

Member Governments

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

**DURHAM – CHAPEL HILL-CARRBORO
METROPOLITAN PLANNING ORGANIZATION
TECHNICAL COORDINATING COMMITTEE (TCC)**

AGENDA

**January 23, 2008
9:00 a.m.**

**City Council Committee Room
2nd floor Durham City Hall**

- 1. Preliminaries**
- 2. Adjustments to the Agenda**
- 3. Public Comments**

ACTION ITEMS

**4. Approval of December 19, 2007 TCC Meeting Minutes
(Attachment 4)**

A copy of the December 19, 2007 minutes is enclosed as Attachment 4.

TCC Action: Approve minutes of the December 19, 2007 TCC meeting.

**5. FY 2008-2009 Unified Planning Work Program (UPWP) Development Update and Schedule
(Attachment 5)
Felix Nwoko, LPA Staff**

Development of the 2008-2009 Unified Planning Work Program (UPWP) will begin shortly. The draft schedule for the development of the 2008-2009 UPWP is presented in Attachment 5. The schedule will be finalized as soon as the Public Transportation Division (PTD) provides the MPO with transit UPWP allocations and deadline for submitting transit element of the UPWP to the Division.

TCC Action: Receive schedule for development of the 2008-2009 UPWP. Refer to TCC UPWP Subcommittee.

**6. FY 2007-2008 Unified Planning Work Program (UPWP) Amendment #2
(Attachment 6, 6A)
Felix Nwoko, LPA Staff**

The TAC approved the 2007-2008 UPWP on May 11, 2007 and amended it on October 11, 2007 (Amendment #1). The UPWP provides yearly funding allocations to support the ongoing transportation planning activities of the DCHC MPO. The UPWP must identify MPO planning tasks to be undertaken with the use of federal transportation funds, including highway and transit programs. Funds that would not be expended during the current fiscal year (FY 2007-08) must be de-obligated through an amendment in order for the funds to be available for programming during the next fiscal year (2008-09). The proposed Amendment #2 is necessary in order to reflect reallocation of funds by the Towns of Chapel Hill and Carrboro, and de-obligation of STP-DA funds.

The proposed amendment will decrease the LPA STP-DA Portion of the UPWP by \$596,000 (\$200,000 for Land-use model, \$140,000 for the Non-Motorized Trip Model, \$160,000 for the GIS Warehouse/Automation project, \$40,000 for the MPO-wide Collector Street Plan and \$56,000 for the ITS Project.

Attachment 6 is a memo describing Amendment #2 to the 2006-2007 UPWP. Attachment 6A is a resolution.

TCC Action: Recommend that the TAC adopt a Resolution regarding Amendment #2 to the 2007-2008 UPWP (Attachment 6A).

7. 2035 LRTP and CTP -- Targets

(Attachment 7, 7A and 7B)

Andy Henry, LPA Staff

The Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) intends to adopt a set of quantitative Targets to measure the degree to which the 2035 Long Range Transportation Plan (2035 LRTP) meets the Goals and Objectives of the MPO. The Transportation Advisory Committee (TAC) reviewed draft Targets at their October 10, 2007 meeting, and Transportation Coordinating Committee (TCC) reviewed a modified set of Targets, based on TAC comments, at the October 24, 2007 TCC meeting. Attachment 7 is a summary that provides a background on the Targets and identifies four Targets the TCC should consider deleting. Attachment 7A is the Target table, and Attachment 7B is the Key Targets presentation.

The LRTP subcommittee will meet on January 31, 2008 to address any remaining issues with the Targets.

TCC Action: Review and comment on Targets, and forward to the TAC for review and approval.

8. 2035 LRTP and CTP – Deficiency Analysis and Needs Assessment

(Attachment 8)

Andy Henry, LPA Staff

The purpose of the Deficiency Analysis and Needs Assessment is to identify future transportation deficiencies and needs based on forecasted population and employment, relevant

regulations and transportation related trends, and the MPO Goals and Objectives. The 2035 LRTP and CTP Alternatives will be developed to address these deficiencies and needs.

Attachment 8 presents the Deficiency Analysis and Needs Assessment report. There are numerous tables and maps, many of which present similar trends and phenomenon. Thus, the presentation includes the most important documents – the full-set is available on the DCHC MPO Web site.

TCC Action: Receive Deficiency Analysis and Needs Assessment report, make comments, and forward to the TAC for review and approval.

9. STP-DA – Funding for Revenue Element of 2035 LRTP
(Attachment 9)

Andy Henry, LPA Staff

The Financial Plan of the 2035 LRTP that must demonstrate that there is a reasonable expectation that future transportation revenues will cover future transportation project costs. Currently, the limited Lead Planning Agency staff resources are dedicated to other integral elements of the LRTP such as plan alternatives and land use alternatives. The LPA believes there is an opportunity to cooperate with the Capital Area Metropolitan Planning Organization (CAMPO) by hiring a consultant to complete the LRTP revenue forecasts for both MPOs. The City of Durham has an existing master agreement with a qualified consultant, the Louis Berger Group, Inc., and therefore can contract with Louis Berger to complete the work.

The LPA is requesting \$3,838.02 in STP-DA grant funding. The following table presents the breakdown of how the costs will be shared. Attachment 9 is a copy of the proposed supplemental agreement with the contractor – it presents the detailed tasks to complete the revenue forecasts.

	<u>Total Amount</u>	<u>MPO Amount</u>	<u>DCHC Amount</u>
Total Contract Cost	\$15,991.76		
<u>MPO Breakdown</u>			
CAMPO Share (70%)		\$11,194.23	
DCHC MPO Share (30%)		\$4,797.53	
<u>DCHC MPO Breakdown</u>			
STP-DA Grant (80%)			\$3,838.02
City of Durham Local Match (20%)			\$959.51

TCC Action: Make recommendation to the TAC to provide STP-DA funding to complete the Revenue element of the 2035 LTP.

10. STP-DA and CMAQ Call for Projects
(Attachment 10, 10A, 10B, 10C)

Ellen Beckmann, LPA Staff

Dale McKeel, LPA Staff

Felix Nwoko, LPA Staff

The TAC approved funding four project with the MPO's Congestion Mitigation Air Quality (CMAQ) funds at the January 9, 2008 TAC meeting. CMAQ funds were approved for transit and travel demand management programs. STP-DA Projects have been solicited. The MPO received \$53 million of requests for STP-DA funds for years FY 2009 through FY 2015. These projects include bicycle and pedestrian projects, travel demand management, transit, and LPA staff and planning activities. Assuming that the MPO receives approximately \$4 million in STP-DA per year, the MPO only has about \$28 million of STP-DA for years FY 2009 through FY 2015.

Attachment 10 is a staff memo on a proposed STP-DA funding proposal. One of the STP-DA proposals is additional LPA staff. Attachment 10A is an explanation of the LPA staff proposal. 10B, an FHWA SAFETEA-LU presentation, and 10C, the draft DCHC MPO federal certification report, are supporting documents for the LPA staff proposal.

A TCC STP-DA subcommittee meeting has been scheduled for Thursday, January 31, 2008, at 1pm in the Transportation Conference Room in Durham City Hall. The subcommittee has not reviewed the attachments for this agenda item. The TCC may provide feedback on the proposal and/or refer the proposal to the subcommittee for a recommendation.

TCC Action: Review the STP-DA funding proposal and LPA staff request. Provide feedback and/or refer the proposal to the subcommittee.

11. Farrington Road / Stagecoach Road / Farrington Mill Road Study**Felix Nwoko, LPA Staff**

The consultant for the Farrington Road / Stagecoach Road / Farrington Mill Road Study, Kimley Horn and Associates, will give a presentation on the status of this study.

TCC Action: Receive update.

REPORTS FROM STAFF:**12. Reports from Staff****(Attachment 12)****Felix Nwoko, LPA Staff**

TCC Action: Receive Report from staff

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

TCC Action: Receive Report from TCC Chair

- 14. NCDOT Report**
(Attachment 14)
Wally Bowman, Division 5 – NCDOT
Mike Mills, Division 7 – NCDOT

INFORMATIONAL ITEMS

- 15. Recent News Articles**
(Attachment 15)
- 16. NCDOT Public Hearing Schedule for the Draft FY 09-15 STIP**
(Attachment 16)

TCC SUBCOMMITTEE MEETINGS

STP-DA Subcommittee: Thursday, January 31, 2008
1pm
Transportation Conference Room, Durham City Hall

LRTP Subcommittee: Thursday, January 31, 2008
2pm
Transportation Conference Room, Durham City Hall

Adjourn

Next meeting: February 27, 2008

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TECHNICAL COORDINATING COMMITTEE

December 19, 2007

MINUTES OF MEETING

- *Mark Ahrendsen City of Durham/Transportation (TCC Chair)
- *Jamal Alavi NCDOT - TPB
- *Ellen Beckmann City of Durham/Transportation
- *Andy Henry City of Durham/Transportation
- *John Hodges-Copple Triangle J COG
- *Tom King Town of Hillsborough
- *Ray Magyar UNC – Transportation
- *Patrick McDonough Triangle Transit Authority
- *Adena Messinger Town of Carrboro
- *Pierre Osei Owusu City of Durham/DATA
- *Scott Walston NCDOT – NCDOT/TPB
- *Battle Whitley NCDOT – Division 5 Engineer
- Dale McKeel City of Durham/Transportation
- Priya Nimbole City of Durham/Transportation
- (Dawn) Xiaodan Qiu City of Durham/Transportation
- Jill Stark FHWA

*Voting Member

Mark Ahrendsen, TCC Chair, called the meeting to order at 9:07 a.m.

PRELIMINARIES:

Adjustments to the Agenda

Mark Ahrendsen stated that the Town of Carrboro submitted an application for Safe Routes to School which was distributed at the beginning of the meeting and will be discussed during Agenda Item 8. Another item that needs to be discussed is the citizen input from the TAC meeting in December 2007 regarding the Triangle Parkway.

Public Comments

There were no public comments.

ACTION ITEMS:

33 **Approval of November 28, 2007 TCC Meeting Minutes (Attachment 4)**

34 A motion was made by Pierre Osei Owusu and seconded by Andy Henry to approve the
35 November 28, 2007 TCC Meeting Minutes. The motion carried unanimously.

36 **CMAQ and STP-DA Call for Projects (Attachments 5, 5A, 5B, 5C, and 5D)**

37 Mark Ahrendsen introduced the CMAQ and STP-DA Call for Projects, along with the
38 attachments. Mark hopes we can advance this item forward even though there are still some
39 issues.

40 Ellen Beckmann provided an overview of the projects. Ellen stated the subcommittee
41 met a week ago to discuss the applications. There were four applications; TJCOG for the TDM
42 plan, Town of Chapel Hill for the two new hybrid buses, City of Durham, DATA for two new
43 hybrid buses, and City of Durham, DATA for the shortfall for the old CMAQ project for five
44 hybrid buses. The total funds available are \$4.5 million and the requests are \$4.7 million so
45 there is a shortfall of \$214,205. The subcommittee did not decide what to do about the shortfall.

46 Per the attached table, there are two options; one is to eliminate part of the TDM funding
47 in FY 2012. Since the TDM program is from 2009 through 2015 and the CMAQ request is only
48 for the FY 2009-2012, we already have three years of the program that are not being funded by
49 CMAQ. We could add another year and not allocate funding for TDM funding in FY 2012 and
50 recommend that it be funded using STP-DA. Option two is to proportionately decrease funding
51 for the two new Chapel Hill and DATA hybrid buses projects. Pierre Osei Owusu recommends
52 option one which is to reduce the TDM funding.

53 John Hodges-Copple stated there is another option. He thinks it is important to get the
54 full FY 2009-2012 funding for the Regional TDM program from CMAQ. John stated there were
55 still uncertainties about the bus projects, so there may not be a need to reduce the funding

56 proportionately. John's recommendation would be to fully fund the TDM program out of
57 CMAQ for the FY 2009-2012 and put the other two projects in the STP-DA. Patrick
58 McDonough agrees with John Hodges-Copple.

59 Jamal Alavi stated we need to fix the discrepancy in the emissions calculations between
60 Chapel Hill and DATA because that will be a red flag with NCDOT.

61 Pierre Osei Owusu stated the funds are need up front, not over three years. Jamal Alavi
62 stated in the past that the projects that were received first got the funds from NCDOT. Jamal
63 recommends submitting the projects as soon as possible.

64 A motion was made by Andy Henry to fully fund the TDM and the shortfall be funded
65 through STP-DA or another funding source. Just for clarification, all of the CMAQ funds are
66 being allocated.

67 Dale McKeel asked if the STP-DA can be used for operations and Jill Stark with FHWA
68 stated yes it can be.

69 The motion carried unanimously.

70 Mark Ahrendsen stated that the transit operators need to get together and try to address
71 the concerns about the emissions calculations.

72 **2009-2015 Transportation Improvement Program – Release for Public Comment**
73 **(Attachment 6)**

74 Ellen Beckmann provided an introduction for the 2009-2015 Transportation
75 Improvement Program – Release for Public Comment, along with the attachments.

76 A motion was made by John Hodges-Copple and seconded by Jamal Alavi to recommend
77 that the TAC release the draft 2009-2015 STIP as the draft 2009-2015 MTIP for public comment
78 and schedule a public hearing at the February TAC meeting. The motion carried unanimously.
79

80 Mark Ahrendsen provided an introduction of Jamal Alavi who is our DCHC MPO
81 coordinator with NCDOT.

82 **2009-2015 Transportation Improvement Program – Regional Priority List (Attachment 7**
83 **and 7A)**

84 Ellen Beckmann provided an introduction for the 2009-2015 Transportation
85 Improvement Program – Regional Priority List, along with the attachments.

86 At last month's TAC meeting they asked that the modal list be combined into a single list
87 for each division. Staff in Orange County and Durham County developed a list of the top fifteen
88 projects.

89 Andy Henry stated we need to add details for the ITS and determine of the \$21 million is
90 just for DCHC or the entire Triangle regional share. Ellen Beckmann will check on the cost and
91 add a breakdown of the costs with more descriptions.

92 A motion was made by Patrick McDonough and seconded by John Hodges-Copple to
93 recommend that the TAC adopt the combined Regional Priority Lists by Division. The motion
94 carried unanimously.

95 **Safe Routes to School – Action Plan Service Awards (Attachments 8, 8A, and 8B)**

96 Mark Ahrendsen stated that an attachment from the Town of Carrboro was distributed at
97 the beginning of the meeting regarding this item. Ellen Beckmann stated there is another request
98 and it is from Triangle Tomorrow.

99 Dale McKeel provided an introduction for the Safe Routes to School – Action Plan
100 Service Awards, along with the attachments.

101 Applications for the Town of Carrboro and Orange County are forthcoming. Plus, see
102 handout from Sig Hutchinson of Triangle Tomorrow asking for \$50,000. Dale stated he is not
103

104 sure if it is for one school area or several school areas. He has not heard from Sig Hutchinson
105 regarding questions.

106 Adena Messinger stated that Sig Hutchinson's plan fits better with the non-infrastructure
107 application. Carrboro Elementary and McDougal Elementary don't receive direct funds;
108 NCDOT contracts with a consultant to do the plan.

109 John Hodges-Copple wants more information on the Triangle Tomorrow project.

110 A motion was made by John Hodges-Copple and seconded by Patrick McDonough to
111 support the action plan of Town of Carrboro and Orange County and support for bringing
112 forward to the TAC for consideration the Triangle Tomorrow request with more details. The
113 motion carried unanimously.

114 **2008 DCHC MPO Legislative Agenda (Attachment 9 and 9A)**

115 Ellen Beckmann provided an introduction for the 2008 DCHC MPO Legislative Agenda,
116 along with the attachments.

117 Patrick McDonough stated he is on a committee that is requesting that the legislature
118 require parking cash-out for parking benefits. Mark Ahrendsen stated they are looking at bigger
119 picture legislative initiatives for the Legislative agenda.

120 Ellen Beckmann stated there is a concern that county roads need to remain NCDOT's
121 responsibility. If the county is responsible, then funding needs to come with it. If there is less
122 funding, the counties need a funding mechanism.

123 Dale McKeel asked if there is a sunset on the cap of the gas tax. Jamal Alavi stated he
124 believes it was capped. The 2008 DCHC MPO Legislative Agenda was referred to the TCC
125 Administrative Subcommittee.

126 **Agenda Item Added - Triangle Parkway**

127 Tom McCurdy, a citizen and EPA employee, attended the last TAC meeting and
128 expressed access concerns with the Triangle Parkway; see attached handout.

129 After discussion, staff doesn't recommend specific changes, but instead invites the North
130 Carolina Turnpike Authority to come to the January TAC meeting to allow them to discuss why
131 they are removing access or what options could be considered and suggest that the North
132 Carolina Turnpike Authority and EPA work together on a solution.

133 Battle Whitley, NCDOT Division 5 Engineer, stated that the EPA is unwilling to change
134 the access. There have been several meetings with EPA and NCTA regarding this issue. He
135 cautions the TAC getting involved in specific access issues.

136 The consensus of the TCC was that the NCTA should work with EPA and when there is
137 an opportunity to provide comment, the TAC can do so at that time.

138 **REPORTS FROM STAFF:**

139 **Reports from Staff (Attachment 10)**

140 The Report from Staff is attached for review.

141 **Report from the Chair**

142 Mark Ahrendsen stated the STAC is continuing to work on their recommendations and
143 they will be meeting on January 11, 2008 all day. A meeting was held on the East End
144 Connector project with approximately 175 people attending. A new visualization technique was
145 used and was a very helpful tool. The Hillandale Road public input ends January 4, 2008.

146 Jill Stark went through the plans to identify actions to make SAFETEA-LU compliant.
147 DCHC and CAMPO are considering a joint plan. There are some examples of other MPOs.
148 There will be an outline on what to do to have a combined plan or separate plan.

149 John Hodges-Copple stated there was a meeting last week on the air quality conformity
150 need for the 2009-2015 TIP. Will have to do a comparison of budgets to 2030 Transplan results.
151 We cannot officially adopt the model with the SE Data until the FY 2009-2015 TIP conformity
152 report is put out for public comment. It will probably be March or April 2008 for the MPO. We
153 can still use the model; but not adopt it. We need to be careful of official actions.

154 **NCDOT Report (Attachment 12)**

155 The NCDOT Report is attached for review.

156 **INFORMATIONAL ITEMS:**

157 **Recent News Articles (Attachment 13)**

158 The recent news articles are attached for review.

159 **2008 TAC/TCC Meeting Schedule (Attachment 14)**

160 The 2008 TAC/TCC Meeting Schedule is attached for review.

161 **Adjournment**

162 There being no further business before the Technical Coordinating Committee, the
163 meeting was adjourned at 10: 15 a.m.

164

**2008-2009 UNIFIED PLANNING WORK PROGRAM (UPWP) DEVELOPMENT SCHEDULE
2008**

		January				February				March				April				May				June			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
2	23-Jan-08				█																				
3	23-Jan-08				█																				
4	13-Feb-08					█																			
5	27-Feb-08						█																		
6	February-March						█	█	█	█	█	█	█												
	February-March						█	█	█	█	█	█	█												
	12-Mar-08										█														
8	26-Mar-08											█													
9	9-Apr-08														█										
10	13-May-08																		█						
11	Jun-08																							█	

MEMORANDUM

TO: Transportation Advisory Committee
DCHC MPO

FROM: DCHC MPO Lead Planning Agency

DATE: February 13, 2008

SUBJECT: 2007-2008 Unified Planning Work Program (UPWP) – Amendment #2.

The TAC approved the 2007-2008 UPWP on May 11, 2007 and amended it on October 11, 2007 (Amendment #1). The proposed amendments are necessary in order to reflect reallocation of funds by the Towns of Chapel Hill and Carrboro, and de-obligation and reallocation of STP-DA funds by the Lead Planning Agency. The UPWP provides yearly funding allocations to support the ongoing transportation planning activities of the DCHC MPO. The UPWP must identify MPO planning tasks to be undertaken with the use of federal transportation funds, including highway and transit programs. Funds that would not be expended during the current fiscal year (FY 2007-08) must be de-obligated through an amendment in order for the funds to be available for programming during the next fiscal year (2008-09). Essentially, federal transportation planning funds received by the DCHC MPO provide yearly allocations to support transportation planning activities for the fiscal year. However, for projects that continue past the fiscal year (i.e., multi-year projects), funds must be de-obligated and carried over to the next fiscal year

Accordingly, the proposed amendment reflects the de-obligation of funds originally programmed for the following UPWP projects: Land-use model, Non-motorized trip model development, GIS automation, ITS deployment Update and MPO Collector Street Plan. The proposed amendment will decrease the LPA STP-DA Portion of the UPWP by \$596,000 (\$200,000 for Land-use model, \$140,000 for the Non-Motorized Trip Model, \$160,000 for the GIS Warehouse/Automation project, \$40,000 for the MPO-wide Collector Street Plan and \$56,000 for the ITS Project. The revisions are described and summarized as follows.

1. Reallocation of funds by the Town of Carrboro to better reflect current work activities and focus areas. As indicated in the tables below, there is no net change in total funding with these changes.

Durham-Chapel Hill-Carrboro Urban Area
FY 2007-2008 Unified Planning Work Program - Amendment #2 (TCC 1/23/08)
Funding Source Tables - Detail Revision Tables

Town of Carrboro

			Section 104(f) - PL Funds					
			<i>Original</i>		<i>Proposed</i>			
Task Description			<i>2007-08 UPWP 5/11/2007 TAC</i>		<i>Amendment #2 Feb. 13, 2008 TAC</i>		<i>Difference (Change)</i>	
			Local 20%	FHWA 80%	Local 20%	FHWA 80%	Local 20%	FHWA 80%
II	A		<u>Surveillance of Change</u>					
		13						
			0	0	50	200	50	200
II	B		<u>Long Range Transp. Plan</u>					
		4						
			60	240	0	0	(60)	(240)
		11						
			313	1,250	513	2,050	200	800
		17						
			600	2,400	100	400	(500)	(2,000)
		18						
			188	750	0	0	(188)	(750)
III	B		<u>Transportation Imp. Program</u>					
			400	1,600	500	2,000	100	400
III	C		<u>Civil Rights</u>					
		2						
			60	240	0	0	(60)	(240)
		3						
			40	160	0	0	(40)	(160)
		6						
			150	600	200	800	50	200
III-E	E		<u>Management & Operations</u>					
		1						
			3,511	14,045	3,959	15,835	448	1,790
Net Change							\$0	\$0

2. Reallocation of funds by the Town of Chapel Hill to better reflect current work activities and focus areas. There is no net change in total funding with these changes.

Durham-Chapel Hill-Carrboro Urban Area
FY 2007-2008 Unified Planning Work Program - Amendment #2 (TCC 01/23/08)
Funding Source Tables - Detail Revision Tables

Chapel Hill

			Section 5303 Transit Funds								
Task Description			<i>Original</i>			<i>Proposed</i>			<i>Difference</i>		
			<i>2007-08 UPWP</i>			<i>Amendment #2</i>			<i>(Change)</i>		
			<i>5/11/2007 TAC</i>			<i>Feb. 13, 2008 TAC</i>					
			Local	NCDOT	FTA	Local	NCDOT	FTA	Local	NCDOT	FTA
			10%	10%	80%	20%	10%	80%	10%	10%	80%
II	A		<u>Surveillance of Change</u>								
		10	Mapping								
			1,875	1,875	15,000	1,250	1,250	10,000	(625)	(625)	(5,000)
II	B		<u>Long Range Transp. Plan</u>								
		10	Transit Element of the LRTP								
			2,500	2,500	20,000	1,250	1,250	10,000	(1,250)	(1,250)	(10,000)
		10	Financial Planning								
			625	625	5,000	313	313	2,500	(313)	(313)	(2,500)
III-D			<u>Incidental Plng/Project Dev</u>								
		3	Special Studies								
			0	0	0	2,500	2,500	20,000	2,500	2,500	20,000
III-E			<u>Management & Operations</u>								
		1	Management & Operations								
			4,750	4,750	38,000	4,438	4,438	35,500	(313)	(313)	(2,500)
Net Change									\$0	\$0	\$0

4. De-obligation of funds programmed for the Orange County Greenhouse Gas Emission study to reflect the new schedule for that project

Durham-Chapel Hill-Carrboro Urban Area
FY 2007-2008 Unified Planning Work Program - Amendment #2 (TCC 1/23/08)
Funding Source Tables - Detail Revision Tables

Orange County

				Section 104(f) - PL Funds					
				<i>Original</i>		<i>Proposed</i>			
				<i>2007-08 UPWP</i>		<i>Amendment #2</i>		<i>Difference</i>	
				<i>5/11/2007 TAC</i>		<i>Feb. 13, 2008</i>		<i>(Change)</i>	
Task Description				Local	FHWA	Local	FHWA	Local	FHWA
				20%	80%	20%	80%	20%	80%
II	B		<u>Long Range Transp. Plan</u>						
		18	Air Quality Planning /Conformity	1,410	5,640	0	0	-1,410	-5,640
			Net Change					-\$1,410	-\$5,640

RESOLUTION

TO APPROVE AMENDMENT #2 TO THE FY 2007-2008 UNIFIED PLANNING WORK PROGRAM OF THE DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION (DCHC MPO)

February 13, 2008

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

WHEREAS, A comprehensive and continuing transportation planning program must be carried out cooperatively in order to ensure that funds for transportation planning projects are effectively allocated to the DCHC MPO; and

WHEREAS, The Durham-Chapel Hill-Carrboro MPO requests an amendment to the 2007-2008 UPWP as outlined on the attached tables; and

WHEREAS, Members of the Transportation Advisory Committee agree that the Unified Planning Work Program amendment effectively advances transportation planning for 2007-2008.

Now, therefore, be it resolved that the Transportation Advisory Committee hereby endorses Amendment #2 of the Durham-Chapel Hill-Carrboro Urban Area Unified Planning Work Program for the FY 2007-2008 as described in the attached sheets.

I, Alice M. Gordon, Transportation Advisory Committee Chair, do hereby certify that the above is a true and correct copy of an excerpt from the minutes of a meeting of the Durham-Chapel Hill-Carrboro Urban Area Transportation Advisory Committee, duly held on the 13th day of February, 2008.

Signature of TAC Chair
Durham-Chapel Hill-Carrboro Metropolitan Planning Organization

STATE OF: North Carolina
COUNTY OF: Durham

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

Notary Public
101 City Hall Plaza
Durham, NC 27701

My commission expires: _____

2035 LRTP Targets

Summary

Background

The Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) intends to adopt a set of quantitative Targets to measure the degree to which the 2035 Long Range Transportation Plan (2035 LRTP) meets the Goals and Objectives of the MPO. The Transportation Advisory Committee (TAC) reviewed draft Targets at their October 10, 2007 meeting, and made the following comments:

- Given that the Targets format provides a range of values, i.e., Good, Better and Best, the Best value should push the limits.
- The format needs to be simple so the information is attractive and understood by non-technical persons.
- The information needs to be broader so the public and local elected officials understand how these goals affect their quality of life.

Transportation Coordinating Committee (TCC) reviewed a modified set of Targets, based on TAC comments, at their October 24, 2007 and requested that 2035 LRTP Guide Data (i.e., 2035 SE Data using 2030 LRTP network) be added and that several other Guide Data be completed before presentation to the TAC.

Target Documents

The Lead Planning Agency (LPA) has completed two Target documents:

Table

The Target table has the complete set of values more than twenty-five Targets and the corresponding Guide Data.

Key Targets

The Key Targets document presents the eleven most important Targets in a format that will be more attractive to the interests of the public by noting why the Target is important.

Guide Data

The Targets have Guide Data to help set the Target value and to function as a context for evaluating the Target. The Guide Data indicate what the Target values will be in three separate scenarios:

- 2005 – This is the current condition. It is the 2005 population and employment using the 2005 transportation network (e.g., highways and transit service).
- 2035 Baseline – This is the no-build condition. It is the 2035 population and employment using the 2005 transportation network.
- 2035 LRTP – This shows how a major transportation investment might affect the Target value. It is the 2035 population and employment using the transportation network from the 2030 LRTP, which is budgeted at over \$6 billion and includes light rail and High Occupancy Vehicle (HOV) lanes.

Target Range

There are three Target values -- Good, Better and Best. The use of more than one Target value helps to set a range of values that can be used for comparison.

Consider Deleting Some Targets

The Targets table and Key Target presentation implement changes to reflect TAC and TCC comments. However, the TCC should consider deleting the following Targets:

- 2.4 Transit Trip Transfer Percentage
The resources needed to calculate and sum the internal and external transfers for each transit system in the model is prohibitive.
- 4.3 VOC
VOC (Volatile Organic Compounds) has no budget because it is not considered the tipping point for ground level ozone creation, i.e., the NOx emissions drive the ozone creation.
- 5.2 Cost Effectiveness
In order to properly calculate this value, cost information for the 2035 Baseline (or, the Existing plus Committed network) is needed to differentiate that cost with the 2035 Preferred Option. At this point in the LRTP development process, cost information is not available.
- 5.3 Fixed-Guideway Transit Cost Indicator
The Fixed-Guideway Transit Cost Indicator is actually the FTA threshold values for the “Incremental Cost per Hour of Transportation System User Benefit.” The LPA is still investigating whether this value can be reasonable calculated from model output.

2035 Long Range Transportation Plan Targets (Draft)

		Guide Data			Targets		
		2005	2035 Baseline	2035	Good	Better	Best
1	Mobility Targets						
1.1	VMT Per Capita (daily miles)	30.1	30.6	31.1	29.1	27.5	24.5
1.2	Total VMT Reduction from 2035 Baseline				5%	10%	20%
1.3	VHT per capita (daily minutes)	40.6	53.2	42.8	50.5	47.9	42.5
1.4	Total VHT Reduction from 2035 Baseline				5%	10%	20%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	3.6%	18.3%	3.8%	12%	8%	4%
1.6	Average Travel Time (work trips) (daily minutes)	19.6	26.0	22.5	24	22	20
1.7	Average Travel Time (all trips) (daily minutes)	15.1	17.0	16.0	15	14	13
1.8	Average Travel Time (all peak trips) (daily minutes)	16.9	20.6	18.4	19	17	15
2	Transit Targets						
2.1	Transit Mode Share (all trips)	2.1%	1.6%	3.0%	3.0%	5.0%	8.0%
2.2	Percent Ridership Increase from 2035 Baseline				100%	200%	400%
2.3	Transit Mode Share (work trips)	2.8%	2.4%	4.6%	5.0%	8.0%	12.0%
2.4	Transit Trip Transfer Percentage	TBD	TBD	TBD	TBD	TBD	TBD
3	TDM Targets						
3.1	Percent SOV Trip Share (all trips)	55.5%	55.3%	54.1%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Reduction from 2035 Baseline				5%	10%	20%
3.3	Percent SOV Trip Share (work trips)	82.0%	82.5%	81.0%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.9%	6.8%	9%	11%	15%
3.5	Percent Non-motorized trip increase from 2035 Baseline				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)		160,771	160,771	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)		9,650	9,650	5% under budget	10% under budget	20% under budget
4.3	Volatile Organic Compounds -VOC (kg/day)		4,772	4,772	5% under budget	10% under budget	20% under budget
4.4	Greenhouse Gases (transportation sector, kg/day)		TBD	TBD	TBD	TBD	TBD
5	Financial/Economics Targets						
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)				0.90	0.95	1.00
5.2	Cost effectiveness (cost per avg. vehicle trip reduction)				\$0.90	\$0.80	\$0.70
5.3	Fixed-Guideway Transit Cost Indicator (Guide data are FY 2009 FTA thresholds)	\$12/ \$15.50/	\$12/ \$15.50/	\$12/ \$15.50/			
		\$24	\$24	\$24	\$22	\$18	\$15
5.4	Cost of Congestion (in million \$)	\$351	\$1,211	\$496	1,030	848	666
6	Environment Justice/Land Use Targets						
6.1	Percent of Population within 1/4 mile of transit	55.7%	49.8%	63.2%	55%	60%	70%
6.2	Percent of Employment within 1/4 mile of transit	77.0%	73.3%	83.9%	TBD	TBD	TBD
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	TBD	TBD	TBD	1.05	1.02	1.00

TBD = To Be Determined

Bold Blue = Proposed as Key Targets that are highlighted in the Targets summary

Draft

2035 LRTP and CTP Targets

↓ Reduce Vehicle Miles Traveled (VMT)

Why Reduce VMT?	How to Reduce VMT?	Trends and Targets														
<ul style="list-style-type: none"> ▪ <u>Reduce pollutant emissions</u> – Triangle Region is on federal maintenance plan for carbon monoxide and ozone. ▪ <u>Minimize congestion</u> – Bi-annual mobility report lists Triangle Region among those areas with the fastest growing traffic congestion. ▪ <u>Relieve transportation demand</u> – NCDOT study concludes that Triangle Region transportation needs will outpace revenues by several billion dollars over next few decades. 	<ul style="list-style-type: none"> ▪ <u>Transportation</u> – Encourage transit use, carpooling, walking and bicycling. ▪ <u>Land Use</u> – Permit more concentrated residential and employment development along key travel corridors. ▪ <u>Land Use</u> – Permit more mixed-use development. 	<div style="text-align: center;"> <p>Vehicle Miles Traveled (Daily)</p> <table border="1" style="margin: 0 auto; border-collapse: collapse;"> <thead> <tr> <th>Year/Scenario</th> <th>VMT (Daily)</th> </tr> </thead> <tbody> <tr> <td>2005</td> <td>30</td> </tr> <tr> <td>2035B</td> <td>31</td> </tr> <tr> <td>2035</td> <td>31</td> </tr> <tr> <td>Good</td> <td>29</td> </tr> <tr> <td>Better</td> <td>28</td> </tr> <tr> <td>Best</td> <td>24</td> </tr> </tbody> </table> </div>	Year/Scenario	VMT (Daily)	2005	30	2035B	31	2035	31	Good	29	Better	28	Best	24
Year/Scenario	VMT (Daily)															
2005	30															
2035B	31															
2035	31															
Good	29															
Better	28															
Best	24															

Draft

↓ Reduce Congestion (Percent of Peak Period Vehicle Miles Traveled [VMT] at Congestion)

