

**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**

**July 25, 2007  
9:00 a.m.**

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

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

**ACTION ITEMS**

**4. Approval of June 27, 2007 TCC Meeting Minutes  
(Attachment 4)**

A copy of the June 27, 2007 minutes is enclosed as Attachment 4.

**TCC Action:** Approve minutes of the June 27, 2007 TCC meeting.

**5. 2035 Long Range Transportation Plan Update – SE Data  
(Attachment 5)  
Andy Henry, LPA Staff**

The Socioeconomic Data (SE Data) is among the most important inputs into the Triangle Regional Model (TRM), which provides key analysis support for the 2035 Long Range Transportation Plan (2035 LRTP) and many other major projects. Local staffs have developed the SE Data, and the TAC, TCC, several workshops and a public hearing have been part of the SE Data review process. Based on this review process, local and Lead Planning Agency (LPA) staff have revised the SE Data to produce a final SE Data set, and this final data was provided to the TRM Service Bureau in early June 2007.

The final SE Data is to be presented to the TAC at their August 22, 2007 meeting, and then proposed for approval at their September 26, 2007 meeting.

Attachment 5 is a PowerPoint presentation that provides a summary of the population and employment SE Data. The DCHC MPO Web site has the following additional data for display and download:

- Summaries by jurisdiction, including growth rates;

- Maps showing the growth in each TAZ; and,
- Extensive tables that include the entire SE Data set.

**TCC Action:** Review and make comments for a presentation to the TAC.

#### **6. 2035 Long Range Transportation Plan Update – Land Use Scenarios**

**(No Attachment)**

**Andy Henry, LPA Staff**

For the most part, development of the Socioeconomic Data (SE Data) has been based on the location of undeveloped land and the long-range land use plans and policies of the local jurisdictions. As the SE Data and LRTP process proceeds, the TAC and other officials have asked whether any alternative land use scenarios have been developed to help inform the elected officials, staff and the public on the impact that changes to land use plans and policies might have on the transportation system. For purposes of discussion among TCC and LRTP sub-committee members, the LPA has proposed some possible alternative scenarios that might be developed in response to these inquiries:

1. Buildout Scenario – The employment and population buildout (i.e., maximum density and type under current land use plans) would serve as a long-range vision for the state required Comprehensive Transportation Plan.
2. Travel Corridors – A selection of travel corridors from the Transit Infrastructure Blueprint would realize a higher percentage of their buildout by 2035.
3. Transit Compact Zone – A selection of transit zones would realize a higher percentage of their buildout by 2035.
4. Slow Growth – Slower growth than current population and employment guidance totals is assumed.
5. Fast Growth – Faster growth than current population and employment guidance totals is assumed.

**TCC Action:** Discuss proposed task to develop alternative scenarios for 2035 LRTP.

#### **7. 2009-2015 Transportation Improvement Program (TIP) Regional Priority List**

**(Attachment 7)**

**Ellen Beckmann, LPA Staff**

The TAC approved the 2009-2015 TIP Regional Ranking Methodology at the TAC meeting on June 13, 2007 (Attachment 7). The LPA requested that local jurisdictions provide the MPO with their local priority lists by July 20, 2007. When submitting the priority lists, local jurisdictions are asked to complete project forms for each listed project. These were provided at the last TCC meeting. LPA staff are compiling the local priority lists and project forms.

A TIP Subcommittee meeting is scheduled for August 2, 2007 at 9am in the Transportation Conference Room. At this meeting the Subcommittee will review the submitted projects and prepare a recommendation for the August TCC meeting.

A recommended TIP Regional Priority List will be forwarded to the TAC at their September meeting. TAC approval is expected in September or October 2007. NCDOT has requested priority lists by November 30, 2007 for input into the final 2009-2015 STIP.

A recommendation from the MPO certification review is to include safety as a factor in the TIP priority list. Safety is currently only in the criteria for highway projects. It is too late to amend the ranking methodology for the 2009-2015 TIP priority list, but the TCC may recommend including safety in the bicycle/pedestrian and transit ranking criteria for future priority lists.

**TCC Action:** Discuss the TIP Regional Priority List and ask that the TIP Subcommittee bring back a recommended TIP Regional Priority List at the August TCC meeting.

#### **8. STP-DA Call for Projects**

**(Attachment 8)**

**Felix Nwoko, LPA Staff**

**Dale McKeel, LPA Staff**

At their June meeting, the TAC requested that the MPO issue a call for projects for unobligated STP-DA funds and the bicycle/pedestrian STP-DA allocation through 2013. The most recent STP-DA spreadsheet is included as Attachment 8. The LPA has requested that local jurisdictions submit their projects using the first page of the TIP project forms by August 17, 2007. The schedule is to make a recommendation to the TAC regarding STP-DA funding at the September or October TAC meeting.

The TIP Subcommittee will be meeting on August 2, 2007 at 9am in the Transportation Conference Room. At this meeting the Subcommittee will discuss the STP-DA application procedure.

**TCC Action:** Discuss the STP-DA Call for Projects and refer issues to the TIP Subcommittee.

### **REPORTS FROM STAFF:**

#### **9. Reports from Staff**

**(Attachment 9)**

**Felix Nwoko, LPA Staff**

**TCC Action:** Receive Report from staff

#### **10. Report from the Chair**

**Mark Ahrendsen, TCC Chair**

**TCC Action:** Receive Report from TCC Chair

#### **11. NCDOT Report**

**(Attachment 11)**

**Wally Bowman, Division 5 – NCDOT**

**Mike Mills, Division 7 – NCDOT**

### **INFORMATIONAL ITEMS**

#### **12. Recent News Articles**

**(Attachment 12)**

**13. Letter from FHWA re MPO Certification Review  
(Attachment 13)**

**PENDING ITEMS**

**UPCOMING SUBCOMMITTEE MEETINGS**

August 2, 2007      TIP/STPDA Subcommittee  
9:00 am              Transportation Conference Room  
Subject:              TIP Regional Priority List, STP-DA Call for Projects

TBD                      Administrative Subcommittee  
Subject:              Metropolitan Area Boundary Expansion

TBD                      Long Range Transportation Plan Subcommittee  
Subject:              Land Use Scenarios

TBD                      Transit Subcommittee  
Subject:              2008 Job Access Reverse Commute and New Freedom Call for Projects, 7 Year  
TDM Plan

**Adjourn**

**Next meeting: August 22, 2007**

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**TECHNICAL COORDINATING COMMITTEE**

**June 27, 2007**

**MINUTES OF MEETING**

- \*Mark Ahrendsen City of Durham/Transportation (TCC Chair)
- \*Ellen Beckmann City of Durham/Transportation
- \*David Bonk Town of Chapel Hill (TCC Vice-Chair)
- \*Wally Bowman NCDOT – Division 5 Engineer
- \*Stan Buff NCDOT – Division 7 Engineer
- \*John Hodges-Copple Triangle J COG
- \*Denese Lavender NCDOT – PTD
- \*Karen Lincoln Orange County Planning
- \*Ray Magyar UNC/Transportation
- \*Patrick McDonough Triangle Transit Authority
- \*Adena Messinger Town of Carrboro
- \*Felix Nwoko City of Durham/Transportation
- \*Pierre Osei Owusu City of Durham/DATA
- \*Liz Rooks Research Triangle Foundation
- \*Scott Walston NCDOT
- Jeff Dayton HNTB
- Mei Ingram ITRE
- Dale McKeel City of Durham/Transportation
- Brian Rhodes City of Durham/Transportation
- Jill Stark FHWA
- Chao Wang City of Durham/Transportation

\*Voting Member

Mark Ahrendsen, TCC Chair, called the meeting to order at 9:06 a.m.

**PRELIMINARIES:**

**Adjustments to the Agenda**

Mark Ahrendsen added the allocations of unobligated STP-DA funds through fiscal year 2013. This can be brought up after Item 9 which is the TIP Regional Priority List.

**Public Comments**

There were no public comments.

**ACTION ITEMS**

37 **Approval of May 23, 2007 TCC Meeting Minutes (Attachment 4)**

38 A motion was made by Karen Lincoln and seconded by Felix Nwoko to approve the May  
39 23, 2007 TCC Meeting Minutes. The motion carried unanimously.

40 **Metropolitan Area Boundary Expansion (Attachment 5, 5A)**

41 Mark Ahrendsen provided an introduction for the Metropolitan Area Boundary  
42 Expansion, along with the attachments.

43 Ellen Beckmann stated there are six areas the MPO is considering expanding to that are  
44 displayed on the map. The subcommittee reviewed the areas and decided to recommend  
45 expanding to all six areas and to go back to Pittsboro and see if they would like to reconsider  
46 joining the MPO because they initially indicated they were not interested. In Orange County,  
47 there are three areas; one is the I-85 corridor, everything south of that we grouped into one area  
48 and everything north of it into another area. If we expand, the DCHC MPO will include all of  
49 Orange County with the exception of the area that is in the Burlington-Graham MPO. In  
50 Chatham County, it would be the area north of the Haw River and north of US-64. In Granville  
51 County, it is the southwest corner below the Tar River; in Person County we drew the line so that  
52 it would take in Roxboro and the southern portion of the county. The subcommittee decided to  
53 recommend that we make the decision now, but not expand until after the LRTP is adopted in  
54 2009.

55 Karen Lincoln stated that the Orange County Board of Commissioners submitted a  
56 resolution in 2004 when this was first proposed that they were opposed to any expansion of the  
57 MPO boundaries into Orange County. Since then, they have adopted a small area plan for the  
58 Efland area, so they do anticipate some growth. Ms. Lincoln is not sure how the commissioners  
59 will respond. The rest of the county is better served by the RPO. Karen Lincoln stated this issue

60 needs to be discussed in Orange County. Ms. Lincoln has concerns that projects in the rural area  
61 of Orange County may never meet the TIP criteria for the MPO.

62 John Hodges-Copple stated there are three separate issues; technical issues, policy issues,  
63 and process issues. There are four main technical issues that could be explained a little bit better.  
64 They are: regional planning effectiveness, the resources for planning, the air quality issue, and  
65 the timing in relation to the LRTP. On policy issues, how does TIP project selection change and  
66 what is the anticipated voting mechanism? The MPO won't gain any planning funds by  
67 expansion because funding is based on the population of the UZA, but the RPO will lose  
68 planning funds because their funding is based on the population of their boundary. The MPO  
69 also needs to consider if we will continue to allocate planning funds to member jurisdictions.  
70 John Hodges-Copple does not feel comfortable with voting on this until these issues have been  
71 addressed. Mr. Hodges-Copple recommended that we ask staff to bring back a more detailed  
72 explanation focusing on the technical issues and acknowledging the policy issues.

73 A motion was made by Felix Nwoko and seconded by Karen Lincoln to refer the item  
74 back to the staff and subcommittee to provide greater detail analysis and bring back to the TCC  
75 by August. The motion carried unanimously.

76 **Triangle Region Model (Attachment 6, 6A)**

77 Chao Wang provided an update on the Triangle Region Model, along with the  
78 attachments.

79 David Bonk asked for clarification if the analysis is using the older SE Data and Chao  
80 stated yes it was. Felix Nwoko stated that the August report will include the new data. The  
81 deadline is July 15, 2007.

82 Mei Ingram with ITRE provided a Power Point presentation on the Triangle Region  
83 Model.

84 John Hodges-Copple has a concern that he can't compare across transit agencies. It is  
85 important to have a simple, clear document explaining what is going to be done to address the  
86 transit issue and when. What is going to be done in the short term and the long term? We need  
87 to be within 20% by corridor and consistent regionally. David Bonk stated that the model is not  
88 set up to address parking charges and availability. Patrick McDonough stated if the table could  
89 be done by transit agency, TTA might be able to help ITRE find the problems. Ms. Ingram  
90 stated that tables by transit agency would be very helpful. Mr. McDonough suggested raising  
91 TTA as a priority because it has the highest passenger miles because of the cross-county trips.

92 **DCHC MPO Federal Certification Review (Attachment 7)**

93 Mark Ahrendsen provided an introduction for the DCHC MPO Federal Certification  
94 Review, along with the attachment.

95 Jill Stark, FHWA, stated she did not receive comments from Durham. The final report is  
96 being prepared this week. Mark Ahrendsen stated that the DCHC MPO needed more than five  
97 days to review the document when the report took two to three months to be received by the  
98 DCHC MPO. After an extensive discussion regarding the timeframe, it was decided that  
99 comments need to be provided to Jill Stark by the close of business on July 5, 2007. Member  
100 jurisdictions should provide their comments to the MPO by July 3, 2007. Mark Ahrendsen has  
101 concerns that the draft report differs from the exit review following the certification review in  
102 March. The Corrective Actions and Recommendations for the DCHC MPO are more extensive  
103 than discussed at the exit review. Also, some of the NCDOT Corrective Actions and  
104 Recommendations appear to be watered down.

105 Jill Stark stated that the new SAFETEA-LU requirement is that the review must be done  
106 every four years.

107 David Bonk stated that we need an update on the previous review. Jill Stark stated that  
108 the certification letter is due July 30. The letter will be done by the due date, but the report will  
109 follow it.

110 **Regional Intelligent Transportation System (ITS) Strategic Deployment Plan (SDP) Update**  
111 **(Attachment 8)**

112  
113 Felix Nwoko provided an update on the Regional Intelligent Transportation System (ITS)  
114 Strategic Deployment Plan (SDP) Update, along with the attachment.

115 The total cost is \$450,000. The cost will be shared 20% DCHC, 30% CAMPO, and 50%  
116 NCDOT because of the emphasis on transit. We have \$56,000 set aside in the UPWP from STP-  
117 DA. There is a \$14,000 local match among the DCHC MPO. There is still a \$20,000 shortfall.

118 David Bonk asked what the status of the other planning projects is. Felix Nwoko stated  
119 the costs are higher than estimated so the scopes have been decreased. Reducing the scope of  
120 this project would be difficult because it is a multi-regional project. David Bonk asked if there  
121 are any planning funds available from staff vacancies that could be applied and Felix stated no.

122 **2009-2015 Transportation Improvement Program (TIP) Regional Priority List**  
123 **(Attachment 9, 9A, 9B, 9C)**

124 Ellen Beckmann provided an update on the 2009-2015 Transportation Improvement  
125 Program (TIP) Regional Priority list, along with the attachments.

