

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

**April 25, 2012
9:00 am**

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

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

ACTION ITEMS

**4. Approval of March 28, 2012 TCC Meeting Minutes
Attachment 4**

A copy of the March 28, 2012 minutes is enclosed as Attachment 4.

TCC Action: Approve minutes of the March 28, 2012 TCC meeting.

**5. FY 2013 UPWP – Public Hearing
Attachment 5
Maricia Brown, LPA Staff**

Annually, the DCHC MPO is required by federal regulations to prepare a Unified Planning Work Program (UPWP) that details and guides the urban area transportation planning activities. Funding for the UPWP is provided on an annual basis by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). Essentially, the UPWP provides yearly funding allocations to support the ongoing transportation planning activities of the DCHC MPO. The UPWP must identify MPO planning tasks to be undertaken with the use of federal transportation funds, including highway and transit programs. Tasks are identified by an alphanumeric task code and description.

TCC Action: Hold a public hearing. Recommend that the TAC approve the two resolutions approving the final FY2013 UPWP and the resolution confirming the transportation planning process.

**6. NC 54/I-40 Corridor Study
Attachment 6, 6A, 6B
Leta Huntsinger, LPA Staff**

The TAC released the draft NC 54/I-40 Corridor Study report for public comment in December 2011. The draft report was previously distributed to TCC and TAC members and is posted on the NC 54 Corridor Study website:

<http://www.nc54-i40corridorstudy.com/DraftReport.html>.

The public review period extended from December 2011 to March 16, 2012. Attachment 6 summarizes citizen and agency comments on the study along with a staff response to each comment. The feedback received from citizens, citizen advisory boards, resource agencies, and elected officials guided the developed of a final set of report modifications and edits. These modifications and edits are included in a report addendum. Attachment 6A is the updated Executive Summary with the Addendum and Attachment 6B is the updated Final Report Addendum to be included at the end of the Final Report. The report text includes a reference to all edits by addendum number. All edits are included in the addendum at the end of the document. The PDF file has active links that allow the reader to navigate easily to the changes.

TCC Action: Review and discuss the changes to the Executive Summary and the Final Report. Recommend that the TAC approve the final NC 54/I-40 Corridor Study with changes in the format provided.

7. FY 2013-2015 Congestion Mitigation Air Quality Projects

Attachment 7, 7A, 7B, 7C

Dale McKeel, LPA Staff

DATA and the Town of Hillsborough have requested changes to the FY 2013-2015 CMAQ funding approved by the TAC in August 2010. Attachment 7 is a memo describing the requested changes. A new CMAQ application must be submitted to NCDOT for the Hillsborough project and the revised DATA project. These applications are provided as Attachments 7A and 7B. Emission estimates for the Hillsborough project will be handed out at the TCC meeting. DATA has also provided information on the Bull City Connector in Attachment 7C.

TCC Action: Review the requested changes from the Town of Hillsborough and DATA. Recommend approval of these changes through a MTIP amendment.

8. FY 2012-2018 MTIP – Amendment #4

Attachment 8, 8A

Felix Nwoko, LPA Staff

Amendment #4 to the FY 2012-2018 MTIP is requested to modify the description of two Triangle Transit projects, including the Durham-Orange rail corridor project, incorporate the changes to the FY 2013-2015 CMAQ program, and match recent STIP amendments. Attachment 8 is a memo describing these actions. Attachment 8A is the resolution and tables amending the MTIP.

TCC Action: That the TAC adopt the Resolution to Modify the 2012-2018 Transportation Improvement Program for the Durham-Chapel Hill-Carrboro Urban Area Amendment #4.

9. Hillsborough Downtown Access Study

Attachment 9

Margaret Hauth, Town of Hillsborough

The DCHC MPO and Town of Hillsborough jointly funded the Hillsborough Downtown Access Study. The purpose of the study was to identify cost effective ways to improve traffic through downtown such as intersection improvements, traffic calming, parking, bicycle and pedestrian facilities, and streetscaping. A final report was adopted by the Town Board on February 27, 2012. The recommendations of the study may affect the 2040 LRTP and future federal funding decisions by the MPO. The study materials are available on the Town's website <http://www.ci.hillsborough.nc.us/content/downtown-study-fall-2011>.

TCC Action: Receive presentation on the Hillsborough Downtown Access Study and forward to the TAC.

10. Triangle Regional Transit Program

Attachment 10, 10A

Patrick McDonough, Triangle Transit

Andy Henry, LPA Staff

The DCHC MPO approved the Locally Preferred Alternative for the Durham-Orange and Durham-Wake rail corridors in February 2012. The next steps for the projects are Scoping and PE/DEIS. Triangle Transit provided an overview of these steps at the last meeting.

Orange County is in the process of finalizing the Orange County Transit Plan. This plan will need to be adopted by the county, MPO, and Triangle Transit. The presentation on the Orange County Plan to the Orange BOCC on April 17 is provided as Attachment 10. A comparison of the regional Durham-Orange transit services in the draft Orange Plan and adopted Durham Plan is provided as Attachment 10A. The TCC should review the current status of the Orange County Transit Plan and forward it to the TAC for an initial review

TCC Action: Forward the Orange County Transit Plan to the TAC for review.

11. 2040 Long Range Transportation Plan and Comprehensive Transportation Plan

Attachment 11

Andy Henry, LPA Staff

The TCC will receive an update on development of the 2040 Long Range Transportation Plan (2040 LRTP), Comprehensive Transportation Plan (CTP) and MPO Collector Street Plan (CSP), including:

- **Schedule** -- Attachment 11 is a current schedule for these projects. Given the delays in producing the Socioeconomic Data (SE Data), the Alternatives will not be released until August 2012.
- **Goals and Objectives** -- At the March 2012 TAC meeting, the TAC released the Goals, Objectives and Targets and the Public Involvement Plan for public comment.
- **SE Data** -- The TAC also released the 2010 and 2040 SE Data for public comment.
- **Public Hearing** -- Public workshops continue on these items and the TAC will conduct a public hearing at their May 2012 TAC meeting. The TAC will receive a summary and compilation of the comments for that meeting. The public comment period ends on May 31, 2012.

- Survey – As of April 19, over 200 people have completed the online survey related to the Goals and Objectives.
- Adoption – The TAC is to adopt the three items at their June meeting.
- Deficiency Analysis -- The TCC will receive the Deficiency Analysis at their May 2012 meeting to review and forward to the TAC.

TCC Action: Receive update on development of the 2040 Long Range Transportation Plan, and more specifically on the Goals and Objectives and Targets, and SE Data.

REPORTS FROM STAFF:

12. Reports from Staff

Attachment 12

Felix Nwoko, LPA Staff

TCC Action: Receive Report from staff

13. Report from the Chair

No attachment

Mark Ahrendsen, TCC Chair

TCC Action: Receive Report from TCC Chair

14. NCDOT Report

Attachment 14

Wally Bowman, Division 5 – NCDOT

Mike Mills, Division 7 – NCDOT

Julie Bollinger, Transportation Planning Branch – NCDOT

David Bender, Public Transportation Division – NCDOT

Kelly Becker, Traffic Operations – NCDOT

INFORMATIONAL ITEMS:

15. Letter to NCDOT re 2040 Plan – April 11, 2012

Attachment 15

NC Association of MPOs Annual Conference, May 2-4, 2012, Asheville, NC

http://www.fbrmpo.org/ncampo_2012_conference

Adjourn

Next meeting: May 23, 2012

TECHNICAL COORDINATING COMMITTEE**March 28, 2012****MINUTES OF MEETING**

The Technical Coordinating Committee met on March 28, 2012 at 9:00 a.m. in the Council

Committee Room on the second floor of Durham City Hall. The following attended:

6	**Mark Ahrendsen	City of Durham – Transportation (TCC Chair)
7	**Tom Altieri	Orange County
8	**Julie Bollinger	NCDOT - TPB
9	**David Bonk	Town of Chapel Hill (TCC Vice-Chair)
10	**Jeff Brubaker	Town of Carrboro
11	**Melissa Guilbeau	Chatham County
12	**Andy Henry	City of Durham – Transportation
13	**John Hodges-Copple	Triangle J COG
14	**Joey Hopkins (Alternate)	NCDOT – Division 5
15	**Tom King	Town of Hillsborough
16	**James Lim (Alternate)	Research Triangle Foundation
17	**Ray Magyar	UNC Transportation
18	**Patrick McDonough	Triangle Transit
19	**Ryan Mickles (Alternate)	Town of Chapel Hill
20	**Kumar Neppalli	Town of Chapel Hill
21	**Felix Nwoko	City of Durham – Transportation
22	**Pierre Osei-Owusu	City of Durham – DATA
23	**Meg Scully	Durham County
24	**Ed Venable	City of Durham – Engineering
25	**Scott Whiteman	City/County Planning
26	**Patrick Wilson (Alternate)	NCDOT – Division 7
27	**Laura Woods	City/County Planning
28	**Darcy Zorio	Orange County
29		
30	Tyler Bray	NCDOT – PM
31	Maricia Brown	City of Durham – Transportation
32	Leta Huntsinger	City of Durham – Transportation
33	Dale McKeel	City of Durham – Transportation
34	Tina Moon	Town of Carrboro
35	Brian Rhodes	City of Durham – Transportation
36	Jill Stark	FHWA
37		
38		
39	**Voting Member	
40	^Temporary Non-Voting Member	
41	Quorum Count: 23 of 24 Voting Member	
42		

43 Mark Ahrendsen, TCC Chair, called the meeting to order at 9:03 a.m. The Alternate Voting
44 Members were identified and indicated above.

45 **PRELIMINARIES:**

46 **Adjustments to the Agenda**

47 David Bonk stated a handout was distributed at the beginning of the meeting which will be
48 addressed during agenda item #8. Felix Nwoko also stated a handout was distributed which will be
49 discussed as an informational item.

50 **Public Comments**

51 There were no comments from the public.

52 **ACTION ITEMS:**

53 **Approval of February 22, 2012 TCC Meeting Minutes (Attachment 4)**

54 A motion was made by David Bonk and seconded by Felix Nwoko to approve the February 22,
55 2012 TCC Meeting Minutes. The motion carried unanimously.

56 **NCDOT 2040 Plan (Attachment 5)**

57 Tyler Bray provided a PowerPoint Presentation on the NCDOT 2040 Plan, along with the
58 attachment.

59 On April 10, 2012 the formal comment period begins for 45 days with the intention to adopt in
60 early summer 2012. The comments will go to the Department of Transportation Board in June and
61 adoption in July.

62 Mark Ahrendsen asked why there is an emphasis on the statewide tier; some urban roads may
63 be more important to economic development than rural statewide tier roads. John Hodges-Copple
64 stated that the priorities should be based on the desired outcome. Jeff Brubaker asked to include
65 Complete Streets as a priority. Dale McKeel mentioned the recent SPOT Investment Summits and asked

66 how this will be included in the 2040 Plan. After extensive discussion, Mark Ahrendsen stated that the
67 LPA staff will work on formal comments to be submitted.

68 **NC54/I-40 Corridor Study (Attachment 6)**

69 Leta Huntsinger provided an update on the NC54/I-40 Corridor Study. After reviewing some of
70 the comments and meeting with the technical steering committee, it was decided it will take more time
71 and effort to review each comment and prepare a response. The document that the TCC will receive at
72 the next meeting will have a list of responses to the comments and from that we will develop a
73 recommended action plan on how to address them. It was discussed at the steering committee that the
74 focus will be on keeping it to modifications to the text or figures. Any changes that would require
75 additional analyses at this point would likely not be studied. We are trying to determine if the changes
76 can be made in-house or if the consultant will have to be hired to make the changes to the report.

77 The plan is to bring back to the TCC next month a list of recommendations to provide to the TAC
78 in May.

79 **FY 2012 UPWP – Amendment #4 (Attachments 7 and 7A)**

80 Maricia Brown provided an introduction for the FY 2012 UPWP – Amendment #4, along with the
81 attachments.

82 David Bonk recommended adding a table in the future that shows whose allocation is being
83 shifted.

84 After discussion, a motion was made by Felix Nwoko and seconded by Scott Whiteman to
85 recommend TAC approve the resolution adopting Amendment #4 to the FY 2011-2012 Unified Planning
86 Work Program. The motion carried unanimously.

87 **FY 2012-2018 MTIP – Amendment #3 (Attachments 8 and 8A)**

88 Felix Nwoko provided an introduction for the FY 2012-2018 MTIP – Amendment #3, along with
89 the attachments. The Triangle Transit Planning Assistance project will be removed and return next

90 month because it requires a UPWP amendment as well. Maricia Brown stated that the Chapel Hill
91 Transit Fixed Route/Demand Response Organizational Analysis also requires a UPWP amendment. Ms.
92 Brown suggested adding both to the previous UPWP amendment.

93 After discuss, a motion was made by Felix Nwoko and seconded by David Bonk to recommend
94 TAC adopt the Resolution to Modify the 2012-2018 Transportation Improvement Program Amendment
95 #3 and incorporate related UPWP changes into UPWP Amendment #4 that was previously approved.
96 The motion carried unanimously.

97 **FY 2013 UPWP – Draft (Attachment 9)**

98 Maricia Brown provided an introduction for the FY 2013 UPWP – Draft, along with the
99 attachment. There is concern because of the deadline and the need for TCC and TAC approval. Ms.
100 Brown spoke with Tamra Shaw and she stated to submit the draft on March 30, 2012 and NCDOT
101 committed to review it by April 2, 2012. Ms. Brown stated she hopes NCDOT – PTD will accept the May
102 9, 2012 TAC approval.

103 A motion was made by Felix Nwoko and seconded by David Bonk to recommend the TAC release
104 the draft FY 2013 UPWP for public comment. The motion carried unanimously.

105 **FY 2013-2015 Congestion Mitigation Air Quality Projects (Attachments 10 and 10A)**

106 Dale McKeel provided an introduction for the FY 2013-2015 Congestion Mitigation Air Quality
107 Projects, along with the attachments.

108 Felix Nwoko asked if there is urgency for this and Mark Ahrendsen stated there is for the Bull
109 City Connector because of the budget funding process. David Bonk stated he wants to see the data of
110 how the project is doing to justify the third year of funding. Mark Ahrendsen suggested bringing it back
111 to the TCC next month. David Bonk recommended sending copies of the applications to the TCC
112 members. Dale McKeel stated there will not be an application for the Bull City Connector because it is

113 for the third year funding. Jeff Brubaker asked if any of the \$108,000 will be coming back and Pierre
114 Osei-Owusu stated they will use the full amount once they add amenities.

115 **Local Match Cost-Sharing for MPO Planning Activities (Attachment 11)**

116 Felix Nwoko provided an introduction for the Local Match Cost-Sharing for MPO Planning
117 Activities, along with the attachment.

118 David Bonk stated a bullet needs to be added on page 1 of the memo for a review of the
119 organization and oversight of the MPO staff structure. Mr. Bonk suggested asking the TAC to direct the
120 TCC staff to begin discussion of the oversight review (i.e. accountability, staffing, work program, and
121 structure).

122 Melissa Guilbeau asked about the Town of Cary that is in the DCHC MPO. It includes 10% of the
123 population. John Hodges-Copple suggested adjusting the shares. Mr. Bonk recommended adding an
124 asterisk stating that we recognize that the Town of Cary has a certain area within our planning area in
125 Chatham County, but we are not requiring Chatham County or the Town of Cary to pay for the
126 population. The asterisk will read as “the Chatham County portion excludes the incorporated area of
127 the Town of Cary.”

128 A motion was made by Felix Nwoko and seconded by Pierre Osei-Owusu to recommend TAC
129 endorsement of the cost-sharing concept with the oversight and exception above included. The motion
130 carried unanimously.

131 **Triangle Regional Transit Program – Update (Attachment 12)**

132 Patrick McDonough provided an introduction and update for the Triangle Regional Transit
133 Program – Update, along with the attachment.

134 Mr. McDonough stated the scoping meetings have moved one week. They will now be on May
135 2, 2012 in Chapel Hill and on May 3, 2012 in Durham. The Orange County Board of County

136 Commissioners' decision regarding the transit plan will be on May 1st and the decision on the
137 referendum will be on May 15th. They are close to having an approved plan.

138 David Bonk asked who can make a change to the plan (e.g. take out a bus or LRT station) and
139 Patrick McDonough stated the MPO doesn't have a role in this decision. He will check with Wib Gulley
140 for clarification on the bill. Mark Ahrendsen stated the MPO is to be involved with changes to the plan.
141 The question is what magnitude of changes requires a MPO vote. John Hodges-Copple stated there
142 needs to be agreement when changes will be made to the plan.

143 Tom Altieri stated that the BGMPO only meets quarterly which is May and August. The Orange
144 County Board of County Commissioners is scheduled to make decisions on the Orange County Transit
145 Plan on April 19, 2012, provide it to the LPA staff on April 20, 2012, and then to the TCC on April 25,
146 2012. The TAC could take action at their May meeting.

147 Felix Nwoko stated that Durham needs to amend their plan because the Durham plan states LRT
148 begins in 2025, and LRT begins in 2026 in the Orange County Plan. John Hodges-Copple stated there
149 needs to be standards set on making plan modifications and we need to begin conversation on this now.

150 **REPORTS FROM STAFF:**

151 **Reports from Staff (Attachment 13)**

152 Felix Nwoko discussed the recently released Census urbanized areas and stated there is no
153 change necessary for the MPO boundary.

154 Dale McKeel stated the Oversight Committee for the Transportation Demand Management
155 (TDM) met last week to review applications submitted. Applications were received and recommended
156 for approval from UNC-Chapel Hill, Research Triangle Park, Duke University, and Triangle Transit. North
157 Carolina Central University (NCCU) did not submit an application.

158 **Report from the Chair (No attachment)**

159 There was no report from the Chair.

160 **NCDOT Report (Attachment 15)**

161 Joey Hopkins, Division 5, provided an update on projects.

162 Patrick Wilson, Division 7, provided an update on projects. Thanks for sending Ellen Beckmann
163 to the Summit meeting.

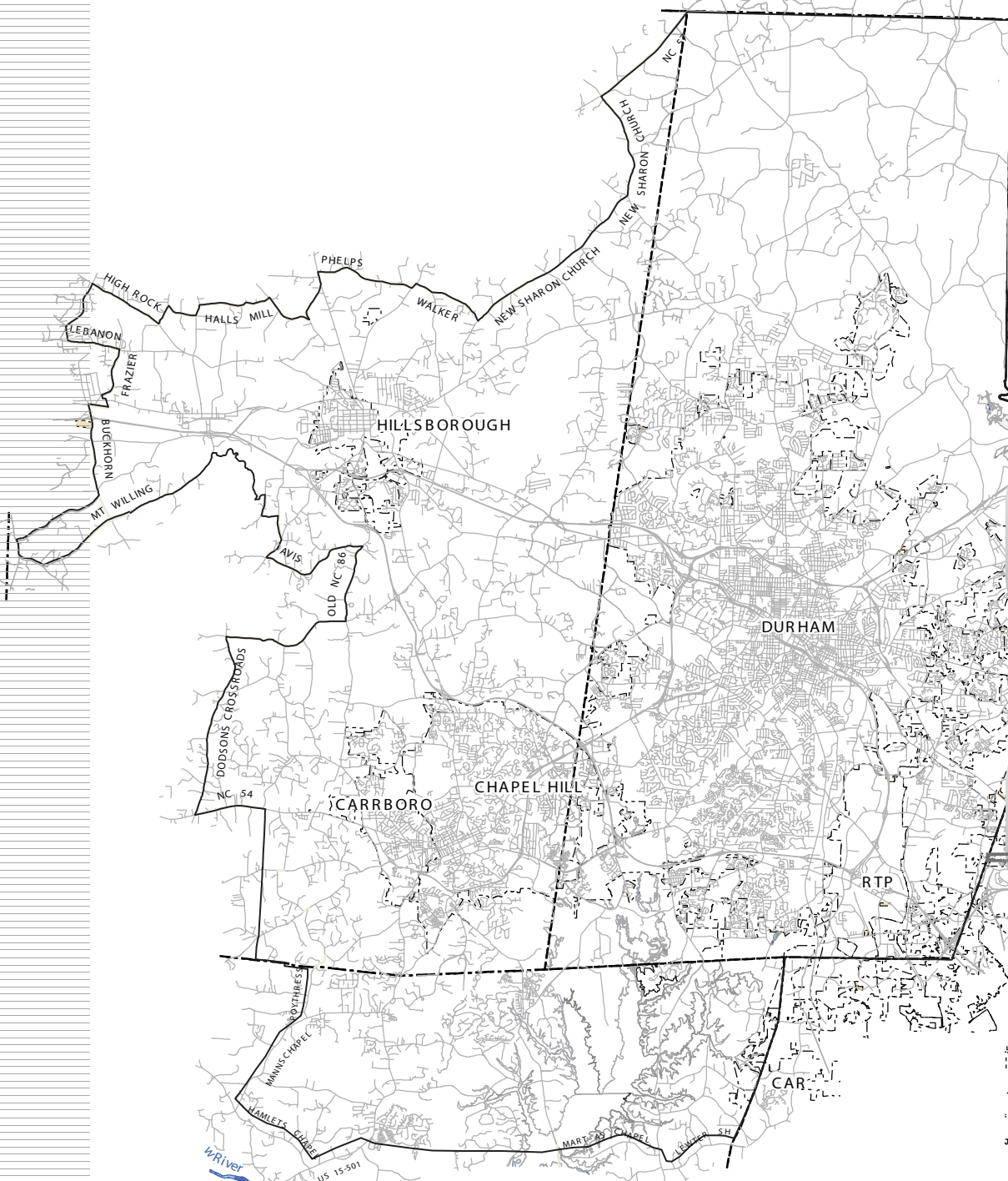
164 **Adjournment**

165 There being no further business before the Technical Coordinating Committee, the meeting
166 adjourned at 11:35 a.m.

DCHC- MPO

Durham-Chapel Hill-Carrboro Metropolitan Planning Organization Unified Planning Work Program

FY 2012-13



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**Durham-Chapel Hill-Carrboro
Metropolitan Planning Organization
FY 2012-2013 Unified Planning Work Program**

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

RESOLUTION

Approving the FY 2012-2013 Unified Planning Work Program

-----, 2012

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

Whereas, a comprehensive and continuing transportation planning program must be carried out cooperatively in order to ensure that funds for transportation projects are effectively allocated to the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization; and

Whereas, the City of Durham Department of Transportation has been designated as the recipient of Section 104(f) Planning and Technical Studies Planning grant funds; and

Whereas, members of the Transportation Advisory Committee agree that the Unified Planning Work Program will effectively advance transportation planning for FY 2012-2013.

Now, therefore, be it resolved that the Transportation Advisory Committee hereby endorses the *Durham-Chapel Hill-Carrboro Metropolitan Planning Organization FY 2012-2013 Unified Planning Work Program.*

I, Lydia E. Lavelle, TAC Chair, do hereby certify that the above is a true and correct copy of an excerpt from the minutes of a meeting of the Durham-Chapel Hill-Carrboro Transportation Advisory Committee, duly held on the ___ day of _____, 2012

Lydia E. Lavelle, TAC Chair

Durham County, North Carolina

I certify that Lydia E. Lavelle personally appeared before me this day acknowledging to me that she signed the forgoing document.