Why Reduce Congestion?	How to Reduce Congestion?	Trends and Targets														
<ul style="list-style-type: none"> ▪ <u>Reduce Travel Costs</u> – Mobility Report concludes annual congestion cost is \$671 per peak hour traveler in Triangle. ▪ <u>Reduce Travel Time</u> – Mobility Report estimates 35 hours of annual delay per peak traveler in Triangle. ▪ <u>Reduce Pollution</u> – Congestion reduces travel speed and increases pollution. ▪ <u>Citizen Concerns</u> – In a recent poll, 61 percent of respondents named either growth and sprawl or traffic congestion and roads as the most important issue facing the Triangle today. 	<ul style="list-style-type: none"> ▪ <u>Transportation</u> – Encourage transit use, carpooling, walking and bicycling. ▪ <u>Transportation</u> – Implement Congestion Management Program practices such as traffic signal synchronization and spot improvements at traffic bottlenecks. ▪ <u>Transportation</u> – Increase highway, transit and other transportation mode capacity, especially along critical corridors. ▪ <u>Land Use</u> – Permit more mixed-use development. ▪ <u>Design</u> – Permit design elements that support alternative transportation modes such as sidewalks and grid street patterns with shorter block lengths. 	<div style="text-align: center;"> <p>Percent Congested at Peak Period</p> <table border="1" style="margin: 0 auto; border-collapse: collapse;"> <thead> <tr> <th>Year/Scenario</th> <th>Percent Congested</th> </tr> </thead> <tbody> <tr> <td>2005</td> <td>4%</td> </tr> <tr> <td>2035B</td> <td>18%</td> </tr> <tr> <td>2035</td> <td>4%</td> </tr> <tr> <td>Good</td> <td>12%</td> </tr> <tr> <td>Better</td> <td>8%</td> </tr> <tr> <td>Best</td> <td>4%</td> </tr> </tbody> </table> </div>	Year/Scenario	Percent Congested	2005	4%	2035B	18%	2035	4%	Good	12%	Better	8%	Best	4%
Year/Scenario	Percent Congested															
2005	4%															
2035B	18%															
2035	4%															
Good	12%															
Better	8%															
Best	4%															

Draft

↓ Reduce Cost of Congestion

Why Reduce Congestion Cost?	How to Reduce Congestion Cost?	Trends and Targets														
<ul style="list-style-type: none"> ▪ <u>Reduce Travel Costs</u> – Mobility Report concludes annual congestion cost is \$671 per peak hour traveler in Triangle. ▪ <u>Reduce Travel Time</u> – Mobility Report estimates 35 hours of annual delay per peak traveler in Triangle ▪ <u>Reduce Pollution</u> -- Congestion reduces travel speed and increases pollution. ▪ <u>Citizen Concerns</u> – In a recent poll, 87% of the respondents believe that traffic congestion is a problem in the Triangle. 	<ul style="list-style-type: none"> ▪ <u>Transportation</u> – Encourage transit use, carpooling, walking and bicycling. ▪ <u>Transportation</u> – Implement Congestion Management Program practices such as traffic signal synchronization and spot improvements at traffic bottlenecks. ▪ <u>Transportation</u> – Increase highway, transit and other transportation mode capacity, especially along critical corridors. ▪ <u>Land Use</u> – Permit more mixed-use development. ▪ <u>Design</u> – Permit design elements that support alternative transportation modes such as sidewalks and grid street patterns with shorter block lengths. 	<div style="text-align: center;"> <p>Cost of Congestion (\$ millions)</p> <table border="1" style="margin: 0 auto; border-collapse: collapse;"> <thead> <tr> <th>Year/Scenario</th> <th>Cost (\$ millions)</th> </tr> </thead> <tbody> <tr> <td>2005</td> <td>\$351</td> </tr> <tr> <td>2035B</td> <td>\$1,211</td> </tr> <tr> <td>2035</td> <td>\$496</td> </tr> <tr> <td>Good</td> <td>\$1,030</td> </tr> <tr> <td>Better</td> <td>\$848</td> </tr> <tr> <td>Best</td> <td>\$666</td> </tr> </tbody> </table> </div>	Year/Scenario	Cost (\$ millions)	2005	\$351	2035B	\$1,211	2035	\$496	Good	\$1,030	Better	\$848	Best	\$666
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Best	\$666															

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↓ Reduce Travel Time (Average Peak Travel Time)

Why Reduce Travel Time?	How to Reduce Travel Time?	Trends and Targets														
<ul style="list-style-type: none"> ▪ <u>Reduce In-Vehicle Time</u> – Travel model estimates that the average peak-hour travel time in the western Triangle will increase 22% from 2005 to 2035. ▪ <u>Reduce Greenhouse Gases</u> – Longer vehicle trips produce greater amounts of greenhouse gases that are said to contribute to global warming. 	<ul style="list-style-type: none"> ▪ <u>Transportation</u> – Implement Congestion Management Program practices such as traffic signal synchronization and spot improvements at traffic bottlenecks. ▪ <u>Transportation</u> – Increase highway, transit and other transportation mode capacity. ▪ <u>Land Use</u> – Permit more mixed-use development. 	<div style="text-align: center;"> <p>Average Peak Travel Time (minutes)</p> <table border="1" style="margin: 0 auto; border-collapse: collapse;"> <thead> <tr> <th>Year/Target</th> <th>Average Peak Travel Time (minutes)</th> </tr> </thead> <tbody> <tr> <td>2005</td> <td>17</td> </tr> <tr> <td>2035B</td> <td>21</td> </tr> <tr> <td>2035</td> <td>18</td> </tr> <tr> <td>Good</td> <td>19</td> </tr> <tr> <td>Better</td> <td>17</td> </tr> <tr> <td>Best</td> <td>15</td> </tr> </tbody> </table> </div>	Year/Target	Average Peak Travel Time (minutes)	2005	17	2035B	21	2035	18	Good	19	Better	17	Best	15
Year/Target	Average Peak Travel Time (minutes)															
2005	17															
2035B	21															
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Good	19															
Better	17															
Best	15															

Draft

↓ Reduce Single-Occupied Vehicle (SOV) Share (Work Trips)

Why Decrease SOV Share?	How to Decrease SOV Share?	Trends and Targets														
<ul style="list-style-type: none"> ▪ <u>Reduce Congestion</u> – SOV contributes to congestion, which wastes time, fuel and money. The Durham area has experienced a slight reduction in the SOV share from 2005 to 2007, decreasing from 85.2% to 82.5% ▪ <u>Reduce Pollution</u> – SOV contributes to air pollutants. Triangle Region is on federal maintenance plan for carbon monoxide and ozone. ▪ <u>Citizen Concerns</u> – In a recent poll, 74% of the respondents think the solution to congestion is developing a variety of transportation options. 	<ul style="list-style-type: none"> ▪ <u>Transportation</u> – Increase support for Transportation Demand Management programs such as carpooling, vanpooling, and company-based rideshare efforts. ▪ <u>Transportation</u> – Support infrastructure that creates incentives to rideshare such as HOV (high occupancy vehicle) and HOT (high occupancy toll) lanes. ▪ <u>Ordinance</u> – Create local ordinances that support ridesharing. ▪ <u>Land Use</u> – Permit more concentrated employment development that enables easier ride matching. ▪ <u>Design</u> – Permit design elements that support ridesharing such as convenient drop off points. 	<div style="text-align: center;"> <p>SOV Mode Share (Work Trips)</p> <table border="1" style="margin: 0 auto; border-collapse: collapse;"> <thead> <tr> <th>Year/Scenario</th> <th>SOV Mode Share (%)</th> </tr> </thead> <tbody> <tr> <td>2005</td> <td>82.0%</td> </tr> <tr> <td>2035B</td> <td>82.5%</td> </tr> <tr> <td>2035</td> <td>81.0%</td> </tr> <tr> <td>Good</td> <td>78.4%</td> </tr> <tr> <td>Better</td> <td>74.3%</td> </tr> <tr> <td>Best</td> <td>66.0%</td> </tr> </tbody> </table> </div>	Year/Scenario	SOV Mode Share (%)	2005	82.0%	2035B	82.5%	2035	81.0%	Good	78.4%	Better	74.3%	Best	66.0%
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Draft

↑ Increase Percent Non-Motorized Trip Share (All Trips)

Why Increase Non-Motorized Share?	How to Increase Non-Motorized Share?	Trends and Targets														
<ul style="list-style-type: none"> ▪ <u>Reduce Pollution</u> – Motorized vehicles are major emitters of carbon monoxide, nitrogen oxides (ozone precursor), carbon dioxide (greenhouse gas), particulate matter and several other toxics that are linked to increased health ailments and global warming. ▪ <u>Reduce Congestion</u> – The percent of congested peak travel miles in the Triangle has risen from 13% to 47%, between 1982 and 2007. Bicycle and walking trips can replace vehicle trips to help abate the growing vehicle congestion problem. ▪ <u>Support Personal Health</u> – Lack of exercise is a leading contributor to the obesity epidemic in the U.S. 	<ul style="list-style-type: none"> ▪ <u>Transportation</u> – Increase investment in bicycle and pedestrian facilities and programs. ▪ <u>Transportation</u> – Require bicycle and pedestrian facilities on new and improved roadways, as appropriate. ▪ <u>Ordinance</u> – Require bicycle and pedestrian facilities and supportive design in new and renovated developments. ▪ <u>Land Use</u> – Permit more concentrated residential and employment development along key travel corridors. ▪ <u>Land Use</u> – Permit more mixed-use development. 	<div style="text-align: center;"> <p>Non-Motorized Trip Share (All Trips)</p> <table border="1" style="margin: auto;"> <caption>Non-Motorized Trip Share (All Trips) Data</caption> <thead> <tr> <th>Year/Target</th> <th>Share (%)</th> </tr> </thead> <tbody> <tr> <td>2005</td> <td>6.8%</td> </tr> <tr> <td>2035B</td> <td>6.9%</td> </tr> <tr> <td>2035</td> <td>6.8%</td> </tr> <tr> <td>Good</td> <td>9.0%</td> </tr> <tr> <td>Better</td> <td>11.0%</td> </tr> <tr> <td>Best</td> <td>15.0%</td> </tr> </tbody> </table> </div>	Year/Target	Share (%)	2005	6.8%	2035B	6.9%	2035	6.8%	Good	9.0%	Better	11.0%	Best	15.0%
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Draft

↑ Increase Transit Mode Share (All Trips)

Why Increase Transit Mode Share?	How to Increase Transit Mode Share?	Trends and Targets														
<ul style="list-style-type: none"> ▪ <u>Provide Transportation Alternatives</u> – Approximately 3% of households do not own a vehicle, and the carless households increased at twice the rate of households. ▪ <u>Reduce Congestion</u> – Congestion wastes time, fuel and money. Triangle Region would need to increase transit trips by 28 million to maintain a constant level of congestion. ▪ <u>Reduce Pollution</u> – Based on standard guidelines, Triangle Region has problems with carbon monoxide, ozone, and greenhouse gases in Durham County are from the vehicle emissions. Increased transit use reduces pollution emissions. 	<ul style="list-style-type: none"> ▪ <u>Transportation</u> – Increase transit capacity and investment. ▪ <u>Land Use</u> – Permit more concentrated residential and employment development along key travel corridors that have transit and adjacent to proposed station areas. ▪ <u>Design</u> – Encourage the type of scale, building orientation, connections, public spaces, parking, amenities and other design elements that support transit. 	<div style="text-align: center;"> <p>Transit Mode Share (All Trips)</p> <table border="1" style="margin: 0 auto; border-collapse: collapse;"> <thead> <tr> <th>Year/Scenario</th> <th>Transit Mode Share (%)</th> </tr> </thead> <tbody> <tr> <td>2005</td> <td>2.1%</td> </tr> <tr> <td>2035B</td> <td>1.6%</td> </tr> <tr> <td>2035</td> <td>3.0%</td> </tr> <tr> <td>Good</td> <td>3.0%</td> </tr> <tr> <td>Better</td> <td>5.0%</td> </tr> <tr> <td>Best</td> <td>8.0%</td> </tr> </tbody> </table> </div>	Year/Scenario	Transit Mode Share (%)	2005	2.1%	2035B	1.6%	2035	3.0%	Good	3.0%	Better	5.0%	Best	8.0%
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Good	3.0%															
Better	5.0%															
Best	8.0%															

Draft

↑ Increase Percent of Population within One-Quarter Mile of Transit

Why Increase Transit Access?	How to Increase Transit Access?	Trends and Targets														
<ul style="list-style-type: none"> ▪ <u>Provide opportunity</u> – Approximately 3% of Triangle households do not own a vehicle, and carless households increased at twice the rate of households. ▪ <u>Reduce Congestion</u> – Congestion wastes time, fuel and money, and contributes to air pollutants. Transit use can help reduce roadway congestion. ▪ <u>Support Personal Health</u> – Lack of exercise is a leading contributor to the obesity epidemic in the U.S. Transit use has shown to induce bicycling and walking trips. ▪ <u>Reverse Transit Disinvestment</u> – Triangle transit investment lags behind comparable regions; per capita investment in transit operations in Charlotte is 2 ½ times higher than the Triangle Region. 	<ul style="list-style-type: none"> ▪ <u>Transportation</u> – Increase transit routes and service levels. ▪ <u>Transportation</u> – Increase transit investment. ▪ <u>Land Use</u> – Permit more concentrated residential and employment development along key travel corridors that best support transit. ▪ <u>Design</u> – Encourage transit-supportive scale, building orientation, connections, public spaces, parking, amenities and other design elements along transit corridors and station areas. 	<div style="text-align: center;"> <p>Percent of Pop. Within 1/4 Mile of Transit</p> <table border="1" style="margin: 0 auto; border-collapse: collapse;"> <thead> <tr> <th>Year/Target</th> <th>Percent</th> </tr> </thead> <tbody> <tr> <td>2005</td> <td>56%</td> </tr> <tr> <td>2035B</td> <td>50%</td> </tr> <tr> <td>2035</td> <td>63%</td> </tr> <tr> <td>Good</td> <td>55%</td> </tr> <tr> <td>Better</td> <td>60%</td> </tr> <tr> <td>Best</td> <td>70%</td> </tr> </tbody> </table> </div>	Year/Target	Percent	2005	56%	2035B	50%	2035	63%	Good	55%	Better	60%	Best	70%
Year/Target	Percent															
2005	56%															
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Better	60%															
Best	70%															

Draft

↓ Reduce Fixed-Guideway Transit Cost Indicator (FTA Thresholds)

Why Reduce Cost Indicator?	How to Reduce Cost Indicator?	Trends and Targets														
<ul style="list-style-type: none"> ▪ <u>Increase Fixed-Guideway Feasibility</u> – FTA uses cost indicator as principal consideration in awarding federal funding support for fixed-guideway. ▪ <u>Provide travel alternative</u> – Approximately 3% of Triangle households do not own a vehicle, and carless households increased at twice the rate of households. ▪ <u>Reduce Congestion</u> – Congestion wastes time, fuel and money, and contributes to pollutant emissions. Studies and models indicate that fixed-guideway transit reduces congestion in travel corridors. ▪ <u>Land Use Alternatives</u> – Fixed-guideway stations help support higher density, mixed-use developments. 	<ul style="list-style-type: none"> ▪ <u>Land Use</u> – Permit more concentrated residential and employment development in proposed station areas and along key travel corridors in existing land use plans. ▪ <u>Land Use</u> – Encourage more mixed-use development in proposed station areas. ▪ <u>Transportation</u> – Purchase abandoned and underused rail corridors. ▪ <u>Transportation</u> – Include fixed-guideway systems and feeder service in long-range plans. 	<div style="text-align: center;"> <p>Fixed-Guideway Transit Cost Indicator</p> <table border="1" style="margin: 0 auto; border-collapse: collapse;"> <thead> <tr> <th>Category</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>High</td> <td>\$12.00</td> </tr> <tr> <td>Med.</td> <td>\$15.50</td> </tr> <tr> <td>Low</td> <td>\$24.00</td> </tr> <tr> <td>Good</td> <td>\$22.00</td> </tr> <tr> <td>Better</td> <td>\$18.00</td> </tr> <tr> <td>Best</td> <td>\$15.00</td> </tr> </tbody> </table> </div>	Category	Value	High	\$12.00	Med.	\$15.50	Low	\$24.00	Good	\$22.00	Better	\$18.00	Best	\$15.00
Category	Value															
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Med.	\$15.50															
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Better	\$18.00															
Best	\$15.00															

Draft

↓ Reduce Greenhouse Gases (based on community plans)

Why Reduce Greenhouse Gases?	How to Reduce Greenhouse Gases?	Trends and Targets								
<ul style="list-style-type: none"> ▪ <u>Support Environment</u> – Greenhouse gases are said to be causing global warming. An estimated 39% of the greenhouse gases in Durham County are from the vehicle emissions. ▪ <u>Reduce Pollution</u> – Greenhouse gas emissions are accompanied by other pollutants such as carbon monoxide, nitrogen oxides (ozone precursor), carbon dioxide, and particulate matter that are linked to increased health ailments. 	<ul style="list-style-type: none"> ▪ <u>Local Initiative</u> – Support efforts of Durham County and Orange County greenhouse gas local action plans. ▪ <u>Land Use</u> – Permit more concentrated residential and employment development along key travel corridors. ▪ <u>Land Use</u> – Permit more mixed-use development. ▪ <u>Transportation</u> – Increase investment and ordinance support for bicycle and pedestrian facilities and programs. 	<p style="text-align: center;">Greenhouse Gas Reduction (based on community plans)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Category</th> <th>Reduction Target (%)</th> </tr> </thead> <tbody> <tr> <td>Good</td> <td>10%</td> </tr> <tr> <td>Better</td> <td>20%</td> </tr> <tr> <td>Best</td> <td>30%</td> </tr> </tbody> </table>	Category	Reduction Target (%)	Good	10%	Better	20%	Best	30%
Category	Reduction Target (%)									
Good	10%									
Better	20%									
Best	30%									

2035 Long Range Transportation Plan (LRTP)

Deficiency Analysis and Need Assessment

TCC Meeting – January 23, 2008

Deficiency Analysis and Needs Assessment

Content

- Triangle Regional Model Output
 - Evaluation Measures
 - Isochrone Maps
 - Travel Time Tables and Maps
 - Volume/Capacity Maps

- Other
 - Transportation Finance
 - Operations and Maintenance
 - Demographics
 - Geography
 - Regulatory

Deficiency Analysis and Needs Assessment

Content (Continued)

- Today's presentation has highlights.
- Full complement of tables and maps available on MPO Web site (especially model output documents)

Evaluation Measures

Background

- General indicators of overall system:
 - Mobility Performance, i.e. travel time
 - Mode Choice
 - Travel volume
- Not specific to corridor or project.
- Useful for comparing LRTP Alternatives

Evaluation Measures

Vehicle Miles Traveled (VMT) & Vehicle Hours Traveled (VHT)

Measures	2005	2035		2005-2035	2005-2035	35 Baseline -
		Baseline	2035 LRTP	Baseline Change	LRTP Change	2035 LRTP Change
1.0 Performance Measures						
1.1 Total VMT (daily)	11,009,535	16,797,818	17,173,385	53%	56%	2%
1.2 Total VHT (daily)	245,916	486,805	393,704	98%	60%	-19%

- VMT and VHT will dramatically increase, 53% and 98%, respectively, in the Baseline scenario (no-build).
- VHT growth outpaces VMT growth almost 2-to-1 because of increasing congestion.
- VMT growth persists with the implementation of the 2030 LRTP network.
- VHT growth is greatly reduced with the implementation of the 2030 LRTP network

Evaluation Measures

Average Travel Time

Measures		2005	2035 Baseline	2035 LRTP	2005-2035	2005-2035	35 Baseline -
					Baseline Change	LRTP Change	2035 LRTP Change
1.0	Performance Measures						
1.5	Average Travel Time - All Trips (min.)	15	17	16	15%	7%	-6%
1.6	Average Travel Time - Work Trips (min.)	20	26	23	34%	15%	-14%
1.7	Peak Average Travel Time - All Trips (min.)	17	21	18	24%	10%	-11%

- Average Travel Time increases most significantly for work trips and peak trips in the Baseline scenario,
- The 2030 LRTP scenario reduces the Average Travel Time growth for all trip types, especially work trips and peak trips.

Evaluation Measures

Congestion

Measures	2005	2035		2005-2035	2005-2035	35 Baseline -	
		Baseline	2035 LRTP	Baseline Change	LRTP Change	2035 LRTP Change	
1.0 Performance Measures							
1.9	Percent of VMT Congested - All Day						
1.91	- Freeway	2.70%	11.80%	2.70%	337%	0%	-77%
1.92	- Arterial	2.00%	13.70%	2.70%	585%	35%	-80%
1.9.3	- All Facilities	2.00%	11.40%	2.60%	470%	30%	-77%
1.10	Percent of VMT Congested - Peak						
1.10.1	- Freeway	4.70%	16.30%	4.10%	247%	-13%	-75%
1.10.2	- Arterial	3.00%	19.90%	3.60%	563%	20%	-82%
1.10.3	- All Facilities	3.30%	16.20%	3.80%	391%	15%	-77%

- The percent of VMT in congestion increases about three-fold to six-fold for all road types in the Baseline scenario.
- The implementation of the 2030 LRTP network greatly reduces congestion growth.
- In all cases, arterial Congestion growth is greatest.
- Freeway Congestion growth is less than arterial and all facilities.

Evaluation Measures

Mode Share – All Trips and Peak Trips

Measures		2005	2035		2005-2035		35 Baseline -
			Baseline	2035 LRTP	Baseline Change	2005-2035 LRTP Change	2035 LRTP Change
2.1	Percent Mode Choice - All Trips						
2.1.1	- Drive alone (single occupant vehicle -SOV)	53.96%	54.58%	54.09%	1%	0%	-1%
2.1.2	- Carpool (Share ride)	36.43%	36.59%	36.15%	0%	-1%	-1%
2.1.3	- Bus	2.51%	1.95%	2.62%	-22%	4%	34%
2.1.4	- Rail	0.00%	0.00%	0.36%	N/A	N/A	N/A
2.1.5	- Non-motorized (Bike and Walk)	7.09%	6.88%	6.79%	-3%	-4%	-1%

- In terms of Mode Choice, the travel model is fairly insensitive to population and employment growth (2035 Baseline scenario) and the implementation of the 2030 LRTP network.
- Transit Mode Choice decreases in the 2035 Baseline scenario because most population and employment increases occur in areas that currently do not have transit service.
- Transit Mode Choice increases only moderately with the implementation of the bus and rail transit in the 2030 LRTP network.
- These results hold true for the peak trips – the Mode Choice table for peak trips is not shown.

Evaluation Measures

Transit Ridership

Measures		2005	2035 Baseline	2035 L RTP	2005-2035	2005-2035	35 Baseline -
					Baseline Change	L RTP Change	2035 L RTP Change
3.1	Average Weekday Transit Ridership						
3.1.1	-Triangle Area Transit (TTA, including rail)	4,385	4,787	27,163	9%	519%	467%
3.1.2	- Capital Area Transit (CAT)	12,436	15,003	38,529	21%	210%	157%
3.1.3	- Chapel Hill Transit (CHT)	34,193	43,622	67,337	28%	97%	54%
3.1.4	- Durham Area Transit Authority (DATA)	10,450	13,478	31,773	29%	204%	136%
3.1.5	- NCSU	13,626	13,641	15,099	0%	11%	11%
3.1.6	- Duke University	10,387	11,635	15,683	12%	51%	35%
3.1.7	- Orange County Public Transportation	0	0	1,692	N/A	N/A	N/A
3.1.8	- Cary	0	0	11,231	N/A	N/A	N/A
3.1.9	- Total	85,479	102,168	208,511	20%	144%	104%
3.2	Commuter Rail						
3.2.1	TTA Phase I (Raleigh <-> Durham)	0	0	8,432	N/A	N/A	N/A
3.2.2	Duke <-> UNC	0	0	7,715	N/A	N/A	N/A

- Ridership increases in the 2035 Baseline (which uses current transit services) do not keep pace with population (47%) and employment (71%) increases.
- The extensive transit systems in the 2030 LRTP generate ridership increases that far exceed population and employment growth (except in the university systems).

Evaluation Measures

Population, Employment and Trips

Measures	2005	2035		2005-2035	2005-2035	35 Baseline -
		Baseline	2035 LRTP	Baseline Change	LRTP Change	2035 LRTP Change
4.1 Population	375,052	551,362	551,362	47%	47%	NA
4.2 Employment	227,208	389,249	389,249	71%	71%	NA
4.3 Total Daily Trips	1,878,813	2,997,653	3,044,387	60%	62%	2%
4.4 Total Daily Work Trips	416,510	678,338	696,115	63%	67%	3%
4.5 Total Daily Non-Work Trips	1,462,302	2,319,314	2,348,272	59%	61%	1%

- The region’s importance as an employment center will continue to grow – employment growth will significantly outpace population growth.
- This employment center phenomenon will result in a Trip growth rate that exceeds the population growth rate

Travel Isochrones

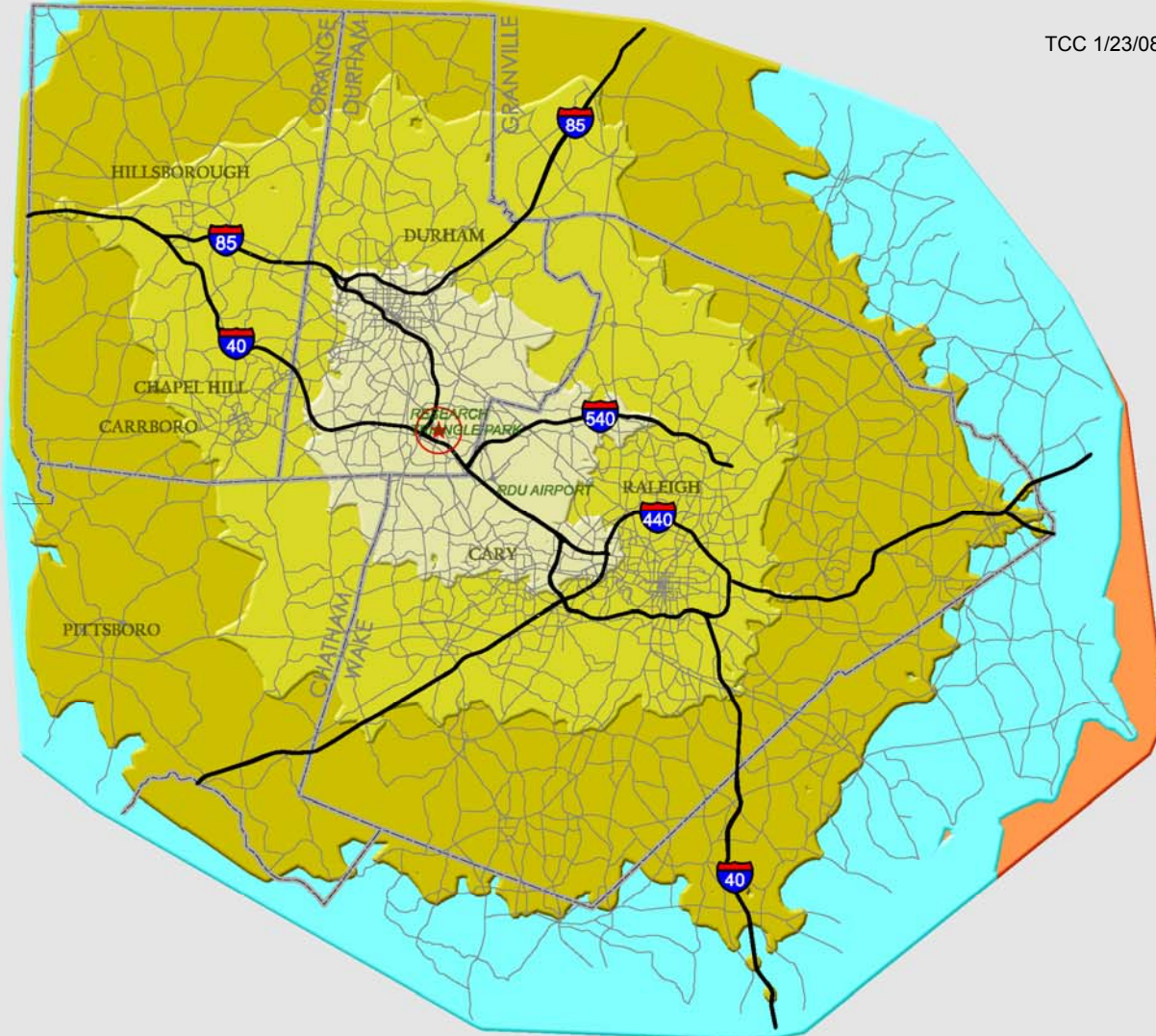
Background

- Little more specific than Evaluation Measures – can start to see corridor mobility.
- Based on afternoon commute from eight selected centers:
 - Downtown Durham
 - Duke University
 - RTP
 - RDU Airport
 - Chapel Hill Carrboro
 - Hillsborough
 - Pittsboro
 - SouthPoint Mall
- Map illustrates “contours” for 15-, 30-, 45-minute, etc. commutes from the centers.
- Three maps for each center:
 - 2005
 - 2005 Baseline (2035 SE Data using 2005 network)
 - 2035 LRTP (2035 SE Data using 2030 LRTP network)
- This presentation shows RTP. Other centers in report.

Travel Isochrones

Results

- 2005
 - Contours extend further out along interstates and highways, thus commute is faster in these corridors.
- 2035 Baseline
 - Contours significantly narrow in every direction, thus all commutes take more time.
 - Contours dramatically narrow in Wake County, or to the east and south.
- 2035 LRTP
 - Contours much wider than 2035 Baseline, thus LRTP network greatly improves commute time.
 - Contours remain a little narrower than 2005, thus LRTP projects don't return commute times to 2005 level.
 - Contours continue to be narrower in Wake County, or to the east and south, indicating continued congestion.



This map estimates the areas that are within 15 minute-, 30 minute-, 45 minute-, etc. commutes from RTP during the afternoon traffic peak in 2005. This map assumes 2005 population and employment and a 2005 transportation network.



TRAVEL TIMES FROM RESEARCH TRIANGLE PARK (2005)

- 15
- 30
- 45
- 60
- 75
- 90
- 105
- 120+

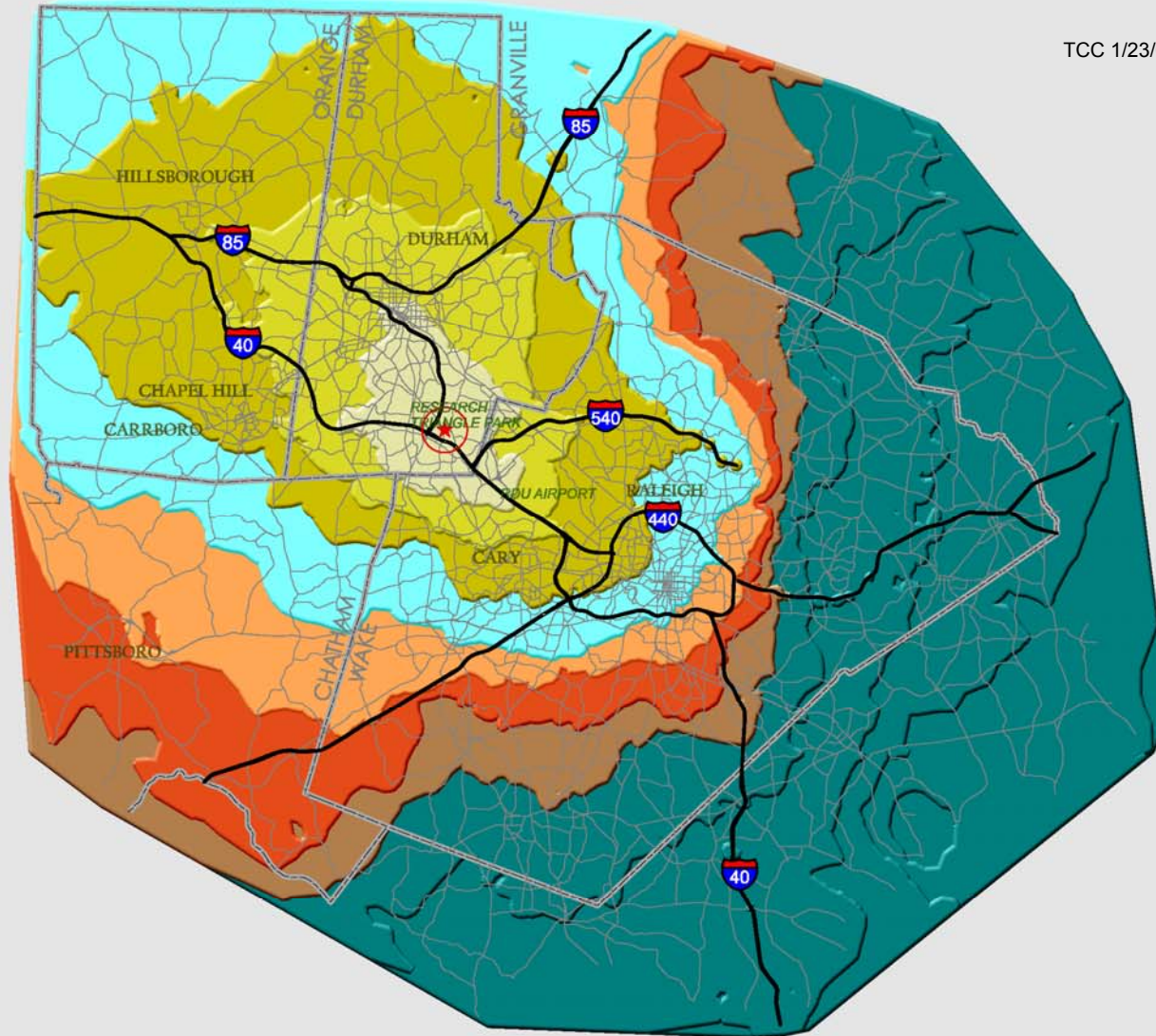
MINUTES

County Boundary



FIGURE 8A.

11.15.2007



This map estimates the areas that are within 15 minute-, 30 minute-, 45 minute-, etc. commutes from RTP during the afternoon traffic peak in 2035 if the population and employment continue to grow but no additional transportation improvements are made. This map assumes 2035 population and employment operating on a 2005 transportation network.