126 The priority list must be provided to NCDOT by November 30, 2007 for input on the  
127 final 2009-2015 TIP. David Bonk asked if we will have a draft that goes to TAC and will local  
128 governments have time to comment. Mark Ahrendsen stated there would be time to review.  
129 Felix Nwoko stated we will need to release for comment and act the following month. Mark  
130 Ahrendsen recommended having a recommendation back to the TCC in August. David Bonk

131 stated that it is hard to get accident data. Dale McKeel stated that the NCDOT staff can help  
132 with the reports. Karen Lincoln stated everyone needs to agree on the time period that will be  
133 used. It should be the most recent three years.

134 David Bonk asked if there should be a sheet for each unfunded project or as one capital  
135 transit. Pierre Osei Owusu stated he has submitted two projects.

136 John Hodges-Copple stated that we want to make sure it is done the same way. David  
137 Bonk stated the essential service and new riders are inconsistent. Mark Ahrendsen and Patrick  
138 McDonough stated you can't use riders for fleet replacement. Ellen Beckmann explained that  
139 transit projects will not receive points in every category.

140 The due date for completed Project Request Forms is July 20, 2007. The LPA staff and  
141 the TCC TIP Subcommittee will begin the process of ranking the projects and bring back a  
142 recommendation to the August TCC meeting so that a TCC recommendation can be made to the  
143 TAC in September.

144 Adena Messinger asked if there were maps available for environmental justice. John  
145 Hodges-Copple stated if staff will get a list of criteria he will get it. The maps are being created.

146 Mark Ahrendsen stated he wants to use the same environmental justice criteria across the  
147 MPO.

#### 148 **UPWP Grant Invoice/Reimbursement Deadlines**

149 Felix Nwoko stated it is very important that he receives the UPWP Grant Invoices as  
150 soon as possible.

#### 151 **Adjustment to the Agenda**

152 Mark Ahrendsen stated the TAC requested that the TCC look at the unobligated or  
153 unallocated STP-DA funds through 2013. Mark recommends referring this matter to the TIP

154 Subcommittee. David Bonk stated some housekeeping needs to be done on funded projects.  
155 The deadline for projects will be August 17, 2007. Staff is to send a notice out for projects with  
156 the criteria for types of projects. Dale McKeel stated the subcommittee should meet to flesh out  
157 the process. David Bonk stated all TIP projects will be eligible and additional information will  
158 need to be submitted.

159 There will be a TIP subcommittee meeting on August 2, 2007 at 9:00 a.m. regarding the  
160 Regional Priority List & STP-DA allocations.

161 Felix Nwoko stated to use the first page of the TIP submission form and add the year of  
162 implementation.

163 **REPORTS FROM STAFF:**

164 **Reports from Staff (Attachment 11)**

165 The report from staff is attached.

166 **Report from the Chair**

167 There was nothing to report.

168 **NCDOT Report (Attachment 13)**

169 Wally Bowman, NCDOT Division 5 Engineer, provided an update on projects. On the I-  
170 40 project from NC 147 to US 15-501 is progressing very well. They finished milling and  
171 resurfacing the eastbound and have switched to the westbound direction. There is a possibility  
172 that the job may be done this year. On the I-85 project, they are working on the final inspection.  
173 On I-540 from I-40 to NC-55, the contractor is making a good effort and hopes to open it the first  
174 week of July. NC-55 should be complete by this summer.

175 Stanley Buff, NCDOT Division 7 Engineer, provided an update on projects. They are  
176 working on trying to get Homestead Road finished before school starts. They are still working  
177 on the Superstreet.

178 **INFORMATIONAL ITEMS:**

179 **Recent News Articles (Attachment 14)**

180 The recent news articles are attached for review.

181 **Adjournment**

182 There being no further business before the Technical Coordinating Committee, the  
183 meeting was adjourned at 12:04 p.m.

184

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

## Socioeconomic Data (SE Data)

TCC Meeting  
July 25, 2007

## Purpose

- Provide Background on SE Data
- Review SE Data
- Receive Comments
- Present Next Steps

## SE Data -- Background

- What is the Data?
  - Where people live and work
  - By Traffic Analysis Zone (TAZ)
  - Years: 2005 Base Year, plus 2015, 2025 and 2035 forecasts
- Why Collect the Data – Input into the Triangle Regional Model; which is major tool for:
  - 2035 Long Range Transportation Plan
  - Projects and Studies (e.g., Triangle Parkway, Chapel Hill Master Transit Plan; Transit Blueprint)
  - Air Quality Conformity

## SE Data – Background (cont.)

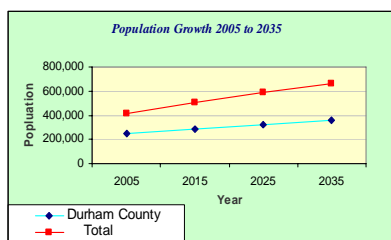
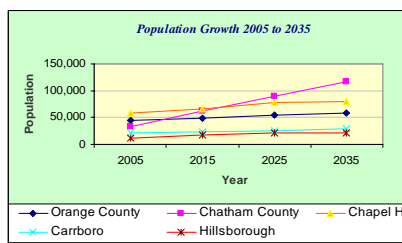
- How Data is Collected
  - Local planning staff responsible
  - Started effort in mid-2006
  - Population
    - Baseline: 2000 Census data, then added new dwelling units (e.g., Certificates of Occupancy)
    - Forecast: Adopted land use plans and policies combined with undeveloped parcels
  - Employment:
    - Baseline: InfoUSA database modified by field checks and institutional information (e.g., Duke, UNC-CH, RTF)
    - Forecast: Adopted land use plans and policies combined with undeveloped parcels
  - Guidance Totals

## SE Data – Population Totals

	Total Population				Total Population % Growth		
	2005	2015	2025	2035	2005-2015	2015-2025	2025-2035
Durham	244,022	286,733	323,311	354,164	18%	13%	10%
Orange	44,904	48,708	54,288	57,649	8%	11%	6%
Chatham (eastern)	34,067	62,400	89,779	117,130	83%	44%	30%
Chapel Hill - Orange County	53,963	60,764	72,351	74,222	13%	19%	3%
Chapel Hill - Durham County	4,376	4,984	5,416	6,261	14%	9%	16%
Carrboro	20,858	22,793	25,345	28,269	9%	11%	12%
Hillsborough	12,438	17,640	21,806	22,380	42%	24%	3%
<b>Total</b>	<b>414,628</b>	<b>504,022</b>	<b>592,296</b>	<b>660,075</b>	<b>22%</b>	<b>18%</b>	<b>11%</b>

- Total population will increase 245,447 during the 30-year period.
- Durham County population increase (112,027) is largest among jurisdictions.
- Chatham County population increase (83,063) will easily outpace Orange County (50,357).
- Overall population growth rate will decrease over time.

## SE Data – Population Growth Rate



	Population	
	2005-2035 Growth	2005-2035 Growth Percent
Durham	112,027	45%
Orange	12,745	28%
Chatham	83,063	244%
Chapel Hill	22,144	38%
Carrboro	7,411	36%
Hillsborough	9,942	80%
<b>Total</b>	<b>245,447</b>	<b>59%</b>

- Overall population will increase 59% over the 30-year period.
- Durham County and Orange County population will increase 45 percent and 38 percent, respectively.
- Chatham County population will increase 244 percent.

## SE Data – Population Guidance Totals

2005 Population			
	SE Data	State Demographer Estimate	Difference
Durham County	248,398	242,207	3%
Orange County	132,163	121,992	8%

2035 Population			
	SE Data	State Demographer Estimate	Difference
Durham County	360,425	355,639	1%
Orange County	182,520	171,453	6%

- Compared SE Data to State Demographer estimates and forecasts.
- Baseline 2005 and 2035 Forecasts are all within at least 8 percent of the State Demographer data.
- The SE Data value is always higher than the State Demographer estimate.

## SE Data – Population Dwelling Units

	Total Dwelling Units				Total Dwelling Unit % Growth			Dwelling Units
	2005	2015	2025	2035	2005-2015	2015-2025	2025-2035	2005-2035 Rate
Durham	104,495	122,074	137,218	149,930	17%	12%	9%	1.2%
Orange	19,110	20,731	23,122	24,566	8%	12%	6%	0.8%
Chatham (eastern)	15,524	28,429	40,901	53,363	83%	44%	30%	4.2%
Chapel Hill - Orange County	21,206	24,331	31,499	32,924	15%	29%	5%	1.5%
Chapel Hill - Durham County	1,986	2,220	2,537	2,954	12%	14%	16%	1.3%
Carrboro	9,748	10,653	11,845	13,211	9%	11%	12%	1.0%
Hillsborough	4,877	6,919	8,550	8,776	42%	24%	3%	2.0%
<b>Total</b>	<b>176,946</b>	<b>215,357</b>	<b>255,672</b>	<b>285,724</b>	<b>22%</b>	<b>19%</b>	<b>12%</b>	<b>1.6%</b>

- A Dwelling Unit means a single physical unit that provides an independent living facility for one or more persons.
- Dwelling Units are the building blocks of population, thus these values and growth rates are very similar to population.

## SE Data – Population Households

	Total Households				Total Household % Growth			Households
	2005	2015	2025	2035	2005-2015	2015-2025	2025-2035	2005-2035 Rate
Durham	95,743	112,056	126,045	137,895	17%	12%	9%	1.2%
Orange	17,623	19,128	21,343	22,674	9%	12%	6%	0.8%
Chatham (eastern)	14,359	26,408	38,051	49,684	84%	44%	31%	4.2%
Chapel Hill - Orange County	16,936	19,238	24,461	25,450	14%	27%	4%	1.4%
Chapel Hill - Durham County	1,698	1,929	2,211	2,589	14%	15%	17%	1.4%
Carrboro	8,191	8,990	10,052	11,280	10%	12%	12%	1.1%
Hillsborough	5,213	7,406	9,160	9,402	42%	24%	3%	2.0%
<b>Total</b>	<b>159,763</b>	<b>195,155</b>	<b>231,323</b>	<b>258,974</b>	<b>22%</b>	<b>19%</b>	<b>12%</b>	<b>1.6%</b>

- A Household includes all the persons who occupy a housing unit.
- Households are an aggregation of population, thus these values and growth rates are very similar to population.

## SE Data – Population Vacancy Rate

	Total Households/Dwelling Units (Vacancy Rate)			
	2005	2015	2025	2035
Durham	0.92	0.92	0.92	0.92
Orange	0.92	0.92	0.92	0.92
Chatham	0.92	0.93	0.93	0.93
Chapel Hill	0.80	0.80	0.78	0.78
Carrboro	0.84	0.84	0.85	0.85
Hillsborough	0.94	0.93	0.93	0.93
<b>Total</b>	<b>0.90</b>	<b>0.91</b>	<b>0.90</b>	<b>0.91</b>

- Total households divided by total dwelling units yields a vacancy rate (i.e., percent of available dwelling units that are occupied).
- Vacancy rate is very steady among the horizon years within each jurisdiction.
- Most jurisdictions have a 92 to 94 percent vacancy rate.
- Chapel Hill and Carrboro have lower vacancy rates, between 78 and 85 percent.
- 2000 Census vacancy rates are about 92 percent.

## SE Data – Population Student Households

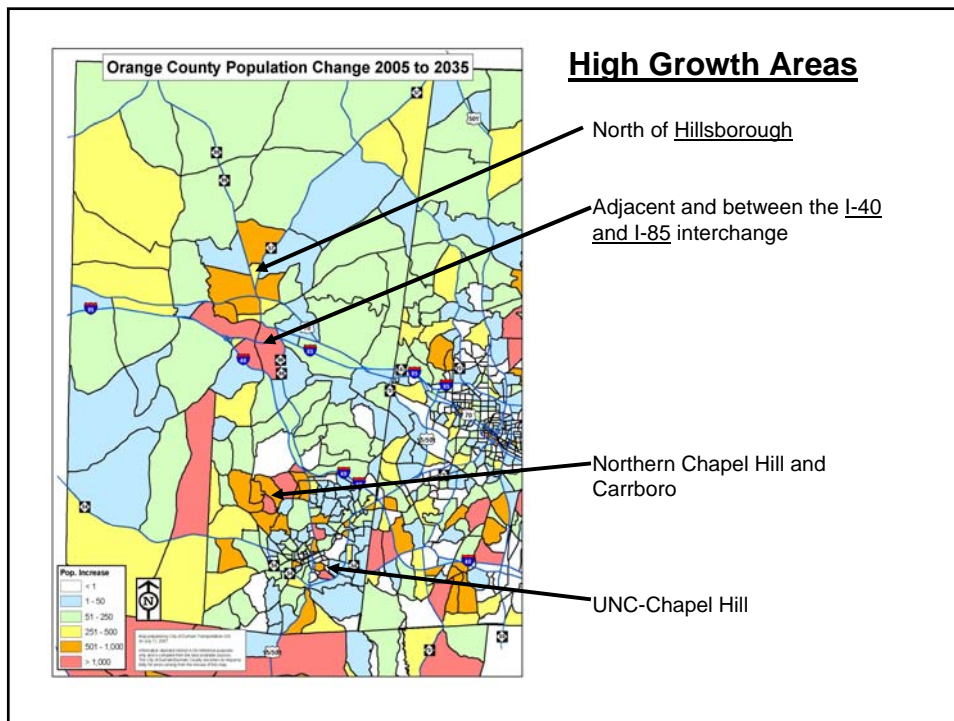
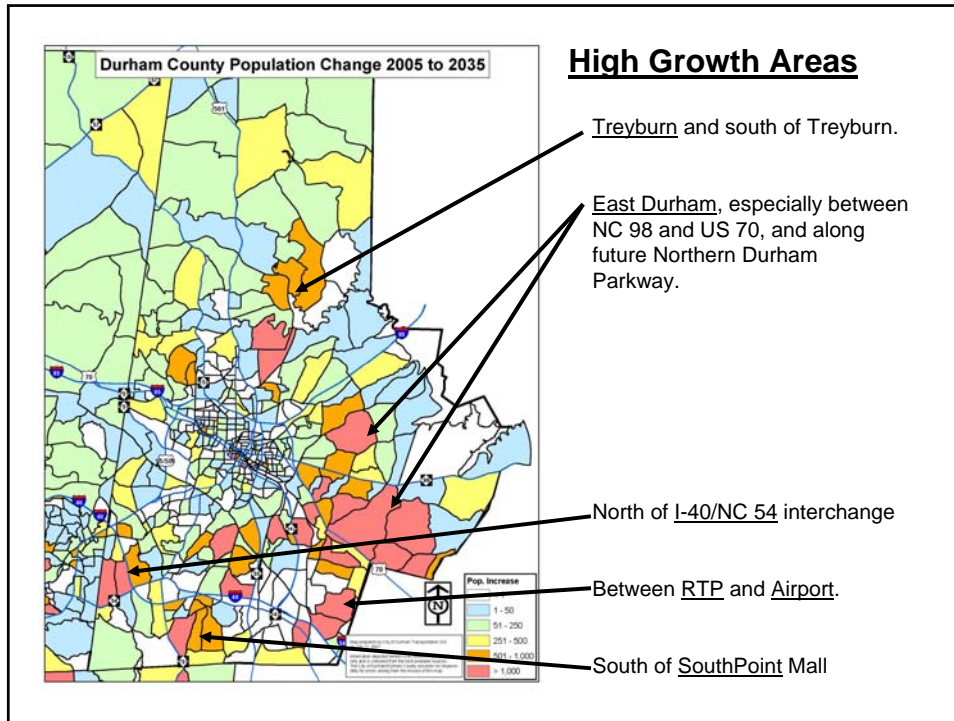
	Total Student Households				Total Student Household % Growth			Student Households
	2005	2015	2025	2035	2005-2015	2015-2025	2025-2035	2005-2035 Annual Growth Rate
Durham	8,511	9,218	9,892	10,285	8%	7%	4%	0.6%
Orange	513	533	562	588	4%	5%	5%	0.5%
Chatham (eastern)	417	435	458	480	4%	5%	5%	0.5%
Chapel Hill - Orange County	6,982	7,418	8,495	8,875	6%	15%	4%	0.8%
Chapel Hill - Durham County	711	715	788	823	1%	10%	4%	0.5%
Carrboro	2,620	2,749	2,884	3,014	5%	5%	5%	0.5%
Hillsborough	94	98	104	107	4%	6%	3%	0.4%
<b>Total</b>	<b>19,848</b>	<b>21,166</b>	<b>23,183</b>	<b>24,172</b>	<b>7%</b>	<b>10%</b>	<b>4%</b>	<b>0.7%</b>