Date: _____, 2012

Frederick Brian Rhodes, Notary Public
My commission expires: May 10, 2015

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

RESOLUTION (PTD-FTA)

Approving the FY 2012-2013 Unified Planning Work Program (UPWP) of the
DCHC Urban Area/Metropolitan Planning Organization

-----, 2012

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

Whereas, a comprehensive and continuing transportation planning program must be carried out
cooperatively in order to ensure that funds for transportation projects are effectively
allocated to the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization;
and

Whereas, the City of Durham Department of Transportation has been designated as the recipient
of Federal Transit Administration (FTA) Metropolitan Planning Program funds; and

Whereas, members of the Transportation Advisory Committee agree that the Unified Planning
Work Program will effectively advance transportation planning for FY 2012-2013.

**Now therefore, be it resolved that the Transportation Advisory Committee hereby endorses
the FY 2012-2013 Unified Planning Work Program for the Durham-Chapel Hill-Carrboro
Metropolitan Planning Organization.**

I, Lydia E. Lavelle, Chair of the DCHC MPO Transportation Advisory Committee (TAC) do
hereby certify that the above is a true and correct copy of an excerpt from the minutes of a
meeting of the Durham-Chapel Hill-Carrboro Transportation Advisory Committee, duly held on
the ____ day of _____, 2012.

Lydia E. Lavelle, TAC Chair

Durham County, North Carolina

I certify that Lydia E. Lavelle personally appeared before me this day acknowledging to me that she
signed the forgoing document.

Date: _____, 2012

Frederick Brian Rhodes, Notary Public
My commission expires: May 10, 2015

RESOLUTION CONFIRMING TRANSPORTATION PLANNING PROCESS

RESOLUTION CERTIFYING THE DURHAM-CHAPEL HILL-CARRBORO (DCHC MPO) METROPOLITAN PLANNING ORGANIZATION'S TRANSPORTATION PLANNING PROCESS FOR FY 2012-2013 (FY 2013)

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

WHEREAS, the Transportation Advisory Committee has found the transportation planning process to be in compliance with Sections 174 and 176 (c) and (d) of the Clean Air Act (42 U.S.C. 7504, 7506 (c));

WHEREAS, the Transportation Advisory Committee has found the Transportation Planning Process to be in full compliance with Title VI of the Civil Rights Act of 1964 and the Title VI Assurance executed by each State under 23 U.S.C. 324 and 29 U.S.C. 794;

WHEREAS, the Transportation Advisory Committee has considered how the Transportation Planning Process will affect the involvement of Disadvantaged Business Enterprises in the FHWA and the FTA funded planning projects (Section 1003(b) of ISTEA of 1991 (Pub. L. 102-240), Sec. 105(f), Pub. L. 97-424, 96 Stat. 2100, 49 CFR part 23);

WHEREAS, the Transportation Advisory Committee has considered how the Transportation Planning Process will affect the elderly and the disabled per the provision of the Americans With Disabilities Act of 1990 (Pub. L. 101-336, 104 Stat. 327, as amended) and the U.S. DOT implementing regulations (49 CFR parts 27, 37, and 38);

WHEREAS, the DCHC MPO Metropolitan Transportation Improvement Program is a subset of the currently conforming 2030 Long Range Transportation Plan;

WHEREAS, the Transportation Plan has a planning horizon year of 2035, and meets all the requirements for an adequate Transportation Plan,

NOW THEREFORE, be it resolved that the DCHC Urban Area Transportation Advisory Committee certifies the transportation planning process for the DCHC Metropolitan Planning Organization on this the ____ day of ____, 2012

Lydia E. Lavelle, TAC Chair

Clerk/Secretary/Planner

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Metropolitan Planning Self-Certification Process

CFR 450.334

The State and the MPO shall annual certify to the FHWA and the FTA that the planning process is addressing the major issues facing the area and is being conducted in accordance with all applicable requirements of:

- Section 134 of title 23 U.S.C., section 8 of the Federal Transit Act (49 U.S.C. app. 1607) and;
- Section 174 and 176 (c) and (d) of the Clean Air Act (42 U.S.C. 7504, 7506 (c) and (d));
- Title VI of the Civil Rights Act of 1964 and Title VI assurance executed by each state under 23 U.S.C. 324 and 29 U.S.C. 794;
- Section 103 (b) of the Intermodal Surface Transportation Efficiency Act of 1991 (Public Law 102-240) regarding the involvement of disadvantaged business enterprises in the FHWA and the FTA funded planning projects...; and
- The provisions of the Americans with Disabilities Act of 1990 (Public Law 101-336, 104 Stat. 327, as amended) and U.S. DOT regulations "Transportation for Individuals with Disabilities" (49 CFR parts 27, 37, and 38).

In addition, the following checklist should help guide the MPOs as they review their processes and programs for self-certification.

Metropolitan Planning Self-Certification Process

Self-Certification Checklist

1. Is the MPO properly designated by agreement between the Governor and 75% of the urbanized area, including the central city, and in accordance in procedures set forth in state and local law (if applicable)? [23 U.S.C. 134 (b); 49 U.S.C. 5303 (c); 23 CFR 450.306 (a)]
2. Does the policy board include elected officials, major modes of transportation providers and appropriate state officials? [23 U.S.C. 134 (b); 49 U.S.C. 5303 (c); 23 CF R 450.306 (i)]
3. Does the MPO boundary encompass the existing urbanized area and the contiguous area expected to become urbanized within the 20-yr forecast period? [23 U.S.C. 134 (c), 49 U.S.C. 5303 (d); 23 CFR 450.308 (a)]
4. Is there a currently adopted Unified Planning Work Program (UPWP)? 23 CFR 450.314
 - a. Is there an adopted prospectus
 - b. Are tasks and products clearly outlined
 - c. Is the UPWP consistent with the LRTP
 - d. Is the work identified in the UPWP completed in a timely fashion
5. Does the area have a valid transportation planning process?
23 U.S.C. 134; 23 CFR 450
 - a. Is the transportation planning process continuous, cooperative and comprehensive
 - b. Is there a valid LRTP
 - c. Did the LRTP have at least a 20-year horizon at the time of adoption
 - d. Does it address the 8-planning factors
 - e. Does it cover all modes applicable to the area
 - f. Is it financially constrained
 - g. Does it include funding for the maintenance and operation of the system
 - h. Does it conform to the State Implementation Plan (SIP) (if applicable)
 - i. Is it updated/reevaluated in a timely fashion (at least every 4 or 5 years)
6. Is there a valid TIP? 23 CFR 450.324, 326, 328, 330, 332
 - a. Is it consistent with the LRTP
 - b. Is it fiscally constrained
 - c. Is it developed cooperatively with the state and local transit operators
 - d. Is it updated at least every 4-yrs and adopted by the MPO and the Governor
7. Does the area have a valid CMP? (TMA only) 23 CFR 450.320
 - a. Is it consistent with the LRTP
 - b. Was it used for the development of the TIP
 - c. Is it monitored and reevaluated to meet the needs of the area
8. Does the area have a process for including environmental mitigation discussions in the planning process?
 - a. How _____
 - b. Why not _____

Metropolitan Planning Self-Certification Process

Self-Certification Checklist

9. Does the planning process meet the following requirements:
 - a. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart;
 - b. In nonattainment and maintenance areas, sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506 (c) and (d)) and 40 CFR part 93;
 - c. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
 - d. 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
 - e. Section 1101(b) of the SAFETEA-LU (Pub. L. 109-59) and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
 - f. 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
 - g. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR parts 27, 37, and 38;
 - h. The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
 - i. Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
 - j. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities.
 - k. All other applicable provisions of Federal law. (i.e. Executive Order 12898)

10. Does the area have an adopted PIP/Public Participation Plan? 23 CRR 450.316 (b)(1)
 - a. Did the public participate in the development of the PIP?
 - b. Was the PIP made available for public review for at least 45-days prior to adoption?
 - c. Is adequate notice provided for public meetings?
 - d. Are meetings held at convenient times and at accessible locations?
 - e. Is the public given an opportunity to provide oral and/or written comments on the planning process?
 - f. Is the PIP periodically reviewed and updated to ensure its effectiveness?
 - g. Are plans/program documents available in an electronic accessible format, i.e. MPO website?

11. Does the area have a process for including environmental, state, other transportation, historical, local land use and economic development agencies in the planning process? SAFETEA-LU
 - a. How _____
 - b. Why not _____

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INTRODUCTION

The DCHC MPO is required by federal regulations to prepare an annually Unified Planning Work Program (UPWP) that details and guides the urban area transportation planning activities. Funding for the UPWP is provided on an annual basis by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). Essentially, the UPWP provides yearly funding allocations to support the ongoing transportation planning activities of the DCHC MPO. The UPWP must identify MPO planning tasks to be undertaken with the use of federal transportation funds, including highway and transit programs. Tasks are identified by an alphanumeric task code and description. A complete narrative description for each task is more completely described in the *Prospectus for Continuing Transportation Planning for the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization*, approved by the TAC on February 13, 2002. The *Prospectus* was developed by NCDOT in cooperation with MPOs throughout the state.

The UPWP also contains supplemental project descriptions for Federal Transit Administration (FTA) projects. FTA project descriptions are provided for transit providers (Chapel Hill Transit, Durham Area Transit, & Triangle Transit Authority). FTA planning project task descriptions, FTA Disadvantaged Businesses Contracting Opportunities forms, and FTA funding source tables are also part of the UPWP document.

The funding source tables reflect available federal planning fund sources and the amounts of non-federal matching funds. The match is provided through either local or state funds or both. Statewide Planning and Research Funds (SPR) are designated for State use only and reflect the amount of those funds to be expended by the N.C. Department of Transportation Statewide Planning Division on DCHC MPO activities. Section 104(f) funds are designated for MPO planning and are sub-allocated to the City of Durham, Town of Carrboro and Town of Chapel Hill. Section 133(b)(3)(7) funds are the portion of STP-DA funds used in MPO planning. The City of Durham uses these funds to support the LPA planning functions. These funds are also used for MPO special projects, such as the congestion Management Systems, Collector Street Plan, Land use model, GIS/Data integration and automation, Regional model update and enhancement, Travel behavior surveys and update of the ITS deployment plan and regional architecture, support of the Regional Model Service Bureau, NC 54 Corridor Study, Parking Survey/Study, etc.

The main source of funds for transit planning for Chapel Hill Transit (CHT), the Durham Area Transit Authority (DATA), and the Triangle Transit Authority (TTA), is the Federal Transit Administration's Section 5303 funds. These funds are allocated by NCDOT's Public Transportation Division (PTD). Transit agencies can also use portions of their Section 5307 capital and operating funds for planning. These funds must be approved by the TAC as part of the UPWP approval process.

FY 2012-13 STP-DA Funds will cover special projects and continuation major emphasis projects. These are summarized as follows:

Special Projects

- Regional Transit Studies New Start Analyses
- Commercial vehicle survey and counts for the Triangle Regional Model (TRM)
- Parking survey, inventory and study for the TRM
- Development of the 2040 LRTP
- MPO Freight planning
- MPO Safety and security Plan
- Model data collection
- Community VIZ Update
- Geo-coder Update
- GIS enterprise update
- MPO Congestion Management Plan and process

- Climate Change adaptation and planning

Continuation of Major Projects

- MPO Integrated Land-use/Transportation Model
- Non-Motorized trip model
- GIS Warehouse/Integration and Automation
- MPO-wide Collector Street Plan

FY 2012-13 UPWP funding levels as well as the descriptions of funding sources is summarized below.

Planning (PL) Section 104(f) – These funds are FHWA funds for urbanized areas, administered by NCDOT. These funds require a 20% match. The PL funding apportionment to the state is distributed to the MPOs through a population-based formula. The proposed Section 104(f) funding level is based on the SAFETEA-LU Section 104(f) allocation as well as new PL distribution approved by NCDOT Board of Transportation in June 2005. The statewide section 104(f) funds are distributed among the 17 MPOs based on a formula. The DCHC MPO PL fund allocation for FY 2012-13 is as follows:

Federal (PL funds)	\$	507,387
Local (20% match)	\$	126,847
Total PL Funds	\$	<u>634,234</u>

STP-DA – These funds are the Direct Attributable Allocation portion of the federal Surface Transportation Program (STP) funds provided to Transportation Management Areas (TMAs are MPOs over 200,000 population). By agreement with the DCHC MPO and NCDOT, a portion of these funds are used for MPO transportation planning activities. STP-DA funds earmarked for programming in the FY 2012-13 UPWP are shown below; including re-obligated or carried over to FY 2013-14:

Federal (STP-DA)	\$	1,989,851
Local (20% match)	\$	497,463
Total	\$	<u>2,487,314</u>

FTA Funds -Two types of funds are used for transit planning purposes by the DCHC MPO; Section 5303 and Section 5307 funds of the Federal Transit Act Amendments of 1991.

Section 5303 funds are grant monies from FTA that provide assistance to urbanized areas for transit planning. Essentially, the funds are earmarked for use in planning and technical studies related to urban public transportation. They are provided from the Federal Transit Administration through the NCDOT-PTD to the MPO transit operators (80% from FTA, 10% from NCDOT-PTD, and 10% local match).

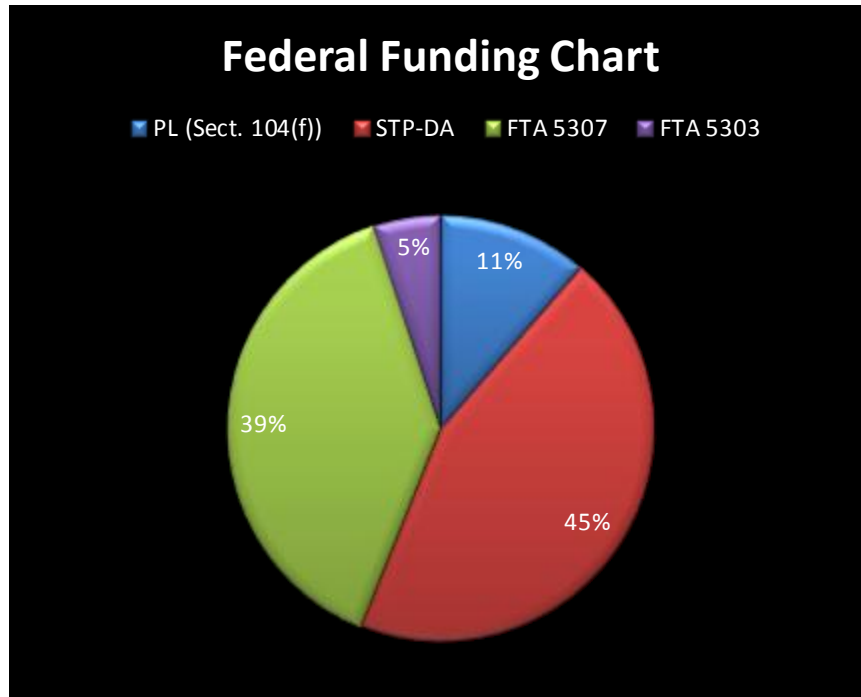
	CHT	DATA	TTA	MPO Total
Federal	\$111,359	\$115,897	\$0	\$227,256
State	\$13,920	\$14,487	\$0	\$28,407
Local	\$13,920	\$14,487	\$0	\$28,407
Total Sect. 5303	\$139,199	\$144,871	\$0	\$284,070

Section 5307 funds can be used for planning as well as other purposes, and are distributed by the formula by FTA. The DATA, CHT, and TTA use Section 5307 funds from the FTA for assistance on a wide range of planning activities. These funds require a 10% local match, which is provided by the City of Durham, the Town of Chapel Hill, and TTA; and 10% State match which is provided by the Public Transportation Division of NCDOT.

	CHT	DATA	TTA	MPO Total
Federal	\$360,000	\$511,056	\$684,000	\$1,555,056
State	\$45,000	\$63,882	\$85,500	\$194,382
Local	\$45,000	\$63,882	\$85,500	\$194,382
Total Sect. 5307	\$450,000	\$638,820	\$855,000	\$1,943,820

SUMMARY OF ALL FUNDING SOURCES

Funding Type	Federal	State	Local	Total
PL (Sect. 104(f))	\$507,387	\$0	\$126,847	\$634,234
STP-DA	\$1,989,851	\$0	\$497,463	\$2,487,314
FTA 5307	\$1,555,056	\$194,382	\$194,382	\$1,943,820
FTA 5303	\$227,256	\$28,407	\$28,407	\$284,070
Totals	\$4,279,550	\$222,789	\$847,099	\$5,349,438



Special-Major Project Summary

Introduction

The Main emphases of the current (FY 2011-12) Unified Planning Work Program (UPWP) were the development of the 2035 Long Range Transportation Plan and Air Quality Conformity Determination, model, enhancement, calibration and validation of the Tranplan update of the Triangle Regional Model, the development of the MPO GIS Warehouse/Integration and Automation, the development of the Non-motorized Trip Model, the development of the MPO integrated land-use/transportation model, Intelligent Transportation Systems (ITS) Strategic Deployment Plan, Farrington/ Stagecoach Road Corridor Study, MPO Collector Street Plan, Greenhouse Gas Emission Study, development of the regional transit plan, Chapel Hill Transit Master Plan study, and amendment of the 2035 Long Range Transportation Plan (LRTP). The MPO continued to fulfill State and federal transportation mandates and requirements, mainly the 3-C transportation process. The MPO made significant progress in these areas. Major milestones and accomplishments are summarized as follows:

The accomplishments for the 2011-12 UPWP are summarized as follows:

1. Greenhouse Gas (GHG) Emission Study Implementation: The MPO continues to work on the implementation of the GHG Emissions study, completed the formation of an energy Team and continues to provide for the Energy Team. There is on-going implementation in the focus areas of reducing transportation demand mainly SOV and encouraging alternative transportation modes.
2. NC 54/I-40 Corridor Study: The MPO conducted a consultant study for an integrated land use/transportation corridor study for the NC 54 corridor between the I-40 interchange in Durham and the US 15/501 inter-change in Chapel Hill. The purpose of the study is to analyze short-term and long-term land use issues and multi-modal transportation problems, evaluate opportunities and challenges, and recommend short and long-range solutions and strategies along the corridor. Phase I has been completed and Phase 2 is begun.
3. 2012-2015 Metropolitan Transportation Improvement Program (MTIP) and air quality conformity analysis: The MPO finalized the development of the 2009-15 MTIP. The DCHC MPO's Transportation Advisory Committee (TAC) approved the Fiscal Year 2009-2015 Metropolitan Transportation Improvement Program (MTIP) at their August 2008 meeting.
4. Administrative Modifications of the 2009-15 MTIP: The MPO processed several administrative modifications to the 2009-15 MTIP and forwarded to NCDOT to be included in the STIP for BOT approval.
5. Revision and enhancement of the MTIP Project Prioritization and Ranking Methodology for the 2011-2017 MTIP. The Lead Planning Agency continued work on the refinements and revision of the 20011-2017 MTIP project prioritization and ranking methodology. Draft methodology was made available to the public and local MPO agencies for review and comments. The project prioritization and ranking methodology was approved by the TAC in September 2008.
6. Development of the SPOT and the 5-year let plan (TIP fiscal constrained plan) and the 10-year SPOT priorities.
7. Stimulus Program (ARRA) Project Selection, monitoring and Reporting: The Lead Planning Agency worked on project selection, monitoring and reporting of the Economic Recovery Stimulus projects (ARRA). Staff coordinating with NCDOT in project selection consistent with the federal guidelines.

8. Triangle Regional Model (TRM) Update and Enhancement: The MPO continues to participate in the update and enhancement of the TRM at ITRE. The MPO is one of the funding partners of the modeling service bureau and continues to provide .5 FTE to ITRE Model Service Bureau.
9. The MPO continued work on several special and major emphasis projects: MPO Land-use model, MPO Non-Motorized Trip model, MPO GIS-T warehouse & Automation, Farrington Road/Stagecoach Road Corridor Study. Significant progress was made during the 2010-11 fiscal year.
10. The MPO continued work on several special and major emphasis projects: MPO Land-use model, MPO Non-Motorized Trip model, MPO TELUDE, Community VIZ integration, MPO Twitter account, Preparation of CMAQ applications, MPO Collector Street Plan, etc. Significant progress was made during the 2010-11 fiscal year.
11. Certification Review: USDOT conducted Certification Review of the DCHCMPO. The MPO received several commendations and one corrective action; evaluation of the effectiveness of the MPO Involvement, including addressing how Civil Rights public outreach. The MPO is working on addressing the corrective action.
12. Carrboro Main Street Study and Road Diet: Consulting firm of Martin-Alexio-Bryson selected to undertake this study. Data collection and analysis effort was completed and work continued on the evaluation of road diet.
13. Hillsborough Downtown Study: Data collection and analysis task was completed. Kimley Horn & Associates was selected for this study. Work began on the evaluation of traffic circulation and congestion
14. Alston Avenue Widening & East-End Connector: The LPA worked on the project planning and NEPA for the Alston Avenue and the East End Connector projects. The LPA continued work in helping NCDOT in the public involvement and outreach for the East-End Connector planning and environmental (NEPA) study.
15. Other Project Development Planning and NEPA: the LPA continued to participate on several on-going NCDOT project planning and NEPA for projects within the MPO. These projects are summarized as follows: South Miami, Blvd widening, NC 98, Holloway Street widening, Alexander Drive widening project, Hopson Road grade separation, Alston Avenue, East End Connector, Hillandale widening, NC 98 (Holloway Street) widening, Weaver Dairy Road widening/improvement, South Columbia, Elizabeth Brady Rd, several bridge replacement projects, resurfacing projects, etc.
16. ITS Strategic Deployment Plan (SDP). Work continues on the implementation of the Triangle Regional ITS SDP. This included linkages of ITP to travel model.
17. Farrington/Stagecoach Road study has been completed. Public involvement and recommendations are anticipated to be folded into the Comprehensive Transportation Plan (CTP).
18. The MPO Collector Street Plan (CSP) development is being done in parallel with the Comprehensive Transportation Plan. The MPO continued work on the refinement of the draft Collector Street Plan. The public involvement and adoption of the CSP will be streamlined with the CTP.

The development of the 2040 LRTP, update, improvement and refinement of the Triangle Regional Model and the MPO Congestion Management Process (CMP) will continue to be a top priority for the 2011-2012 UPWP. The MPO will continue to work with the Model Service Bureau in addressing TAC model concerns such as parking, the incorporation of non-motorized trips, link level calibration, better route-level transit ridership forecasts, integration of land-use and transportation,. Other top priorities include the development of the Comprehensive Transportation Plan, the development of the MPO climate change plan, regional transit initiatives, implementation of SAFETEA-LU requirements. The following summarizes proposed new initiatives and special areas for 2011-12 work programs.