11.15.2007

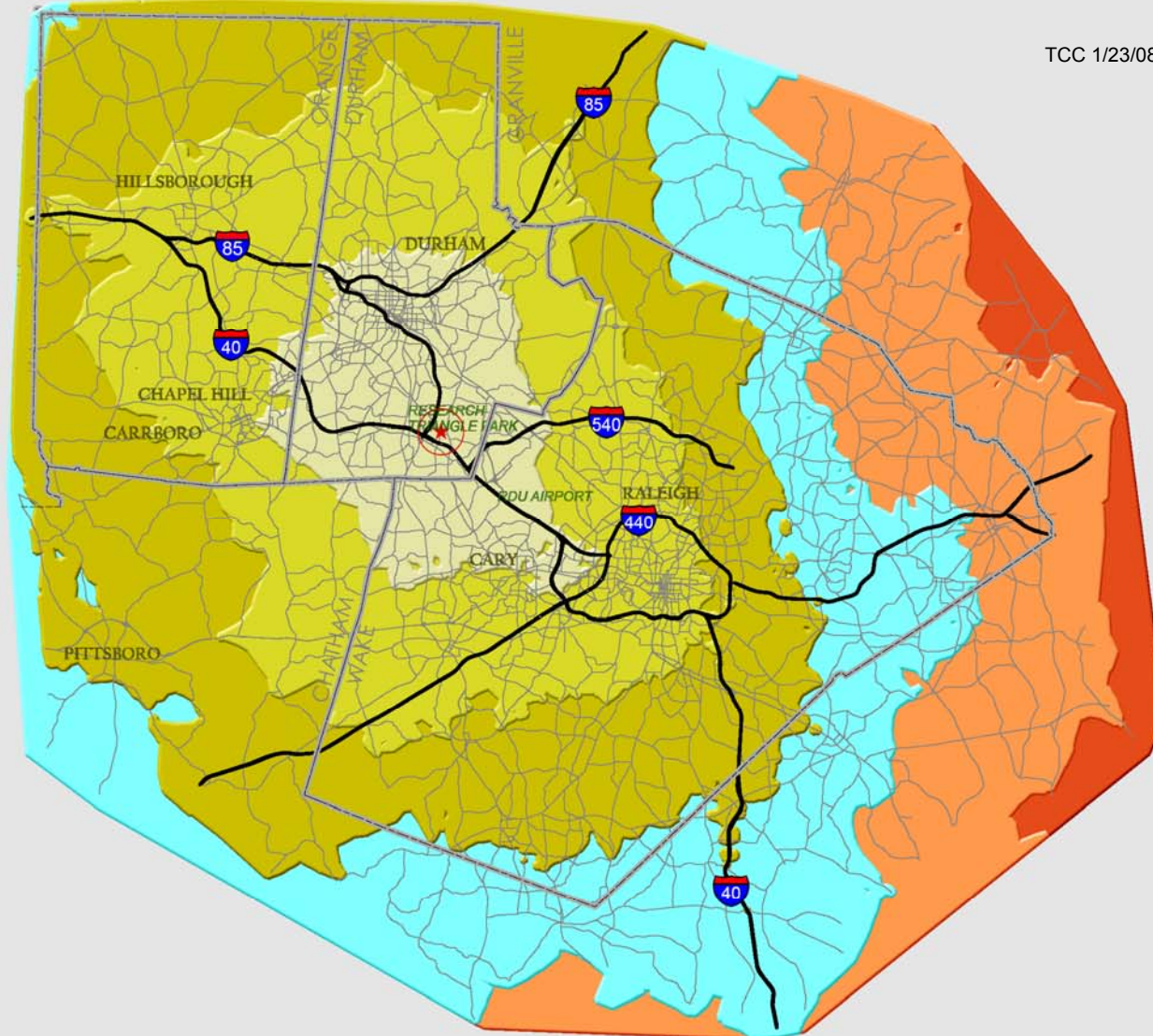
TRAVEL TIMES FROM RESEARCH TRIANGLE PARK (2035 BASELINE)

- | | | |
|----|------|----------------|
| 15 | 75 | MINUTES |
| 30 | 90 | |
| 45 | 105 | |
| 60 | 120+ | |

~ County Boundary

0 2 4 6 8 10
MILES

FIGURE 8B.



This map estimates the areas that are within 15 minute-, 30 minute-, 45 minute-, etc. commutes from Research Triangle Park during the afternoon traffic peak in 2035 if the population and employment continue to grow and substantial transportation improvements are made. This map assumes 2035 population and employment operating on the transportation network adopted in the current 2030 Long Range Transportation Plan (LRTP).



TRAVEL TIMES FROM RESEARCH TRIANGLE PARK (2035 LRTP)

- 15
- 30
- 45
- 60
- 75
- 90
- 105
- 120+

MINUTES

County Boundary



FIGURE 8C.

1.14.2008

Regional Center Travel Times

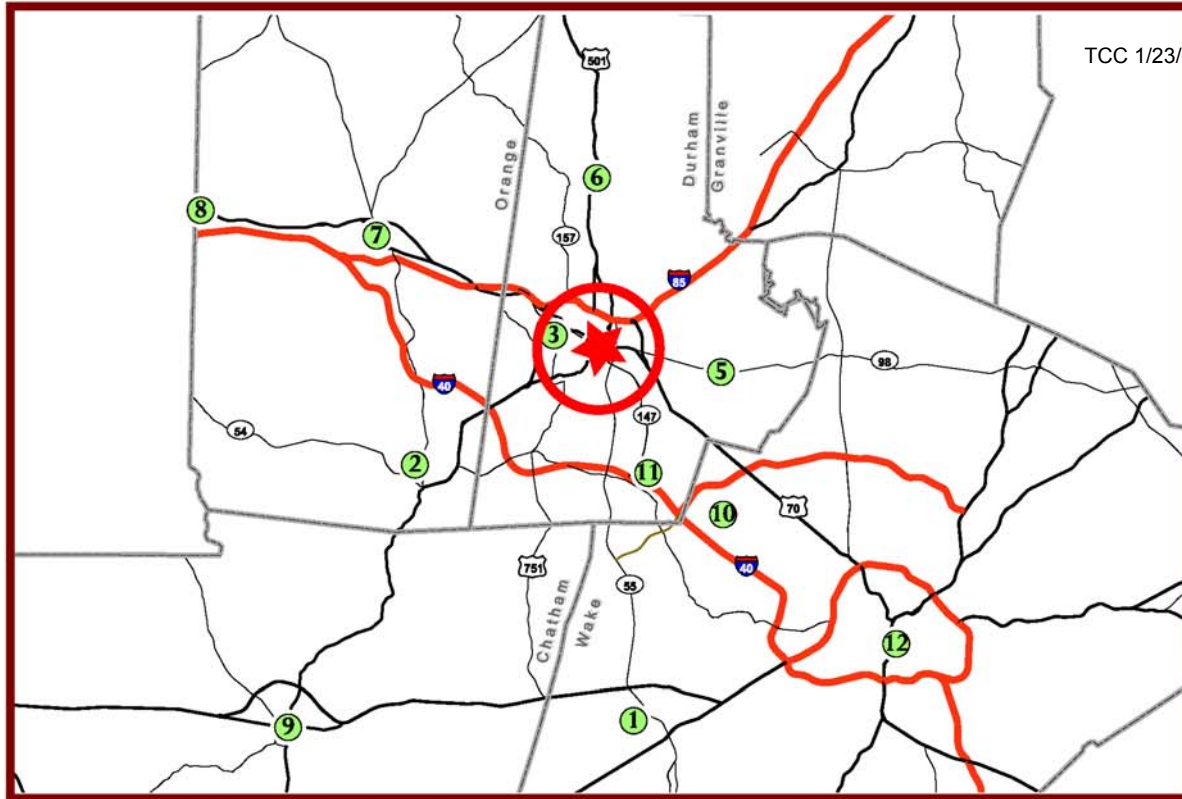
Background

- Shows mobility forecasts to/from regional centers.
- Based on afternoon commute from five selected centers:
 - Downtown Durham
 - Duke University
 - RTP
 - Chapel Hill/Carrboro
 - RDU Airport
- Presented two ways:
 - Map with point centers and data table
 - Map for each forecast that shows specific route:
 - 2005
 - 2005 Baseline (2035 SE Data using 2005 network)
 - 2035 LRTP (2035 SE Data using 2030 LRTP network)
- This presentation shows Downtown Durham and Chapel Hill/Carrboro. Other centers in report.

Downtown Durham

Travel Time Forecasts

- Travel times to other centers will increase from 20% to 135% in the 2035 Baseline scenario (no build).
- Travel time increases will be far greatest in Wake County corridors (#1 Cary/Apex and #12 Downtown Raleigh), more than doubling in the Baseline Scenario (no build).
- Travel time increases will be the lowest along the I-85 corridor in Orange County (#7 Downtown Hillsborough and #8 Mebane).
- The implementation of the 2030 LRTP network greatly reduces the travel time growth and shifts travel routes to interstates and highways.
- To some extent, the travel time growth persist east (#5 Durham East), southeast (#12 Downtown Raleigh) and southwest (#9 Downtown Pittsboro) in the 2030 LRTP network.



Map No.	Name	2005	2035 Baseline	2035	2005-2035 Baseline Change	2005-2035 Change
1	Cary/Apex	32	75	34	135%	6%
2	Chapel Hill and Carrboro	25	35	25	40%	0%
3	Duke University	--	--	--	--	--
4	Durham (Downtown)					
5	Durham (East)	11	19	13	76%	22%
6	Durham (North)	16	21	17	37%	6%
7	Hillsborough (Downtown)	16	22	16	32%	0%
8	Mebane	23	28	24	20%	1%
9	Pittsboro (Downtown)	43	76	49	76%	13%
10	Raleigh-Durham Airport (RDU)	17	29	18	68%	6%
11	Research Triangle Park (RTP)	10	15	10	56%	6%
12	Raleigh (Downtown)	31	69	37	123%	19%



The map and table show travel times in minutes from Downtown Durham:
 • 2005
 • 2035 Baseline (No Improvements)
 • 2035 with Long-Range Transportation Plan
 The changes between 2035 and 2005 are also enumerated in the table at the bottom.



TRAVEL TIMES FROM DOWNTOWN DURHAM



Start



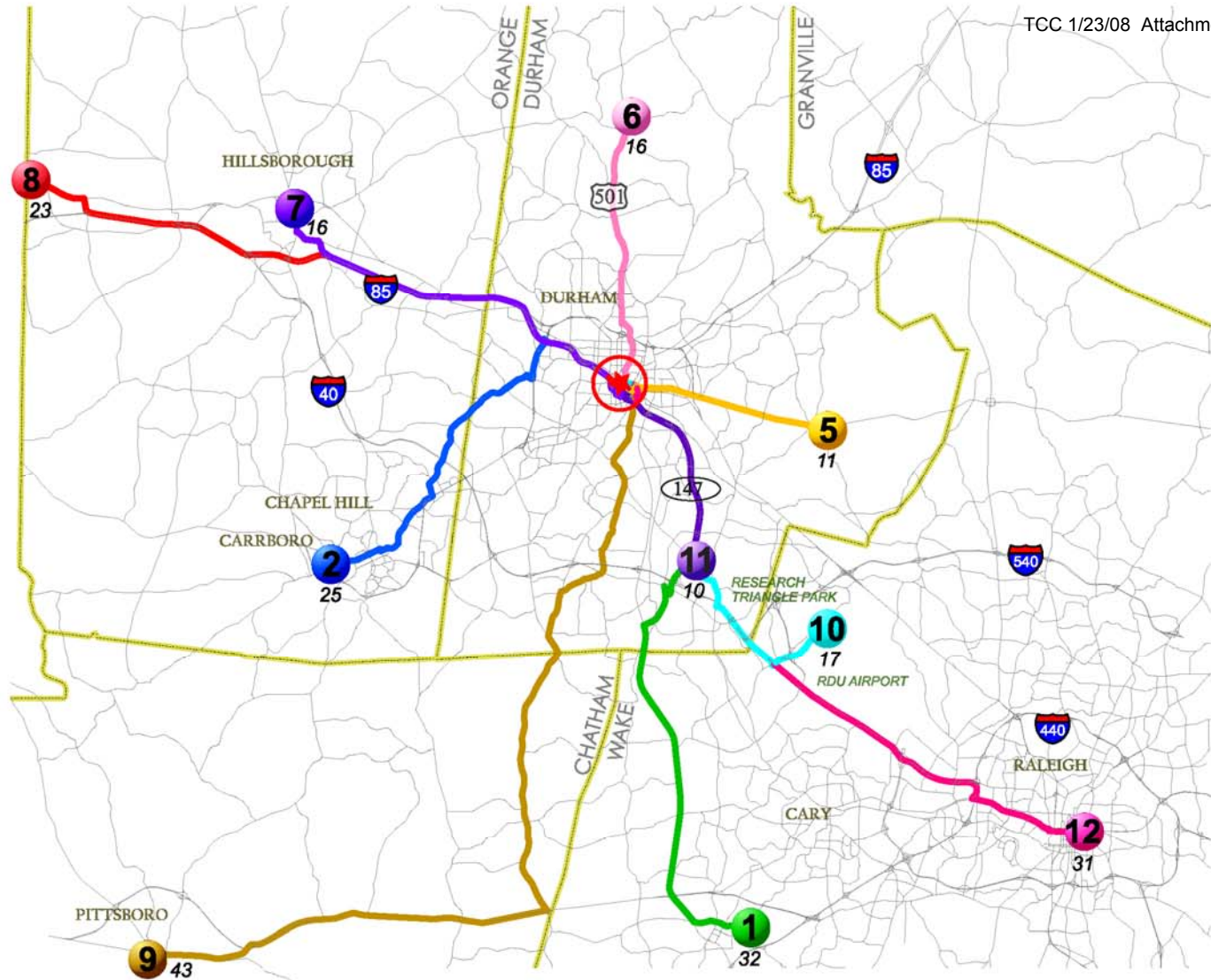
Finish

County Boundary



FIGURE 1

12.3.2007



This map indicates the shortest path, in minutes, from Downtown Durham suggested by the Triangle Regional Model in the year 2005 during the afternoon peak period.

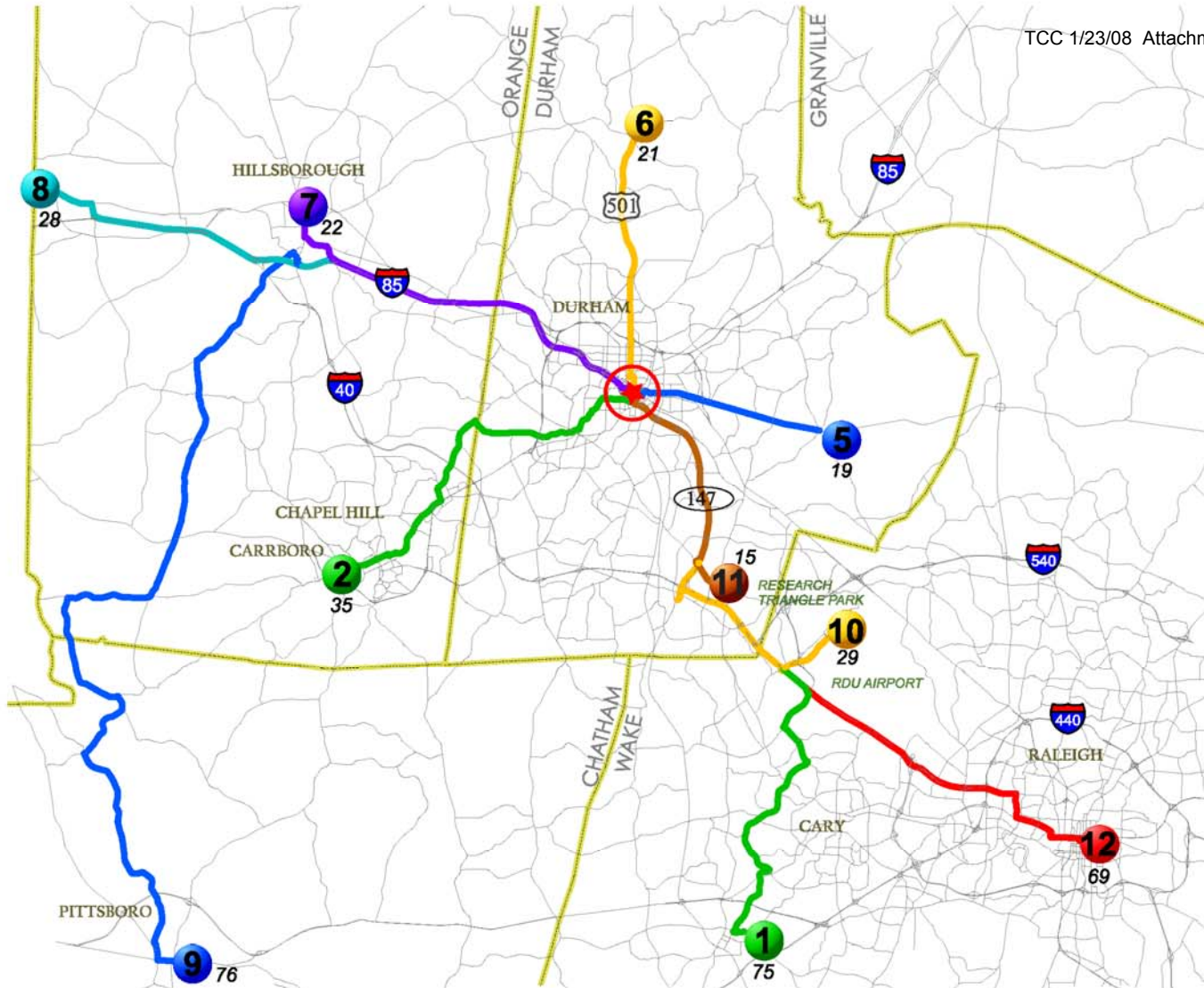


TRAVEL ROUTES FROM DOWNTOWN DURHAM (2005)

Start Path Finish

minutes

County Boundary



This map indicates the shortest path, in minutes, from Downtown Durham suggested by the Triangle Regional Model in the year 2035 (Baseline) during the afternoon peak period.



TRAVEL ROUTES FROM DOWNTOWN DURHAM (2035)

Start Path Finish

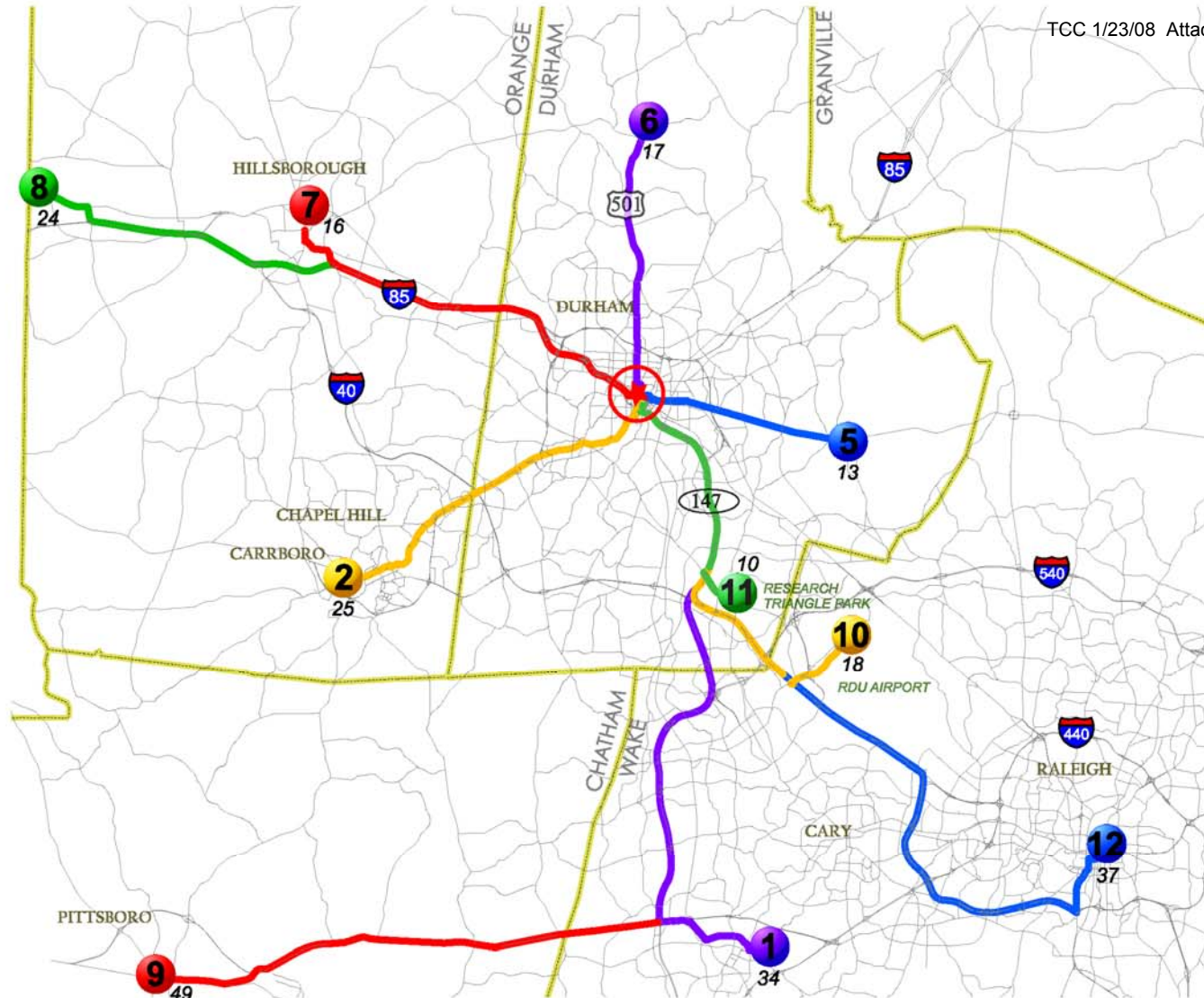
minutes

County Boundary



FIGURE 4B

12.3.2007



This map indicates the shortest path, in minutes, from Downtown Durham suggested by the Triangle Regional Model in the year 2035 (LRTP) during the afternoon peak period.



TRAVEL ROUTES FROM DOWNTOWN DURHAM (2035, LRTP)

Start Path Finish

minutes

County Boundary



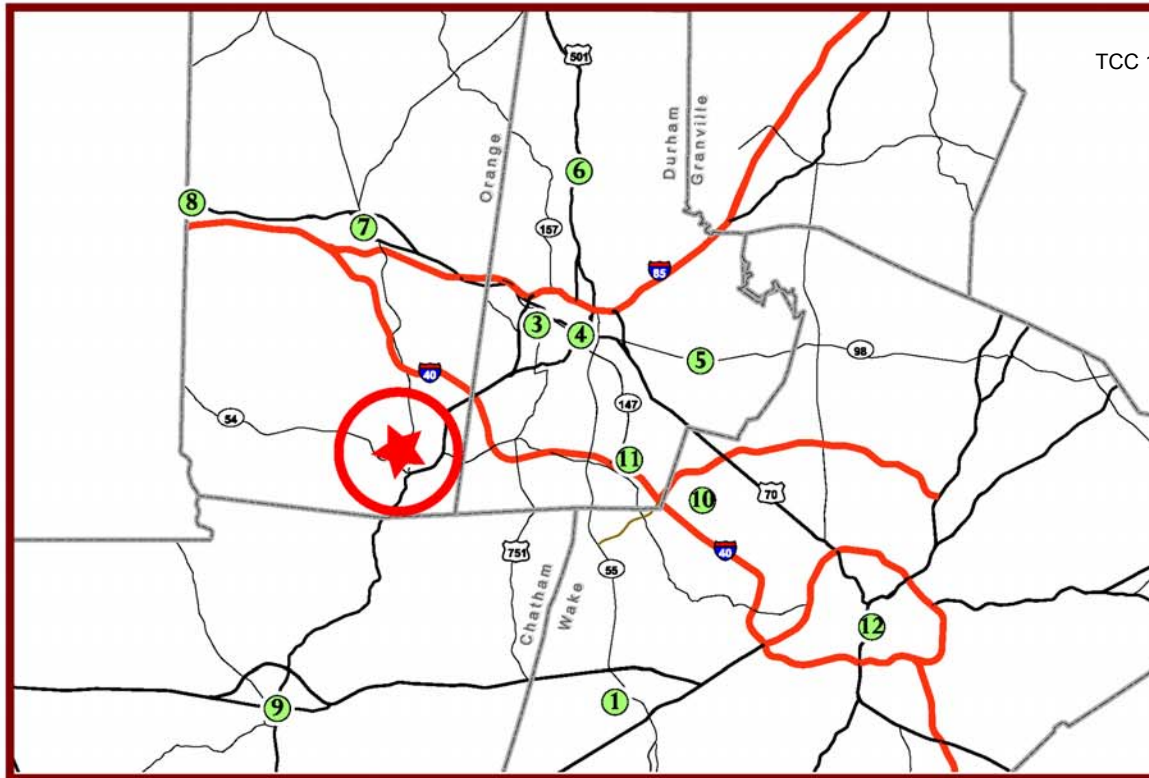
FIGURE 4C

12.3.2007

Chapel Hill/Carrboro

Travel Time Forecasts

- Travel times to other centers will increase from 31% to 111% in the 2035 Baseline scenario (no build).
- Travel time increases will be far greatest in Wake County corridors (#1 Cary/Apex and #12 Downtown Raleigh) and Chatham County corridor (#9 Downtown Pittsboro).
- Travel time increases will be the lowest along the NC 86 and I-40 corridor in Orange County (#8 Mebane), and US 15-501 and Erwin Rd. corridor (#3 Duke and #4 Downtown Durham).
- Only one travel route (#9 Pittsboro) shifts between the 2005 and 2035 Baseline scenarios.
- The implementation of the 2030 LRTP network only does a fair job in reducing travel time growth and shifts only a few travel routes to interstates and highways.



Map No.	Name	2005	2035 Baseline	2035	2005-2035 Baseline Change	2005-2035 Change
1	Cary/Apex	35	63	41	79%	18%
2	Chapel Hill and Carrboro					
3	Duke University	19	26	21	32%	8%
4	Durham (Downtown)	23	30	24	31%	6%
5	Durham (East)	--	--	--	--	--
6	Durham (North)	--	--	--	--	--
7	Hillsborough (Downtown)	19	28	24	46%	25%
8	Mebane	24	32	30	33%	23%
9	Pittsboro (Downtown)	26	50	33	93%	29%
10	Raleigh-Durham Airport (RDU)	26	44	27	68%	5%
11	Research Triangle Park (RTP)	21	34	22	62%	5%
12	Raleigh (Downtown)	40	84	46	111%	15%



The map and table show travel times in minutes from Chapel Hill-Carrboro:
 ● 2005
 ● 2035 Baseline (No Improvements)
 ● 2035 with Long-Range Transportation Plan
 The changes between 2035 and 2005 are also enumerated in the table at the bottom.



TRAVEL TIMES FROM CHAPEL HILL-CARRBORO

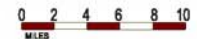


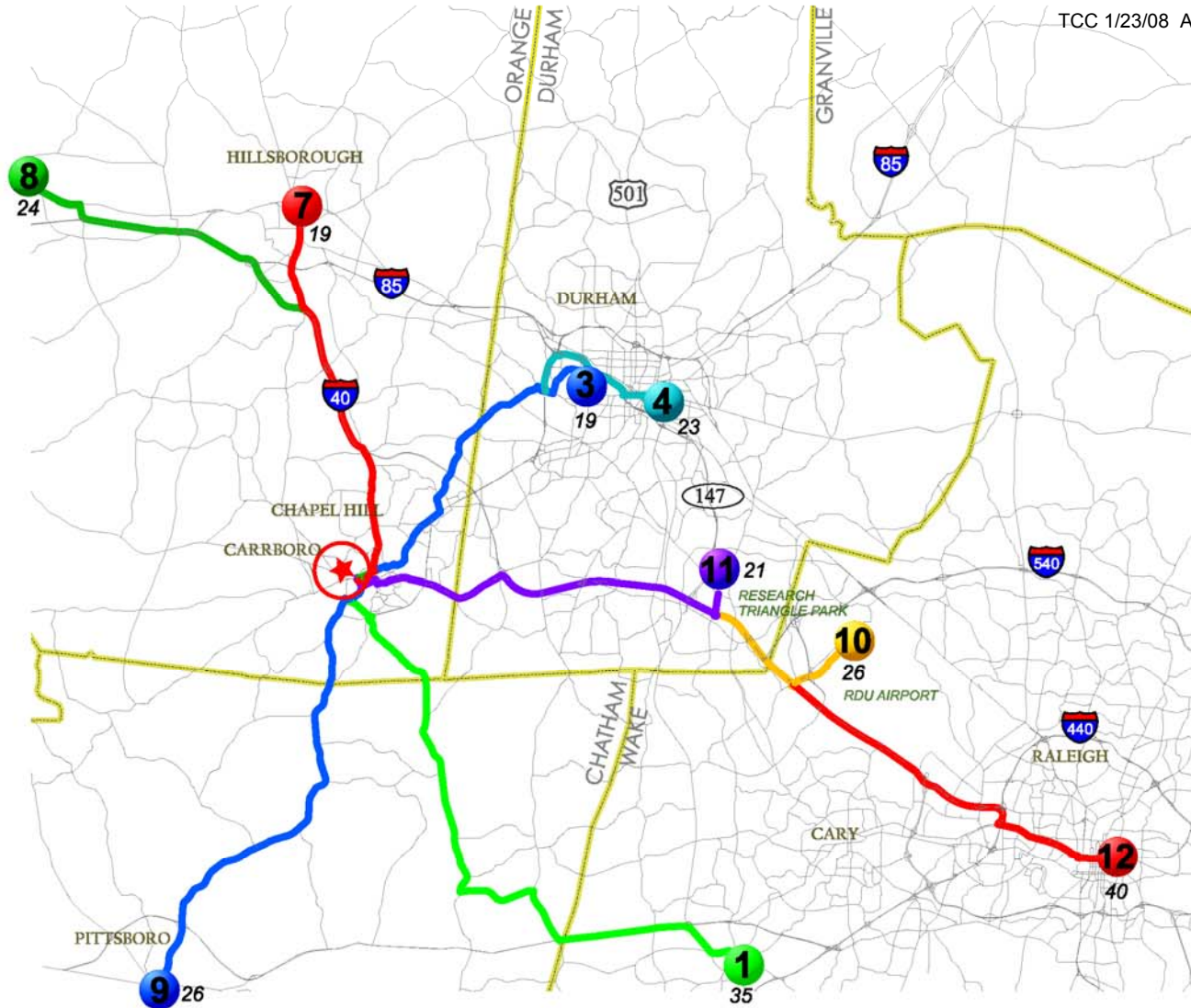
Start



Finish

County Boundary





This map indicates the shortest path, in minutes, from Chapel Hill - Carrboro suggested by the Triangle Regional Model in the year 2005 during the afternoon peak period.



TRAVEL ROUTES FROM CHAPEL HILL-CARRBORO (2005)

Start Path Finish

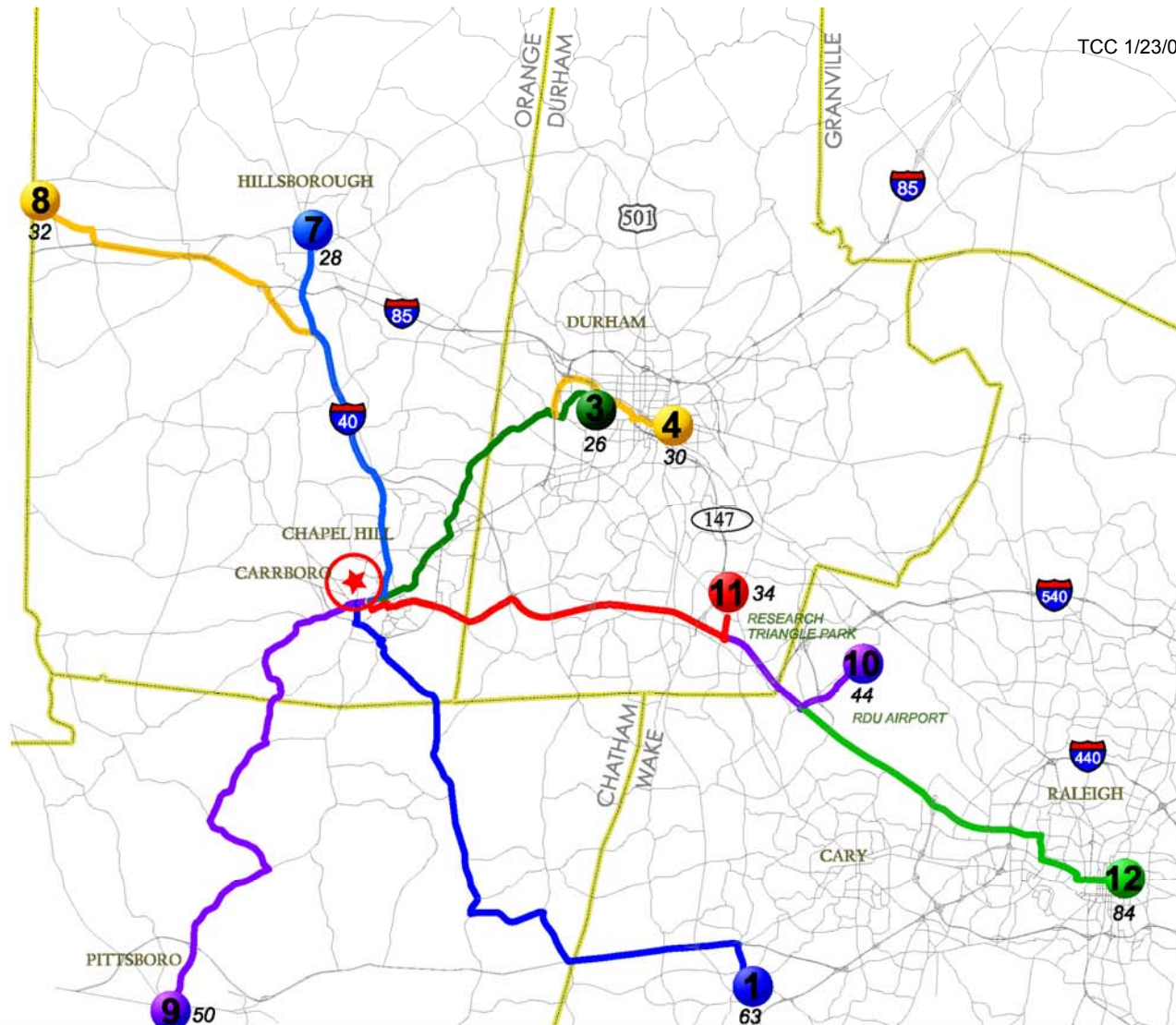
 minutes

County Boundary



FIGURE 2A

12.3.2007



This map indicates the shortest path, in minutes, from Chapel Hill - Carrboro suggested by the Triangle Regional Model in the year 2035 (Baseline) during the afternoon peak period.