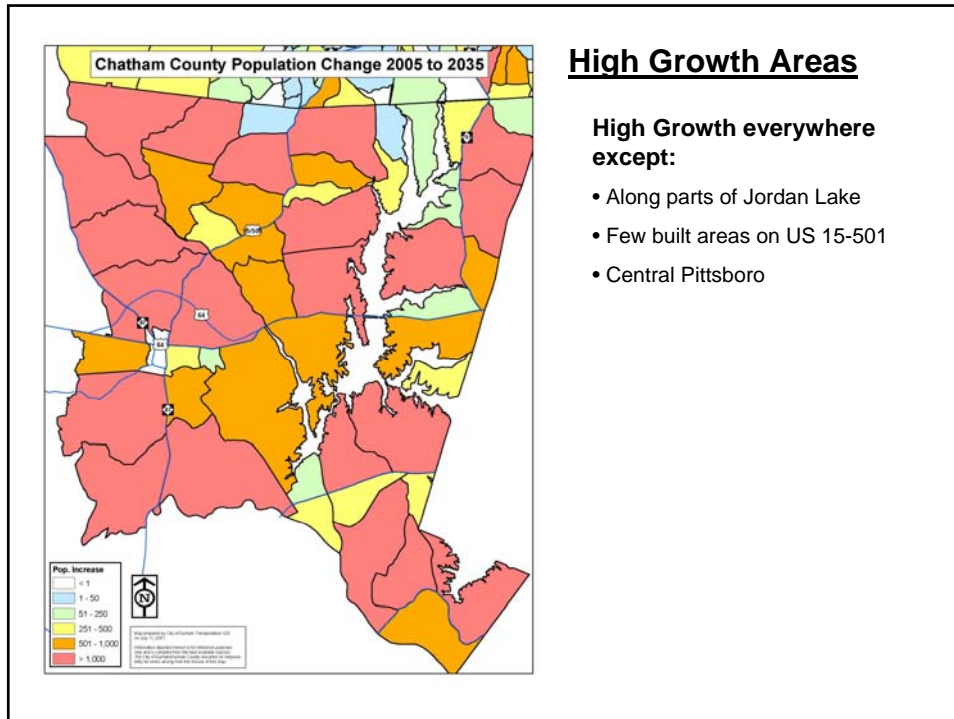
- Student Households are the number of full-time students attending post secondary education programs, and each student is considered a household.
- The overall annual growth rate for Student Households is 0.7 percent, which is less than one-half the annual rate for population, i.e., 1.6 percent.
- Most jurisdictions forecast an annual growth rate between 0.4 to 0.6 percent, except Chapel Hill which has an annual rate of 0.8 percent.

## SE Data – Population University Beds

	Total University Beds				University Beds % Growth			University Beds
	2005	2015	2025	2035	2005-2015	2015-2025	2025-2035	2005-2035 Annual Rate
Durham (1)	7,746	8,376	8,947	9,527	8%	7%	6%	0.7%
Orange (2)	0	0	0	0	0%	0%	0%	0.0%
Chatham (3)	0	0	0	0	0%	0%	0%	0.0%
Chapel Hill (4)	9,734	12,543	12,543	12,543	29%	0%	0%	0.8%
Chapel Hill (5)	0	0	0	0	0%	0%	0%	0.0%
Carrboro	0	0	0	0	0%	0%	0%	0.0%
Hillsborough	0	0	0	0	0%	0%	0%	0.0%
<b>Total</b>	<b>17,480</b>	<b>20,919</b>	<b>21,490</b>	<b>22,070</b>	<b>20%</b>	<b>3%</b>	<b>3%</b>	<b>0.8%</b>

- University Beds are the number of post secondary students that reside in dormitory-style housing
- The overall annual growth rate for University Beds is 0.8 percent, which is less than one-half the annual rate for population, i.e., 1.6 percent.
- Overall annual growth rates for Student Households and University Beds are very similar, 0.7 and 0.8 percent, respectively.





**High Growth Areas**

**High Growth everywhere except:**

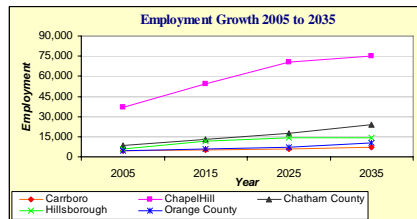
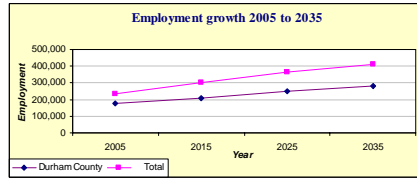
- Along parts of Jordan Lake
- Few built areas on US 15-501
- Central Pittsboro

**SE Data – Employment Totals**

	Total Employment				Total Employment Percent Growth		
	2005	2015	2025	2035	2005-2015	2015-2025	2025-2035
Durham (1)	175,487	210,895	247,835	282,571	20%	18%	14%
Orange (2)	4,290	5,797	7,311	10,087	35%	26%	38%
Chatham (3)	8,199	12,883	17,580	2,863	57%	36%	36%
Chapel Hill (4)	36,190	52,428	66,609	70,727	45%	27%	6%
Chapel Hill (5)	512	1,758	4,103	4,148	243%	133%	1%
Carrboro	4,390	5,244	6,122	6,857	19%	17%	12%
Hillsborough	5,679	11,484	13,954	14,453	102%	22%	4%
<b>Total</b>	<b>234,747</b>	<b>300,489</b>	<b>363,514</b>	<b>412,706</b>	<b>28%</b>	<b>21%</b>	<b>14%</b>

- Total employment will increase 177,959 during the 30-year period.
- Durham County employment increase (110,720) is largest among jurisdictions.
- Overall employment growth rate will decrease over time, and will decrease for all jurisdictions except for Orange County.

## SE Data – Employment Growth Rate



	Employment	
	2005-2035 Growth	2005-2035 Growth Percent
Durham	110,720	63%
Orange	5,797	135%
Chatham	15,664	191%
Chapel Hill	38,173	104%
Carrboro	2,467	56%
Hillsborough	8,774	154%
<b>Total</b>	<b>177,959</b>	<b>76%</b>

- Overall employment will increase 76 percent over the 30-year period.
- All jurisdictions except Durham and Carrboro will at least double their employment.

## SE Data – Employment Employment Categories

	Total			Percent Change		
	2005	2035	2005 to 2035 Difference	2005 to 2035 % Change	2005 to 2035 Annual Rate	
Industrial	34,480	54,595	20,115	58%	1.5%	
Highway Retail	12,800	22,477	9,677	76%	1.9%	
Services	77,636	127,440	49,804	64%	1.7%	
Retail	20,488	37,119	16,631	81%	2.0%	
Office	36,733	90,637	53,904	147%	3.1%	
Special Generators	52,610	80,438	27,828	53%	1.4%	
<b>Total</b>	<b>234,747</b>	<b>412,706</b>	<b>177,959</b>	<b>76%</b>	<b>1.9%</b>	

- Employment is broken into five categories and special generators (which are large retail centers, airports, hospitals and universities).
- The rate of Office and Retail growth will exceed the overall rate.
- The jobs added by Office or Services is more than double that of any other category.

## SE Data – Employment Guidance Totals

<b>2005 Employment</b>			
	<b>SE Data</b>	<b>ESC Estimate</b>	<b>Difference</b>
Durham County	175,999	184,130	-4%
Orange County	50,549	68,680	-26%

<b>2035 Employment</b>			
	<b>SE Data</b>	<b>ESC Estimate</b>	<b>Difference</b>
Durham County	286,719	285,761	0%
Orange County	102,124	116,669	-12%

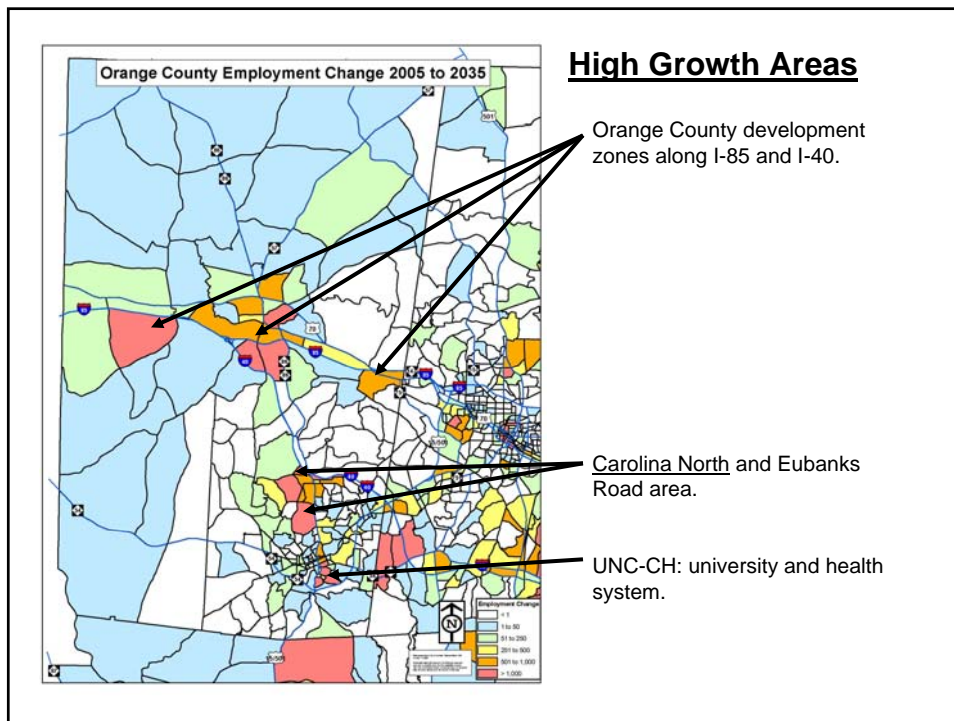
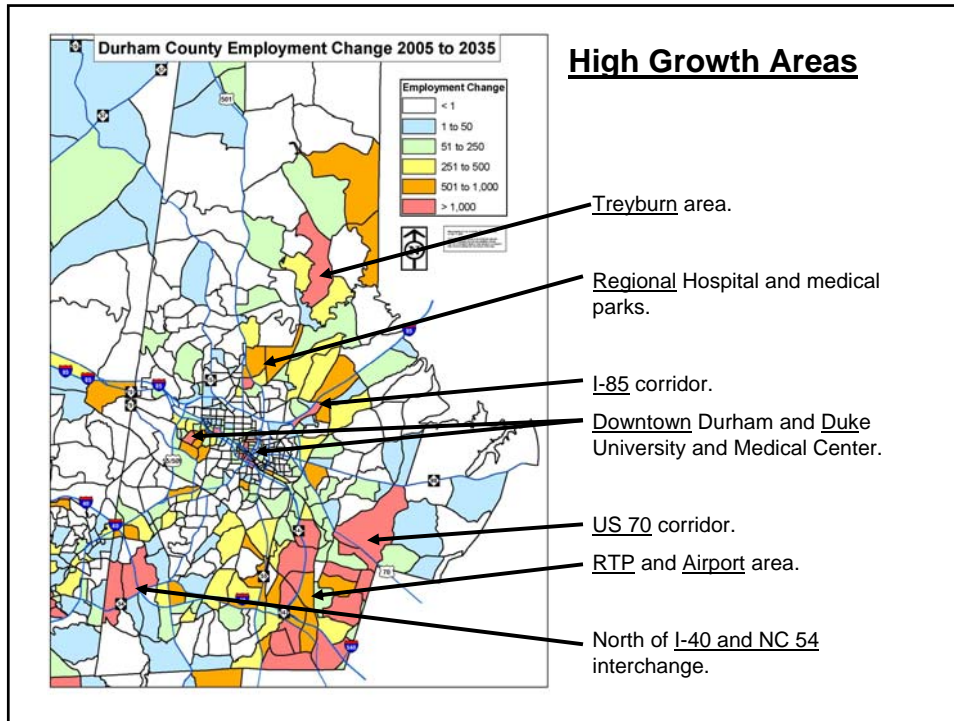
- Compared SE Data to Employment Security Commission (ESC) and private forecasts.
- Durham County Baseline 2005 and 2035 Forecasts are all within at least 4 percent of the ESC estimate.
- Orange County difference may be caused by lack of student employment.
- Assuming student employment reduces 2035 Orange County Difference to 6 percent.
- The SE Data value is always lower than the ESC estimate.