FY 2013 Transportation Planning Work Plan and Unified Planning Work Program (UPWP) Emphasis Transportation Planning Projects/Products	
1	2040 LRTP
2	CTP
3	Development of the MPO CMP
4	Maintenance and update of ITS-SDP
5	Maintenance and update of the IDAS and Dynasmart
6	MPO Data collection and Surveillance of Change
7	TRM Modeling improvements, calibration and validation
8	Environmental Justice Plan for the DCHC MPO
9	MPO Safety and Security Plan/Integration
10	Freight Plan and integration of freight (urban Goods Movement planning)
11	MPO Climate Change Plan/ integration of climate change and Greenhouse gas emission into MPO Planning
12	Bicycle friendly designation for Durham (and Chapel Hill?)
13	Spatial mapping and analysis of bike and pedestrian access to schools - sidewalks/bike access
14	Rail Traffic separation Study
15	Purpose and Need Statements/Indirect & Cumulative Impacts (ICI)
16	Bicycle map for Durham
17	TDM Plan update
18	MPO Policy /Process document - CAMPO organization Study - Charlotte study
19	MPO expansion, MAB expansion - ground for post 2010 analysis
20	Regional transit planning and local revenue option
Continuation of Special Projects	
1	TELUDE - GIS Warehouse/Enterprise & automation
2	NC 54 Corridor Study
3	UrbanSim Land use Model
4	Non-Motorized trip modeling
On-Going/Core/Routine 3-C Planning Process	
1	UPWP development/amendment/maintenance and invoicing
2	TIP development/amendments
3	ARRA-Stimulus projects reporting and audit compliance
4	TAC/TCC Meetings/agenda preparation/directives to staff/follow-ups
5	GIS mappings and geo-database administration/maintenance
6	bicycle -pedestrian planning
7	JARC/New Freedom
8	STP-DA
9	CMAQ
10	Financial management and auditing
11	Public involvement/engagement/outreach
12	MPO website update/maintenance/content management -visualization & interactive capabilities
13	State & Regional Planning and Coordination
14	Civil rights and Title VI compliance and planning
15	CMP monitoring
16	Data inventory monitoring
17	Project planning-NEPA

DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION 2012-2013 UNIFIED PLANNING WORK PROGRAM (UPWP) DEVELOPMENT SCHEDULE

The tentative development schedule for the 2012-13 UPWP is presented below. The work program will contain new initiative for FY2013 and a continuation of the FY2012 initiatives and emphasis areas. The schedule reflects in an earlier shift in the development of the FY12-13 work plan comparative to FY11-12. In addition, the schedule provides for opportunity for linking the UPWP development with the local member governments' budget process.

DATES	DCHC MPO ACTIVITY DESCRIPTION
26-Oct-11	TCC receives the schedule for the development of the 2012-2013 UPWP.
31-Oct-11	MPO funding request sent out to member agencies
9-Nov-11	TAC receives schedule for the development of the 2012-2013 UPWP
2-Dec-11	Deadline for funding request to be submitted to MPO by member agencies.
December 2011 - February 2012	Development of Draft 2012-2013 UPWP and coordinating with local agencies continues.
22-Feb-12	TCC receives Draft 2012-2013 UPWP.
14-Mar-12	TAC receives Draft 2012-2013 UPWP
February - March 2012	TCC coordinates with member jurisdictions budget process for local matching funds.
28-Mar-12	TCC recommends Draft 2012-2013 UPWP to be released for Public Comment
30-Mar-12	NCDOT PTD receives draft copy of FY2013 UPWP
11-Apr-12	TAC reviews Draft 2012-2013 UPWP & releases for public comments
25-Apr-12	TCC hold public hearing & recommends that TAC adopt FINAL FY2012-2013 UPWP and self certifies MPO planning process
9-May-12	TAC adopts FINAL 2012-2013 UPWP and self certifies MPO planning process; FTA & NCDOT to receive final FY2013 UPWP.
10-May-12	Final FY2012-2103 UPWP submitted to NCDOT/FHWA for approval.

Durham-Chapel Hill-Carrboro Urban Area
FY 2012-2013 Unified Planning Work Program
Funding Distribution by Agency Funding Sources

MPO Funding Table - Distribution by Agency

Receiving Agency	STP-DA Sec. 133(b)(3)(7)		Section 104(f) PL		Section 5303 Highway/Transit			Section 5307 Transit			Funding Summary			
	Local	FHWA	Local	FHWA	Local	NCDOT	FTA	Local	NCDOT	FTA	Local	NCDOT	Federal	Total
	20%	80%	20%	80%	10%	10%	80%	10%	10%	80%				
Durham/DATA	\$459,463	\$1,837,851	\$102,861	\$411,445	\$14,486	\$14,486	\$115,897	\$63,882	\$63,882	\$511,056	\$640,692	\$78,368	\$2,876,249	\$3,595,309
Carrboro	\$0	\$0	\$6,635	\$26,538	\$0	\$0	\$0	\$0	\$0	\$0	\$6,635	\$0	\$26,538	\$33,173
Chapel Hill/CHT	\$25,000	\$100,000	\$17,351	\$69,404	\$13,920	\$13,920	\$111,359	\$45,000	\$45,000	\$360,000	\$101,271	\$58,920	\$640,763	\$800,953
Orange County	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TJCOG	\$13,000	\$52,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,000	\$0	\$52,000	\$65,000
TTA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$85,500	\$85,500	\$684,000	\$85,500	\$85,500	\$684,000	\$855,000
NCDOT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Totals	\$497,463	\$1,989,851	\$126,847	\$507,387	\$28,406	\$28,406	\$227,256	\$194,382	\$194,382	\$1,555,056	\$847,098	\$222,788	\$4,279,550	\$5,349,435

Footnote: All program of activities have been developed with the knowledge that there is no approved Federal Indirect Cost Plan in place at this time of the approval of the FY2013 work program.

**Durham-Chapel Hill-Carrboro Urban Area
FY 2012-2013 Unified Planning Work Program
Funding Distribution by Agency Funding Sources**

TCC 4/25/2012 Attachment 5

MPO Wide - Detail Funding Tables - All Funding Sources

II A	Task Description	STP-DA 133(b)(3)(7)		Sec. 104(f) PL		Section 5303 Highway/Transit			Section 5307 Transit			Task Funding Summary				
		Local 20%	FHWA 80%	Local 20%	FHWA 80%	Local 10%	NCDOT 10%	FTA 80%	Local 10%	NCDOT 10%	FTA 80%	Local	NCDOT	Federal	Total	
	Surveillance of Change															
1	Traffic Volume Counts	13,130	52,520	746	2,984	0	0	0	0	0	0	13,876	-	55,504	69,380	
2	Vehicle Miles of Travel	1,600	6,400	1,000	4,000	0	0	0	0	0	0	2,600	-	10,400	13,000	
3	Street System Changes	1,000	4,000	1,000	4,000	0	0	0	0	0	0	2,000	-	8,000	10,000	
4	Traffic Accidents	800	3,200	72	288	0	0	0	0	0	0	872	-	3,488	4,360	
5	Transit System Data	800	3,200	0	0	6,599	6,599	52,790	11,867	11,867	94,938	19,266	18,466	150,929	188,661	
6	Dwelling Unit, Pop. & Emp. Change	4,400	17,600	7,150	28,600	400	400	3,200	0	0	0	11,950	400	49,400	61,750	
7	Air Travel	400	1,600	0	0	0	0	0	0	0	0	400	-	1,600	2,000	
8	Vehicle Occupancy Rates	0	0	0	0	0	0	0	0	0	0	-	-	-	-	
9	Travel Time Studies	5,740	22,960	0	0	0	0	0	0	0	0	5,740	-	22,960	28,700	
10	Mapping	4,400	17,600	9,674	38,696	3,000	3,000	24,000	0	0	0	17,074	3,000	80,296	100,370	
11	Central Area Parking Inventory	0	0	488	1,952	0	0	0	0	0	0	488	-	1,952	2,440	
12	Bike & Ped. Facilities Inventory	1,200	4,800	636	2,544	0	0	0	0	0	0	1,836	-	7,344	9,180	
13	Bike & Ped. Counts	3,600	14,400	639	2,555	0	0	0	0	0	0	4,239	-	16,955	21,194	
	II-B Long Range Transp. Plan															
1	Collection of Base Year Data	320	1,280	0	0	0	0	0	0	0	0	320	-	1,280	1,600	
2	Collection of Network Data	576	2,304	72	288	0	0	0	0	0	0	648	-	2,592	3,240	
3	Travel Model Updates	63,340	253,360	0	0	150	150	1,197	9,000	9,000	72,000	72,490	9,150	326,557	408,196	
4	Travel Surveys	0	0	0	0	0	0	0	0	0	0	-	-	-	-	
5	Forecast of Data to Horizon year	5,680	22,720	0	0	0	0	0	0	0	0	5,680	-	22,720	28,400	
6	Community Goals & Objectives	400	1,600	544	2,176	0	0	0	0	0	0	944	-	3,776	4,720	
7	Forecast of Future Travel Patterns	3,000	12,000	6,800	27,200	0	0	0	0	0	0	9,800	-	39,200	49,000	
8	Capacity Deficiency Analysis	6,000	24,000	15,000	60,000	1,000	1,000	8,000	0	0	0	22,000	1,000	92,000	115,000	
9	Highway Element of th L RTP	1,000	4,000	1,546	6,184	0	0	0	0	0	0	2,546	-	10,184	12,730	
10	Transit Element of the L RTP	2,000	8,000	1,546	6,184	400	400	3,200	2,750	2,750	22,000	6,696	3,150	39,384	49,230	
11	Bicycle & Ped. Element of the L RTP	12,400	49,600	908	3,632	200	200	1,600	0	0	0	13,508	200	54,832	68,540	
12	Airport/Air Travel Element of L RTP	0	0	400	1,600	0	0	0	0	0	0	400	-	1,600	2,000	
13	Collector Street Element of L RTP	1,000	4,000	1,308	5,232	100	100	800	0	0	0	2,408	100	10,032	12,540	
14	Rail, Water or other mode of L RTP	25,000	100,000	0	0	0	0	0	0	0	0	25,000	-	100,000	125,000	
15	Freight Movement/Mobility Planning	400	1,600	800	3,200	0	0	0	0	0	0	1,200	-	4,800	6,000	
16	Financial Planning	1,000	4,000	2,200	8,800	500	500	4,000	4,544	4,544	36,350	8,244	5,044	53,150	66,438	
17	Congestion Management Strategies	57,000	228,000	890	3,560	500	500	4,000	0	0	0	58,390	500	235,560	294,450	
18	Air Qual. Planning/Conformity Anal.	1,600	6,400	3,778	15,112	0	0	0	0	0	0	5,378	-	21,512	26,890	
	II-C Short Range Transit Planning															
	Short Range Transit Planning	0	0	254	1,016	1,000	1,000	8,000	36,000	36,000	288,000	37,254	37,000	297,016	371,270	
	III-A Planning Work Program															
	Planning Work Program	2,000	8,000	11,624	46,496	0	0	0	500	500	4,000	14,124	500	58,496	73,120	
	III-B Transp. Improvement Plan															
	TIP	2,400	9,600	14,582	58,328	0	0	0	500	500	4,000	17,482	500	71,928	89,910	
	III-C Cvl Rgts. Cmp./Otr. Reg. Reqs.															
1	Title VI	1,800	7,200	4,948	19,792	0	0	0	500	500	4,000	7,248	500	30,992	38,740	
2	Environmental Justice	800	3,200	2,528	10,112	0	0	0	0	0	0	3,328	-	13,312	16,640	
3	Minority Business Enterprise	800	3,200	0	0	0	0	0	50	50	400	850	50	3,600	4,500	
4	Planning for the Elderly & Disabled	800	3,200	72	288	0	0	0	1,000	1,000	8,000	1,872	1,000	11,488	14,360	
5	Safety/Drug Control Planning	0	0	0	0	0	0	0	1,500	1,500	12,000	1,500	1,500	12,000	15,000	
6	Public Involvement	13,400	53,600	3,676	14,704	0	0	0	500	500	4,000	17,576	500	72,304	90,380	
7	Private Sector Participation	0	0	0	0	0	0	0	0	0	0	-	-	-	-	
	III-D Incidental Plng./Project Dev.															
1	Transportation Enhancement Plng.	0	0	0	0	0	0	0	34,000	34,000	272,000	34,000	34,000	272,000	340,000	
2	Enviro. Analysis & Pre-TIP Plng.	9,800	39,200	3,608	14,432	0	0	0	0	0	0	13,408	-	53,632	67,040	
3	Special Studies	181,200	724,800	486	1,944	0	0	0	6,000	6,000	48,000	187,686	6,000	774,744	968,431	
4	Regional or Statewide Planning	17,400	69,600	3,000	12,000	3,000	3,000	24,000	5,300	5,300	42,400	28,700	8,300	148,000	185,000	
	III-E Management & Operations															
1	Management & Operations	49,277	197,107	24,872	99,486	11,558	11,558	92,470	80,371	80,371	642,966	166,077	91,928	1,032,030	1,290,035	
	Totals	\$497,463	\$1,989,851	\$126,847	\$507,386	\$28,406	\$28,406	\$227,257	\$194,382	\$194,382	\$1,555,055	\$847,097	\$222,788	\$4,279,550	\$5,349,435	

**Durham-Chapel Hill-Carrboro Urban Area
FY 2012-2013 Unified Planning Work Program
Funding Distribution by Agency Funding Sources**

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Composite Agency Tables -PL & STPDA Funding ONLY.

	Task Description	Chapel Hill			Carrboro			TJCOG			Durham			MPO		
		Local 20%	FHWA 80%	Total 100%	Local 20%	FHWA 80%	Total 100%	Local 20%	FHWA 80%	Total 100%	Local 20%	FHWA 80%	Total 100%	Local 20%	FHWA 80%	Total 100%
II A	Surveillance of Change															
1	Traffic Volume Counts	\$600	\$2,400	\$3,000	\$146	\$584	\$730	\$0	\$0	\$0	\$13,130	\$52,520	\$65,650	\$13,876	\$55,504	\$69,380
2	Vehicle Miles of Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,600	\$10,400	\$13,000	\$2,600	\$10,400	\$13,000
3	Street System Changes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000	\$8,000	\$10,000	\$2,000	\$8,000	\$10,000
4	Traffic Accidents	\$0	\$0	\$0	\$72	\$288	\$360	\$0	\$0	\$0	\$800	\$3,200	\$4,000	\$872	\$3,488	\$4,360
5	Transit System Data	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$800	\$3,200	\$4,000	\$800	\$3,200	\$4,000
6	Dwelling Unit, Pop. & Emp. Change	\$400	\$1,600	\$2,000	\$102	\$408	\$510	\$0	\$0	\$0	\$11,048	\$44,192	\$55,240	\$11,550	\$46,200	\$57,750
7	Air Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$400	\$1,600	\$2,000	\$400	\$1,600	\$2,000
8	Vehicle Occupancy Rates	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	Travel Time Studies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,740	\$22,960	\$28,700	\$5,740	\$22,960	\$28,700
10	Mapping	\$4,000	\$16,000	\$20,000	\$418	\$1,672	\$2,090	\$0	\$0	\$0	\$9,656	\$38,624	\$48,280	\$14,074	\$56,296	\$70,370
11	Central Area Parking Inventory	\$0	\$0	\$0	\$88	\$352	\$440	\$0	\$0	\$0	\$400	\$1,600	\$2,000	\$488	\$1,952	\$2,440
12	Bike & Ped. Facilities Inventory	\$600	\$2,400	\$3,000	\$36	\$144	\$180	\$0	\$0	\$0	\$1,200	\$4,800	\$6,000	\$1,836	\$7,344	\$9,180
13	Bike & Ped. Counts	\$551	\$2,203	\$2,754	\$88	\$352	\$440	\$0	\$0	\$0	\$3,600	\$14,400	\$18,000	\$4,239	\$16,955	\$21,194
II-B	Long Range Transp. Plan															
1	Collection of Base Year Data	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$320	\$1,280	\$1,600	\$320	\$1,280	\$1,600
2	Collection of Network Data	\$0	\$0	\$0	\$72	\$288	\$360	\$0	\$0	\$0	\$576	\$2,304	\$2,880	\$648	\$2,592	\$3,240
3	Travel Model Updates	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$63,340	\$253,360	\$316,700	\$63,340	\$253,360	\$316,700
4	Travel Surveys	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Forecast of Data to Horizon year	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000	\$12,000	\$15,000	\$2,680	\$10,720	\$13,400	\$5,680	\$22,720	\$28,400
6	Community Goals & Objectives	\$0	\$0	\$0	\$144	\$576	\$720	\$0	\$0	\$0	\$800	\$3,200	\$4,000	\$944	\$3,776	\$4,720
7	Forecast of Future Travel Patterns	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,800	\$39,200	\$49,000	\$9,800	\$39,200	\$49,000
8	Capacity Deficiency Analysis	\$2,000	\$8,000	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$19,000	\$76,000	\$95,000	\$21,000	\$84,000	\$105,000
9	Highway Element of th L RTP	\$400	\$1,600	\$2,000	\$146	\$584	\$730	\$0	\$0	\$0	\$2,000	\$8,000	\$10,000	\$2,546	\$10,184	\$12,730
10	Transit Element of the L RTP	\$1,400	\$5,600	\$7,000	\$146	\$584	\$730	\$0	\$0	\$0	\$2,000	\$8,000	\$10,000	\$3,546	\$14,184	\$17,730
11	Bicycle & Ped. Element of the L RTP	\$400	\$1,600	\$2,000	\$108	\$432	\$540	\$0	\$0	\$0	\$12,800	\$51,200	\$64,000	\$13,308	\$53,232	\$66,540
12	Airport/Air Travel Element of L RTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$400	\$1,600	\$2,000	\$400	\$1,600	\$2,000
13	Collector Street Element of L RTP	\$200	\$800	\$1,000	\$108	\$432	\$540	\$0	\$0	\$0	\$2,000	\$8,000	\$10,000	\$2,308	\$9,232	\$11,540
14	Rail, Water or other mode of L RTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$100,000	\$125,000	\$25,000	\$100,000	\$125,000
15	Freight Movement/Mobility Plannin	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,200	\$4,800	\$6,000	\$1,200	\$4,800	\$6,000
16	Financial Planning	\$1,400	\$5,600	\$7,000	\$0	\$0	\$0	\$0	\$0	\$0	\$1,800	\$7,200	\$9,000	\$3,200	\$12,800	\$16,000
17	Congestion Management Strategies	\$1,600	\$6,400	\$8,000	\$290	\$1,160	\$1,450	\$0	\$0	\$0	\$56,000	\$224,000	\$280,000	\$57,890	\$231,560	\$289,450
18	Air Qual. Planning/Conformity Anal.	\$400	\$1,600	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$4,978	\$19,912	\$24,890	\$5,378	\$21,512	\$26,890
II-C	Short Range Transit Planning															
	Short Range Transit Planning	\$0	\$0	\$0	\$254	\$1,016	\$1,270	\$0	\$0	\$0	\$0	\$0	\$0	\$254	\$1,016	\$1,270
III-A	Planning Work Program															
	Planning Work Program	\$400	\$1,600	\$2,000	\$324	\$1,296	\$1,620	\$0	\$0	\$0	\$12,900	\$51,600	\$64,500	\$13,624	\$54,496	\$68,120
III-B	Transp. Improvement Plan															
	TIP	\$400	\$1,600	\$2,000	\$582	\$2,328	\$2,910	\$0	\$0	\$0	\$16,000	\$64,000	\$80,000	\$16,982	\$67,928	\$84,910
III-C	Cvl Rgts. Cmp./Otr .Reg. Reqs.															
1	Title VI	\$0	\$0	\$0	\$36	\$144	\$180	\$0	\$0	\$0	\$6,712	\$26,848	\$33,560	\$6,748	\$26,992	\$33,740
2	Environmental Justice	\$0	\$0	\$0	\$108	\$432	\$540	\$0	\$0	\$0	\$3,220	\$12,880	\$16,100	\$3,328	\$13,312	\$16,640
3	Minority Business Enterprise	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$800	\$3,200	\$4,000	\$800	\$3,200	\$4,000
4	Planning for the Elderly & Disabled	\$0	\$0	\$0	\$72	\$288	\$360	\$0	\$0	\$0	\$800	\$3,200	\$4,000	\$872	\$3,488	\$4,360
5	Safety/Drug Control Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Public Involvement	\$0	\$0	\$0	\$402	\$1,608	\$2,010	\$0	\$0	\$0	\$16,674	\$66,696	\$83,370	\$17,076	\$68,304	\$85,380
7	Private Sector Participation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III-D	Incidental Plng./Project Dev.															
1	Transportation Enhancement Plng.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Enviro. Analysis & Pre-TIP Plng.	\$600	\$2,400	\$3,000	\$108	\$432	\$540	\$0	\$0	\$0	\$12,700	\$50,800	\$63,500	\$13,408	\$53,632	\$67,040
3	Special Studies	\$20,000	\$80,000	\$100,000	\$486	\$1,944	\$2,431	\$2,000	\$8,000	\$10,000	\$159,200	\$636,800	\$796,000	\$181,686	\$726,744	\$908,431
4	Regional or Statewide Planning	\$3,000	\$12,000	\$15,000	\$0	\$0	\$0	\$8,000	\$32,000	\$40,000	\$9,400	\$37,600	\$47,000	\$20,400	\$81,600	\$102,000
III-E	Management & Operations															
1	Management & Operations	\$4,000	\$16,000	\$20,000	\$2,298	\$9,194	\$11,492	\$0	\$0	\$0	\$67,850	\$271,400	\$339,250	\$74,148	\$296,594	\$370,742
	Totals	\$42,351	\$169,403	\$211,754	\$6,635	\$26,538	\$33,173	\$13,000	\$52,000	\$65,000	\$562,324	\$2,249,296	\$2,811,620	\$624,309	\$2,497,237	\$3,121,547

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Funding Distribution by Agency Funding Sources**

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FHWA Planning Funds
MPO PL & STP-DA Total

	Task Description	STP-DA Section 133(b)(3)(7)			PL Section 104(f)			TOTAL PL & STP-DA		
		Local	FHWA	Total	Local	FHWA	Total	Local	FHWA	Total
		20%	80%	100%	20%	80%	100%	20%	80%	100%
II-A	Surveillance of Change									
1	Traffic Volume Counts	13,130	52,520	65,650	746	2,984	3,730	13,876	55,504	69,380
2	Vehicle Miles of Travel	1,600	6,400	8,000	1,000	4,000	5,000	2,600	10,400	13,000
3	Street System Changes	1,000	4,000	5,000	1,000	4,000	5,000	2,000	8,000	10,000
4	Traffic Accidents	800	3,200	4,000	72	288	360	872	3,488	4,360
5	Transit System Data	800	3,200	4,000	0	0	0	800	3,200	4,000
6	Dwelling Unit, Pop. & Emp. Change	4,400	17,600	22,000	7,150	28,600	35,750	11,550	46,200	57,750
7	Air Travel	400	1,600	2,000	0	0	0	400	1,600	2,000
8	Vehicle Occupancy Rates	0	0	0	0	0	0	0	0	0
9	Travel Time Studies	5,740	22,960	28,700	0	0	0	5,740	22,960	28,700
10	Mapping	4,400	17,600	22,000	9,674	38,696	48,370	14,074	56,296	70,370
11	Central Area Parking Inventory	0	0	0	488	1,952	2,440	488	1,952	2,440
12	Bike & Ped. Facilities Inventory	1,200	4,800	6,000	636	2,544	3,180	1,836	7,344	9,180
13	Bike & Ped. Counts	3,600	14,400	18,000	639	2,555	3,194	4,239	16,955	21,194
II-B	Long Range Transp. Plan									
1	Collection of Base Year Data	320	1,280	1,600	0	0	0	320	1,280	1,600
2	Collection of Network Data	576	2,304	2,880	72	288	360	648	2,592	3,240
3	Travel Model Updates	63,340	253,360	316,700	0	0	0	63,340	253,360	316,700
4	Travel Surveys	0	0	0	0	0	0	0	0	0
5	Forecast of Data to Horizon year	5,680	22,720	28,400	0	0	0	5,680	22,720	28,400
6	Community Goals & Objectives	400	1,600	2,000	544	2,176	2,720	944	3,776	4,720
7	Forecast of Future Travel Patterns	3,000	12,000	15,000	6,800	27,200	34,000	9,800	39,200	49,000
8	Capacity Deficiency Analysis	6,000	24,000	30,000	15,000	60,000	75,000	21,000	84,000	105,000
9	Highway Element of th LRTP	1,000	4,000	5,000	1,546	6,184	7,730	2,546	10,184	12,730
10	Transit Element of the LRTP	2,000	8,000	10,000	1,546	6,184	7,730	3,546	14,184	17,730
11	Bicycle & Ped. Element of the LRTP	12,400	49,600	62,000	908	3,632	4,540	13,308	53,232	66,540
12	Airport/Air Travel Element of LRTP	0	0	0	400	1,600	2,000	400	1,600	2,000
13	Collector Street Element of LRTP	1,000	4,000	5,000	1,308	5,232	6,540	2,308	9,232	11,540
14	Rail, Water or other mode of LRTP	25,000	100,000	125,000	0	0	0	25,000	100,000	125,000
15	Freight Movement/Mobility Planning	400	1,600	2,000	800	3,200	4,000	1,200	4,800	6,000
16	Financial Planning	1,000	4,000	5,000	2,200	8,800	11,000	3,200	12,800	16,000
17	Congestion Management Strategies	57,000	228,000	285,000	890	3,560	4,450	57,890	231,560	289,450
18	Air Qual. Planning/Conformity Anal.	1,600	6,400	8,000	3,778	15,112	18,890	5,378	21,512	26,890
II-C	Short Range Transit Planning									
1	Short Range Transit Planning	0	0	0	254	1,016	1,270	254	1,016	1,270
III-A	Planning Work Program									
	Planning Work Program	2,000	8,000	10,000	11,624	46,496	58,120	13,624	54,496	68,120
III-B	Transp. Improvement Plan									
	TIP	2,400	9,600	12,000	14,582	58,328	72,910	16,982	67,928	84,910
III-C	Cvl Rgts. Cmp./Otr .Reg. Reqs.									
1	Title VI	1,800	7,200	9,000	4,948	19,792	24,740	6,748	26,992	33,740
2	Environmental Justice	800	3,200	4,000	2,528	10,112	12,640	3,328	13,312	16,640
3	Minority Business Enterprise	800	3,200	4,000	0	0	0	800	3,200	4,000
4	Planning for the Elderly & Disabled	800	3,200	4,000	72	288	360	872	3,488	4,360
5	Safety/Drug Control Planning	0	0	0	0	0	0	0	0	0
6	Public Involvement	13,400	53,600	67,000	3,676	14,704	18,380	17,076	68,304	85,380
7	Private Sector Participation	0	0	0	0	0	0	0	0	0
III-D	Incidental Plng./Project Dev.									
1	Transportation Enhancement Plng.	0	0	0	0	0	0	0	0	0
2	Enviro. Analysis & Pre-TIP Plng.	9,800	39,200	49,000	3,608	14,432	18,040	13,408	53,632	67,040
3	Special Studies	181,200	724,800	906,000	486	1,944	2,431	181,686	726,744	908,431
4	Regional or Statewide Planning	17,400	69,600	87,000	3,000	12,000	15,000	20,400	81,600	102,000
III-E	Management & Operations									
1	Management & Operations	49,277	197,107	246,384	24,872	99,486	124,358	74,148	296,594	370,742
	Totals	497,463	1,989,851	2,487,314	126,847	507,386	634,233	624,309	2,497,237	3,121,547

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II-A: Surveillance of Change

The MPO is required by federal regulations and the 3C process to perform continuous data monitoring and maintenance. A number of transportation and socio-economic/demographic conditions will be continuously surveyed and compiled annually to determine whether previous projections are still valid or whether plan assumptions need to be changed. Surveillance of Change tasks are described in the following sections and agency responsibilities are summarized. Also, expected work products/deliverables and proposed schedule/accomplishment dates are provided as well.

