passenger Amenities	High+	
ITS	High+	
Operating & Maintenance Expenses	Low+	
Fixed Guideway / BRT / Express Buses	Very High+	Lower if significant physical environmental impacts
Park & Ride Lot	High+	Lower if significant physical environmental impacts

For Highway Projects:	
Stream Crossings	#
	+
Major Wetland Crossings	#
	+
Natural Heritage Element Occurances within 1000 feet	#
	+
In critical water supply watershed	2 or
In protected water supply watershed	1 or
Not in water supply watershed protection	0
	+
Adjacent to park	1 or
Not adjacent to park	0
	+
Reduces emissions	-1
Does not reduce emissions	0
	= Score

	Score
Positive	-1
Low-	0
Medium-	1-2
Medium/High-	2-4
High-	5+

COMMUNITY IMPACTS WORKSHEET

For BikePed Projects

In or adjacent to most dense TAZ	3
In or adjacent to second most dense TAZ	2
In or adjacent to third most dense TAZ	1
In or adjacent to least dense TAZ	0
	+
Directly adjacent to a K-12 school	2
Not adjacent to a K-12 school	0
	+
Directly adjacent to a park or recreation facility	1
Not adjacent to a park or recreation facility	0
	= Score

	Score	
High+	6	
Medium+	4-5	
Low+	0-3	
Negative	0-3	and construction would negatively impact a community resource (church, school, park, historic property)

For Transit Projects

In or adjacent to most dense TAZ	3
In or adjacent to second most dense TAZ	2
In or adjacent to third most dense TAZ	1
In or adjacent to least dense TAZ	0
	+
Directly adjacent to a K-12 school	2
Not adjacent to a K-12 school	0
	+
Directly adjacent to a park or recreation facility	1
Not adjacent to a park or recreation facility	0
	= Score

	Score	
High+	6	
Medium+	4-5	
Low+	0-3	
Low-	0	and construction would negatively impact a community resource (church, school, park, historic property)
High-	0	and construction would negatively impact more than one community resource (church, school, park, historic property)

For Highway Projects

In or adjacent to most dense TAZ	3
In or adjacent to second most dense TAZ	2
In or adjacent to third most dense TAZ	1
In or adjacent to least dense TAZ	0
	+
Directly adjacent to a K-12 school	2
Not adjacent to a K-12 school	0
	+
Directly adjacent to a park or recreation facility	1
Not adjacent to a park or recreation facility	0
	+
Directly adjacent to a historic resource	1
Not adjacent to a historic resource	0
	+
Direcly adjacent to a cemetery	1
No adjacent to a cemetery	0
	= Score

	Score	
Positive	0	and the project would positively impact a neighborhood
Low-	0	
Medium-	0-3	
Medium/High-	4-5	
High-	6	

ENVIRONMENTAL JUSTICE IMPACTS WORKSHEET

For BikePed Projects

		Percent Minority				
		At or below county average	Up to 10% above county average	10%-25% above county average	25%-50% above county average	Over 50% above county average
Percent Household Income Below Poverty	At or below county average	Low+	Low+	Low+	Medium+	Medium+
	Up to 10% above county average	Low+	Low+	Medium+	Medium+	High+
	10%-25% above county average	Low+	Medium+	Medium+	High+	High+
	25%-50% above county average	Medium+	Medium+	High+	High+	High+
	Over 50% above county average	Medium+	High+	High+	High+	High+

Negative: If at or below county averages AND construction of the project will have a negative impact on a low-income or minority area

For Transit Projects

		Percent Minority				
		At or below county average	Up to 10% above county average	10%-25% above county average	25%-50% above county average	Over 50% above county average
Percent Household Income Below Poverty	At or below county average	Neutral	Low+	Low+	Medium+	Medium+
	Up to 10% above county average	Low+	Low+	Medium+	Medium+	High+
	10%-25% above county average	Low+	Medium+	Medium+	High+	High+
	25%-50% above county average	Medium+	Medium+	High+	High+	High+
	Over 50% above county average	Medium+	High+	High+	High+	High+

Negative: If at or below county averages AND construction of the project will have a negative impact on a low-income or minority area

Replacement Vehicle	Use system average
Operating & Maintenance Expenses	Use system average
Expansion Vehicle	Use area of proposed route or system average for general expansion
Fixed Guideway	Use areas around proposed stations
Park & Ride Lot	Use system average
Passenger Amenities	Use system average
ITS	Use area of proposed improvements

For Highway Projects

		Percent Minority				
		At or below county average	Up to 10% above county average	10%-25% above county average	25%-50% above county average	Over 50% above county average
Percent Household Income Below Poverty	At or below county average	Neutral	Low-	Low-	Medium-	Medium-
	Up to 10% above county average	Low-	Low-	Medium-	Medium-	High-
	10%-25% above county average	Low-	Medium-	Medium-	High-	High-
	25%-50% above county average	Medium-	Medium-	High-	High-	High-
	Over 50% above county average	Medium-	High-	High-	High-	High-

Positive: If at or below county averages AND the project will have a positive impact on a low-income or minority area

BIKE/PED TRAVEL DEMAND WORKSHEET

Complete both tables for multi-use trails or projects that include both bicycle and pedestrian facilities.

For Bicycle Projects

A project will receive points based on its proximity to the following land uses:

		Proximity				
		# within 1 mile	2 points per #	# between 1 and 2 miles	1 point per #	
Land Use	Schools		0		0	Total Points
	Colleges		0		0	
	Parks		0		0	
	Major Retail Centers		0		0	
	Major Employment Centers		0		0	
	Transit Routes		0		0	
Total			0	+	0	**0**

For Pedestrian Projects

A project will receive points based on its proximity to the following land uses:

		Proximity				
		# within 1/4 mile	2 points per #	# between 1/4 and 1/2 mile	1 point per #	
Land Use	Schools		0		0	Total Points
	Colleges		0		0	
	Parks		0		0	
	Major Retail Centers		0		0	
	Major Employment Centers		0		0	
	Transit Routes		0		0	
Total			0	+	0	**0**

Schools	K-12 public or private school
Colleges	Duke, UNC, NCCU, Durham Tech
Parks	State or local public park
Major Retail Centers	Retail center over 100,000 square feet AND downtown shopping areas
Major Employment Centers	TAZ over 1,000 in employment
Transit Routes	DATA, CHT, TTA, OPT fixed routes

MEMORANDUM OF AGREEMENT

BETWEEN

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING

ORGANIZATION AND

CHAPEL HILL TRANSIT (CHT), DURHAM AREA TRANSIT AUTHORITY (DATA)

AND THE TRIANGLE TRANSIT

FOR IMPLEMENTING

THE US DEPARTMENT OF TRANSPORTATION (USDOT) METROPOLITAN TRANSPORTATION PLANNING REGULATION

This MEMORANDUM OF AGREEMENT hereinafter called MOA is entered into this 13th day of August 2008, by and between the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization, hereinafter called DCHC MPO, and three publicly owned transit operators, namely the Chapel Hill Transit hereinafter called "CHT", the Durham Area Transit Authority, hereinafter called "DATA", and the Research Triangle Regional Public Transportation Authority hereinafter called "Triangle Transit." DCHC MPO, CHT, DATA, and Triangle Transit may be individually referred to herein as "Party" and collectively referred to as "Parties." The MOA is created pursuant to 23 CFR 450.310 (b) which states that there be an agreement between DCHC MPO, as the designated "Metropolitan Planning Organization" (MPO), and CHT, DATA & Triangle Transit as the operators of publicly owned transit services which specifies cooperation procedures for carrying out transportation planning and programming.

The purpose of this agreement is to specify cooperative procedures for carrying out transportation planning and programming in the DCHC metropolitan planning area in compliance and conformance with federal planning regulations (23 CFR 450, Subpart C). This MOA is intended to make explicit and expand upon existing cooperating planning and programming procedures and activities, and to establish new or expanded cooperative procedures where necessary in order to meet federal requirements for a continuing, cooperative and comprehensive urban transportation planning process.

In making this MOA, the Parties affirm the following planning responsibilities:

A. Planning Responsibilities of DCHC MPO

DCHC MPO is the regional transportation planning agency for the Durham-Chapel Hill-Carrboro urban area pursuant to US Department of Transportation regulation, CFR Part 450 and 49 Part 613. The MPO provides comprehensive regional transportation planning for the planning

area comprising the City and County of Durham, Town of Chapel Hill, Town of Carrboro, Town of Hillsborough, part of Orange County and part of Chatham County. In accordance with federal regulations, the Governor of the State of North Carolina designated the DCHC Metropolitan Planning Organization as the regional transportation planning organization and the City of Durham as the Lead Planning Agency (LPA) for the MPO. Under this designation DCHC MPO, in cooperation with the North Carolina Department of Transportation (NCDOT) and publicly owned operators of mass transportation services, is responsible for carrying out the urban transportation planning process specified in federal regulations (23 CFR Sections 450, Subpart C). That process includes the development of a Unified Planning Work Program, a Long Range Transportation Plan, Transportation Improvement Program, Congestion Management Program, Public Involvement Program, Environmental Justice Program, Intelligent Transportation System Deployment Plan, Safety programs, Freight and Urban Goods Movement plan, and other programs as may be required by federal law.

B. Planning Responsibilities of the Transit Operators

The transit operators within the DCHC MPO planning area consist of CHT, DATA and Triangle Transit. CHT provides public transportation within the Towns of Chapel Hill and Carrboro, DATA provides public transportation mostly within the City of Durham and Triangle Transit provides public transportation for the entire Triangle region.

Further, the Parties affirm the following:

DCHC MPO, CHT, DATA & Triangle Transit are mutually interested in the conduct of the planning process and in the development, exchange and analysis of information related to the performance of the existing and future multimodal transportation system; and

The Parties are mutually interested in the implementation of a multimodal transportation system. DCHC MPO, CHT, DATA & Triangle Transit agree to the consultation and coordination in development of the following plans and programs: Long Range Transportation Plan (LRTP), Transportation Improvement Program (TIP), Congestion Management Program (CMP), Intelligent Transportation Systems (ITS), multi-modal corridor studies, Transit Environmental Impact Statements/Preliminary Engineering, Unified Planning Work Program (UPWP), Job Access Reverse Commute (JARC/New Freedom (NF) coordinated plan/program management plan and a short-range transit plan (transit development plan) and other corridor/transit investment studies; and

The Metropolitan Transportation Planning program is in the mutual interest of DCHC MPO, CHT, DATA and Triangle Transit, and the Parties mutually agree to appropriate funding shares to support the program; and

The Parties have existing responsibilities for complying with Federal, State, and Local regulations related to transportation and the provision of public transit.

In light of the foregoing, DCHC MPO, CHT, DATA and Triangle Transit do hereby covenant and agree as follows:

DCHC MPO AGREES TO:

1. Adopt and maintain the Long Range Transportation Plan, Comprehensive Transportation Plan, Transportation Improvement Program, Congestion Management Program, Unified Planning work Program, ITS Strategic Deployment plan and Public the Involvement Program/Public Participation Program as required for the receipt of federal and State transportation funds including coordination of DCHC MPO, CHT, DATA & Triangle Transit public involvement and environmental justice/Title XI processes.

2. Provide for the coordinated, cooperative and continuing transportation planning and programming process.

3. Manage the administration and operation of the Technical Coordinating Committee ("TCC"), the technical body of the MPO and the Transportation Advisory Committee ("TAC"), the policy body of the MPO.

4. Manage and administer JARC and New Freedom funds; CMAQ funds, FTA 5303 and 5307 funds; and Section 104(f) and Section133(b)(3)(7) funds.

5. Develop the Congestion Management System Plan that is inclusive of transit, transportation demand management, and traffic operations strategies as required by federal regulations.

6. Conduct multi-modal corridor studies and planning in areas needing major transportation investments. Coordinate with DATA, CHT and Triangle Transit as they conduct studies of transit system related projects and needed major transportation investment.

7. Conduct air quality conformity determinations for transportation plans, programs, and projects as required by federal and state regulations.

8. Develop, maintain and analyze transportation-related data and GIS information for use in transportation planning, programs and studies.

9. Maintain and update regional travel forecasting models which provide base year and future year travel estimates for person trips, transit trips and walk/bike trips in coordination with Triangle Transit, Capital Area Metropolitan Planning Organization, and the North Carolina Department of Transportation.

10. Coordinate with CHT, DATA and Triangle Transit on the development of the annual Unified Planning Work Program and include work elements of interest to the CHT, DATA and Triangle Transit in the UPWP.

11. Coordinate with NCDOT on early, ongoing, and responsive public involvement activities, as required by SAFETEA-LU, in the transportation planning and programming process.

CHT, DATA & TRIANGLE TRANSIT AGREE TO:

1. Coordinate and consult with the DCHC MPO on development of transit plans and programs as they relate to performance of the local regional transportation system. These include but are not limited to the following: short range transit plan (transit development plan-TDP), ADA Paratransit Service Plan, transit management systems planning, job access and reverse commute programs, other transit services planning, pedestrian access to transit planning and park-and-ride facility planning. CHT, DATA and Triangle Transit shall also provide technical assistance in preparing transit elements of the Long Range Transportation Plan. This includes development of proposed transit networks for regional travel forecasting models.

2. Coordinate and consult with DCHC MPO in conducting studies for transit system projects requiring a major transportation investment and development of related transit Environmental Impact Statements/Preliminary Engineering.

3. Submit appropriate invoices and documentation for grant invoicing and disbursement in a timely manner.

4. Coordinate with DCHC MPO in the collection and analysis of transit related data.

5. Submit the following for review and comment by TCC and the TAC:

    a. The short range transit plan with documentation of its consistency with the Long Range Transportation Plan (LRTP).

    b. The Paratransit Service Plan with documentation of compliance with Federal regulations and the JARC-NF Coordinated plan and LRTP.

IT IS MUTUALLY AGREED:

In accordance with Part 450 Subsection 450.310 (Metropolitan Planning Organization Agreements) of Title 23 U.S.C., the undersigned Parties do hereby mutually agree to consultation and coordination in carrying out transportation planning and programming in the DCHC Metropolitan Planning Area Boundary as required by this section of the United States Code.

This MOA will be reviewed every five years and amended or reaffirmed as necessary to reflect changing conditions and responsibilities. Nothing in this MOA shall be interpreted as restricting or diminishing those cooperative procedures and activities that presently exist or may exist in the future between the DCHC MPO and the publicly owned operators of mass transportation services, CHT, DATA and Triangle Transit. Changes to this MOA shall be accomplished by written amendment to this agreement.

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

By _____
Alice Gordon, PhD, TAC Chair

(SEAL)

_____
Date

Attest

_____
Name, Title and Date

CITY OF DURHAM

By _____
Durham City Manager

(SEAL)

_____
Date

Attest

_____
City Clerk

TOWN OF CHAPEL HILL

By _____
Town Manager

(SEAL)

_____
Date

Attest

_____
Town Clerk

RESEARCH TRIANGLE REGIONAL PUBLIC TRANSPORTATION AUTHORITY

By _____
Sig Hutchinson, Chair

(SEAL)

_____
Date

Attest

_____
Name, Title and Date

MEMORANDUM

To: Transportation Advisory Committee (TAC)
DCHC MPO

From: DCHC MPO Lead Planning Agency

Date: August 13, 2008

Subject: **Lead Planning Agency (LPA) Staff Report**

This memorandum provides a summary status of tasks for projects in the FY 2008-2009 Unified Planning Work Program.

- ✓ Indicates that task is complete.
- • Indicates that task is ongoing or not complete.

2008-09 Unified Planning Work Program (UPWP) – Projects

Long Range Transportation Plan (LRTP) / Comprehensive Transportation Plan (CTP) Update

- ✓ Draft schedule – August 2006
- ✓ Release SE Data for public comment – January 2007
- ✓ Release Goals and Objectives for public comment – July 2007
- ✓ TAC approve SE Data – September 2007
- ✓ Goals and Objectives – TAC hold public hearing, September 2007, and approve, October 2007.
- ✓ TAC approve Targets – February 2008
- ✓ TAC review Deficiency Analysis – March 2008
- ▪ TAC review Land Use Scenarios – May 2008
- ▪ TAC review LRTP Alternatives – June 2008

Travel Time Survey/Speed Study

- ✓ Consultant has been selected for the survey.
- ✓ Scoping and contract negotiations completed.
- ✓ Field reconnaissance and data collection – in progress.
- • Field survey completed. Analysis in progress

GIS/Data Integration and Automation

- ✓ Issue RFQ – September 11, 2006
- ✓ Non-mandatory pre-proposal conference – September 25, 2006
- ✓ Receive written proposals – October 15, 2006
- ✓ Consultant short list by October 23-27, 2006

- ✓ Consultant short list interviews/references check and city issues Notice of Intent to Award a Contract by October 30-November 13, 2006
- ✓ Contract negotiation and scoping in progress
- ✓ Council approves contract – August 13, 2007
- ✓ City issues contract
- ✓ Notice to proceed
- ✓ Kick-off meeting held in October
- ✓ Project underway

Land-use Model development

- ✓ Issue RFQ – August 7, 2006
- ✓ Pre-proposal conference – August 29, 2006
- ✓ Receive written proposals – September 8, 2006
- ✓ Consultant short list – September 13-22, 2006
- ✓ Consultant short list interviews/references check and City issues notice of intent to award a contract – September 25-29, 2006
- ✓ Contract negotiation and scoping completed
- ✓ Council approves contract March 5, 2007
- ✓ City issues contract – March 25, 2007
- ✓ Notice to proceed – March 25, 2007
- Study underway – completion December 2008

Non-Motorized Model development

- ✓ Issue RFQ – August 21, 2006
- ✓ Non-mandatory pre-proposal conference – September 6, 2006
- ✓ Receive written proposals – September 21, 2006
- ✓ Consultant short list – September 25-29, 2006
- ✓ Consultant short list interviews/references check and City issues notice of intent to award a contract – October 2-6, 2006
- ✓ Contract negotiation and scoping completed
- ✓ Council approves contract – March 5, 2007
- ✓ City issues contract – March 25, 2007
- ✓ Notice to proceed – March 25, 2007
- Study underway –completion December 2008

ITS Deployment Plan

- Two Triangle regional stakeholder coordination meetings held.
- ✓ Update of ITS short range strategies for the 2007-2013 TIP.
- ✓ Update of 2007-2010 ITS project – December 2006
- ✓ Request for funding from NCDOT
- ✓ Draft scope of services and Request for Proposals.
- Consultants selection in spring of 2008
- Notice to proceed in spring 2008
- Completion of Project expected in spring of 2009.

Farrington Road/Stagecoach Road Corridor Study

- This study would involve the following tasks:
  1. Data collection and analysis
  2. Traffic circulation plan (including a collector street system plan)
  3. Sub-area modeling analysis and forecast of future demand
  4. Alternative evaluation
  5. Recommendation
- Kimley Horn and Associates is the consultant
- Data collection underway
- Steering Committee proposed
- Completion of study expected in January
- Integration in the 2035 LRTP
- Draft report complete
- Presentation at June TAC

MPO Collector Street Plan

- ✓ Supplemental Agreement with Kimley Horn and Associates
- ✓ Data collection underway
- ▪ Completion of study and integration with the 2035 LRTP in Spring 2008

Regional Transit Infrastructure Blueprint

- ✓ Establish and convene sponsors and partners teams, agree on detailed task list, responsibilities, products, begin infrastructure and corridor descriptions; begin investment principles - summer 2006
- ✓ Finish corridor and infrastructure descriptions; finalize principles fall 2006
- ✓ Begin land use, travel and cost analysis - winter 2006
- ✓ Finish land use, travel, cost analysis - spring 2007
- Conclude work, issue Blueprint, implement tracking mechanism - summer 2007

Chapel Hill/Carrboro/UNC Long Range Transit Plan

- Project underway
- Projected to be completed in spring of 2008

Unified Planning Work Program (UPWP) – Continuing Projects

Greenhouse Gas (GHG) Emission Inventory and Action Plan

- ✓ Execute contract and give consultant Notice-to-Proceed – March 2006 (delayed due to contract issues)
- ✓ Formation of Technical Committee finalized in February 2006.
- ✓ Formation of stakeholder committee (Advisory Committee) finalized in February 2006.
- ✓ Kick off meeting for the study held March 23, 2006
- ✓ Establish Project Team List serve in February 2006
- ✓ Base Year data Collection and Information Gathering to be completed in March-August 2006 (Durham – complete; Orange – in progress).

- ✓ Data Analysis and Projection likely to be completed in (Durham - August 2006; Orange - ?).
- ✓ Determine and quantify historic and existing measures likely to be completed in July-August 2006.
- ✓ Identify new measures to be completed in August 2006.
- ✓ Criteria Air Pollutant (CAP) Analysis anticipated to be completed in September 2006.
- ✓ Identify GHG target and model reduction targets anticipated to be completed in February-March 2006.
- ✓ Formulate Action Plan anticipated to be completed in March 2007.
- ✓ Recommend reduction targets, strategies and action plan anticipated to be done by March 2007.
- ✓ Draft Plan finalized in June 2007.
- ✓ Durham Public Forum - June 21, 2007
- ✓ Plan Adoption anticipated occurring during fall 2007. Durham City and Durham County approved on September 19, 2007.
- The Orange County plan has been delayed several months beyond the Durham County plan.

Congestion Management System (CMS)/Mobility Report Card

- ✓ Consultants selected for the study.
- ✓ Data collection for the Mobility Report Card underway
- ✓ Data Collection for the Durham study about 80% complete.
- ✓ Data Collection and field inventory completed.
- Level of Service analysis and draft report completed.
- Development of CMS performance measures and guidelines likely to be completed in winter 2008.
- Evaluation of congestion management strategies and development of cost-effective mitigation measures expected to be done in winter 2008.
- Draft CMS State of System Report likely to be done in winter 2008.
- Public Comment and local review in spring 2008.
- Adoption anticipated in spring/summer 2008.