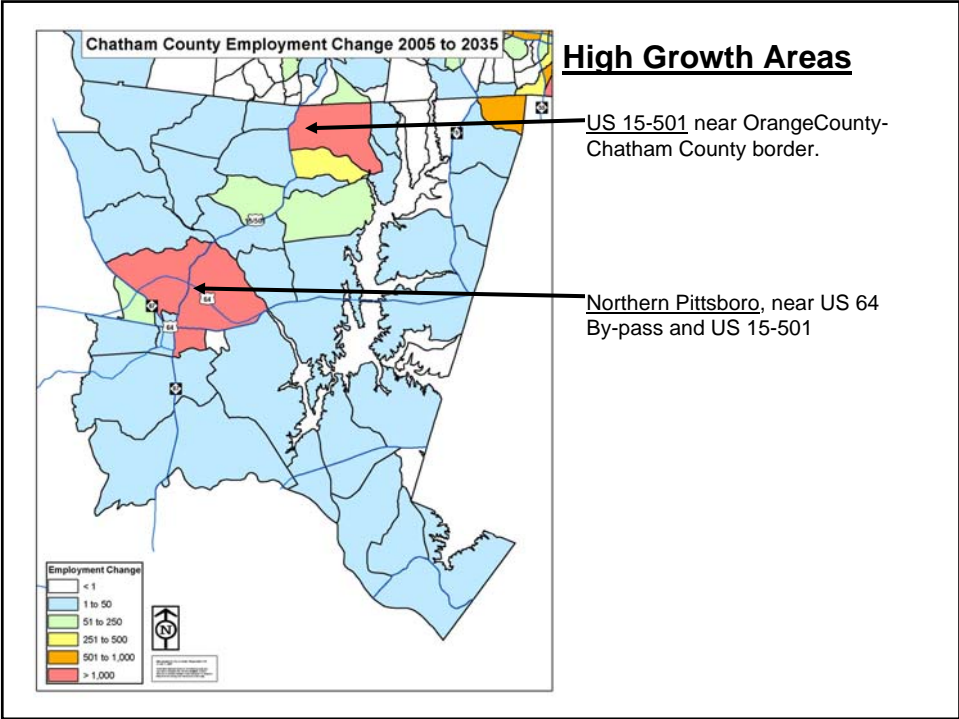
## SE Data – Population Population v. Employment

	<b>Growth 2005 - 2035</b>	
	<b>Population</b>	<b>Employment</b>
Durham	112,027	110,720
Orange	12,745	5,797
Chatham	83,063	15,664
Chapel Hill	22,144	38,173
Carrboro	7,411	2,467
Hillsborough	9,942	8,774
<b>Total</b>	<b>245,447</b>	<b>177,959</b>

	<b>Annual Growth Rate 2005 - 2035</b>	
	<b>Population</b>	<b>Employment</b>
Durham	1.2%	1.6%
Orange	0.8%	2.9%
Chatham	4.2%	3.6%
Chapel Hill	1.1%	2.3%
Carrboro	1.0%	1.5%
Hillsborough	2.0%	3.2%
<b>Total</b>	<b>1.6%</b>	<b>1.9%</b>

- Population growth will exceed employment growth in all jurisdictions except Chapel Hill.
- The employment annual growth rate will exceed the population growth rate, 1.9 percent versus 1.6 percent.
- The employment annual growth rate will exceed the population growth rate in all jurisdictions except Chatham County.
- Chatham County and Hillsborough population growth rates, 4.2 percent and 2.0 percent, will exceed the 1.6 percent overall rate.
- The Chapel Hill and Orange County employment annual growth rates exceeds the population growth rates by more than 2 to 1.





Comments?

## Next Steps

- TAC Receive at August 8, 2007 Meeting.
- Make changes based on comments.
- TAC Adopt at September 12, 2007 meeting.
- Implement administrative changes as Travel Demand Model process identifies minor errors.

**DURHAM-CHAPEL HILL-CARRBORO MPO  
METHODOLOGY FOR RANKING  
METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM  
PRIORITY PROJECT REQUESTS (FY 2009-2015)**

## **INTRODUCTION**

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

## **OBJECTIVE**

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

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

## **METHODOLOGY GOALS**

- Produce a program of projects (or project priorities) which satisfies MPO, local and state goals, and addresses SAFETEA-LU policies of system preservation, operational efficiency in the movement of people and goods, multi/inter-modalism, and air quality mandates.
- Be simple enough for project-level analysis without requiring unnecessary data collection.
- Be understandable by the general public.

## **PROCEDURE FOR RANKING PROJECTS**

### **1. Goal Setting For Regional Priority List**

Since the Regional Priority List should be a subset of the DCHC MPO Long Range Transportation Plan (LRTP), the goals for the regional priority list are the same as the DCHC MPO goals and objectives in the 2030 LRTP.

### **2. Ranking Criteria**

The screening criteria for project ranking fall into four broad groups:

- a. Regional Goals - How well does the project meet the adopted regional goals? Is the project an element of the current long-range plan? Does it implement community objectives (for the intrastate system, does it meet NCDOT mobility objectives)? Does the project have a broad base of local support?
- b. Cost Effectiveness - How much benefit does the project offer compared to the estimated cost?
- c. Timing Factor - Is timing a critical element for the project (one-time opportunity)? Will the opportunity to do the project be lost if it is not in the current priority cycle?
- d. Specific Project Merits - How many points does a project receive using scoring criteria?

## **APPLICATION OF THE METHODOLOGY**

1. There are three separate ranking methodologies based on the primary mode of transportation: 1) highway; 2) bicycle and pedestrian; and 3) transit. ITS, TSM, and TDM projects would be included in whichever mode best fits the specific project. The three ranking methodologies are independent of each other. Points for different modes are on different scales and are not comparable.
2. Local jurisdictions may elect to use the ranking methodology to create their local priority lists but are not required to do so. When the local priority lists are submitted to the MPO, local jurisdictions are requested to provide project information and, in some cases, award points in categories. Some point categories can only be applied by the MPO once all projects have been submitted and evaluated.
3. The TCC first examines the consistency in which local jurisdictions have responded to the project criteria. If the criteria are not applied consistently, the TCC can agree to change some criteria responses for consistency among all projects.
4. Project criteria points are weighted and totaled for each project request using the three modal ranking methodologies outlined on pages 7 through 10 of this document.
3. Projects receiving the same number of project criteria points are ordered by the local ranking. If the local ranking is also the same (for example, Orange-1 vs. Chapel Hill-1), then the project with the most additional local rankings will be ranked higher. If the projects also have the same number of additional local rankings, then the project with the highest additional local ranking will be ranked higher.
4. The draft Regional Priority List will consist of three modal priority lists: 1) highway; 2) bicycle and pedestrian; and 3) transit. Projects with the highest number of project criteria points are selected first – taking into consideration local priority rankings, geographical balance, and a mixture of project types.
5. The draft Regional Priority List is then forwarded to the TAC, as the TCC's recommended project priorities for the urban area.
6. The TAC will use the draft Regional Priority List as a starting point for the creation of the final Regional Priority List. The TAC may wish to combine the three modal lists into one comprehensive list. If this is done, it is important to note that the points are not comparable across different modes.

## **MODAL RANKING METHODOLOGIES IN DETAIL**

## Highway

All seven point categories are weighted equally. A maximum of four points can be received for each point category. After roadway projects are ranked, the projects will be sorted by estimated cost into two lists so that high cost and low cost projects can be considered separately.

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

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

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

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

3. *Environmental Impacts – natural environment* - Points are awarded based on the impact on wetlands, streams, wildlife habitat, parks, and air quality.

The MPO will provide local jurisdictions a base map of environmental areas. Local jurisdictions are asked to apply the ranking methodology based on a GIS analysis.

4. *Community Impacts* – Points are awarded based on the impact on neighborhoods and communities.

Local jurisdictions are asked to apply the ranking methodology based on a GIS analysis.

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

The MPO will provide local jurisdictions a base map that indicates which Transportation Analysis Zones have a high percentage of minority and low income populations. Local jurisdictions are asked to apply the ranking methodology based on a GIS analysis.

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

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

7. *Benefits to Other Modes of Transportation* – Points are awarded to projects based on how they benefit other modes of transportation and project categories (carpool, transit, bicycle, pedestrian, ITS, and TDM). For example, a road widening that adds additional travel lanes, bicycle lanes, sidewalks, and bus pullouts would benefit 3 other modes.

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

### **Bicycle and Pedestrian**

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

1. *Street Classification* - This category awards points to projects based on the type of road the bicycle and pedestrian facility is provided on. Off-road greenways are based on the parallel or alternate roadways. More points are provided for higher classification facilities to reflect the safety hazard for bicyclists and pedestrians on larger busier roadways.

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

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

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

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

The interim points are assigned using two different tables for bicycle/multi-use paths and pedestrian projects to reflect the different travel times and accessibility of the two modes. The numbers of land uses or amenities within the specified distance for the project are recorded on the worksheet. The worksheet multiplies the number of land uses by the appropriate points and total points are calculated by the worksheet. The land uses considered are schools (public or private elementary, middle, or high schools), colleges and universities, major retail centers (major as defined by the local jurisdiction), major employment centers (major as defined by the local jurisdiction), and transit stops (the number of posted transit stop signs, if a stop serves multiple bus routes the stop is NOT multiplied by the number of routes served).

Local jurisdictions are asked to provide the number of land uses served by the project in the travel demand worksheet. Local jurisdictions should list the schools, colleges, major retail centers, and major employment centers on the worksheet. MPO staff will divide the projects into quartiles and award final points.

4. *Environmental Impacts – natural environment* - Points are awarded based on the impact on wetlands, streams, wildlife habitat, parks, and air quality.

The MPO will provide local jurisdictions a base map of environmental areas. Local jurisdictions are asked to apply the ranking methodology based on a GIS analysis.

5. *Community Impacts* – Points are awarded based on the impact on neighborhoods and communities.

Local jurisdictions are asked to apply the ranking methodology based on a GIS analysis.

6. *Environmental Justice* - Points are awarded based on the impact on low-income and minority populations. This item is designed to reward projects that may have positive impacts on low income areas or federally recognized disadvantaged groups. Most bicycle and pedestrian projects directly benefit neighborhoods by increasing accessibility and safety. If negative impacts are expected, the project will not receive points.

The MPO will provide local jurisdictions a base map that indicates which Transportation Analysis Zones have a high percentage of minority and low income populations. Local jurisdictions are asked to apply the ranking methodology based on a GIS analysis.

7. *Connectivity to Existing Bicycle and Pedestrian Facilities* - Points are awarded based on if projects connect to existing bicycle and pedestrian facilities. This will reward projects that extend the existing bicycle and pedestrian network.

Local jurisdictions are asked to provide a list of facilities that the project will connect to and apply the ranking methodology.

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

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

## **Transit**

Transit projects are awarded points based on seven categories. A maximum of four points can be received for each point category. Essential services is weighted double the other point categories. Most projects will not receive points in every category because transit projects often have specific purposes. After transit projects are ranked, the projects will be sorted into two lists for short- and long-term needs. These lists should correspond to what is shown as funded (short-term) and unfunded (long-term) in the TIP.

1. *Expansion of Existing Routes* - Projects that expand existing routes are awarded points based on travel demand on the existing route as is measured by the vehicle crowding or load factor. The

load factor is the average number of riders per vehicle capacity. Projects will be divided equally into four quartiles based on the load factor. Final points will be assigned by quartile to ensure that points are distributed evenly and that projects are compared relative to each other.

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

2. *Regional Connectivity* – Projects receive points based on the number of connections to other transit systems. The transit systems considered are: DATA, Chapel Hill Transit, TTA, Orange Public Transit, Duke University Transit, Chatham Transit Network (must connect in Chatham County), and Capital Area Transit (CAT). These are the fixed route systems in the MPO with the exception of the Chatham Transit Network because Chatham County does not have a fixed route service.

Local jurisdictions are asked to apply the ranking methodology.

3. *Essential Services* – Projects receive points based on if the project provides funds to maintain the current level of transit service. This category will award points for maintenance projects and replacement vehicles. This point category is weighted double to reflect the importance of maintaining the existing system.

Local jurisdictions are asked to apply the ranking methodology.

4. *Enhancement of Existing Service of New Service* – Projects receive points based on the estimated increase in new riders. For new service, this should be based on surveys or other market research. For enhancements of existing service (bus shelters, ITS projects, etc.), this should be based on studies of similar projects. Jurisdictions are expected to document and justify their estimates. Projects will be divided equally into four quartiles based on the number of new riders. Final points will be assigned by quartile to ensure that points are distributed evenly and that projects are compared relative to each other.

Local jurisdictions are asked to provide the number of new riders anticipated. MPO staff will divide the projects into quartiles and award points.

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

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

6. *Environmental Impacts – natural environment* - Points are awarded based on the impact on wetlands, streams, wildlife habitat, parks, and air quality.

The MPO will provide local jurisdictions a base map of environmental areas. Local jurisdictions are asked to apply the ranking methodology based on a GIS analysis.

7. *Community Impacts* – Points are awarded based on the impact on neighborhoods and communities.

Local jurisdictions are asked to apply the ranking methodology based on a GIS analysis.

## **OBSERVATIONS**

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

- Mandates (e.g., the American's with Disabilities Act) may take precedence when programming projects from the Regional Priority List in the TIP.
- The fiscal constraints of programming projects in the TIP may result in the programming of less expensive, lower ranked projects.
- Some lower ranking projects may be implemented earlier than a higher ranked, large project due to the time constraints associated with a more complex project (i.e., major investment studies, preparing environmental documents, designing the project, right-of way acquisition, etc.).
- The significance of ranking more than 25 projects is minimal, at best due, to the availability of project funds.