Task II-A-1: Traffic Volume Counts

Perform routine automatic traffic counts and turning movement counts at specified locations. Maintain ADT counts and database for model calibration on arterial, minor arterial, and collector streets. The MPO will continue routine traffic counts data collection at specific locations. These counts will augment triennial traffic counts collected by NCDOT. Traffic counts will include daily, hourly, vehicle classification, or turning movements. The MPO agencies will be responsible for obtaining counts at specified locations within their jurisdiction and for furnishing the raw daily traffic counts, count information, and location maps to the Lead Planning Agency (LPA). The Traffic count data will feed into the MPO Congestion Management Process (CMP), Triangle Regional Model (TRM) maintenance and update, MPO TELUDE GIS warehouse and Safety and Freight planning.

Task II-A-4: Traffic Accidents

The DCHC MPO will collect route traffic accident data from TEES and prepare summary and analysis of high accident locations. Compare data analysis to previous years' results. Build off of and support the safety work of the NCDOT and MPO municipal governments. The task will feed into the MPO Congestion Management Process (CMP) and the Mobility Report Card, MPO MTIP ranking and project prioritization, SPOT, Mobility funds and Urban Lop funds prioritization, etc.

Task II-A-5: Transit System Data

Transit system data efforts will be conducted by the MPO transit providers, the Durham Area Transit Authority (DATA), Chapel Hill Transit (CHT), and the Triangle Transit Authority (TTA). This will include APC data to evaluate transit service performance, development of cross-town route(s), develop universities/college route(s) and consolidate and develop bus stop standards. Transit operators will identify strengths and weaknesses of service by route in order to assess service barriers and future options. Information will be used to monitor service and meet FTA NTD (Section 15) reporting requirements.

Task II-A-6: Dwelling Unit / Population and Employment Changes

Maintain inventory of dwelling units and population to determine needed changes in transportation services to meet current and projected demands. Continue to review developments to assess impacts to the 2035 LRTP, the SE data for the 2035 LRTP update, land-use model update, and transportation project development. Changes in dwelling units and employment within the MPO will be identified and evaluated to determine accuracy and consistency with the socio-economic forecast. The MPO will review and tabulate Census data, local parcel, zoning, tax data

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records, InfoUSA, and Employment Security Commission data as part of this monitoring task. The MPO will continue work on the GIS enterprise and the Geocoder.

Task II-A-7: Air Travel

The MPO will continue routine collection of travel and passenger data at the Raleigh-Durham International Airport (RDU): Data to be collected and analyzed include but not limited to number of daily flights, number of daily enplaned passengers, and number of deplaned passengers, ground transportation, and tons of cargo activities. This purpose of the data collection and monitoring is to determine the influence of Raleigh-Durham International Airport (RDU), as a special generator, on the regional transportation system as well as to identify needs for additional services.

Task II-A-9: Travel Time Studies

The MPO will continue routine travel-time runs on selected links during peak period to provide accurate inputs for applications such as the travel model update and the CMP.

Task II-A-10: Mapping

This task will include but not limited to mapping of and updates to UPWP transportation planning activities such as the CMP, traffic counts, bicycle and pedestrian counts and inventory, transit routes, land use, traffic analysis zones, socio-economic and demographic trends, and environmental factors. The proposed data and GIS automation/integration will serve as a platform for maintaining and updating of data in GIS format.

Task II-A-11: Central Area Parking Inventory

The MPO will collect, inventory of on- and off- street parking facilities in the Central Business Districts (CBD), major generators and universities. Parking data to be collected include, number of spaces, parking fee rates (hourly daily, and monthly), average weekday costs and demand. Parking information collected will help in the calibration and maintenance of the travel model.

Task II-A-12: Bike & Pedestrian. Facilities Inventory

The MPO will conduct inventory of bicycle and pedestrian facilities as part of the CMP. The proposed inventory will to provide accurate inputs for the travel model update as well as help identify future sidewalk project needs, guide pedestrian improvement planning, and to support specific projects, such as the Comprehensive Bicycle Plan and Comprehensive Pedestrian Plan.

Task II-A-13: Bicycle and Pedestrian Counts

An inventory of bicycle and pedestrian counts will be conducted as part of the CMS/Mobility Report Card. The proposed inventory will guide pedestrian improvement planning, and to support specific projects, such as the Comprehensive Bicycle Plan and Comprehensive Pedestrian Plan

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II-B: Long Range Transportation Plan Activities

Federal Law (as updated by SAFETEA_LU) and USDOT's Metropolitan Planning Regulations, require the MPO to have a Long-Range Transportation Plan (LRTP) that is: multi-modal, financially constrained, has a minimum 20 year horizon, adhere to the MPO's adopted Public Involvement Policy (PIP), have growth forecasts consistent with latest planning assumptions and local land use plan, meet air quality conformity and be approved by the Transportation Advisory Committee. The LRTP must be updated and reaffirmed every 4 years. The DCHC will continue tasks associated with the development of the 2040 LRTP air quality and the Comprehensive Transportation Plan as well as commence data collection for the 2010 model base year.

Task II-B-2: Collection of Network Data

The MPO will collect transportation network data necessary to build the 2011 base year TRM network. The proposed work activities will include collection of the following transportation network variables and attributes:

A-Highways: 1) posted speed limit; 2) number of lanes; 3) segment length; 4) turn pockets; 5) parking conditions; 6) traffic signal locations and stop conditions; 7) signal density; 8). access control and driveway conditions; 9) land use and area type; and 10) facility type and functional classification.

B-Transit: 1) headways; 2) speed; 3) hours of operation; 4) services miles; 5) fare structure; 6) transfer information; 7) schedule information; and 8) route information and service characteristics for each route.

C-Bicycle and Pedestrian: 1) mileage; 2) activity density; 3) neighborhood characteristics; 4) environment/friendliness factors/indices; and 5) connectivity

Task II-B-3: Travel Model Updates

This task essentially involves the update and calibration and validation for the model to support the development of the 2040 LRTP. Update of the Triangle Regional Model (TRM) including improvements, enhancements and major updates. Proposed tasks include model sub-area enhancement, other improvements identified during the development of the 2035 LRTP, such capacities revision, parking enhancement, performance measures automation, peak hour highway and transit demand forecasts, non-motorized trip incorporation, etc. The MPO will continue work on the development of the Land-use/transportation model integration and the non-motorized trip model. The MPO will carry out other tasks needed to support the Triangle Regional Model updates, including providing the MPO's share of the Service Bureau funding and 50% FTE.

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Task II-B-5: Forecast of Data to Horizon Year

The LPA will project base year demographic and socio-economic data-1 into plan horizon year and air quality intermediate years (LRTP horizon year is 2040 and intermediate years for air quality analyses are 2020 2030, 2035 and 2040). Forecasts will be generated for County control totals and traffic analysis zones. Forecasts will be made consistent with local land use plans and in corporation with local Planning departments.

Task II-B-6: Community Goals and Objectives

The MPO will re-evaluate community goals and objectives for the 2040 Long range Transportation Plan (LRTP) and the Comprehensive Transportation Plan (CTP). The process of formulating and re-evaluating goals will begin with visioning exercise. The MPO will conduct public meetings to assess community vision in terms of transportation, land use, growth, quality of life, etc. The expected work products will be adopted goals and objectives, and targets and policy framework for achieving goals.

Task II-B-7: Forecast of Future Travel Patterns

MPO will generate travel demand forecasts for future years including the LRTP horizon and air quality intermediate years. The forecast of travel patterns will include a review of these factors and comparison to community goals and objectives to determine if changes in assumptions are warranted.

Task II-B-8: Capacity Deficiency Analysis

The MPO will conduct a capacity deficiency analysis as part of the 2040 LRTP and CMP. The analysis will be made to determine existing and existing-plus-committed deficiencies. Volume-to-capacity ration maps will be produced for the 2010 base year, E+C year, and other LRTP and CTP years. Essentially this task encompasses application of the Triangle Regional Model and other modeling tools to analyze deficiencies in the existing transportation system relative to anticipated future travel demand

Task II-B-9: Highway Element of the LRTP

The MPO will continue with the evaluation of highway elements of the Comprehensive Transportation Plan and the 2035 LRTP. Performance measures will be established for evaluating highway alternatives.

Task II-B-10: Transit Element of the LRTP

The MPO will continue with the evaluation of transit elements of the Comprehensive Transportation Plan and the 2035 LRTP. Transit evaluate will include fixed-route bus service, fixed-guideway transit, highway capacity transit and demand responsive transit. Using travel behavior, ridership forecasts and other analysis, evaluation of transit element will look at

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unmet needs, new services areas and potential markets. Performance measures will be established for evaluating transit alternatives.

The MPO will continue the work of the Special Transit Advisory Commission related to the development of the regional transit plan. Specifically, the MPO will conduct planning and studies for highway capacity transit and circulator transit and other planning work necessary for the preparation of the FTA Small-Smart project. It is anticipated that this work will be accomplished with the help of consulting services.

Task II-B-11: Bicycle & Pedestrian Element of the LRTP

The MPO will continue with the evaluation of bicycle and pedestrian elements of the Comprehensive Transportation Plan and the 2035 LRTP. The MPO will continue work on the Durham Comprehensive pedestrian Plan and the Old Durham-Chapel Hill Road bicycle and pedestrian feasibility study. Work will commence on the development of the Durham Comprehensive Bicycle Plan. The MPO will solicit consulting help in the development of the MPO bicycle and pedestrian educational brochures and pamphlets as well as Durham County bike map.

Task II-B-12: Airport/Air Travel Element of LRTP

The MPO will continue with the evaluation of Airport/air travel element of the 2035 LRTP, including inter-modal connection and access/ground transportation.

Task II-B-13: Collector Street Element of LRTP

The MPO will continuation of the development of an MPO wide Collector Street Plan and circulation study. This is envisioned to involve the identification of future collector street connectivity needs, provisions for local street connectivity, development ordinance implementation provisions, additional local government consultation, and public involvement.

Task II-B-15: Freight Movement/Mobility Planning

MPO will undertake tasks associated with urban goods movement, specifically freight accessibility and mobility. Tasks to be undertaken include survey of freight carriers, recommendations for improving truck mobility or train/truck intermodal movements, and identifying acceptable truck routes.

Task II-B-16: Financial Planning

The MPO, on an as-needed basis, will examine financial options for funding proposed transportation projects and programs, including review the financial planning assumptions/projections in the 2030 LRTP and refinement of cost estimates as necessary. The Lead Planning Agency (LPA) will participate in regional efforts geared toward identifying new and

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alternative funding sources, including new taxing strategies, impact fees, and public-private partnerships.

Task II-B-17: Congestion Management Systems Strategies

The MPO will work to implement and monitor the Congestion Management Process (CMP) in accordance with the provisions of 23 U.S.C. and 23 CFR. Specifically, the MPO will continue on the update and monitoring of CMP strategies and State of the Systems Report.

Task II-B-18: Air Quality Planning/Conformity Analysis

The DCHC MPO (the Transportation Advisory Committee) is responsible in making a determination as to whether or not transportation plans, programs, and projects (LRTP and TIP) conform to air quality standards and the intent of the SIP. The LPA will continue to provide technical support to the TAC and TCC regarding air quality planning. In addition the LPA will continue participation in the development and application of State Implementation Plans for air quality, participation in the statewide interagency consultation, and providing assistance to NCDENR in developing and maintaining mobile source emission inventories.

Task II-C: Short Range Transit Planning

The MPO transit operators will continue activities related to short range transit planning. This includes continuous evaluation of their respective transit development plans and service performance.

Task III-A: Planning Work Program

Administer the FY 2009-2010 UPWP and prepare and process amendments as needed. Evaluate transportation planning work needs and emphasis areas and prepare the FY 2010-2011 UPWP. To prepare and continually maintain a Unified Planning Work Program (UPWP) that describes all transportation and transportation-related planning activities anticipated within the DCHC MPO planning area for the FY 2009-2010. To develop, maintain, and complete the UPWP in conformance with applicable federal, state, and regional guidelines. To prepare UPWP amendments as necessary and requested by member agencies, to reflect any change in programming or focus for the current fiscal year.

Task III-B: Transportation Improvement Program (TIP)

Amend FY 2009-2015 MTIP as needed. Commence work on the development of the 2011 – 2017 TIP Regional Priority List. This includes the refinement of the MPO Priority Needs and the identification of the transportation projects, programs, and services towards which the MPO will direct STP DA funds. As the Lead Planning Agency (LPA) of the DCHC MPO, the City of Durham, Transportation

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Division is responsible for annually developing, amending, adjusting and maintaining the Transportation Improvement Program (TIP) for the metropolitan area. Under this activity, the LPA will update and amend the current, seven-year program of transportation improvement projects (MTIP) that is consistent with the 2030 Long-Range Transportation Plan, STIP, the State Implementation Plan (SIP), EPA Air Quality Conformity Regulations and FHWA/FTA Planning Regulations.

Task III-C: Civil Rights Compliance/Other Regulations and Requirements

Task III-C-2: Environmental Justice (EJ)

In accordance with Federal Action (Executive Order 12898), the will develop an Environmental Justice Plan which will focus on complying with the Executive Order and the three basic principles of Environmental Justice: 1) Ensure adequate public involvement of low-income and minority groups in decision-making; 2) Prevent disproportionately high and adverse impacts to low-income and minority groups resulting from transportation and environmental decisions made by the MPO; and 3) Assure that low-income and minority groups receive a proportionate share of benefits resulting from transportation decisions made by the MPO. Tasks include:

1. Develop MPO Environmental Justice Plan, including establishment of Environmental Justice Advisory Board
2. Update demographic profiles based on Census CTPP and PUMS as well as MPO SE data forecasts - maps to identify areas of low-income, minority and elderly populations, job accessibility, and overlay of major employers, fixed route transit systems, and major shopping areas.
3. Provide increased opportunities for under-served populations to be represented in the transportation planning process.
4. Define target areas through the use of Census Block Group data from the 2000 Census.
5. Analyze the mobility of target area populations to jobs, childcare, and transit routes.
6. Review existing public outreach and involvement plan.
7. Develop a protocol for responding to issues and concerns regarding Environmental Justices in general and Hispanic population in particular.
8. Conduct analysis as needed regarding equitable distribution of transportation system benefits and costs among all socio-economic groups throughout the MPO area

Task III-C-3: Minority Business Enterprise

The MPO will continue to address and monitor the Minority Business Enterprise (MBE) program as a part of the planning and programming phases of project development. The MPO will monitor transportation projects and programs to ensure that meaningful and full

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consideration are given to MBEs. The LPA will review and summarize transit operators MBE program and utilization.

Task III-C-4: Planning for the Elderly & Disabled

The MPO will continue to emphasize planning and provision of transportation facilities and services for the elderly and disabled. Specifically, the MPO will update inventory of locations and needs of elderly and disabled persons. The MPO will work with transit operators in the planning and evaluation of para-transit services.

Task III-C-6: Public Involvement

The MPO will continue to provide an early, proactive and a meaningful public participation and input throughout the transportation planning process, including providing for open exchange of information and ideas between the public and transportation decision-makers. To provide the public with complete information, timely notice, full access to key decisions and opportunities for early and continuing involvement in the 3C process. To assess the effectiveness of the current Public Involvement Process as required by the federal Certification Team, and to develop and enhance the process of public dissemination of information.

Task III-D: Incidental Planning/Project Development

Task III-D-2: Environmental Analysis & Pre-TIP Planning

The LPA will continue to participate regularly and consistently in the TIP project planning & development process, including submission of comments, attending public meetings, attending scoping meetings, attending NEPA 404 merger meetings, and participating in field inspections. The LPA will be involved in the East End Connector NEPA process including taking the lead in the public involvement process. The MPO will continue to support and be involved in NCDOT efforts to link NEPA process in the MPO systems planning process.

Task III-D-3 Special Studies

The MPO will continue with wide range of studies which are being conducted to meet the transportation planning needs of the area. These studies include NC 54/I40 corridor and sub-area study, ITS deployment plan update and the continuation of the Farrington/Stagecoach Road study, MPO collector street plan, GIS warehouse and automation, MPO parking study, etc.

Task III-D-4: Regional or Statewide Planning

The MPO will continue to coordinate with CAMPO, TTA, NCDOT, DENR, FHWA, FTA, EPA, and other State and regional agencies in regional transportation. This includes participation in the DCHC-CAMPO joint TAC meetings, TTA Board Meetings, Durham-Chapel Hill-Orange County

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Work Group, and a wide range of regional transportation planning working groups and committees. Examples include the Model Team, the Executive Committee, and the regional transit planning/operation coordination.

Statewide planning includes participation in various statewide planning initiatives such as CMAQ Committee, Indirect and Cumulative Impacts of Transportation Projects in North Carolina, the State Transportation Plan process, and the Comprehensive Transportation Plan.

Task III-E: Management and Operations

This work element encompasses the administration and support of the 3-C transportation planning process as mandated and required by federal regulations. The continuing transportation planning process requires considerable administrative time for attending monthly committee meetings, preparing agendas and minutes to these meetings, training, preparing quarterly progress reports, documenting expenditures for the various planning work items, and filing for reimbursement of expenditures from the PL and STP-DA funds account and other Federal Funds. To assist, support, and facilitate an open Comprehensive, Cooperative, and Continuing (3C) transportation planning and programming process at all levels of government in conformance with applicable federal and state requirements and guidelines as described in the 3C Memorandum of Understanding. Proposed tasks include but not limited to:

1. Provide liaisons between DCHC MPO member agencies, transit providers, CAMPO, NCDOT, DENR, TJCOG, and other organizations at the local, regional, state, and federal levels on transportation related matters, issues and actions.
2. Work with the Capital Area Metropolitan Planning Organization (CAMPO) on regional issues. Prepare Regional Priority lists and MTIP and amend as necessary, Update transportation plans, travel demand model, and monitor data changes. Evaluate transportation planning programs developed through the 3C public participation process for appropriate MPO action.
3. Provide technical assistance to the Transportation Advisory Committee (TAC) and other member jurisdictions policy bodies.
4. Participate in Joint CAMPO/DCHC TCC and TAC meetings as a means to continually improve the quality and operation of the transportation planning process and decision making in the Triangle Region.
5. Review and comment on federal and state transportation-related plans, programs, regulations and guidelines.
6. Prepare and distribute TAC and TCC meeting agendas Attend TAC, TCC and other meetings associated with MPO planning activities.