TRAVEL ROUTES FROM CHAPEL HILL-CARRBORO (2035)

Start Path Finish

 minutes

County Boundary

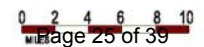
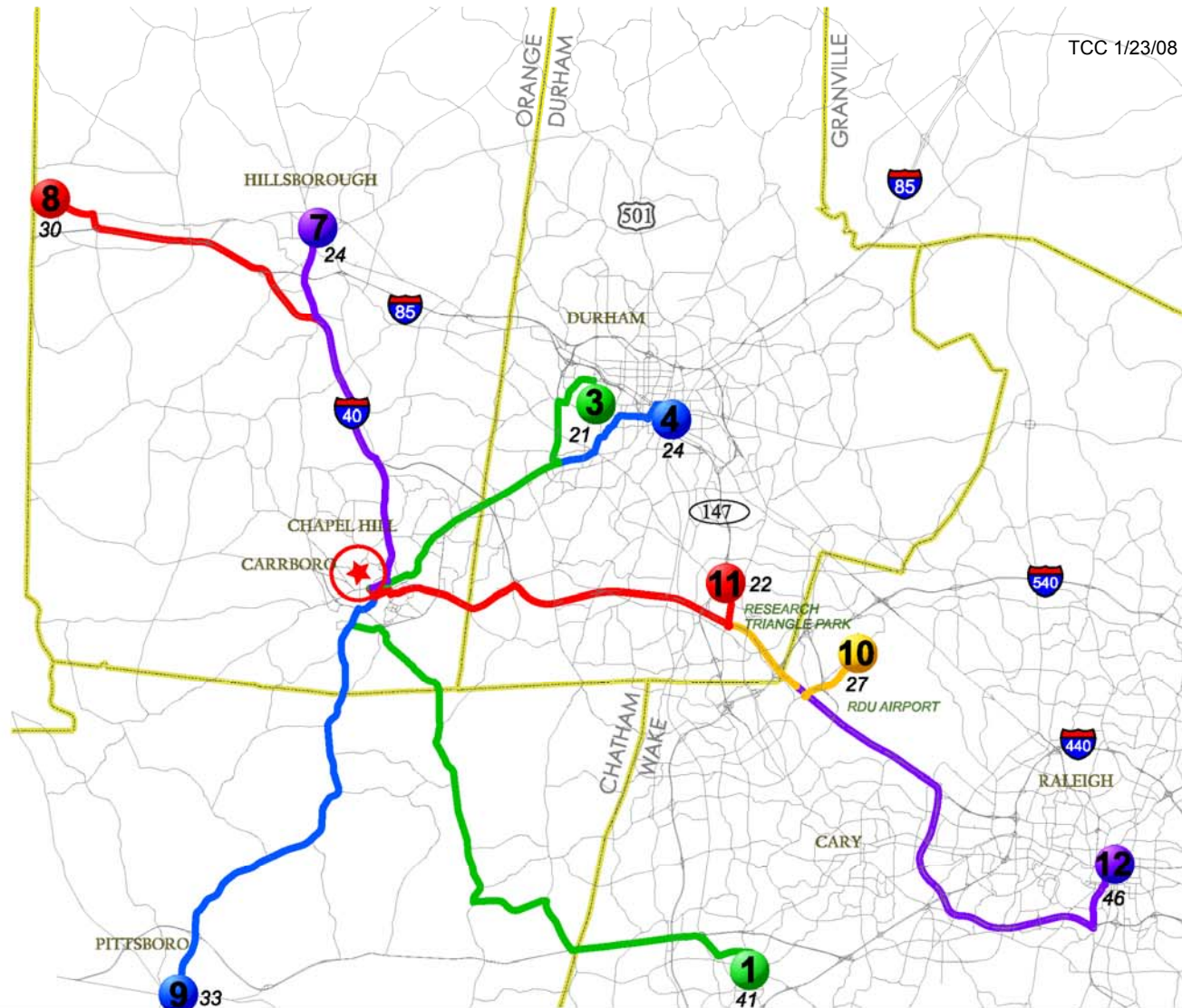


FIGURE 2B

12.3.2007



This map indicates the shortest path, in minutes, from Chapel Hill - Carrboro suggested by the Triangle Regional Model in the year 2035 (LRTP) during the afternoon peak period.

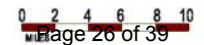


TRAVEL ROUTES FROM CHAPEL HILL-CARRBORO (2035 LRTP)

Start Path Finish

 minutes

County Boundary



Long-Range
 Transportation
 Plan
 2035

FIGURE 2C

12.3.2007

One-Hour Peak V/C Maps

Background

- One-Hour V/C maps show the current and forecasted congestion on specific road segments based on the afternoon peak hour.
- "V/C" means the traffic volume divided 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:

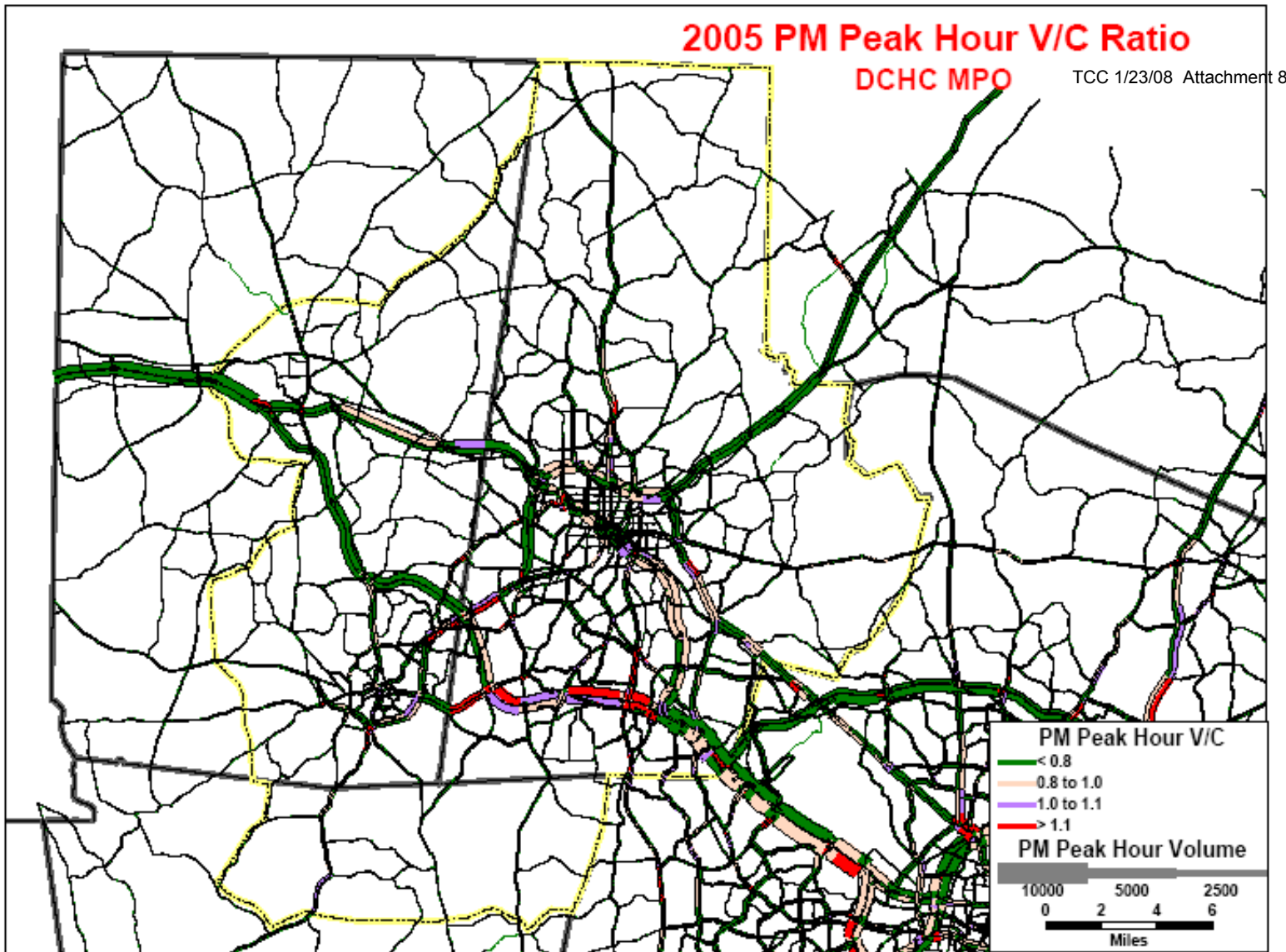
Limit of acceptable delay, unstable flow, poor signal progression, traffic near roadway capacity, frequent cycle failures.

- The width of the line showing the roadway also indicates the relative traffic volume on that roadway.

One-Hour Peak V/C Maps

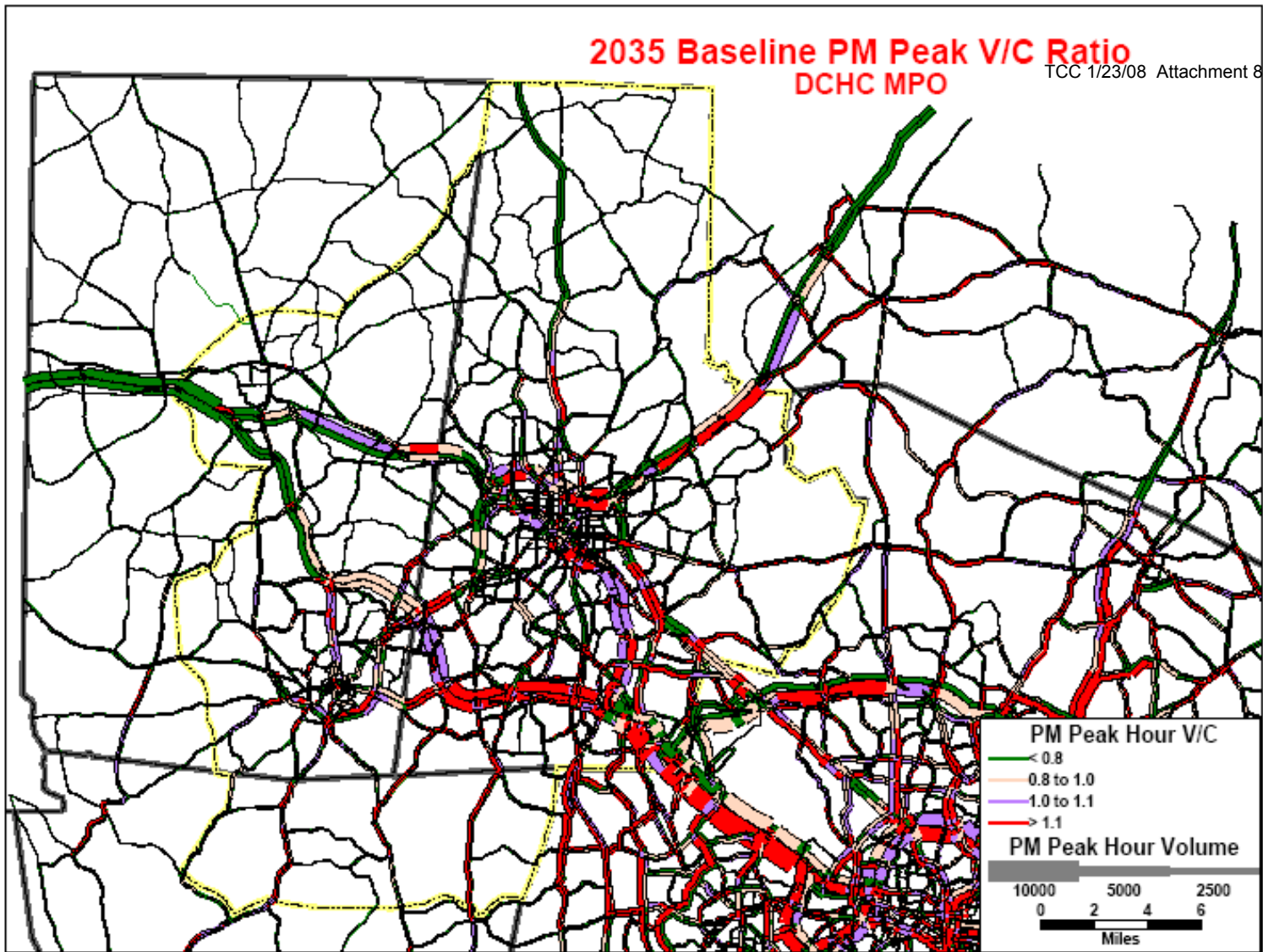
Background (continued)

- Daily V/C maps in appendix:
 - The pattern of congestion change from 2005 to 2035 Baseline to 2035 LRTP for the One-Hour maps is generally the same as for the Daily maps.
 - One-Hour V/C show more congestion because travel demand (i.e., volume) is highest during afternoon peak.
 - One-Hour V/C maps more “sensitive” – congestion raises V/C ratio to level where we have more levels (colors).



Note: Based on 2005 network and 2005 socio economic data.

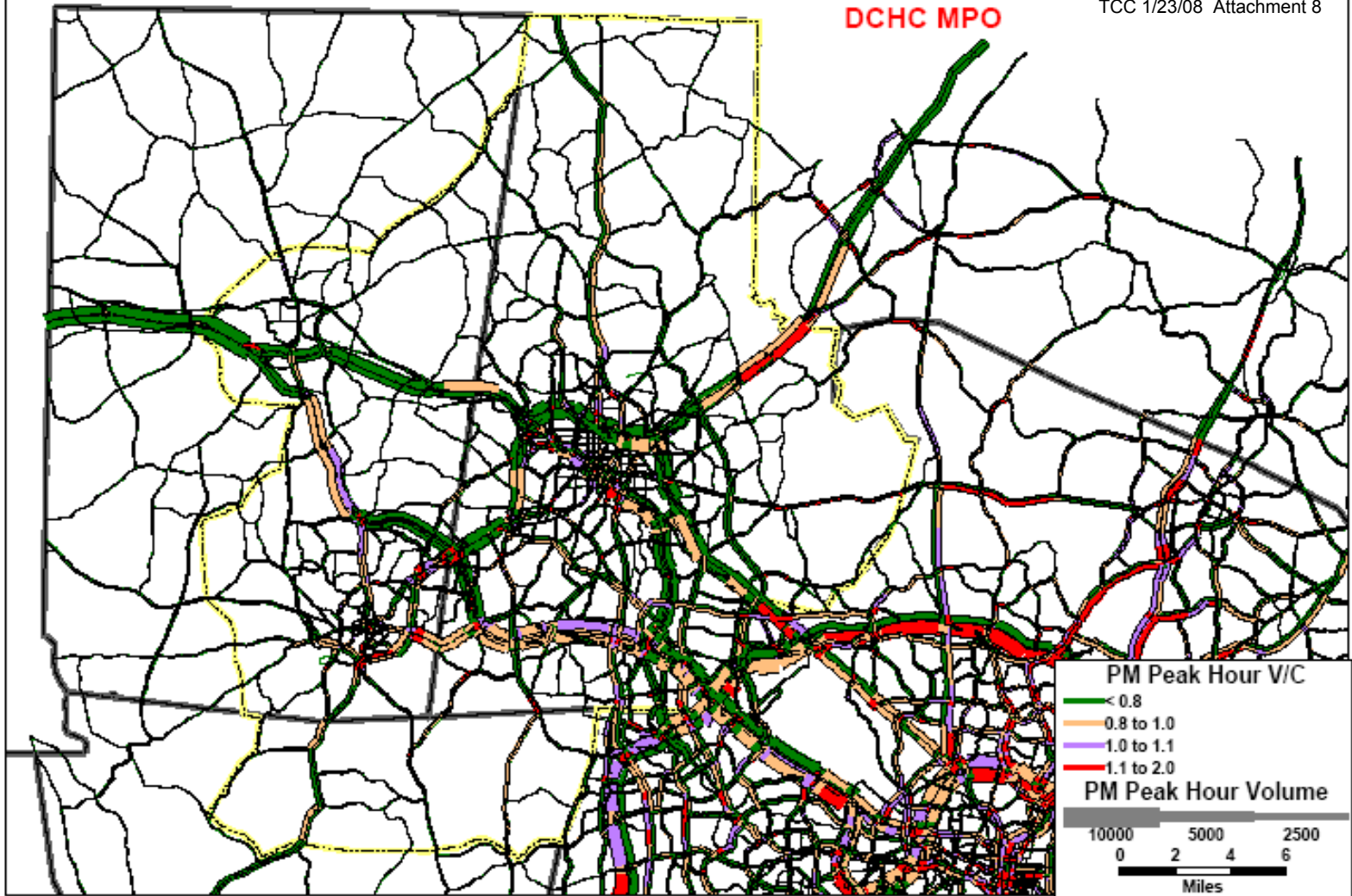
Congestion is most evident in the RTP area, on NC 54, US 15-501 and Erwin Rd. between Durham and Chapel Hill, and arterials near Duke University and UNC-Chapel Hill.



Congested corridors become almost universal except for I-40 and parts of I-85 in Orange County, and the US-15-501 bypass between I-85 and the South Square area.

2035 LRTP PM Peak V/C Ratio
DCHC MPO

TCC 1/23/08 Attachment 8



Note: Based on 2030 LRTP network and 2035 socio economic data

2035 LRTP facilities effectively address congestion except in the downtown, Duke University and Duke St./Roxboro St. corridors in Durham and some Chapel Hill gateways such as NC 86, Columbia St., and US 15-501

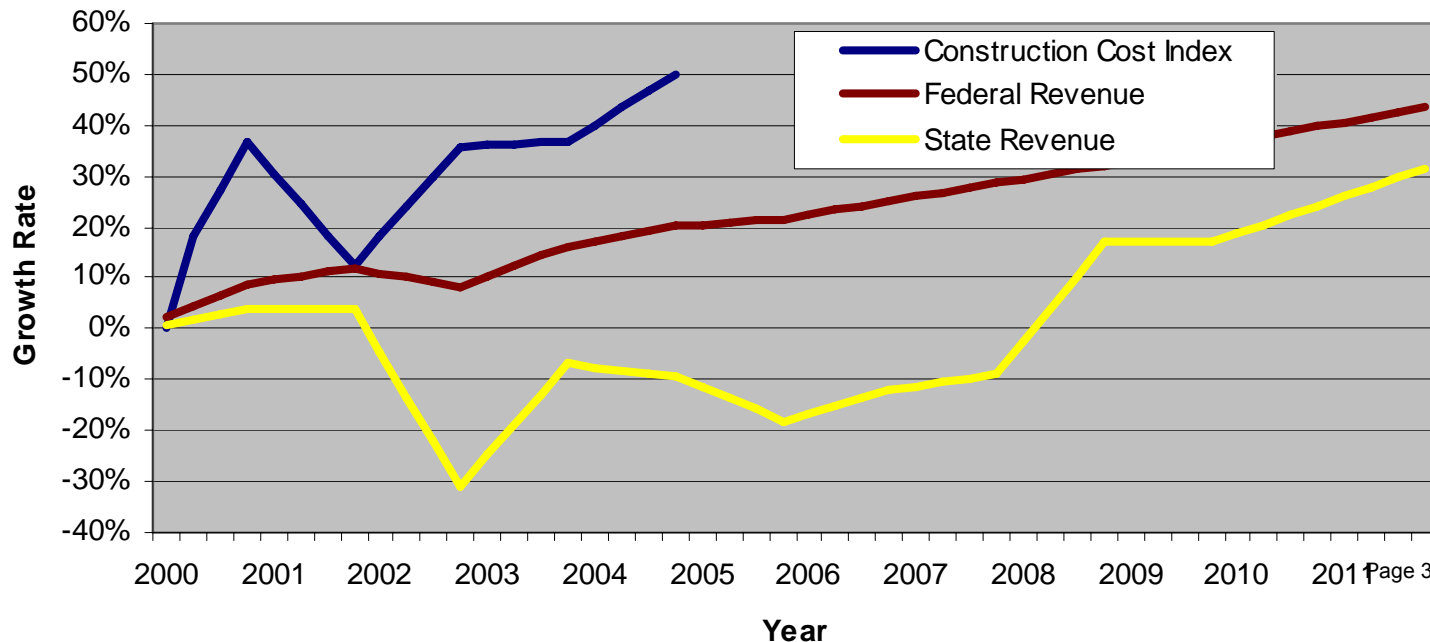
Transportation Finance

- **Soaring Costs**

- National maintenance and construction cost increases 35% to 48% in three years (from 2003 to 2006).
- SAFETEA-LU funding for 2009 will lose 37% to 60% of purchasing power by 2009

- **Relatively Static Funding**

- State legislature caps state gas tax at \$0.299 per gallon (gas tax is 55% of state transportation revenue)



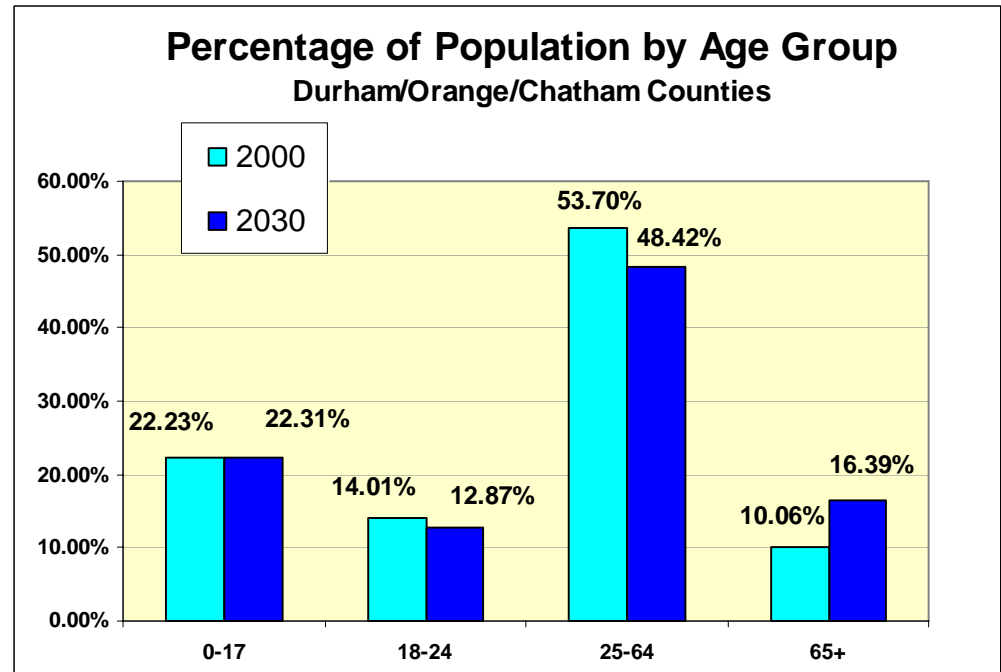
Operation and Maintenance

State and Local

- NCDOT (as of 2006)
 - Statewide highway maintenance backlog is \$437 million.
 - Statewide resurfacing backlog is \$688 million.
- City of Durham (as of 2008)
 - Streets rated as Good or Very Good condition:
 - 79% in 1995
 - 42% in 2007
 - Roadway maintenance and repaving backlog is \$34 million.

Demographics

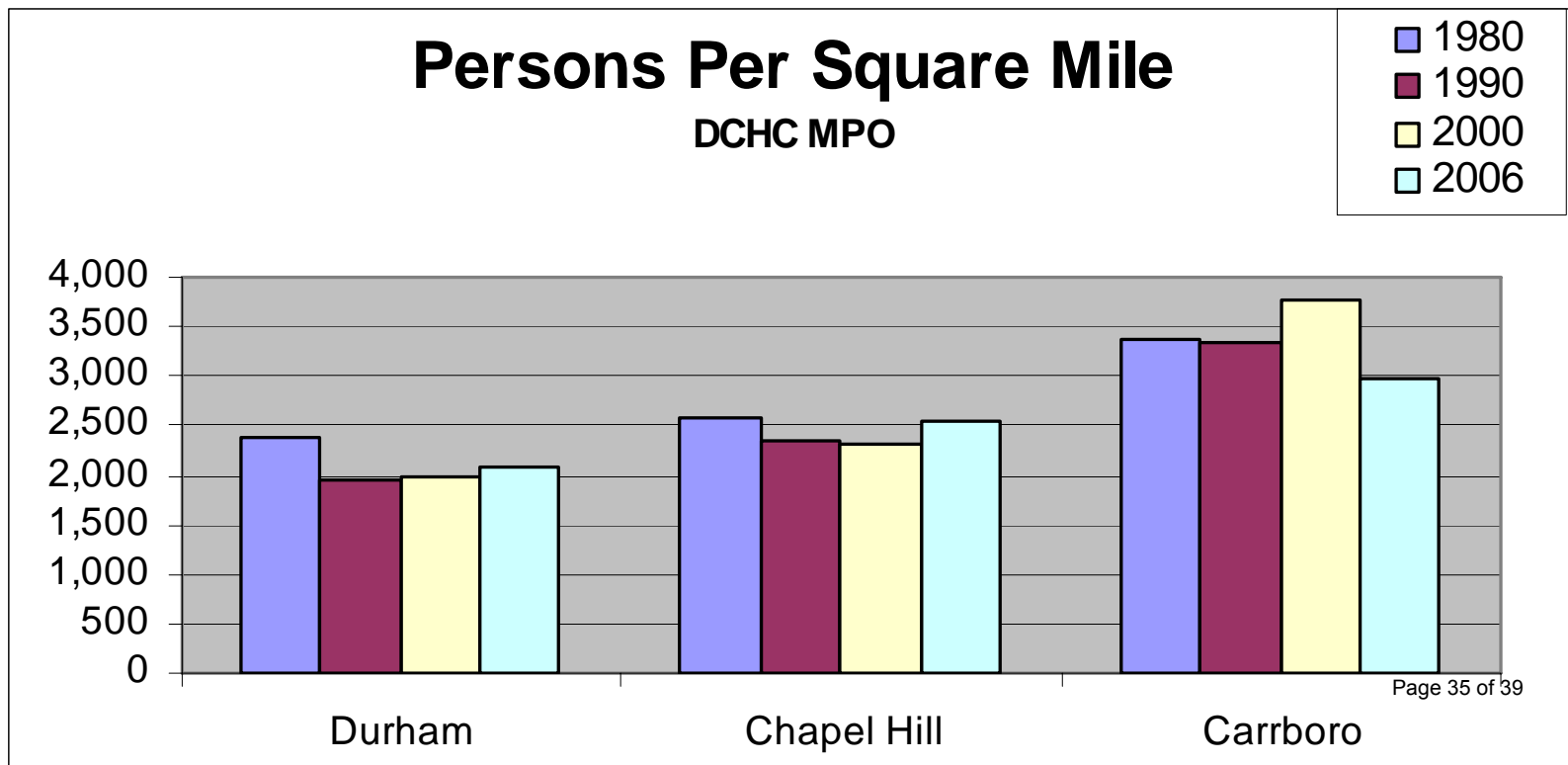
- Proportion of Hispanic and Minority Populations will Grow (in all Counties)
 - Hispanics grew from 8% to 12% of total Durham County population from 2000 to 2006
 - N.C. Demographer 2030 Forecast -- minority populations will continue to become a larger portion of the total population in Durham and Orange Counties



- Proportion of Senior Population (65+) will Grow (in all counties)

Geography

- Since 1980, population density has declined in DCH MPO municipalities.
- Lower population densities have shown to increase the cost of transportation infrastructure.



Regulatory

Environmental Justice (EJ)

- Executive Order 12898 – identify and address disproportionately adverse effects on minority populations and low-income populations.
- SAFETEA-LU (most recent federal transportation legislation) extends to low literacy and limited English-proficiency. This is new for DCHC MPO.
- In effect for:
 - Long Range Transportation Plan,
 - Transportation Improvement Program, and
 - public involvement activities.
- As a practice, DCHC MPO has completed EJ plan analysis and public involvement activities.

Regulatory Safety

- SAFETEA-LU emphasizes Safety by making it a stand-alone planning factor.
- Based on SAFETEA-LU, LRTP should coordinate with NCDOT's Strategic Highway Safety Plan.
- DCHC MPO Goal #8 is to “continue to improve safety.”
- Current DCHC MPO practice:
 - Congestion Management System will have safety analysis.
 - Chapel Hill and Carrboro Mobility Report Card have bicycle and pedestrian safety element.

Regulatory Security

- SAFETEA-LU emphasizes Security by making it a stand-alone planning factor.
- Based on SAFETEA-LU, LRTP should coordinate with transit and other transportation security plans.
- DCHC MPO Goal #8 is to “ensure the security of the transportation system.”
- No current DCHC MPO practice directly related to Security

Regulatory Freight

- SAFETEA-LU increases emphasis of freight.
- Based on SAFETEA-LU, LRTP should consult or coordinate with agencies responsible for freight planning.
- DCHC MPO Goal #9 is to “improve mobility and accessibility of freight and urban goods movement .”
- Current DCHC MPO practice:
 - Improve mobility (i.e., reduce congestion) on interstates and arterials.
 - Freight element in Triangle Regional Model (TRM).

**CITY OF DURHAM – THE LOUIS BERGER GROUP, INC
ON-CALL SUPPLEMENTAL AGREEMENT #3 TO THE
MASTER AGREEMENT DATED MARCH 8, 2007**

I. PURPOSE:

The purpose of this supplemental agreement is for the CONSULTANT, The Louis Berger Group, Inc, to provide transportation revenue projections for use in the 2035 Long Range Transportation Plan (2035 LRTP) for the Capital Area Metropolitan Planning Organization (CAMPO) and the Durham-Chapel Hill Carrboro Metropolitan Planning Organization (DCHC MPO). The services shall be in accordance with the Master Agreement dated October 2, 2006 as described in the Scope of Services below.

II. SCOPE:

In summary, the Consultant shall provide revenue forecasts for the CAMPO and DCHC MPO that will be:

- a. For the various state, federal, local and private sources for funding the highway, transit and other transportation programs in the 2035 LRTP for the CAMPO and DCHC MPO.
- b. Broken down by funding source, MPO, County, year, and eligible uses (highway, transit, capital, maintenance, etc.).
- c. Based on the best available historical and policy data.
- d. In a spreadsheet format that permits easy changes to the assumptions and recalculations.

In detail, the Consultant shall complete the work in the four tasks presented in this section. The task deliverable is shown in *italics*.

1. Kickoff Meeting and Project Plan

The consultant will meet with staff from the CAMPO and DCHC MPO lead planning agencies and any interested partner agencies to discuss and clarify the different project tasks, including:

- a. The various revenues that will be forecasted;
- b. The input data to be analyzed and who will provide the input data;
- c. The methodologies to be used in forecasting the various revenues; and,
- d. The format and content of the final product.

The consultant will have examples of various interim and final products available at this meeting for consideration of the stakeholders, and will be prepared to facilitate a dialogue on the data sources, technical methods, and other aspects of the project. The

consultant will deliver a memorandum that details the decisions and agreements of the kickoff meeting, and this memorandum will guide the implementation of this project.

2. Data Gathering

The consultant will be responsible for collecting historical, policy, and other data that is relevant to forecasting revenue for sources shown in the table below. This process will need to collect data in enough detail to produce forecasts that are broken down by MPO, County, year, and use.

It should be noted that there are recently completed or soon-to-be-completed projects that will assist the Consultant in collecting this data. These projects include:

a. STAC

The Special Transit Advisory Commission will provide recommendations to the MPOs on future transit and fixed-guideway transportation for the Triangle area.

b. NCDOT Forecast Projections

The Program Development Branch of the North Carolina Department of Transportation (NCDOT) recently completed a project called the Long Range Forecast Projections. The project forecasts state and federal transportation revenues for the State of North Carolina through the year 2030. Burt Tasaico, State Program Analysis Engineer, managed this project.

c. Turnpike Authority

The North Carolina Turnpike Authority will provide information on toll revenues and other funding mechanisms for the Western Wake Freeway and Triangle Parkway.

The consultant will deliver an inventory, short description and summarized evaluation of the various revenue source data.

3. Revenue Projection Methodology

The consultant will meet with LPA and other agency staff to present, discuss and make decisions on recommended methodologies for forecasting the various revenue sources. The availability and reliability of the revenue data, and the resources needed to collect detailed databases, will vary among the revenue sources. For example, federal and state funding sources are likely to have relatively well documented data compared to the proxy data that might be needed to forecast private road improvements related to private developments.

The consultant will develop methodologies to forecast the revenue sources identified in Task 2. These methodologies will permit a breakdown by MPO, County, year and use (e.g., highway capital, highway maintenance, transit capital).

The consultant will deliver a short description of the methodology to be implemented for each revenue source.

4. Revenue Projections

The consultant will produce MS Excel® workbooks that implement the recommended methodologies. The workbooks will have the capability to:

- a. Breakout the totals by type, MPO, County, year and use;
- b. Easily change key assumptions (such as inflation rate, base year, or population growth) to recalculate totals for alternative revenue scenarios;
- c. Easily change or add input data (such as historical revenue data) to permit annual updates; and,
- d. Present data in easy-to-understand tables that can be directly imported into reports and presentations.
- e. A summary report suitable for inclusion in either DCHC MPO or CAMPO long-range transportation planning document. The report will have a supplement that describes the methods in detail, as well as a technical approach that will facilitate future updates.

The consultant will deliver MS Excel workbooks that calculate and present the revenue data described in Task 2. The consultant will conduct one (1) presentation to stakeholders to highlight the results of the information and respond to questions. Adjustments resulting from this review session will be captured and the forecasts modified accordingly.

III. SCHEDULE:

Consultant will complete tasks in conformance with a schedule agreed upon by the City of Durham, Transportation Division and the Consultant –The Louis Berger Group, Inc. The final Task, 4 – Revenue Projections, will be complete by March 15, 2008.

IV. PERIOD OF SERVICE:

This Supplemental Agreement shall be for the period from January 1, 2008 to September 30, 2008.