	<b>RANKING CRITERIA (MEASURES)</b>	<b>SCORE (points)</b>	<b>Category Weight</b>
1	<b><i>Travel Demand</i></b>		1
	<b>2005 volume to capacity ratio (v/c) on existing or parallel roadway</b>		
	Traffic Signal System, TDM, ITS Projects	4	
	First quartile of ranked projects, v/c >0.80	4	
	Second quartile of ranked projects, v/c >0.80	3	
	Third quartile of ranked projects, v/c >0.80	2	
	Fourth quartile of ranked projects, v/c >0.80	1	
	v/c <= 0.80	0	
2	<b><i>Safety</i></b>		1
	<b>Accident rate (accidents/100 million VMT)</b>		
	Traffic Signal System, TDM, ITS Projects	4	
	First quartile of ranked projects, Accident Rate >300 accidents/100 million VMT	4	
	Second quartile of ranked projects, Accident Rate >300 accidents/100 million VMT	3	
	Third quartile of ranked projects, Accident Rate >300 accidents/100 million VMT	2	
	Fourth quartile of ranked projects, Accident Rate >300 accidents/100 million VMT	1	
	Accident Rate <=300 accidents/100 million VMT	0	
3	<b><i>Environmental Impacts - natural environment</i></b>		1
	<b>Based air quality impacts and GIS analysis including wetlands, stream crossings, wildlife habitat, parks, etc.</b>		
	No negative or adverse impacts or positive impact	4	
	Low negative or adverse impacts	3	
	Medium negative or adverse impacts	2	
	Medium negative or adverse impacts - with meaningful mitigation	1	
	High negative or adverse impacts no mitigation	0	
4	<b><i>Community Impacts</i></b>		1
	<b>Based on GIS analysis including proximity to neighborhoods</b>		
	No negative or adverse impacts or positive impact	4	
	Low negative or adverse impacts	3	
	Medium negative or adverse impacts	2	
	Medium negative or adverse impacts - with meaningful mitigation	1	
	High negative or adverse impacts no mitigation	0	
5	<b><i>Environmental Justice</i></b>		1
	<b>Based on GIS analysis of low-income and minority areas (TAZ)</b>		
	Positive impact	4	
	No negative or adverse impacts	3	
	Low negative or adverse impacts	2	
	Medium negative or adverse impacts	1	
	High negative or adverse impacts	0	
6	<b><i>Funding Status in TIP</i></b>		1
	Partially funded in current TIP cycle at least 25% of total cost (construction & ROW)	4	
	Partially funded in current TIP cycle at least 10% of total cost (construction & ROW)	3	
	Partially funded in current TIP cycle at least 5% of total cost (construction & ROW)	2	
	Partially funded in post year (construction & ROW)	1	
	Not programmed in TIP	0	
7	<b><i>Benefits to Other Modes of Transportation</i></b>		1
	Carpool, transit, bike, pedestrian, ITS, TDM (all six modes)	4	
	Any 4 modes (Carpool, transit, bike, pedestrian, ITS, TDM)	3	
	Any 3 modes (Carpool, transit, bike, pedestrian, ITS, TDM)	2	
	Any 2 modes (Carpool, transit, bike, pedestrian, ITS, TDM)	1	
	Only one mode	0	

**BIKE/PED**

	<b>RANKING CRITERIA (MEASURES)</b>	<b>SCORE (points)</b>	<b>Category Weight</b>
1	<b><i>Street Classification of Roadway or Parallel Roadway for Off-Road Facilities</i></b>		1
	Arterial	3	
	Collector	2	
	Local	1	
2	<b><i>Right-of-Way Availability</i></b>		1
	Adequate right-of-way available	3	
	Some right-of-way available	2	
	Much right-of-way needed	1	
	Major barriers to right-of-way acquisition	0	
3	<b><i>Travel Demand</i></b>		1
	<b>Based on proximity to schools, colleges, parks, major retail centers, transit, and major employment centers (see attached worksheet)</b>		
	First quartile of ranked projects	3	
	Second quartile of ranked projects	2	
	Third quartile of ranked projects	1	
	Fourth quartile of ranked projects	0	
4	<b><i>Environmental Impacts - natural environment</i></b>		1
	<b>Based air quality impacts and GIS analysis including wetlands, stream crossings, wildlife habitat, parks, etc.</b>		
	High positive impact	3	
	Medium positive impact	2	
	Low positive impact	1	
	Negative impact	0	
5	<b><i>Community Impacts</i></b>		1
	<b>Based on GIS analysis including proximity to neighborhoods</b>		
	High positive impact	3	
	Medium positive impact	2	
	Low positive impact	1	
	Negative impact	0	
6	<b><i>Environmental Justice</i></b>		1
	<b>Based on GIS analysis of low-income and minority areas (TAZ)</b>		
	High positive impact	3	
	Medium positive impact	2	
	Low positive impact	1	
	Negative impact	0	
7	<b><i>Connectivity to Existing Bicycle and Pedestrian Facilities</i></b>		1
	Connects to 2 or more facilities	3	
	Connects to 1 facility	2	
	Does not connect to any facilities	0	
8	<b><i>Funding Status in TIP</i></b>		1
	Partially funded in current TIP cycle at least 25% of total cost (construction & ROW)	3	
	Partially funded in current TIP cycle at least 10% of total cost (construction & ROW)	2	
	Partially funded in post year (construction & ROW)	1	
	Not programmed in TIP	0	

## BIKE/PED TRAVEL DEMAND WORKSHEET

### For Bicycle Projects or Multi-Use Trails

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

		Proximity				Total Points
		# within 1 mile	2 points per #	# within 2 miles	1 point per #	
Land Use	Schools		0		0	
	Colleges		0		0	
	Parks		0		0	
	Major Retail Centers		0		0	
	Major Employment Centers		0		0	
	Transit Stops		0		0	
<b>Total</b>			0	+	0	<b>0</b>

### For Pedestrian Projects

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

		Proximity				Total Points
		# within 1/4 mile	2 points per #	# within 1/2 mile	1 point per #	
Land Use	Schools		0		0	
	Colleges		0		0	
	Parks		0		0	
	Major Retail Centers		0		0	
	Major Employment Centers		0		0	
	Transit Stops		0		0	
<b>Total</b>			0	+	0	<b>0</b>

### Example Bicycle Project

		Proximity				Total Points
		# within 1 mile	2 points per #	# within 2 miles	1 point per #	
Land Use	Schools	2	4	1	1	
	Colleges	1	2	0	0	
	Parks	1	2	2	2	
	Major Retail Centers	0	0	1	1	
	Major Employment Centers	0	0	1	1	
	Transit Stops	5	10	15	15	
<b>Total</b>			18	+	20	<b>38</b>

Projects will be ranked by total points and categorized into quartiles.

The final points for this travel demand will be based on the quartile.

	Points
First quartile of ranked projects	3
Second quartile of ranked projects	2
Third quartile of ranked projects	1
Fourth quartile of ranked projects	0

## TRANSIT

	<b>RANKING CRITERIA (MEASURES)</b>	<b>SCORE (points)</b>	<b>Category Weight</b>
1	<b><i>Expansion of Existing Routes</i></b>		1
	<b>Vehicle crowding (load factor) on a specific route (riders/vehicle capacity)</b>		
	First quartile of ranked projects	4	
	Second quartile of ranked projects	3	
	Third quartile of ranked projects	2	
	Fourth quartile of ranked projects	1	
2	<b><i>Regional Connectivity</i></b>		1
	<b>Connections to other transit systems</b>		
	Provides a connection between 5 or more transit systems	4	
	Provides a connection between 4 transit systems	3	
	Provides a connection between 3 transit systems	2	
	Provides a connection between 2 transit systems	1	
	Does not provide a connection	0	
3	<b><i>Essential Services (maintenance or replacement vehicles)</i></b>		2
	Provides an essential service to maintain the current level of transit service	4	
	Does not provide an essential service	0	
4	<b><i>Enhancement of Existing Service or New Service</i></b>		1
	<b>Estimated number of new riders</b>		
	First quartile of ranked projects	4	
	Second quartile of ranked projects	3	
	Third quartile of ranked projects	2	
	Fourth quartile of ranked projects	1	
5	<b><i>Funding Status in TIP</i></b>		1
	Partially funded in current TIP cycle at least 25% of total cost	4	
	Partially funded in current TIP cycle at least 10% of total cost	3	
	Partially funded in current TIP cycle at least 5% of total cost	2	
	Partially funded in post year	1	
	Not programmed in TIP	0	
6	<b><i>Environmental Impacts - natural environment</i></b>		1
	<b>Based air quality impacts and GIS analysis including wetlands, stream crossings, wildlife habitat, parks, etc.</b>		
	High positive impact	4	
	Medium positive impact	3	
	Low positive impact	2	
	Low negative impact	1	
	High Negative impact	0	
7	<b><i>Community Impacts</i></b>		1
	<b>Based on GIS analysis including proximity to neighborhoods</b>		
	High positive impact	4	
	Medium positive impact	3	
	Low positive impact	2	
	Low negative impact	1	
	High Negative impact	0	