Travel Demand Model Update – Model Revision to Incorporate FTA New Start Enhancement

- ✓ Consultant has been selected to assist the Triangle Regional Model (TRM) Service Bureau at ITRE in the model update.
- ✓ Data collection is complete.
- ✓ Migration of model from Tranplan to TransCad has been completed.
- ✓ Phase 1 (TTA new start model revision) completed in October 2005.
- ✓ Phase II TTA New Start model conversion to TransCad to be completed in August 2006.
- Calibration of 2002 model in TransCad anticipated to be completed in fall 2007.
- Validation of 2002 model against 2005 count data anticipated to be completed in fall 2007.

Unified Planning Work Program (UPWP) – Routine and Other Special Projects

MPO Environmental Justice (EJ) and Limited English Proficiency (LEP) Plan Integration

- Mandated by federal regulations
- Draft plan to be prepared in 2008.

Update of the MPO Public Involvement Policy Consistent with SAFETEA-LU

- ✓ Draft to be ready for fall of 2007.
- ✓ Adopted anticipated in Spring of 2008

MPO Expansion for the next LRTP Update

- ✓ Initiated dialogue with Person County, Granville County, Butner, Roxboro and Pittsboro – July 2006
- ✓ Met with governing bodies of these jurisdictions – September 2006
- MPO expansion and revision of MOU expected to be completed as part of the 2035 LRTP update.

Public Outreach for the East End Connector Planning and Environmental Study

- ✓ LPA working on the Public Involvement and Outreach Program for the East End Connector Planning and Environmental Study (NEPA).
- ✓ Development of mailing list database complete.
- ✓ Received project schedule and time line from NCDOT.
- ✓ Newsletter distributed May 2006
- ✓ Speakers Bureau presentations June 2006 – ongoing
- ✓ First public meeting September 26, 2006
- ✓ Second public meeting – January 30, 2007
- ✓ Alternative 3 selected as LEDPA – June 19, 2007
- ✓ Ad Hoc Committee Meetings – August 9, 2007, August 27, 2007, September 19, 2007, October 10, 2007, November 7, 2007, December 5, 2007
- ✓ Third public meeting December 10, 2007, Orange Grove Missionary Baptist Church
- Environmental Study expected completion - summer 2008

NCDOT PROJECTS UNDER CONSTRUCTION IN DURHAM COUNTY - 8/1/2008

County	TIP #	Route	Location Description	Contract Amount	Length	Contractor Name	Resident Engineer	RE Ph. #	Contract Completion	Scheduled Progress	Actual Progress	Estimated Completion
DURHAM	I-306C	I-85	WIDENING OF I-85 FROM EAST OF COLE MILL RD TO WEST OF BROAD STREET.	$ 66,628,382.65	3.416 km	Granite Construction Company	Durham RE Office	(919) 220-4680	12/31/2006	100%	100%	
DURHAM	U-4010	NC 98	WIDENING OF NC 98 (HOLLOWAY ST) FROM EAST OF US 70 TO EAST OF JUNCTION ROAD	$ 3,288,207.30	0.369 miles	Triangle Grading and Paving	Cadmus Capehart, PE	(919) 840-0914	6/15/2008	100.0%	37.4%	12/15/2008
DURHAM	U-4410DB	HOPSON ROAD	NEW ALIGNMENT OF HOPSON ROAD FROM NC-55 TO LOUIS STEPHENS DRIVE	$ 3,476,305.55	0.587 miles	Thompson Contracting, Inc.	Jeff Allen, PE	(919) 733-9499	10/1/2008	72.0%	64.3%	10/1/2008
DURHAM	2008 RESURF	US-501, NC-55, SR	RESURFACING AND SHLDR RECONSTR. OF US-501, NC-55 AND 14 SECTIONS OF SECONDARY RDS	$ 3,389,883.53	21.5 miles	C C Mangum Company LLC	Cadmus Capehart, PE	(919) 840-0914	8/1/2008	95.0%	89.5%	8/1/2008
DURHAM / WAKE	U-4026A/B R-2904	DAVIS DRIVE / NC-54	WIDENING OF DAVIS DRIVE FROM MORRISVILLE-CARPENTER ROAD TO NC 54, WIDENING OF NC-54 FROM DAVIS DRIVE TO MIAMI BLVD	$ 35,467,891.08	6.363 miles	C C Mangum Company LLC	Jeff Allen, PE	(919) 733-9499	11/1/2009	43.2%	56.4%	11/1/2009
DURHAM	B-3169	RIVERMONT ROAD	BRIDGE 158 ON RIVERMONT ROAD (SR-1402)	$ 539,350.81	0.067 miles	SMITH-ROWE, INC.	Durham RE Office	(919) 220-4680	11/10/2008	26.0%	26.4%	11/10/2008
DURHAM	B-3450 / U-4009 / U-4012	GARRETT ROAD	TWO BRIDGES ON GARRETT RD; SERVICE ROAD NEAR US 15-501 AND GARRETT RD INTERSECTION; US 15-501 FROM NORTH MT. MORIAH RD SOUTH OF GARRETT RD	$ 18,810,912.36	1.769 miles	DLB, Inc.	Durham RE Office	(919) 220-4680	8/1/2010	15.2%	14.1%	8/1/2010
DURHAM / WAKE	B-3528	LEESVILLE ROAD	BRIDGE OVER SYCAMORE CREEK ON LEESVILLE ROAD (SR-1839)	$ 1,174,705.74	0.284 miles	Mountain Creek Contractors, LLC	Cadmus Capehart, PE	(919) 840-0914	5/15/2009	15.5%	18.0%	5/15/2009
DURHAM	B-4109	PICKETT ROAD	BRIDGE OVER MUD CREEK ON PICKETT ROAD (SR-1303)	$ 1,102,441.20	0.078 miles	Kirkman Construction, Inc.	Cadmus Capehart, PE	(919) 840-0914	11/21/2008			
DURHAM / WAKE	2008-RESURF	US-70	WIDENING, RESURF. AND SHLDR RECONSTR. OF US-70 W OF ANGIER AVE TO W OF ANGUS DR	$ 1,889,926.35	4.39 miles	Rea Contracting, LLC	Cadmus Capehart, PE	(919) 840-0914	10/31/2008			

NCDOT PROJECTS FOR LET NEXT 12 MONTHS IN DURHAM COUNTY - 8/1/2008

County	TIP #	Route	Location Description	Contract Estimate	Length	Contact Engineer	Phone #	Contract Let Date
DURHAM	U-2055B	NC 55	CONSTRUCTION OF TURN LANES AT RIDDLE ROAD AND NC-55	$ 223,238.50		B. UPSHAW	(919) 220-4600	summer 2008
DURHAM	U-2055D	AVONDALE DRIVE	CONSTRUCTION OF ROUNDABOUT ON AVONDALE DRIVE	$ 493,065.78		B. UPSHAW	(919) 220-4600	summer 2008
DURHAM	U-3309A	TW ALEXANDER DR	WIDENING FROM CORNWALLIS ROAD TO EAST OF NC-147	$ 8,900,000.00	1.072 miles	J. MOORE	(919) 250-4016	8/18/2009

12 MONTH TENTATIVE LET LIST MAY BE FOUND ONLINE AT: http://www.ncdot.org/planning/development/ProjectMgmt/12month/

PROGRESS REPORTS MAY BE FOUND ONLINE AT: https://apps.dot.state.nc.us/traffictravel/progloc/

ACTIVE NCDOT PROJECTS LOCATED IN ORANGE COUNTY - DCHC MPO

County	WBS #	Route	Location Description	Amount	Status
Orange	36945	SR 1010 (Franklin St.) @ Mallette St.	Upgrade traffic signal and install pedestrian signal heads REVISION: Install mast arm	$110,000.00	**Advertisement pending**
Orange	41096	NC 54 @ SR 2016 (Southern Drive)	Construct a left turn lane on NC 54 westbound	$200,000.00	Barrett, Irvin & Jordan Contr., Inc.**=100% complete**
Orange	41488	US 15-501 @ SR 1900 (Old Mason Farm Road)	Extend the left turn lane on northbound US 15-501 , revise the signal and add a right turn lane at SR 1900	$147,500.00	District design underway; construction pending completion of OWASA project
Orange	41593	Union Street	Construct 750 feet of sidewalk and a crosswalk to connect Hillsborough Elementary School to SR 1156 (Nash St.)	$32,000.00	Town to include as part of large STP-DA sidewalk contract for Nash St.-Enc. Agreement under review
Orange	41686	NC 54 @ SR 1102/1951 (Dodson's Crossroads/ Butler Rd.)	Construct left turn lanes in both directions	$250,000.00	S.T. Wooten Corp. = **90% complete**
Orange	42037	SR 1939 (Damascus Ch. Rd.) 0.8 mi. west of SR 1919 (Smith Level Rd.)	Install guardrail at Pipe# 89	$17,000	Req. by OWASA; District POC to be compl. by 10/31/08
Orange	42038	SR 1005 (Greensboro - Chapel Hill Rd.) approx. 1.6 mi. west of SR 1942 (Jones Ferry Rd.)	Install guardrail at Bridge# 85	$11,000	Req. by OWASA; District POC to be compl. by 10/31/08
Orange	**B-4218**	**SR 1730 (Turkey Farm Rd.)**	**Replace Bridge # 108 over New Hope Creek**	**$750,000.00**	**Dane Const., Inc. =low bid**
Orange	42170 **SS-4907 T 42204.2**	SR 1710 (Old NC 10) @ NC 86	Construct a right turn lane on SR 1710 and install a traffic signal	**$215,000**	Survey pending

ACTIVE NCDOT PROJECTS LOCATED IN ORANGE COUNTY - DCHC MPO

Orange	42171 **SS-4907 U 42205.2**	SR 1710 (Old NC 10) @ SR 1713 (Mt. Herman Church Road)	Improve sight distance on SR 1710 by lowering the crest vertical curve on the westbound approach to the intersection	**$300,000**	Survey pending
Orange	7CR.10681.14 7CR.20681.14 7C.068081	4 sections of NC 54 and ramps and 5 sections of secondary roads	Milling, resurfacing, pavement markings, and shoulder reconstruction		S.T. Wooten Corp.=**20% complete;** ICD 8/8/08 Compl. 10/31/08;
Orange	SF-4907 B 41699.1	US 70 (Hillsborough Rd.) and NC 751 near Durham	Install a right turn lane for traffic travelling east on US 70 and turning right onto NC 751	$35,000 PE	No R/W required; req. construction funds 7/1/08
Orange	SS-4907E 41026.3	NC 54 @ SR 1952 (White Cross Road)	Construct a left turn lane	$173,000.00	APAC-Atlantic, Thompson Arthur Div. = **100% complete**
Orange	SS-4907 J 41634.3	NC 54 and SR 1945 (Neville Rd.)	Construct a left turn lane	$187,000.00	S.T. Wooten Corp. =**90% complete**
NCDOT PROJECTS CURRENTLY IN 12 MONTH LETTNG LIST					
County	**TIP #**	**Route**	**Location Description**	**TIP Est.**	**Est. Let Date**
Orange	I-4716	I-40	Grind and reseal joints on I-40 from I-85 to Durham Co. (Scope may be revised)	$1.05 million	Jan. 20, 2009
Orange	B-4592	SR 1561 (Lawrence Rd.)	Replace Bridge # 64 over the Eno River	$1.6 million	Jan. 20, 2009
Orange	**U-0624**	**NC 86 (S. Columbia St.)**	**Corridor upgrade including Bicycle lanes from SR 1906 (Purefoy Rd.) to SR 1902 (Manning Dr.)**	**$6.66 million**	**July 21, 2009**
Orange	U-4704	Chapel Hill-Carrboro	Computerized Traffic Signal System	$5.0 million	April 21, 2009

Transit News Report – DCHC TCC – August 2008

STIP - Mike Kozak continues to work on getting amendments made to the FY07-13 STIP, so that grant applications can be approved before this FTA application period closes. Many, but not all, of the amendments are for the $25M of CMAQ funds and the $13+M of Section 5309 funds allocated to urban transit systems recently. All FY 2007 Amendments were placed on the July NCDOT Board agenda for discussion – these will be approved at the August Board meeting. Year 2009-2015 STIP is currently being reviewed by FTA/FHWA/USEPA. Amendments will be accepted after the initial approval has been received.

On July 10 the NCDOT Board approved an amendment to a FTA Capital Investment Grant (Section 5309) for the new Durham Station multi-modal center. The City is requested a 10% state match to the additional federal funds (total $1,82M, Federal 80% State 10%, Local 10%).

Request sent from NCDOT to FHWA (note that it will take a while for the transfer to occur)

TIP Number	Grantee	CMAQ Description	Amount to be transferred
TA-4987	Town of Chapel Hill	Chapel Hill, Orange County. Purchase eight (8) replacement hybrid electric and diesel buses.	$2,296,000
TA-4923	City of Durham	Durham, Orange County. Purchase 7 replacement buses.	$3,080,000
TA-4818	Triangle Transit	Durham, Orange and Wake Counties. Purchase 10 replacement buses.	$2,720,600
TA-4992	Triangle Transit	Durham, Orange and Wake Counties. Purchase 16 replacement vans.	$258,400
		Part of Total CMAQ to be Transferred	**$25,000,000**

Triangle Transit funds come from multiple Section 5309 earmarks $123,731 from E2008-BUSP-0838, $82,670 from E-2006-BUSP-627, $43,600 from E-2006-BUSP-629 and $525,292 older North Carolina Statewide earmark grants.

Community Transit Program

Orange County Public Transit - At the July 10 meeting, NCDOT Board approved a CTP Grant for approximately $350,000.The capital funds portion ($165,900) will replace two lift equipped 25-FT light transit vehicles (LTV). OCPT provides community transportation services to four human service agencies and to the general public through subscription, fixed route and dial-a-ride services. OPT provides connector service to Chapel Hill Transit Routes. Recent collaboration between Triangle Transit and Orange County has created a regular service between Chapel Hill and the Town of Hillsborough. OCPT transports elderly/disabled residents from their residence for medical care and shopping. Regular weekday transportation is provided for seniors (60+) to Orange County nutrition sites and Senior Centers. The system operates with 18 vehicles, 12 of which are lift equipped. OCPT delivered more than 123,500 passenger trips in 2007.

Chatham Transit Network (CTN) - In May, the NCDOT Board approved approximately $326,000 in CTP funds: (Administration $224,000 (80/5/15) and Capital $102,000 (80/10/10). Capital funds will replace one lift equipped van and one 20-FT lift-equipped light transit vehicle (LTV). In June 2008 the Board passed an amendment to the Chatham JARC agreement (06-JA-005) to allow $75,275 (50% fed, 50% local) to supplement service between Siler City and Chapel Hill. CTN provides community transportation services to 10 human service agencies and to the general public through subscription and dial-a-ride routes. The system operates with 19 vehicles, 11 of which are lift-equipped. CTN delivered about 68,000 passenger trips in 2007.

Durham County Access (DCA) requested $215,800 in CTP funds: (Administration $98,500 (80/5/15) and Capital $117,300 (80/10/10). This request has not been forwarded to the Board due to some performance issues.

State Funded Rural Operating Assistance Program (EDTAP, RGP, EMP) – the deadline to receive funds in August 2008 was July 25, 2008. This year Chatham County Commissioners requested $182,500, Orange County Commissioners requested $200,000 and Durham County Commissioners have not submitted their proposal.

COUNTIES	EDTAP 09	EMPL 09	RGP 09		Supplmt'l EDTAP 09	Supplmt'l EMPL 09	Supplmt'l RGP 09	TOTAL
Chatham	$50,848	$8,088	$57,161		$29,855	$6,471	$29,979	$182,402
Durham	$95,653	$11,065	$43,508		$56,162	$8,851	$22,818	$238,057
Orange	$59,065	$12,150	$55,307		$34,680	$9,720	$29,007	$199,929

Review of the Triangle Transit Short Range Plan

The Triangle Transit Short Range Plan to year 2013 is an **excellent piece of work**, in which some measurable goals have been set:

- Grow from 62 to 100 Vanpools on the road on a daily basis (86 to 117 vehicles)
- Increase fleet by 30 over-the-road coaches[1], 23 buses (63 existing), and 3 paratransit vehicles (5 existing)
- Increase service (ridership?) by 50%
- Increase weekday peak headway in priority corridors from hourly to 30 minute.
- Add park-n-ride lots at terminus of routes in priority corridors
- Achieve on-time status for 90% of its trips
- Expand service to capture Johnston, Chatham, and Alamance County trips
- Increase contract service where it is more cost effective (i.e. Wake Forest via CAT)

NCDOT suggested further consideration be given to:

- Providing more flexible regional fare medium for the occasional users
- Specific number of park-n-ride stalls to be built within 5 years, establishing a P&R marketing plan and a method for monitoring utilization.
- Implement at least one TSP corridor by 2013.
- Collaboration on CAT's new maintenance facility; possibly joint use for Triangle Transit buses and/or contract service.
- Follow RDU fixed guided transit shuttle plans; to establish principles for 'circulator system' that can be applied to the other three STAC supported circulators. By doing so circulators could become the Gemstones on the Necklace of regional transit.
- Draft transit supportive land-use guidelines for adoption by communities.
- Develop a specific action plan to coordinate with Johnston, Chatham, and Alamance County Community Transit Systems over the next five years. Include park and ride and contracted service possibilities in the discussions.

Triennial Review

It has been proposed by FTA to conduct the State Management Review in North Carolina from September 29 through October 4. Please mark your calendars. FTA will also visit a few sub-recipients within a day trip of Raleigh. Please assist your affiliate systems in getting prepared.

[1] The TT staff is recommending OTR coaches on new Express routes with longer than 30 minute travel times.

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State puts cash behind toll roads

Bruce Siceloff, Staff Writer
A long-term spending plan included in the new state budget will give the N.C. Turnpike Authority $25 million this year and, by 2010, $99 million a year to start building three toll roads in central North Carolina and a toll bridge on the northern coast.

"It's really positive news for these projects," said David W. Joyner, the turnpike agency's executive director.

The first installment of $25 million, starting this year, will help clear the way for construction to start in December on the 18-mile Triangle Expressway, a $967 million project in Research Triangle Park and western Wake County. Traffic could start moving on parts of the TriEx by the end of 2010.

Over the next two years, the financing grows in order to begin building toll roads in Union and Gaston counties and a toll bridge across Currituck Sound.

Legislators were asked to cover projected gaps between toll collections and the cost of building and maintaining the state's first modern toll projects.

They found the money by diverting part of a $172 million yearly transfer from the Highway Trust Fund to the General Fund, where the money has been spent in the past for non-transportation purposes. Transportation advocates have argued in recent years that the money -- collected mostly from fuel taxes and automobile sales -- should be used only for roads.

The legislature decided to reduce the transfer to the General Fund and to gradually increase the turnpike subsidy over three years.

"This sends a message from legislators, to the people we've got to do our financing with, that they're serious," Joyner said.

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NW Wake toll road gets House nod

If the Senate agrees, the 18-mile Triangle Expressway, or TriEx, could be open by 2011

Bruce Siceloff and Leah Friedman, Staff Writers
Commuters in Research Triangle Park and western Wake are a step closer to getting a toll road that could be in operation by 2011.

The state House voted Thursday to give the N.C. Turnpike Authority $25 million a year for the next 39 years to help build the 18-mile Triangle Expressway.

The money is an annual state commitment to cover the expected gap between toll collections and the cost of building, operating, maintaining and repaving the toll road, nicknamed TriEx.

David Joyner, the agency's executive director, said TriEx construction will start late this fall if the Senate approves the budget provision.

The proposed annual turnpike appropriation would grow from $25 million in 2009 to $49 million starting in 2010, to cover a funding gap for the state's second planned toll road, the Monroe Bypass in Mecklenburg and Union counties.

House budget leaders propose to pay for the turnpike appropriation by phasing out the annual transfer of $172 million from the Highway Trust Fund to the General Fund, where it is used for non-transportation needs.

The Triangle Expressway will combine the proposed 3.4-mile Triangle Parkway through RTP and a 12.4-mile extension of Raleigh's 540 Outer Loop from N.C. 55 at RTP to N.C. 55 at Holly Springs. The two new roads will be linked by an existing section of the 540 Outer Loop.

The toll road will have a cashless collection system: Drivers will use transponders attached to their windshields. Drivers would be responsible for adding money to an account, which would be deducted each time they drive the toll road.

Motorists will also have the option of registering their license plates. A camera will take pictures of the plates, and drivers would be sent invoices.

The transponder option will be cheaper for drivers, Joyner said.

Some western Wake residents are unhappy about the prospect of paying tolls to complete the Outer Loop, because its northern half was built with tax dollars.

bruce.siceloff@newsobserver.com

Point of View:
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$4 gas, plus toll? Maybe not

Rob Schofield
RALEIGH - One of the most troubling acts by budget writers in the General Assembly this spring has been the move to take $25 million or more out of the state's General Fund (the source of dollars for education, crime prevention and human services, etc.) and to redirect it toward helping to subsidize the construction of a new six-lane toll road known as the Triangle Expressway.

When many essential services like affordable housing, mental health, probation (and road and bridge maintenance) remain badly stretched and underfunded, the idea that the state would embark upon a major new construction project of this kind can only be described as, at best, an example of questionable priorities.

Now, however, it appears that there is even more reason to question the wisdom of the project. A review of supporting documents upon which the Triangle Expressway is based reveals that some of the key numbers and assumptions are badly out-of-date.

This is especially true in light of the rapid and unprecedented changes in the worldwide demand for petroleum and the effect that rising prices is having, and will continue to have, on automobile use.