V. COMPENSATION:

Consultant will perform the services detailed in the “Scope” above on the basis of the hourly rate schedule contained in the Master Agreement and attached hereto. Basic incidental project expenses will be billed in an amount equal to 6.5% of labor costs as an

allocation without receipts in accordance with Section V.B.2 of the Master Agreement. Non-routine direct expenses will be billed at actual cost and receipts will be provided.

Billing shall be on a monthly basis in conformance with Section V.B. of the Master Agreement, and invoices for all compensation owed in accordance with this Supplemental Agreement shall be submitted to the City with sufficient detail to process the invoice for payment and for a proper pre-audit and post-audit thereof in accordance with City standards.

The costs for this assignment shall not exceed \$15,992 nor shall the consultant incur costs above \$15,992.

VI. INSURANCE COVERAGE AND INDEMNIFICATION

Consultant shall provide insurance coverage as provided for in Section VII of the Master Agreement for Transportation Engineering and Planning Services.

VII. OTHER SPECIAL TERMS:

The City will provide the Consultant all pertinent information and data available to the City and deemed necessary to perform assigned tasks.

CITY OF DURHAM
ATTEST:

City Clerk

By: _____
City Manager

THE LOUIS BERGER GROUP, INC
ATTEST:

Manager
(affix corporate seal)

By: _____
Secretary

ACKNOWLEDGEMENT BY LIMITED LIABILITY COMPANY

State of North Carolina
County of _____

I, a notary public in and for the aforesaid county and state, certify that _____ personally (1) appeared before me this day and (2) stated that he is Manager of _____ The Louis Berger Group, Inc a limited Liability Company organized and existing under the laws of the State of New Jersey, (3) acknowledge that the foregoing contract or agreement with the City of Durham carries on in the usual way the company's business, and (4) acknowledged the due execution of the contract on behalf of the company. This the _____ day of _____, 200__ .

My commission expires:

Notary Public

The Louis Berger Group, Inc.
1001 Wade Avenue
Raleigh, NC 27605
Phone number: (919) 368-5602 (c)
Fax:
E-Mail: slane@louisberger.com

Proposal for STP-DA allocation
TCC Update
1/23/08

Overview and Background Information

The DCHC MPO solicited its member governments for potential STP-DA projects for FY 2009 through 2015. The MPO received many project requests from several different categories including:

- LPA staff
- LPA planning activities
- Local government planning activities
- Local bicycle and pedestrian construction projects
- Regional bicycle and pedestrian construction projects
- Expansion and replacement transit vehicles
- Transit service improvements and passenger amenities

The following table summarizes the new project requests received by the MPO from its member jurisdictions and agencies:

Agency	Total Federal Requests (80%) 2009-2015
TJCOG	1,419,109
TTA	3,407,200
Durham	25,937,828
Chapel Hill	15,485,917
Carrboro	959,984
Hillsborough	512,000
LPA	5,334,950
Total	53,056,988
Funds Available	28,581,000
Difference	(24,475,988)

Assuming that the DCHC MPO continues to receive approximately \$4 million per year in STP-DA funds, the MPO only has about \$28 million to allocate leaving a shortfall of \$24 million.

At the November TCC meeting, LPA staff presented the following ideas for fulfilling the STP-DA funding requests and TCC members provided the following responses:

1. End suballocation of Section 104(f) PL funds to Carrboro, Chapel Hill, Orange County, and TTA. Use these funds for LPA Planning activities to reduce the LPA Planning activities funded by STP-DA.
TCC response: May pursue long-term
2. Require local governments to provide funding for LPA Planning activities.
TCC response: May pursue long-term

3. Require greater local matches for some STP-DA requests. The match could be based on the size of the community requesting the funds or the size of the project.
TCC response: Did not support.
4. Limit the amount of STP-DA municipalities can request. The limit could be proportional based on the municipalities' populations. Reducing the amount of projects that can be requested will simplify the allocation procedures and reduce excessive requests.
TCC response: May unfairly limit the ability of small jurisdictions from requesting large projects.
5. Limit the types of projects eligible for STP-DA funding.
TCC response: No limitations set, but intend to fund more bicycle/pedestrian projects with STP-DA and transit with CMAQ.

STP-DA Proposal

The TCC and TCC subcommittee requested that LPA staff develop a proposal for funding. LPA staff have developed a proposal for review. Obviously, any proposal will not be able to fund all of the project requests. This proposal is intended to set a procedure for STP-DA allocation that guarantees some funding for all of the project types requested by member jurisdictions. It attempts to allow both certainty of funding for large projects over the seven year TIP while also allowing some flexibility in funding on an annual basis for cost overruns, smaller projects, and planning activities.

Furthermore, there are conflicting ideas within the MPO regarding whether to award funds purely on the merits of a specific project or to award funds based on population of municipalities. If funds are allocated based on the merits of a project, a jurisdiction should not be able to transfer funds from one project to another within its jurisdiction without competing with other projects in the MPO. If funds are allocated based on population, local jurisdictions would be able to have "placeholders" and transfer funds between projects at their discretion. This proposal tries to accommodate both views. A portion of the STP-DA funds are set aside for an annual competitive allocation procedure. Another portion of the funds are distributed to jurisdictions based on their populations as a guaranteed minimum level of STP-DA funds to be spent at their discretion.

The first step in this proposal requires the submitted projects to be grouped into seven project types:

1. Small projects, includes:
 - a. LPA and local government planning activities under \$200,000 (federal)
 - b. Bicycle, pedestrian and transit projects under \$200,000 (federal)
 - c. Cost over-runs and additions to existing projects
2. LPA staff requests
3. LPA and local government planning activities
 - a. LPA and local government planning activities over \$200,000 (federal)
 - b. Required known planning activities (AQ conformity)
4. Transit projects over \$200,000 (federal)
5. Regional bicycle projects

- a. At the November TAC meeting, the TAC requested that staff develop a prioritized set of regional bicycle routes and identify funding for these projects. This has not yet been completed. For illustrative purposes, LPA staff identified some of the submitted STP-DA projects as regional routes. However, LPA staff intends to formally identify routes including soliciting input from the public and local transportation boards. A recommendation will be brought to a future TCC and TAC meeting.
6. Other local projects over \$200,000 (federal)
7. Travel demand management

If the submitted projects are assigned to these project categories, the distribution of requests is as shown in this table:

Project Type	Total Funding Requested FY 09-15	Number of Projects	Average Cost/Project
Small Projects	1,518,409	23	66,018
LPA Staff	4,229,720	2	2,114,860
Planning Activities	1,543,403	5	308,681
Transit (>\$200,000)	18,476,000	11	1,679,636
Regional Bike	8,764,662	5	1,752,932
Local (>\$200,000)	17,299,088	23	752,134
TDM	1,225,706 (FY13-15)	1	1,225,706
Total	53,056,988	70	

The STP-DA proposal provides funds for each of these project types with the exception of TDM. Funding for the MPO's share of TDM for FY 2009 through 2012 will be provided using CMAQ funding. TDM offers very high air quality benefits and competes very favorably for this funding. As a result, LPA staff recommend funding TDM for FY 2013 through 2015 with future CMAQ funds. In addition, since CMAQ funding was provided for only TDM and transit projects, the amount of STP-DA set aside for transit is small compared to the funding requested.

The STP-DA proposal includes the following steps:

- 1. Establish an annual reserve for small planning projects, cost overruns, and small construction projects (under \$200,000).**
 - The annual reserve should be 25% of each year's STP-DA allocation (approximately \$1 million/year)
 - Annually, in the spring during the UPWP development process, the MPO will allocate these funds through a competitive procedure.
 - Funds should be spent that year on that specific project.
 - If funds are not spent, these funds are rolled over into next year's annual reserve and reallocated.
 - No placeholders carry over into future years.

2. Allocate funding for LPA staff

- The LPA has requested continuation of the funding of existing staff with STP-DA and an increase in the number of staff. A memo on the LPA staff proposal is included as Attachment 8B.
- Funds are to increase by 3% annually to track salary and benefit costs.
- A recommendation on LPA staff funding levels should be made now.
- Long-term recommendation: LPA staff should be funded with PL funds and contributions from member jurisdictions.

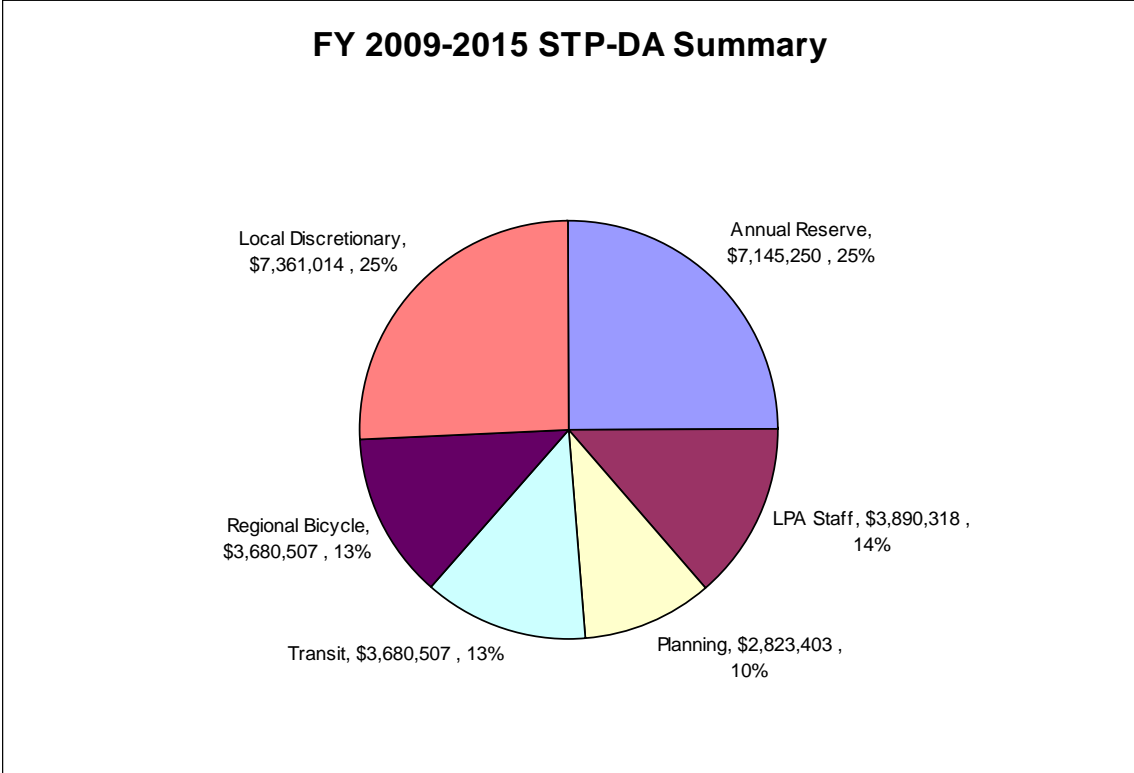
3. Allocate funding for LPA and local government planning activities over \$200,000 and air quality planning

- Includes large planning requests and required planning activities such as: CMS, modeling, AQ planning, GIS integration, BRT planning study
- A recommendation on these activities and funding levels should be made now.
- Long-term recommendation: LPA planning activities should be funded with PL funds and contributions from member jurisdictions.

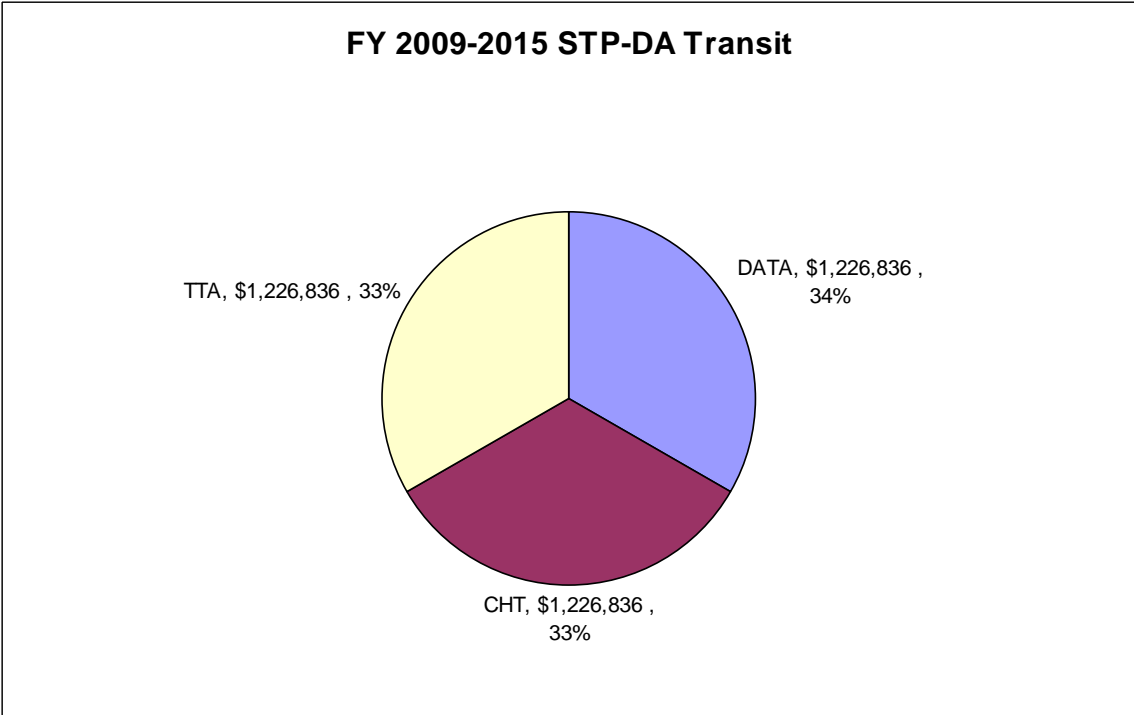
4. Allocate the remainder (total STP-DA - Annual Reserve - LPA staff - Planning) to three project categories:

- **25% of the remainder should be dedicated to transit projects over \$200,000**
 1. Split equally between TTA, CHT, and DATA
 2. Allow transit operators to fund projects according to their own priorities
 3. The funds “belong” that transit operator and placeholders are allowed.
- **25% of the remainder should be dedicated to regional bicycle routes**
 1. Establish a fund to build regional bicycle projects.
 2. The funds should be used on the MPO’s adopted regional bicycle priorities (to be developed) in priority order
- **50% of the remainder should be dedicated to municipalities as a guaranteed minimum level of discretionary funding.**
 1. Split these funds proportionately by population of municipality in the MPO
 - i. Population of the municipality to be determined by the NC State Demographer
 2. These funds can be used on projects at the local government’s discretion based on their priorities.
 3. Municipalities may spend these funds on any type of project including project types covered by other STP-DA funding categories (transit, regional bicycle, planning, etc.)
 4. Allow jurisdictions to switch funding to other projects as needed. The funds “belong” to that jurisdiction’s projects. Placeholders are allowed.

If the procedure above is followed and if all LPA staff and planning activities are funded as requested, the following would be the distribution of STP-DA funds:

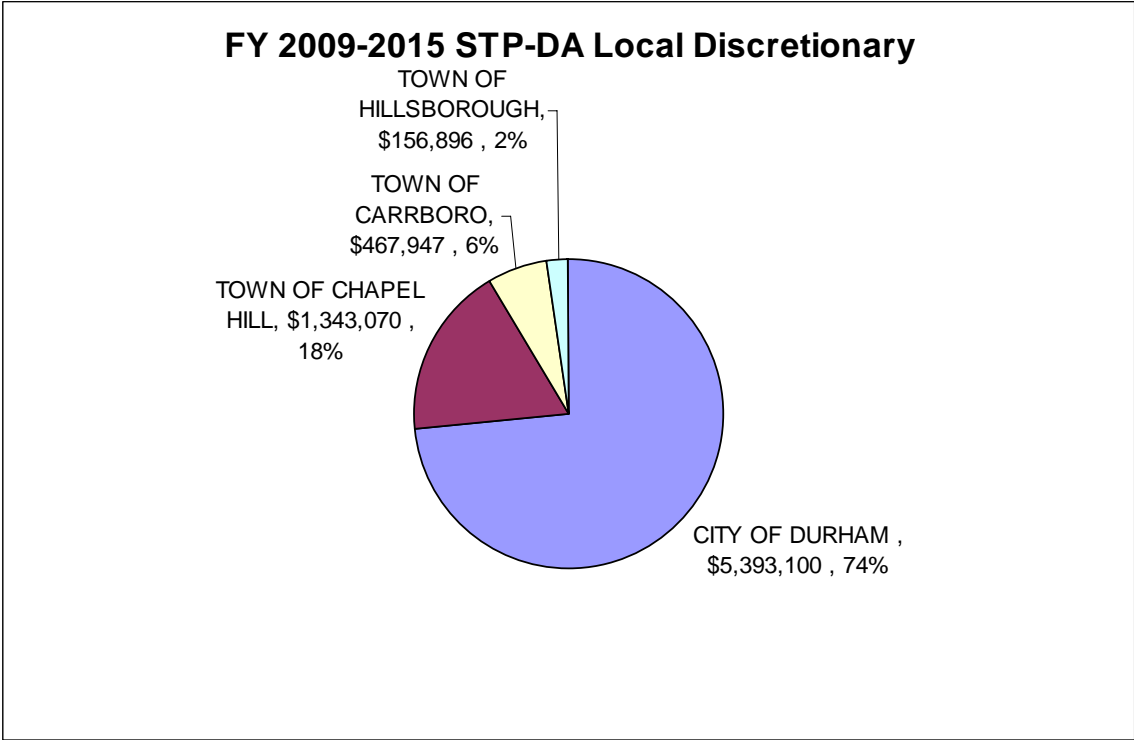


The Transit allocation is distributed as displayed here:



The Local Discretionary is distributed according to the municipal population:

Municipality	2006 Population	Percentage of MPO municipal population
Durham	214,492	73%
Chapel Hill	53,416	18%
Carrboro	18,611	6%
Hillsborough	6,240	2%
MPO Total	292,759	



In order to track projects and funding under this proposal, the STP-DA spreadsheet would be refashioned into a series of linked spreadsheets for each funding category.

The tables on the following pages show how the spreadsheet would need to be redesigned. There are the following tables:

- STP-DA summary table
- Pre-FY 2008 table (the “old” spreadsheet)
- Annual reserve table
- LPA staff table
 - Includes LPA request for funds for existing and proposed staff
- Planning activities table
 - Includes existing planning activities and requests for proposed activities
 - This table will need to be updated pending TCC/TAC action on the UPWP amendment
- Transit table
- Regional bicycle table
 - Includes the already approved funding for the Old Durham-Chapel Hill Road bicycle and pedestrian project
- Local discretionary table
 - Includes three projects that have already been approved for funding in FY 09-15
 - Cornwallis Road Bike/Ped
 - Weaver Dairy Road Bike/Ped
 - Upper Booker Creek Greenway

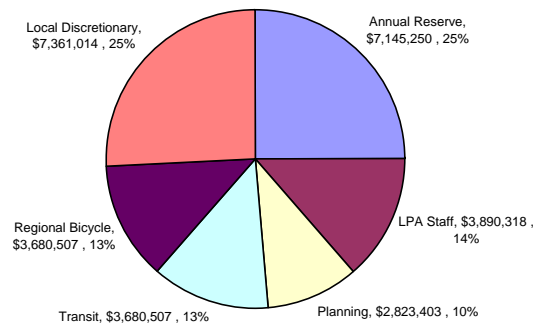
Besides the LPA staff and planning activities tables, none of the requested STP-DA projects are programmed in these tables. An assumption was made for the LPA staff and planning in order to illustrate the new proposal. If the funding is decreased for LPA staff and planning, the transit, regional bicycle, and local discretionary funds would increase.

NCDOT staff have informed the LPA that the annual FY expenditures and STP-DA funds do not need to be balanced. The MPO can run a deficit and are encouraged to over-program in the early years to use up unobligated funds before they expire. In addition, the STP-DA is assumed to be constant but will likely increase in future years.

DCHC MPO -- STP-DA Allocation Table (FY 2009-2015) proposal
Summary Table

		Prior Years	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	TOTAL
Pre-FY2008	Total	\$14,232,027	\$4,542,360	\$1,877,640	\$475,781	\$2,968,819	\$6,959,978	\$5,550,079								\$36,606,684
	STP DIRECT ATTRIBUTABLE	\$18,059,826	\$2,732,775	\$3,211,059	\$3,632,240	\$3,552,867	\$4,083,000	\$4,083,000								\$39,354,767
	FY BALANCE	\$0	(\$1,809,585)	\$1,333,419	\$3,156,459	\$584,048	(\$2,876,978)	(\$1,467,079)								
	Uncommitted Balance	\$3,363,353	\$1,553,768	\$2,887,187	\$6,043,646	\$6,627,694	\$3,750,716	\$2,283,637								
Post-FY2008	Annual Reserve								\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$7,145,250
	LPA Staff								\$403,000	\$558,900	\$567,477	\$576,311	\$585,411	\$594,783	\$604,436	\$3,890,318
	Planning								\$1,305,625	\$176,266	\$326,922	\$177,595	\$328,285	\$178,992	\$329,717	\$2,823,403
	Transit								\$338,406	\$581,771	\$541,963	\$577,086	\$537,139	\$572,119	\$532,024	\$3,680,507
	Regional Bicycle								\$338,406	\$581,771	\$541,963	\$577,086	\$537,139	\$572,119	\$532,024	\$3,680,507
	Local Discretionary								\$676,813	\$1,163,542	\$1,083,925	\$1,154,172	\$1,074,277	\$1,144,237	\$1,064,048	\$7,361,014
	Total								\$4,083,000	\$4,083,000	\$4,083,000	\$4,083,000	\$4,083,000	\$4,083,000	\$4,083,000	\$28,581,000
	STP DIRECT ATTRIBUTABLE								\$4,083,000	\$4,083,000	\$4,083,000	\$4,083,000	\$4,083,000	\$4,083,000	\$4,083,000	\$28,581,000
	FY BALANCE								\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Uncommitted Balance								\$2,283,637	\$2,283,637	\$2,283,637	\$2,283,637	\$2,283,637	\$2,283,637	\$2,283,637	

FY 2009-2015 STP-DA Summary



DCHC MPO -- STP-DA Allocation Table (FY 2007-2013) approved May 9 2007 with new Budget from NCDOT

TIP #	Location	Description	Total Cost	Status	Prior Years	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	Non-Fed Match	Agency
DURHAM COUNTY													
5	I-306 C	I-85 (Hilldale Commons)	\$25,000	?	\$0	\$0	\$20,000					\$20,000	Private
6	I-306C	I-85 Islands - Hilldale and Guess Roads	\$75,000	?	\$0	\$0	\$60,000					\$15,000	Durham
7	EL-2921	American Tobacco Tr.	\$1,476,250	Design	\$0	\$0				\$590,500	\$590,500	\$295,250	Durham
8	U-4724	Cornwallis Rd.	\$0	No activity	\$0	\$0						\$0	Durham
10	U-3804	Hilldale Rd	\$0	Design	\$0	\$0						\$0	State
13	U-4010	NC 98 (Holloway Street)	\$2,795,000	Construction	\$0	\$0				\$2,236,000		\$559,000	State
14	U-4011	Miami Blvd.	\$2,342,500	Design	\$0	\$0					\$1,874,000	\$468,500	State
ORANGE COUNTY													
15	U-3306	Weaver Dairy Rd.	\$0	Design	\$0	\$0						\$0	State
23	E-4994	Carboro	\$807,500	?	\$0	\$0			\$56,000		\$590,000	\$161,500	Carboro
34	E-4828	Carboro	\$650,000	Design	\$0	\$0			\$40,000	\$480,000		\$130,000	Carboro
38	E-4601	Chapel Hill/Carboro	\$900,000	Design	\$0	\$0			\$90,000	\$640,000		\$160,000	CH/Carboro
39	E-4995	Chapel Hill	\$780,000	?	\$0	\$0			\$64,000		\$560,000	\$156,000	Chapel Hill
40	U-5022	Chapel Hill	\$0	?	\$0	\$0						\$0	Chapel Hill
41	U-4704	Chapel Hill-Carboro	\$450,000	Design	\$0	\$0				\$360,000		\$90,000	CH/Carboro
MPO-WIDE													
43	E-4767	Old Durham-CH Rd.	\$2,428,000	Design	\$0	\$0						\$655,600	Multiple
44	U-4727	MPO -UPWP	\$3,800,000	MPO Planning	\$1,510,000	\$165,000	\$273,000	\$228,657	\$224,380	\$265,963	\$373,000	\$760,000	Multiple
45		UPWP Planning \$165,000		On-going									
46		MPO Bike Ped Planner Position \$28,000		On-going									
47		TRM Service Bureau \$80,000 (FY 04 - FY 08)		On-going									
51	U-4726	MPO/Various Local Gov't.	\$1,022,155	Urban Area Bike/Ped Allocation	\$0	\$0	\$0	\$71,524	\$317,600	\$228,600	\$200,000	\$204,431	Multiple
54	U-4726F	03-04 bike allocation	\$250,000	Partially Complete	\$0	\$0				\$200,000		\$50,000	Chapel Hill
56	U-4726E	05 bike/ped allocation	\$50,000	Partially Complete	\$0	\$0			\$40,000			\$10,000	Chapel Hill
58	U-4726G	05 bike/ped allocation	\$67,000	No Activity	\$0	\$0			\$53,600			\$13,400	Durham
59	U-4726H	05 bike/ped allocation	\$60,000	Partially Complete	\$0	\$0			\$0	\$0	\$48,000	\$12,000	Durham
62	U-4726K	06 bike/ped allocation	\$165,484	Agreement	\$0	\$0					\$132,387	\$33,097	Durham
64	U-4726M	06 bike/ped allocation	\$10,000	Partially Complete	\$0	\$0			\$8,000			\$2,000	Chapel Hill
66	U-4726O	07 bike/ped allocation	\$142,740	Agreement	\$0	\$0				\$0	\$114,192	\$28,548	Durham
68	U-3475	MPO -UPWP sp projects (flexed to UPWP planning)	\$3,052,168	Various Planning Activities	\$0	\$0	\$58,000	\$50,000	\$577,483	\$488,251	\$1,268,000	\$610,434	MPO
69		MPO TDM	\$343,750	On-going	\$0	\$0			\$85,000	\$85,000	\$105,000	\$68,750	NCDOT
70		ITS Deployment Plan Update	\$70,000	Underway	\$0	\$0				\$0	\$56,000	\$14,000	MPO
71		Bike/Ped (non-motorized trip) Model Development	\$250,000	Underway	\$0	\$0					\$200,000	\$50,000	MPO
72		Data automation/management GIS (\$200,000)	\$250,000	Underway	\$0	\$0					\$200,000	\$50,000	Multiple
73		I-40/NC 54 Transit Corridor - Phase II	\$0	Unfunded	\$0	\$0						\$0	Multiple
74		Land Use/Transportation Model (Placeholder)	\$250,000	Underway	\$0	\$0					\$200,000	\$50,000	Multiple
75		Congestion Management System	\$250,000	Underway	\$0	\$0			\$100,000		\$100,000	\$50,000	Multiple
76		breaks needed? CH - Chapel Hill Mobility Report Card	\$225,000	Complete (05)	\$0	\$0	\$58,000		\$122,000		\$45,000	\$45,000	Chapel Hill
77		CAR - Carboro Downtown Study	\$50,000	Complete	\$0	\$0			\$40,000			\$10,000	Carboro
78		Old Durham-CH Rd. bike/ped feasibility study	\$62,500	Complete	\$0	\$0			\$50,000			\$12,500	Multiple
79		MPO Collector Street Plan	\$100,000	Complete	\$0	\$0			\$40,000		\$40,000	\$20,000	Multiple
80		Model travel behavior surveys (HH, B&A counts)	\$300,000	Complete	\$0	\$0			\$160,483	\$79,517		\$60,000	Multiple
81		Model Enhancements and major update	\$225,000	On-going	\$0	\$0			\$30,000		\$150,000	\$45,000	Multiple
82		Model surveys ph-2 (onboard, travel time, external)	\$243,750	Complete	\$0	\$0			\$67,000		\$128,000	\$48,750	Multiple
83		TDM additional request (TTA)	\$50,000	Complete	\$0	\$0			\$40,000		\$10,000	\$10,000	Multiple
84		MPO CMS	\$60,000	Underway	\$0	\$0			\$48,000			\$12,000	Multiple
85		CH/CAR - Chapel Hill/Carboro Transit Master plan	\$200,000	On-going	\$0	\$0			\$160,000		\$40,000	\$40,000	Multiple
86		AQ Planning/Conformity (TJCOG)	\$42,168	Complete	\$0	\$0			\$8,734		\$25,000	\$8,434	Multiple
87		Chapel Hill TDM	\$50,000	Partially Complete	\$0	\$0					\$40,000	\$10,000	Chapel Hill
		STAC	\$30,000	Underway	\$0	\$0					\$24,000		
Durham Total			\$22,277,559		\$7,103,867	\$4,377,360	\$186,640	\$0	\$113,600	\$2,841,500	\$2,759,079	\$4,910,512	Durham
Orange Total			\$17,884,128		\$5,618,160	\$0	\$1,418,000	\$197,124	\$2,215,356	\$3,510,664	\$1,190,000	\$3,618,499	Orange
MPO-Wide Total			\$9,742,168		\$1,510,000	\$185,000	\$273,000	\$278,657	\$639,863	\$607,814	\$1,601,000	\$1,948,434	Other
Yearly Total					\$14,232,027	\$4,542,360	\$1,877,640	\$475,781	\$2,968,819	\$6,959,978	\$5,550,079	\$36,606,684	Total Yearly
STP DIRECT ATTRIBUTABLE					\$18,059,826	\$2,732,775	\$3,211,059	\$3,632,240	\$3,552,867	\$4,083,000	\$4,083,000	\$39,354,767	Total STPDA
MPO Reserve					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
FY BALANCE					(\$1,809,585)	\$1,333,419	\$3,156,459	\$584,048	(\$2,876,978)	(\$1,467,079)			
Uncommitted Balance					\$3,363,353	\$1,553,768	\$2,887,187	\$6,043,646	\$6,627,694	\$3,750,716	\$2,283,637		

DCHC MPO -- STP-DA Allocation Table (FY 2009-2015) proposal
Annual Reserve Table

TIP #	Location	Description	Status	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	Total Federal	Non-Fed Match	Agency	Total Project Funds
		<u>TOTAL AVAILABLE</u>		\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$7,145,250			
		<u>City of Durham/DATA</u>												
		<u>Town of Chapel Hill/CHT</u>												
		<u>Town of Carrboro</u>												
		<u>Town of Hillsborough</u>												
		<u>TTA</u>												
		<u>LPA Planning</u>												
		<u>Other</u>												
		Yearly Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
		FY BALANCE		\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$1,020,750	\$7,145,250			
		Uncommitted Balance		\$1,020,750	\$2,041,500	\$3,062,250	\$4,083,000	\$5,103,750	\$6,124,500	\$7,145,250				

DCHC MPO -- STP-DA Allocation Table (FY 2009-2015) proposal
LPA Staff Table

TIP #	Location	Description	Status	Prior Years	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	Total Federal	Non-Fed Match	Agency	Total Project Funds	
U-4727	MPO -UPWP	MPO Planning	On-going	\$3,040,000	\$273,000	\$273,000	\$273,000	\$273,000	\$273,000	\$273,000	\$273,000	\$4,951,000	\$1,237,750	Multiple	\$6,188,750	
		UPWP Planning \$165,000														
		MPO Bike Ped Planner Position \$28,000 TRM Service Bureau \$80,000 (FY 04 - FY 08)														
MPO -UPWP	MPO -UPWP	LPA New Positions	Proposed	0	\$130,000	\$285,900	\$294,477	\$303,311	\$312,411	\$321,783	\$331,436	\$1,979,318	\$494,830	Multiple	\$2,474,148	
		Grant & MPO Admin \$55,000 beginning in FY09														
		GIS/Website Specialist \$75,000 beginning in FY09														
		Transportation Engineer/Planner \$72,000 beginning in FY10														
		Transportation Technician/Specialist \$40,000 beginning in FY10														
TOTAL				\$3,040,000	\$403,000	\$568,900	\$567,477	\$576,311	\$585,411	\$594,783	\$604,436	\$6,930,318	\$1,732,580		\$8,662,898	

3% annual increase assumed

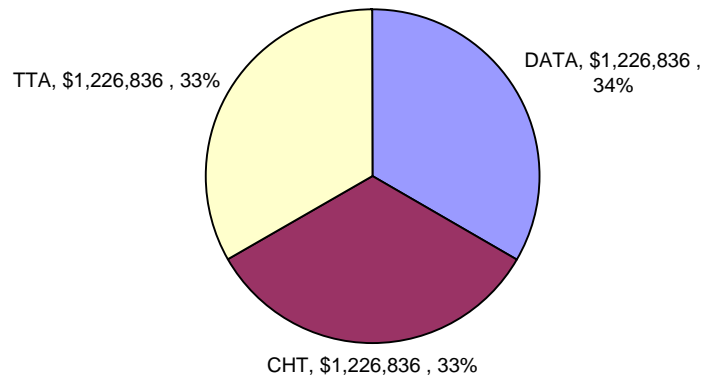
DCHC MPO -- STP-DA Allocation Table (FY 2009-2015) proposal
Planning Activities Table

TIP #	Location	Description	Status	Prior Years	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	Total Federal	Non-Fed Match	Agency	Total Project Funds	
U-3475	MPO-wide	Congestion Management System	Underway		\$200,000	\$200,000	\$200,000		\$200,000		\$200,000	\$1,000,000	\$200,000	Multiple	\$1,200,000	
U-3475	CH	CH - Chapel Hill Mobility Report Card	Complete ('05)		\$180,000	\$100,000	\$100,000		\$100,000		\$100,000	\$580,000	\$116,000	Chapel Hill	\$696,000	
U-3475	MPO-wide	Model Enhancements and major update	On-going		\$180,000	\$80,000						\$260,000	\$52,000	Multiple	\$312,000	
U-3475	MPO-wide	AQ Planning/Conformity (TJCOG)	On-going		\$33,734	\$25,625	\$26,266	\$26,922	\$27,595	\$28,285	\$28,992	\$29,717	\$227,137	\$45,427	Multiple	\$272,564
U-3475	CH	CH - BRT Planning and Environmental Study	Proposed		0	\$400,000						\$400,000	\$80,000	Chapel Hill	\$480,000	
U-3475	MPO-wide	CMS (additional request)	Proposed		0		\$150,000		\$150,000		\$150,000	\$450,000	\$90,000	Multiple	\$540,000	
U-3475	MPO-wide	GIS Integration Phase II	Proposed		0	\$300,000						\$300,000	\$60,000	Multiple	\$360,000	
U-3475	MPO-wide	NC 54/I-40/US 15-501 Subarea Study	Proposed		0	\$200,000						\$200,000	\$40,000	Multiple	\$240,000	
		TOTAL			\$593,734	\$1,305,625	\$176,266	\$326,922	\$177,595	\$328,285	\$178,992	\$3,417,137	\$683,427			