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July 1, 2012 to June 30, 2017					
	1	2	3	4	5
FY	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Period	2012-13	2013-14	2014-15	2015-16	2016-17
	July 1, 2012-June 30, 2013	July 1, 2013-June 30, 2014	July 1, 2014-June 30, 2015	July 1, 2015-June 30, 2016	July 1, 2016-June 30, 2017
1	Surveillance of Change/ Data monitoring	Surveillance of Change/ Data monitoring	Surveillance of Change/ Data monitoring	Surveillance of Change/ Data monitoring	Surveillance of Change/ Data monitoring
1.1	ADT count and TMC annual and seasonal	ADT count and TMC annual and seasonal	ADT count and TMC annual and seasonal	ADT count and TMC annual and seasonal	ADT count and TMC annual and seasonal
1.2	VMT update and monitoring	VMT update and monitoring	VMT update and monitoring	VMT update and monitoring	VMT update and monitoring
1.3	Street System Changes update	Street System Changes update	Street System Changes update	Street System Changes update	Street System Changes update
1.4	Traffic accidents data	Traffic accidents data	Traffic accidents data	Traffic accidents data	Traffic accidents data
1.5	Transit system data	Transit system data	Transit system data	Transit system data	Transit system data
1.6	Housing, POP, Emp. data	Housing, POP, Emp. data	Housing, POP, Emp. data	Housing, POP, Emp. data	Housing, POP, Emp. data
1.7	Air travel	Air travel	Air travel	Air travel	Air travel
1.8		VOC	VOC	VOC	VOC
1.9	Travel Time	Travel Time	Travel Time	Travel Time	Travel Time
1.10	Mapping	Mapping	Mapping	Mapping	Mapping
1.11	Parking inventory	Parking inventory		Parking inventory	Parking inventory
1.12	Bike/Pedestrian. Facilities Inv	Bike/Pedestrian. Facilities Inv	Bike/Pedestrian. Facilities Inv	Bike/Pedestrian. Facilities Inv	Bike/Pedestrian. Facilities Inv
1.13	Bike/Pedestrian. Facilities Counts	Bike/Pedestrian. Facilities Counts	Bike/Pedestrian. Facilities Counts	Bike/Pedestrian. Facilities Counts	Bike/Pedestrian. Facilities Counts
2	Unified Planning Work Program (UPWP)	Unified Planning Work Program (UPWP)	Unified Planning Work Program (UPWP)	Unified Planning Work Program (UPWP)	Unified Planning Work Program (UPWP)
2.1	Amend UPWP as necessary	Amend UPWP as necessary	Amend UPWP as necessary	Amend UPWP as necessary	Amend UPWP as necessary
2.2	Process quarterly invoices and reports	Process quarterly invoices and reports	Process quarterly invoices and reports	Process quarterly invoices and reports	Process quarterly invoices and reports
2.3	Prepare annual UPWP progress report and performance evaluation	Prepare annual UPWP progress report and performance evaluation	Prepare annual UPWP progress report and performance evaluation	Prepare annual UPWP progress report and performance evaluation	Prepare annual UPWP progress report and performance evaluation
2.4	Develop FY 2014 UPWP	Develop FY 2015 UPWP	Develop FY 2016 UPWP	Develop FY 2017 UPWP	Develop FY 2018 UPWP
2.5	UPWP financial management	UPWP financial management	UPWP financial management	UPWP financial management	UPWP financial management
	Grant monitoring and audit	Grant monitoring and audit	Grant monitoring and audit	Grant monitoring and audit	Grant monitoring and audit
2.6	Perform annual self-certification & On-Going Process-Development	Perform annual self-certification & On-Going Process-Development	Perform annual self-certification & On-Going Process-Development	Perform annual self-certification & On-Going Process-Development	Perform annual self-certification & On-Going Process-Development
3	Long-Range Transportation Plan (LRTP)	Long-Range Transportation Plan (LRTP)	Long-Range Transportation Plan (LRTP)	Long-Range Transportation Plan (LRTP)	Long-Range Transportation Plan (LRTP)
3.1	Land-use Scenario analysis	Approval of the 2040 LRTP for AQ analysis and conformity	Amendment of the 2040 LRTP for AQ analysis and conformity as necessary	Goals, Objectives and targets for 2045 LRTP	Approval of the 2045 LRTP for AQ analysis and conformity
3.2	Deficiency Analysis	CTP components- Highway, transit, bicycle and pedestrian vision plans	Model Update for 2045 LRTP analysis	SE data collection and Forecasts for 2045 LRTP	CTP components- Highway, transit, bicycle and pedestrian vision plans
3.3	Alternative analysis	AQ analysis and conformity determination process	Inter-Agency Consultation process	Deficiency analysis and need assessment	AQ analysis and conformity determination process
3.4	Development of Preferred Option	Inter-Agency Consultation process	CTP update	Generation of alternatives and evaluation of alternatives	Inter-Agency Consultation process
3.5		Draft LRTP AQ Conformity Jan 2013 & approval in March 2013	Land-use Scenario analysis	Land-use Scenario analysis	

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	1	2	3	4	5
FY	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Period	2012-13	2013-14	2014-15	2015-16	2016-17
	July 1, 2012-June 30, 2013	July 1, 2013-June 30, 2014	July 1, 2014-June 30, 2015	July 1, 2015-June 30, 2016	July 1, 2016-June 30, 2017
3.6			2045 LRTP Visioning process	Financial analysis	
3.7		2040 LRTP conformity deadline June 15 2013		Selection of Preferred options	
4	Travel Demand Model Development and Update	Travel Demand Model Development and Update	Travel Demand Model Development and Update	Travel Demand Model Development and Update	Travel Demand Model Development and Update
4.1	On-going model maintenance and enhancement activities	On-going model maintenance and enhancement activities	On-going model maintenance and enhancement activities	On-going model maintenance and enhancement activities	On-going model maintenance and enhancement activities
4.2	Collection of 2010 base year survey data, Census, ACS augment, onboard transit, commercial vehicle, etc	Collection of 2013 base year data-traffic counts, transit, etc	Model Update for 2045 LRTP analysis	Model Update for 2045 LRTP analysis	Model Update for 2045 LRTP analysis
4.3	2010 Census TAZ Delineation	Collection & development of 2013 networks			
4.4	Re-specification of the the model TRM V6	Socio-economic and demographic data collection and forecasts			
4.7		2013 base year model calibration and validation			
5	Bicycle & Pedestrian Planning	Bicycle & Pedestrian Planning	Bicycle & Pedestrian Planning	Bicycle & Pedestrian Planning	Bicycle & Pedestrian Planning
5.1	On-going bike and pedestrian advocacy	On-going bike and pedestrian advocacy	On-going bike and pedestrian advocacy	On-going bike and pedestrian advocacy	
5.2	Update of the Comprehensive Bicycle Plan. Update of the Regional Bike Plan		Update of the Comprehensive Pedestrian Plan	Update of the Comprehensive Bicycle Plan. Update of the Regional Bike Plan	on-going implementation of the bike and pedestria plans
5.3			On-going bike-pedestrian programs monitoring of strategies & effectiveness	On-going bike-pedestrian programs monitoring of strategies & effectiveness	On-going bike-pedestrian programs monitoring of strategies & effectiveness
6	Short-Range Transit Plan	Short-Range Transit Plan	Short-Range Transit Plan	Short-Range Transit Plan	Short-Range Transit Plan
6.1	On-going transit planning process	On-going transit planning process	On-going transit planning process	On-going transit planning process	On-going transit planning process
6.2	Transit Development Plan (TDP) DATA	Transit Development Plan (TDP) TTA		Transit Development Plan (TDP) CHT & TTA	Transit survey
7	Congestion Management Process (CMS/CMP)	Congestion Management Process (CMS/CMP)	Congestion Management Process (CMS/CMP)	Congestion Management Process (CMS/CMP)	Congestion Management Process (CMS/CMP)
7.1					
7.2	On-going CMP monitoring of strategies & effectiveness	On-going CMP monitoring of strategies & effectiveness	On-going CMP monitoring of strategies & effectiveness	On-going CMP monitoring of strategies & effectiveness	On-going CMP monitoring of strategies & effectiveness
7.3	Establishment of Area of application & reevaluation of definition of congestion		Establishment of Area of application & reevaluation of definition of congestion		Establishment of Area of application & reevaluation of definition of congestion

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July 1, 2012 to June 30, 2017					
	1	2	3	4	5
FY	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Period	2012-13	2013-14	2014-15	2015-16	2016-17
	July 1, 2012-June 30, 2013	July 1, 2013-June 30, 2014	July 1, 2014-June 30, 2015	July 1, 2015-June 30, 2016	July 1, 2016-June 30, 2017
7.4	Transportation system definition (modes & networks)		Transportation system definition (modes & networks)		Transportation system definition (modes & networks)
7.5	Transportation system definition (modes & networks)		Transportation system definition (modes & networks)		Transportation system definition (modes & networks)
7.6	Data collection & analysis for MPO CMS Update		Data collection & analysis for MPO CMS Update		Data collection & analysis for MPO CMS Update
7.7	Develop Performance monitoring Plan		Develop Performance monitoring Plan		Develop Performance monitoring Plan
7.8	Identification and evaluation of strategies.		Identification and evaluation of strategies.		Identification and evaluation of strategies.
7.9	Action plan for monitoring effectiveness of strategies		Action plan for monitoring effectiveness of strategies		Action plan for monitoring effectiveness of strategies
7.10	Public comment and adoption of the MPO CMS		Public comment and adoption of the MPO CMS		Public comment and adoption of the MPO CMS
8	TIP	TIP	TIP	TIP	TIP
			Develop final draft 2013-2019 MTIP. TIP conformity determination		Develop final draft 2015-2021 MTIP. TIP conformity determination
	Reconcile 2011-17 MTIP and STIP		TAC Approves 2013-2019 MTIP		TAC Approves 2015-2021 MTIP
	TAC Approves 2011-2017 MTIP	Update TIP ranking & project prioritization methodology as necessary	BOT Approves 2013-2019 STIP	Update TIP ranking & project prioritization methodology as necessary	BOT Approves 2015-2021 STIP
	BOT Approves 2011-2017 STIP	Develop & submit TIP Project Priority List for 2013-2019 TIP		Develop & submit TIP Project Priority List for 2015-2021 TIP	
		Review draft STIP and prepare analysis comparison. Generate financial & revenue information for MTIP		Review draft STIP and prepare analysis comparison. Generate financial & revenue information for MTIP	
		One-on-one discussion between the MPO and NCDOT		One-on-one discussion between the MPO and NCDOT	
		Development 2013-2019 MTIP . Public input and comment process.		Development 2015-2021 MTIP . Public input and comment process.	
	Process MTIP amendments as needed	Process MTIP amendments as needed	Process MTIP amendments as needed	Process MTIP amendments as needed	
	Annual TIP project Listing	Annual TIP project Listing	Annual TIP project Listing	Annual TIP project Listing	
9	Title VI/Civil Rights/EJ	Title VI/Civil Rights/EJ	Title VI/Civil Rights/EJ	Title VI/Civil Rights/EJ	Title VI/Civil Rights/EJ
	Update EJ Plan and LEP program, and evaluate effectiveness of program and outreach efforts		Update EJ Plan and LEP program, and evaluate effectiveness of program and outreach efforts		Update EJ Plan and LEP program, and evaluate effectiveness of program and outreach efforts
	Update EJ and LEP outreach mailing list	Update EJ and LEP outreach mailing list	Update EJ and LEP outreach mailing list	Update EJ and LEP outreach mailing list	Update EJ and LEP outreach mailing list

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July 1, 2012 to June 30, 2017					
	1	2	3	4	5
FY	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Period	2012-13	2013-14	2014-15	2015-16	2016-17
	July 1, 2012-June 30, 2013	July 1, 2013-June 30, 2014	July 1, 2014-June 30, 2015	July 1, 2015-June 30, 2016	July 1, 2016-June 30, 2017
	Administer and monitor MPO EJ/LEP program	Administer and monitor MPO EJ/LEP program	Administer and monitor MPO EJ/LEP program	Administer and monitor MPO EJ/LEP program	Administer and monitor MPO EJ/LEP program
	Evaluate and Perform EJ analysis, impacts as needed	Evaluate and Perform EJ analysis, impacts as needed	Evaluate and Perform EJ analysis, impacts as needed	Evaluate and Perform EJ analysis, impacts as needed	Evaluate and Perform EJ analysis, impacts as needed
	Update EL/LEP demographic profile and database	Update EL/LEP demographic profile and database	Update EL/LEP demographic profile and database	Update EL/LEP demographic profile and database	Update EL/LEP demographic profile and database
10	Public Involvement/Participation Plan (PIP/PPP)	Public Involvement/Participation Plan (PIP/PPP)	Public Involvement/Participation Plan (PIP/PPP)	Public Involvement/Participation Plan (PIP/PPP)	Public Involvement/Participation Plan (PIP/PPP)
	Review and evaluate effectiveness of MPO Public Involvement Process	Review and evaluate effectiveness of MPO Public Involvement Process	Review and evaluate effectiveness of MPO Public Involvement Process	Review and evaluate effectiveness of MPO Public Involvement Process	Review and evaluate effectiveness of MPO Public Involvement Process
		Social media in mpo public outreach and input process	Social media in mpo public outreach and input process	Social media in mpo public outreach and input process	Social media in mpo public outreach and input process
	On-going MPO website update and content management	On-going MPO website update and content management	On-going MPO website update and content management	On-going MPO website update and content management	On-going MPO website update and content management
11	Project Development & Incidental Planning	Project Development & Incidental Planning	Project Development & Incidental Planning	Project Development & Incidental Planning	Project Development & Incidental Planning
	Participation in project development, environmental analysis, NEAP process	Participation in project development, environmental analysis, NEAP process	Participation in project development, environmental analysis, NEAP process	Participation in project development, environmental analysis, NEAP process	Participation in project development, environmental analysis, NEAP process
	Northern Durham Parkway/US 70 NEAP study	Northern Durham Parkway/US 70 NEAP study	Pre-TIP project planning and coordination	Pre-TIP project planning and coordination	Pre-TIP project planning and coordination
12	Land-use & Transportation integration	Land-use & Transportation integration	Land-use & Transportation integration	Land-use & Transportation integration	Land-use & Transportation integration
	Community Viz and UrbanSim implementation and update	Community Viz and UrbanSim implementation and update	Community Viz and UrbanSim implementation and update	Community Viz and UrbanSim implementation and update	Community Viz and UrbanSim implementation and update
	Monitoring of land use development and consistency check with SE forecasts	Monitoring of land use development and consistency check with SE forecasts	Monitoring of land use development and consistency check with SE forecasts	Monitoring of land use development and consistency check with SE forecasts	
13	Intelligent Transportation System Planning	Intelligent Transportation System Planning	Intelligent Transportation System Planning	Intelligent Transportation System Planning	Intelligent Transportation System Planning
	Turbo Architecture, IDAS and DynaSmart enhancement, update and maintenance	Turbo Architecture, IDAS and DynaSmart enhancement, update and maintenance	Turbo Architecture, IDAS and DynaSmart enhancement, update and maintenance	Turbo Architecture, IDAS and DynaSmart enhancement, update and maintenance	Turbo Architecture, IDAS and DynaSmart enhancement, update and maintenance
	ITS planning, operation and monitoring	ITS planning, operation and monitoring	ITS planning, operation and monitoring	ITS planning, operation and monitoring	ITS planning, operation and monitoring
14	Safety Planning	Safety Planning	Safety Planning	Safety Planning	Safety Planning
	Safety data collection and analysis, and coordination with other agencies.	Safety data collection and analysis, and coordination with other agencies.	Safety data collection and analysis, and coordination with other agencies.	Safety data collection and analysis, and coordination with other agencies.	Safety data collection and analysis, and coordination with other agencies.

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July 1, 2012 to June 30, 2017					
	1	2	3	4	5
FY	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Period	2012-13	2013-14	2014-15	2015-16	2016-17
	July 1, 2012-June 30, 2013	July 1, 2013-June 30, 2014	July 1, 2014-June 30, 2015	July 1, 2015-June 30, 2016	July 1, 2016-June 30, 2017
	Ongoing integration of safety in the MPO transportation planning process	Ongoing integration of safety in the MPO transportation planning process	Ongoing integration of safety in the MPO transportation planning process	Ongoing integration of safety in the MPO transportation planning process	Ongoing integration of safety in the MPO transportation planning process
15	Freight Planning	Freight Planning	Freight Planning	Freight Planning	Freight Planning
	on-going freight planning and coordination	on-going freight planning and coordination	on-going freight planning and coordination	on-going freight planning and coordination	on-going freight planning and coordination
	Outreach with freight and logistic companies	Outreach with freight and logistic companies	Outreach with freight and logistic companies	Outreach with freight and logistic companies	Outreach with freight and logistic companies
	Continuous update of truck circulation maps	Continuous update of truck circulation maps	Continuous update of truck circulation maps	Continuous update of truck circulation maps	Continuous update of truck circulation maps
16	Transportation System Preservation	Transportation System Preservation	Transportation System Preservation	Transportation System Preservation	Transportation System Preservation
	Transportation System Preservation planning and operation	Transportation System Preservation planning and operation	Transportation System Preservation planning and operation	Transportation System Preservation planning and operation	Transportation System Preservation planning and operation
	TDM and TSM (ITS) planning, programming, implementation, monitoring and evaluation	TDM and TSM (ITS) planning, programming, implementation, monitoring and evaluation	TDM and TSM (ITS) planning, programming, implementation, monitoring and evaluation	TDM and TSM (ITS) planning, programming, implementation, monitoring and evaluation	TDM and TSM (ITS) planning, programming, implementation, monitoring and evaluation
17	GIS Development	GIS Development	GIS Development	GIS Development	GIS Development
	<i>Maintain Databases</i>	<i>Maintain Databases</i>	<i>Maintain Databases</i>	<i>Maintain Databases</i>	<i>Maintain Databases</i>
	Maintain Databases	Maintain Databases	Acquire and Maintain Data; maintain hardware and software	Acquire and Maintain Data; maintain hardware and software	Acquire and Maintain Data; maintain hardware and software
	Maintenance of MPO GIS and data layers	Maintenance of MPO GIS and data layers	Maintenance of MPO GIS and data layers	Maintenance of MPO GIS and data layers	Maintenance of MPO GIS and data layers
	Coordination with resource agencies and linkages of transportation data with environmental data	Coordination with resource agencies and linkages of transportation data with environmental data	Coordination with resource agencies and linkages of transportation data with environmental data	Coordination with resource agencies and linkages of transportation data with environmental data	Coordination with resource agencies and linkages of transportation data with environmental data
	<i>Update green print maps</i>	<i>Update green print maps</i>	<i>Update green print maps</i>	<i>Update green print maps</i>	<i>Update green print maps</i>
	Data development and update. Maintenance and update of TELUDE and applications	Data development and update. Maintenance and update of TELUDE and applications	Data development and update. Maintenance and update of TELUDE and applications	Data development and update. Maintenance and update of TELUDE and applications	Data development and update. Maintenance and update of TELUDE and applications
18	Management and Operations	Management and Operations	Management and Operations	Management and Operations	Management and Operations
	Management and Operations of the MPO 3-C process	Management and Operations of the MPO 3-C process	Management and Operations of the MPO 3-C process	Management and Operations of the MPO 3-C process	Management and Operations of the MPO 3-C process
	TAC directives	TAC directives	TAC directives	TAC directives	TAC directives
19	Special Studies/State & Regional Planning	Special Studies/State & Regional Planning	Special Studies/State & Regional Planning	Special Studies/State & Regional Planning	Special Studies/State & Regional Planning
	NC 54 Studies	Parking survey/Study	As Needed	As Needed	As needed

Appendices A

Federal Highway Administration (FHWA) & Federal Transit Administration (FTA) Agency Funding Tables

**Durham-Chapel Hill-Carrboro Urban Area
FY 2012-2013 Unified Planning Work Program
Funding Distribution by Agency Funding Sources**

TCC 4/25/2012 Attachment 5

City of Durham / LPA

	Task Description	STP-DA 133(b)(3)(7)		Sec. 104(f) PL		Section 5303 Highway/Transit			Section 5307 Transit			Task Funding Summary				
		Local 20%	FHWA 80%	Local 20%	FHWA 80%	Local 10%	NCDOT 10%	FTA 80%	Local 10%	NCDOT 10%	FTA 80%	Local	NCDOT	Federal	Total	
II A	Surveillance of Change															
	1 Traffic Volume Counts	\$13,130	\$52,520	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,130	\$0	\$52,520	\$65,650	
	2 Vehicle Miles of Travel	\$1,600	\$6,400	\$1,000	\$4,000	\$0	\$0	\$0	\$0	\$0	\$0	\$2,600	\$0	\$10,400	\$13,000	
	3 Street System Changes	\$1,000	\$4,000	\$1,000	\$4,000	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000	\$0	\$8,000	\$10,000	
	4 Traffic Accidents	\$800	\$3,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$800	\$0	\$3,200	\$4,000	
	5 Transit System Data	\$800	\$3,200	\$0	\$0	\$6,399	\$6,399	\$51,190	\$2,742	\$2,742	\$21,938	\$9,941	\$9,141	\$76,329	\$95,411	
	6 Dwelling Unit, Pop. & Emp. Change	\$4,400	\$17,600	\$6,648	\$26,592	\$0	\$0	\$0	\$0	\$0	\$0	\$11,048	\$0	\$44,192	\$55,240	
	7 Air Travel	\$400	\$1,600	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$400	\$0	\$1,600	\$2,000	
	8 Vehicle Occupancy Rates	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	9 Travel Time Studies	\$5,740	\$22,960	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,740	\$0	\$22,960	\$28,700	
	10 Mapping	\$2,400	\$9,600	\$7,256	\$29,024	\$0	\$0	\$0	\$0	\$0	\$0	\$9,656	\$0	\$38,624	\$48,280	
	11 Central Area Parking Inventory	\$0	\$0	\$400	\$1,600	\$0	\$0	\$0	\$0	\$0	\$0	\$400	\$0	\$1,600	\$2,000	
	12 Bike & Ped. Facilities Inventory	\$1,200	\$4,800	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,200	\$0	\$4,800	\$6,000	
	13 Bike & Ped. Counts	\$3,600	\$14,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,600	\$0	\$14,400	\$18,000	
II B	Long Range Transp. Plan															
	1 Collection of Base Year Data	\$320	\$1,280	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$320	\$0	\$1,280	\$1,600	
	2 Collection of Network Data	\$576	\$2,304	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$576	\$0	\$2,304	\$2,880	
	3 Travel Model Updates	\$63,340	\$253,360	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$63,340	\$0	\$253,360	\$316,700	
	4 Travel Surveys	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	5 Forecast of Data to Horizon year	\$2,680	\$10,720	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,680	\$0	\$10,720	\$13,400	
	6 Community Goals & Objectives	\$400	\$1,600	\$400	\$1,600	\$0	\$0	\$0	\$0	\$0	\$0	\$800	\$0	\$3,200	\$4,000	
	7 Forecast of Future Travel Patterns	\$3,000	\$12,000	\$6,800	\$27,200	\$0	\$0	\$0	\$0	\$0	\$0	\$9,800	\$0	\$39,200	\$49,000	
	8 Capacity Deficiency Analysis	\$6,000	\$24,000	\$13,000	\$52,000	\$0	\$0	\$0	\$0	\$0	\$0	\$19,000	\$0	\$76,000	\$95,000	
	9 Highway Element of th LRTP	\$1,000	\$4,000	\$1,000	\$4,000	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000	\$0	\$8,000	\$10,000	
	10 Transit Element of the LRTP	\$1,000	\$4,000	\$1,000	\$4,000	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000	\$0	\$8,000	\$10,000	
	11 Bicycle & Ped. Element of the LRTP	\$12,400	\$49,600	\$400	\$1,600	\$0	\$0	\$0	\$0	\$0	\$0	\$12,800	\$0	\$51,200	\$64,000	
	12 Airport/Air Travel Element of LRTP	\$0	\$0	\$400	\$1,600	\$0	\$0	\$0	\$0	\$0	\$0	\$400	\$0	\$1,600	\$2,000	
	13 Collector Street Element of LRTP	\$1,000	\$4,000	\$1,000	\$4,000	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000	\$0	\$8,000	\$10,000	
	14 Rail, Water or other mode of LRTP	\$25,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$0	\$100,000	\$125,000	
	15 Freight Movement/Mobility Planning	\$400	\$1,600	\$800	\$3,200	\$0	\$0	\$0	\$0	\$0	\$0	\$1,200	\$0	\$4,800	\$6,000	
	16 Financial Planning	\$0	\$0	\$1,800	\$7,200	\$0	\$0	\$0	\$4,544	\$4,544	\$36,350	\$6,344	\$4,544	\$43,550	\$54,438	
	17 Congestion Management Strategies	\$56,000	\$224,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$56,000	\$0	\$224,000	\$280,000	
	18 Air Qual. Planning/Conformity Anal.	\$1,600	\$6,400	\$3,378	\$13,512	\$0	\$0	\$0	\$0	\$0	\$0	\$4,978	\$0	\$19,912	\$24,890	
II C	Short Range Transit Planning															
	1 Short Range Transit Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
III-A	Planning Work Program															
	Planning Work Program	\$2,000	\$8,000	\$10,900	\$43,600	\$0	\$0	\$0	\$0	\$0	\$0	\$12,900	\$0	\$51,600	\$64,500	
III-B	Transp. Improvement Plan															
	TIP	\$2,400	\$9,600	\$13,600	\$54,400	\$0	\$0	\$0	\$0	\$0	\$0	\$16,000	\$0	\$64,000	\$80,000	
III-C	Cvl Rgts. Cmp./Otr .Reg. Reqs.															
	1 Title VI	\$1,800	\$7,200	\$4,912	\$19,648	\$0	\$0	\$0	\$0	\$0	\$0	\$6,712	\$0	\$26,848	\$33,560	
	2 Environmental Justice	\$800	\$3,200	\$2,420	\$9,680	\$0	\$0	\$0	\$0	\$0	\$0	\$3,220	\$0	\$12,880	\$16,100	
	3 Minority Business Enterprise	\$800	\$3,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$800	\$0	\$3,200	\$4,000	
	4 Planning for the Elderly & Disabled	\$800	\$3,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$800	\$0	\$3,200	\$4,000	
	5 Safety/Drug Control Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	6 Public Involvement	\$13,400	\$53,600	\$3,274	\$13,096	\$0	\$0	\$0	\$0	\$0	\$0	\$16,674	\$0	\$66,696	\$83,370	
	7 Private Sector Participation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
III-D	Incidental Plng./Project Dev.															
	1 Transportation Enhancement Plng.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	2 Enviro. Analysis & Pre-TIP Plng.	\$9,800	\$39,200	\$2,900	\$11,600	\$0	\$0	\$0	\$0	\$0	\$0	\$12,700	\$0	\$50,800	\$63,500	
	3 Special Studies	\$159,200	\$636,800	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$159,200	\$0	\$636,800	\$796,000	
	4 Regional or Statewide Planning	\$9,400	\$37,600	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,400	\$0	\$37,600	\$47,000	
III-E	Management & Operations															
	1 Management & Operations	\$49,277	\$197,107	\$18,573	\$74,293	\$8,088	\$8,088	\$64,707	\$56,596	\$56,596	\$452,766	\$132,533	\$64,683	\$788,873	\$986,090	
	Totals	\$459,463	\$1,837,851	\$102,861	\$411,445	\$14,486	\$14,486	\$115,897	\$63,882	\$63,882	\$511,055	\$640,692	\$78,368	\$2,876,249	\$3,595,309	