DCHC MPO -- STP-DA Allocation Table (FY 2007-2013) for May 9 2007 TAC

TIP #	Location	Description	Total Cost	Prior Years	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	Non-Fed Match	Agency	
<b>DURHAM COUNTY</b>																		
1	I-306 C	I-85 C (15-501 to Broad)	Median Planters	\$0	\$1,122,563											\$280,641	Durham	
2	I-306 C	I-85 C (15-501 to Broad)	Brick Betterment Noise Wall	\$0	\$447,723											\$111,931	Durham	
3	I-306 C	I-85 C (15-501 to Broad)	Interchange Sidewalks	\$0	\$75,074											\$18,768	Durham	
4	I-306 DB	I-85 DB (Broad to Camden)	Brick Betterment -- Club Blvd. E. S. Noise Wall	\$0		\$106,640										\$26,660	Durham	
5	I-306 C	I-85 (Hillandale Commons)	Landscaping - Bern Hillandale Commons area	\$0	\$20,000											\$20,000	Private	
6	I-85		Interchange Fencing - (Placeholder)	\$0	\$60,000											\$15,000	Durham	
7	EL-2921	American Tobacco Tr.	Phase E	\$0					\$590,500	\$590,500						\$295,250	Durham	
8	U-4724	Cornwallis Rd	Bike/Ped Facilities (S. Roxboro to University or C.H. Rd.)	\$0							\$1,816,000					\$454,000	Durham	
9	U-4009	US 15-501	Add left turn lane at Garrett Road intersection	\$0	\$228,000											\$57,000	Durham	
10	U-3804	Hillandale Rd	I-85 to Carver Street	\$0												\$0	State	
11	R-2906	NC 55 Widening Project	MLK ROW/Extension	\$0	\$2,160,000											\$540,000	State	
12	R-2906	NC 55 Widening Project	Sidewalks/Landscaping/Entryway Enhancements	\$0	\$344,000											\$86,000	State	
13	U-4010	NC 98 (Holloway Street)	Widen for Center Turn Lane	\$0					\$2,236,000							\$559,000	State	
14	U-4011	Miami Blvd.	Widening	\$0						\$1,874,000						\$468,500	State	
<b>ORANGE COUNTY</b>																		
32	U-3306	Weaver Dairy Rd.	Bike & Pedestrian Features	\$0									\$566,000			\$141,500	State	
33	E-4994	Carrboro	Bolin Creek Greenway (CA)	\$0				\$56,000		\$590,000						\$161,500	Carrboro	
34	E-4828	Carrboro	Morgan Creek Greenway West (CA)	\$0				\$40,000	\$480,000							\$130,000	Carrboro	
35	E-4008	Carrboro	Roberson Place Greenway (CA)	\$0			\$45,600	\$88,356								\$33,739	Carrboro	
36	TD-4711C	Chapel Hill	Transit Maintenance Facility	\$0		\$560,000		\$1,600,000	\$1,670,664							\$957,666	Chapel Hill	
37	Chapel Hill		Bus Replacement	\$0	\$800,000											\$200,000	Chapel Hill	
38	E-4601	Chapel Hill/Carrboro	Morgan Creek Greenway (East)	\$0			\$80,000		\$640,000							\$180,000	CH/Carrboro	
39	E-4895	Chapel Hill	Dry Creek Greenway	\$0				\$64,000		\$560,000						\$156,000	Chapel Hill	
40	U-5022	Chapel Hill	Upper Booker Creek Greenway	\$0									\$576,000			\$144,000	Chapel Hill	
41	U-4704	Chapel Hill-Carrboro	Signal System Improvements - Planning and Design	\$0					\$380,000							\$90,000	CH/Carrboro	
42	<b>MPO-WIDE</b>																	
43	E-4707	Old Durham-CH Rd.	Bike Lanes	\$0							\$1,371,000	\$1,371,000				\$685,600	Multiple	
44	U-4727	MPO -UPWP	MPO Planning	\$1,510,000	\$165,000	\$273,000	\$228,657	\$224,380	\$265,963	\$373,000	\$273,000	\$273,000	\$273,000	\$273,000	\$273,000	\$1,101,250	Multiple	
45			UPWP Planning \$165,000															
46			MPO Bike Ped Planner Position \$28,000															
47			TRM Service Bureau \$80,000 (FY 04 - FY 08)															
51	U-4728	MPO/Various Local Govt.	Urban Area Bike/Ped Allocation	\$0	\$0	\$0	\$71,524	\$325,600	\$382,792	\$200,000	\$200,000	\$500,000	\$500,000	\$500,000	\$500,000	\$794,979	Multiple	
52	U-4726B		CAR - Bolin Forest Drive Sidewalk	\$0			\$15,960									\$3,990	Carrboro	
53	U-4726A		CAR - Hanna Street Sidewalk	\$0			\$55,564									\$55,564	Carrboro	
54	U-4726F	03-04 bike allocation	CH - Chapel Hill Sidewalks	\$0					\$200,000							\$50,000	Chapel Hill	
55	U-4726D	04 bike/ped allocation	DUR - Bicycle Pedestrian Plan	\$0				\$60,000	\$15,000							\$18,750	Durham	
56	U-4726E	05 bike/ped allocation	CH - Airport Road	\$0				\$40,000								\$10,000	Chapel Hill	
57	U-4726C	05 bike/ped allocation	CH - Culbreth Rd.	\$0				\$36,000								\$9,000	Chapel Hill	
58	U-4726G	05 bike/ped allocation	DUR - Holloway St sidewalks	\$0				\$53,600								\$13,400	Durham	
59	U-4726H	05 bike/ped allocation	DUR - Bike Education	\$0				\$8,000	\$40,000							\$12,000	Durham	
60	U-4726I	05 bike/ped allocation	CAR - Bel Albor Path	\$0								\$52,556				\$13,139	Carrboro	
61	U-4726J	06 bike/ped allocation	CAR - South Greensboro St/Smith Level Sidewalk	\$0								\$36,800				\$9,200	Carrboro	
62	U-4726K	06 bike/ped allocation	DUR - Hillandale:Club to I-85 5' sidewalk on both sides	\$0						\$132,387						\$33,097	Durham	
63	U-4726L	06 bike/ped allocation	CH - Fordham Blvd sidewalk NE Fordham/Estes Dr.	\$0				\$12,000								\$3,000	Chapel Hill	
64	U-4726M	06 bike/ped allocation	CH - Drainage gate replacement (NC 86)	\$0				\$8,000								\$2,000	Chapel Hill	
65	U-4726N	06 bike/ped allocation	Walkable Communities Workshop (MPO)	\$0					\$13,600							\$3,400	MPO	
66	U-4726O	07 bike/ped allocation	DUR - Carpenter Fletcher RD/Woodcroft- Alston bike impr.	\$0					\$114,192							\$28,548	Durham	
67	U-4726P	07 bike/ped allocation	CH - Culbreth Rd:15501-Culbreth Park Dr sidewalk	\$0				\$108,000								\$27,000	Chapel Hill	
68	U-3475	MPO -UPWP sp projects	Various Planning Activities	\$0	\$0	\$58,000	\$50,000	\$617,483	\$544,251	\$1,148,000	\$380,000	\$0	\$300,000	\$0	\$0	\$774,434	MPO	
69		(flexed to UPWP planning)	MPO TDM	\$0				\$85,000	\$56,000	\$105,000						\$68,750	NCDOT	
70			ITS Deployment Plan Update	\$0					\$56,000							\$14,000	MPO	
71			Bike/Ped (non-motorized trip)Model Development	\$0						\$200,000						\$50,000	MPO	
72			Data automation/management/GIS (\$200,000)	\$0				\$40,000		\$160,000						\$50,000	Multiple	
73			I-40/NC 54 Transit Corridor -- Phase II	\$0												\$0	Multiple	
74			Land Use/Transportation Model (Placeholder)	\$0						\$200,000						\$50,000	Multiple	
75			Congestion Management System	\$0				\$100,000		\$100,000	\$200,000		\$200,000			\$150,000	Multiple	
76		breaks needed ?	CH - Chapel Hill Mobility Report Card	\$0		\$58,000		\$122,000			\$100,000		\$100,000			\$95,000	Chapel Hill	
77			CAR - Carrboro Downtown Study	\$0				\$40,000								\$10,000	Carrboro	
78			Old Durham-CH Rd. bike/ped feasibility study	\$0			\$50,000									\$12,500	Multiple	
79			MPO Collector Street Plan	\$0				\$40,000		\$40,000						\$20,000	Multiple	
80			Model travel behavior surveys (HH, B&A counts)	\$0				\$160,483	\$79,517							\$60,000	Multiple	
81			Model Enhancements and major update	\$0				\$30,000		\$150,000	\$80,000					\$65,000	Multiple	
82			Model surveys ph-2 (onboard, travel time, external)	\$0					\$67,000	\$128,000						\$48,750	Multiple	
83			TDM additional request (TTA)	\$0					\$40,000							\$10,000	Multiple	
84			MPO CMS	\$0					\$48,000							\$12,000	Multiple	
85			CH/CAR - Chapel Hill/Carrboro Transit Master plan	\$0				\$160,000								\$40,000	Multiple	
86			AQ Planning/Conformity (TJGOS)	\$0					\$8,734	\$25,000						\$8,434	Multiple	
			Chapel Hill TDM	\$0					\$40,000							\$10,000	Chapel Hill	
Durham Total			\$24,547,559	\$7,103,867	\$4,377,360	\$186,640	\$0	\$121,600	\$2,995,692	\$2,596,887	\$1,816,000	\$0	\$0	\$0	\$0	\$5,364,512	Durham	
Orange Total			\$19,673,323	\$5,618,160	\$0	\$1,418,000	\$197,124	\$2,215,356	\$3,510,664	\$1,190,000	\$100,000	\$89,356	\$1,242,000	\$0	\$0	\$3,976,338	Orange	
MPO-Wide Total			\$12,048,418	\$1,510,000	\$165,000	\$273,000	\$278,657	\$679,883	\$663,814	\$1,481,000	\$1,924,000	\$1,644,000	\$473,000	\$273,000	\$273,000	\$2,409,884	Other	
Yearly Total				\$14,232,027	\$4,542,360	\$1,877,640	\$475,781	\$3,016,819	\$7,170,170	\$5,267,887	\$3,840,000	\$1,733,356	\$1,715,000	\$273,000	\$273,000	\$44,417,040	Total Yearly	
STP DIRECT ATTRIBUTABLE				\$18,059,826	\$2,732,775	\$3,211,059	\$3,632,240	\$3,552,867	\$3,600,000	\$3,600,000	\$3,600,000	\$3,600,000	\$3,600,000	\$3,600,000	\$3,600,000	\$56,388,767	Total STPDA	
MPO Reserve				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000			
FY BALANCE					(\$1,809,585)	\$1,333,419	\$3,156,459	\$536,048	(\$3,570,170)	(\$1,667,887)	(\$540,000)	\$1,566,644	\$1,585,000	\$3,027,000	\$3,027,000			
N/A = not available				\$3,363,353	\$1,553,768	\$2,887,187	\$6,043,646	\$6,579,694	\$3,009,524	\$1,341,637	\$801,637	\$2,368,281	\$3,953,281	\$6,980,281	\$10,007,281			

Changes recommended by TCC Subcommittee for bike/ped allocation.

Not Included in the Final 2007-2013 STIP

## MEMORANDUM

**To:** Transportation Advisory Committee (TAC)  
DCHC MPO

**From:** DCHC MPO Lead Planning Agency

**Date:** June 13, 2007

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

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This memorandum provides a summary status of tasks for projects in the FY 2006-2007 Unified Planning Work Program.

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

### **2006-07 Unified Planning Work Program (UPWP) Emphasis Projects**

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

- ✓ Draft schedule – August 2006
- ✓ Release SE Data for public comment – January 2007

There are two principal elements of the socio-economic data (SE Data) that is input into the Triangle Regional Model (TRM). The 2005 Base Year data collection of population and employment data has been completed. The 2035 Forecast for population and employment data has been drafted and the detailed process of checking the data has begun. TAC received a preliminary review of the SE Data at their November 8, 2006 meeting. The TAC received the draft SE Data at their January 10, 2007 meeting and released that information for a 42-day public comment period. A public hearing was held at the March 14, 2007 TAC meeting.

The efforts to reexamine the role of transit in the Triangle will affect the 2035 LRTP task to develop goals and objectives. The Transit Blueprint, the advisory committee and the public involvement effort to develop a transit vision are tasks that will need to be coordinated with the 2035 LRTP goals and objectives.

#### **Transit On-Board Survey**

- ✓ Consultant has been selected for the survey.

- ✓ Scoping and contract negotiations have been completed.
- ✓ Kick-off meeting August 8, 2006
- ✓ Survey completed
- ✓ Preliminary results reviewed by stakeholders
- ✓ Draft report released – comments provided to consultant
- Final report – completed

#### **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 – May 18, 2007
- City issues contract – June 2, 2007
- Notice to proceed – June 9, 2007

#### **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
- Update of the deployment plan including development of measures of effectiveness, IDAS, Turbo Architecture.

### **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

### **MPO Collector Street Plan**

#### **7-Year Transportation Demand Management Program**

- ✓ Contract awarded to UrbanTrans Consultants – September 2006
- ✓ Kick-off meeting – October 23, 2006
- ✓ Stakeholder Involvement – November 30, 2006
- ✓ TDM Program Analysis – November 30, 2006
- ✓ Assessment of Local Growth Management Strategies – November 30, 2006
- ✓ Market Analysis – January 3, 2007
- ✓ TDM Investment Scenario Development and Analysis – February 2, 2007
- ✓ Draft Recommendations – February 28, 2007
- ✓ Final Report – April 30, 2007

#### **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**

### **Coordinated Human Services Transportation Plan (JARC/New Freedom)**

- ✓ Convene Project Planning Team – Completed by September 15
- ✓ Inventory of available human services transportation and public transportation - Completed by October 15
- ✓ Assess the transportation needs for individuals with disabilities, older adults, persons with limited incomes, and “reverse-commuters.” Identify what the current systems do well and what we need to do better. – First stakeholder meeting to be held November 1, Draft assessment to be completed by December 1
- ✓ Prioritize the gaps in service and the areas of redundant services. Identify key performance criteria for evaluating actions/strategies to address the priorities. - Stakeholder meeting to be held December 14
- ✓ Prepare a draft plan document. - Draft plan to be presented to TCC Transit/TDM Subcommittee and the TCC meetings in January
- ✓ Report on the stakeholder workshops and identified needs – January TCC/February TAC
- ✓ Final plan approved - February TCC/March TAC meeting

### **2005-06 Unified Planning Work Program (UPWP) Emphasis Projects – In Progress**

#### **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 Report March 2007.

- Final Plan anticipated to be finalized in June 2007.
- Durham Public Forum - June 21, 2007
- Plan Adoption (Durham City, Durham County, and TAC) anticipated occurring during the months of June 2006 and July 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 60% complete.
- Data Collection and field inventory to be completed by spring 2007.
- Level of Service analysis anticipated to be completed by spring 2007.
- Development of CMS performance measures and guidelines likely to be completed in January 2007.
- Evaluation of congestion management strategies and development of cost-effective mitigation measures expected to be done by spring 2007.
- Draft CMS State of System Report likely to be done in summer 2007.
- Public Comment and local review in summer 2007.
- Adoption anticipated in summer/fall 2007.

### **Travel Demand Model Update – Model Revision to Incorporate FTA New Start enhancement**

- ✓ Consultant has been selected to assist the Triangle Regional Model (TRM) Service Bureau at ITRE in the model update.
- ✓ Data collection is complete.
- ✓ Migration of model from Tranplan to TransCad has been completed.
- ✓ Phase 1 (TTA new start model revision) completed in October 2005.
- ✓ Phase II TTA New Start model conversion to TransCad to be completed in August 2006.
- Calibration of 2002 model in TransCad anticipated to be completed in December 2006.
- Validation of 2002 model against 2005 count data anticipated to be completed in November/December 2006

### **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 2007.

#### **Update of the MPO Public Involvement Policy**

- ✓ Draft to be ready for August 2006 TAC meeting.

- ✓ Adopted – October 2006 TAC meeting

**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

### NCDOT PROJECTS UNDER CONSTRUCTION IN DURHAM COUNTY - 7/2/2007

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	Phillip R. Johnson, PE, PLS	(919) 678-0444	06/01/2006	100%	94.7%	8/31/2007
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) 560-6857	12/31/2006	100%	98.5%	7/15/2007
Durham	I-306DB	I-85	WIDENING OF I-85 FROM WEST OF BROAD STREET TO WEST OF CAMDEN AVE.	\$ 73,297,064.77	4.093 km	Granite Construction Company	Aaron V. Earwood, PE	(919) 560-6857	12/31/2004	100%	100%	7/15/2007
Durham, Wake	R-2000AB/AC	I-540	CONSTRUCTION OF I-540 FROM RESEARCH TRIANGLE PARK EAST LIMITS TO I-40.	\$ 68,368,301.43	5.346 km	The Lane Construction Corp.	Phillip R. Johnson, PE, PLS	(919) 733-9499	08/01/2007	98.0%	95.1%	8/1/2007
Durham	U-2055C/H/I	GARRETT ROAD	WIDENING GARRETT RD AT INTERSECTIONS OF TROTTER RIDGE, COLORADO, SWARTHMORE	\$ 743,997.00		Triangle Grading and Paving	Aaron V. Earwood, PE	(919) 560-6857	6/30/2007	40.0%	20.0%	8/15/2007
DURHAM	I-3306BB	I-40	I-40 FROM ORANGE COUNTY LINE TO NC-147, MILL AND FILL DESIGN BUILD	\$ 21,749,430.00	10.401 miles	The Lane Construction Corp.	Phillip R. Johnson, PE, PLS	(919) 733-9499	5/10/2008	33.9%	35.3%	5/10/2008
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	Phillip R. Johnson, PE, PLS	(919) 733-9499	11/1/2009	9.8%	12.5%	11/1/2009
DURHAM	RESURFACING	PRIMARY	NC-54 FROM FALCONBRIDGE ROAD TO DRESDEN DRIVE	\$ 318,281.20	1.45 miles	Barnhill Contracting	Aaron V. Earwood, PE	(919) 560-6857				
DURHAM	RESURFACING	SECONDARY	21 SECTIONS OF SECONDARY ROADS	\$ 2,795,584.75	18.9 miles	Barnhill Contracting	Bob Shultes	(919) 840-0914	9/1/2007			
DURHAM	RESURFACING	PRIMARY	5 SECTIONS OF US-15/501, 1 SECTION OF US-15/501 BYPASS, AND 1 SECTION OF NC-55 SB	\$ 920,361.66	5.16 miles	REA CONTRACTING LLC	Bob Shultes	(919) 840-0914				
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			

### NCDOT PROJECTS FOR LET NEXT 12 MONTHS IN DURHAM COUNTY - 7/2/2007

County	TIP #	Route	Location Description	Contract Estimate	Length	Contact Engineer	Phone #	Contract Let Date
DURHAM	U-4410DB	HOPSON ROAD	NEW ALIGNMENT OF HOPSON ROAD FROM NC-55 TO LOUIS STEPHENS DRIVE	\$ 3,800,000.00	0.587 miles	C. HAIRE	(919) 250-4016	8/21/2007
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	\$ 20,300,000.00	1.769 miles	C. HOUSER / J. MOORE	(919) 250-4016	8/21/2007
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	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 - DCHC MPO** 7/16/07 Attachment 11