The Triangle Expressway is the name given to a combination of two proposed roads known as the Triangle Parkway and the Western Wake Freeway. Together they would total about 16 miles and provide a new route for drivers from N.C. 147 (the "Durham Freeway") to the Holly Springs area in southwestern Wake County. Much of the new road would be considered part of the I-540 Outer Loop.

The premise behind the roads is that they constitute a necessary response to a growing population and increased automobile traffic. A look at the documents calls this premise into question.

REVENUE AND TRAFFIC PROJECTIONS FOR THE TWO ROADS were prepared for the Turnpike Authority by a private firm known as Wilbur Smith Associates. Though quite detailed in many ways, the reports evidence a glaring problem: They were completed in spring 2006 when gasoline was about $2.50 per gallon. Even more important, the traffic inputs on which many of the calculations were based appear to date to 2002, when gas was about $1.25 per gallon. One of the study's basic assumptions is that "Motor fuel will remain in adequate supply and no national or regional emergency would arise that would abnormally restrict the use of motor vehicles."

Obviously, this is a huge problem. As has been well-documented, the skyrocketing cost of fuel has had profound effects on traffic patterns and highway usage.

Americans are driving less, much less. According to The Washington Post, federal officials recently reported the first decline in miles driven on U.S. roads since 1979. The same report said that estimated vehicle miles traveled on U.S. roads for March fell 4.3 percent, or 11 billion miles, compared with March 2007.

If gasoline reaches $5 or $6 per gallon, even more profound reductions in vehicle miles traveled and land development patterns will be sure to follow.

NONE OF THIS IS NECESSARILY INTENDED AS AN INDICTMENT of the Turnpike Authority or its consultants. Roads take time to build and must always include estimates and long-term projections based on the information that is available.

The recent dramatic shifts in the world demand for petroleum, however, are clearly exceptional and go well beyond the kind of normal adjustments that one might expect to apply to such estimates. Indeed, if they are the herald of the sea change that some experts expect, there is every reason for lawmakers to demand, at a minimum, a new study before plowing ahead.

The soaring price of gasoline and rapidly changing transportation patterns are not the only reason to question the state's plans to embark upon the construction of several new toll roads. As Steve Jackson of the N.C. Budget and Tax Center has pointed out, toll roads would go a long way toward establishing a two-tiered, "haves" and "have nots" transportation system.

At their best, toll roads offer a flawed and inequitable model for adding transportation infrastructure. In the worst case scenario (as appears to be brewing in North Carolina today), roads like the Triangle Expressway can amount to a wasteful and obsolete boondoggle even before they're completed.

In an era of $4 gasoline and $130 crude oil, lawmakers would do well to think again before they give the go ahead to building a road that may ultimately be too expensive for most people to use.

(Rob Schofield is the director of research and policy development at N.C. Policy Watch (www.ncpolicywatch.com).)

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Letter:
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You'd be unhappy, too

Thanks for your June 6 article on "NW Wake toll road gets House nod." The article was informative, but it was a bit too simplistic in its characterization of "unhappy Wake residents," who, like other taxpayers across the Triangle, believe it is grossly unfair to be targeted to pay twice for a portion of the I-540 Outer Loop to go to I-40, the airport or parts of North Raleigh.

Small wonder the public sneers at politicians' accountability. Linking the 3.4-mile Triangle Parkway toll connection to I-540 looks like more wasteful DOT "pork barrel" spending wrapped up in a new agency called the N.C. Turnpike Authority. According to officials this targeted tolling is needed to make the RTP link into the park a more palatable, viable funding option.

DOT's own traffic impact analysis points out that the link is not needed in the near term and predicts it will add more traffic to the RTP area, as upward of 20 percent of the commuters will avoid the toll coming off of I-540 and the Durham Freeway.

I hope our state senators will ask more questions and look at other options.

Michael Schlink, Morrisville

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Letter:
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Traffic projections for Triangle Expressway are up-to-date

I would like to respond to Rob Schofield's June 17 Point of View piece "$4 gas, plus toll? Maybe not" stating the N.C. Turnpike Authority was relying on "badly out-of-date" estimates and assumptions for the traffic and revenue study used in calculating the value of the Triangle Expressway.

First, the reference to completing the report in 2006 was incorrect. The 2006 data were from a preliminary study. The investment-grade traffic and revenue study was prepared over a 14-month period beginning in 2007 and finalized in 2008.

Also, the reference to the Turnpike Authority's using 2002 traffic data seems disingenuous. Traffic counts for various years were used at different locations between 2002 and 2006, followed by several additional counts in 2007 for calibration purposes. Traffic data from 2002 were never used in any of our final studies. All counts were adjusted to 2007 levels. Schofield's reference to the 2002 preliminary data exaggerated the perceived significance of the recent gas price increases.

Moreover, we recognized and accounted for potential gas price increases of up to 50 percent in our studies. The adverse effect on revenue was estimated at approximately 8 percent. We anticipate conducting additional sensitivity tests on gas prices based on recommendations from the bond rating agencies.

As Schofield pointed out, the planning and financing of any major transportation project require long-term forecasts, and any forecast is subject to uncertainties. Gas prices are but one of several uncertainties that must be addressed by the rating agencies in their evaluation of reasonable project risk.

We do not believe it is reasonable, however, to suggest that because gas prices have recently risen and travel has declined 2 percent to 3 percent over the same period, that badly needed transportation improvements such as the Triangle Expressway should not be built. It is more reasonable to assume that over the long term, motorists will shift to more fuel-efficient vehicles to deal with higher prices rather than change their long-term travel patterns.

David Joyner

Executive Director, N.C. Turnpike Authority

Raleigh

(The length limit was waived to allow a fuller response to the article.)

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Letter:
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Auto dependence

I completely agree with the June 18 editorial "Getting on board." It is extremely irresponsible for the state to be adding road capacity now, while at the same time slashing the budget for maintenance of the 78,000-mile network of roads and bridges we already have.

Construction costs are increasing by 10 percent to 15 percent every year, transportation revenues are declining because of increased fuel efficiency and conservation, and gas prices are making the single-occupant vehicle more expensive than ever to operate. But where are the alternatives?

Auto dependence is real, and it's a serious problem. Isn't it time we start looking to better land-use planning to make walking and bicycling real choices for some trips and using transit to fill in the gaps? When will our elected leaders start thinking long-term, beyond election cycles? If not now, probably never.

Steven Waters

Raleigh

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Durham to debut new hybrid buses

From Staff Reports
DURHAM - This afternoon, the Durham Area Transit Authority will show off one of the hybrid buses that will soon transport Durham passengers.

DATA and city officials will answer questions, give tours and take a ride in the hybrid bus this afternoon at 2 p.m. in the DATA offices in Durham.

The city is purchasing 20 Gillig hybrid buses, which cost $540,000 each. The buses take about a year to build, so they will be introduced into the riding schedule next summer, said DATA spokeswoman Ieshia Gray Robertson.

Most of the cost for the buses will be paid by federal grants. The state and city are each paying 10 percent of the cost, Robertson said.

The new hybrid bus fleet will help DATA save money on fuel consumption by up to 40 percent, according to a release from DATA.

The hybrid bus fleet will also help DATA reduce emissions and improve Durham's air quality, the release said.

Currently, DATA has 50 buses transporting over 14,000 people daily on 19 different bus routes. In addition, 43 vans transport passengers throughout Durham.

For more information, visit http://data.durhamnc.gov.

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DOT struggles under gas tax stretched thin

State's crews will do less repaving

Mark Johnson, The Charlotte Observer
RALEIGH - The state Department of Transportation plans to do 20 percent less repaving this year because of rising prices of oil-based asphalt.

That cutback may get even larger. Oil prices continue to climb, but one of the revenue streams intended to help pay for road construction, the state gas tax, remains capped at 29.9 cents per gallon.

In the Triangle and elsewhere, engineers are tapping next year's money to finish this year's repaving, meaning that the cutbacks won't be felt until 2009. Some work crews already are on a work week of four 10-hour days to save truck fuel, and more may switch.

"We're not going to get as many lane miles paved and resurfaced," said Wally Bowman, division engineer with the DOT based in Durham. "It's hitting us hard."

Transportation officials said they could not yet identify any specific projects that will be affected and said that major highway projects will continue as planned.

"We resurface roads every year in every county," said Jon Nance, director of field operations for the DOT. "Instead of paving 100 miles, for example, we're paving 80 miles. We're trying to prioritize the roads as best we can and looking at what we can do to prolong the life of the roads we can't repave."

Limited options

The reduced paving will be felt on shock absorbers in every county. Unlike many states, where localities share in the repair and construction costs for state roads, North Carolina handles all that work through the Department of Transportation, maintaining more miles of road than any state government except Texas.

North Carolina spent $278 million on repaving last year.

It's difficult to say how many fewer miles of road will be paved, because the cost differs depending on the size and type of the road. An interstate highway is not only wider than a two-lane road, but the asphalt is also poured deeper.

Here's one way to think of it:

In December, it cost about $53,000 to pave one mile of a 20-foot wide road. Now it costs about $64,000.

North Carolina's gas tax was intended to help compensate for the increase in oil prices. Until two years ago, the tax was adjusted twice a year and rose with the price of gas. The idea was that if gas prices were up, so were asphalt prices, and the state would need more money to pay for it.

But in 2006, the legislature capped the tax at 29.9 cents a gallon under pressure from an anti-gas-tax campaign led by Salisbury lawyer Bill Graham.

Another revenue source, the 3 percent highway use tax that is applied to each new car purchase, has flatlined along with auto sales.

Even the cost of getting the asphalt to the road has jumped, because everything involved in road paving is trucked to the site.

Contracts affected

The Triangle likely won't see the full effect of the cuts until next year, said Bowman, the division engineer. He's completing the repaving contracts awarded for this year, but he's siphoning money from next year's budget to do it. He compared the road-paving pinch to how higher gas prices are eating a larger share of household budgets.

"Do you cut back on Christmas? Do you cut back on vacation?" Bowman said. "With us, you cut back on the miles you're going to repave next year."

Barry Moose, the division engineer in the Charlotte area, is juggling the same problem.

"For every million dollars in contract work I had to do [this year], I'm now budgeting $1.2 million," Moose said. "When I do that, I'll have less money available for next year's contract."

The department's repaving contracts allow for a fluctuation in asphalt prices. That avoids paying a premium on the contract, but it means the state pays more when asphalt prices go up.

In the first four months of the year, the state already had paid $4 million more than its contracts originally called for because of asphalt prices, and the paving season didn't really begin until March.

The state paid $35.7 million over the original contract costs in 2006 after Hurricane Katrina pushed up oil and gas prices.

"We're on pace to beat our number in 2006, which is kind of scary," said Wiley Jones, payment construction engineer for the DOT.

Moose, in the Charlotte area, said he'll be doing more patching and repairing to make roads last longer instead of repaving. The danger is that the roads deteriorate and will need more repairs when they're finally repaved.

"The longer you wait to repave, the more it costs you to repair," Moose said, "and so you can't repave as much."

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Transit tax bill expected to return

By Ray Gronberg : The Herald-Sun
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Jul 27, 2008

DURHAM -- A bill giving the Triangle and the Triad the same authority as the Charlotte area to raise money for transit with a local-option sales-tax surcharge didn't go anywhere in the 2008 General Assembly session.

But supporters say it likely will be back in 2009. And next time around, it could also have the weight of the governor's office behind it, as both major-party candidates for governor at least in principle support the idea of expanding transit-tax authority to more cities.

The main difference between Democratic candidate Beverly Perdue and Republican candidate Pat McCrory on the issue is that McCrory says he'd urge local leaders to spell out plans for using the money and line up public support before they formally request tax authority.

McCrory, Charlotte's mayor, said that's the approach he and other political leaders took in the mid-1990s when they pushed Mecklenburg County's transit tax through.

"What we did ... was put our plan together, get public feedback on it in communitywide meetings and then present it to the legislature for approval to try to seek funding," McCrory said.

Perdue, currently lieutenant governor, attaches no qualifier to her support for the idea but also isn't as specific.

"She's a big believer in mass transit and does think local areas should have the option of coming up with some local revenue sources," said David Kotchman, spokesman for her campaign. "If the public does support it, then the state can help [projects] with some of the gap funding to help make it happen."

But local legislators say the initiative in 2009 likely will remain with the General Assembly.

Transit-tax supporters introduced bills in both chambers of the assembly that largely followed the recommendations of a House and Senate study committee. But neither bill made it out of committee.

The most activity came in the N.C. House, but the chamber's leadership ultimately decided against trying to move a bill in the 2008 session.

State Rep. Paul Luebke, D-Durham, said the bill was the focus of a meeting involving House Speaker Joe Hackney, D-Orange, Majority Leader Hugh Holliman, D-Davidson, and the chairmen of three key committees. Luebke participated as senior chairman of the House Finance Committee.

The group decided to hold off this year because supporters couldn't identify more than 55 House members who were likely to vote for the bill, Luebke said. That was six short of the number needed to pass it.

Supporters didn't convince a single House Republican to vote for passage, and also had trouble lining up Democrats, he said.

Luebke said the Democratic opposition came from members of the Legislative Black Caucus who agree with him that sales taxes unfairly penalize poor and middle-income residents, and from smaller cities such as Greenville and Wilmington "who wanted to know why they couldn't have a transit-tax option."

Given that, "the conclusion of all gathered, including the speaker, was that the bill was not ready this year," Luebke said.

Next year, renewed debate on the idea will likely start with "rewriting the bill to share the burden," tax-wise, in a way that Democrats can support, he said.

It's also clear that there will be a big debate in the General Assembly on putting a multibillion-dollar transportation bond referendum to a statewide ballot.

"One of the most critical questions about the bond issue will be [how much of it is] directed at transit infrastructure," Luebke said. "It's critical it not be treated any less fairly than highways. If in fact transit is a big part of the bond issue, there will be less need for local money."

Supporters of a transit tax, however, say access to local money is key to securing the federal subsidies that make big-dollar transit projects possible.

If a new presidential administration favors transit either on its own merits or as an economic-stimulus measure, "those municipalities equipped with a transit plan and a local stream of matching money are going to receive the big federal funding," said state Rep. Becky Carney, D-Mecklenburg, chief sponsor of this year's House bill. "It's easier to fill a pot when it's half full than when it's empty."

State Sen. Floyd McKissick, D-Durham, who co-sponsored a Senate version of the bill, agreed and noted that for now, a tax on rental vehicles provides about the only local money officials can pledge to new transit projects.

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Tax doesn't look so bad now

Voters may get to decide on a local-option transit tax

Bruce Siceloff, Staff Writer
Triangle House and Senate members didn't go along with their Charlotte colleagues in 1997, but this time a lot of them are ready to get on the bus.

Most Wake, Durham and Orange legislators say they are ready to let local voters decide for themselves -- yes or no -- whether they should pay a half-penny sales tax to help build a strong local and regional network of buses, streetcars and trains.

The proposal, as part of a statewide plan to address urban congestion, will get its first airing Wednesday in the House Transportation Committee.

It's not clear whether it can pass both chambers during the 2008 session. But this year, with $4 gas pushing bus ridership to record levels, support is growing.

"I think it's absolutely imperative that we provide this option," said Sen. Floyd McKissick Jr., a Durham Democrat, one of five Triangle senators who are co-sponsors of the local-option transit tax bill. The lead sponsor is Sen. Richard Stevens, a Wake Republican.

The General Assembly first considered local-option transit sales taxes 11 years ago. The Triangle delegation balked, agreeing on only a modest 5 percent car rental tax that later was joined by a $5 car registration fee.

But Charlotte legislators -- with a stiff prod from Queen City corporate leaders -- voted in 1997 to authorize a local transit sales tax referendum. Mecklenburg County voters endorsed the half-penny sales tax in 1997 and again in 2007.

Charlotte used that half-penny tax to beef up its buses, launch a popular 10-mile light rail line and lay the groundwork for four more transit routes. The new train has stimulated a dense mix of urban development on Charlotte's south side. Its rail cars and park-and-ride lots are overflowing.

The Triangle picture has changed since 1997, too.

Traffic jams have spread as the three core counties added 320,000 residents in the past 11 years. The price of gas -- an average $1.20 that year -- has more than tripled. Commuters are packing the express buses that link Raleigh to Durham and Chapel Hill.

A three-county Triangle citizen panel this spring proposed a 27-year, $8.2 billion regional transit system and said a half-penny local sales tax -- a nickel on every $10 purchase -- would cover more than half the cost.

State Sen. Neal Hunt, a Raleigh Republican, notes that the bill has not advanced in the Senate and says he has not studied it closely. But he wants to let voters decide on a transit sales tax.

"If the citizens want to vote for it, I think they should have that right," Hunt said.

On the House side, five representatives from Wake and one from Durham are co-sponsors of the transit legislation. It sets up a transit funding system but does not provide new state revenues.

The first new transit money would come from the local half-penny sales tax, if approved by voters and county commissioners, and a $2 increase in the car registration fee.

Rep. Verla Insko, a Chapel Hill Democrat, is ready to vote for it.

"I think it's clear that we need to move more quickly toward transit than we currently are," Insko said.

But not everybody is on board.

"Before we look at committing this half-cent sales tax just to mass transit, we need to look at the other capital needs that we have in the Triangle," said Rep. Nelson Dollar, a Wake Republican.

Rep. Paul Luebke, a Durham Democrat, favors transit improvements but is not ready to pay for them with higher sales taxes.

He is pressing the same objections he raised in 1997: Low- and middle-income residents would bear the heaviest burden of a sales tax increase, he said.

"I don't understand why we as policy makers would select the most regressive tax out there and would not try to have a balanced package of taxes and fees that would include businesses and developers," Luebke said.

McKissick said low-income voters want the chance to vote on a transit sales tax.

"It may be somewhat regressive, but it also would disproportionately benefit low- and moderate-income individuals with better transit service," McKissick said.

Enlighten the Road Worrier: blogs.newsobserver.com/crosstown or bruce.siceloff@newsobserver.com or (919) 829-4527. Comments, questions and tips are welcome.

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Getting on board

With fuel prices through the roof, the state legislature can help the Triangle help itself with a comprehensive transit system

Gasoline at $4 and more has pumped up interest in mass transit for the Triangle. It hasn't yet resolved the question of how to pay for it.

The legislature, which is eager -- perhaps overeager -- to get the controversial Triangle Expressway toll road project in gear with a $25 million annual appropriation, should be equally interested in devising fair and effective fund-raising options for Triangle-area transit. The subject is scheduled to come up for discussion at a House Transportation Committee meeting today.

So far, the most likely candidate for the leading role in mass transit finance is familiar -- the local option sales tax. This year the Special Transit Advisory Commission looked at expanding Triangle Transit's services and recommended boosting local sales taxes by a half-cent, subject to voter approval. (A half-cent increase means an additional five cents on a $10 purchase.)

By one estimate, that would raise about $80 million a year. The transit commission says the half-cent hike, combined with a $2 increase in the annual car registration fee, plus state and federal funds and proceeds from a bond issue, would support an expanded Triangle-wide bus system soon, plus rail service in coming years.

Meantime, a state-level panel, the 21st Century Transportation Committee, recommended letting urban counties vote on a half-cent sales tax increase for transit. Charlotte already has that authority, and voters there have twice approved the tax. It pays for buses and a popular new light rail line.

Even though the statewide committee favors letting urban areas vote on a sales tax, and the local committee favors the tax itself, it's not a done deal. Getting a tax hike proposal through the General Assembly takes work, and lawmakers may be feeling burned by last year's misadventure with the transfer tax on real estate sales, which voters rejected in county after county. For transit, the feeling on both committees seemed to be that only the most immediate actions would be proposed for this year's short session of the legislature.

Along came $4 gas, and now legislators are talking about transit.

More and more commuters are riding buses operated by Triangle Transit and municipal systems in Raleigh, Durham, Chapel Hill and Cary. Charlotte's light rail line is surpassing expectations. Meanwhile, vehicle miles driven in the state are declining. Barring a miraculous fall in fuel prices, the debate about mass transit in the Triangle is over. At a minimum, more buses are on the way, here and in adjoining counties.

It's about time, as this spread-out region's economy depends on people being able to move around efficiently and at reasonable cost. But is the sales tax the right financial route?

Sales taxes are rightly viewed as regressive. The less you earn, the greater the share of your income that typically goes for goods that sales taxes are applied to, at least in this state. Couldn't transit's main funding source be something fairer? Suggestions include property taxes, impact fees on development or even a special tax district centered on the Research Triangle Park.

All are worth a look. A compromise may be best -- say, a quarter-cent sales tax hike, plus a "fairer" revenue source or two. The point is to get voters on board and to bring the Triangle's transit options to a new level of service.

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States Could Face 34% Reduction From Highway Trust Fund

Finance and Commerce – June 13, 2008

WASHINGTON, D.C. - A $3.7 billion shortfall in the federal Highway Trust Fund for fiscal year 2009 could force states to cancel or delay several hundred million dollars worth of transportation projects, as well as endanger the jobs of tens of thousands of construction workers.

The shortfall is partially caused by people driving less because of high fuel costs, causing tax revenues to decline, and because of emergency allocations from the fund for unexpected road and bridge projects across the country. The most dramatic example of this is the $234 million the federal government gave Minnesota to rebuild the 35W bridge that collapsed last August. The Federal Highway Administration projects that all 50 states will see a 34 percent reduction in road construction funds from what they received in 2008 unless something is done to address the anticipated loss.

Congress and the Bush administration are considering possible solutions to avoid the potential $14 billion loss to the states. A Senate bill, called the American Infrastructure Investment and Improvement Act, would produce up to $5.1 billion, most of which would come from the general

fund. The FHWA also advocates the use of toll roads and public-private partnerships to aid the highway funding deficits many states are facing.

In the meantime, the administration is looking at limiting federal highway spending to $39.4 billion for fiscal 2009 (instead of the $41.2 billion forecast earlier) and shifting money from the HTF's mass transit account to the highway account.