**Durham-Chapel Hill-Carrboro Urban Area
FY 2012-2013 Unified Planning Work Program
Funding Distribution by Agency Funding Sources**

TCC 4/25/2012 Attachment 5

Town of Chapel Hill

	Task Description	STP-DA 133(b)(3)(7)		Sec. 104(f) PL		Section 5303 Highway/Transit			Section 5307 Transit			Task Funding Summary				
		Local 20%	FHWA 80%	Local 20%	FHWA 80%	Local 10%	NCDOT 10%	FTA 80%	Local 10%	NCDOT 10%	FTA 80%	Local	NCDOT	Federal	Total	
II-A	Surveillance of Change															
1	Traffic Volume Counts	\$0	\$0	\$600	\$2,400	\$0	\$0	\$0	\$0	\$0	\$0	\$600	\$0	\$2,400	\$3,000	
2	Vehicle Miles of Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
3	Street System Changes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
4	Traffic Accidents	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
5	Transit System Data	\$0	\$0	\$0	\$0	\$200	\$200	\$1,600	\$3,125	\$3,125	\$25,000	\$3,325	\$3,325	\$26,600	\$33,250	
6	Dwelling Unit, Pop. & Emp. Change	\$0	\$0	\$400	\$1,600	\$400	\$400	\$3,200	\$0	\$0	\$0	\$800	\$400	\$4,800	\$6,000	
7	Air Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
8	Vehicle Occupancy Rates	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
9	Travel Time Studies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
10	Mapping	\$2,000	\$8,000	\$2,000	\$8,000	\$3,000	\$3,000	\$24,000	\$0	\$0	\$0	\$7,000	\$3,000	\$40,000	\$50,000	
11	Central Area Parking Inventory	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
12	Bike & Ped. Facilities Inventory	\$0	\$0	\$600	\$2,400	\$0	\$0	\$0	\$0	\$0	\$0	\$600	\$0	\$2,400	\$3,000	
13	Bike & Ped. Counts	\$0	\$0	\$551	\$2,203	\$0	\$0	\$0	\$0	\$0	\$0	\$551	\$0	\$2,203	\$2,754	
II-B	Long Range Transp. Plan															
1	Collection of Base Year Data	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Collection of Network Data	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Travel Model Updates	\$0	\$0	\$0	\$0	\$150	\$150	\$1,197	\$0	\$0	\$0	\$150	\$150	\$1,197	\$1,496	
4	Travel Surveys	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Forecast of Data to Horizon year	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Community Goals & Objectives	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	Forecast of Future Travel Patterns	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Capacity Deficiency Analysis	\$0	\$0	\$2,000	\$8,000	\$1,000	\$1,000	\$8,000	\$0	\$0	\$0	\$3,000	\$1,000	\$16,000	\$20,000	
9	Highway Element of th LRTP	\$0	\$0	\$400	\$1,600	\$0	\$0	\$0	\$0	\$0	\$0	\$400	\$0	\$1,600	\$2,000	
10	Transit Element of the LRTP	\$1,000	\$4,000	\$400	\$1,600	\$400	\$400	\$3,200	\$1,000	\$1,000	\$8,000	\$2,800	\$1,400	\$16,800	\$21,000	
11	Bicycle & Ped. Element of the LRT	\$0	\$0	\$400	\$1,600	\$200	\$200	\$1,600	\$0	\$0	\$0	\$600	\$200	\$3,200	\$4,000	
12	Airport/Air Travel Element of LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13	Collector Street Element of LRTP	\$0	\$0	\$200	\$800	\$100	\$100	\$800	\$0	\$0	\$0	\$300	\$100	\$1,600	\$2,000	
14	Rail, Water or other mode of LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15	Freight Movement/Mobility Plannin	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16	Financial Planning	\$1,000	\$4,000	\$400	\$1,600	\$500	\$500	\$4,000	\$0	\$0	\$0	\$1,900	\$500	\$9,600	\$12,000	
17	Congestion Management Strategies	\$1,000	\$4,000	\$600	\$2,400	\$500	\$500	\$4,000	\$0	\$0	\$0	\$2,100	\$500	\$10,400	\$13,000	
18	Air Qual. Planning/Conformity Ana	\$0	\$0	\$400	\$1,600	\$0	\$0	\$0	\$0	\$0	\$0	\$400	\$0	\$1,600	\$2,000	
II-C	Short Range Transit Planning															
1	Short Range Transit Planning	\$0	\$0	\$0	\$0	\$1,000	\$1,000	\$8,000	\$1,250	\$1,250	\$10,000	\$2,250	\$2,250	\$18,000	\$22,500	
III-A	Planning Work Program															
1	Planning Work Program	\$0	\$0	\$400	\$1,600	\$0	\$0	\$0	\$500	\$500	\$4,000	\$900	\$500	\$5,600	\$7,000	
III-B	Transp. Improvement Plan															
1	TIP	\$0	\$0	\$400	\$1,600	\$0	\$0	\$0	\$500	\$500	\$4,000	\$900	\$500	\$5,600	\$7,000	
III-C	Cvl Rgts. Cmp./Otr .Reg. Req.															
1	Title VI	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$500	\$500	\$4,000	\$500	\$500	\$4,000	\$5,000	
2	Environmental Justice	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Minority Business Enterprise	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50	\$50	\$400	\$50	\$50	\$400	\$500	
4	Planning for the Elderly & Disabled	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000	\$1,000	\$8,000	\$1,000	\$1,000	\$8,000	\$10,000	
5	Safety/Drug Control Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500	\$1,500	\$12,000	\$1,500	\$1,500	\$12,000	\$15,000	
6	Public Involvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$500	\$500	\$4,000	\$500	\$500	\$4,000	\$5,000	
7	Private Sector Participation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III-D	Incidental Plng./Project Dev.															
1	Transportation Enhancement Plng.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Enviro. Analysis & Pre-TIP Plng.	\$0	\$0	\$600	\$2,400	\$0	\$0	\$0	\$0	\$0	\$0	\$600	\$0	\$2,400	\$3,000	
3	Special Studies	\$20,000	\$80,000	\$0	\$0	\$0	\$0	\$0	\$6,000	\$6,000	\$48,000	\$26,000	\$6,000	\$128,000	\$160,000	
4	Regional or Statewide Planning	\$0	\$0	\$3,000	\$12,000	\$3,000	\$3,000	\$24,000	\$5,300	\$5,300	\$42,400	\$11,300	\$8,300	\$78,400	\$98,000	
III-E	Management & Operations															
1	Management & Operations	\$0	\$0	\$4,000	\$16,000	\$3,470	\$3,470	\$27,763	\$23,775	\$23,775	\$190,200	\$31,245	\$27,245	\$233,963	\$292,453	
Totals		\$25,000	\$100,000	\$17,351	\$69,404	\$13,920	\$13,920	\$111,359	\$45,000	\$45,000	\$360,000	\$101,271	\$58,920	\$640,763	\$800,953	

**Durham-Chapel Hill-Carrboro Urban Area
FY 2012-2013 Unified Planning Work Program
Funding Distribution by Agency Funding Sources**

TCC 4/25/2012 Attachment 5

Town of Carrboro

	Task Description	STP-DA		Sec. 104(f)		Section 5303			Section 5307			Task Funding Summary				
		133(b)(3)(7)		PL		Highway/Transit			Transit			Local	NCDOT	Federal	Total	
		Local	FHWA	Local	FHWA	Local	NCDOT	FTA	Local	NCDOT	FTA					
		20%	80%	20%	80%	10%	10%	80%	10%	10%	80%					
II-A	Surveillance of Change															
1	Traffic Volume Counts	\$0	\$0	\$146	\$584	\$0	\$0	\$0	\$0	\$0	\$0	\$146	\$0	\$584	\$730	
2	Vehicle Miles of Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Street System Changes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Traffic Accidents	\$0	\$0	\$72	\$288	\$0	\$0	\$0	\$0	\$0	\$0	\$72	\$0	\$288	\$360	
5	Transit System Data	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Dwelling Unit, Pop. & Emp. Change	\$0	\$0	\$102	\$408	\$0	\$0	\$0	\$0	\$0	\$0	\$102	\$0	\$408	\$510	
7	Air Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Vehicle Occupancy Rates	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	Travel Time Studies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10	Mapping	\$0	\$0	\$418	\$1,672	\$0	\$0	\$0	\$0	\$0	\$0	\$418	\$0	\$1,672	\$2,090	
11	Central Area Parking Inventory	\$0	\$0	\$88	\$352	\$0	\$0	\$0	\$0	\$0	\$0	\$88	\$0	\$352	\$440	
12	Bike & Ped. Facilities Inventory	\$0	\$0	\$36	\$144	\$0	\$0	\$0	\$0	\$0	\$0	\$36	\$0	\$144	\$180	
13	Bike & Ped. Counts	\$0	\$0	\$88	\$352	\$0	\$0	\$0	\$0	\$0	\$0	\$88	\$0	\$352	\$440	
II-B	Long Range Transp. Plan															
1	Collection of Base Year Data	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Collection of Network Data	\$0	\$0	\$72	\$288	\$0	\$0	\$0	\$0	\$0	\$0	\$72	\$0	\$288	\$360	
3	Travel Model Updates	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Travel Surveys	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Forecast of Data to Horizon year	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Community Goals & Objectives	\$0	\$0	\$144	\$576	\$0	\$0	\$0	\$0	\$0	\$0	\$144	\$0	\$576	\$720	
7	Forecast of Future Travel Patterns	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Capacity Deficiency Analysis	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	Highway Element of th LRTP	\$0	\$0	\$146	\$584	\$0	\$0	\$0	\$0	\$0	\$0	\$146	\$0	\$584	\$730	
10	Transit Element of the LRTP	\$0	\$0	\$146	\$584	\$0	\$0	\$0	\$0	\$0	\$0	\$146	\$0	\$584	\$730	
11	Bicycle & Ped. Element of the LRTP	\$0	\$0	\$108	\$432	\$0	\$0	\$0	\$0	\$0	\$0	\$108	\$0	\$432	\$540	
12	Airport/Air Travel Element of LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13	Collector Street Element of LRTP	\$0	\$0	\$108	\$432	\$0	\$0	\$0	\$0	\$0	\$0	\$108	\$0	\$432	\$540	
14	Rail, Water or other mode of LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15	Freight Movement/Mobility Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16	Financial Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17	Congestion Management Strategies	\$0	\$0	\$290	\$1,160	\$0	\$0	\$0	\$0	\$0	\$0	\$290	\$0	\$1,160	\$1,450	
18	Air Qual. Planning/Conformity Anal.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
II-C	Short Range Transit Planning															
1	Short Range Transit Planning	\$0	\$0	\$254	\$1,016	\$0	\$0	\$0	\$0	\$0	\$0	\$254	\$0	\$1,016	\$1,270	
											\$0	\$0	\$0	\$0	\$0	\$0
III-A	Planning Work Program															
	Planning Work Program	\$0	\$0	\$324	\$1,296	\$0	\$0	\$0	\$0	\$0	\$0	\$324	\$0	\$1,296	\$1,620	
											\$0	\$0	\$0	\$0	\$0	\$0
III-B	Transp. Improvement Plan															
	TIP	\$0	\$0	\$582	\$2,328	\$0	\$0	\$0	\$0	\$0	\$0	\$582	\$0	\$2,328	\$2,910	
											\$0	\$0	\$0	\$0	\$0	\$0
III-C	Cvl Rgts. Cmp./Otr .Reg. Reqs.															
1	Title VI	\$0	\$0	\$36	\$144	\$0	\$0	\$0	\$0	\$0	\$0	\$36	\$0	\$144	\$180	
2	Environmental Justice	\$0	\$0	\$108	\$432	\$0	\$0	\$0	\$0	\$0	\$0	\$108	\$0	\$432	\$540	
3	Minority Business Enterprise	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Planning for the Elderly & Disabled	\$0	\$0	\$72	\$288	\$0	\$0	\$0	\$0	\$0	\$0	\$72	\$0	\$288	\$360	
5	Safety/Drug Control Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Public Involvement	\$0	\$0	\$402	\$1,608	\$0	\$0	\$0	\$0	\$0	\$0	\$402	\$0	\$1,608	\$2,010	
7	Private Sector Participation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III-D	Incidental Plng./Project Dev.															
1	Transportation Enhancement Plng.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Enviro. Analysis & Pre-TIP Plng.	\$0	\$0	\$108	\$432	\$0	\$0	\$0	\$0	\$0	\$0	\$108	\$0	\$432	\$540	
3	Special Studies	\$0	\$0	\$486	\$1,944	\$0	\$0	\$0	\$0	\$0	\$0	\$486	\$0	\$1,944	\$2,431	
4	Regional or Statewide Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III-E	Management & Operations															
1	Management & Operations	\$0	\$0	\$2,298	\$9,194	\$0	\$0	\$0	\$0	\$0	\$0	\$2,298	\$0	\$9,194	\$11,492	
Totals		\$0	\$0	\$6,635	\$26,538	\$0	\$0	\$0	\$0	\$0	\$0	\$6,635	\$0	\$26,538	\$33,173	

**Durham-Chapel Hill-Carrboro Urban Area
 FY 2012-2013 Unified Planning Work Program
 Funding Distribution by Agency Funding Sources**

TCC 4/25/2012 Attachment 5

Triangle J COG

	Task Description	STP-DA 133(b)(3)(7)		Sec. 104(f) PL		Section 5303 Highway/Transit			Section 5307 Transit			Task Funding Summary				
		Local 20%	FHWA 80%	Local 20%	FHWA 80%	Local 10%	NCDOT 10%	FTA 80%	Local 10%	NCDOT 10%	FTA 80%	Local	NCDOT	Federal	Total	
II A	Surveillance of Change															
	1 Traffic Volume Counts	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2 Vehicle Miles of Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	3 Street System Changes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	4 Traffic Accidents	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	5 Transit System Data	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	6 Dwelling Unit, Pop. & Emp. Change	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	7 Air Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	8 Vehicle Occupancy Rates	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	9 Travel Time Studies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	10 Mapping	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	11 Central Area Parking Inventory	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	12 Bike & Ped. Facilities Inventory	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	13 Bike & Ped. Counts	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
II B	Long Range Transp. Plan															
	1 Collection of Base Year Data	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2 Collection of Network Data	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	3 Travel Model Updates	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	4 Travel Surveys	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	5 Forecast of Data to Horizon year	\$3,000	\$12,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	6 Community Goals & Objectives	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	7 Forecast of Future Travel Patterns	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	8 Capacity Deficiency Analysis	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	9 Highway Element of th LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	10 Transit Element of the LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	11 Bicycle & Ped. Element of the LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	12 Airport/Air Travel Element of LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	13 Collector Street Element of LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	14 Rail, Water or other mode of LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	15 Freight Movement/Mobility Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	16 Financial Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	17 Congestion Management Strategies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	18 Air Qual. Planning/Conformity Anal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
II C	Short Range Transit Planning															
	1 Short Range Transit Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III-A	Planning Work Program															
	1 Planning Work Program	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III-B	Transp. Improvement Plan															
	1 TIP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III-C	Cvl Rgts. Cmp./Otr .Reg. Reqs.															
	1 Title VI	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2 Environmental Justice	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	3 Minority Business Enterprise	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	4 Planning for the Elderly & Disabled	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	5 Safety/Drug Control Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	6 Public Involvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	7 Private Sector Participation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III-D	Incidental Plng./Project Dev.															
	1 Transportation Enhancement Plng.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2 Enviro. Analysis & Pre-TIP Plng.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	3 Special Studies	\$2,000	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	4 Regional or Statewide Planning	\$8,000	\$32,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III E	Management & Operations															
	1 Management & Operations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Totals		\$13,000	\$52,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

**Durham-Chapel Hill-Carrboro Urban Area
FY 2012-2013 Unified Planning Work Program
Funding Distribution by Agency Funding Sources**

TCC 4/25/2012 Attachment 5

Triangle Transit Authority (TTA)

	Task Description	Section 5303 Highway/Transit			Section 5307 Transit			Task Funding Summary				
		Local 10%	NCDOT 10%	FTA 80%	Local 10%	NCDOT 10%	FTA 80%	Local	NCDOT	Federal	Total	
II A	Surveillance of Change											
	1 Traffic Volume Counts	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2 Vehicle Miles of Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	3 Street System Changes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	4 Traffic Accidents	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	5 Transit System Data	\$0	\$0	\$0	\$6,000	\$6,000	\$48,000	\$6,000	\$6,000	\$48,000	\$60,000	\$60,000
	6 Dwelling Unit, Pop. & Emp. Change	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	7 Air Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	8 Vehicle Occupancy Rates	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	9 Travel Time Studies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	10 Mapping	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	11 Central Area Parking Inventory	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	12 Bike & Ped. Facilities Inventory	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	13 Bike & Ped. Counts	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
II B	Long Range Transp. Plan											
	1 Collection of Base Year Data	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2 Collection of Network Data	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	3 Travel Model Updates	\$0	\$0	\$0	\$9,000	\$9,000	\$72,000	\$9,000	\$9,000	\$72,000	\$90,000	\$90,000
	4 Travel Surveys	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	5 Forecast of Data to Horizon year	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	6 Community Goals & Objectives	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	7 Forecast of Future Travel Patterns	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	8 Capacity Deficiency Analysis	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	9 Highway Element of th LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	10 Transit Element of the LRTP	\$0	\$0	\$0	\$1,750	\$1,750	\$14,000	\$1,750	\$1,750	\$14,000	\$17,500	\$17,500
	11 Bicycle & Ped. Element of the LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	12 Airport/Air Travel Element of LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	13 Collector Street Element of LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	14 Rail, Water or other mode of LRTP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	15 Freight Movement/Mobility Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	16 Financial Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	17 Congestion Management Strategies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	18 Air Qual. Planning/Conformity Anal.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
II C	Short Range Transit Planning											
	1 Short Range Transit Planning	\$0	\$0	\$0	\$34,750	\$34,750	\$278,000	\$34,750	\$34,750	\$278,000	\$347,500	\$347,500
III-A	Planning Work Program											
	Planning Work Program	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III-B	Transp. Improvement Plan											
	TIP	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III-C	Cvl Rgts. Cmp./Otr .Reg. Reqs.											
	1 Title VI	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2 Environmental Justice	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	3 Minority Business Enterprise	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	4 Planning for the Elderly & Disabled	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	5 Safety/Drug Control Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	6 Public Involvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	7 Private Sector Participation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III-D	Incidental Plng./Project Dev.											
	1 Transportation Enhancement Plng.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2 Enviro. Analysis & Pre-TIP Plng.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	3 Special Studies	\$0	\$0	\$0	\$34,000	\$34,000	\$272,000	\$34,000	\$34,000	\$272,000	\$340,000	\$340,000
	4 Regional or Statewide Planning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
III E	Management & Operations											
	1 Management & Operations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Totals		\$0	\$0	\$0	\$85,500	\$85,500	\$684,000	\$85,500	\$85,500	\$684,000	\$855,000	\$855,000

Appendices B

Federal Transit Administration (FTA) Agency Funding Tables & DBE forms

DURHAM AREA TRANSIT FTA TASK NARRATIVE TABLE FY2012-2013 (FY13) UPWP

1-	MPO	DCHC-MPO (DATA)	DCHC-MPO (DATA)	DCHC-MPO (DATA)	
2-	FTA Code	442400	442300	442100	
3-	Task Code	II-A-5	II-B-16	III-E	
4-	Title of Planning Task	<i>Transit System Data</i>	<i>Financial Planning</i>	<i>Management and Operations</i>	<i>TOTALS</i>
5-	Task Objective	To conduct FTA required passenger counts through system wide surveys and studies, daily ridership counts.	Prepare and monitor fiscal programs for the City, FTA, and the State of North Carolina	To provide systemwide management oversight including report preparation, council briefing, transportation board meeting, etc.	
6-	Tangible Product Expected	Daily ridership counts, by route, by peak, GIS data, AVL data formats	Quarterly and annual financial reports.	FTA reports, compliance issue resolution, annual certifications and compliance issues, assurances. Transit planning, public involvement, and transportation improvement.	
7-	Expected Completion Date of Product(s)	6/30/2013	6/30/2013	6/30/2013	
8-	Previous Work	NTD passenger counts, required every 3 years.	Provide on-going financial monitoring for the transit system.	FTA reports, compliance issue resolution, annual certifications and compliance issues, assurances. Transit planning, public involvement, and transportation improvement.	
9-	Prior FTA Funds	\$88,186	\$50,674	\$273,902	
10-	Relationship To Other Activities	Data collected is used in service performance evaluation	none	none	
11-	Agency Responsible for Task Completion	Durham Area Transit	Durham Area Transit	Durham Area Transit	
12-	HPR - Highway - NCDOT 20%				
13-	HPR - Highway - FHWA 80%				
14-	Section 104 (f) PL Local 20%				
15-	Section 104 (f) PL FHWA 80%				
16-	Section 5303 Local 10%	\$6,399		\$8,089	\$14,488
17-	Section 5303 NCDOT 10%	\$6,399		\$8,089	\$14,488
18-	Section 5303 FTA 80%	\$51,190		\$64,708	\$115,898
19-	Section 5307 Transit - Local 10%	\$2,742	\$4,544	\$56,596	\$63,882
20-	Section 5307 Transit - NCDOT 10%	\$2,742	\$4,544	\$56,596	\$63,882
21-	Section 5307 Transit - FTA 80%	\$21,938	\$36,350	\$452,766	\$511,054