Orange	31393	NC 86 @ Cameron St.	Upgrade signal heads, replace existing pedestrian signal heads with countdown heads and install mast arms REVISION: Use existing poles in lieu of mast arms	100,000.00	<b>100% complete</b>
Orange	US-3925 31914	NC 86 @ Rosemary St.	Upgrade signal heads, install a protected/permitted left turn phase for NC 86 and install 2 metal strain poles REVISION: Mast arm to be used in lieu of metal strain poles	85,000.00	Rev. Compl. 10/31/07; foundation <b>complete</b>
Orange	U-4008 35009.3.2	US 15-501 & SR1734 (Erwin Rd.)	Grading, drainage, paving and intersection improvements (Super Street)	4,989,838.30	Const. underway for completion 10/31/07
Orange	36945	SR 1010 (Franklin St.) @ Mallette St.	Upgrade traffic signal and install pedestrian signal heads REVISION: Install mast arm	110,000.00	Rev. compl. 12/31/07
Orange	37708	SR 1733 (Weaver Dairy Rd.) @ Sedgfield Dr.	Construct left turn lane	150,000.00	FA construction <b>underway</b>
Orange	40553	SR 1777 (Homestead Rd.)	Widening for sidewalks and bikeways from SR 1834 (High School Road) to SR 1729 (Rogers Road) and a turn lane at SR 1834	650,000.00	Barrett, Irvin & Jordan const. underway for completion by 8/17/07
Orange	SS-4907A 40715.3	NC 86 @ Cameron St.	Install pedestrian signal heads across the east side of Cameron St.; upgrade vehicular signal heads to 12"	24,000.00	Signal heads compl.; <b>Ped heads to be compl. by 7/31/07</b>
Orange	SS-4907E 41026.3	NC 54 @ SR 1952 (White Cross Road)	Construct a left turn lane	173,000.00	FA construction by 10/5/07
Orange	41059	SR 1727 (Eubanks Rd.) @ SR 1725 (Millhouse Rd.)	Install a traffic signal	30,000.00	MA w/ Town of Chapel Hill; <b>100% complete</b>
Orange	41096	NC 54 @ SR 2016 (Southern Drive)	Construct a left turn lane on NC 54 westbound	140,000.00	<b>Design compl.</b> for FA construction by 4/5/08
Orange	41290	I-85 NBL	Extend the existing guardrail over SR 1713 (Mt. Herman Ch. Rd.) approximately 800 feet southward	20,000.00	Construction by 7/17/07
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	FA const. by 10/5/08
Orange	41593	Union Street	Construct 750 feet of sidewalk and a crosswalk to connect Hillsborough Elementary School to SR 1156 (Nash St.)	\$32,000	<b>Town to construct with PE certification</b>
Orange	41594	SR 1010 (W. Main St.) @ NC 54	Install pedestrian signal heads and crosswalk markings	\$40,000	<b>Construction pending</b>
Orange	7CR.10681.5	Varied	Resurface 3 sections of US 15-501; 7 sections of NC 54; 1 section of NC 751 and 8 sections of secondary roads		ST Wooten Corp. <b>=90% compl.</b>

**ACTIVE NCDOT PROJECTS LOCATED IN ORANGE COUNTY - DCHC MPO** 7/16/07 Attachment 11

Orange	SF-4907A 40740.1	SR 1567 (Pleasant Green Rd.) @ SR 1569 (Cole Mill Rd.)	Improve sight distance	25,000.00	<b>Removed from TIP; to be constructed w/ maint. Funds by 9/4/07</b>
Orange	SI-4807 40249.3.1	SR 1548 (Schley Rd.) @ SR 1538 (New Sharon Church Rd.)	Install center islands with stop signs on SR 1538	60,000.00	Plan revisions for FA const. -rev. compl. 10/5/07
Orange/ Chatham	R-0942CA	US 15-501	Widen to multi-lane roadway from North of Co. line to South of SR 1994 (Culbreth Rd.)	95,000.00	<b>Signal 100% compl. @ Dogwood Acres Dr.</b>
<b>NCDOT PROJECTS CURRENTLY IN 12 MONTH LETTING LIST</b>					
<b>County</b>	<b>TIP #</b>	<b>Route</b>	<b>Location Description</b>	<b>TIP Est.</b>	<b>Est. Let Date</b>
Orange	I-4716	I-40	Grind and reseal joints on I-40 from I-85 to Durham Co.	1,500,000.00	Jan. 15, 2008
<b>Orange</b>	<b>B-4218</b>	<b>SR 1730 (Turkey Farm Rd.)</b>	<b>Replace Bridge # 108 over New Hope Creek</b>	<b>675,000.00</b>	<b>July 15,2008</b>

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## **New bond tactic could aid road work**

Matthew Eisley, Staff Writer

North Carolina will soon start using a new tool to help build highways: a credit card.

Hoping to catch up a bit on overdue highway construction amid spiraling construction costs, the state will begin paying for some projects by selling revenue bonds that borrow against future federal highway money.

Triangle projects include repaving part of Interstate 40 around Raleigh and building a U.S. 401 bypass around Rolesville.

The bonds are called "GARVEE" bonds, an unwieldy term that is an acronym for "Grant Anticipation Revenue Vehicles." (Government being what it is, a couple of extra letters are thrown in.) It's public-sector jargon for: a loan.

The state will sell tax-free bonds at low interest rates to investors, then repay them over 12 years as federal highway grants roll in.

The arrangement forgoes some federal revenue for future projects but buys more highway work at today's cheaper prices.

"We will save a lot of money on construction," said Mark Foster, chief financial officer at the state Department of Transportation.

Over seven years, the state will issue about \$900 million of the bonds -- for core highways only, Foster said. DOT's board of directors and local transportation planning committees must first approve each project.

The state typically contributes 20 percent of the projects' cost, the same as it would if it paid for them with current federal highway grants instead of bonds.

The state legislature authorized the borrowing tool two years ago.

North Carolina's Council of State, a committee of the state's highest elected officials, approved the bonds' use Tuesday after State Treasurer Richard Moore endorsed them despite his concerns about the future availability of federal highway revenue.

"I have to admit that I have been wary of this because the federal government is not in very good shape," Moore, a Democrat running for governor, told fellow council members. "...The structure of this is financially sound. If we get to the point where we're not getting any federal highway money, we're going to have other problems than paying this debt."

Lt. Gov. Beverly Perdue, also a Democrat running for governor, agreed with issuing the bonds.

"Road projects are backed up," she said. "This is the way the General Assembly has said we can catch up on some of them."

Two Republican council members voted no: Labor Commissioner Cherie Berry and Agriculture Commissioner Steve Troxler. Troxler gave no reason. Berry suggested that she feared the bonds could be diverted to light-rail mass transit, despite the department's policy against that.

Republican State Auditor Les Merritt voted for the bonds' use. "It certainly makes sense," he said. "I'm not against it."

### **Help for 25 projects**

The state plans to issue about \$300 million in GARVEE bonds this year for 25 projects, including repaving I-40 for 13 miles around West Raleigh from Wade Avenue to I-440, I-40/85 in Alamance County and I-85 in Vance County.

And the highway bonds will contribute about \$32 million to speed up construction of a U.S. 401 bypass around Rolesville, projected to begin in four years.

"There have been efforts for years to get the 401 Bypass funded," said Ken Spaulding, the Triangle's main representative on the state transportation board. "The GARVEE funds will enable us to take care of that finally."

The I-40 work around Raleigh is significant, too, he said.

"We can get these projects done now instead of paying a lot more for them later on," he said. "It's going to be very important."

But some transportation planners question why the state plans to spend so much of the bond proceeds on paving and other routine maintenance instead of using normal annual appropriations.

"GARVEE bonds are intended for the kind of expensive projects that you otherwise couldn't pay for with annual pay-as-you-go funds," said Ed Johnson, executive director of the Capital Area Metropolitan Planning Organization, based in Raleigh. "But we'll accept any help we can get."

Staff writer Matthew Eisley can be reached at 829-4538 or [matthew.eisley@newsobserver.com](mailto:matthew.eisley@newsobserver.com).

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## **State picks East End route**

BY RAY GRONBERG, The Herald-Sun  
July 9, 2007 10:57 pm

DURHAM -- State officials have settled on the least expensive of four possible routes for the proposed East End Connector, but one that would still cost \$193 million, almost twice the money they've earmarked for the project.

The choice of what planners have termed "Alternative 3" followed reviews by local officials, the N.C. Department of Transportation and an assortment of other state agencies. Engineers are now updating the connector's environmental impact statement, a task they should finish early next year, DOT project manager Beverly Robinson said.

But the key obstacle is likely to be the project's cost.

North Carolina's latest road-construction plan earmarked about \$99 million for the connector, and engineers conceded earlier this year that a significant funding gap remained. At the time, they were estimating that building the road could consume \$135 million.

One of the project's leading backers, Durham lawyer and state Board of Transportation member Ken Spaulding, said he'll have to continue a lobbying campaign that secured the money for the connector that's in this year's construction plan.

"To me, this was not unanticipated," he said. "Obviously, costs have escalated. So it was not really a surprise and I anticipated that there would be an additional amount. We'll just have to work to obtain those funds, just like we did in bringing it from nothing to almost \$100 million. We'll just have to have the same effort."

Spaulding's mention of escalating costs appeared to allude to the problems DOT and other groups involved in construction have experienced thanks to the rising price of steel and other materials. Competition from builders in China and other developing economies has driven a significant part of that inflation.

But on Monday, Robinson said the \$60 million increase was traceable entirely to an addition for right-of-way purchases.

Preliminary figures released over the winter said the agency needs to acquire about 88 acres of land, and that officials should figure on the project displacing 36 homes and 15 businesses.

All three of the other alternatives officials studied would require more acreage and displace more homes and businesses.

Officials gathered comment on the alternatives - and floated the \$135 million figure for Alternative 3 - last winter knowing they lacked firm estimates for the cost of right of way. They said as much in memos relayed to the City Council in January, just before the council endorsed Alternative 3.

As of winter, the right of way estimate still "was being prepared," Robinson said.

The East End Connector would link the Durham Freeway to U.S. 70 and Interstate 85. It would branch off the freeway just over a mile south of Briggs Avenue and proceed northeast to join U.S. 70 near East End Avenue.

Air photos and DOT maps show that the routing would traverse a series of vacant parcels over most of its path. It would displace houses at two points, first as it leaves the freeway and crosses Angier Avenue, and again as it crosses Rowena Avenue near Checkerberry Lane.

When asked about the impact of the overall inflation in the construction market, Robinson said engineers will update the cost estimates as needed.

"Numbers are as good as today, pretty much," she said.

URL for this article: <http://www.heraldsun.com/durham/4-863650.cfm>

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POSTED ON JULY 4, 2007:

## Capping greenhouse gases

*Durham unveils report and plans to curb global warming*

**By Lisa Sorg**

First, the bad news: Durham ranks well above—sometimes double—the national average in amount of greenhouse gases generated per person. And despite the city's 1999 plan to reduce these emissions, with a few exceptions, efforts to decrease these pollutants have been weak or non-existent.

Now, the good news: The city and county are starting to do something about it.

In late June, Durham unveiled its proposed Greenhouse Gas Inventory and Local Action Plan. The 102-page document details the local sources and amounts of pollutants that contribute to global warming, and offers solutions for curbing them.

Durham has a daunting task. The plan recommends that by 2030 local government should reduce its emissions by 50 percent; residential, commercial and industrial sectors, 30 percent. Without these cuts, Durham is forecast to emit more than 10 million tons of greenhouse gases annually within the next two decades.

"It's aggressive, but doable, if we're really committed," says Commissioner Ellen Reckhow, a liaison to the Greenhouse Gas Steering Committee.

"It's terrific that we're setting goals," adds Judy Kincaid of Clean Energy Durham, a nonprofit group that works with neighborhoods on home energy issues. "The important thing to come out of this is the inspiration and commitment to aggressively work on this."

The city and county paid a Canadian consulting company, ICLEI, \$55,000 for the inventory and plan. If approved by city council and the board of county commissioners this fall, Durham would be the first county in North Carolina to adopt such a measure. Orange County, including Chapel Hill and Carrboro, is working on its greenhouse gas inventory.

Durham is faced with an additional challenge. The steep reductions must occur as the county's population is expected to increase by 25 percent by 2030.

"We have to cut greenhouse gases against the backdrop of population growth," says Rob Jackson, biology professor at Duke University's Nicholas School of the Environment. "Like a diet, it takes discipline. It takes a group of people to keep the topic in front of City Council and the community all the time."

That vigilance requires not only a greater energy consciousness on behalf of the citizens, but the government's political will to permanently stick to the plan. "There are no regulations to say that cities have to cut their greenhouse gases," says Ellen Beckmann, a city transportation planner. "But local government can be an example. It's going to be up to the citizens to be sure we're upholding it."

The plan calls for a sustainability coordinator, who would educate the public about energy conservation and possibly monitor the government's progress toward meeting the reductions. The city and the county would fund the position, and each has allocated \$50,000 to implement the plan.

Yet, local energy activists, volunteers who for years have done much of the heavy lifting in educating Durham residents about home energy conservation, say the coordinator must be more than a figurehead.

"The sustainability coordinator is only as effective as local government," says Fred Broadwell, a sustainable energy consultant and Clean Energy Durham volunteer. He adds that government should coordinate land use, transportation, trees and recycling into the greenhouse gas plan. "We need an energy plan. It's not fair to ask the coordinator to magically rally all these other plans to make this effective."

In addition to car and truck emissions, electricity usage, much of it generated from coal, is Durham's main culprit in greenhouse gases. And the city, perennially beset by budget woes, is wasting millions of dollars on energy costs—money that could go toward efficiency and conservation. In government buildings alone, energy efficiency could save the city and county \$3.5 million annually; if each of Durham's 90,000 households saved \$100 a year in energy costs, residents would save \$9 million.

"As a community, we are throwing away money every day through horribly inefficient buildings," Broadwell says.