WEDNESDAY, JULY 23, 2008

States worry about dwindling road funds

By Stephen C. Fehr, Stateline.org Staff Writer

The two main sources of state transportation money are falling precipitously this summer as Americans cut back on driving, threatening to delay or halt crucial work on roads, rails and bridges and breeding an election-year issue for Congress and the presidential candidates.

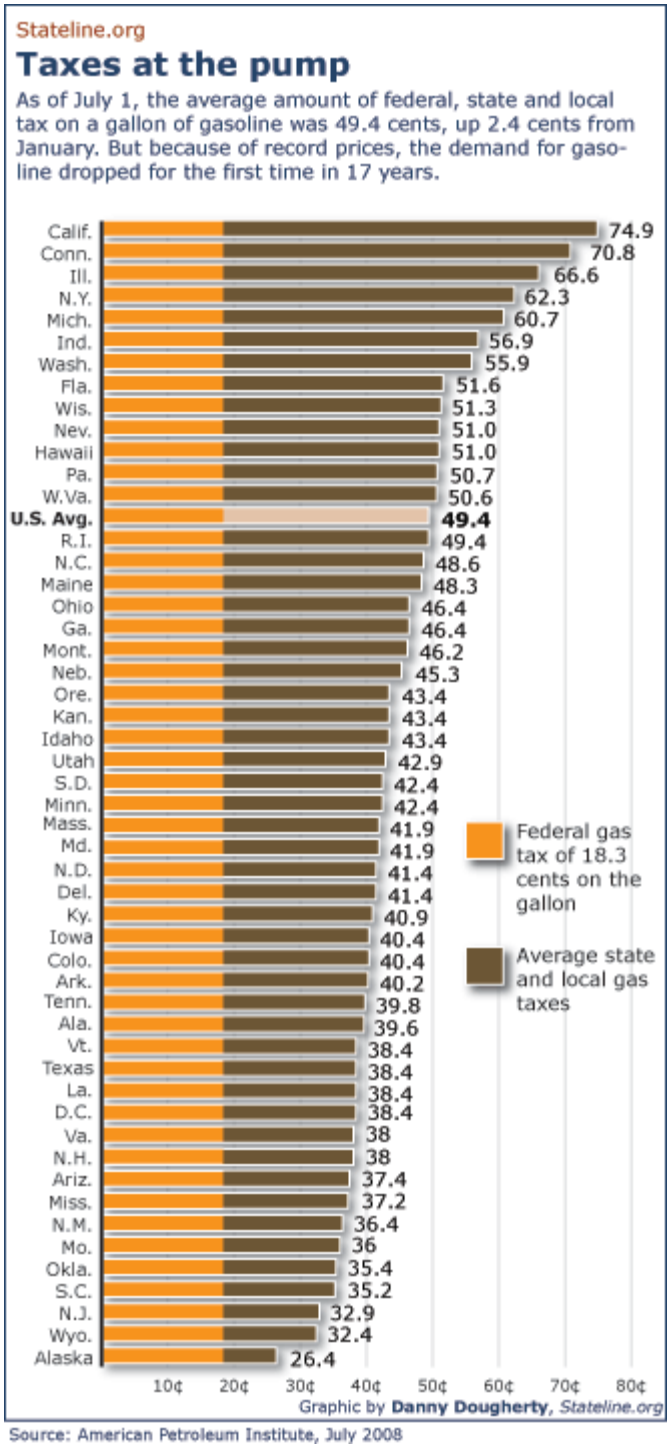
Both the federal Highway Trust Fund and state road funds rely on federal and state taxes collected on each gallon of gasoline, but revenues are dropping because people are not buying as much gas now that prices top $4 a gallon. The slippage exacerbates a looming crisis with the $40 billion federal highway fund, already projected to run out of money before the start of the next budget year Oct. 1.

Even before oil prices spiked, many states were struggling to finance a backlog of highway and transit projects. Now, not only are states' share of federal road dollars in danger of running short and their own gas tax revenues falling, but they also are paying record prices for petroleum-based materials for building and maintaining roads and bridges. Virginia officials are spending $688 for a metric ton of asphalt this summer, up 272 percent in five years.

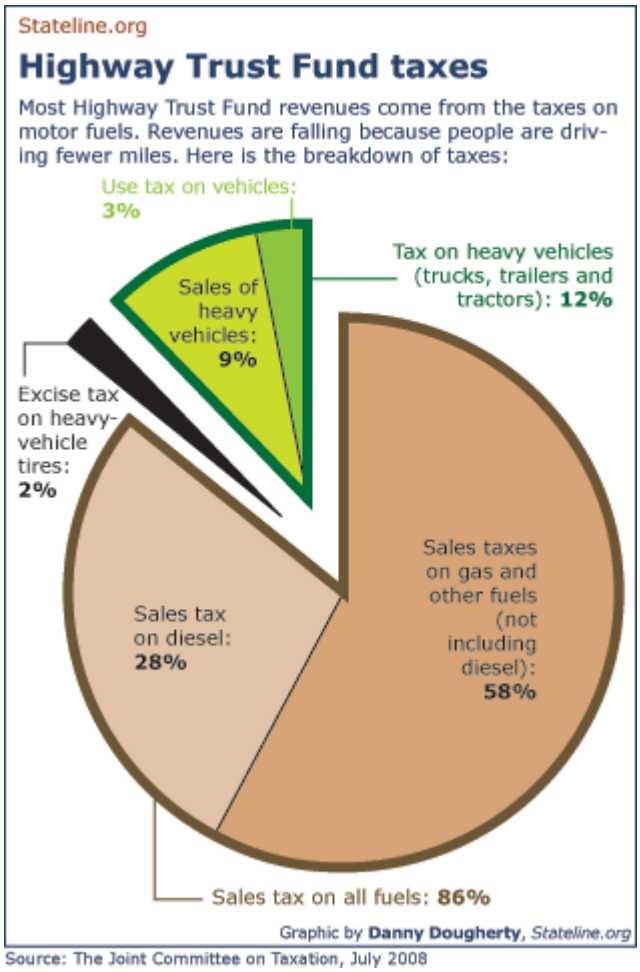
"I've never seen a perfect storm like this," said Jack Basso, who has spent 43 years as a federal transportation official and a top executive at the American Association of State Highway and Transportation Officials (AASHTO).

No state is immune. Not counting federal dollars, Nevada's highway revenues are projected to drop 11 percent from a year ago. A portion of Oklahoma's highway fund comes from a sales tax on new cars, but because people are buying fewer cars in a slowing economy, revenue has plunged 30 percent compared to last year. West Virginia lawmakers recently voted to stash $40 million in the state road fund to offset an anticipated decline in revenue from state gasoline taxes.

"Every state has a similar story," said Virginia transportation secretary Pierce Homer.



Source: American Petroleum Institute, July 2008



Source: The Joint Committee on Taxation, July 2008

The immediate concern for state transportation directors and governors is the fate of the federal Highway Trust Fund, from which states receive money to carry out the federal government's road and mass-transit programs. States must put up a share of their own money to qualify for matching federal road dollars.

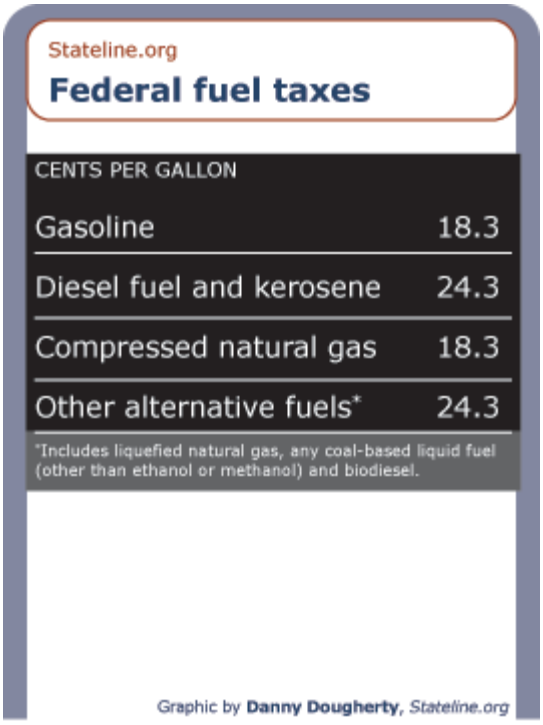
Bush administration officials estimated in February that the fund would have a $3.2 billion deficit on Oct. 1 because spending is growing faster than revenue. New estimates of the shortfall are expected by the end of the month. On July 28, federal highway officials are scheduled to release new figures showing a seventh straight monthly decline in the number of miles people are driving.

An even bigger shortfall would upset already anxious state officials. States manage big construction projects over long periods of time, obligating a portion of the overall cost each year, so it is important to keep the federal money streaming in.

They are pressing Congress to rescue the federal highway fund before Oct. 1. Any vote could involve the senators running for president, John McCain (R-Ariz.) and Barack Obama (D-Ill.), as well as lawmakers up for re-election.

Governors and state transportation directors have known for months that the federal trust fund balances were falling. What caught many state officials by surprise was $4-a-gallon gasoline, which caused a drop in their own state highway funds as people started buying less gas.

Like the Highway Trust Fund, which derives most of its money from the 18.3-cent-a-gallon federal gasoline tax, state highway funds also are heavily dependent on revenue from state gasoline taxes, which average 18.4 cents a gallon nationally. Many states also funnel money from the sales tax on new car purchases and registrations into their state highway funds. Car sales are down this year, too.

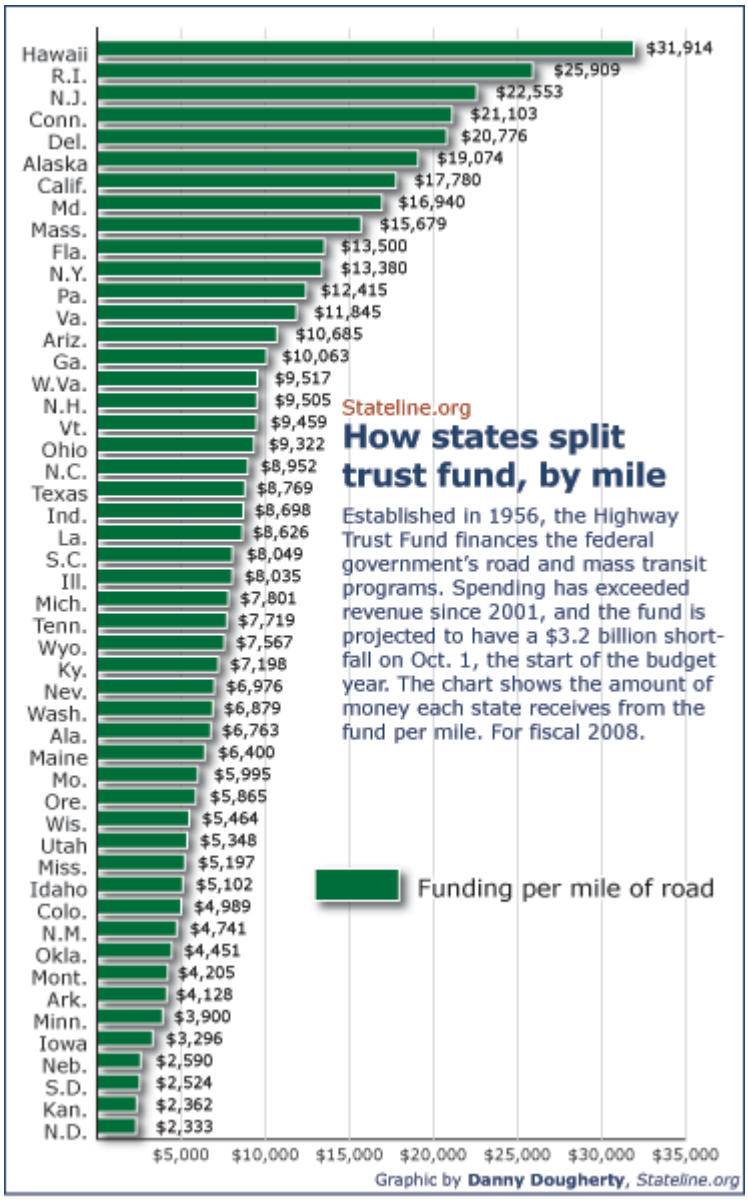


Source: The Joint Committee on Taxation

The rise in gasoline prices could not have come at a worse time for many states. Illinois and Virginia lawmakers have held special sessions this summer devoted to financing new infrastructure plans. Idaho Gov. C.L. "Butch" Otter (R) traveled to three cities this month to build a case for revenue increases to close a $240 million shortfall for transportation projects. Some states socked by destructive floods last month will need expensive road and bridge repairs; nine major highways in Iowa were still closed last week because of flood damage.

Congress' attempts to cover the $3.2 billion gap have sputtered so far. The chairmen of Congress' two money committees, Sen. Max Baucus (D-Mont.) and Rep. Charles Rangel (D-N.Y.), support rescuing the highway fund by borrowing $8 billion from the government's general fund, which pays for day-to-day operating expenses, a move that requires permission from Congress.

The amount was pegged to the $8 billion that Congress donated to the general fund in 1998 when the highway fund had a surplus.



Source: Federal Highway Administration

"In 1998, it was believed that we didn't need the money for highway investments," said Sen. Patty Murray (D-Wash.). "Well, we definitely need it now."

But Baucus' attempt to tack the $8 billion onto an unrelated aviation bill was blocked by Sens. Judd Gregg (R-N.H.) and Jim DeMint (R-S.C.), who branded the move a "bailout" of the highway trust fund.

Gregg, DeMint and other lawmakers contend that Congress has wasted billions of dollars from the trust fund on dubious pork-barrel projects for home districts and that the same thing would happen to the extra $8 billion.

The House could take up legislation as soon as today. But many lawmakers and interest groups predict the matter will wind up in Congress' end-of-the-year catch-all spending measure extending current funding levels into January. Politically, they say, Congress cannot afford to allow the Highway Trust Fund to run out of money. Deep cuts in the federal transportation program would be disastrous in an economic downturn, argue key interest groups such as AASHTO, which estimates 400,000 jobs could be at stake.

Even if Congress approves the $8 billion, President Bush has threatened to veto any legislation exceeding his budget. The Bush administration says the highway fund problem is a cash-flow issue that acting Federal Highway Administrator James Ray said can be remedied by advancing funds from the mass-transit account.

Ray recently confused some state transportation officials, they said, by telling them to continue spending their federal transportation money although the highway agency could only pay bills "as cash becomes available."

"That's like saying we're good for the money, but we can't tell you when we'll have it," said one state transportation secretary, who asked not to be named because he must work with Ray.

Despite the uncertainty, state transportation officials say they are proceeding as if Congress will come through with the money. Otherwise, construction projects will veer off schedule.

"We're moving forward," said Nevada transportation secretary Susan Martinovich. "I've got to plan ahead because project delivery takes so long. If we hold up on that, we're behind the curve."

Looming next year is a potentially bigger fight in Washington, D.C., over renewal of the federal highway program for the next five years, including whether there is too much reliance on gasoline taxes as the main source of money.

“We do believe ultimately Washington will find a way” to close the Highway Trust Fund gap, said Vermont transportation secretary Neale Lunderville. “Our economy runs on our transportation system. I can’t believe we would stop projects and put people out of work.”

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Govs turn to fixing infrastructure (7/15/2008)
Jobs are at risk if Congress doesn’t fix the Highway Fund (6/12/2008)
Governors target transportation funding (2/26/2008)

Transportation secretary proposes new funding plan

By GREG BLUESTEIN : Associated Press Writer
The Associated Press
Jul 29, 2008

SMYRNA, Ga. -- The nation's top transportation official said the federal approach to funding is "broken" and presented a plan Tuesday that seeks to cut the time it takes to carry out new highway and transit projects.

Transportation Secretary Mary Peters said the plan would reduce the 13-year average it now takes to build. It also promises a renewed focus on maintaining and expanding federal highways instead of diverting funds to other projects.

She also called for Congress to revamp the "antiquated" gas tax, which she said results in less revenue for transit because it relies on volatile fuel prices.

"Without a doubt, our federal approach to transportation is broken. And no amount of tweaking, adjusting or adding new layers on top will make things better," she said at the Georgia Tech Research Institute. "It is time for a new, a different and a better approach."

Environmental activists quickly raised a red flag, saying the plan would eliminate the Congestion Mitigation and Air Quality program, a key air pollution project.

"It's a little bit surprising that they would go so far as wanting to abolish a critical part of the Clean Air Act," said Frank O'Donnell, president of Clean Air Watch. "The message they are sending is they want money going for asphalt rather than clean air."

Peters said the funding that would go to the program would instead be funneled into a pool that cities could use as they wish. Cities struggling to meet clean air guidelines could use their share to reduce pollution, while others could expand transportation.

"Planners would no longer have to slice and dice every federal dollar into niche programs," she said.

The plan also calls for consolidating 102 federal transportation programs into eight umbrella projects, which Peters said would cut waste.

She said she hopes it would ultimately help restore confidence among frustrated citizens who have lost faith in the nation's transportation network.

"If we can show commuters there's a better way to fund transportation projects ... then they'll believe again," she said.

The proposal, launched just months before the November election, would have to be adopted by a Democratic Congress. Peters said she and other Bush administration officials will immediately start lobbying.

The reaction from congressional Democrats was chilly.

"Mostly, it is a collection of the same uninspired and uninspiring policies that this administration has offered over the past five years: toll it, privatize it, lease it, sell it, or congestion-price it," House Transportation and Infrastructure Committee Chairman James Oberstar, D-Minn., said in a statement. "The administration's plan, presented during its waning months, calls to mind the concept of mortmain -- the dead hand, reaching out from the past to affect the future."

Todd Spencer, executive vice president of the Owner-Operator Independent Drivers Association, which represents independent truckers, said, "The administration is on its way out and is simply hanging a 'for sale' sign on our highways as a last ditch effort to reward their friends on Wall Street."

James Ray, the Bush administration's top highway official echoed Peters' calls, saying funding through the gas tax is obsolete.

Ray, the acting administrator of the Federal Highway Administration, told a crowd in Michigan that the government should instead encourage a greater emphasis on pay-as-you-go financing, including tolls and user fees.

Public transit gaining popularity

By Monica Chen : The Herald-Sun
mchen@heraldsun.com
Jul 11, 2008

DURHAM -- With gas prices above $4 a gallon in the Triangle and nationwide, many travelers and commuters are clearly gravitating to alternative transportation, according to bus and train companies this week.

Triangle Transit, which shed the "Authority" part of its name recently, operates bus routes serving intercity Triangle commuters. The system experienced a 30.2 percent ridership increase in June over June 2007. It marked the third straight month of ridership gain.

Spokesman Brad Schulz said some Triangle Transit trustees have told administrators that rising gas prices may accelerate improvements proposed for the system in the next five years, such as increasing the frequency of Durham-Raleigh express lines and adding express service between Durham and Burlington and Person County.

"We're seeing a more diverse group of people that are looking to use transit," Schulz said. "The $4-gallon gas has caused folks to look at alternatives."

But not every mode of transportation and every service is proving to be as popular.

While Amtrak and Triangle Transit have posted record-breaking growth from last year, Durham Area Transit Authority and Greyhound spokeswomen said demand on their services hasn't changed much in recent months.

DATA has many more riders than Triangle Transit. In April, DATA had 417,995 riders to Triangle Transit's 83,926.

Amtrak's June ridership was up 11.7 percent from a year earlier, and May was the service's best month on record for year-to-year comparisons. About 2.6 million people rode Amtrak that month when gas prices were on a steep incline.

Both the Charlotte-to-Raleigh "Piedmont" and Charlotte-to-New York "Carolinian" lines are also up -- the former by 27.5 percent, and the latter by 18.7 percent this year. Both lines go through Durham and the Carolinian also stops in Raleigh, Richmond, Washington, Baltimore and Philadelphia.

By comparison, although the average cost of a ticket on Greyhound is now $33, less than the cost of a tank of gas for most cars, the company reports roughly the same number of travelers in recent months as before.

Greyhound spokeswoman Abby Wambaugh said the bus carrier doesn't plan to add more lines in the near future. The company eliminated roughly 1,000 locations in 2004 that were either unprofitable or had little-to-no ridership.

Similarly, growth at the city-operated DATA bus system has also stalled.

June numbers weren't available this week, but spokeswoman Ieshia Robertson provided statistics showing ridership increased just 5.4 percent for the first five months of 2008 from the same period in 2007. And according to the hot and frustrated passengers waiting for DATA buses in the sweltering heat downtown Thursday afternoon, service has gotten worse.

Many commuters at the terminal in front of West Village said the wait is often 30-40 minutes, sometimes an hour. Buses don't come on time and drivers are often impatient, pulling away before everyone can get on.

"A lot of people with good jobs are now riding the bus. The gas prices are making them think of this now," said Willie Jackson, a disabled man who waited in the heat in a crisp white shirt and gray dress pants.

Commenting on the quality of service, Jackson said he once missed a bus because it was marked one number in the front and another in the back. "You know, people have got their jobs to go to," he said.

As passengers waiting at the DATA terminal complained, just across the street was a Triangle Transit stop, where buses came every half hour and at least one stop was 10 minutes early Thursday.

Schulz said the fastest-growing route in the entire system is the 600X, an express line offering a straight shot from downtown Durham to downtown Raleigh. It begins its route in front of West Village, winds to American Tobacco to pick up more passengers, and then goes on a nonstop ride to N.C. State University and the government district.

Although the route only runs six times a day, its ridership has doubled from 2005, when it began, from 42 daily passengers then to 85 in the second half of 2007. Although 2008 numbers were not available Thursday, Schulz said since the gas prices have spiked up, the buses have often filled up -- meaning some riders have had to stand in the aisle for the ride.

"We've had a lot of interest in the express routes," Schulz said. "The drive time is the same, but people are saying they don't have the same stress level. They can use the time to do other things."