DCHC MPO -- STP-DA Allocation Table (FY 2009-2015) proposal
Transit Table

TIP #	Location	Description	Status	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	Total Federal	Non-Fed Match	Agency	Total Project Funds
		<u>TOTAL AVAILABLE</u>		\$338,406	\$581,771	\$541,963	\$577,086	\$537,139	\$572,119	\$532,024	\$3,680,507			
		<u>DATA</u>									\$1,226,836			\$0
														\$0
		<u>CHT</u>									\$1,226,836			\$0
														\$0
		<u>TTA</u>									\$1,226,836			\$0
														\$0
		Yearly Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			
		FY BALANCE		\$338,406	\$581,771	\$541,963	\$577,086	\$537,139	\$572,119	\$532,024	\$3,680,507			
		Uncommitted Balance		\$338,406	\$920,177	\$1,462,140	\$2,039,226	\$2,576,364	\$3,148,483	\$3,680,507				

FY 2009-2015 STP-DA Transit

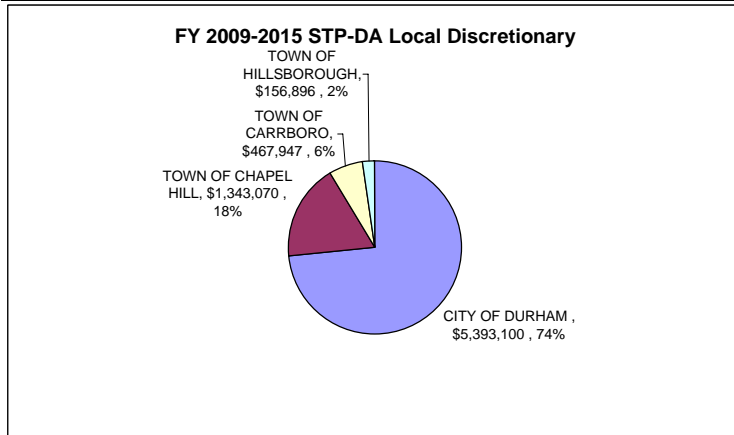


DCHC MPO -- STP-DA Allocation Table (FY 2009-2015) proposal
Regional Bicycle Table

TIP #	Location	Description	Status	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	Total Federal	Non-Fed Match	Agency	Total Project Funds
		<u>TOTAL AVAILABLE</u>		\$338,406	\$581,771	\$541,963	\$577,086	\$537,139	\$572,119	\$532,024	\$3,680,507	\$920,127		\$4,600,634
E-4707	Old Durham-CH Rd.	Bike Lanes	Design	\$1,371,000	\$1,371,000						\$2,742,000	\$685,500	Multiple	\$3,427,500
		Yearly Total		\$1,371,000	\$1,371,000	\$0	\$0	\$0	\$0	\$0	\$2,742,000			
		FY BALANCE		(\$1,032,594)	(\$789,229)	\$541,963	\$577,086	\$537,139	\$572,119	\$532,024	\$938,507			
		Uncommitted Balance		(\$1,032,594)	(\$1,821,823)	(\$1,279,860)	(\$702,774)	(\$165,636)	\$406,483	\$938,507	\$938,507			

DCHC MPO -- STP-DA Allocation Table (FY 2009-2015) proposal
Local Discretionary Table

TIP #	Location	Description	Status	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	Total Federal	Non-Fed Match	Agency	Total Project Funds
		TOTAL AVAILABLE		\$676,813	\$1,163,542	\$1,083,925	\$1,154,172	\$1,074,277	\$1,144,237	\$1,064,048	\$7,361,014			
		CITY OF DURHAM									\$5,393,100			
J-4724	Cornwallis Rd.	Bike/Ped Facilities (S. Roxboro to University or C.H. Rd.)	No activity	\$1,816,000							\$1,816,000	\$454,000	Durham	\$4,086,000
		<i>City of Durham Uncommitted Balance</i>									\$3,577,100			
		TOWN OF CHAPEL HILL									\$1,343,070			
J-3306	Weaver Dairy Rd.	Bike & Pedestrian Features	Design			\$566,000					\$566,000	\$141,500	State	\$1,273,500
J-5022	Chapel Hill	Upper Booker Creek Greenway	?			\$576,000					\$576,000	\$144,000	Chapel Hill	\$1,296,000
		<i>Town of Chapel Hill Uncommitted Balance</i>									\$201,070			
		TOWN OF CARRBORO									\$467,947			
		<i>Town of Carrboro Uncommitted Balance</i>									\$467,947			
		TOWN OF HILLSBOROUGH									\$156,896			
		<i>Town of Hillsborough Uncommitted Balance</i>									\$156,896			
		Yearly Total		\$1,816,000	\$0	\$1,142,000	\$0	\$0	\$0	\$0	\$2,958,000			
		FY BALANCE		(\$1,139,188)	\$1,163,542	(\$58,075)	\$1,154,172	\$1,074,277	\$1,144,237	\$1,064,048	\$4,403,014			
		Uncommitted Balance		(\$1,139,188)	\$24,355	(\$33,720)	\$1,120,452	\$2,194,729	\$3,338,966	\$4,403,014				



LPA Resources Needs – STP-DA Funding Request and Justification

Recent federal and State requirements have necessitated a need for additional time and resources within the LPA to be spent on MPO transportation planning process. These include full implementation of the Comprehensive Transportation plan and integration process, additional modeling requirements to integrate multi modal attributes, additional planning requirements added by the federal planning regulations, increased cooperation between the MPO's and resource agencies, environment justice requirements, increased public involvement, and more detailed purpose and need documentation. Since 2004, the Lead Planning Agency (LPA) of the DCHC MPO has been given additional responsibilities and assigned numerous special tasks. At the same time, the LPA staffing level has remained constant.

SAFETEA-LU and the State requirements for the development of a Comprehensive Transportation Plan (CTP) created extraneous work tasks for the Lead Planning Agency that current staff level cannot handle without sacrificing quality or efficiency or reduction in service or non fulfillment of regulatory requirements. These tasks are summarized as follows: the update of the federal functional classification system; intermodal system integration and connectivity planning; development, monitoring and periodic update of a Congestion Management Program (CMP); increased requirements for public participation process, including use of interactive website, increased public involvement with citizens, local boards, and special interest groups; explicit consideration and documentation of Planning Factors; environment justice consideration; Intelligent Transportation Systems initiatives; UPWP annual self certification and explicit response to self-certification check lists; federal certification of the MPOs' 3-C planning processes; increased emphasis on safety planning and consideration in MPO planning process; use of visualization; resource agencies coordination; annual project listing dissemination; freight and urban goods movement planning and explicit consideration in the MPO planning process, systems preservation; and integration process which in an effort to fully integrate social and environmental concerns into systems planning or the long range transportation planning process

Responsibilities of the LPA also have increased as a result of State General Statutes amendment of the chapter 136 of the General Status which recognized MPOs and requirement the development of the CTP. GS 136 was updated to require a cooperative, comprehensive and continuing (3-C) planning process for all areas over 50,000 population consistent with Section 134 of the federal regulation and also required State-MPO cooperative development of a CTP; development of evaluation report, provided for State-MPO adoption of the plan; required State-municipal agreement on responsibilities for street and highways upon mutual plan adoption; defined State and municipal responsibilities; and provided for mutual revision of the plan

Thus far, in order to meet some of these increased responsibilities, the LPA have used Interns, on-call consulting services and working more hours to get accomplished tasks is becoming a norm rather than an exception. Several of these new responsibilities have not been done (SAFETEA-LU compliant public involvement, public dissemination of annual

project listing, development of EJ plan and policy, safety planning, system preservation, freight planning, etc). Increased efficiencies have been integrated where possible. The LPA is at a point where it must expand staff or make a decision to reduce services and not fulfill some of these regulatory requirements. We believe that regulatory requirements and public demands would effectively block any option dealing with the non fulfillment of federal and state mandates and any reduction in services strategy. Summary of additional state and federal mandates and requirement place additional burden on MPO staff resources are listed as follows:

A. Planning

- Increased requirement for safety considerations
- Increased public participation requirement
- Environmental justice requirements
- Integration of transportation planning with State and local planned growth and economic development (23 CFR §450.322(g))
- Develop Consultation plan and involve resource agency from start of the LRTP to finish (23CFR§450.210, 23CFR§450.316(3)(e))
- Visualization requirement
- Interactive website -make products and plans available via web
- Emphasis on Freight planning
- Security consideration (23 CFR §450.322(h))
- Annual project listing
- Purpose and Need
- Integration of project implementation into system planning (Section 6002)
- Environmental mitigation
- Congestion management process
- FTA transit modeling requirements

B. Data Need/Requirements

- Peak hour traffic Volume
- Peak transit ridership
- Truck classification count (peak and daily)
- Travel time and speed studies peak and off-peak
- Vehicle occupancy rate (VOR)
- Tri-annual ADT count for CMP and model validation
- EJ demographic profile update
- Local and state economic development plans and policies
- Environmental mitigation data
- Data for required CMP (signals, geometric, traffic, bike/ped, etc) and Dynasmart
- Traffic accidents
- Safety data for Strategic Highway Safety Plan
- Statewide land use plans
- Transit boarding and alighting and transfers

It is currently estimated that **six new** positions would be required in order for the LPA to effectively meet LPA primary mission (carryout the 3-C process for the DCHC MPO), meet these new regulatory requirements and future work obligations and above meet federal certification (2007 Federal Certification Report of the DCHC MPO is attached). In addition, these positions are necessary to allow the LPA to efficiently address the needs of the citizens, municipalities, environmental interest groups and other regional planning activities. The six **new positions** are described in the table below:

#	Position	Main Responsibilities	Starting FY	Salary & Fringe
1	Grant & MPO Admin	Grant/MPO administration and office assistance	July 1, 2008	\$55,000
2	GIS/Website Specialist	GIS & website design, update and content management	July 1, 2008	\$75,000
				<i>FY 2009</i>
				<i>\$130,000</i>
3	Transportation Engineer/Planner	Technical analysis & studies, planning, CTP and Integration	July 1, 2009	\$72,000
4	Transportation Technician/Specialist	Data collection and analysis	July 1, 2009	\$40,000
5	Transportation Technician/Specialist	Data collection and analysis	July 1, 2009	\$40,000
				<i>FY 2010</i>
				<i>\$152,000</i>
				Total Per Year from FY 2009
				\$282,000

Public involvement and customer service are also important element of the DCHC transportation planning process. They are intertwined in every aspect of the transportation planning process. Public Involvement continues to be an ever increasing staff time commitment as interest groups, local governments and general public demand more and earlier involvement in the planning and project development process. Although the MPO has proactive and fairly extensive opportunities for public involvement, few people have attended MPO workshops and public meetings. Also, the public continues to express the concern that they are not being heard. To do a more comprehensive public outreach program as required by SAFETEA and Environment Justice Executive Order will require a greater commitment of an already over programmed staff time.

Recent efforts to improve our public input and involvement process have resulted in expansion of our mailing list, identification of additional individuals and groups (including environmental justice community) and customer service inquires. Additional staff time will have to be expanded in developing closer and more cooperative relations

between the MPO's and federal and state resource agencies as mandated by SAFETEA-LU.

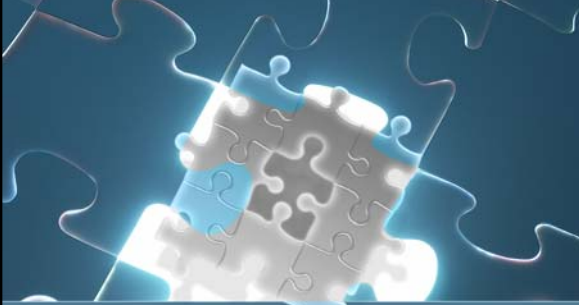
Table 1 Staff Level Comparison

	Selected MPO	2000 Census UZA Population	MPO Dedicated staff (full-time)	MPO Dedicated staff (part-time)	Others*	Interns	Proposed staff additions	% Consulting for routine planning
1	Greensboro	267,884	6		4	3		8-11%
2	CAMPO	541,527	5				3	
3	Asheville	221,570	4		3+	2+	1	9%
4	Wilmington	161,149	7		3	1	1.5	
5	Charlotte	758,927	12	3	5**			
	DCHC		7					8%
	Small Sized MPOs	50,000 - 199,999	16	5				23%
	(Average)							


* Other staff who occasionally work on MPO related activities (Traffic, GIS, Planning, etc)

Table 2: 2008 PL Distribution

2008 Section 104(f) PL Distribution				
	Area	UZA Census Population	Total PL Allocation	Per Capita
		2000	2008	2008
1	French Broad River (Asheville)	221,570	\$318,063	\$1.4
2	Burlington-Graham	94,248	\$209,995	\$2.2
3	MUMPO (Charlotte)	758,927	\$774,156	\$1.0
4	Cabarrus-Rowan	115,057	\$227,657	\$2.0
5	DCHC (Durham)	287,796	\$374,273	\$1.3
6	Fayetteville	276,368	\$364,574	\$1.3
7	Gastonia	141,407	\$250,022	\$1.8
8	Goldsboro	57,915	\$179,157	\$3.1
9	Greensboro	267,884	\$357,373	\$1.3
10	Unifour MPO (Hickory)	187,808	\$289,406	\$1.5
11	High Point	132,844	\$242,754	\$1.8
12	Jacksonville	95,514	\$211,070	\$2.2
13	CAMPO (Raleigh)	541,527	\$589,633	\$1.1
14	Wilmington	161,149	\$266,779	\$1.7
15	Winston-Salem	299,290	\$384,029	\$1.3
16	Greenville	84,059	\$201,347	\$2.4
17	Rocky Mount	61,657	\$182,333	\$3.0
	TOTALS	3,785,020	\$5,422,621	




SAFETEA-LU Implementation Update
 Marcus Wilner, FHWA-NC Division
 2007 NC MPO Conference, Closing Session
 October 26, 2007




Overview

- **Timeline**
- **Cycle Changes**
- **Key Provisions:**
 Planning Factors, Financial, Public Participation, Consultation, Environmental Mitigation, Congestion
- **Implementation - July 1, 2007**
- **Future Emphasis**
- **FHWA Guidance**



Timeline

- **August 10, 2005** – Safe, Accountable, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU) enacted
- **June 9, 2006 to September 4, 2006** – Draft Transportation Planning Rule available for public comment
- **February 14, 2007** – Final Statewide and Metropolitan Planning Rule published
- **July 1, 2007** – Implementation Date



Cycle Changes

At least every 4 years:

- **STIP/TIP** shall be updated
- **Air Quality Conformity** shall be completed with the Plan (LRTP)/TIP
- **LRTPs** shall be updated (non-attainment)*
- **Certification Reviews** (for TMAs only) will be held
- **Self-Certifications** will be required (unless designated otherwise by the Transportation Secretary)

* Attainment areas LRTPs due every 5 years




Planning Factors: Safety and Security

- Focus on mobility and safety
 - Increase the safety of motorized and non-motorized users
- Incorporate provisions of the Strategic Highway Safety Plan (SHSP)
- Increase security of the transportation system



Planning Factors: Land Use

- Promote consistency of plans with State and local planned growth and economic development patterns
- MPO and NCDOT need to coordinate and streamline transportation and land use planning



Financial

- STIP/TIP
 - Increased from 3 to a 4 year document
 - Funding must be “available and committed” for the first 2 years of STIP/TIPs
- Inflation rate(s) to reflect “year of expenditure dollars”
- Projects over \$500m will provide annual project management and financial plans to the Secretary



Public Participation

- Participation plan shall be developed in consultation with “interested parties”
- “Interested parties” list expanded
- Increased availability of documents
- Electronic access
- Visualization techniques



Consultation

- Long Range Transportation Plans (Statewide and Metropolitan) shall be developed in consultation with agencies responsible for:
 - Land Use Management;
 - Natural Resources;
 - Environmental Protection;
 - Conservation; and
 - Historic Preservation
- Consultation shall include comparison of transportation plans with available conservation plans, maps, and/or inventories from these agencies.




Environmental Mitigation

- L RTPs shall include a discussion of potential mitigation activities and potential areas
- Developed in consultation with Resource Agencies and Partners
- Focus on **policies, programs, or strategies**



Congestion

- National (U.S. DOT) initiative to address congestion
- Congestion Management Process (CMP) is required in TMAs
- Operational technologies for capacity
- Implement strategies to address the growing needs of freight



Since July 1, 2007

- **L RTPs** must comply with SAFETEA-LU
 - No additions or deletions of major projects
 - No changes (moving projects across horizon years in non-attainment areas)
- **STIP/TIPs** –
 - Changes (Administrative Modifications) to the 2007-2013 STIP can be approved*
 - The 2009-2015 STIP can be approved

Amendments and Modifications

- Administrative Modifications are allowed since July 1, 2007, but not major new project Amendments
 - **Administrative Modifications**- Minor funding or description changes
 - **Amendments**- Major project additions/deletions, project cost increases that affect fiscal constraint, moving projects across LRTP horizon years

Future Emphasis: Linking Planning and NEPA

- **Appendix A to Part 450**
 - Explains the linkage between long range transportation planning and NEPA
 - Details how information, analysis, and products can be incorporated into NEPA decisions
 - Does not extend NEPA requirements to transportation plans and programs
 - Supports the consultation, mitigation requirements of Final Planning Rule/SAFETEA-LU Section 6001

Linking Planning and NEPA

- **Purpose and Need (P&N)** may be shaped or **Alternatives** eliminated by the following planning decisions:
 - **Goals and objectives from the planning process**
 - **General travel corridor or mode from planning analyses**
 - **Special funding (i.e., toll, PPP) for a specific project**
 - **Management systems analyses (i.e., CMP, pavement, safety, etc.)**

Linking Planning and NEPA, Current NC Efforts


- **CTP P&N Implementation Team**
 - The 1st Implementation Team to kick-off from the Comprehensive Transportation Plan (CTP) / Integration Project
 - Includes representatives from FHWA, NCDOT (Planning and PDEA), DENR (DWQ), MPOs, RPO
 - Team leader is Rob Ayers, FHWA
 - Team kick-off is November 5, 2007
- **Alternatives Analysis Consultant RFQ**

Linking Planning and NEPA, Current NC Efforts (Cont'd)

- **Implementation Team Outcomes - establish a process whereby:**
 - Purpose and Need can be established during the transportation planning phase
 - Alternatives can be identified and vetted against the P&N during the transportation planning phase
 - Concurrence on Purpose and Need (P&N) and range of alternatives can occur earlier and more efficiently
 - Higher quality data transfer will occur (CTP to NEPA)
 - Roles will be defined for CTP practitioners, educated CTP users, NEPA practitioners, and planning partners.


Linking Planning and NEPA, Current NC Efforts Summary

- Two teams are kicking off this Fall
- MPOs will be asked to use outputs of teams to improve the link between Planning and NEPA
- FHWA will continue to work with NCDOT and the MPOs to develop guidance and processes for improving this link in NC



FHWA NC Division Guidance

- 1) SAFETEA-LU, TIP/STIP, & Conformity Implications "1-pager"
- 2) LRTP/TIP "Step by Step" Guidance
- 3) Coordinated Transportation Planning Workshop (3-29-07) Outputs
 - Best Practices (Approaches) Document
 - Contact Information Template
- 4) Other FHWA Assistance (Future)



QUESTIONS?

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**DURHAM-CHAPEL HILL-CARRBORO
METROPOLITAN PLANNING ORGANIZATION**

CERTIFICATION REVIEW

**Conducted by:
Federal Highway Administration – North Carolina
Federal Transit Administration**

June 4, 2007

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**FHWA/FTA Certification Review
DURHAM - CHAPEL HILL - CARRBORO MPO
TRANSPORTATION PLANNING PROCESS
MARCH 20-21, 2007**

Executive Summary

Every three years, the Federal Highway Administration and the Federal Transit Administration are required to review in full the planning processes of any metropolitan area that contains a population over 200,000. This certification review is for the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) and evaluates whether DCHC MPO is in compliance with federal regulations. The first step in this process is to look at past reviews to ensure that recommendations and corrective actions have been administered to. The second step is to hold a public meeting to attain the public's perspective on planning in the DCHC area. The third step is to hold an on-site review, examining every planning aspect, and providing the MPO, the State Department of Transportation (DOT), and Transit Administrators, et al., an opportunity to demonstrate their accomplishments or to answer to any questions that the federal review team may have. This report is the result of those steps. In addition, the attachments will have a copy of the advertisement for the public meeting, as well as the agenda and the sign-in sheets.

Introduction

Pursuant to 23 U.S.C. 134 and 49 U.S.C. 5303, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) must jointly review and evaluate the metropolitan transportation planning process for each Transportation Management Area (TMA) at least every three (the new requirement has been extended to every four) years. The purpose of the review is to assess the extent of compliance with the planning requirements, to identify noteworthy practices, and to provide guidance and assistance as appropriate. The review consists of a series of discussions on transportation planning issues with State and local transportation officials directly involved in highway and transit planning activities within the Metropolitan Planning Organization (MPO). A list of participants in the review is included in Appendix A. FHWA and FTA (herein referred to as the Federal review team) hosted a public meeting to receive comments regarding the metropolitan transportation planning process. The Federal review team also provided the opportunity for policy board officials to meet with the team to offer comment on the transportation planning process.

The previous certification finding for the Durham - Chapel Hill - Carrboro (DCHC) TMA was issued on June 30, 2003. The previous review resulted in the DCHC MPO **not** being fully certified due to a lapse in maintaining their three-year long range transportation plan (LRTP) cycle and air quality conformity determination. At the time of the review DCHC was in a conformity lapse, but by the completion of the report, United States Department of Transportation had approved (June 30, 2003) the conformity determination on the Long Range Transportation Plan (LRTP).

Current Status of Planning

The area encompassed by the DCHC MPO includes all of Durham County, part of Orange County and part of Chatham County. It also includes the City of Durham, the Town of Chapel Hill, the Town of Carrboro, and the Town of Hillsborough. The planning area straddles the intersection of two Interstate Routes (I-40 & I-85), including the majority of a major regional traffic generator (The Research Triangle Park) and shares a common boundary with The Capital Area Metropolitan Planning Organization (CAMPO) on the eastern side. The DCHC is currently soliciting applications for membership in the MPO (for consideration of expanding the Metropolitan Area Boundary) from the Town of Pittsboro, the Town of Roxboro, Person County, Granville County, Stem, and the Incorporated Town of Butner. Part of Orange County is in the Metropolitan Area Boundary (MAB), but the rest of the county is being considered in the expansion as well. Concerns have been raised in consideration of the equity of distributed funds if these smaller towns are to be incorporated into the MPO's boundary.

The DCHC MPO finalized their 2030 LRTP on April 13, 2005. They are currently updating the socioeconomic data for the next update cycle of their LRTP and are

determining the planning work to be pursued for the fiscal year beginning July 1, 2007. In addition, the 2006-12 TIP was completed September 12, 2005 for inclusion into the STIP (effective 10/1/2005) and they are currently in the process of adopting a new 2007-13 TIP by 6/30/2007. The lead planning agency for the MPO is the City of Durham Transportation Division. Major planning studies in the area include Southwest Durham Drive, Greenhouse Gas emissions plans and action items, Collector Street Plans, Bicycle/Pedestrian plans, and the consideration to consolidate seven major transit systems in the region.

Summary of Corrective Actions:

A Corrective Action is defined as an action that must be completed in order for the State and the MPO to be fully in compliance with Federal rules and regulations. Corrective Actions should be met within **two years** of the release date for the report (June 30, 2007). A follow-up meeting will be conducted to check on the status of these actions. The Corrective Actions listed were made at the time of the review and may have been corrected in the time it takes to release the report. If this is the case, then the Corrective Action will be met and the status of the action will be evaluated at the two-year review to ensure that it remains in good standing. The following are Corrective Actions for the 2007 review:

1. **DCHC** shall revise the Public Involvement Plan (PIP) to include:
 - a. Public and developers in the process
 - b. Direct public efforts where needed
 - c. Develop and document measures to develop the PIP
 - d. Develop evaluation criteria
 - e. Consider implementing a Citizen's Advisory Committee
 - f. Expand visualization techniques
2. **DCHC** shall formally evaluate the effectiveness of its Public Involvement Program.
3. **NCDOT** shall appoint a full-time MPO Coordinator for DCHC.

Summary of Recommendations:

A Recommendation is defined as an action that should be applied into the planning process by the following Certification Review. So by the next review, the MPO should be able to show what progress they have made toward achieving the recommendations. It may not be fully implemented, but there should be documented progress toward achieving the recommendation. The following is a summarized list of the Recommendations:

Resource Agencies and Communication

1. **DCHC** and **NCDOT** should consider expanding the TCC to include Resource Agencies. Should DCHC not expand the TCC to include Resource Agencies, they shall develop other methods for involving Resource Agencies into the

- planning process. NCDOT should increase their Stakeholder involvement, document their participation, and procedures to encourage effective involvement.
2. **DCHC** should incorporate additional measures that may be useful in identifying impacts of projects, both positive and negative.
 3. **DCHC** and **NCDOT** should ensure that all policies and procedures are available on the web.
 4. **NCDOT** should follow the outlined STIP Public Involvement Process with MPOs by allowing for more input from the MPOs.

Financial

5. **DCHC** should be more systematic in performance measures and make sure investments are yielding the expected dividends.
6. **DCHC** and **NCDOT** should collaborate in financial forecasting and document the step-by-step process.
7. **DCHC** and **NCDOT** should use life-cycle costs for the LRTP as part of the decision making process.
8. **NCDOT** should explore ways to make financial planning and forecasting issues more transparent to MPOs.

Policies

9. **DCHC** should address Safety, systems operations, system preservation, and the State Highway Safety Plan in their LRTP.
10. **DCHC** and **NCDOT** should update plans and processes to reflect SAFETEA-LU.

Planning Process

11. **DCHC** shall incorporate Safety as a stand alone element in project prioritization in the LRTP.
12. **DCHC** should incorporate the following freight aspects into their planning process:
 - a. DCHC should integrate freight as an integral part of the Plan.
 - b. DCHC should include the freight community into the planning process.
 - c. DCHC should consider freight mobility in the project-ranking criteria.
13. **DCHC** should continue to pursue its implementation of ITS projects.
14. **DCHC** should incorporate the Statewide portion of the STIP into the TIP.
15. **DCHC** should incorporate locally funded projects (as required under ISTEA) into the TIP.
16. **DCHC** should assist NCDOT with modeling land use changes associated with project alternatives on an as-needed basis.
17. **DCHC** should articulate how they are assisting in FHWA's environmental streamlining goals and objectives.
18. **DCHC** should continue its path to complete TIP conformity.
19. **DCHC** should incorporate the following elements into its Environmental Justice (EJ) Plan:
 - a. Policy statement

- b. Goals and objectives
 - c. Demographic profile
 - d. Overlays of demographic information on defined past, future, and planned projects
 - e. Measures for identifying burdens and benefits of the MPO's transportation system
 - f. An analysis of identified burdens and benefits
 - g. Public involvement strategies to engage minority and low-income populations (including Advisory Committee information)
20. **DCHC** should submit a draft of their EJ Plan to FHWA for review and comments.
 21. **DCHC** shall create a Participation Plan which documents the use of electronic media and visualization techniques, as required by SAFETEA-LU.
 22. All three of the **transit operators** in the area are encouraged to continue to develop short-range transit operating and financing plans that identify capital needs and the proposed funding sources.
 23. **DCHC** and **NCDOT** should review the current LOS E standard for all facilities and assess a more appropriate standard.
 24. **DCHC** and **NCDOT** should improve security planning, coordination, and training.
 25. **NCDOT** is encouraged to maintain a full-time Safe Routes to School Coordinator.
 26. **NCDOT** should give bicycle/pedestrian modes equal consideration in terms of funding, maintenance, and liability.
 27. **NCDOT** should involve MPOs early on in the Design phase and be considerate of design and scope of locally-preferred alternatives (articulate CSS NCDOT vision and follow it).
 28. **NCDOT** should develop a Purpose and Need (P/N) statement as an outgrowth of the LRP in cooperation with MPO's high priority projects.
 29. **FHWA** will address CMAQ questions DCHC has.

Summary of Commendations:

A Commendation is defined as an action to acknowledge exemplary practices within the planning process. These examples show efforts that are above and beyond federal and state requirements. The following is a list of Commendations:

1. **DCHC** is commended for their transit efforts, including:
 - a. Regional Call Center
 - b. Cost-sharing
 - c. Best Work Place for Commuters
2. The **Triangle Region** is commended for its outstanding coordination and cooperative process.
3. **DCHC** is commended for their excellent efforts in innovative ways of providing transit opportunities.
4. **Chapel Hill, Carrboro, and Durham** are commended on zoning Transit Oriented Development (TOD) overlays in land use planning.

Overall Finding

The review team found the transportation planning process for the DCHC transportation management area meets the requirements of 23 CFR 450 Subpart C and 49 USC 5303 and is in effect certified, pending that the Corrective Actions have been adequately addressed by the two-year deadline.

Certification Outline

The initial emphasis of the DCHC MPO certification review is to prescribe the corrective actions and recommendations, as well as present commendations from the current review. The following is a list of the Planning Factors and documents that were reviewed:

- Boundaries
- Agreements
- Organization
- Self-Certification
- 3C Process
- UPWP
- LRTP
- STIP/TIP
- PL & STP-DA Funds
- Freight
- CMS
- Operations & Management (ITS)
- Safety
- Environment
- Air Quality
- Transit
- Bicycle/Pedestrian
- Land Use & Economic Development
- Title VI: ADA, EJ, DBE
- Public Involvement
- SAFETEA-LU Implementation

Previous Review Follow-up (2003)

Corrective Actions

Previous Corrective Action:

1. The DCHC MPO needs to adopt an updated air quality conforming long range transportation plan (LRTP).

Findings:

The only corrective action identified during the review was that the DCHC MPO was not currently complying with the planning requirement to update their LRTP every three years. Since the MPO did not have a valid LRTP, the TIP was no longer valid. The impact of not having a valid plan and a TIP is that the area became ineligible for any new authorizations of Federal aid funds for transportation projects. The DCHC MPO updated the air quality conformity LRTP on June 30, 2003 (thus certifying DCHC) and is currently maintaining its schedule. However, we do recommend that DCHC continue to maintain and stay on schedule.

Recommendations

Previous Recommendation:

1. DCHC should formally evaluate the effectiveness of the public involvement program.

Findings:

It is crucial that DCHC develop formal procedures to evaluate the effectiveness of its public involvement plan. Evaluation should focus on the results of public involvement - how it succeeded in generating information that has had identifiable impacts on all stages of the planning process. Rigorous assessment of techniques and strategies for involvement will also signal the public that their efforts are valued. This recommendation has been a recommendation for the last two certification reviews and has not been resolved. It is now a Corrective Action for this current review.

Previous Recommendation:

2. Both NCDOT and DCHC are encouraged to continue to seek every opportunity to integrate environmental considerations into early systems planning.

Findings:

The transportation planning process involves identifying deficiencies in the transportation system by modeling and forecasting techniques. The analysis results in the development of an overall transportation plan that includes consideration of the physical, natural, social, and economic environment. During the last LRTP update, the DCHC MPO evaluated the environmental and social impacts of various alternative transportation plans by quantifying impacts such as wetlands, historic sites, endangered species, and neighborhood/community displacement and relocation. Also with the new SAFETEA-LU requirements, the MPOs are preparing to integrate environmental elements earlier in the planning

process. There are recommendations to continue this process.

Previous Recommendation:

3. DCHC should be able to show some progress toward securing the forecasted revenues identified in the draft LRTP by the next plan update.

Findings:

In the previous review, the DCHC MPO staff expressed their continued concern regarding financial forecasts used to fiscally constrain their LRTP and their desire for the NCDOT to provide more input into these forecasts. This concern is a carry over from previous certification reviews and remains a strong recommendation that both NCDOT and DCHC collaborate on developing financial forecasts and document the process.

Previous Recommendation:

4. The transit operators in the metropolitan area are encouraged to develop short-range transit operating and financing plans that identify capital needs and proposed funding sources.

Findings:

Developing these short-range transit operating and financing plans will identify capital needs and the proposed funding sources. The operators are encouraged to work closely with the DCHC MPO in the development of these plans and to have them endorsed by the TAC and their local governing authorities.

Previous Recommendation:

5. The DCHC MPO should continue to consider the use of Surface Transportation Program (STP) funds for purposes other than highway projects.

Findings:

This recommendation continues in the current certification. DCHC is looking to use STP funds for transit and bicycle/pedestrian projects and NCDOT is encouraged to work with the MPOs to ensure that there are other options for STP funds other than highway projects. DCHC has proposed recommended use of the STP funds for non-highway projects, however few have been supported by NCDOT.

Previous Recommendation:

6. It is recommended that the DCHC MPO continue to pursue the implementation of ITS projects.

Findings:

Intelligent Transportation Systems (ITS) are a critical element in reducing congestion and consequentially reducing the impacts on air quality. NCDOT, DCHC, and CAMPO (Capital Area MPO) have developed an ITS regional plan.

We encourage NCDOT and DCHC to continue these efforts and acknowledge their good work.

Previous Recommendation:

7. The DCHC MPO should continue to seek opportunities to add additional minority groups to their public involvement mailing list.

Findings:

As demographics change in North Carolina, there is a constant need to update this information to ensure that outreach is provided to all populations. There are recommendations in the current review to document procedures, which will help determine whether the needs of all demographics are being met.

Previous Recommendation:

8. It is recommended that the DCHC MPO consider consolidating the policies and procedures regarding Title VI and Environmental Justice into one document.

Findings:

This Recommendation was not addressed and is now a Corrective Action in the current review. The main concern is the lack of documentation. Without documentation, it is difficult to adjust and build upon the current system. In other words, it is very difficult to improve the current system without documentation to outline the current processes.