CHAPEL HILL TRANSIT FTA TASK NARRATIVE TABLE FY2012-2013 (FY13) UPWP

1-	MPO	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)
2-	FTA Code	442400	442400	442301	442302	442302	442302
3-	Task Code	II-A-5	II-A-6	II-A-10	II-B-3	II-B-8	II-B-10
4-	Title of Planning Task	Transit System Data	Dwelling Unit, Pop. & Emp. Change	Mapping	Travel Model Updates	Capacity Deficiency Analysis	Transit Element of the L RTP
5-	Task Objective	Review and analyze transit system data to monitor changes in travel behavior	Compare projected 2040 population and employment with results of revised 2020 Comprehensive Plan Land Use	Participate with MPO in further development of regional GIS database; prepare mapping to support regional activities	Monitor the use of the TRM in the development of Triangle LPA.	Analyze results of 2040 L RTP future land use and transportation networks scenarios.	To prepare the transit element of the 2040 MPO L RTP
6-	Tangible Product Expected	Chapel Hill Data Book Update	Revised population and employment projections	Geo spatial database	Modifications to TRM consistent with Triangle Transit light rail ridership analysis.	2040 L RTP	2040 L RTP
7-	Expected Completion Date of Product(s)	6/30/2013	6/30/2013	6/30/2013	6/30/2013	6/30/2013	6/30/2013
8-	Previous Work	2012 Data Book Update	Development of 2035 population and employment projections	Provided support for development of geo spatial database architecture.	Participation in refinements to TRM.	2035 L RTP.	Continued work on the 2040 L RTP
9-	Prior FTA Funds	\$60,000	\$3,000	\$40,000	\$3,000	\$3,000	\$10,000
10-	Relationship To Other Activities	Supports implementation of L RTP	Support development of L RTP	Supports development of L RTP and related MPO activities	Support development of L RTP	Support development of L RTP	Supports development of the 2040 L RTP
11-	Agency Responsible for Task Completion	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill
12-	HPR - Highway - NCDOT 20%						
13-	HPR - Highway - FHWA 80%						
14-	Section 104 (f) PL Local 20%						
15-	Section 104 (f) PL FHWA 80%						
16-	Section 5303 Local 10%	\$200	\$400	\$3,000	\$150	\$1,000	\$400
17-	Section 5303 NCDOT 10%	\$200	\$400	\$3,000	\$150	\$1,000	\$400
18-	Section 5303 FTA 80%	\$1,600	\$3,200	\$24,000	\$1,197	\$8,000	\$3,200
19-	Section 5307 Transit - Local 10%	\$3,125					\$1,000
20-	Section 5307 Transit - NCDOT 10%	\$3,125					\$1,000
21-	Section 5307 Transit - FTA 80%	\$25,000					\$8,000

CHAPEL HILL TRANSIT

FTA TASK NARRATIVE TABLE

FY2012-2013 (FY13) UPWP

1-	MPO	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)
2-	FTA Code	442302	442302	442302	442302	442302	442100
3-	Task Code	II-B-11	II-B-13	II-B-16	II-B-17	II-C-1	III-A-1
4-	Title of Planning Task	<i>Bicycle Element of the L RTP</i>	<i>Collector Street Element of L RTP</i>	<i>Financial Plan</i>	<i>Congestion Management Strategies</i>	<i>Short Range Transit Planning</i>	<i>Planning Work Program</i>
5-	Task Objective	Prepare bike and pedestrian element of 2040 L RTP	Revise Collector Street Element of the 2040 L RTP.	Prepare Financial Plan for 2040 L RTP.	Coordinate with Triangle Regional TDM program to implement regionwide TDM program.	Develop elements of Chapel Hill Transit Short Range Transit Plan.	To prepare the Chapel Hill element of the FY2014 UPWP
6-	Tangible Product Expected	2040 L RTP	2040 L RTP	2040 Financial Plan	Development of TDM program for incorporation into 2040 L RTP	Refinements to the previously completed comprehensive route analysis.	FY2014 PWP
7-	Expected Completion Date of Product(s)	6/30/2013	6/30/2013	6/30/2013	6/30/2013	6/30/2013	6/30/2013
8-	Previous Work	2035 L RTP Bike and Pedestrian element	Development of Southwest Durham/Chapel Hill Collector Street Plan.	2035 Financial Plan	TDM element of 2035 L RTP.	Development of comprehensive route analysis.	Development and management of FY12 & FY13 UPWP
9-	Prior FTA Funds	\$7,000	\$0	\$28,000	\$10,000	\$50,000	\$10,000
10-	Relationship To Other Activities	Supports development of the 2040 L RTP	Supports development of the 2040 L RTP	Supports development of the 2040 L RTP	Supports development of the 2040 L RTP	Supports implementation of the MPO L RTP	Supports implementation of annual work program
11-	Agency Responsible for Task Completion	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill
12-	HPR - Highway - NCDOT 20%						
13-	HPR - Highway - FHWA 80%						
14-	Section 104 (f) PL Local 20%						
15-	Section 104 (f) PL FHWA 80%						
16-	Section 5303 Local 10%	\$200	\$100	\$500	\$500	\$1,000	
17-	Section 5303 NCDOT 10%	\$200	\$100	\$500	\$500	\$1,000	
18-	Section 5303 FTA 80%	\$1,600	\$800	\$4,000	\$4,000	\$8,000	
19-	Section 5307 Transit - Local 10%					\$1,250	\$500
20-	Section 5307 Transit - NCDOT 10%					\$1,250	\$500
21-	Section 5307 Transit - FTA 80%					\$10,000	\$4,000

CHAPEL HILL TRANSIT FTA TASK NARRATIVE TABLE FY2012-2013 (FY13) UPWP

1-	MPO	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)
2-	FTA Code	442500	442700	442700	442400	442400	442100
3-	Task Code	III-B-1	III-C-1	III-C-3	III-C-4	III-C-5	III-C-6
4-	Title of Planning Task	Transportation Improvement Program	Title VI	Minority Business Enterprise	Planning for the Elderly and Disabled	Safety/Drug Control Planning	Public Involvement
5-	Task Objective	To monitor the adopted TIP and prepare information for amendments to TIP.	To prepare the FY2013 Title VI program/plan	To assess compliance with minority business enterprise regulations	To assess impact of transit service on elderly and handicapped populations	To implement and monitor federal safety and drug control planning	To establish public outreach efforts to engage public involvement.
6-	Tangible Product Expected	Updated TIP	Updated Title VI program	Annual assessment	Annual assessment	Annual Assessments	Annual transit forums
7-	Expected Completion Date of Product(s)	On-going	10/15/2012	6/30/2013	6/30/2013	6/30/2013	6/30/2013
8-	Previous Work	Adjustments to existing TIP; Development of new TIP	Monitoring of the Title VI program	Annual assessment	Ongoing monitoring	Ongoing monitoring	Annual transit forums
9-	Prior FTA Funds	\$18,000	\$1,250	\$1,000	\$31,250	\$20,000	\$10,000
10-	Relationship To Other Activities	Supports implementaiton of adopted LRTP	State/Federal Civil rights requirements	State/Federal MBE requirements	This project supports the development of the 2035 Regional Plan	This project supports the development of the 2035 Regional Plan	This project supports the development of the 2035 Regional Plan
11-	Agency Responsible for Task Completion	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill
12-	HPR - Highway - NCDOT 20%						
13-	HPR - Highway - FHWA 80%						
14-	Section 104 (f) PL Local 20%						
15-	Section 104 (f) PL FHWA 80%						
16-	Section 5303 Local 10%						
17-	Section 5303 NCDOT 10%						
18-	Section 5303 FTA 80%						
19-	Section 5307 Transit - Local 10%	\$500	\$500	\$50	\$1,000	\$1,500	\$500
20-	Section 5307 Transit - NCDOT 10%	\$500	\$500	\$50	\$1,000	\$1,500	\$500
21-	Section 5307 Transit - FTA 80%	\$4,000	\$4,000	47 \$400	\$8,000	\$12,000	\$4,000

CHAPEL HILL TRANSIT

FTA TASK NARRATIVE TABLE

FY2012-2013 (FY13) UPWP

1-	MPO	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	DCHC-MPO (Chapel Hill Transit)	
2-	FTA Code	442700	442200	442100	
3-	Task Code	III-D-3	III-D-4	III-E	
4-	Title of Planning Task	Special Studies	Regional or Statewide Planning	Management and Operations	TOTALS
5-	Task Objective	To prepare special studies to support ongoing transit operations.	To support regional and statewide planning projects	To support various transit planning activities	
6-	Tangible Product Expected	Transit oriented development land use guidelines	Chapel Hill long range transit plan	Ongoing transit activities and reporting requirements.	
7-	Expected Completion Date of Product(s)	6/30/2013	6/30/2013	6/30/2013	
8-	Previous Work	Chapel Hill Long Range Transit Plan	Chapel Hill Long Range Transit Plan	Management of transit planning activities	
9-	Prior FTA Funds	\$72,000	\$18,250	\$156,000	
10-	Relationship To Other Activities	This project supports the development of the 2035 Regional Plan	Supports the implementation of the 2035 Regional Plan and the Chapel Hill Long Range Transit Plan.	Supports all other transit planning activities MPO-wide.	
11-	Agency Responsible for Task Completion	Town of Chapel Hill	Town of Chapel Hill	Town of Chapel Hill	
12-	HPR - Highway - NCDOT 20%				
13-	HPR - Highway - FHWA 80%				
14-	Section 104 (f) PL Local 20%				
15-	Section 104 (f) PL FHWA 80%				
16-	Section 5303 Local 10%		\$3,000	\$3,470	\$13,920
17-	Section 5303 NCDOT 10%		\$3,000	\$3,470	\$13,920
18-	Section 5303 FTA 80%		\$24,000	\$27,762	\$111,359
19-	Section 5307 Transit - Local 10%	\$6,000	\$5,300	\$23,775	\$45,000
20-	Section 5307 Transit - NCDOT 10%	\$6,000	\$5,300	\$23,775	\$45,000
21-	Section 5307 Transit - FTA 80%	\$48,000	\$42,400	⁴⁸ \$190,200	\$360,000

**TRIANGLE TRANSIT
FTA TASK NARRATIVE TABLE
FY2012-2013 (FY13) UPWP**

1-	MPO	DCHC-MPO (Triangle Transit)	DCHC-MPO (Triangle Transit)	DCHC-MPO (Triangle Transit)	DCHC-MPO (Triangle Transit)	DCHC-MPO (Triangle Transit)	
2-	FTA Code	442400	442301	442301	442400	442302	
3-	Task Code	II-A-5	II-B-3	II-B-10	II-C-1	III-D-3	
4-	Title of Planning Task	<i>Transit System Data</i>	<i>Travel Model Updates</i>	<i>Transit Element of the LRTP</i>	<i>Short Range Transit Planning</i>	<i>Special Studies</i>	<i>TOTALS</i>
5-	Task Objective	To collect route patronage, on-time performance data, passenger amenity data and customer preferences for service improvements	Support for Triangle Regional Model Service Bureau	To provide travel market analysis and cost information for development of transit investments for the LRTP; and to acquire GIS support services from TJCOG	This covers a portion of staff salaries in the Departments of Commuter Resources and Capital Development related to Triangle Transit's short-range transit service and facility planning; also planning and engineering to improve accessibility of Bus stops and facilities	Studies may be conducted for corridors that show promise during the course of the development of the transit element of the LRTP, including alternatives analysis activities, capital cost estimation, operating cost estimations, financial planning, and transit expert studies for corridors, alignments, and bus and rail service plans	
6-	Tangible Product Expected	Route planning recommendations from both staff/consultants, onboard surveys for bus, vanpool	Updated Triangle Regional Model	Technical planning report provided to regional leaders and the MPO; other GIS service needs as required.	On-going staff salaries	RFP and/or Technical Report	
7-	Expected Completion Date of Product(s)	6/30/2013	6/30/2013	6/30/2013	6/30/2013	6/30/2013	
8-	Previous Work	Regional APC data work already undertaken/TTA Service Change Recs	Ongoing support of TRM service bureau	Continued and ongoing regional corridor analysis for LRTP and other projects	Ongoing staff salaries	URS Reports, MAB Analyses, Jeff Parker Financial Analysis	
9-	Prior FTA Funds	\$32,000	\$160,000	\$45,000	\$600,000	\$57,000	
10-	Relationship To Other Activities	APC data can be used to calibrate the travel times in the regional model. Data will inform route planning decisions.	Supports the regional travel model utilized for the LRTP and other transit and highway planning purposes.	This supports regional transit planning for capital investments.	Provides staff support to carry out Triangle Transit planning activities related to service planning and capital development.	This task will follow from the transit infrastructure planning conducted for the LRTP.	
11-	Agency Responsible for Task Completion	Triangle Transit	Service Bureau at ITRE responsible for task - Triangle Transit is a funding partner	Triangle Transit (with joint sponsorship by TJCOG and MPOs, NCDOT)	Triangle Transit	Triangle Transit	
12-	HPR - Highway - NCDOT 20%						
13-	HPR - Highway - FHWA 80%						
14-	Section 104 (f) PL Local 20%						
15-	Section 104 (f) PL FHWA 80%						
16-	Section 5303 Local 10%						
17-	Section 5303 NCDOT 10%						
18-	Section 5303 FTA 80%						
19-	Section 5307 Transit - Local 10%	\$6,000	\$9,000	\$1,750	\$34,750	\$34,000	\$85,500
20-	Section 5307 Transit - NCDOT 10%	\$6,000	\$9,000	\$1,750	\$34,750	\$34,000	\$85,500
21-	Section 5307 Transit - FTA 80%	\$48,000	\$72,000	\$14,000	\$278,000	\$272,000	\$684,000

CITY OF DURHAM
Anticipated DBE Contracting Opportunities for FY12

Name of MPO: CITY OF DURHAM (DATA)

Person Completing Form: Pierre Owusu

Telephone Number: 919-560-5343 ext. 36214

Prospectus Task Code	Prospectus Description	Name of Agency Contracting Out	Type of Contracting Opportunity (Consultant, etc.)	Federal Funds to be Contracted Out	Total Funds to be Contracted Out
THERE ARE CURRENTLY NO PLANNED DBE CONTRACTING OPPORTUNITIES ASSOCIATED WITH THIS GRANT				\$0.00	\$0.00

Note: This form must be submitted to NCDOT-PTD even if you anticipate no DBE Contracting Opportunities. Note “No contracting opportunities” on the table if you do not anticipate having any contracting opportunities.

CHAPEL HILL
Anticipated DBE Contracting Opportunities for FY13

Name of MPO: Town of Chapel Hill

Person Completing Form: Carmen Cole

Telephone Number: 919-969-4911

Prospectus Task Code	Prospectus Description	Name of Agency Contracting Out	Type of Contracting Opportunity (Consultant, etc.)	Federal Funds to be Contracted Out	Total Funds to be Contracted Out
THERE ARE CURRENTLY NO ANTICIPATED DBE CONTRACTING OPPORTUNITIES.				\$0	\$0

Note: This form must be submitted to NCDOT-PTD even if you anticipate no DBE Contracting Opportunities. Note “No contracting opportunities” on the table if you do not anticipate having any contracting opportunities.

TRIANGLE TRANSIT
Anticipated DBE Contracting Opportunities for FY13

Name of MPO/Member Agency: **Durham-Chapel Hill-Carrboro MPO**

Person Completing Form: Patrick McDonough, Triangle Transit

Telephone Number (919) 485-7455

Prospectus Task Code	Prospectus Description	Name of Agency Contracting Out	Type of Contracting Opportunity (Consultant, etc.)	Federal Funds to be Contracted Out	Total Funds to be Contracted Out
III-D-3	Special Studies	Triangle Transit	Consultant	\$544,000	\$680,000
II-A-5	Transit System Data	Triangle Transit	Consultant	Zero to \$96,000	Zero to \$120,000

Note: This form must be submitted to NCDOT-PTD even if you anticipate no DBE Contracting Opportunities. Note “No contracting opportunities” on the table if you do not anticipate having any contracting opportunities.

Citizen Comments with Responses – NC 54 Phase II Draft Final Report – April 2012

Response	Comment	Response
C-1 Marie Pauwels Email Rc'vd 1/4/12	Why has DOT not acted on the obvious solution to congested inbound traffic on 54 by relieving the tie-up caused at the junction with southbound 15/501 Bypass at Glen Lennox in east Chapel Hill? The cloverleaf for the right turn for 54 traffic onto 15/501 Bypass heading south (towards the intersection with Manning drive) was widened years ago from one lane to two. However, permitting two lanes of traffic coming from the east (coming from I-40) to make a right turn ONTO the cloverleaf has NEVER BEEN FINISHED. The middle lane of 54, as it goes under the 15/501 bridge to that cloverleaf, needs to be made an optional right-turn-or-go-straight-lane. Similar lanes have been converted for such use in other parts of town. Why not here? It seems as if DOT intentionally wants to create a bottleneck at this point by ignoring the obvious solution. Of COURSE, traffic comes to a bumper-to-bumper standstill!	This investigation is outside the scope of the NC 54 Corridor Study and deals specifically with an existing operations issue. This comment has been forwarded to the NCDOT Division Office for further consideration.
	BTW: The intersection of Manning Drive and 15/501 Bypass has recently been extensively reworked, and a second, optional right turn lane from Bypass onto Manning should have been done there, as well. DOT is not putting existing resources to their best use.	See previous comment response.
	Furthermore: my brother-in-law Leo is a railroad executive in the Chicago area. He is in charge of having the right freight cars available in the right places across the U.S. for the use of shippers. He laughs and shakes his head whenever the subject of a light rail corridor coming into Chapel Hill along 54 to the University comes up. Does no one acknowledge that the train cannot go up the hill to the University? Trains need level ground and very gradual uphill grades. Rail would have to terminate at 54 and Hamilton Road, and what then? There would need to be a large transportation center where travelers would have to change from rail to bus to proceed up to the University. Where is there space for THAT in THIS location? Even if Glenwood School were torn down, that land area is not large enough, nor is there space	Different rail technologies have different requirements regarding grade, with freight cars having more stringent requirements than light rail vehicles. The preliminary design of the light rail alignment from Hamilton Rd up to UNC Hospital uses elevated segments and gradual changes in grade to enable the train to reach UNC Hospital, well within the performance standards of other already-operating US light rail systems.

	<p>for bus access in and out of that location. If light rail is brought into this area, it needs to terminate somewhere out along Barbee Chapel Road, where it would connect with Chapel Hill buses, as is presently done with the park-and-ride arrangement from the Friday Center to the University, where there is still space for such an endeavor.</p>	
	<p>Frankly, I think TTA buses have the out-of-town commute under control. They are convenient. They pick us up and let us off at any bus stop along the streets -- many more stops than light rail could make, and on routes that can be altered whenever there is a new need. Light rail would be a horrible waste of money, and retrofitting tracks through the middle of the Meadowmont community and shopping area at this late date would be a years-long traffic headache of its own. I was in Frankfurt, Germany, last fall, staying on a residential street where about a mile of a tram line extension was laid down the middle of the street in about four months, WITHOUT closing off the street or tying up major intersections. I don't think we have either the subsoil foundation -- especially in the swampy areas the line is projected to pass through -- nor the efficiency of manpower that the Germans do -- to do a similar thing here. Furthermore, rail is noisy at every curve.</p>	<p>Comment shared with Triangle Transit representatives.</p>
<p>C-2 Eric Teagarden Email Rc'vd 1/2/12</p>	<p>I am writing to express my concern over the Hwy 54 corridor study conclusion that SouthWest Durham Parkway should be constructed and traverse the DENR natural heritage area of Little Creek bottomlands. It will also impinge on the perimeter of the USACE wetlands.</p> <p>Here are important decisions that have been made recently to preserve this bottomland SNHP and USACE wetland area.</p> <ol style="list-style-type: none"> 1. The Aydan Court development proposed in the NCDENR Natural Heritage Program Little Creek bottom land (SNHP) was voted down by the Chapel Hill Town Council and the land was sold to UNC Chapel Hill. 	<p>Southwest Durham Parkway is part of the adopted 2035 Long Range Transportation Plan (LRTP) for the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) region. The NC 54 Corridor Study reaffirmed the need for such a connection, but did not include a full systems level analysis for how to address this transportation need given the status of this project as a part of the 2035 LRTP. An update of the LRTP is currently underway. This update will include a more in-depth systems level analysis of options for addressing this particular transportation need and for solving related</p>

	<ol style="list-style-type: none"> 2. The Rizzo Center expansion of the UNC Business school was moved from the DENR SNHP bottomlands when Holden Thorp, Chancellor of UNC, reaffirmed the university's mission statements that it would not encroach on environmentally sensitive land. 3. The C1 LRT alternative analysis has met with strong resistance from multiple environmental groups, including DENR and the natural heritage program advocates. This C1 right of way encroaches on the same SNHP bottomland area as does the proposed route of the SW Durham Parkway. 4. The SW Durham Parkway route also traverses the Durham County inventoried heritage land in the Little Creek bottomland wetlands and violates Durham's stated environmental conservation policies. <p>If the C1 alternative fails to be recommended by the Environmental Impact Study and NEPA analysis, then there would be overwhelming arguments to NOT build the SW Durham Parkway over the same corridor swath, ie SNHP and DENR bottomland area. I am also formally requesting by copy of this letter that DENR representatives, Linda Pearsall and Allison Schwarz Weakley, be requested to comment on the proposed SW Durham Parkway route in the Hwy 54 corridor study.</p> <p>I emphatically urge that the Hwy 54 corridor study report be updated to include these developing concerns about its recommendation that the SW Durham parkway be built on the Little Creek bottom lands proposed right of way. This route is currently the ONLY construction proposed that will pierce this fragile environmentally sensitive and protected bottomland over Little Creek.</p>	<p>connectivity and congestion problems. The NC 54 Corridor Study report will be updated to note the intent of the DCHC MPO to include this analysis and an investigation of alternatives for the Southwest Durham Drive during the LRTP update. The NC 54 report will also include a more comprehensive discussion of the potential environmental impacts of Southwest Durham Drive.</p>
C-3 Lesley Marson Email Rc'vd 1/6/12	<p>I was surprised that one obvious alternative of having a ring road from RTP to chapel hill that would alleviate much of the commuter traffic on 54 to 40 was not anywhere to be seen in the plans? Much of the problem of congestion that exists now is created by commuters and not local traffic adding more housing and offices to this region even if transit is increased is not going to reduce the congestion of this</p>	<p>The possibility of an alternative facility to reduce congestion on NC 54 was considered and discussed at the very early stages of the study. However, the concept was ruled out for the NC 54 study due to the need to conduct a more comprehensive systems level analysis to</p>

	corridor? Transportation should not be the only solution alternative road routes is a must!	investigate alternative strategies, which were deemed outside the scope of the NC 54 Corridor Study. This matter will be investigated more fully during the update of the LRTP.
C-4 Dan Dickinson Email Rc'vd 1/4/12	I am new to the triangle area and saw the article about the NC-54/I-40 decongestion plan in yesterday's Durham News. I can't make it to the open house next week, but I would like to advocate strongly in favor of increased bicycle access along this corridor. Currently, there is no safe and usable bike route from south-central Durham to Chapel Hill. A continuous bike path (or at least a bike lane) from Woodcroft to the UNC campus would fill a major gap in Durham's transportation network, and I suspect it would be highly used and would reduce traffic congestion. Personally, I currently drive the NC-54 corridor every day, but would prefer to bike if given the choice.	Comments noted, please see Chapter 5 of the final report for a summary of pedestrian and bicycle recommendations.
C-5 Citizen Letter to Aaron Cain Rc'vd 1/4/12 (attached)	(Traffic on NC 54) can be improved immeasurably and at a minimal cost in a very short time frame by adding one lane to NC 54 for only ½ mile from the Little Creek bottomlands to Farrington Road. The "inside turn lane" from near Farrington Road to I-40 is too short to be effective. If this could be increased by ½ mile, then the two lanes exiting to i_40 would eliminate much of the traffic backup.	This comment has been forwarded to the NCDOT Division Office for further consideration.
C-6 Chris Selby Email Rc'vd 1/22/12	I read with interest the Corridor Study Master Plan and associated materials, which were recently released. Could you please answer three related questions for me? An enormously important aspect of the plan to our community of Eastwood Park is the landscaping/hardscaping that will be employed as a barrier between us and NC54 and between us and the new road expected on our northeast border. The barrier would also be of benefit to pedestrians and bicyclists who travel on the Service Road, and would be of benefit to commuters, especially if the barrier turns out to be inadequate in which case the commuters may be exposed to a decaying community and unsightly corridor.	The widening of NC 54 is currently unfunded. Once funded, the project will move from a recommendation in a planning document into project planning and design. The details of the landscaping/hardscaping will be developed at that time. While there is a danger in being too prescriptive in a planning document as much can change between now and when the project is actually funded and designed, the NC 54 report has been modified to better capture the importance of landscaping/hardscaping for communities impacted by the widening of NC 54.