Among the recommendations in a recent draft of Triangle Transit's Short Range Transit Plan is to increase the frequency of the Durham-Raleigh express to buses every 30 minutes at rush hour instead of every 60 minutes.

Other recommendations include considering improved service to Raleigh-Durham International Airport, implementing Sunday service and adding peak hour service from Pittsboro to UNC Hospitals.

The Triangle Transit Board of Trustees' next meeting is July 23.

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'Gotcha!' cams give Cary little

Bruce Siceloff, Staff Writer
There was no doubt about it. Cary's red-light camera caught the Camry driver red-handed.

Rene Navarro went online to see pictures of himself running a red light at the intersection of Walnut and Meeting streets:

* May 9, 5:35:53 p.m. -- The light turns red for two left-turn lanes on southbound Walnut. Other cars stop, as they should. Navarro's green Camry keeps on truckin'.

* 5:35:56 p.m. -- Three seconds later, northbound drivers on Walnut have the green light. They can't go until the Camry completes its turn.

Navarro and his wife, Anne, winced as they reviewed this digital evidence -- a 12-second video, two time-stamped photos and a closeup of the license tag.

They paid the $50 ticket.

But they wondered: Did any of the money stay in Wake County? How much of that $50 went into the coffers of an out-of-state technology company that operates Cary's red-light cameras?

"I wondered how much of it actually benefits the community," Anne Navarro said.

Not much, it turns out. Only about 13 cents of every dollar of Cary's red-light camera money comes back home.

Some North Carolina cities stopped using the cameras last year after court rulings said they must send most of the fines to local schools. That left the cities without enough money to pay the private companies that install and maintain the high-tech systems.

Cary, Raleigh and Knightdale still operate red-light cameras. A separate law gives them more leeway in how the money is divided.

Cary has cameras at 15 intersections, chosen because they had lots of red-light runners and accidents in the past. Arizona-based Redflex Traffic Systems photographs violators, sends them the evidence and collects their fines.

In the fiscal year that ended June 30, 2007, Redflex grossed $811,649 and sent $109,188 back to Cary. The town deducted $15,166 in expenses and wrote Wake County schools a check for $94,022. In four years, Wake schools have made $224,877 from Cary's red-light cameras.

"They [Redflex] bear all the costs," said Michelle Price, town controller. "Our administrative costs are pretty low. We have a part-time ex-police officer who reviews cases and helps people."

Raleigh contracts a different red-light company that tickets violators at 12 intersections. Raleigh cameras focus on streets with the most red-light runners. "We pay a fixed fee," said Mike Kennon, Raleigh transportation operations manager. "For Cary, the more citations that are mailed, the more money goes to Wake County schools."

Last year, Wake schools earned $8,690 from Raleigh's red-light cameras, less than one-tenth of the take from Cary. Knightdale cameras contributed $1,930 to the schools.

But traffic engineers say the real benefit of red-light cameras can be seen in a reduction of crashes at busy intersections. Safety experts agree. A statewide study in 2004 found a 17 percent drop in crashes after the first year that red-light cameras operated.

Cary, Raleigh and other cities also report that their cameras are catching fewer people running the lights than they did a couple of years ago. Cary nabbed 18,623 red-light runners in 2006, but only 16,019 in 2007.

Nowadays the Navarros remember his $50 ticket when they drive through the Walnut-Meeting intersection.

"We're very cautious when we go that way," Navarro said. "So they probably got the effect they wanted. So that's good."

Busy first week

Maybe it was because both buses ran fare-free the first week. Maybe it was because gas cost more than $4 a gallon all week.

During its first five weekdays of operation last week, the new Wake Forest-Raleigh express bus operated by Triangle Transit and Capital Area Transit carried 666 riders. Next week, riders will start paying the regular one-way, $2.50 rush-hour fare.

The new Wake Forest-Wakefield Loop bus was popular, too, with 496 riders on its first four days. Passengers will start paying a $1 fare in January.

Route maps and schedules are available online at http://gotriangle.org or by phone at 485-7433.

Enlighten the Road Worrier: blogs.newsobserver.com/crosstown or (919)829-4527 or bruce.siceloff@newsobserver.com. Comments and questions welcome. Please inc

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Charlotte loop stalls as others speed ahead

Fayetteville gets $284 million to expand lightly used loop

08:51 AM EDT on Monday, July 21, 2008

By Steve Harrison / The Charlotte Observer

FAYETTEVILLE --Three years after it opened, the first section of Fayetteville's Interstate 295 loop is mostly quiet.

By the most recent count, it carries fewer than 9,000 cars a day – fewer cars than Scaleybark Road in south Charlotte, a two-lane road that weaves through a neighborhood.

But Fayetteville will expand its loop this year with $284 million in state money – ahead of the completion of Charlotte's congested and delayed outerbelt.

The final segment of Interstate 485 in northeast Mecklenburg won't open for another decade. The southern leg handles 120,000 cars daily and isn't scheduled to be widened for seven years.

The story of the two beltways reveals the controversy over how the state divides highway money between big and small cities. The projects also have renewed longstanding questions about favoritism, and whether politics has interfered with policy.

Powerful state legislator Tony Rand of Fayetteville, a Democrat, lobbied to make the city eligible for loop money. His close friend, Lyndo Tippett, secretary of the N.C. Department of Transportation and Fayetteville native, helped ensure work would begin at the end of the year.

When Charlotte's I-485 and many other loop projects were pushed back by two years last fall because of the soaring price of raw materials, the N.C. DOT recommended that the Fayetteville outerbelt stay on schedule.

Rand said he lobbied hard for the loop money because it was sorely needed. Tippett said that while other areas might have more congestion, it's important to spread taxpayer money throughout the state, including Fayetteville. He said that neither politics nor his relationship with Rand influenced state plans.

Critics of the transportation department, such as Charlotte Mayor Pat McCrory, have said that Fayetteville is "cutting ahead in line." McCrory, a Republican, also is running for governor.

The Fayetteville decision also underscores what some say is a flaw within the department of transportation: Loop projects do not undergo a cost-benefit analysis.

Nancy Dunn, a board of transportation member from Winston-Salem said she is frustrated about delays in building Forsyth County's loop. "There is no process," she said of the way the DOT determines how loop money should be spent.

'Equity formula'

In 1989, the N.C. legislature revamped how the state doled out highway money. It created the controversial "equity formula," which is favorable to rural areas because only half of the formula used to distribute funds is based on population.

At the same time the formula was created, the state also created a pot of money to build loops around the state's largest urban areas. The urban loop fund was originally slated for Charlotte, Raleigh, Greensboro, Durham, Winston-Salem, Asheville and Wilmington.

In the early 1990s, almost all of the loop funds were spent in Charlotte, as I-485 began to encircle the state's largest city. Mecklenburg has received about 30 percent of all loop money – nearly $1 billion in non-inflated dollars – since 1990. Its share has shrunk in recent years, however, as other loops have been built, such as Greensboro and Raleigh.

The last segment of I-485 in northeast Mecklenburg was projected in 1997 to open this year. Now construction isn't scheduled to begin until 2015, which would push back the opening until 2017 or 2018.

Though Charlotteans see I-485 as an unfinished project, much of the rest of the state sees it differently. Charlotte's loop may not be complete, but it has received far more money, and is closer to completion, than any other city.

In 2003, the legislature added Fayetteville to the list of cities eligible for loop money. Greenville and Gastonia were added a year later. Another added project was to widen I-485 in south Mecklenburg, which was built with too little capacity in the early 1990s.

In Fayetteville

One transportation expert said Fayetteville is a borderline candidate for a loop because of its small population and low growth rate.

The Fayetteville metro area, which includes Cumberland and Hoke counties, has just under 350,000 people, according to Census estimates.

A generation ago, Fayetteville was one of the state's largest cities, but has since struggled. The two-county area has added about 50,000 people since 1990 – a growth rate smaller than the state overall. Its growth has slowed considerably this decade.

Since 1990, the Charlotte area has added 600,000 people, to 1.65 million. It is one of the country's fastest-growing metro areas, and is growing even faster since 2000. When Fayetteville's loop is expanded, I-295 will connect to more parts of the city, including Fort Bragg, the region's economic engine. Traffic is expected to increase by 2020 to about 30,000 cars a day. The busiest interchange is projected to handle 42,000 cars.

“Most states would never build an urban loop for 30,000 cars,” said David Hartgen, emeritus professor of transportation at UNC Charlotte. “They don't have the money to do it. And we don't have the money to do it, either.”

Rand, the state senator, said the road project is crucial to Fayetteville. He and others believe the city has been historically shortchanged in road funding because it's in the same region as Raleigh and must share money with the capital city.

He said he believes the Census is underestimating the number of people coming to Fayetteville.

“I've seen the numbers, too, and I don't believe it,” Rand said. “I will take you down there, and ride you through new subdivision after new subdivision. Where did all those people come from?”

He and other I-295 boosters point to area's expected growth.

Fort Bragg will grow significantly in the next four years after the Base Realignment and Closure commission recommended it absorb units from other bases. It also will receive the Army Forces Command, from Atlanta. When the relocation is finished early next decade, Fort Bragg will have more generals than any other military installation outside the Pentagon.

When families and other support personnel arrive, a military consultant estimated the region's population will grow by 25,000 or 35,000 people by 2013. The new loop will make it easier for traffic on I-95 to reach the base.

“This is the equivalent of a major corporation relocating here,” Rand said.

‘Spread the money around'

Hartgen said the state needs a cost-benefit analysis when deciding which roads should be built, and when.

Barry Moose, the division engineer for the DOT that oversees Charlotte, said local projects are scrutinized for cost effectiveness. Decisions on loops are made in Raleigh, and he said he doesn't know the state's criteria.

“I don't know how they arrive at their priorities,” Moose said.

Calvin Leggett, the DOT's manager of program development in Raleigh, said the state will review a number of factors when deciding when to build. One is how much preliminary work has been done, such as environmental-impact studies, and whether those studies will expire if the road is postponed. But the state doesn't compare loop projects in a cost-benefit analysis.

“That can be appealing, and that can be one approach. The other philosophy, which is shared by the secretary, is that everyone is paying into the system and that the money should be spread around,” he said.

Tippett said politics played no role in the Fayetteville project despite a close relationship with Rand, the legislator who championed it.

Tippett is listed on Rand's financial disclosure form for elected officials as an executor of Rand's trust.

“The reality is, whoever is in charge, they are the target of that sort of remark,” Tippett said of questions about favoritism.

Fayetteville built the first part of its loop on its own, without state loop funds. Tippett said the vast amount of loop money is still spent on the largest urban areas in the Piedmont.

“One of your first concerns is that you have to spread the money out,” said Tippett, who has been transportation secretary since 2001. “Congestion may be the greatest in the Charlotte area, but you have to spread the money around fairly.”

Road Worrier:
Published: Jul 29, 2008 12:30 AM
Modified: Jul 29, 2008 05:01 AM



Crashes at Pullen Road and Stinson Drive in Raleigh fell from 12 over three years to three after a roundabout was installed in 2003. Two more roundabouts are planned for Pullen Road: at Hillsborough Street and at Oberlin Road.
Staff Photo by Juli Leonard

Crashes cut at roundabouts

DOT finds accidents usually are fewer and less serious

Bruce Siceloff, Staff Writer
A lot of folks are unsettled by all the traffic roundabouts that are popping up these days at Triangle corners and crossroads -- so it is reassuring to learn that they probably won't hurt us. In fact, roundabouts have slashed crash rates at dangerous intersections across North Carolina.

We know this because safety engineers at the state Department of Transportation are keeping score.

The junction of N.C. 751 and Old Erwin Road in Durham had been one of the Triangle's scary spots for many years.

There were 14 wrecks in the three years before 2003, when DOT replaced the stop sign with a roundabout. Most of them were noisy T-bone and rear-end crashes -- metal smacking metal at 30 to 60 mph.

In the three years after the roundabout was built, there were only two crashes. Both were rear-enders, with cars going less than 20 mph.

Carrie L. Simpson, a DOT engineer, finds similar changes across the state when she compares before-and-after crash rates at 14 intersections that have been converted to roundabouts since 2000.

Total accident numbers are down: 114 crashes in three to six years before the 14 intersections became roundabouts and 56 crashes over the same period afterward. And collisions at roundabouts are more likely to be slow sideswipes than bone-crunching T-bone crashes.

"Those numbers are significant," Simpson said. "I don't know if some people are intimidated by roundabouts at first, but they've done a pretty good job."

Oh, plenty of us are intimidated at first, all right.

Roundabouts are still an exotic novelty hereabouts. Like many Americans, the Road Worrier had his first encounter in England -- where everything you know about driving is wrong.

It was strange enough to start shifting gears with the left hand and steering from the right seat -- all while trying to keep the car on the left side of the street.

After driving this way for all of two blocks in the middle of London, the young Worrier was swept into his first harrowing experience with a roundabout -- a three-ring, clockwise circus of stinking lorries and honking cabs. This day, 30 years ago, was the day his hair started turning gray.

Bob Cain of Raleigh has fonder memories. He's a roundabout fan from way back.

Cain grew up in Eastern North Carolina near Newton Grove, where three highways converge in a circle that looks on the map like a wagon wheel hub.

He spent time in the 1960s navigating traffic circles in London. Now he spends a lot of his summers motoring around the roundabouts of Ireland.

"I think they're a grand idea, I really do," said Cain, 69. "Every time I have to stop and spend a long time at the intersection of Lassiter Mill and Six Forks roads, I think: Wouldn't it be great to have one here?

"It would certainly save idling at long stoplights, or even short stoplights," Cain said. "And that of course saves gas and cuts down on pollution."

Here's how a roundabout works:

In place of a red light or a stop sign to hold some drivers while others turn left or drive through the intersection, a roundabout pulls everybody into a circle.

When traffic is heavy, you pause at a yield sign until you can enter the counterclockwise flow. When the circle is clear, drivers on each street can move through the intersection without stopping.

It's a little slower than moving through a green light -- but a lot faster than stopping for a red one. That little slowdown is one reason roundabouts reduce crashes.

At Pullen Road and Stinson Drive in Raleigh, the three-year count fell from 12 crashes before to three crashes after a roundabout was built in 2003.

This is good news as Raleigh prepares to award contracts in November for two more roundabouts on Pullen Road.

The Pullen-Hillsborough Street intersection will have the Triangle's first roundabout with two lanes of circling traffic. A new extension of Pullen Road north from Hillsborough Street will be capped with a smaller roundabout at Oberlin Road.

North Carolina has built about 60 roundabouts in the past decade -- not counting all the little ones in subdivisions and shopping centers, says Jim H. Dunlop, DOT state congestion management engineer. He said we could see 600 more in the next 10 years.

Simpson is still counting crashes. She won't consider her findings definitive until she has been able to study at least 30 roundabouts that have been in operation for at least three years each.

But so far, Dunlop said, North Carolina's numbers match the results of roundabout safety studies in other states.

"People used to say, 'Yeah, they work in England and they work in Colorado -- but we're different in North Carolina, and they're not going to work here,' " Dunlop said. "But now we have evidence that they work here, too."

Enlighten the Road Worrier: blogs.newsobserver.com/crosstown or (919)829-4527 or bruce.siceloff@newsobserver.com. Comments, questions and tips welcome. Plea

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DCHC

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County of Chatham
City of Durham
County of Durham
Town of Hillsborough
NC Department of Transportation
County of Orange

June 2, 2008

Sen. Floyd B. McKissick, Jr.
311 Legislative Office Building
Raleigh, NC 27603-5925

Dear Senator McKissick:

The Transportation Advisory Committee (TAC) of the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) at its May 14, 2008 meeting adopted a position paper on S1894 - Congestion Relief/Intermodal Transport Fund (enclosed).

The DCHC MPO is very supportive of increasing funding for transit in North Carolina's growing urban areas. S1894 will provide our area the option to enact a sales tax dependent upon a referendum to fund transit improvements. This will greatly increase our ability to implement the bus and rail transit projects that are in our long range transportation plan.

The DCHC MPO strongly supports the requirement that the financial plan called for in this legislation be approved by all Metropolitan Planning Organizations whose jurisdiction includes any of the area of the special transit district. We want to ensure that this legislation adequately addresses all of the transit needs of our area including the growth of local bus operations. In addition, we want to ensure that the projects funded by the Congestion Relief/Intermodal Fund are consistent with our long range transportation plans.

The DCHC MPO appreciates your support for addressing the transportation needs of our area. Please consider our MPO's position as you consider this bill.

Sincerely,

Alice M. Gordon

Alice M. Gordon, PhD, Chair
Transportation Advisory Committee

Enclosure

Cc: DCHC MPO State Legislative Delegation
DCHC MPO TAC
Mark Ahrendsen, City of Durham/DCHC MPO
Patrick Baker, City of Durham
Roger Stancil, Town of Chapel Hill
Steve Stewart, Town of Carrboro
Eric Peterson, Town of Hillsborough
Mike Ruffin, Durham County
Laura Blackmon, Orange County

City of Durham ▪ Transportation Department ▪ 101 City Hall Plaza ▪ Durham, North Carolina 27701▪ (919) 560-4366 ▪ Facsimile (919) 560-4561

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County of Chatham
City of Durham
County of Durham
Town of Hillsborough
N.C. Department of Transportation
County of Orange

June 11, 2008

Speaker Joe Hackney
2304 Legislative Building
Raleigh, NC 27601-1096

Dear Speaker ~~Hackney~~ Joe:

The Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) is aware that gap funding for the North Carolina Turnpike Authority (NCTA) is currently being considered for inclusion in the fiscal year 2008-2009 Appropriations Acts. It is our understanding that the House Appropriations Act (H2436) included an amendment to the General Statutes that would transfer $25,000,000 annually from the Highway Trust Fund to the NCTA for debt service on bonds issued for the construction of the Triangle Expressway. The Triangle Expressway includes the western section of the I-540 loop in Wake County and the Triangle Parkway which would extend NC 147 south of I-40 to I-540 in Durham and Wake Counties.

The DCHC MPO realizes that alternative financing, such as toll roads, is an important tool to address some of our area's transportation needs. As a result, the Triangle Parkway is included in the DCHC MPO FY 2009-2015 Transportation Improvement Program Regional Priority List. It is ranked ninth out of twelve on the list of highway projects in Durham County in the Regional Priority List.

While the DCHC MPO has been generally supportive of the Triangle Parkway, our support was given with the understanding that there would be accommodations for transit use of the facility. Therefore, we continue to work with the NCTA to address some specific concerns that the MPO has with the project. In particular, we would like the NCTA to reserve space in the median of the project for future transit use. We would also like the NCTA to allow free use of the road by buses, vanpools and (at least 3+) carpools. In addition, all planned and existing pedestrian and bicycle facilities on Y-lines (i.e., facilities crossing the Parkway) should be accommodated in the Triangle Parkway design. The DCHC MPO has also encouraged the consideration of innovative design elements for the project such as the provision of a separate parallel greenway trail in the Triangle Parkway right-of-way.

The DCHC MPO appreciates your consideration of the provision of innovative funding for the Triangle Parkway that does not divert funds from other higher priority MPO projects.

Sincerely,

Alice

Alice M. Gordon, PhD, Chair
Transportation Advisory Committee

Cc: DCHC MPO Legislative Delegation
DCHC MPO TAC
David Joyner, NCTA

City of Durham • Department of Transportation • 101 City Hall Plaza • Durham, North Carolina 27701 • (919) 560-4366 • Facsimile (919) 560-4561

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NC Department of Transportation
County of Orange

June 19, 2008

Mr. David Joyner
North Carolina Turnpike Authority
1578 Mail Service Center
Raleigh, NC 27699-1578

Dear Mr. Joyner:

While the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) has been generally supportive of the proposed Triangle Parkway toll road, our support was given with the understanding that there would be accommodations for transit use. We continue to have some concerns about the project and request that the North Carolina Turnpike Authority (NCTA) consider and respond to these concerns.

In a letter dated October 11, 2006 (enclosed), the DCHC MPO requested that the investment-grade financial feasibility study for the Triangle Parkway proceed with certain qualifications. Although the NCTA has corresponded with the DCHC MPO since October of 2006 and attended some of our Transportation Advisory Committee meetings, a number of the concerns in this letter have not yet been satisfactorily addressed. In addition, the Administrative Action Environmental Assessment report for the Triangle Parkway also does not adequately consider and respond to all of these points.

Our concerns include the accommodation of transit use on the facility. The DCHC MPO requests that the NCTA reserve space in the median of the project for future transit use. In addition, the MPO would like the NCTA to allow the free use of the road by buses, vanpools, and (at least 3+) carpools. In Section 5.1.11 (Transportation Services – Public Transportation and Transit) of the Administrative Action Environmental Assessment report, it is noted that while the Triangle Parkway would provide an additional route in RTP for transit vehicles the route would require paying a toll. The report notes that the toll may be discounted for transit vehicles, but the report does not mention carpools and vanpools.

The DCHC MPO would also like for all planned and existing pedestrian and bicycle facilities on Y-lines (i.e. facilities crossing the Parkway) to be constructed as part of the project. Furthermore, the MPO would like the NCTA to consider innovative design elements such as providing a separate parallel greenway trail in the Triangle Parkway right-of-way. In Section 5.1.2 (Community – Pedestrian and Bicycle Facilities) of the Administrative Action Environmental Assessment report, the report notes that only existing pedestrian and bicycle facilities will be constructed on the Y-lines. Adequate space will be provided for planned

pedestrian facilities, but they will not be constructed. Planned bicycle facilities are not addressed in the report.

The DCHC MPO would like to continue to work with the NCTA as a partner in the planning, design, construction, and operation of the Triangle Parkway. I believe you have indicated that you are indeed willing to work with us as partners, and to meet with us to discuss the details of the project.