Current Review: FHWA/FTA EMPHASIS AREAS

Boundaries & Agreements

The planning process is being conducted in accordance with a Memorandum of Understanding (MOU) that was updated in 1994. The planning staff of the DCHC MPO plans to update the MOU if there is an expansion of the MPO. However, TTA is not a part of the MOU; they have membership but are not signatories. There is also no formal agreement for 5307 funding (see Transit section). SAFETEA-LU now requires that all significant documents be made available via the web. Therefore, a recommendation is listed below requesting that these documents be published on the web.

The metropolitan area boundary (MAB) has been smoothed to follow major roads; however it has not been expanded. DCHC is currently considering expanding its MAB to include Roxboro, Butner, and Stem, as well as Pittsboro and the rest of Orange County.

There is one recommendation. The new SAFETEA-LU regulations have been released and must be implemented before any LRTP or TIP updates can be made. This recommendation is to ensure that all partners (FHWA, MPO, and NCDOT) work together to implement these regulations.

Recommendations:

1. **DCHC** and **NCDOT** should ensure that all policies and procedures are available on the web.
 - SAFETEA-LU requires that all documents are available via the World Wide Web. DCHC has been proactive about ensuring that their website is easily accessible and up-to-date and that documents are available. NCDOT recently updated their web site and should check to ensure that important documents (such as PIPs, LRTPs, TIPs, UPWPs, etc.) and policies are available in order to be SAFETEA-LU compliant. It was also suggested that DCHC create TCC/TAC by-laws which would ask participation from all members and/or evaluate ways to increase attendance at meetings.

Organization, 3C Process, and Self-Certification

The organizational structure of DCHC comprises of Technical Coordinating Committee (TCC) members, which refer to the MPO technical staff; the Transportation Advisory Committee (TAC) members, which refer to the decision makers; and partners (NCDOT, FHWA/FTA, Transit Operators, et al.). Discussion was raised regarding the efficiency of TCC and TAC meetings. Oftentimes, the agenda is not completed, requiring those who are at the end of the agenda to return the following month. Even though this was explained as a unique trait of DCHC, the review team still maintains that both the TCC and TAC meetings should be both more efficient and effective.

The Region should also be commended for its outstanding work, primarily through the efforts of the Triangle J Council of Governments RPO (Triangle J) and the two MPOs (CAMPO and DCHC). Regional efforts include modeling, land use forecasting, ITS, air quality conformity, and local revenue options/financing. Because of these cooperative efforts, Regional analysis and partnering has been able to take place. This facilitation by Triangle J and Triangle Transit Authority have improved coordination and communication between DCHC and CAMPO (Capital Area MPO), improved efforts toward the Regional Transit Administration, air quality efforts, and regional planning in general.

There is one corrective action: the NCDOT Transportation Planning Branch Coordinator position for DCHC has been vacant since September 2005. It is difficult for DCHC to effectively do its job without a coordinator. At times the NCDOT has subsequently filled this position, however we recommend that NCDOT ensure that this position remains filled.

There are four recommendations. The first complies with new SAFETEA-LU requirements and recommends DCHC develop a consultation plan for the Resource Agencies to ensure that all appropriate parties have an opportunity to participate early in the planning process.

The second recommendation refers to both NCDOT and DCHC to collaborate on financial forecasting and document the process. This will ensure that methods are up-to-date and have MPO buy-in.

The third recommendation is a strong recommendation for NCDOT to include DCHC in the design phase of the project. Oftentimes, there has been no communication between the design team and the MPO and the design concept comes back to the MPO with a different scope. For example, if the vision plan from DCHC has public input and the public is looking to have more sidewalks and bicycle/pedestrian facilities, then projects should reflect this. However, NCDOT has a separate methodology that is not taking these needs into account and the project design may or may not reflect the original intent.

The final recommendation is for NCDOT to make financial planning and forecasting more transparent and abide more by the 3C Process of partnership and collaboration.

There is one commendation. The Triangle J Council of Governments has done an outstanding job as the regional coordinator for the Triangle Area transportation conformity process. The Triangle Area transportation partners (CAMPO, DCHC, Triangle J, and the Triangle Transit Authority) are also to be commended for their communication, responsiveness and timely completion of project tasks. The Triangle Area transportation conformity process is a model for how this process should work in North Carolina.

Corrective Actions:

1. **NCDOT** shall appoint a full-time MPO Coordinator for DCHC.
 - DCHC has been without a NCDOT MPO Coordinator since September 2005. Although a number of attempts have been made by NCDOT to fill positions, there have been a number of obstacles that have hindered the hiring process, including salary caps and degree constraints.

Recommendations:

1. **DCHC** should consider expanding the TCC to include Resource Agencies. Should DCHC not expand the TCC to include Resource Agencies, they should develop other methods for involving Resource Agencies in the planning process. NCDOT shall increase their Stakeholder involvement, document their participation and procedures to encourage effective involvement.
 - New SAFETEA-LU requirements necessitate that Resource Agencies shall be incorporated early into the transportation planning process. This recommendation would help to ensure that DCHC is adequately collaborating with Resource Agencies and would help to ensure that they are SAFETEA-LU compliant.

2. **NCDOT** and **DCHC** and **FHWA** should collaborate in financial forecasting and document the step-by-step process.
 - The planning process should be a 3C process, where planning decisions are made collaboratively. However, the current practice has allowed that NCDOT distribute financial forecasts without consulting the MPOs or without adequate explanation.
3. **NCDOT** should involve the MPOs early on in the Design phase and be considerate of design and scope of locally-preferred alternatives (articulate CSS NCDOT vision and follow it).
 - Many of the designs that DCHC has submitted to NCDOT for the design phase have come back outside the original scope and vision of DCHC. This complicates many aspects, including the Public Involvement process, for DCHC is unable to reflect the vision shared and agreed upon that it presented to the public. Therefore, we strongly recommend that NCDOT and DCHC work together collaboratively throughout the Design phase to ensure that each project reflects the original vision submitted by DCHC.
4. **NCDOT** should explore ways to make financial planning and forecasting issues more transparent to MPOs.
 - Financial planning has been somewhat of a mystery to the MPOs in understanding how funding determinations are made. Therefore we recommend that the process be more transparent and abide more by the 3C Process: Continuing, Collaborative, and Cooperative.

Commendations:

1. The **Triangle Region** is commended for its outstanding coordination and cooperative process.
 - The region (including, DCHC, NCDOT, CAMPO, and Triangle J COG, as well as FHWA, FTA, and NCTA shall be commended for its outstanding cooperation and coordination, primarily through the efforts of John Hodges-Copple of Triangle J Council of Governments for developing and monitoring the air quality conformity determination process.

Unified Planning Work Program

Unified Planning Work Programs (UPWPs) are designed to outline and discuss the planning priorities facing the MPO within a one-year planning period, regardless of funding sources. The UPWP should provide sufficient detail indicating who will perform the work, the schedule for completing it, and the end product. A secondary purpose of the Prospectus is to provide sufficient documentation of planning work tasks and the planning organization and procedures so that documentation is minimized in the required annual planning work program. The Prospectus for the DCHC MPO was adopted by the MPO on May 10, 2006. The lead planning agency (City of Durham, Transportation Division) solicits proposed planning tasks from the MPO member

participants and either does the task for the member jurisdiction or makes Federal planning funds available to that jurisdiction to accomplish the work task itself. The DCHC MPO planning staff felt that the UPWP is addressing the area's planning priorities.

Long Range Transportation Plan

The LRTP is required to demonstrate the overall long-term goals for an MPO area's plans, forecasting 20-30 years ahead for transportation needs. Other aspects that are required regarding LRTPs are: projects should support the economic vitality of MPO area by enabling competitiveness, productivity, and efficiency; increase safety and security of the transportation system; increase mobility options available for people and the movement of goods and services; protect and enhance the environment and increase the quality of life of transportation users; enhance the integration and connectivity for people and freight; promote efficient system management and operations; and preserve and improve the existing transportation system.

There are several recommendations regarding the LRTP. The first encourages DCHC to address Safety, systems operations, and system preservation as stand-alone sections in the LRTP. Safety is not necessarily an effect of other considerations (more detail in the Safety section).

The second recommendation is to have DCHC incorporate additional measures that may be useful in identifying impacts.

The third recommendation is to develop a system that would analyze investments to make sure that they are making the best decisions on project selection.

The fourth recommendation is in regards to life cycle costs for the LRTP, which is the cost of the project from the time when it is let to the time which it is completed. This recommendation is to address the need for fiscal constraint. NCDOT has provided financial forecasts for 15 years, but should aim for a 20-year forecast for the MPO to be able to implement it correctly.

The fifth recommendation refers to the new SAFETEA-LU regulations. SAFETEA-LU which was adopted February 14, 2007 and has an implementation date of July 1, 2007 requires that all LRTPs be SAFETEA-LU compliant before any amendments can be made.

The final recommendation is to develop a Purpose and Need statement as an outgrowth of LRP Priority Projects. This should be developed cooperatively with DCHC to ensure that the scope of the project is clearly understood and agreed upon by all parties involved.

Recommendations:

1. **DCHC** should address Safety, systems operations, system preservation, and the State Highway Safety Plan in their LRTP.
 - The purpose is to encourage all of these areas as stand-alone factors that are individually addressed in the LRTP. For each section, discrete projects should be individually identified.
2. **DCHC** should incorporate additional measures that may be useful in identifying impacts, both positive and negative.
 - This recommendation is to encourage DCHC to expand its list of measures that it looks at in order to determine positive and negative impacts of project selection. This should also determine that your TIP is meeting the overall goal of your LRTP.
3. **DCHC** should be more systematic in performance measures and make sure investments are yielding the expected dividends.
 - There doesn't seem to be a tracking mechanism to track investments to ensure that they are successful endeavors. DCHC needs to develop a calibration system that would analyze investments to make sure that they are making the best decisions on project selection.
4. **DCHC** and **NCDOT** should use life-cycle costs for the LRTP as part of the decision making process.
 - NCDOT and DCHC shall estimate and more accurately assess the overall costs for the life of the project. Estimates tend to be low which gives the policy makers and the public a false sense that more projects can be let than is reasonable. DCHC works within three different divisions and this complicates funding allocation which makes forecasting extremely difficult.
5. **DCHC** and **NCDOT** should update plans and processes to reflect SAFETEA-LU.
 - DCHC shall demonstrate what new legislative changes are in effect or will be soon implemented (SAFETEA-LU).
6. **NCDOT** should develop a Purpose and Need (P/N) statement as an outgrowth of the LRP in cooperation with MPO's high priority projects.
 - This recommendation stems from the varying and inconsistent Purpose and Needs statements. This recommendation's intent is for the State to build upon the training and workshops that FHWA has given and will give in the near future. This recommendation could be accomplished through the development of the mutually adopted Comprehensive Transportation Plan (CTP) which the MPOs, NCDOT, FHWA, and agency partners are currently working toward.

Transportation Improvement Program & Statewide Transportation Improvement Program

The latest 2007-2013 Transportation Improvement Program (TIP) was adopted by the MPO on May 9, 2007. That program was effective for the Federal fiscal year beginning October 1, 2005 for a period of two years. The projects in the local TIP are compatible with the STIP which also became effective on October 1, 2005 for a period of two years. The TIP and the STIP are currently in the process of being updated to be effective for a seven-year State period (two-year federal) beginning October 1, 2007. Work has also begun to update the LRTP, LRP (State LRP), TIP, and STIP to be SAFETEA-LU compliant.

North Carolina State law requires the NCDOT to balance the program in accordance with a statewide equity formula. After this is complete the NCBOT (North Carolina Board of Transportation) releases a draft of the STIP for public review. Each MPO is provided an updated list of project schedules and costs from the previous STIP along with two additional years of projects added onto the end of the program. This information is intended to be used by the MPOs to update their local TIPs and to be used as the basis for negotiation of priorities for funding.

The transit portion of the STIP and TIP is updated through a slightly different process. Transportation Management Areas (TMAs), like DCHC, receive an apportionment directly from the Federal transit Administration. NCDOT relies on the local area to submit project data proposing the use of these funds for inclusion in the STIP. The rest of an area's transit facility needs are met by application for transit discretionary funds. Because of the uncertainty of receiving discretionary funding, projects proposing the use of these funds are shown in the STIP as unfunded. If an area receives approval of a discretionary grant, the STIP is then revised.

There are four recommendations. The first recommendation is for DCHC to incorporate the statewide element of the STIP into the TIP. This element includes general funds for bicycle/pedestrian, transit, ITS, etc. These are sometimes unfunded projects but when the State has additional funding available, these "minor" projects will have funding available. If the MPO opts not to have this section in their TIP, they lose out on potentially funded projects.

The second recommendation refers to the current Level of Service (LOS) standard that DCHC uses for all the facilities. While the LOS E DCHC uses may be appropriate for one roadway facility, it may not be for all roadway facilities.

The third recommendation is for NCDOT to give equal consideration in terms of funding, maintenance, and liability. These projects are often in the plans but are not allocated and ensured of funding.

The fourth recommendation is for NCDOT to follow the outlined STIP Public Involvement Process with the MPOs. This is to coordinate earlier with the MPOs in creating cooperating TIPs/STIPs. The original purpose of the STIP moving from a one-year process to a two-year process is so the MPOs have more involvement in the

creation of the STIP.

Recommendations:

1. **DCHC** should incorporate the statewide portion of the STIP into the TIP.
 - This recommendation is based on general funds that the State has for bicycle/pedestrian facilities, etc. If this section exists in the STIP without appearing in the TIP, then MPOs will lose out on this available funding. This source of funding is applies to many projects and only requires a generic line item description.
2. **DCHC** should incorporate locally funded projects (as required under ISTEA) into the TIP.
 - This recommendation is to ensure that there is a complete picture of projects occurring in the TIP. Without the inclusion of locally-funded projects, there is an unclear and incomplete vision for the metropolitan area.
3. **NCDOT** should give bicycle/pedestrian modes equal consideration in terms of funding, maintenance, and liability.
 - We recommend that NCDOT give equal priority to bicycle/pedestrian facilities in order to better reflect and represent the needs and visions of the MPOs.
4. **NCDOT** should follow the outlined STIP Public Involvement Process with MPOs by allowing for more input from the MPOs.
 - This is to coordinate earlier with the MPOs in creating cooperating TIPs/STIPs. As the process stands, MPOs request a one-on-one session where it is generally to make sure the TIP lines up with the STIP, instead of having a time-permissive cooperative process.

Planning and Surface Transportation Funds

This is a general section that covers financing and Surface Transportation Program-Direct Apportionment (STP-DA), State Planning and Research (SPR) funds, and Planning (PL) funds. STP-DA funds provide flexible funding that may be used by MPOs for projects under 23 USC 303. SPR funds are the 2% of funds apportioned or allocated to a State DOT for activities authorized under 23 USC 505. PL funds are the 1.5% of funds authorized under 23 USC 104(f) to carry out the provisions under 23 USC 134. There is a recommendation related to this section but it is listed under the Transit section.

Freight and Congestion Management Systems

Freight looks to the efficient movement of services and goods. In the past, freight considerations have been lacking but with new SAFETEA-LU requirements, freight concerns and issues are being incorporated into the planning process. The one

recommendation for freight is for DCHC to update their planning process to be SAFETEA-LU compliant. The first aspect to incorporate is integrating freight as a stand alone section in the LRTP. The second is to include the freight shippers and freight community into the planning process and include them on the stakeholder's list. The last subpart is to consider freight mobility as a project ranking criteria. This, as should Safety, be an individual ranking criterion, instead of assumed under other areas.

The Congestion Management System is a systematic process for defining what levels of congestion are acceptable to the community.

There is one recommendation: DCHC should incorporate a freight element into their plan, the freight community into their planning process, and consider a freight ranking criteria for project selection. Freight is one of the fastest growing concerns in transportation planning. The national practice has not evaluated freight as a stand-alone process and we are beginning to feel the impacts that freight creates, yet without an avenue to accurately assess its impacts.

Recommendations:

1. **DCHC** should incorporate the following freight aspects into their planning process:
 - a. DCHC shall integrate freight as an integral part of the Plan.
 1. SAFETEA-LU requires that freight be an integral part of the LRTP. In order to be compliant, DCHC must demonstrate the importance of and efforts toward freight as a stand-alone process.
 - b. DCHC shall include the freight community into the planning process.
 1. As part of the compliance with SAFETEA-LU, DCHC shall include Resource Agencies early into the planning process. However, this recommendation is to ensure that the freight community is included in DCHC's planning process.
 - c. DCHC shall consider freight mobility in the project-ranking criteria.
 1. DCHC shall incorporate freight and its impact on transportation as a stand-alone factor in its project-ranking criteria.

Operations Management and Intelligent Transportation Systems

The DCHC MPO is working jointly with the NCDOT, CAMPO (Capital Area MPO) and private consultants and has developed a framework of ITS initiatives that will help reduce congestion and enhance safety. The initiatives include the installation of a new traffic control system in the area that will allow for regional coordination along interstate and other arterial routes. ITS transit initiatives being considered include automated vehicle locator, automated passenger counters, mobile data terminals, electronic fare collection, signal preemption, and passenger dispatch for paratransit service. Video surveillance of traffic and message boards to alert motorists of conditions in advance of slowdowns are already in place at a number of locations along the NC 147, US 15-501, I-40 and I-85 corridors. The NCDOT has initiated a Statewide ITS Program consistent

with the national ITS architecture. They are working with the MPOs as well as other areas of the State to consider available technologies and to listen to what area needs are.

The Durham County officials have a transportation demand management (TDM) plan aimed at reducing the number of single occupant vehicles (SOV) during rush hour and to encourage car pools, mass transit usage and telecommuting. MPO staff works with the businesses with at least 100 employees. Each company develops its own plan to reduce the number of single occupancy vehicle trips during rush hour and the number of miles driven to and from work. Options to reduce SOV commuting could include incentives such as special car-pool parking, bus shelters, bicycle racks and showers, transit passes and telecommuting. The TDM measure is voluntary and is currently being considered by other areas in the region.

There is one recommendation that DCHC continue its implementation of ITS projects. ITS is one of the most cost-effective ways of reducing negative impacts brought on in non-Attainment areas. DCHC has already made strong efforts in this area and we urge them to continue in this arena.

Recommendation:

DCHC should continue to pursue the implementation of ITS projects.

- Upgrading Intelligent Transportation Systems (ITS) is one of the most efficient and effective ways of reducing negative impacts from Air Quality particulate matters (PM). We encourage DCHC to continue and build upon the strong efforts already put forth in developing and implementing ITS systems throughout the region.

Safety

In FY 2006 funds, SAEFTEA-LU elevated the Highway Safety Improvement Plan (HSIP) to a stand-alone core Federal-aid highway safety program. This change creates an agenda with a renewed call for data-driven, strategic highway safety programs focusing on results, and provides increased flexibility in State funding for safety. It expands the types of projects that can be defined as a highway safety improvement project by including non-infrastructure related activities such as safety conscious planning and selected public awareness, education, and enforcement activities. As part of the HSIP, State departments of transportation are to develop Strategic Highway Safety Plans (SHSPs) in consultation with other key State and local highway safety stakeholders. An SHSP is to be based on accurate and timely safety information systems, processes to analyze this information to identify highway safety problems and opportunities, and planning and implementation of a comprehensive set of countermeasures.

There is one recommendation. In the past, DCHC has addressed safety in terms of considering that it is part of all areas, rather than looking at it from a stand alone basis. This leads to assumptions that may be false and doesn't focus on whether safety has

actually been addressed with project selection. Because of the magnitude and importance of safety, the recommendation is for DCHC to incorporate safety as a stand alone element in project prioritization in the Long Range Transportation Plan (LRTP), which should be weighted as well as routinely assessed to measure its effectiveness.

Recommendation:

1. **DCHC** shall incorporate Safety as a stand alone element in project prioritization in the LRTP.
 - The current process shows that DCHC assumes Safety as an element in TIP prioritization but not in prioritization of the Long Range Transportation Plan. This is automatically incorporated, yet does not have any performance measures in place to evaluate the effectiveness and impacts on Safety.

Environment

The Environmental process maintains to closely monitor and limit the impacts on the community, the natural environment, and our health and welfare. Each project undergoes the National Environmental Policy Act (NEPA) process to evaluate impacts associated impacts. The Federal Highway Administration (FHWA) has identified three "Vital Few" priority areas to help focus the agency's activities: safety, congestion mitigation, and environmental stewardship & streamlining (ESS).

As a primary funding source for the MPO's transportation projects, it's important to ensure that the MPO is helping FHWA to achieve the ESS goals and objectives (<http://environment.fhwa.dot.gov/strmlng/vfovervw.asp>). The purposes of this recommendation are to: make the MPO aware of FHWA's Vital Few ESS priority area; ensure that the MPO considers the ESS goals and objectives in the decision-making process; and ensure that the MPO documents how their decisions assist FHWA in meeting the ESS goals and objectives.

There is one recommendation for DCHC to document how they are assisting in meeting FHWA's goals and objectives in environmental streamlining. The environmental process, until recently, has been largely separated from the planning process. However, in our efforts to streamline efforts, guidance has been implemented to involve environmental planning early on to save on time and money.

Recommendations:

1. **DCHC** should articulate how they are assisting in FHWA's environmental streamlining goals and objectives.
 - This should be a documented procedure of how DCHC utilizes environmental goals and objectives, improves upon them, and what the measures are that are used to ensure that these procedures are being improved upon.

Air Quality

The DCHC MPO currently has a conforming 2030 LRTP and a 2006-2012 TIP. The USDOT transportation conformity determination was made on the DCHC 2030 LRTP on June 15, 2005 and the 2006-2012 TIP on November 14, 2005. The transportation conformity determination on the DCHC 2030 LRTP amendment and the 2007-2013 TIP is due by June 30, 2007.

The transportation conformity work on the DCHC 2030 LRTP amendment and the 2007-2013 TIP is currently underway. The Triangle Area has had 8 interagency consultation (IC) meetings that focused on the 2030 LRTP amendments, the 2007-2013 TIP, the transportation conformity schedule and tasks to be performed by Triangle Area MPOs and the IC agency partners. The DCHC TAC is expected to endorse the 2030 LRTP amendments, the 2007-2013 TIP and the associated transportation conformity determination on May 9, 2007.

Work is underway on the DCHC 2035 LRTP update that is due by June 15, 2009. The travel demand model platform is changing from TRANPLAN to TransCAD. It is expected that TransCAD will be used for the 2035 LRTP update. The latest planning assumptions (LPAs) are currently being revised. The household/employment, traffic count, and population will come from 2005 data. The transit ridership counts will come from 2005/2006 data and parking information will come from 2006 data. It is expected that the DCHC MPO TAC will approve the LPAs in August 2007.

The DCHC MPO asked a question about the latest CMAQ rescission and how it will impact the current CMAQ program. For the FY 2007 rescission which totaled approximately 97 million the NCDOT took 20 million dollars from the CMAQ program. It anticipated that this rescission will not impact the currently programmed CMAQ projects.

There are two recommendations. The first is for DCHC to continue its path to complete TIP conformity. In the last review, DCHC had failed to meet the deadline, resulting in a conformity lapse. They have worked to create a better timeline for completing this process. This recommendation is to ensure that these efforts continue.

The second recommendation is for FHWA to address the CMAQ questions DCHC has. FHWA will look into the rescissions and analyze how much of the CMAQ funding was eliminated from the NCDOT budget in order to make the overall rescission cuts.

Recommendations:

1. **DCHC** should continue its path to complete TIP conformity.
 - The DCHC MPO should continue their efforts on completing the transportation conformity work on the 2030 LRTP amendments and the 2007-2013 TIP by June 30, 2007. The DCHC MPO will also need to focus on the work and task deadlines associated with the 2035 LRTP update

along with the transportation conformity process to ensure that the work is completed by June 15, 2009.

2. **FHWA** will examine CMAQ questions DCHC has.
 - For the FY 07 rescission which totaled approximately 97 million the NCDOT took 20 million dollars from the CMAQ program. It anticipated that this rescission will not impact the currently programmed CMAQ projects hoop.

Transit

There are three public transit systems providing service in the DCHC area. These include Chapel Hill Transit (CHT), Durham Area Transit Authority (DATA) and the Triangle Transit Authority (TTA). The following provides a summary of each:

CHT

Chapel Hill Transit (CHT) began service in 1974 and serves the cities of Chapel Hill and Carrboro and the University of North Carolina at Chapel Hill (UNC). The system currently has 70 regular buses with 17 fixed routes providing “fare free” service. Following the beginning of the “fare free” feature in 2002, ridership greatly increased and has been growing at an annual rate of about 2-3% from 2005 to 2006. The CHT system reports 26,000 daily boardings and an estimated 6 million annual trips. The system operates fixed route service from 5am to 1am on weekdays with limited night and weekend service. Local and express service from park and ride lots and para-transit services are also provided. Chapel Hill, Carrboro, and UNC support the CHT system financially allowing the fare-free system to function, and also pursue land use and parking plans and policies that support transit oriented development (TOD). CHT also receives Federal 5307 funds. Reported CHT challenges include few choice and non-university riders, limited evening and weekend service, and no regional para-transit service beyond its service area.

DATA

Durham Area Transit Authority (DATA) has operated since 1991 and serves the city of Durham. DATA operates 39 buses and reports 14,000 daily boardings and more than 4 million annual trips with 19 fixed routes offered from 5 AM to 12 AM, 364 days a year. DATA offers free service for children 12 and under, seniors 65 and over, and reduced fares for school kids aged 13 to 17, disabled riders, and persons purchasing monthly passes. DATA also serves Duke University and its regional hospital and provides more than 350 para-transit trips per day and a subsidized taxi service for disabled riders. To improve para-transit service, DATA and TTA are working to start a regional call center to schedule a trip appointment. Plans also include a pro-rata cost sharing for para-transit trips between DATA and TTA (CHT is currently not planning to participate). For example, a disabled person from Chapel Hill trying to go to Duke University Hospital in Durham must change/switch services at the city limits or use TTA para-transit services. DATA has an Ambassador Program to solicit reports, ideas and input from a number of

persons selected by application to provide quality assurance input and these individuals receive free passes for up to one year for their work and reports. DATA is supported by the City of Durham, the state, Federal 5307 funds and fare revenues. Reported challenges include ridership growth levels less than half of what was projected in its Transit Development Plan (TDP), local funding issues and levels, lower densities on some peripheral routes, and security issues.

TTA

The Triangle Transit Authority (TTA) was formed in 1989. TTA provides regional express bus service to the Research Triangle Park (RTP), Raleigh Durham Airport (RDU) area and to major employers, universities, and hospitals in the region. Peak hour regional and express service, vanpools, and shuttles are a major emphasis for TTA, and para-transit service is also provided. TTA operates 65 buses on 22 fixed routes (as well as 65 van pools and various shuttle routes) and reported about 1.2 million annual trips (including van pools) in 2006. TTA reports about 6% to 8% annual growth in bus ridership from 2005 to 2006 with van pool ridership growing at an impressive 18% annual increase. TTA is supported by three county governments including Orange, Wake and Durham counties, a rental car tax, vehicle registration fee, Federal 5307 funds, fare box revenues, as well as corporate sponsorships and government/employer agreements. TTA is also presently involved in a regional trip commute reduction program, a regional rideshare program administering a trip reduction ordinance which requires businesses employing 100 or more persons to develop plans and goals for their organization to reduce SOV trips, a methodology to improve regional modeling for transit with a migration to TransCad, a high capacity transit service study with CHT, corridor route reviews, and amenity and vehicle upgrades. TTA is involved in development of a fixed guideway transit (rail) project which is currently undergoing re-evaluation. Challenges for TTA include the future of its rail project, possible use of the car rental tax and vehicle registration fees for regional mobility and bus service, relatively low density service areas, land use patterns, length of the commute, and developing amenities to attract choice riders. Opportunities include leading possible Smart Card technology development and regional mobility choice options, and HOV and high capacity transit/BRT and transit corridor development.

Planning & Public Involvement

All three transit providers report regular involvement in the MPO's TCC meetings, regular and frequent MPO and transit meetings, a written sub-allocation agreement for Federal 5307 funds, public meetings and surveys on routes and service changes, LRTP and TIP formation, and data sharing and participation in a regional trip planner service via the internet at www.gotriangle.org. All three providers are involved in preparing/updating Transit Development Plans (TDP). In addition, all transit services are involved in Coordinated Mobility planning with human service providers, the MPO and the City of Durham as the designated recipient (JARC, New Freedom and United We Ride programs). DCHC and CAMPO have created a 35 member Special Transit Advisory Commission (STAC) to develop a regional transit vision for the Triangle. A high level of cooperation among the transit providers and the MPO appears to be evident.

Security

DATA has perhaps the most well developed security plan with local police, private security and on board cameras on buses and some training for drivers and personnel. CHT and TTA did not believe they were currently involved in a security training program. TTA and CHT also have security plans but do not have cameras on buses.

CMAQ Funding

All three services reported an issue with uncertain CMAQ funding and a lack of follow through by NCDOT in programming CMAQ funds for bus replacement. The transit services reportedly use CMAQ funds for bus replacement. The uncertain status of the CMAQ program was a concern for them. This discussion is based both on rescissions as well as limitations to CMAQ spending. To address the first point, rescissions are taken from unused funds that are closest to expiring. In the past few years, many of these have been CMAQ funds. To address the second point, the transit agencies find it problematic to use funds annually to purchase buses instead of pooling funds to purchase buses on a larger contract. However, rescissions can be somewhat unpredictable and are estimated as best as possible.

STP Funding for Transportation Alternatives

Chapel Hill MPO representatives indicated they did not intend to implement additional highway projects in their city. As such, they intend to request STP funds for transportation alternatives to make up for any roadway funds they may forego in the future due to their emphasis on alternatives. They indicated a keen interest in high capacity transit and Bus Rapid Transit (BRT) in key road corridors as an alternative to road widening.

There are two recommendations. The first recommendation is for DCHC and NCDOT to improve security planning, coordination, and training of transit facilities. This is due to the new SAFETEA-LU regulations that require increased security systems. This recommendation is for DCHC to assess how secure their transit systems are and to evaluate what areas need increased security measures.

The second recommendation is for the transit operators to continue developing short-range transit operating and finance plans. This process helps to streamline transit planning and to lower the risk of determining needs that cannot be financially met.

There are three commendations. The first commendation is to DCHC in its efforts in implementing a regional call center, cost-sharing, and being voted a Best Place Work Place for Commuters designation by the Environmental Protection Agency (EPA). TTA is supported by three county governments, a rental car tax and vehicle registration fee in three counties (Wake, Durham, and Orange), Federal 5307 funds, fare box revenues, as well as corporate sponsorships and government/employer agreements. TTA is also presently involved in a regional trip commute reduction program, a regional rideshare

program administering a trip reduction ordinance in Durham which requires businesses employing 100 or more persons to develop plans and goals for their organization to reduce SOV trips. Integrating transit options with the support of the Research Triangle Park (RTP) has awarded DCHC a Best Place Work Place for Commuters award.

The second commendation is to DCHC in their innovations as to providing transit options. DCHC is currently entertaining such cutting-edge techniques as Smart Card technology development, regional mobility choice options, HOV and high capacity transit/BRT, transit-supportive land use, and transit corridor development.

The third commendation is for Chapel Hill, Carrboro, and Durham for zoning Transit Oriented Development (TOD) overlays in land use planning. The importance of integrating land use plans to promote proactive as opposed to reactive planning is a growing emphasis in transportation planning. Not only will this reduce costs and maintain that the TIP and STIP remain fiscally constrained, but is also helping to ensure that DCHC will maintain the priorities of transportation options for its constituents.

Recommendations:

1. **DCHC** and **NCDOT** should improve security planning, coordination, and training.
 - SAFETEA-LU requires that Security be considered as a separate planning factor in the planning process. Security mainly represents the safety and security be maintained for transit systems. We recommend at this point that DCHC assess its current security system for transit and determine ways to increase the security and safety of its transit systems.
2. All three of the **transit operators** in the area are encouraged to continue to develop short-range transit operating and financing plans that identify capital needs and the proposed funding sources.
 - The operators are encouraged to work closely with the DCHC MPO in the development of these plans and to have them endorsed by their local governing authorities.

Commendations:

1. **DCHC** is commended for their transit efforts, including:
 - a. Regional Call Center
 - b. Cost-sharing
 - c. Best Work Place for Commuters
2. **DCHC** is commended for their excellent efforts in innovative ways of providing transit opportunities.
 - DCHC provides a number of different options in transit for all of their areas. From CHT to DATA, to the RTP, DCHC is constantly updating and looking for new ways of incorporating transit options at a low cost to the consumer.

3. **Chapel Hill, Carrboro, and Durham** are commended on zoning Transit Oriented Development (TOD) overlays in land use planning.
 - Chapel Hill, Carrboro, and Durham are looking at ways to ensure that land use development is based on a holistic vision that incorporates all of the public needs and plans early for the provision of transportation options.

Bicycle/Pedestrian Facilities and Safe Routes to School

The Bicycle/Pedestrian plan specifically outlines projects and goals toward movement of people using bike/ped facilities to increase multimodal opportunities for people. These facilities reflect both recreational as well as supplemental origin-destination paths.

There is one recommendation. This relates to the Safe Routes to School Coordinator position which has been vacant since fall 2006, and even then for only six months. The Safe Routes program is funded by FHWA and requires a full-time Coordinator. Since the site visit, NCDOT has hired a Safe Routes Coordinator but is strongly encouraged that this position remains filled to ensure that the program will still move forward.

Recommendation:

1. **NCDOT** is encouraged to maintain a full-time Safe Routes to School Coordinator.
 - Safe Routes to School is a fully funded program under FHWA that allocates funds directly to State projects that encourage safety regarding bicycle/pedestrian projects in and around K-8 schools within a two-mile radius. The Coordinator's position was initially vacant for nearly two years with a Coordinator established for a brief six-month period. This position was vacant for nearly a year and finally filled in May 2007. As a result, the program and system for project applications and distribution has not been developed.

Land Use and Economic Development

The only concern expressed during the review dealt with the difficulty of implementing and maintaining local land use plans which is not part of the Memorandum of Understanding (MOU). Therefore the current MOU should serve for the foreseeable future.

There is one recommendation for DCHC to provide updated data and information regarding land use changes. This is to ensure that the MPOs and the State DOT have the most up-to-date information regarding land use planning. This will help us to plan proactively instead of reactively.