The 2007 report points out that there have been no significant greenhouse gas reductions in homes or businesses. Many energy-saving measures sponsored by Duke Energy and PSNC Energy have not been implemented in Durham. Nor are there many incentives for energy efficiency. Any advances have come from private developers, including GreenFire and Xero Flor, an international company specializing in green roofs, which has relocated to Durham.

To their credit, Durham County and Duke University have built or retrofitted seven facilities to meet Leadership in Energy and Environmental Design (LEED) standards, the national certification for green buildings—the most of any county in North Carolina. The City of Durham has no LEED-certified buildings. The city's performing arts center, currently under construction downtown, is not being built to LEED standards.

Although the city is beginning to work toward energy efficiency, including passive solar heat for its indoor swimming pools, an approved bond didn't include money for such initiatives, only overdue maintenance. "We don't really have the means to carry out a comprehensive plan," says Chris Boyer, interim director of the general services department. "We're trying to work within the budgets we have."

A lack of money and direction eight years ago put Durham further behind in its emissions reductions. A 1999 plan, prepared by engineering firm CH2M HILL, set a low target—a mere 5 percent reduction in emissions by 2025. Yet, the plan, which excluded the county, was never presented to City Council and was shelved.

"It was unclear as to what the plan meant," says Nancy Newell, now a civil engineer in the city's water management department. For the 1999 plan, she supplied data on the city's solid waste. "Budgets were tight and it was unclear what you could and couldn't do."

While the 2007 plan is voluntary, Jackson says there soon could be a critical point at which emissions cuts could, or should, become mandatory.

"In my view, we need a mandatory plan as soon as possible. I say that as a scientist who studies the earth," Jackson says. "The trick is to craft the plan so that the hammer is as light as possible. The longer we wait, the heavier and more expensive the hammer is going to be."

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### **Goals of Durham's Greenhouse Gas Inventory and Local Action Plan**

- Target year: 2030
- City and county government: 50 percent reduction in greenhouse gas emissions from 2005 levels
- Community, including citizens, business and industry: 30 percent reduction over the same period

- Reductions can be made through energy efficiency and conservation and hybrid or alternative-fuel vehicles
- Hire a sustainability coordinator, funded by the city and county, to oversee local government's progress, educate the public and submit annual reports

**Other highlights:**

- In 2005, local government emitted 158,710 tons of greenhouse gases, equivalent to the amount of emissions in 60 million gallons of gasoline.
- The same year, the community emitted 6,837,430 tons of GHG, equal to the emissions in nearly 2.6 billion gallons of gasoline.
- In Durham, electricity usage, cars, trucks and buses are the main sources of GHG emissions.

**URL for this story: <http://www.indyweek.com/gyrobase/Content?oid=156598>**

## **Durham to tackle global warming**

BY ANDREW DUNN, The Herald-Sun  
June 21, 2007 10:12 pm

DURHAM -- Durham is moving forward with a plan to curb any impact it might have on global warming, following the trend of cities fearing potentially catastrophic projections.

At least one regional expert scoffs at the idea.

Nonetheless, local officials requested feedback on a local action plan to reduce greenhouse gas emissions at a public forum Thursday night. About 30 area residents were on hand.

The plan is the work of Durham County, the city and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization, and aims to curb greenhouse gas emissions based on 2005 levels.

The goal is to reduce emissions from homes, businesses and cars across the county by 30 percent before 2030.

And it aims to reduce emissions from government operations by 50 percent in the same time period.

The project is part of Durham's membership in the Cities for Climate Protection group, an organization of about 800 local governments across the world. No other Tar Heel cities are participating. Durham joined the climate group in 1996.

A local global warming study was conducted in 1999, but resulted in no subsequent action.

"We're trying to revisit this and make it an issue again," said Ellen Beckmann, transportation planner with Durham's Department of Public Works and the greenhouse gas emissions project's director.

A 2006 study, done as one of the group's "milestones," found that Durham had produced 6,837,430 tons of greenhouse gases in 2005.

That puts the city about four tons above the national average for per capita emissions -- 24.1 tons per year.

Greenhouse gases, of which the most recognizable is carbon dioxide, are thought to contribute to global warming. These gases trap heat in the atmosphere.

The federal Environmental Protection Agency's position is that humans are most likely contributing to the increase in global temperatures, but natural variation cannot be ruled out.

A National Aeronautics and Space Administration report stated that temperatures have risen about 1.3 degrees Fahrenheit since 1900.

The advisory board that Durham called upon to make this plan was made up of representatives from the city, the county, utility companies, the state Division of Air Quality, the sustainability coordinator at Duke University and environmental advocacy groups.

Some ideas to achieve the goals include increasing energy-efficient building techniques, encouraging mass transit, limiting urban sprawl, and promoting alternative vehicles and fuels, according to the local action plan.

Durham is also installing energy-efficient LED traffic lights and increasing the deployment of bike cops.

Rob Jackson, a professor at Duke University's Nicholas School of the Environment and Earth Sciences, said Earth has reached uncharted emissions territory.

He said that for 400,000 years, atmospheric carbon dioxide levels were less than 300 parts per million, even with drastic fluctuations between ice ages and warmer conditions. But that level began rising with the onset of the Industrial Revolution, and is now more than 380 parts per million.

He also said Arctic Sea ice has shrunk 20 percent in the past 30 years, and if the warming trend continues, it could lead to inland flooding, more powerful hurricanes, exacerbated droughts and ocean current changes.

"All these reasons lead me to the conclusion that we should be addressing this," he said. "We control the outcome. It's in our best interest environmentally and economically to take care of this."

But some scientists disagree with those conclusions and decry efforts to reverse such a trend as useless.

Fred Singer, a professor emeritus at the University of Virginia and a climate scientist for 45 years, said that while Earth has experienced slight warming, it is a function of natural variation.

If global warming were man-made, Singer said, the temperature change would increase percentage-wise with altitude, up to six miles above sea level.

But data from last year's U.S. Climate Change Science Program report does not show this. And saying global warming is bad indicates that the present temperature is perfect, Singer said, which is unlikely.

"The climate fluctuates in funny ways, just like the stock market," he said. "Any attempt to stop it would be completely useless and ineffective and very costly."

In Durham, the energy efficient building would be rolled into construction cost, Beckmann said, but there is no estimate for how much these measures would cost.

"A lot could change between now and then," she said. "Technology will become cheaper, hopefully."

But some of the measures can get pricey.

"I don't want to say everything we do will be cost-effective," Beckmann said. "We might just do things because they're the right things to do and to show we're taking leadership on this."

But she said the efficiency measures are an up-front cost for long-term benefit, and that the city would be cost-effective if possible.

The next step is to review the feedback received at Thursday's public forum from comment cards and surveys, and present a final plan to the city, county and MPO this fall.

Implementation is a separate process. The City Council would evaluate and vote on programs aimed at meeting these goals on a yearly basis.

"This is, for the most part, a target," Beckmann said. "It doesn't bind us to starting any projects."

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## Drivers might pay road taxes by mile

Bruce Sicheloff, Staff Writer

North Carolinians are driving more miles every year, but they're buying less gas.

Although better fuel economy sounds great for the pocketbook and good for the planet, it spells trouble for our long-term reliance on gas-tax money to finance transit and highway needs.

After spending more than it takes in for several years, the federal Highway Trust Fund is expected to run out of money for road projects by 2009.

So, as part of a \$16.5 million nationwide study over the next two years, 450 Triangle drivers will help road-test a new way to pay for transportation -- by the mile, not by the gallon.

"In the old days, when cars got 13 or 14 miles to a gallon, we were pretty flush with cash," said David J. Forkenbrock of the University of Iowa Public Policy Center. "But we're already seeing major drops in the revenues coming in. We know it's going to get worse."

Forkenbrock will oversee the Road User Charge Study in North Carolina and five other states.

Replacing the fuel tax with a mileage fee would be a long-range idea -- and possibly a long shot. Federal officials are mulling privacy issues raised by the Iowa study and its use of satellite navigation technology.

Low Rental of Morrisville drives one reason our road money is running low -- a Toyota Prius.

Rental, 69, used to drive a hulking Lincoln Aviator that burned up a gallon of gas every 13 miles. With 48.6 cents in state and federal taxes per gallon, he was paying the government 3.7 cents for every mile he drove.

But he ditched the luxury SUV for what he called patriotic reasons: to help fight global warming and cut our need for foreign oil. Now with a thrifty hybrid that gets 44 miles per gallon, Rental has cut his tax payments to barely a penny per mile.

He realizes that people like him are doing less to help pay for the roads.

"Something's going to have to be done," said Rental, a retired UPS executive. "You're either going to tax by the mile, or you're going to tax some other way."

The federal Highway Trust Fund relies mostly on gas-tax money to pay for state road construction. The fund is expected to drop from an \$8.1 billion surplus this year to a \$1.7 billion deficit by 2009.

A study commission is looking for new ways to pay the bills. Congress has held the federal gas tax at 18.4 cents per gallon since 1993. The Bush administration wants more tolls, private investment and local funding.

North Carolina collects 30.2 cents per gallon of gas.

### **Troubling trends**

North Carolina gas sales have dipped since 2004. The state gas tax has jumped 5.6 cents per gallon higher since then, pushing total gas-tax collections up slightly to a peak of \$1.23 billion in 2006. If gas sales keep falling without more rate hikes, tax collections will decline, too.

Traffic counts are climbing twice as fast as the state population, and road construction costs are also rising. Every \$100 worth of asphalt, steel, concrete and other highway ingredients that North Carolina road builders bought in 2002 costs more than \$175 today.

The mileage fee idea is fueled by the same forces that are pushing North Carolina into the business of collecting tolls from expressway drivers. North Carolina and 14 other states joined Congress in commissioning the Iowa study to weigh collecting user fees for city streets and rural highways as well.

The Iowa researchers will outfit volunteers' cars with computers and satellite gear to record where and how far they drive. Each month, the volunteers will receive sample bills for how many miles they have driven. Their mileage fees will be compared to the per-gallon taxes they pay now. Congress is considering a call to boost new-car fuel efficiency standards by about 40 percent, to an average of 35 mpg, by 2020. By then, some Americans will be driving cars that use no gas or diesel fuel -- and pay no fuel taxes. Honda will sell a limited-production hydrogen fuel-cell car in 2008. Other high-efficiency engines are also in the works.

"As people drive around in cars that don't burn gas, we're going to have to find a way to get those folks to contribute their share to road construction and maintenance as well," said Joseph Hummer, an N.C. State University engineering professor. "A tax that's pinned to just one fuel source makes you vulnerable."

### **Exploring a shift**

The Iowa study will test the hardware, the billing system and the popular support that would be needed for a shift to mileage fees. Forkenbrock wants to experiment with rates that would generate about the same revenue now produced from the gas tax. Congress and state legislatures would decide whether to set fees higher or lower.

The tests will use technology similar to the navigational aids that have become popular automobile options. The on-board computer will know which state the car is traveling in, and it will calculate the mileage fees payable to each state at the end of the month.

Local government jurisdictions will be included as well. That would give legislators the option to share mileage fees with cities or counties, to pay for local roads.

The study will also test options to vary the fee per mile for different vehicles and different times of day. Some possibilities:

- \* Higher fees for heavy trucks to reflect their share of pavement wear and tear.
- \* A rush-hour premium to cover the cost of freeway congestion.
- \* Lower fees to encourage more alternative-fuel and low-emission cars.

Forkenbrock says no records will be made on specific travel routes, so it won't be possible to find out where anyone has driven.

"The only number that is identified with your vehicle is how much you owe the city or the state," he said. "So the user's privacy is absolutely protected, even if the government subpoenas the on-board computer."

The Federal Highway Administration is reviewing his assurances about privacy protection. He hopes for approval to start recruiting Triangle volunteers late this summer.

Staff writer Bruce Siceloff can be reached at 829-4527 or [bruce.siceloff@newsobserver.com](mailto:bruce.siceloff@newsobserver.com).

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U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**North Carolina Division**

June 29, 2007

310 New Bern Avenue, Suite 410  
Raleigh, NC 27601

In Reply Refer To:  
HDA-NC

Mr. Lyndo Tippett  
Secretary, North Carolina  
Department of Transportation  
1501 Mail Service Center  
Raleigh, North Carolina 27699

Mr. Mark Ahrendsen  
Chair, Durham-Chapel Hill-Carrboro  
Metropolitan Planning Organization  
101 City Hall Plaza  
Durham, North Carolina 27701

Dear Secretary Tippett and Mr. Ahrendsen:

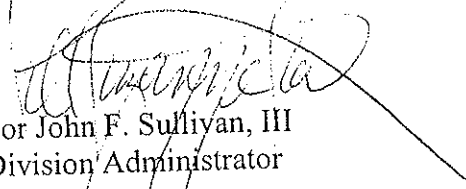
Title 23 Section 134(I)(5) and Subtitle III of Title 49 Section 5305(e)(1) of the United States Code requires the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) jointly review, evaluate, and certify the transportation planning process in each Transportation Management Area (TMA) at least every three years. During March 20-22, 2007 the FHWA and the FTA conducted a review of the transportation planning process in the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC) TMA. Since the DCHC TMA is a maintenance area for transportation related air pollutants, the review included the consideration of the adequacy of the process to ensure conformity of plans and programs in accordance with procedures contained in 40 CFR Part 51.

The Federal Highway Administration and the Federal Transit Administration have determined that the DCHC TMA's transportation planning process sufficiently meets these requirements. The process is hereby certified subject to the corrective actions and consideration of the recommendations contained in the report (the final certification review report will follow in 30 days). This certification is applicable for a period of four years from the date of this letter, following the change in requirements from SAFETEA-LU which now requires Certification Reviews every four years instead of three.

A representative from my staff will present the results of the review at one of the Metropolitan Planning Organization's upcoming meetings. If you have any questions, please contact Ms. Jill Stark, Community Planner, at (919) 856-4330,

extension 113 or you may contact FTA staff member, Mr. Keith Melton, Community Planner, at 404-562-3514.

Sincerely yours,



For John F. Sullivan, III  
Division Administrator

cc: Ms. Danyell Diggs, FHWA  
Mr. Mike Bruff, NCDOT  
Mr. Travis Marshall, NCDOT  
Mr. Keith Melton, FTA  
Ms. Amanetta Wood, EPA