The DCHC MPO requests that the NCTA respond to our concerns within one week of the receipt of this letter. I believe you have indicated that you can do that. Please address the concerns raised above, as well as respond to the additional points raised in our October 2006 letter. You may contact Mark Ahrendsen at 919-560-4366 if you have any questions.

Sincerely,

Alice M. Gordon

Alice M. Gordon, PhD, Chair
Transportation Advisory Committee

Enclosure

Cc: DCHC MPO TAC

STATE OF NORTH CAROLINA
TURNPIKE AUTHORITY

MICHAEL F. EASLEY
GOVERNOR

1578 MAIL SERVICE CENTER, RALEIGH, N.C. 27699-1578

DAVID W. JOYNER
EXECUTIVE DIRECTOR

July 23, 2008

Alice M. Gordon, PhD
Chair, Transportation Advisory Committee
Durham-Chapel Hill-Carrboro Metropolitan Planning Organization
101 City Hall Plaza
Durham, North Carolina 27701

Subject: Triangle Parkway, Durham and Wake Counties, STIP No. U-4763B

Dear Ms. Gordon:

Thank you for your letter of June 19 regarding the Triangle Parkway. Unfortunately, it was not received until July 15. I appreciate the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization's (DCHC MPO) continued support and involvement with this project. The following information is provided in response to the comments from your letter.

1. Median of Triangle Parkway

In your letter, you request that NCTA reserve space in the median of the Triangle Parkway project for transit use in the future. The Triangle Parkway includes a 46-foot-wide median. This median width has been assumed as part of the design of the project throughout the environmental study. This width allows for the addition of one travel lane in each direction in the future, or the space could be used for other purposes. The current study does not commit to or preclude any specific future use of the median.

As you know, there have been extensive discussions between NCTA and Triangle Transit (TT – formerly Triangle Transit Authority) regarding the potential to include transit in the median of the Triangle Expressway system (formerly called Triangle Turnpike). In a letter dated May 9, 2007, David King, general manager of TT, expressed the mutually agreed position of NCTA and TT: namely, that "preserving options for use of the Triangle Turnpike median for passenger rail transit or other uses is the appropriate policy." The letter lists several uses in addition to transit, including "additional toll lanes, possible HOV lanes, and possible breakdown lanes" and notes that the intention is that "any of these uses should be provided for and not excluded from consideration." Mr. King further states that TT recognizes that "none of us is wise enough to know what the Triangle region will consider the best or most appropriate use for this median ten or twenty years from now." Thus, the NCTA does not consider it appropriate to make specific commitments regarding transit in the median at this time.

I also would like to clarify a few points in the May 9, 2007, letter. As noted above, the letter refers to "Triangle Turnpike." At the time of that letter, the term "Triangle Turnpike" was used to refer to the toll system that includes Triangle Parkway, the Western Wake Freeway, and a portion of the Northern Wake Freeway (NC 540 from NC 55 to NC 54). The term "Triangle

Expressway" is now used to refer to that toll system. The Western Wake Freeway has a 78-foot median as noted in the letter. The Triangle Parkway has been designed with a 46-foot median. We have not made commitments as to the future use of the median on either facility (Triangle Parkway or Western Wake Freeway), but it is important to understand that the 78-foot median involves only the Western Wake Freeway, the section that was the main focus of the discussions leading up to that letter.

In addition, TT submitted comments on the Environmental Assessment (EA) for Triangle Parkway in March 2008. Greg Northcuff, Director of Capital Development for TT, attended the public hearing for the project on March 25, 2008, and provided supportive comments regarding the design and location of the project on behalf of TT transit (see pages 17 and 18 of attached public hearing transcript). TT's comments did not advocate any expansion of the median beyond its current width of 46 feet.

I also want to note that widening the median beyond its current width of 46 feet would increase the overall project footprint and therefore would increase impacts to both the human and natural environment. During the Environmental Assessment study process, several agencies and members of the public requested that the median be minimized to the greatest extent possible. It was determined that widening the median width beyond 46 feet would result in additional impacts to the following human and natural resources, starting at NC 540 and proceeding north to I-40:

Resources on the West Side	Resources on the East Side
Biogen (manufacturing)	Kitts Creek Subdivision
EISAI (manufacturing)	Keystone Office Park
US Environmental Protection Agency	Davis Park (residential/commercial development)
First Environments Early Learning Center (childcare facility)	Hollow Creek
	Burdens Creek
	Sigma Xi Scientific Research Society

One specific example of a location where the construction impacts are minimized includes the location and design proposed for Triangle Parkway along the US Environmental Protection Agency (USEPA) campus. The roadway is located to avoid right-of-way impacts to the Federal property on the west side and avoid impacts to the Hollow Creek on the east side. A retaining wall is proposed at this location to minimize the width of the construction limits, thus avoiding the Federal property and 2,450 linear feet of stream. Therefore, widening the median and increasing the area of construction to accommodate possible future transit would substantially increase the impacts in the project area and is not recommended.

2. Accommodation of transit use on the facility

You also requested free use of the toll road by buses, vanpools and 3+ carpools. As you may be aware, an investment-grade traffic and revenue study for the Triangle Expressway was published in June 2008 and is currently being updated based on the toll enforcement legislation passed by the General Assembly earlier this month. A final decision regarding free or reduced tolls for vanpools and 3+ carpools will not be made until the results from update is analyzed by our financial advisors. A copy of the June 2008 report is attached, and it is available on our website at http://www.ncturnpike.org/pdf/ClientTriangleExpresswayComprehensivTrafficand RevenueStudy.pdf.

As was promised to you, a series of tests were conducted as part of this traffic and revenue study to measure the sensitivity of annual transactions and revenue to changes in key study assumptions. The results of the sensitivity studies are presented in Chapter 7 of the report.

Sensitivity tests were conducted to assess the effects of re-routing express buses from the parallel NC 55 to the Triangle Expressway. These tests concluded that re-routing of buses to the Triangle Expressway would have little effect on gross toll revenue because the Triangle Regional Model forecasts little ridership on buses along NC 55 in the study area. Any diversion of automobile users to transit using the Triangle Expressway would have minimal traffic or gross revenue impact because of the low current and forecasted transit ridership in the corridor. Furthermore, based on the bus frequencies assumed in the study, allowing free or reduced tolls for the buses projected to use the Triangle Expressway instead of NC 55 would have minimal gross revenue impact.

In addition, sensitivity tests were conducted to assess the effects of a commuter rail line operating parallel to the Triangle Expressway. The results of these tests concluded that some potential toll road commuters could be attracted to commuter rail in this corridor for all or portions of certain trips, but the slower speed of the commuter rail and transfer times between feeder buses and rail would tend to favor the toll road.

While final pricing decisions will depend on financial considerations and financing requirements, I want to assure you that we are committed to continuing our coordination with the TT, the DCHC MPO and the Capital Area MPO to identify future opportunities for accommodating transit on the Triangle Parkway.

3. Planned and existing pedestrian and bicycle facilities
Finally, you requested that all planned and existing pedestrian and bicycle facilities facilities crossing the Parkway be accommodated in the Triangle Parkway design. You further requested consideration of innovative design elements for the project such as the provision of a separate parallel greenway trail in the Triangle Parkway right-of-way.

The NCTA is adhering to the North Carolina Department of Transportation's Pedestrian Policy Guidelines (effective October 1, 2000, attached). In accordance with this policy, the NCTA commits to paying 100% of the cost to replace existing sidewalks that are removed to facilitate construction of the project. The municipality and/or county is required to notify the NCTA in writing of its desire for incorporation of pedestrian facilities into project planning and design. This notification should state the party's commitment to participate in the cost of the facility as well as to be responsible for all maintenance and liability.

To date, we have not received a request for specific pedestrian facilities on the Triangle Parkway, notification of a commitment for participation in the cost of any new pedestrian and bicycle facilities, or a commitment of maintenance and liability responsibility. The policy further states that if the facility is not contained within the project berm width, the municipality is responsible for providing the right-of-way and/or construction easements as well as utility relocation. This provision is applicable to all pedestrian facilities including multi-use trails and greenways.

Unfortunately, there will not be sufficient right-of-way to provide a separate parallel greenway along Triangle Parkway. In addition, the Triangle Parkway is a freeway facility and pedestrian

and bicycle uses are not safe, compatible activities in a freeway corridor. However, bicycle and pedestrian accommodations were considered for the connecting roadways in accordance with the North Carolina Bicycle Facilities Planning and Design Guidelines and the NCDOT Planning and Designing Local Pedestrian Facilities.

The bridge on Kit Creek Road over the Triangle Parkway will accommodate a future sidewalk on the north side of the bridge to connect to the Research Triangle Park sidewalk. The section of Davis Drive at the Triangle Parkway bridges will accommodate a future sidewalk on the south side and will be constructed with sidewalk on the north side to connect to the existing multi-use path. The section of Hopson Road at the Triangle Parkway bridges will accommodate a future sidewalk on the south side and will be constructed with sidewalk on the north side. The NC 54 bridge over Triangle Parkway will include sidewalks on both sides of the bridge and the reconnection of the existing jogging trail.

The sections of Davis Drive and Hopson Road proposed to be widened as part of the project will be constructed with 14-foot outside lanes to accommodate bicycles, and the section of NC 54 to be reconstructed as part of the project will have 14-foot outside lanes to accommodate bicycles. Also, Kit Creek Road is currently scheduled to be constructed with four-foot paved shoulders in each direction to accommodate bicycles and accommodations for sidewalk on the north side.

In conclusion, all toll project decisions are made in the context of four basic overriding considerations – safety, environmental impact, project cost, and project revenue. These issues are fundamentally important to toll financing and are key factors when considering reasonable accommodations requested by other organizations.

Again, thank you for your continued support of this important project. As we have discussed on several occasions, NCTA's staff, engineers and revenue consultants are available to meet with you and the DCHC MPO staff to review any of these requests in further detail. We look forward to continuing our discussions on these matters. Please feel free to contact me at (919) 571-3000 or at david.joyner@ncturnpike.org.

Sincerely,

David W. Joyner

Attachments: May 9, 2007 letter from David King (TT) to David Joyner
March 25, 2008 Public Hearing Transcript
Triangle Expressway Comprehensive Traffic and Revenue Study Final Report (June 2008)
NCDOT's Pedestrian Policy Guidelines

cc: Steven D. Dewitt. P.E., NCTA Chief Engineer
Jennifer Harris, P.E., NCTA Staff Engineer
Reid Simons, NCTA Director of Government and Public Affairs
Jay Bissett, P.E., Mulkey Engineers and Consultants
Tracy Roberts, A.I.C.P., NCTA GEC

Triangle Transit Authority

May 9, 2007

Mr. David W. Joyner
Executive Director
North Carolina Turnpike Authority
1578 Mail Service Center
Raleigh, North Carolina 27699-1578

Dear Mr. Joyner:

I hope that your work is going well and that the North Carolina Turnpike Authority (NCTA) is making headway in its efforts to find gap funding in the General Assembly for the Triangle Turnpike. I have appreciated NCTA's willingness to work with the Triangle Transit Authority (TTA) on preservation of transit opportunities in this corridor.

Specifically, TTA appreciates the addition to NCTA's fiscal capacity study of the issues of shared turnpike use by transit buses, vanpools and high occupancy vehicles. We believe that these important matters need to be considered and, where fiscally feasible, included in the planning for turnpikes in our region.

The question of future rail transit use of the corridor utilized by the Triangle Turnpike is also a crucial issue for our region. I wanted to respond to your email of January 18, 2007 and the comments you raised regarding reservation of a portion of the median right of way for rail transit.

I believe the heart of our mutual intent lies in preserving options for this corridor and in taking no action that preclude future choices for those who follow after us. The NCTA has already considered several possible uses for the median area of the corridor, including additional toll lanes, possible HOV lanes, and possible breakdown lanes. We both acknowledge that in addition to these possible uses, transportation decision-makers in future years may want to employ rail transit in a portion of the 78-foot wide median. Based on current standards, 78 feet is certainly more than adequate width to build a two-track passenger rail facility.

The point, then, is to understand that any of these uses of the median area should be provided for and not excluded from consideration. We recognize that none of us is wise enough to know what the Triangle region will consider the best or most appropriate use for this median ten or twenty years from now.

Based on our most recent conversations on this subject, I believe that there is mutual agreement that preserving options for use of the Triangle Turnpike median for passenger rail transit or other uses is the appropriate policy. I wanted to set forth our understanding on this matter in order to clarify the positions of our respective organizations as well as for the benefit of the Metropolitan Planning Organizations of our region. Please let me know if I may have mischaracterized our understanding or if you have any further thoughts on this issue.

Sincerely,

David King

cc: Joe Bryan
Alice Gordon

DDK/rg

DEPARTMENT OF TRANSPORTATION
PEDESTRIAN POLICY GUIDELINES
EFFECTIVE OCTOBER 1, 2000

These guidelines provide an updated procedure for implementing the Pedestrian Policy adopted by the Board of Transportation August 1993 and the Board of Transportation Resolution September 8, 2000. The resolution reaffirms the Department's commitment to improving conditions for bicycling and walking, and recognizes non-motorized modes of transportation as critical elements of the local, regional, and national transportation system. The resolution encourages North Carolina cities and towns to make bicycling and pedestrian improvements an integral part of their transportation planning and programming.

REQUIREMENTS FOR DOT FUNDING:

REPLACEMENT OF EXISTING SIDEWALKS:

The Department will pay 100% of the cost to replace an existing sidewalk that is removed to facilitate the widening of a road.

TIP INCIDENTAL PROJECTS:

DEFINED: Incidental pedestrian projects are defined as TIP projects where pedestrian facilities are included as part of the roadway project.

REQUIREMENTS:

1. The municipality and/or county notifies the Department in writing of its desire for the Department to incorporate pedestrian facilities into project planning and design. Notification states the party's commitment to participate in the cost of the facility as well as being responsible for all maintenance and liability. Responsibilities are defined by agreement. Execution is required prior to contract let.

   The municipality is responsible for evaluating the need for the facility (ie: generators, safety, continuity, integration, existing or projected traffic) and public involvement.

2. Written notification must be received by the **Project Final Field Inspection (FFI) date**. Notification should be sent to the Deputy Highway Administrator - Preconstruction with a copy to the Project Engineer and the Agreements Section of the Program Development Branch. Requests received after the project FFI date will be incorporated into the TIP project, if feasible, and only if the requesting party commits by agreement to pay 100% of the cost of the facility.

3. The Department will review the feasibility of including the facility in our project and will try to accommodate all requests where the Department has acquired appropriate right of way on curb and gutter sections and the facility can be installed in the current project berm width. The standard project section is a 10-ft berm (3.0-meter) that accommodates a 5-ft sidewalk. In accordance with

AASHTO standards, the Department will construct 5-ft sidewalks with wheelchair ramps. Betterment cost (ie: decorative pavers) will be a Municipal responsibility.

4. If the facility is not contained within the project berm width, the Municipality is responsible for providing the right of way and/or construction easements as well as utility relocations, at no cost to the Department. This provision is applicable to all pedestrian facilities including multi-use trails and greenways.

5. A cost sharing approach is used to demonstrate the Department's and the municipality's/county's commitment to pedestrian transportation (sidewalks, multi-use trails and greenways). The matching share is a sliding scale based on population as follows:

MUNICIPAL POPULATION	DOT PARTICIPATION	LOCAL PARTICIPATION
> 100,000	50%	50%
50,000 to 100,000	60%	40%
10,000 to 50,000	70%	30%
< 10,000	80%	20%

Note: The cost of bridges will not be included in the shared cost of the pedestrian installation if the Department is funding the installation under provision 6 - pedestrian facilities on bridges.

6. For bridges on streets with curb and gutter approaches, the Department will fund and construct sidewalks on both sides of the bridge facility if the bridge is less than 200 feet in length. If the bridge is greater than 200 feet in length, the Department will fund and construct a sidewalk on one side of the bridge structure. The bridge will also be studied to determine the costs and benefits of constructing sidewalks on both sides of the structure. If in the judgement of the Department sidewalks are justified, funding will be provided for installation. The above provision is also applicable to dual bridge structures. For dual bridges greater than 200 ft in length, a sidewalk will be constructed on the outside of one bridge structure. The bridges will also be studied to determine if sidewalks on the outside of both structures are justified.

7. FUNDING CAPS are no longer applicable.

8. This policy does not commit the Department to the installation of facilities in the Department's TIP projects where the pedestrian facility causes an unpractical design modification, is not in accordance with AASHTO standards, creates an unsafe situation, or in the judgement of the Department is not practical to program.

INDEPENDENT PROJECTS

DEFINED: The DOT has a separate category of funds for all independent pedestrian facility projects in North Carolina where installation is unrelated to a TIP roadway project. An independent pedestrian facility project will be administered in accordance with Enhancement Program Guidelines.

OFFICIAL PUBLIC HEARING TRANSCRIPT
Combined Location and Design Public Hearing
Triangle Parkway from NC 540 to NC 147
Sigma Xi
March 25, 2008
TIP # U-4763B

Moderator: OK, if we can, let's get started. Good evening ladies and gentlemen and welcome to this evening's public hearing on the location and design for the Triangle Parkway from 540 to I-40 in Durham and Wake Counties. My name is Carl Goode. I am the retired Head of the Department of Transportation's Office of Human Environment which, among other things, handled public involvement and public hearings. I am here tonight representing the North Carolina Turnpike Authority and I will be your moderator for tonight's public hearing.

Before I continue, I would like to introduce to you some other people who are here this evening who are representing various functions within the Turnpike Authority and other organizations, all who have or will have a role to play in this project. First of all, from the North Carolina Turnpike Authority we have Mr. Steve DeWitt, Ms. Jennifer Harris, Ms. Reid Simons, and Mr. Shannon Sweitzer. From the NCDOT's Division Office in Durham, which oversees activities in Wake and Durham Counties and several other counties as well, we have the Division Engineer, Mr. Wally Bowman. From the private engineering firm of Mulkey Engineers and Consultants, the firm that prepared the environmental document for this project, we have Mr. Jay Bissett along with some other some other people of his firm. We also have from HNTB, the private engineering firm that oversees the other firms for these projects, we have Mr. Adin McCann. We also have some other folks from HNTB as well. From the Federal Highway Administration we have Mr. George Hoops. We also have from Carolina Land acquisitions, Mr Chip Hawke. His firm will handle the right of way acquisitions for the this project. If you have right of way questions, Chip is the man to see. Also representing NCDOT, who have some review functions of the project, we have Mr. Dewayne Sykes and Mr. Tony Houser of the Roadway Design Unit. From the Human Environment Unit, we have Mr. Ed Lewis.

Does everyone have a handout? Does anyone need a handout? I'd like to go over some of the information with you. There's a lot to cover. We will also go over the map and then go over some right of way information, and then go to your part, your comments.

The purpose of this project is to improve commuter mobility, accessibility, and connectivity to the Research Triangle Park employment center, and reduce congestion on existing north-south routes that serve the Triangle Region, primarily NC 55 and NC 54.

Now tonight's hearing is an opportunity for you, the general public, to offer your comments relative to this project. Now, we had the pre-hearing open house earlier where you could get a lot of your questions answered and those people will remain after the formal part of this hearing to answer any additional questions you may have. We encourage you to participate in this process . We want you to speak your comments. That's why we are here. In so doing, we have some ground rules we like to follow to help the hearing to go more smoothly. First of all, this is

gallon to cover that. That didn't go over very well. Other states have looked for a number of ways to finance their road projects. Some have gone to public private partnerships, some have leased part of their freeways to foreign countries for as much as a 99 year lease. There are lots of ways others are considering for funding. So, tolls are proposed for this project to expedite roadway construction and to provide less congested, higher speed routes. So, those are part of the reasons for tolls.

The North Carolina Turnpike Authority was created in 2002 to explore alternative transportation financing and project delivery methods. They adopted rules which state that each project must be part of locally adopted long range transportation plans. Each area across the country has what are called MPO's or Metropolitan Planning Organizations. In Wake County we have CAMPO, Capital Area Metropolitan Planning Organization; in Durham and Orange Counties there is the Durham-Chapel Hill- Carrboro Metropolitan Planning Organization, DCHC. These organizations develop long-range plans for facilities, both for the transportation and air quality standpoint. This particular project was adopted by both of these MPO's, which was a requirement from the General Assembly.

In 2002, the General Assembly made the decision to look at toll routes as an option. It is a part of the General Statutes and so the people here with the Turnpike Authority are charged with the task of carrying those out. Some of the other rules, projects selected for development as a toll facility, must have a non-toll alternative. As many as nine toll facilities have been authorized to proceed, and the Turnpike Authority is working on a number of those now. Also, legislation requires that the tolls be removed once the debt is repaid. For this project, that time is projected to be 40 years. That's pretty typical. Like I said, some states have a 99 year time frame, but that is the projection for this.

Now, this particular project was identified as a transportation corridor in 1958 by the Research Triangle Park and has been preserved ever since then. I-540 was protected as a line on the map since the early 1960's. This one has been around for a long time, since 1958. It has always been on the master plan. The Foundation has reserved this property all that time for this particular route. The project was added to the State Transportation Improvement Plan in 2004, but wasn't funded and has since been transferred to the Turnpike Authority. So, basically, this road has been planned to be built, whether by toll or traditional methods. It is essentially the same highway. The difference is that as a tolled highway it can be built much faster than it could be by traditional methods.

This is a regional project – it is a part of a regional transportation plan. As I said earlier, the MPO's develop projects in a long-range plan and prioritize them. So, this project is a part of a much, much larger plan, so it is a regional road and it connects with other projects to form part of that regional system. Now, a system from a financial standpoint cannot be constructed all at once, and so projects must be constructed one at a time and be put together as pieces of a puzzle. So, this is the Western Wake Freeway right here and this ties into two more systems, It ties in to NC 540 here and this ties into the next section which is this project, the Triangle Parkway, and we have a continuous roadway going from NC 147 along the Triangle Parkway onto NC 540 to the Western Wake Freeway. Western Wake ties into the Southern Wake, which is undecided right

46-foot grassed median, three twelve foot lanes in each direction, twelve foot shoulders on the inside and outside of the facility.