Recommendations:

1. **DCHC** should assist NCDOT with modeling land use changes associated with project alternatives on an as-needed basis.
 - DCHC shall work cooperatively with NCDOT to ensure that they have the

most up-to-date information and data as it pertains to land use planning and that land use plans correlate.

Title VI of the Civil Rights Act/Environmental Justice (EJ)

The appropriate time to ensure an MPO's compliance with Executive Order 12898 and Title VI is during the planning certification review. The following is a discussion of DCHC's demographic profile as well as its strategies to address Environmental Justice (EJ) in its planning and public involvement processes. It should first be noted that DCHC is in the process of developing its comprehensive Environmental Justice plan, in addition to updating its LRTP.

The existing demographic profile is based on several sources of information. The primary source of information is the Census CTPP (Census Transportation Planning Package) which uses Transportation Analysis Zones (TAZ) as the unit of geography. As part of the EJ plan update, DCHC will no longer use TAZs, but will instead use census block groups. Per DCHC staff, the reason for the switch is that the TAZs were found to be too small. DCHC feels that census block groups will provide for improved analyses. DCHC has also taken advantage of the American Community Survey as another source of information for its demographic profile.

To identify minority communities, DCHC uses a threshold of 50% of the population within a TAZ. DCHC is encouraged to ensure that the 50% threshold does not overlook those communities that are less than 50% minority but still in fact are cohesive, well-established communities. To identify low income communities, DCHC applies the county average as its threshold. Additionally, DCHC uses data on "mobility limitation" to assist with identifying handicapped and elderly populations, which is commendable. As a crosscheck to the data sources used to identify minority and low income populations, DCHC also references social services information and school system information. Additionally, personal knowledge of the MPO planning area is also very important.

DCHC has historically used two measures to assess benefits and burdens of its transportation system. The first is travel time. A ratio of 1:1.1 is used to compare non-minority and non-low income populations to minority and low income (MLI) populations. The second measure is "population within ½ mile of transit stops." As part of its EJ plan development, DCHC is encouraged to be creative and expand the number and types of measures it uses to analyze benefits and burdens of the transportation system.

DCHC has plotted past and current transportation projects against its demographic profile. To aid analysis of benefits and burdens, DCHC has started to create "buffer" areas around each project which denote where impacts of a project are likely to reach. For past and current projects, no significant impacts to MLI communities were found. Future projects (2035) will also be plotted against demographic information upon completion of the LRTP update.

Regarding DCHC's planning process, Environmental Justice (EJ) will be addressed in several ways. The MPO shall include a policy statement as well as goals and objectives in its EJ plan. The MPO also addresses EJ in the development of its TIP. Ten ranking criteria are used for project selection, one of which takes into account impacts on minority and low income communities. Additionally, in an effort to identify the needs of minority and low income population, the MPO has conducted a travel behavior survey with an income category in the model.

DCHC's efforts at engaging minority and low income citizens in the public involvement process have been met with varied success. DCHC has found project level public involvement to be much more effective than public involvement tied to the planning process in general. While DCHC is careful to hold public meetings at locations and times that are "public" friendly, it was found that DCHC does not conduct regular and routine evaluations of its public involvement efforts.

The MPO maintains a "public involvement" database of citizens and organizations of which EJ is a subset. The MPO has also created a relationship with El Centro – the largest Hispanic group in the area. DCHC also coordinates with "Partners Against Crime." The MPO attends the Partners Against Crime meetings as necessary to share information and attends upon request.

One very noteworthy public involvement effort that the MPO carries out is in the transit area. DATA maintains a transit advisory group that includes transit riders. The transit riders that serve on the group receive a free bus pass for one year as an incentive. DATA uses a selection process to identify those transit riders who will serve on the advisory group. DATA has found this practice to be very successful. There is more information about this under the Transit section.

DCHC specifically addresses environmental justice in its planning and public involvement processes. Additionally, DCHC needs to ensure that the environmental justice plan that it is currently developing is comprehensive.

There are two recommendations. The first recommendation is that DCHC explore additional measures for identifying transportation system benefits and burdens. The plan should also contain a documented public involvement evaluation process and incorporate the following elements: a policy statement; goals and objectives; a demographic profile; overlays of demographic information on defined past, future, and planned projects; measures for identifying burdens and benefits of the MPO's transportation system; an analysis of identified burdens and benefits; and public involvement strategies to engage minority and low-income populations (including Advisory Committee information).

The second recommendation is that DCHC should submit a draft of its EJ plan to FHWA for review and comment. The plan is expected to be completed by the end of the 2007 calendar year. Consequently, DCHC's current demographic profile is somewhat

outdated, and will be updated as part of its EJ plan development.

Recommendations:

1. **DCHC** shall incorporate the following elements into its Environmental Justice (EJ) Plan:
 - a. Policy statement
 - b. Goals and objectives
 - c. Demographic profile
 - d. Overlays of demographic information on defined past, future, and planned projects
 - e. Measures for identifying burdens and benefits of the MPO's transportation system
 - f. An analysis of identified burdens and benefits
 - g. Public involvement strategies to engage minority and low-income populations (including Advisory Committee information)

2. **DCHC** shall submit a draft of their EJ Plan to FHWA for review and comments.
 - The previous Certification Review included two Recommendations that continue to this Certification. One was to consolidate policies and procedures regarding Title VI and Environmental Justice into one document, and the other was to add additional minority groups to their public involvement mailing list.

Public Involvement

Public Involvement incorporates outreach and implementation of public comment and interaction. Several aspects need to be considered when evaluating the effectiveness of the Public Involvement Program: a Public Involvement Plan (PIP) which outlines the full public participation process, updating demographic and socioeconomic data, and means for implementing these procedures; and public involvement under Title VI/Environmental Justice. This section will continue into the public meeting because there are several comments made to support the Corrective Action and the Recommendation.

There are two corrective actions for DCHC to add several components to its PIP. This is a carry over from the previous review. The primary concern results from the series of comments we received regarding citizens feeling as though they had little voice in the planning process. However, the criteria listed below will address and ensure that citizens have a substantial role, and most importantly, that the public involvement process will be calibrated to continue to improve on the process. The second corrective action is a continuation from a recommendation made from the previous (2003) Certification Review. This is for DCHC to formally evaluate the effectiveness of its Public Involvement Program.

There are two corrective actions. The first corrective action is for DCHC to revise the

PIP to include: the public and developers into the process; direct public efforts where needed; develop and document measures for the PIP; develop evaluation criteria; consider implementing an Advisory's Committee; and expand the list of visualization techniques. The last step (f) is a new SAFETEA-LU implementation, however the revision of the PIP is due to past Certification Reviews' recommendations and the slow progress made in this area.

The second corrective action is to develop a formal evaluation process to measure the effectiveness and formally evaluate the public involvement program. Again, this has been a recommendation on past Certification Reviews and has been elevated to a corrective action.

There is one recommendation that DCHC create a Participation Plan in accordance to new SAFETEA-LU regulations. Participation Plans are similar to PIPs required under the previous regulations. The most significant difference is that Participation Plans shall be developed in consultation with interested parties and that these documents outline the approaches chosen by local officials for using electronic media and visualization techniques.

Corrective Actions:

1. **DCHC** shall revise the Public Involvement Plan (PIP) to include:
 - a. Public and developers in the process
 - b. Direct public efforts where needed
 - c. Develop and document measures to develop the PIP
 - d. Develop evaluation criteria
 - e. Consider implementing a Citizen's Advisory Committee
 - f. Expand visualization techniques
2. **DCHC** shall formally evaluate the effectiveness of its Public Involvement Program.
 - The current PIP is lacking in the above mentioned areas and this formal evaluation will be publicly available to ensure that the process continues to improve.

Recommendations:

1. **DCHC** shall create a Participation Plan which documents the use of electronic media and visualization techniques, as required by SAFETEA-LU.
 - This is a new requirement under SAFETEA-LU which requires that a Participation Plane be made in conjunction with "interested parties" (the list of interested parties is available in the SAFETEA-LU guidance document developed by FHWA-NC, as well as outlined in SAFETEA-LU).

Other Meetings and Conclusion

Public Meeting

The Federal review team scheduled and conducted the public meeting for the DCHC Certification Review on March 19, 2007. DCHC advertised the meeting which was an opportunity for the public to comment on the transportation planning process. The public meeting was conducted by the Federal review team. Two individuals attended and addressed the team, as well as several who emailed their comments.

Several of the comments were based on the East End Connector project, where these citizens felt that the majority opinion of the public was not considered, nor was information made available by the staff. There were also a few comments that said that DCHC did not adhere to Title VI. These concerns were addressed in the Public Involvement and Title VI/Environmental Justice sections of the report.

Technical Advisory Committee One-on-One Interviews

The DCHC MPO policy committee members were afforded the opportunity to meet with the Federal review team. Two members met with the review team and provided their comments. One concern was receiving financial information in a timely manner in order to provide the MPO adequate time for decision making. This issue was also addressed throughout the review. Other comments were also financially based, including expansion of funding use for non-highway projects, an outline of rescissions and what programs will receive what funding cuts, as well as a documented process needed for the Equity Formula. Other comments were bicycle/pedestrian related. One comment was project-related regarding a project that has dropped in priority continually. Another comment was made that ITS was the highest priority in the state and that the Transportation Board was not reflecting the needs of the community.

Follow Up

Joint FHWA/FTA actions on future products of the DCHC MPO's planning process, such as approval of the Unified Planning Work Program (UPWP), review of the LRTP update, TIP conformity determinations, and the planning finding on the STIP, will address the progress made in the corrective action noted above. As stated previously, the DCHC MPO urban transportation planning process is certified.

The following is the schedule for completion of corrective actions and recommendations:

Corrective Actions:

The corrective actions for DCHC and NCDOT will be two years from the Certification Review submittal date (approximately June 30, 2007). At this time there will be a follow-up to the review and both DCHC and NCDOT shall provide documentation demonstrating they have fully addressed the corrective actions.

Recommendations:

There will be a follow-up two years after the review submittal date (approximate date July 2009) to ensure that DCHC and NCDOT are following-up on the recommendations assigned to them.

List of Acronyms and Concepts

3C	Continuing, Cooperative, and Coordinative consultation
ADA	Americans with Disabilities Act
AQ	Air Quality
BRT	Bus Rapid Transit
CAMPO	Capital Area Metropolitan Planning Organization
CFR	Code of Federal Regulations
CHT	Chapel Hill Transit
CMAQ	Congestion Mitigation and Air Quality
CMP	Congestion Management Plan
CMS	Congestion Mitigation Systems
COG	Council of Governments
CSS	Context Sensitive Solutions
CTPP	Census Transportation Planning Package
DATA	Durham Area Transit Authority
DBE	Disadvantaged Business Enterprise
DCHC	Durham-Chapel Hill-Carrboro
EJ	Environmental Justice
EPA	Environmental Protection Agency
ESS	Environmental Stewardship and Streamlining
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GIS	Geographical Information Systems
HSIP	Highway Safety Improvement Plan
ITS	Intelligent Transportation Systems
JARC	Job Access and Reverse Commute
K-8	Kindergarten-Eighth grades
LOS	Level of Service
LPA	Latest Planning Assumptions
LRP	Long Range Plan (Statewide, also known simply as the Plan)
LRTP	Long-Range Transportation Plan (local or MPO level)
MAB	Metropolitan Area Boundary
MLI	Minority and Low-Income
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
NCDOT	North Carolina Department of Transportation
NCTA	North Carolina Turnpike Authority
NEPA	National Environmental Policy Act
PIP	Public Involvement Plan
PL	Planning funds
Plan	Statewide Long-Range Transportation Plan (also known as LRTP)
PM	Particulate Matter
P/N	Purpose and Need statement

RPO	Rural Planning Organization
RTP	Research Triangle Park
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act, a Legacy for Users
SHSP	Strategic Highway Safety Plan
SPR	State Planning and Research funds
SOV	Single Occupancy Vehicle
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program funds
STP-DA	Surface Transportation Program-Direct Allocation funds
TAC	Transportation Advisory Committee
TAZ	Traffic Analysis Zones
TCC	Transportation Coordinating Committee
TDM	Travel Demand Management
TIP	Transportation Improvement Program
Title VI	Civil Rights Act of 1964
TMA	Transportation management Area
TOD	Transit Oriented Development
TransCAD	New GIS software for Transportation planning modeling
TRANPLAN	Older version of software used for transportation planning modeling
Triangle J	A voluntary organization of counties and municipalities that address needs on a regional basis (looking at both CAMPO and DCHC MPO)
TTA	Triangle Transit Authority
UNC	University of North Carolina-Chapel Hill
UPWP	Unified Planning Work Program
USC	United States Code
USDOT	United States Department of Transportation

MEMORANDUM

To: Transportation Advisory Committee (TAC)
DCHC MPO

From: DCHC MPO Lead Planning Agency

Date: January 9, 2008

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

This memorandum provides a summary status of tasks for projects in the FY 2007-2008 Unified Planning Work Program.

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

2007-08 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 – February 2008
 - TAC review Land Use Scenarios – March 2008
 - TAC review LRTP Alternatives – March 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.
- Survey 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

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 fall of 2007
- Notice to proceed in January 2008
- Completion of Project expected in Fall of 2008.

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

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

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 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 I (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 - Spring 2008

NCDOT PROJECTS UNDER CONSTRUCTION IN DURHAM COUNTY - 1/1/2008

County	TIP #	Route	Location Description	Contract Amount	Length	Contractor Name	Resident Engineer	RE Ph. #	Contract Completion	Scheduled Progress	Actual Progress	Estimated Completion
Durham, Wake	R-2906A/C	NC-55	WIDENING OF NC-55 FROM NORTH OF US-64 IN WAKE COUNTY TO CORNWALLIS RD.	\$ 34,668,947.33	11.634 miles	Blythe Development Co	Jeff Allen, PE	(919) 678-0444	06/01/2006	100%	100%	2/1/2008
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	Aaron V. Earwood, PE	(919) 220-4680	12/31/2006	100%	99.5%	2/1/2008
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	Bob Shultes	(919) 840-0914	6/15/2008	28.0%	15.5%	6/15/2008
<i>DURHAM</i>	<i>RESURFACING</i>	<i>SECONDARY</i>	<i>21 SECTIONS OF SECONDARY ROADS</i>	<i>\$ -2,795,584.75</i>	<i>18.9 miles</i>	<i>Barnhill Contracting</i>	<i>Bob Shultes</i>	<i>(919) 840-0914</i>	<i>9/1/2007</i>	<i>100%</i>	<i>100%</i>	<i>COMPLETE</i>
DURHAM / WAKE	U-4026A/B 2904	R 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	25.3%	37.5%	11/1/2009
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	20.0%	22.9%	10/1/2008
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.	Aaron V. Earwood, PE	(919) 220-4680	8/1/2010	3.0%	7.0%	8/1/2010

NCDOT PROJECTS FOR LET NEXT 12 MONTHS IN DURHAM COUNTY - 1/1/2008

County	TIP #	Route	Location Description	Contract Estimate	Length	Contact Engineer	Phone #	Contract Let Date
DURHAM	B-3169	RIVERMONT ROAD	BRIDGE 158 ON RIVERMONT ROAD	\$ 550,000.00	0.067 miles	J. MOORE	(919) 250-4016	1/15/2008
DURHAM	U-2055B	NC 55	CONSTRUCTION OF TURN LANES AT RIDDLE ROAD AND NC-55	\$ 223,238.50		B. UPSHAW	(919) 220-4600	spring 2008
DURHAM	U-2055D	AVONDALE DRIVE	CONSTRUCTION OF ROUNDABOUT ON AVONDALE DRIVE	\$ 493,065.78		B. UPSHAW	(919) 220-4600	spring 2008
DURHAM	B-4109	PICKETT ROAD	BRIDGE OVER MUD CREEK	\$ 850,000.00	0.078 miles	D. TAYLOR	(919) 250-4016	5/20/2008

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 - DCHMPO 10/22/08 Attachment 14

County	WBS #	Route	Location Description	Amount	Status
Orange	U-4008 35009.3.2	US 15-501 & SR1734 (Erwin Rd.)	Grading, drainage, paving and intersection improvements (Super Street)	\$4.98 million	68.39% complete; behind schedule
Orange	36945	SR 1010 (Franklin St.) @ Mallette St.	Upgrade traffic signal and install pedestrian signal heads REVISION; Install mast arm	\$110,000.00	POC pending for compl. by 12/31/07
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	Survey requested; funding & R/W limited for roundabout; R/W schedule moved from 1/18/08 to 6/20/08
Orange	SF-4907 C 41698.1	NC 57 @ NC157 near Hillsborough	Install center traffic islands with stop signs on NC 157	\$7,000 PE	Survey requested; R/W schedule moved from 1/18/08 to 6/20/08
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. = low bid; Avail. 4/21/08
Orange	SS-4907 J 41634.3	NC 54 and SR 1945 (Neville Rd.)	Construct a left turn lane	\$187,000.00	DDC PO; Survey compl.; plans underway-need channelization @ U Haul
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.; available 4/15/08
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 pending
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 construct w/ PE certification
Orange	41594	SR 1010 (W. Main St.) @ NC 54	Install pedestrian signal heads and crosswalk markings	\$40,000.00	Crosswalk & wheelchair ramps to be compl. by 12/15/07
Orange	41686	NC 54 @ SR 1102/1951 (Dodson's Crossroads/ Butler Rd.)	Construct left turn lanes in both directions	\$250,000.00	Design underway
Orange	EB-5021 41565.3.1	SR 1780 (Estes Drive) from Hillcrest Dr. to SR 1843 (Seawell School Road)	Add paved shoulders to accommodate bicycles (Widening, milling, guardrail and pavement markings)	\$480,000.00	S.T. Wooten Corp. = 100% complete

ACTIVE NCDOT PROJECTS LOCATED IN ORANGE COUNTY - DCHMPO TC 01/22/08 Attachment 14

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		Let 1/15/08 Avail. 5/12/08 ICD 8/8/08 Compl. 10/31/08
NCDOT PROJECTS CURRENTLY IN 12 MONTH LETTING 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.	\$1.5 million to be revised	Letting to be moved to 1/20/09 to acq. additional funds (\$3 million) for new scope
Orange	B-4218	SR 1730 (Turkey Farm Rd.)	Replace Bridge # 108 over New Hope Creek	\$675,000.00	July 15,2008

Town train stop is in students' minds

BY GINNY HOYLE : The Herald-Sun
ghoyle@heraldsun.com
Dec 10, 2007

CHAPEL HILL -- Some UNC graduate students foresee a "Little Rootie Tootie" in Hillsborough's future.

As part of final presentations, students in the university's Principles of Site Planning and Urban Design class recently designed conceptual proposals for redeveloping the Collins property in Hillsborough -- a spot that is actually in play for redevelopment by Raleigh-based American Asset.

The project also required students to include a passenger rail station on the site -- something that a citizen group in Hillsborough has been actively pursuing.

"It's really becoming clear that we need to seriously plan for alternative plans for getting around this region," said associate professor Tom Campanella, who is also on the Hillsborough Planning Board.

Students Charles Dillard and Phillip Bush alluded to jazz musician Thelonious Monk in the title of their presentation, "A Little Rootie Tootie Coming to Hillsborough."

"We all have something that we love about trains, whether it's an environmentally friendly alternative or a comfortable way to ride," Dillard said. "Hopefully, a new generation of children in Hillsborough will get to experience the sights and sounds of trains."

Students Julie Bjornstad and Chris Leutzinger decided to make the rail station the center of their proposed redevelopment.

Since the pair combined the rail station with an arts center in the same building, the 3-D design was "a little bit grander than what is traditional of train stations today," Leutzinger said.

The four-story building's architecture echoed the arched windows and brick walls of downtown's Gateway Center.

Students Corey Bell, Ester Schwartz and Jen Walker designed a rail station bustling with convenience services, such as day care for parents dropping off children before catching a ride to work.

The students also included a traffic circle for quick drop-off access for buses.

Currently, Amtrak, with funding from the state Department of Transportation, operates the Carolinian and Piedmont trains through Hillsborough without stopping.

Hillsborough once had a small train station, but service there stopped in 1964.

"Ironically though, trains are still a part of daily life in Hillsborough -- part of the auditory life of Hillsborough," Campanella said.

The closest passenger stations are in Burlington and Durham, where the Carolinian stops in each direction on its daily New York City-Charlotte runs, and the Piedmont stops each way on its daily Charlotte-Raleigh trip. They offer connections in Greensboro, Raleigh and elsewhere for travel up and down the East Coast.

The North Carolina Railroad will hold a public information meeting today at 10 a.m. at the Town Barn to discuss a current study under way exploring the feasibility of a commuter line from Goldsboro to Greensboro, which would pass through Hillsborough.

The meeting will be the next step for the citizen group in town and advocates such as the Village Project that have been pushing for rail service in Hillsborough.

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Study explores passenger rail line

BY GINNY HOYLE : The Herald-Sun
ghoyle@heraldsun.com
Dec 11, 2007

HILLSBOROUGH -- Supporters of a railroad stop in Hillsborough came out Monday morning to hear details of a study on the engineering and economic feasibility of using a mostly freight rail corridor to haul passengers.

The study funded by North Carolina Railroad Company -- primarily a single-track freight railroad -- is an attempt to determine infrastructure requirements and costs should the idea of a passenger line be presented in the future.

"It's just pretty impressive that they've even thought about this kind of thing," said Hillsborough resident Art Mines. "There's a growing interest -- you can't miss it. The support is there."

The railroad company has hired HNTB, a national engineering firm, to conduct the "Shared Corridor Track Expansion Study," which considers two markets: Burlington to Greensboro and Goldsboro to Burlington.

In order for freight and commuter rail service to coexist, the following standards must be met: enough capacity for current freight customers, reliability and safety for passengers and improved infrastructure (signal systems, track upgrades, etc.), said Jim Pressler, an engineer with HNTB.

Safety is vital when putting passengers in proximity to freight rails, he said. "Freights are 10,000 feet long -- it takes them a long time to stop," Pressler said.

For the study -- which began in October -- HNTB is currently developing assumptions and data to plug into a computerized model designed by a separate consulting group. A final report is expected to be completed next June.

The engineering firm will run the model, develop infrastructure requirements, examine environmental impacts, look at construction costs and then develop cost estimates for improvements.

For planning efforts

According to N.C. Railroad, the company's freight operations agreement with Norfolk Southern Railway -- a Virginia-based company that controls a major freight railroad -- allows for shared freight and passenger tracks for commuter rail as long as freight-carrying capacity is protected and the commuter rail sponsor foots the bill.

"[Local] commuters literally go in all directions and so many come into Orange County for UNC,"

said Hillsborough Mayor Tom Stevens. "The Triangle has plenty of [commuters], but there's much more bi-directionality here than in other areas."

Pressler reiterated that the study, by assessing the feasibility and additional infrastructure required to operate commuter rail within the freight rail corridor, is intended only to complement and be used in others' planning efforts. Any number of permeations could be made, he said.

Currently, Amtrak, with funding from the state Department of Transportation, operates the Carolinian and Piedmont trains through Hillsborough without stopping.

Hillsborough once had a small train station, but service there stopped in 1964. The closest passenger stations are in Burlington and Durham, where the Carolinian stops in each direction on its daily New York City-Charlotte runs, and the Piedmont stops each way on its daily Charlotte-Raleigh trip. They offer connections in Greensboro, Raleigh and elsewhere for travel up and down the East Coast.

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DOT unfazed by I-40 repairs

Bruce Sicheloff, Staff Writer

The state Department of Transportation says it felt no pain when it was forced by the General Assembly to absorb \$22.4 million in repair costs for a bungled paving job on Interstate 40 in Durham County.

DOT officials could not put their finger Tuesday on any projects that were delayed, jobs that were eliminated or services that were curtailed because of the punitive budget reduction.

DOT had planned to count the paving fix as a cost overrun on an I-40 widening project -- a move that would penalize local residents by subtracting the money from future Triangle road funds. Instead, the legislature embarrassed DOT by subtracting the money from its statewide administrative budget for the next two years, through June 2009.

Mark Foster, DOT's chief financial officer, told a legislative committee Tuesday that the department would absorb the cuts by continuing some economizing steps it had begun three years ago.

Rep. Danny McComas of Wilmington wondered whether DOT needed that money at all.

"If you can generate \$22 million in savings from your administrative budget, [would] that indicate that your budget was inflated by that much?" McComas asked Foster.

Foster said the financial pinch probably kept DOT from doing some things "that maybe we strategically should have. And some of those efforts are reflected in some of the administrative work we have either delayed or not done -- or positions we haven't funded."

He provided no examples. In a telephone interview later, Foster said DOT officials will not be able to say how they absorbed the \$22.4 million hit -- a 6 percent cut from its administrative budget -- until next year when they finish an overhaul of department operations and spending priorities.

The issue arose after DOT engineers were blamed for errors that caused fresh pavement on I-40 to begin crumbling soon after it was applied in 2003 and 2004. The defective concrete was removed this year and replaced with asphalt on a 10.4-mile stretch of I-40.

Bill Rosser, the state highway administrator, said he did not know of anything DOT officials were unable to do because their budget had been cut by \$22.4 million. Rosser's predecessor resigned when DOT admitted its failures on I-40.

"Any time that you defer something, don't spend money on something, there's something probably that you should be doing that goes lacking because you don't have the money to do this," Rosser said Tuesday.

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County questions road widening

By Carolyn Rickard : The Herald-Sun
crickard@heraldsun.com
 Dec 12, 2007

DURHAM -- The county's Board of Commissioners is adding its name to the list of those opposed to aspects of a proposed widening of Hillandale Road, saying it could hurt businesses along the thoroughfare and destroy wooded areas.

The \$10.9 million project would widen Hillandale Road from three lanes to four and add a concrete median from north of I-85 to a little beyond Carver Street.

Businesses and residents along the road have objected, saying the median prevents customers -- and businesses -- from coming into the already struggling Loehmann's Plaza. The commissioners say the widening of the street would cut into wooded areas along parts of the road that buffer neighborhoods.

"There's a lot to think about," said Ellen Reckhow, chairwoman of the commissioners. "There's a mesh of businesses and offices, but you still have single-family homes that will be affected."

The commissioners plan to send a letter to the Transportation Department engineers, citing their concerns. They -- and some 400 residents and business owners who signed a petition on the issue -- say no median is needed. They believe the road would do just as well with five lanes, with a turn lane in the center instead of a median.

At the very least, said Commissioner Lewis Cheek, the median should have several "cuts" where drivers can turn into the other lane.

"Frankly, without the median cuts it would be a terrible situation for all the businesses," Cheek said. "I am not sure the median cuts do much good. It's just a place for people to do a U-turn."

Adding to the concern, a Harris Teeter grocery store has expressed an interest in locating at the Loehmann's Plaza. However, it will only do so if a traffic signal and access is provided.

DOT engineer Jamille Robbins said this week the agency will work with Glenwood Development, which owns the plaza, to allow median breaks and a possible traffic signal

Although many residents and business owners have clamored for DOT to remove the median, Robbins defended the design, saying a four-lane street is safer.

"One of the goals of this project is to provide adequate pedestrian and bicycle movement," he said. "The middle lane is often a suicide lane, with people using it to pass when they shouldn't."

DOT engineers will meet to discuss Hillandale Road on Jan. 31. Removal of the median, Robbins said, will have to be decided by the higher-ups at the DOT.

The DOT estimates that traffic on Hillandale Road could increase by 33 percent by 2030, from 28,500 vehicles per day now to 37,800 then on Hillandale north of I-85.

The DOT plans to accept public comment on the project until Jan. 4.

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Point of View:

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Tax property, build roads?

Michael L. Walden

RALEIGH - Legislation passed this summer by the General Assembly is about to change the debate about roads in North Carolina by shifting it from the statehouse to county courthouses.

Since the 1930s, state government here has been the leader in road construction and maintenance. Whereas in other states an average of 40 percent of road work is financed from local taxes, in North Carolina road work money comes from state taxes or federal revenues.

The dominance of the state government in road transportation is a big reason behind North Carolina's relatively high gasoline tax (14th highest among the states in 2007). The fuel tax is the primary way of financing state road work, whereas local highway spending is funded from sources such as the property tax. So since most of the road work in North Carolina is done by the state level -- and more so than in other states -- it makes sense that our state gas tax is high.

But this is about to change. The new legislation (Senate Bill 1513, signed by Gov. Mike Easley on Aug. 23) reinstates counties as potential road builders in North Carolina.

(The law authorizes counties, at their option, to "acquire land by dedication and acceptance, purchase, or eminent domain and make improvements to portions of the State highway system lying within or outside the county limits utilizing local funds that have been authorized for that purpose.")

Supporters think the change will make transportation policy more responsive to grass-roots needs as highway decisions are shifted out of Raleigh to the 100 county seats. Yet skeptics worry that the new bottom-up highway policy will lead to road "haves" in wealthy counties and road "have-nots" in low-wealth areas.

111

WHATEVER THE RELATIVE MERITS of the pros and cons of the new division of responsibility, I predict the decision-making will gradually shift to counties.

Here's why. The state's gas tax rate is now capped at 29.9 cents per gallon. Given the unpopularity of this tax, it is unlikely to be uncapped anytime soon.

However, as inflation rolls on and the costs of building and maintaining roads increases, the purchasing power of future gas tax revenues (the amount of land, concrete and asphalt the 29.9 cents per gallon can purchase) will erode. And since gas tax revenues make up over half of all state monies for highways, the state simply won't have as much to spend on roads, even with the eventual phase-out of transfers to the General Fund.

With more road responsibilities on the shoulders of county commissioners, the big question will be where the money for roads will come from. A local gas tax would be just as unpopular as the state gas tax. Additional local retail sale taxes would require legislative approval.

So my guess is that the money source for county funded roads will come back to that old local financial workhorse, the local property tax.

There's actually economic logic in taxing local property owners to build and maintain local roads. If roads are considered a plus for the local economy -- because they enable people and products to move around the area -- then this benefit should be reflected in higher local property values.

Therefore, to keep up with the new challenge of funding roads as well as the traditional responsibilities of building schools and other local infrastructure, it's more important than ever that the local property tax system keep up with economic growth.

Unfortunately, this is now not the case. The long lags between property revaluations (eight years in Wake County) usually keep assessed property values well under their market values. Even new structures are put on the books at an estimated value at the last revaluation.

Then when properties are revalued, owners are hit with the "sticker shock" of a potentially large property tax increase based on the accumulated rise in value since the last valuation. County commissioners usually soften the blow by reducing the property tax rate (sometimes to a level that leaves property tax payments, on average, constant), but this only perpetuates the condition of property tax revenues being out-of-step with local economic growth.

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THE OBVIOUS SOLUTION IS TO HAVE shorter revaluation periods, therefore allowing property tax increases to be more modest and better incorporated into household budgets. Indeed, the Blue Ribbon Committee on the Future of Wake County endorsed halving the revaluation period to four years. Mecklenburg County (Charlotte) will soon be using a two-year revaluation period.

By capping the state gas tax and changing the law to allow counties to build roads, the state role in transportation will gradually diminish while the local responsibility increases. The big question is, are counties ready?

(Michael L. Walden is a William Neal Reynolds distinguished professor at N.C. State University and a member of the Blue Ribbon Committee on the Future of Wake County. His new book, "North Carolina in the Connected Age," will be published in the fall.)

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Gas tax rises to state limit

Level is highest allowed by law

Bruce Siceloff, Staff Writer

Gas taxes are as high as they can go, again. But they might have gone a lot higher.

On Tuesday, North Carolina's gas and diesel fuel tax returned to its legal limit under state law, 30.15 cents per gallon.

That was an increase of 0.2 cents per gallon -- a penny for every 5 gallons -- more than we paid during the last half of 2007.

The N.C. Department of Revenue would have set the new tax rate 3.53 cents higher -- at 33.68 cents -- if Gov. Mike Easley and the legislature had not agreed last year to cap it at 30.15 cents.

A portion of the tax is indexed to rise and fall with wholesale fuel prices.

North Carolina's gas tax, its primary funding source for road improvements and other transportation needs, is one of the highest in the nation. As of July 2007, only 14 states had higher gas tax rates, according to the American Petroleum Institute.

But, compared to some of its neighbors, North Carolina sets a low rate on its No. 2 source of transportation money: the highway use tax collected on car sales.

State traffic counts and road building costs are increasing steadily, but improved fuel economy has reduced gas sales in recent years -- keeping tax collections flat. State leaders are looking for new ways to catch up with road and transit needs.

Average retail prices (including taxes) hit \$3.021 for self-service regular at Triangle gas stations today. That's down almost 3 cents since the first week of December and about 73 cents more than we paid a year ago.

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DRAFT 2009-2015 STIP PUBLIC COMMENT MEETINGS

DATE	DIV.	CITY/TOWN	LOCATION
January 15	14A	Murphy	Tri-County Community College McSwain Building - Conference Room 4600 East US 64
January 16	14B	Brevard	City Hall - Council Chambers 151 West Main Street
January 17	13	Burnsville	Town Center Rooms A&B 6 South Main Street
January 22	11	Dobson	Surry Community College Reeves "A" Building - Teaching Auditorium 630 South Main Street
January 23	12	Hickory	Catawba County Community College 2550 Highway 70, SE
January 24	10	Charlotte	Metrolina Transportation Management Center I-85 (Exit 38) - 2327 Tipton Drive
January 28	9	Winston-Salem	NCDOT- Division Office Conference Room A 375 Silas Creek Parkway
January 29	3	Jacksonville	City Hall - Council Chambers 815 New Bridges Street
January 30	6	Fayetteville	Charlie Rose - Expo Center Auditorium 301 East Mountain Drive
February 12	4	Rocky Mount	City Hall - Council Chambers One Government Plaza (3rd. Floor) 331 South Franklin Street
February 13	1	Elizabeth City	College of the Albemarle Elizabeth City Campus - Building "B" - Room 202 1208 North Road Street (US 17 North)
February 14	2	Winterville	Pitt Community College Leslie Building - Room 143 1986 Pitt Tech Road
February 19	8	Hamlet	Richmond Community College Cole Auditorium 1042 West Hamlet Avenue
February 20	7	Chapel Hill	Southern Human Service Campus Robert and Pearl Seymour Center 2551 Homestead Road
February 21	5	Durham	City Hall - Council Chambers 101 City Hall Plaza

ALL MEETINGS 2:00 PM - 4:00 PM

REGISTRATION BEGINS 1 HOUR PRIOR TO MEETING