Now, all projects are developed trying to balance traffic service, balance impacts to the environment and, as much as possible, we have to balance that with impacts to humans and costs, so certain, I hate to use the word compromises, but there are certain things that have to be worked out. The one thing that is not compromised, is not balanced is safety. And so, no engineer will deliberately design anything that is unsafe and they are very, very careful about that. So, there are some elements here that were designed to balance impacts and costs, but not to balance safety.

So, as we proceed northward, we come to the Kit Creek Road. We propose to connect that with a bridge one side to the other and keep Kit Creek Road open. We would like to hear comments regarding that proposal. As a part of the safety aspect of this, the connector road right here coming off Kit Creek and tying into NC 540 will have to be removed. There's no way that, from a safety standpoint, that this could remain. There's not enough room to weave traffic over here. Remember, this is proposed to be a 65 mile per hour speed limit roadway, and that would result in pulling out in front of somebody. Now design standards and the Federal Highway Administration require that interchanges for this type of facility be at least a mile apart. And so, that creates some issues within itself. And that's because it's a high speed facility and it takes room to move on, weave, and move off and so we like to have a minimum of a mile to make these moves. We don't have a mile out there, there are only a few hundred feet, So that is one of those things about this temporary connection that's only been there a year or so and which was always regarded to be temporary, and there's no way that could stay there.

Here we have Hopson Road and Davis Drive which are not a mile apart. With a traditional diamond, the ramps would come in here and go here and back up, and that would not work from a traffic standpoint. Another thing we could do is to tee in one road into the other, up here or down there, but that would create a very congested intersection. And, so what has been designed is a compressed split diamond with the ramps coming off here, and a ramp coming on here. When we say compressed, the distance between the intersections is pushed together. Traditionally, on a diamond they would come way up here and way down there. That would create additional impacts to all this in here, the buildings here, the same here, get into that. You would get into this pond here. There's a lot of development that would be impacted by this type of design. As a part of the design process, this was closed in in order to maintain access to both roads. These are connected with controlled access roadways. Compressed diamonds work quite well. The intersections have to be signalized, but if timed properly they work real well. They handle traffic really well. It was looked to have what is called a half clover by putting loops here and here, but the loops would move the ramps out here and here and the same down here. So, again, there would be impacts to property and there would be environmental impacts, so this was pulled in. So this was pulled in and compressed, and by tying them together, we have one big interchange so we have access from both Hopson and Davis.

Another area is here with EPA. EPA has a research division and a regulatory division. And so, the research up here would like to move the roadway away from their property and they would

This project is about 3.4 miles in length. The project proposes a six-lane tolled freeway, and freeway is a term for basically a controlled access facility. There will be three 12-foot travel lanes in each direction that are divided by a 46-foot wide grassed median. It will have twelve-foot shoulders on the inside and outside. Right of way proposed will be 300 feet with additional right of way needed for interchanges and other areas like that for control of access.

It is proposed that there will be two relocatees. You know, we haven't mentioned that this right of way has been preserved for many years. The number of relocatees for a project like this can reach fifty to one hundred easily and the same for Western Wake. We did corridor protection on that in 1993, I think, and that has been preserved. And probably, that is a project I have had more phone calls on than any other project in the state for years because it's been growing so rapidly, and the fact that corridor was preserved has saved the state probably millions and millions of dollars and a lot of disruption for homeowners because of keeping properties from being built or rather keeping buildings out of the corridor. So this one has been kept clean and the Research Triangle has been very diligent in that, and it's paying off now.

The estimated cost for right of way is $26,000,000, the utilities cost is $5,200,000, the cost of construction is $133,300,000. Total estimated cost is $164,500,000. Tentatively, right of way and construction are scheduled to begin this summer. The project is expected to be completed and open to traffic in 2010.

Now, I do need to go over some right of way procedures. Once a route is selected and approved and the design is complete, the right of way is staked on the ground. If you are an affected property owner, you will be contacted by a right of way agent. He will show the plans to show and show exactly how you will be affected. He will explain the plans to you and will advise you of your rights and will make a professional appraisal of your property of the market value at it's highest and best use at the time of the appraisal. During this process, the Turnpike Authority must treat all owners and tenants equally, must fully explain owners' rights, must pay just compensation in exchange for property rights, must furnish relocation advisory assistance if that is required, and must initiate legal action if a settlement cannot be reached. In addition, if you are a relocatee, that is if your home or business will be relocated, in this case there are two homes and no businesses affected, the agent will explain the relocation process to you as well, help you find comparable housing, if so needed, and will explain all the procedures to you. In addition to the market value of your home, your moving expenses may be paid as well if certain qualifications are met. Also, there is additional funding available for such things as closing costs, mortgage increases, additional value of comparable homes, and things like that. And so, Mr. Hawke is back there and some of his staff are there, and those are people who will help you on that.

And now I will open the floor up to you for your comments. We have those who signed in, and we will go down that list as you signed in. Again, we ask that you maintain the three minute time period. If you desire additional time, when everyone else is finished, you can do that as well. I ask that you come up and use our microphone. We have one there, so that our recorder can hear you and so that everyone else in here can hear you as well. So, our first speaker is Mr. David McDowell.

make 147 and all of 540 without tolls. Thank you.

Moderator: Thank you, Mr. McDowell. We have Ben Skaggs and Marc Hollander.

Ben Skaggs: I'm Ben Skaggs. I'm the Director of Administration at EPA here in Research Triangle Park, and this is Marc Hollander, the Chief Executive Officer of the National Institute of Environmental Health and Science. We represent the owners of EPA and NIEHS here in the Park. and we will be submitting joint comments, both tonight and in writing. First, I want to say we appreciate the opportunity to speak at this venue about the proposed project, and from my perspective, the first thing I want to do is be clear about the EPA role in this, as you alluded to, and the role the EPA-RTP plays in this process. EPA is involved in reviewing the Environmental Assessments from regulatory perspective, and that review is handled by EPA's Atlanta office for all projects in the State of North Carolina, regardless of whether EPA is attending them or not. As a landowner in RTP, our portion of EPA, the portion that I represent tonight, is going to make comment, together with NIEHS, on the impact of the project as it relates to our localized operations – Just as I hope our private sector neighbors in the Park will do.

That being said, as a local entity, EPA-RTP and NIEHS has a wealth of technical folks that we will be engaging to make comments on the EA, and we look forward to submitting those comments to you in writing by the deadline of April 8th.

Here is preview of what those comments will entertain:

First, mitigating access impacts that the project is going to have on our campus, primarily related to the loss of the spur at the end of the Durham Freeway, which serves to bring employees to what is today our primary entrance off of Alexander Drive. Once the spur is removed, we anticipate the traffic patterns are going to shift from that entrance to our Hopson Road gate. We appreciate the relationship that we have had with NCTA and NCDOT in working with us to maximize the efficiency of that gate through maintenance of a full movement intersection and for a traffic signal paid for by NCTA following a traffic load evaluation. Our concern in this area center around two things – safety for our employees and convenience for our employees and visitors, including the Triangle Transit van pools and buses that service our campus.

The second area of concern surrounds mitigating noise, emission, and other impacts, both during construction and long-term for the east side of of our First Environments Early Learning Center, also previously mentioned. It would be our closest occupied structure to the roadway, and again we've been pleased to date with the level of engagement we have had with NCTA and NCDOT in discussing this issue and looking at a possible solution.

The third area relates to finding a mechanism to continue to work collaboratively with NCTA and NCDOT to address the concerns I've mentioned above. One of the things we're concerned about is the design-build contract that is being proposed. Having had experience with design-build arrangements, we are concerned that the fluid nature of these contracts, which are chosen in part to increase the speed with which work is accomplished may fail to capture or honor our agreements or afford us the opportunity to remain actively engaged in a meaningful way as the

benefit outweighs the negative impacts, and, therefore, we fully support the timely construction of Triangle Parkway as the Turnpike says, a tolling facility in North Carolina. Thank you very much.

Moderator: Thank you, Mr. Weddle. If any of you would like to leave your comments with us, it would be most appreciated and useful. Ms. Mitchell-Sinclair?

Racine Mitchell-Sinclair: Good evening. My name is Racine Mitchel-Sinclair, and I'm the 2000 Chair of the Regional Transportation Alliance. Thank you for giving us an opportunity this evening to speak. The Regional Transportation Alliance business leadership group has been a strong supporter of the Triangle Parkway for several years. We applaud the Research Triangle Park for reserving the right of way for nearly 50 years for this important project. In this climate of double digit construction costs and inflation, toll roads remain a very valid way to dedicate revenues to completing a specific major project such as the Triangle Parkway and, indeed, the entire Triangle expressway corridor. We look forward to the congestion relief that this new turnpike freeway promises Durham and Wake Counties, particularly in conjunction with the proposed Durham East End Connector. On behalf of more than 100 members in 22 member Chambers of Commerces in nine counties in the extended Triangle region that belong to the Regional Transportation Alliance, we salute the Turnpike Authority for agreeing to advance the construction of this roadway by designing as a turnpike route, and fully support its efforts. Thank you.

Moderator: Thank you. Let me elaborate just a little bit about the Durham East End Connector, which is a project that's in the planning stages that's underway that's up there; well it's on the map that fell to the floor. That will be a controlled access facility from NC 147 over to US 70. Plans are for sometime in the future to make US 70 a controlled access facility up to I-85. So, there will be controlled access eventually from I-40 south to I-85 in Durham. So, this is all a part of the regional concept. We have someone from the Durham Chamber, Ted Conner. Yes sir.

Ted Conner: Well, good evening. My name is Ted Conner. I'm Vice-President of the Economic Development with the Durham Chamber of Commerce, and I appreciate the opportunity to come forth and speak this evening.

I just want to say, first off, that we are really pleased that Durham is the home to Research Triangle Park, and we applaud the Park and actually many of the private developers that over the years have reserved critical pieces of the right of way for the past 50 years to allow this project to move forward. Our Chamber approved in 2004 a resolution to support the Triangle Parkway. The need for the Parkway has certainly not gone away since that time, and we are excited about the prospect of the imminent completion of the turnpike. I might add that nobody would like to pay extra money to drive on the road. We wish there were funds out there to build the road, but, alas, there are not. Thus a toll is really the only way to get this road built somewhere in my lifetime, which I hope will be a long one.

The Triangle Parkway will provide a new route to RTP that complements other road projects that are currently in the row, whether it be the widening of Davis Drive, the widening of NC 55, and

My child attends this childcare center. It's home to181 children that range in ages from six weeks to 5-6 years old. It's also home to 48 teachers and staff, operating ten hours each weekday, 7:30 a.m. to 5:30 p.m.

The overriding concern here is that the planned Triangle Parkway will pass within 350 feet of the childcare classrooms and play areas, and has enormous potential for significantly impacting health. Notable effects can include an increased prevalence of asthma and wheezing. Indeed, portions of our child population already suffer from these symptoms, and this would be exacerbated by the roadway.

So in regard to the Environmental Assessment in addressing these concerns, it is basically unacceptable; it is not rigorous. With regard to the noise mitigation which we have heard about, the language that's used in this report has been vague and non-committal.

In addressing air quality and how it will impact the health of children, particularly respiratory issues, the EA is grossly inadequate, verging on non-existent. The conclusions of the air quality section portray a "can't do anything" mentality that, frankly, is blinkered.

It has emerged over recent years that near roadways constitute a serious and significant health impact on vulnerable populations, young children being chief among them. In April of last year, I provided the Turnpike Authority Board a summary of such studies to make them clearly aware of these impacts. I note that they sighted a Lancet paper in this EA that emphasizes the deleterious effects poor air quality can have on developing lungs. In addition, that same paper emphasizes the need to focus air quality impact studies on localized areas, or hot spots, not regional air impacts. This advice is clearly not heeded in this EA and probably highlights the inadequacy of the EA process.

Further, a Federal Highways memorandum advises on when and how to analyze air toxicants, particularly for projects with high potential for causing air toxicant effects. Included in this category are projects that are to be located in proximity to vulnerable populations. The child care center is just such a population, and the memorandum states that the road project should be more rigorously assessed for impacts. Again, the advice is not heeded in this EA and probably highlights the inadequacy of the EA process.

It is of great concern why an Environmental Impact Statement wasn't undertaken for the Triangle Parkway from the start. Federal Highway regulations state that a highway project normally requires an EIS if a project is four or more lanes on a new location and is a new controlled access.

I protest in the strongest possible terms that the best interests of the public and the children of this childcare center have not been served by the Triangle Parkway Environmental Assessment, and that the Turnpike Authority and Federal Highways be required to undertake an Environmental Impact Statement. A child's health must be a priority here, and the Triangle Parkway should be no exception.

exception. Thank you.

Moderator: Thank you. Thank you, Ms. McClintock. Bill Jirles.

Bill Jirles: I'm Bill Jirles. I'm the president of the American Federation of Government Employees, Local 2923. The American Federation of Government Employees, Local 2923 represents more than 200 federal workers in the RTP area.

We're concerned about the route of this imminent turnpike in RTP. Our concerns are the money that the employees will have to spend every day going to and from work, the removal of the NC 147 spur, the increased congestion along NC 147 and I-40, and, most importantly, the adverse health effects it may have on the children at the child care center located on the EPA campus. This roadway will come close to the First Environments Early Learning Center, which is a childcare facility which hosts infants and children up to age six. There's no doubt that the turnpike will increase and exacerbate health risks from the extra air and noise pollution, along with environmental toxicity due to this turnpike.

As a parent and president of AFGE, Local 2923, I am greatly troubled by the route of this turnpike. Noise pollution, not withstanding, scientific studies support that exposure of young children, particularly both during construction of the turnpike and when in normal use, will very likely have an adverse effect on their health. This is a health and safety issue.

The federal employees I have talked to regarding this turnpike are furious that the plan is being put into place, not only for the above mentioned issues, but also because the Environmental Assessment that is being conducted is not adequate for the site of this road.

Despite any suggestions that this project has been planned for decades, it does not eliminate the dangers and problems involved. More information and time often change plans. Now is the time to change the plans for this roadway. The American Federation of Government Employees, Local 2923, strongly encourages you to consider every mitigating strategy that will lessen the impact on the First Environments Early Learning Center. In addition, we beseech you to conduct the proper type of environmental impact assessment and consider alternatives to reduce the impact upon federal employees who must use this road to work everyday. Thank you.

Moderator: Thank you, Mr. Jirles. Silvia Saracco.

Silvia Saracco: Good evening. My name is Silvia Saracco. I'm the President of the EPA - AFGE, American Federation of Government Employees. We represent approximately 1000 employees at Research Triangle Park, and we come before you, first off to thank you for having the public meeting, but to also let you know some of the concerns we've been hearing from the employees. Our employees who have children at First Environments Learning Center, the daycare on-site, are very upset. Their children will now be exposed to the issue of toxins that hadn't been there when the building was built, and, hopefully, we can look at a way of minimizing this process here and the effects on the children. Also, the employees on campus are concerned about the closing of the spur 147, the spur which the majority of our employees take

So how can we best accommodate the Town of Morrisville, accommodate the agreement between the Department of Transportation and Morrisville to connect this, and to also honor the residents who live there, assuming they would rather be closer and have access to the Park, I think there can be a connector, but I think it can be a walking connector. People could walk. I think we could go green. We need to look at that and see if we can't build that connector for residents in that area to get to Davis Drive, and from there, if they need to pick up public transportation, they could do so. I think that's one way to honor that.

I also feel that for tolls, I've heard that tolls are created. They are not created. I think that they are rather archaic. I think we are looking at a 20th century fix for a 21st century problem, and I think as we look at the development of this, we need not to look at cars per se, but how can we improve mass transportation, public transportation. We proposed to do (inaudible) in the 80's, to put a rail along I-40 when they were building that road. We were told that this is (inaudible) a community of (inaudible). We were told that the population didn't warrant it, and that the traffic didn't warrant it. Well, go figure. It's here now, so I think when we are planning, we need to project beyond the 20 or 30 years we are looking at. We really need to build for the 21st century, and building a toll road is not a 21st century solution to a current problem that we have. Thank you.

Moderator: Thank you for your comments, Ms. Dunnegan. Sarah Broome.

Sarah Broome: I live in Parkwood, near Parkwood community, just down the road from here and like most in Parkwood, I use my free access to I-40 and Durham Freeway to get to work each day on the existing, already paid for 147/Alexander spur. Your proposal to close this connector presents two problems for me. One, it diverts myself, my neighbors, and all of Durham residents currently commuting into this section of the park on a long trip to get there. Instead of giving us improved commuter mobility, it will disconnect us from our ability to work and go home.

The second problem I have is by bait and switching a project from the freeway from Durham and south Wake to a tollway, you'll encourage traffic to flood the local streets, creating congestion. Toll roads are not accessible roads. I use these words to demonstrate how this project does not meet its goals. The case for toll roads is based on the need to keep up with birth rates. This project with tolls is expected to be completed by 2010, yet your own flyer states that congestion does not start until around 2030. We have time, there seems there is time to build in the same fashion that the other roads are built in Raleigh. I urge you to tackle the issue of the Triangle Parkway with more thought. Do not go back on your word for a freeway for all. Do not discriminate against Durham residents and employers. Do not eliminate the access we already have. Maintain free access to I-40, either by the existing Alexander connector or by eliminating the toll at Hopson to 147.

Moderator: Thank you, Ms. Broome. Greg Northcuff.

Greg Northcuff: Good evening. I'm Greg Northcuff. I'm the Director of Capital Development for the Triangle Transit, and on behalf of David King, the Triangle Transit General

one other point. There's been a lot of comments this evening about the childcare, and I'm a parent of a child as well. Not at that facility, but I would like to think that instead of just nixing the road, there might be a way to provide funds to relocate it or build some kind of capability for the childcare to provide that safety. I noticed somewhere in your project information about relocating two residences and businesses, and maybe this business should be included as a part of that study. Thank you.

Moderator: Thank you, Mr. Dzamba. Rita Ballentine.

Rita Ballentine: Good evening. My name is Rita Ballentine, and I live at 6814 Kit Creek Road, Morrisville, North Carolina, and I just had something to add to what Ms. Esther Dunnegan has already said here. She has already given most of my concerns in her earlier presentation.

But two things – I am opposed to the toll road for Triangle Parkway and also opposed to the reconnection of Kit Creek Road, as proposed on the map. There are other alternatives, One thing – we're looking at a safety issue, especially going through a subdivision, and we're taking about 20 thousand cars per day going through a subdivision with children playing in those areas. That is one reason that I am opposed to the reconnection, but not only that – that toll road is going to have people looking for alternatives, and Kit Creek, if reconnected, would be an alternative for people not paying tolls. And that is another reason that I oppose that as well. And also, if the commitment has been made to the Town of Morrisville to reconnect that road, it can be done without affecting any homeowners or property owners in the area by using the existing Kit Creek route to connect. And I've heard a lot say that it will be more money, but if we look at the money that the North Carolina Department of Transportation has wasted, as a matter of fact 20 million dollars plus on roads that were not done correctly, and the mismanagement of funds in other things, there are ways they can take just a little more amount of money and find a way to do this without affecting any homeowners or businesses. Thank you.

Moderator: Thank you, Ms. Ballentine. James Dorff. Okay. Jeff Carter.

Jeff Carter: I thank you for the opportunity to come here and express opinions and get information. I'm a recent resident of the area, only about six weeks, so I don't have the same vested interest in the history of the neighborhood as everybody else. I live in the Kit Creek neighborhood, and I do have a real concern for safety in that neighborhood, and having lived in neighborhoods where there is a lot of pass through traffic. So questions I have yet – how many lanes of traffic each way will be put through and, again, with the way that subdivision is laid out, I still wonder how that's going to be managed safely. What percentage of this projected traffic is going to be due to that same subdivision and its development, and what percentage will be due to the outside community passing through? I haven't heard any clarity about that. Beyond that, if that connection is made and it becomes an even greater pass through area, the connection for Church Road and 54, I'd consider not to be well planned by the engineers here but must have happened along years of time. That seems an intrinsically unsafe intersection, and if we start putting more traffic through there, I fear there will be more risk to human health and life. As well, I'm not sure if Church Street is really ideally set to handle traffic. I've heard rumors of Wal-Mart coming in on 54, and that could move traffic through this subdivision on that road. So I'm

Moderator: Thank you, sir. Do we have others who wish to make comments for the record at this time? OK, so again, you may submit written comments by April 8. Yes, ma'm?

Julie McClintock (from the audience): I had a quick question. You know what would be so helpful would be if your engineers could make a map which would show, for example, the areas concerned, not just the roads. It would be so helpful to be able to see, for example I'm concerned about the EPA area – have a map of EPA, the proposed highway, and then Alexander Drive. It's so hard to get a picture of what's actually happening there ..... (inaudible)

Moderator: Okay, I understand. Okay, thank you, Ms. McClintock. Again, you may submit written comments by April 8. If you have additional questions, I know Mr. Carter had some, our folks will be here afterwards. With that, I thank you very much for your participation and your decorum. I will close the hearing.

Spot Safety Project Evaluation

Project Log # 200602153

Spot Safety Project # 05-00-208

Preliminary Evaluation of the Construction of a Roundabout at the Intersection of NC 751 and SR 1307 - Old Erwin Road in Durham County

Documents Prepared By:

Safety Evaluation Group
Traffic Safety Systems Management Section
Traffic Engineering and Safety Systems Branch
North Carolina Department of Transportation

Principal Investigator

Carrie L. Simpson, EI Date

Traffic Safety Project Engineer

Project Evaluation Documentation

Subject Location

The Intersection of NC 751 and SR 1307-Old Erwin Road in Durham County

Project Information

The project improvement countermeasure chosen for the subject location was the construction of a roundabout. Prior to the project improvement, the location was controlled with a stop condition on SR 1307-Old Erwin Road. The speed limit on NC 751 is 55 mph and the speed limit on SR 1307-Old Erwin Road is 45mph.

The initial crash analysis for this location was completed from January 1, 1997 through December 31, 1999 with a total of 13 reported crashes. According to the initial crash analysis, there was one Angle crash, five Left Turn-Different Roadway crashes, one Left Turn-Same Roadway crash, four Rear-End crashes, one Ran Off Road-Right crash, and one Animal crash. The "correctable" crashes (which were considered Left Turn and Angle crash types) resulted in four class-A injuries, one class-B injury, and five class-C injuries. The *Project Justification Sheet* in the Project File Folder sites that vehicles on SR 1307-Old Erwin Road were unable to safely enter the intersection due to insufficient gaps in traffic. The project improvement was completed on September 30, 2003 at a cost of approximately $265,000.

Naïve Before and After Analysis

After reviewing the spot safety file folder along with all the crashes at the subject location, the crash data omitted from this analysis to consider for an adequate construction period was from September 1, 2003 through October 31, 2003. The before period consisted of reported crashes from September 1, 2000 through August 31, 2003 (3 Years) and the after period consisted of reported crashes from November 1, 2003 through July 31, 2006 (2 Years, 9 Months). The ending date for this analysis was determined by the available crash data at the time the crash analysis was completed. The treatment data consisted of all crashes within 150 feet of the treatment intersection. Please see the attached *Location Map* for further detail.

The following data table depicts the Naive Before and After Analysis for the treatment intersection. Please note that Frontal Impact Crashes were the target crashes for the applied countermeasure. The Frontal Impact Crash types considered are as follows: Left turn, same roadway; Left turn, different roadways; Right turn, same roadway; Right turn, different roadways; Head on; and Angle.

Treatment Information	Before		After		Percent Reduction (-)/ Percent Increase (+)
	3 Years	Per Year	2.75 Years	Per Year	
Total Crashes	15	5	1	0.36	-92.7%
Total Severity Index	3.47	---	1	---	-71.2%
Target Crashes	6	2	0	0	-100.0%
Target Severity Index	3.47	---	0	0	-100.0%
Volume	16,100	---	15,900	---	-1.2%

Target Crash Information	Before		After		Percent Reduction (-)/ Percent Increase (+)
	3 Years	Per Year	2.75 Years	Per Year	
Fatal Injury Crashes	0	0	0	0	N/A
Non-Fatal Injury Crashes	2	0.67	0	0	-100.0%
Total Injury Crashes	2	0.67	0	0	-100.0%
Night Crashes	2	0.67	0	0	-100.0%
Wet Crashes	0	0	0	0	N/A

The naïve before and after analysis considering 2.75 years of after data at the treatment location resulted in a 93 percent decrease in Total Crashes Per Year, a 100 percent decrease in Target Crashes Per Year, and a 1 percent decrease in Average Daily Traffic (ADT). The before period ADT year was 2002 and the after period ADT year was 2005.

Results and Discussion

The naïve before and after analysis involving the comparison of treatment actual before data versus treatment actual after data resulted in a 93 percent decrease in Total Crashes Per Year and a 100 percent decrease in Target Crashes Per Year. The number of Total Crashes decreased from five crashes per year in the before period to less than one crash per year in the after period. The summary results above demonstrate that when using the naive before and after analysis method the treatment locations appear to have had a substantial reduction in the frequency and severity of crashes from the before to the after period.

Six Target Crashes occurred in the entire three-year before period. The Target Crashes in the before period included one Angle Crash and five Left-Turn Crashes, resulting in one class B injury crash and one class C injury crash. The Target Severity Index in the before period was 3.47.

Research shows that roundabouts may improve the safety of intersections by eliminating or altering conflict types, by reducing speed differentials at intersections, and by forcing drivers to decrease speeds as they proceed into and through the intersection. Roundabouts reduce vehicular crossing conflicts, thus diminishing the opportunity for Frontal Impact crashes to occur. The reduction of conflicts through the physical and geometric features of a roundabout have been shown to be more effective than the separation of conflicts by time as in a signalized intersection.

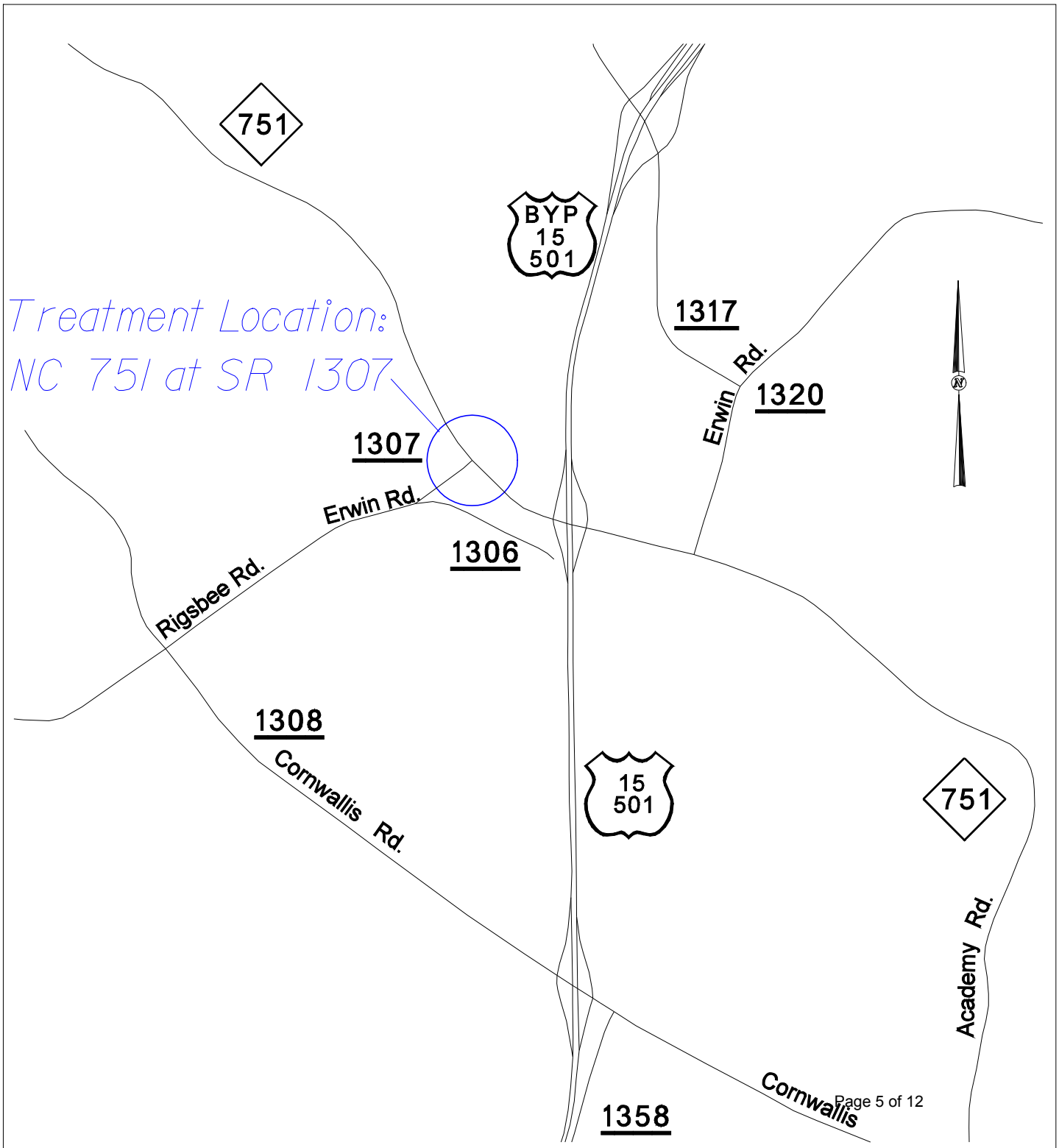
Please see the attached Treatment Site Photos. Photos are provided for all approaches of the Treatment Intersection. Notice the Roundabout Warning Signs with 15-mph advisory plaques and the Yield Ahead Warning Signs placed on each approach.

Please note that this is a preliminary evaluation based on only 2.75 years of after data. This evaluation will be updated when there is at least three years of after data available so a more concrete conclusion can be drawn. Also, as the Safety Evaluation Group completes additional reviews for this type of countermeasure, we will be able to provide more objective and definite information regarding actual crash reduction factors.

Reference

1. Roundabouts: An Informational Guide
FHWA-RD-00-67, June 2000

Location Map
Spot Safety Project 05-00-208
Durham County



Treatment Site Photos (Taken on February 23, 2006)



Looking west at the Roundabout Warning Sign with 15-mph Advisory Plaque.



Looking west at the Yield Ahead Warning Sign in advance of the intersection.

Treatment Site Photos (Taken on February 23, 2006)



Looking west at the Treatment Intersection.



Looking east at the Roundabout Warning Sign with 15-mph Advisory Plaque.

Treatment Site Photos (Taken on February 23, 2006)



Looking east at the Yield Ahead Warning Sign in advance of the intersection.



Looking east at the Treatment Intersection.

Treatment Site Photos (Taken on February 23, 2006)



Looking north at the Roundabout Warning Sign with 15-mph Advisory Plaque.



Looking north at the Yield Ahead Warning Sign in advance of the intersection.

Treatment Site Photos (Taken on February 23, 2006)



Looking north at the Treatment Intersection.

NC 751 AT SR 1307 (OLD ERWIN RD)

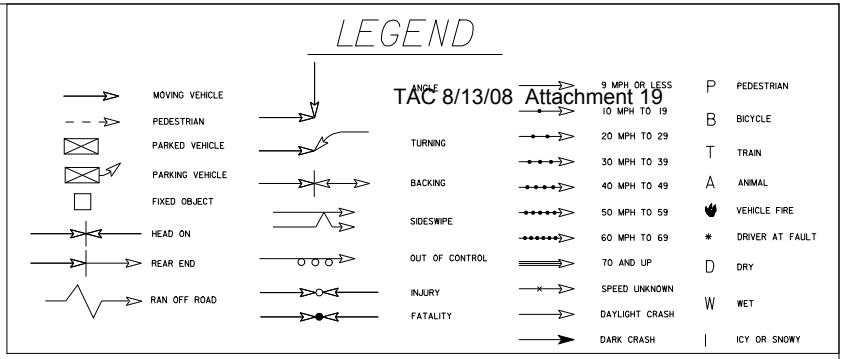
DURHAM CO.

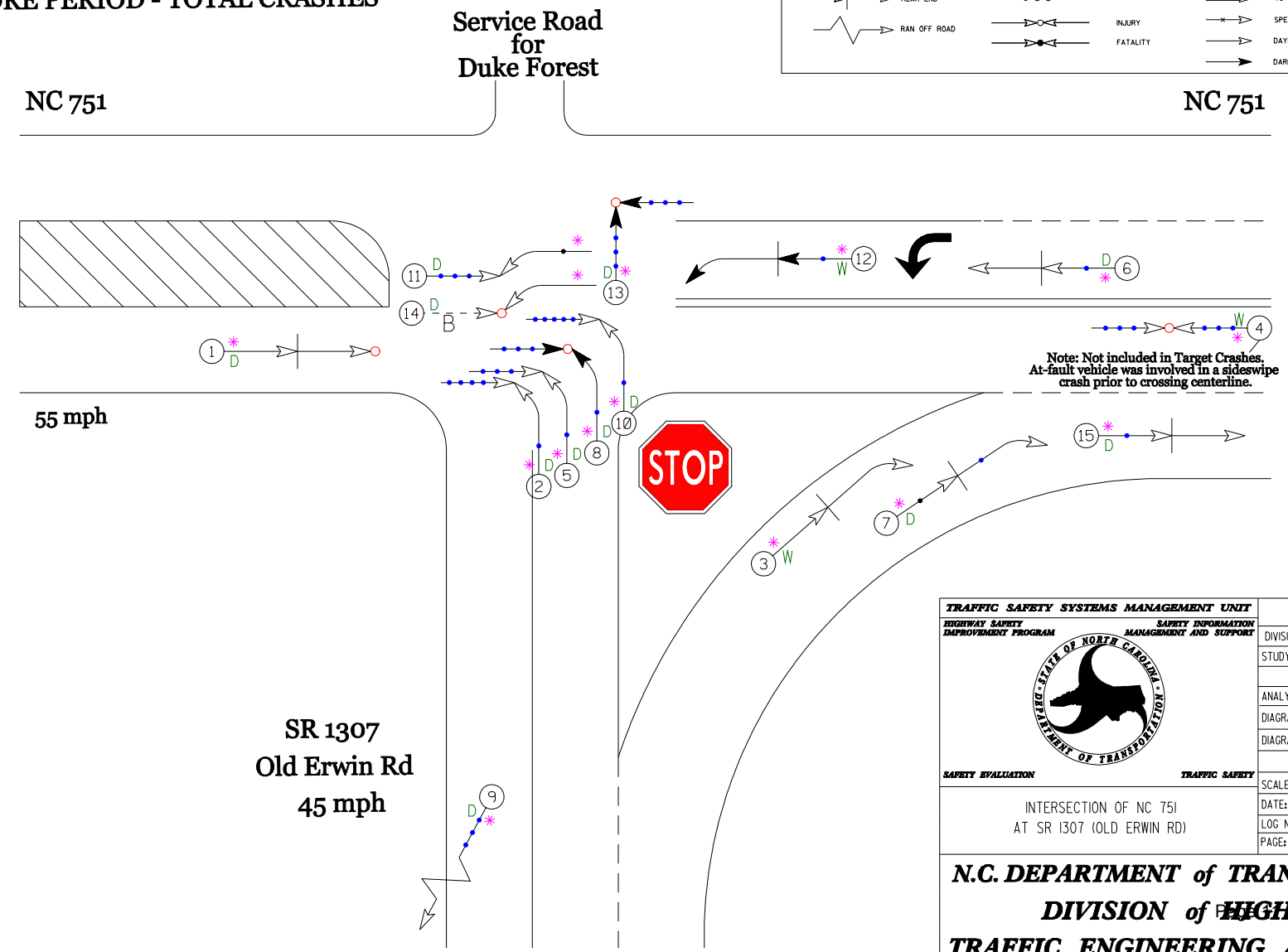
SEPTEMBER 1, 2000 - AUGUST 31, 2003

(3 YRS)

BEFORE PERIOD - TOTAL CRASHES

TAC 8/13/08 Attachment 19





TRAFFIC SAFETY SYSTEMS MANAGEMENT UNIT

HIGHWAY SAFETY IMPROVEMENT PROGRAM

SAFETY INFORMATION MANAGEMENT AND SUPPORT

SAFETY EVALUATION

TRAFFIC SAFETY

INTERSECTION OF NC 751
AT SR 1307 (OLD ERWIN RD)

COLLISION DIAGRAM

DIVISION: 5	REGION: CAPITAL
STUDY PERIOD: 09/01/00 - 08/31/03	
ANALYSIS PREPARED BY: CLS	
DIAGRAM PREPARED BY: CLS	
DIAGRAM REVIEWED BY:	
SCALE:	NOT TO SCALE
DATE:	10/16/2006
LOG NUMBER:	2006021536
PAGE:	1 OF 1

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
TRAFFIC ENGINEERING AND SAFETY SYSTEMS BRANCH

NC 751 AT SR 1307 (OLD ERWIN RD)

DURHAM CO.

NOVEMBER 1, 2003 - JULY 31, 2006

(2 YRS, 9 MO)

AFTER PERIOD - TOTAL CRASHES

TAC 8/13/08 Attachment 19

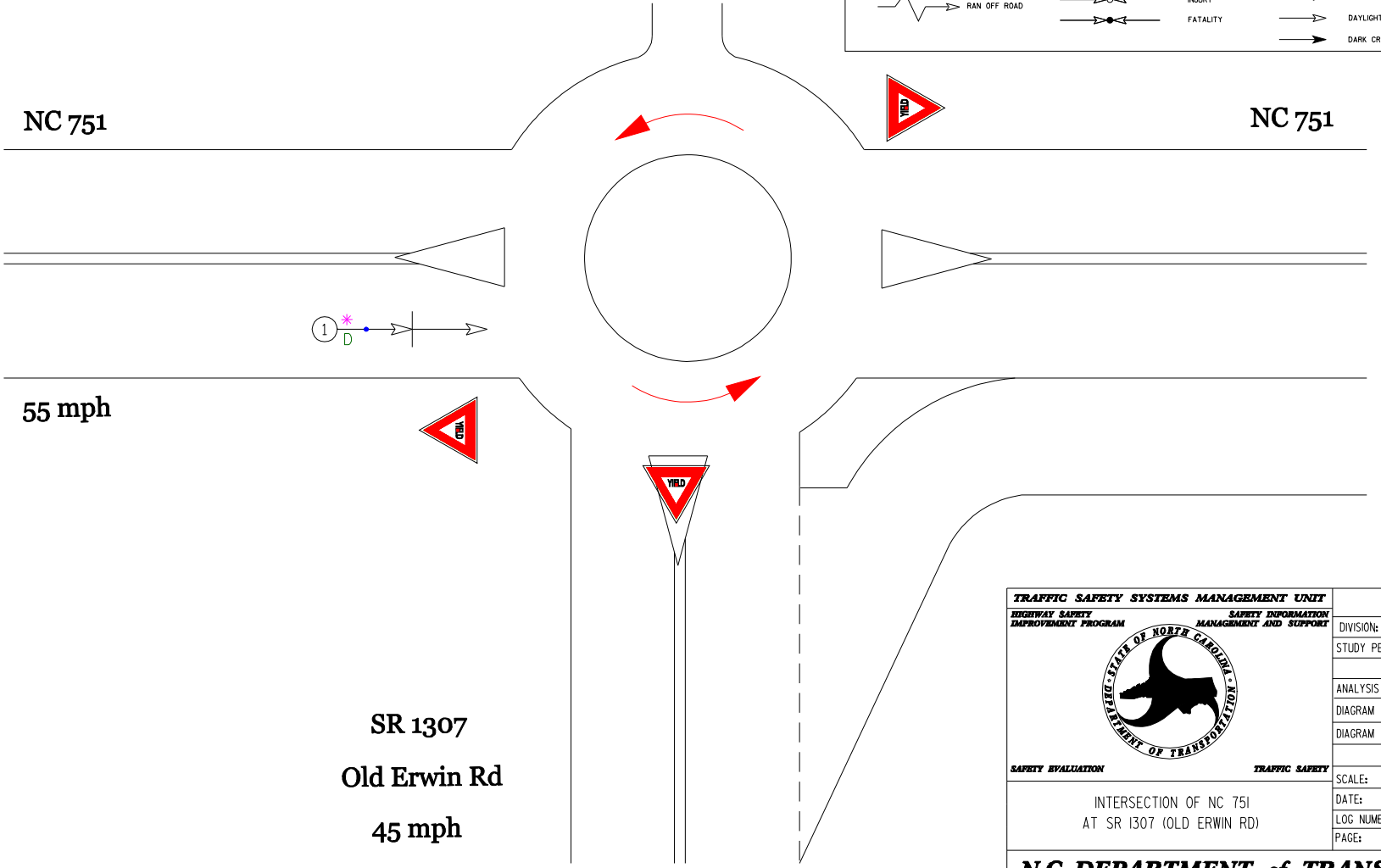
LEGEND

MOVING VEHICLE
PEDESTRIAN
PARKED VEHICLE
PARKING VEHICLE
FIXED OBJECT
HEAD ON
REAR END
RAN OFF ROAD

ANGLE
TURNING
BACKING
SIDESWIPE
OUT OF CONTROL
INJURY
FATALITY

9 MPH OR LESS
10 MPH TO 19
20 MPH TO 29
30 MPH TO 39
40 MPH TO 49
50 MPH TO 59
60 MPH TO 69
70 AND UP
SPEED UNKNOWN
DAYLIGHT CRASH
DARK CRASH

P PEDESTRIAN
B BICYCLE
T TRAIN
A ANIMAL
VEHICLE FIRE
* DRIVER AT FAULT
D DRY
W WET
I ICY OR SNOWY



TRAFFIC SAFETY SYSTEMS MANAGEMENT UNIT

HIGHWAY SAFETY IMPROVEMENT PROGRAM

SAFETY INFORMATION MANAGEMENT AND SUPPORT

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

SAFETY EVALUATION

TRAFFIC SAFETY

INTERSECTION OF NC 751
AT SR 1307 (OLD ERWIN RD)

COLLISION DIAGRAM

DIVISION: 5	REGION: CAPITAL
STUDY PERIOD: 11/01/03 - 07/31/06	
ANALYSIS PREPARED BY: CLS	
DIAGRAM PREPARED BY: CLS	
DIAGRAM REVIEWED BY:	
SCALE:	NOT TO SCALE
DATE:	10/16/2006
LOG NUMBER:	2006021536
PAGE:	1 OF 1

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
TRAFFIC ENGINEERING AND SAFETY SYSTEMS BRANCH

STATE OF NORTH CAROLINA
NORTH CAROLINA GENERAL ASSEMBLY
STATE LEGISLATIVE BUILDING
RALEIGH, NORTH CAROLINA 27601

August 1, 2008

MEMORANDUM

TO: Members of the 21st. Century Transportation Committee

FROM: Chairman Brad Wilson

SUBJECT: 21st Century Transportation Committee Meeting

There will be a meeting of the 21st Century Transportation Committee on Thursday, August 21, 2008 at 10:00 am in room 643 Legislative Office Building, Raleigh, NC

Please advise Mr. Larry Goode at (919) 301-1589 or email larryg@ncleg.net if you will be unable to attend.