	<p>The Master Plan document does not describe landscaping/hardscaping in much detail other than, for example, its function to provide a sense of security to pedestrians. In one place the landscaping is described as a grassy area that provides space. Is there any more precise language and could it be employed to characterize landscaping appropriate to our community, that is, a continuous barrier of a given height that completely blocks the view and reduces sound? I wonder if there is a 'scale' or some way of 'grading' or are there 'levels' of landscaping that are recognized by landscaping architects, planners, and the DOT. For example, is there a technical term to describe the barrier erected alongside parts of I-85 when it was widened in Durham?</p> <p>Currently there is landscaping along our side of NC54, consisting of occasional clumps of hollies and small trees. However it is inadequate as a barrier and would fail if it were replanted this way after widening of NC54. The materials themselves, especially the hollies, are good. However, they are far too sparse (not at all continuous), and at the west end of Eastwood Park, they are not tall enough. Something such as magnolias seem to be needed there.</p>	
	<p>On a second topic, the Plan includes many superstreet style intersections where traffic seeking to turn left onto NC54 must turn right and then make a U-turn. One such intersection is planned at Crossland/George King such that Leigh Village and Eastwood Park residents planning to travel to the interstate turn right onto NC54 and then make a U-turn. At the point of this U-turn why is there no light? I ask because I am concerned about safety. The possible safety issue occurred to me for three reasons. For one, before the light was installed at Huntingridge Road, residents had to turn left without a light and it was precarious (though at the time we had to deal with traffic from both directions). Also, at the location where the U-turn is proposed, unless there is congestion, traffic in the corridor usually is travelling at a relatively high speed. This high speed can be expected to persist in the future since, from what I have read, few changes are planned to</p>	<p>Analysis shows that the majority of the drivers desiring to head east on NC 54 will utilize the collector street system and the (initially) intersection, (ultimately) interchange at Falconbridge Road. Analysis also shows that the number of drivers using the superstreet design to turn right and then making a u-turn at this location is low and can be accommodated without a signal. Prior to implementation additional traffic studies will be completed to capture new traffic volumes and traffic patterns. If the new data shows the need for a signal at that particular location, then one will be installed during construction of the system.</p>

	<p>slow down traffic in that section of NC54. Finally, I noticed that there are two locations in Chapel Hill (Meadowmont Lane traffic “turning left” onto NC54, and The Exchange at Meadowmont traffic also “turning left”) where it will be necessary to turn right and then make a U-turn. However, in the case of the two locations noted in Chapel Hill, a light is present where the U-turn is made. I am curious about the reasoning behind the lack of a light for the Crossland Drive/George King Road U-turn, so as to be assured about the safety issue. In fact, it would be more desirable not to have a light if it is not needed.</p>	
<p>C-7 Geoffrey Daniel Email Rc’vd 2/14/12</p>	<p>Some of you might get a sense of déjà vu all over again, a sort of variation on an old theme from what I’m about to share, and in many ways it is. The proposed SW Durham Drive, not unlike the C1 route and all its issues, concerns and problems, should be coupled along with it. Because C1 and SWDD cut thru a pristine and unique habitat, they should both hew to the pending environmental assessment and study; in other words, they should not be de-coupled.</p> <p>The Little Creek Bottomlands and Slopes is a designated “Significant Natural Heritage Area”; it’s not an “insignificant” natural heritage area and should be afforded the same respect and process that the C1 proposal is thankfully currently undergoing. To do otherwise would be to not only undermine the entire process surrounding both the LRT proposal and most certainly the SWDD plan, but it would also undercut the public’s faith in the plan for the future in addition to how it was implemented, not to mention those planning it.</p> <p>In short, when it comes to the SWDD, the community respectfully asks the Council to support the following:</p> <ul style="list-style-type: none"> · Delay any and all decisions on construction/implementation until the thorough environmental impact study and assessment comes back on the light rail proposal; · Take into account the effects on Rachkis Elementary with possibly thousands of cars passing by it regularly and all the safety concerns for Chapel Hill’s children; 	<p>Please see response to comment C-2 above.</p>

	<ul style="list-style-type: none"> · Work with other decision-making bodies in the area to source and identify alternative routes for the SWDD, not unlike the C2 route down George King Road, the new Farrington Road extension and the like which eventually bisect with Hwy 54; · Since George King and the Farrington Road extension would be new roads, they could be appropriately engineered to accommodate future traffic; · The message and movement is clear: SWDD should continue to hew to the underlying C2 meaning in doing the least amount of environmental damage to unique and irreplaceable natural areas : Along these lines, UNC Rizzo is not expanding to preserve the natural habitat surrounding it; Aydan Court did not move forward; C2 is the preferred alternative with a shift east to avoid the Little Creek Bottomlands and Slopes and so too should the SWDD shift east away from the SNHA. <p>In the end, the community asks that the plan for SWDD not be decoupled from CI, that a Significant Natural Heritage area not be rendered insignificant-essentially destroyed- and that the plan take into account all of the essential stakeholders, that until now, have not been given their just and necessary place at the table.</p>	
C-8 Chris Selby Email Rc'vd 2/22/12	<p>I am writing to provide feedback about the NC 54/I-40 Corridor Study Report that came out earlier this year. This feedback is separate from landscaping/hardscaping issues. I appreciate your efforts in this work and in trying to get the consultants to address the serious and difficult problems that the Corridor presents.</p> <p>Overall, it is disappointing that with the recommended infrastructure changes, traffic is not expected to improve substantially in the Corridor in the foreseeable future. The only option considered that would have improved traffic flow seems to have been determined to be out of character for the area and perhaps too costly. Another option to improve traffic flow would be to limit new housing and commercial development in the Corridor. The idea of limiting development to limit</p>	<p>Different land development patterns were considered at the early stages of the project. The land development pattern selected is the one that complements the overall vision for the corridor, which includes opportunities for location efficient decisions, a jobs/housing balance, target growth areas to reduce sprawl, and land use patterns that support transit, walking, and biking.</p>

	increased traffic seems to have never been seriously considered.	
	An interesting thing happened on the way to recommending the widening of NC 54 to six lanes. Early in the Study, participants were asked to consider three or four scenarios in which different levels of residential and commercial development were coupled with different levels of transportation infrastructure. Unexpectedly, in the lower levels of transportation service, NC 54 was recommended to be widened to six lanes, but in the plan for the highest level of service, which would accommodate the most vehicles, the recommendation was for NC 54 to remain four lane. It was only at the end of the Study that the six-lane highway with roundabouts was decided upon, and it is not clear why (or even if) six lanes now would be expected to accommodate more vehicles than two when early in the Study the reverse was the case.	Subsequent analysis showed that the full range of strategies was necessary to accommodate the growth in traffic while avoiding bottleneck conditions.
	Overall, the pedestrian and bicycle facilities that are recommended I expect will be highly beneficial.	Comment noted.
	Another highly beneficial aspect is the park and ride component consisting of lots outside of the Corridor. These lots will reduce the number of cars entering the congested Corridor. On the other hand, the lot in Leigh Village will not contribute and will in fact likely worsen congestion in the Corridor since it will draw vehicular traffic (including buses) not only into the Corridor but through the most precarious and heavily travelled routes/intersections.	Comment noted.
	The use of buses as an intermediate mass transit option prior to light rail seems to be a good idea.	Comment noted.
	The Report recommends the completion of Southwest Durham Drive through Meadowmont Lane and describes the historical aspect of this plan which was put in place long before Meadowmont was developed.	Comment noted, see also the response to comment C-2 above.

	<p>Completion of this collector street will be beneficial because it will increase connectivity. This connectivity will allow commuters from the north (e.g., Durham) to visit the facilities at the Friday Center and Meadowmont without travelling on NC 54, and it will allow Meadowmont residents and Friday Center workers/visitors to travel to the north, again, without having to travel on a major arterial. This will help relieve some of the congestion on NC 54. It will also provide valuable connectivity for bicyclists and probably also pedestrians (depending on the route of the light rail line which would have a greenway through Meadowmont).</p>	
	<p>Reducing the speed limit seems to have been not considered during the project. It seems like a higher speed limit may be detrimental not only regarding safety. A hurry up and wait traffic pattern wastes gas.</p>	<p>Comment noted.</p>
	<p>Closer to home, I am concerned about the safety of an intersection. When vehicles exit Leigh Village/Eastwood Park from Crossland Drive to travel east on NC54, they must turn right and then make a U-turn on NC54. There is no light where this U-turn is to be made, although there are lights at comparable U-turns in Chapel Hill. I believe a light is not present because of anticipated low traffic volume and the State will provide a light if there is a safety problem. Unfortunately, a safety problem at this U-turn is likely to be of the kind in which a turning vehicle is 'T-boned' by a vehicle travelling at a nominal 45 mph. This is an extremely dangerous type of collision. This is an intersection that I would likely use. I am not enthusiastic about sitting at a light if it is not necessary. On the other hand, I am less enthusiastic about a neighbor being 'T-boned' in order to learn that a light is needed. It seems like it should be possible to make a determination about anticipated safety in the planning phase or err on the side of safety.</p>	<p>Please see the response to comment C-8 above.</p>
	<p>Close to the site of this planned U-turn is George King Road. The Report states that many residents expressed an interest in an intersection of George King Road with NC 54 as an alternative to an intersection of</p>	<p>Comment noted.</p>

	<p>Crossland Drive with NC 54. This I am certain includes residents of my neighborhood, Eastwood Park. In the past, during the Collector Street Plan, there was also a great deal of interest among local residents, including many non-Eastwood Park residents, in creating an intersection of George King Road with NC 54. Despite all of the interest expressed by us locals, the Study recommends an intersection at Crossland Drive. While some reasoned arguments were made for the recommendation, I think there remains some negative sentiment left over from the handling of this issue during the Collector Street Plan Meetings. It will take more than the Corridor Study for some folks to gain confidence in the system, if they ever do.</p>	
	<p>Even closer to home, the Study suggests mechanisms to prevent cut-through traffic in Eastwood Park. These include preventing access/egress via the north end of the neighborhood, and a connection of Celeste Circle to the Service Road at the north end of the neighborhood (Figure 6-10). I expect that a mechanism of this type would be beneficial. Surprisingly, the connection of Celeste to the Service Road is described in the report as a 'preliminary concept'. Eastwood Park residents have been represented among Study participants throughout the course of the Study which began over two years ago. Issues related to our neighborhood have been made known to the Study. It seems the consultants have had sufficient time to come up with a serious and complete road plan. Instead, they find that "a more in-depth study is needed to determine the best way to address access for this small subdivision (i.e., Eastwood Park)" (p. 6-17). The way I read this, the consultants did not complete their job. I suggest that if the consultants have not yet been paid, that their payment be reduced by the fraction of the land area that Eastwood Park represents to the Study area.</p>	<p>Comment noted.</p>
	<p>The best recommendation made by the Study is that the future land use for Eastwood Park should be single family residential. I have lived in Eastwood Park for over 14 years. I believe most Eastwood Park</p>	<p>Comment noted.</p>

	<p>homeowners have owned their homes longer than I. It is a pleasant place to live. There remains at least one issue for the Study to address to preserve and protect our neighborhood. Otherwise I think that we will do well in the future in the context of the plans recommended by the Study.</p>	
<p>C-9 Phil Purcell, Chair, Members Association of The Cedars of Chapel Hill Email Rc'vd 3/7/12</p>	<p>On behalf of the nearly 400 residents of The Cedars, the licensed continuing care retirement community in Meadowmont, I am writing to express our grave concern over and opposition to the proposed extension of Meadowmont Lane through the ecologically sensitive wetlands to Southwest Durham Drive. The NC 54 / I-40 Corridor study is premised upon the construction of this extension as is apparent from page 6-37 of the Study. Safety and the environment would suffer greatly if the proposed extension were ever built.</p> <p>As you know, Meadowmont Lane traverses an upscale built-out residential community with an elementary school at one end and a continuing care retirement community at the other. To take traffic off the 6 lanes of NC54 and funnel it down a residential street that becomes 2 lanes is irresponsible, particularly when traffic estimates we have heard range from 8,000 to 12,000 vehicles per day. The safety concerns for everyone, and especially grade school children and senior citizens, are huge.</p> <p>The irreversible damage caused by penetration of the Little Creek Bottomlands and Slopes Significant Natural Heritage Area has already been recognized by the MPO in its selection of light rail route C2 as the locally preferred alternative. The Meadowmont Lane extension if built would cause the same kind of severe damage.</p> <p>We request that the MPO protect its constituents and the environment by opposing the extension of Meadowmont Lane to Southwest Durham Drive.</p>	<p>Please see response to comment C-2 above.</p>

<p>C-10 Wayne Pein Email Rc'vd 3/7/12</p>	<p>Why is there no mention of the R4-11 BICYCLES MAY USE FULL LANE sign that has been in the MUTCD since 2009?</p> <p>Given that any of the proposed "improvements" in the report will not happen anytime soon and are quite expensive, it seems that a simple immediate intervention would be widespread use of the R4-11. Attached is a comparison I've made of the R4-11 with the "Share the Road" sign. You might also be interested in a paper I wrote about the "Share the Road" sign here: http://bicyclingmatters.wordpress.com/infrastructure/critique-of-the-share-the-road-sign/</p>	<p>Revisions made to final report to include a statement regarding the consideration of R4-11 signing where warranted.</p>
<p>C-11 Chris Selby Email to Councilman Mike Woodard Rc'vd 3/11/12</p>	<p>I write in regard to the TAC Public Hearing on the NC 54/I-40 Corridor Study which will be held this Wednesday March 14. I live in the Eastwood Park neighborhood which is in the Study area and which is also in the part of the City that you represent. We are fortunate that you have been involved in the Study and are familiar with the issues.</p> <p>You probably recall that my neighbors and I have participated substantially in the Study. There are two items in the Study Report that many of us advocated. I write this email to emphasize that there is great interest in this Study and we wish that these two items be retained in the Study Report. These items are:</p> <ol style="list-style-type: none"> 1. The Study recommends that the long-term land use for Eastwood Park (called Celeste Circle in the Report) be single family residential. (See page 2-15 in the Land Use section.) Happily, this recommendation is stated unambiguously. 	<p>Comment noted.</p>
	<ol style="list-style-type: none"> 2. The Study recommends that landscaping and/or hardscaping be located between NC 54 and our neighborhood. (See page 5-15 in the Pedestrian and Bicycle section.) 	<p>Please see response to comment C-6 above.</p>

	<p>The recommendation for landscaping/hardscaping is a weak statement directed towards pedestrians and bicyclists using the Service Road. It is felt that a stronger statement about landscaping/hardscaping should be written in the paragraphs about Eastwood Park (Celeste Circle) in the Land Use section. This issue has been communicated to the Study and the response was that the wording may be addressed in some way.</p> <p>I have no additional issues to bring to the Study and do not plan to attend the Public Hearing.</p> <p>I would like to note that the management of the Study during the two and a half years of my participation has been commendable.</p> <p>I appreciate your involvement in these issues of great importance to us.</p>	
<p>C-12 Glenn Cassidy Email Rc'vd 3/7/12</p>	<p>Thank you for the opportunity to discuss the NC 54 Study with you at the open house at Chapel Hill City Hall in February. I live in Carrboro and drive through this corridor several times per week.</p> <p>I am quite impressed with the design proposal and strongly endorse it. Some elements I specifically favor:</p> <ul style="list-style-type: none"> ▪ Overpasses at Fearington and Falconbridge, with the attending realignments and connections between those two roads. ▪ Ramp reconfigurations at I40/NC54, including the slip ramp. ▪ Widening NC54 to 6 through lanes from Barbee Chapel to I40. ▪ Realignment of the ramps at 15-501/NC54, including the closure of the entrance into the Glenwood Square Shopping Center from NC54 and diversion of the shopping center traffic to the entrance off Hamilton Road. 	<p>Comments noted.</p>

	<p>I'd like to add three short-term recommendations:</p> <ul style="list-style-type: none"> ▪ Extend the three-lane section of NC54 East from Ferrington all the way to Falconbridge. I've observed traffic here, and noted that the third(right) lane of 54E carries through the Ferrington intersection only as many cars as are queued in the right line while the signal is red. If this lane were extended another 10 (or more) car lengths, then that many additional cars would pass through the Ferrington intersection on each green cycle. ▪ Improve the signage on NC54 East approaching Ferrington. I frequently see vehicles changing between the two rightmost lanes while moving through the Ferrington intersection or immediately at the head of the ramp to I40 East. It seems that many people do not understand that they can use either lane to cross Ferrington and enter I40 East. An overhead sign with arrows showing the movement options for both lanes might help with this. I've actually seen vehicles stop between Ferrington and the I40 ramp in order to change lanes. We have many out-of-town visitors who get confused here. ▪ Close the entrance to Glenwood Shopping Center from NC54 immediately. The entrance off Hamilton Road should be able to handle all the traffic into and out of the shopping center. At the very least, convert the driveway from NC54 to entrance-only and block the exit (to NC54) option. I frequently see vehicles exit to NC54 East and immediately cross all lanes of NC54 to get into the left turn lane at the Hamilton Road intersection to make a U-turn. It would be much safer if they exited directly to Hamilton and then turned left to 54W. This is the route I take whenever I exit the shopping center, and I don't see that requiring others to do so would cause any significant inconvenience, while greatly improving safety. 	<p>Comments noted and forwarded to the NCDOT Division Office for further consideration.</p>
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	<p>I'd like to add a long-term suggestion:</p> <ul style="list-style-type: none"> ▪ Encourage the homeowners in the Celeste Circle neighborhood to form a corporation and sell their land as a group. It looks to me like there is disinvestment going on here already. This site is less attractive for detached housing, given the growing traffic and future road development, but it would be attractive for office development. The City of Durham should make it clear that higher density office development would be given as a zoning bonus if the properties were combined into one parcel for redevelopment. This would allow the owners a windfall profit on the sale of their properties and could encourage a more timely transition rather than a long, slow degradation. It appears from the map that the proposed Falconbridge extension through here will require condemnation of a few of the houses. <p>Kudos on a well-crafted plan.</p>	<p>Comment noted, please see comment C-8 and C-11 above.</p>
<p>C-13 Hank Rodenburg Email Rc'vd 3/13/12</p>	<p>I live in Meadowmont and our community will be significantly affected by the increase traffic and the future changes made in the Hwy 54 corridor.</p> <p>I am concerned with and opposed to the proposed "super highway crossings" at Meadowmont Lane and East Barbee Chapel Road.</p> <p>I do not believe they will speed up traffic on Hwy 54 in particular if traffic lights have to be added to accommodate U-turns. I also have safety concerns when drivers have to cross 3 lanes of traffic, especially during rush hour when traffic often backs up thru traffic lights that are too close together.</p> <p>We have the example of the crossing on 15/501 at Erwin Road and I have met very few people who consider this an improvement.</p>	<p>Comments noted.</p>

	<p>However I also believe that the "above grade" crossing at East Barbee Chapel Road will be a huge improvement and will alleviate many of the above mentioned problems as the majority of traffic thru Meadowmont will take that venue in order to go East on Hwy 54. In fact my guess would be that very few motorists traveling On Meadowmont Lane with the intention of going East on HWY 54 would use the Meadowmont Lane super street crossing. They would go on East Barbee Road. Therefore I would like to suggest that the stoplight in between Meadowmont Lane and west Barbee proposed for that U turn can be eliminated. The few people that would go that way could travel a little further to the next U turn.</p>	
	<p>Congestion is caused not by the number of traffic lanes but by the number of stoplights.</p> <p>I have always been puzzled why a cheap solution which have been successful in many communities has not been tried on Hwy 54. I believe it has been called the "green zone" in some cases. Traffic lights on 54 would be programmed in such a way that once you have hit one green light and are traveling at a predetermined speed all subsequent lights will be green. It really moves the traffic on a main artery (at the expense of some longer wait at the feeder roads). The beauty of this solution is that all it takes is reprogramming of lights at very low cost.</p>	<p>Comments noted and forwarded to NCDOT Division Office and the Town of Chapel Hill to check the current timing and progression of traffic signals within the NC 54 corridor.</p>
<p>C-14 Janet Liegl Email Rc'vd 3/18/12</p>	<p>I own a home and live in a development called Blenheim Woods. Please know that I am opposed to the alternative light rail route that I understand would come down Farrington Road from Highway 54. I am especially opposed to changes to George King Road that would make it a busy road as is Farrington now. These spaces were not designed for the kind of traffic volume that would generate. It would be unfair to impose such conditions on development such as ours. George King Road is not a wide enough road to handle any meaningful increase in traffic.</p>	<p>Comments noted.</p>

<p>C-15 Joe Liegl Email Rc'vd 3/18/12</p>	<p>I live in a development called Blenheim Woods. Please know that I am opposed to the alternative light rail route that I understand would come down Farrington Road from Highway 54. I am especially opposed to changes to George King Road that would make it a busy road as is Farrington now. These spaces were not designed for the kind of traffic volume that would generate. It would be unfair to impose such conditions on a development such as ours. George King Road is not a wide enough road to handle any meaningful increase in traffic.</p>	<p>Comments noted.</p>
<p>C-16 Eric Teagarden Email Rc'vd 3/14/12</p>	<p>In light of the comments concerning the alignment and routing of South West Durham Drive that were raised at the MPO Meeting on March 14, which were echoed and reinforced by Councilman Harrison's statements, I would request that you:</p> <ol style="list-style-type: none"> 1. Please direct your staff to soften the language on pages 6-37 and 38 to state that the SWDD alignment traversing the Little Creek Bottom Lands is in the process of being re-examined in light of environmental and public/community concerns with its current routing. 	<p>Please see response to comment C-2 above.</p>
	<ol style="list-style-type: none"> 2. Please direct your staff to emphasize that there are multiple alternative North/South "drains" for traffic flow between 15-501 and 54 to the East of Little Creek that can be constructed according to minor arterial standards, i.e. George King Road and the new Farrington Road extension, both of which are part of the current Collector Street Plan. I understand the future need for "Traffic Load Balancing" across more than one North South route between 15-501 and 54. <p>As you know, the neighborhoods to the West of Little Creek are already at maximum buildout (Meadowmont and the Oaks as well as Rogerson, Oakwood, etc) and that the traffic generated by build out will be on the East side of Little Creek. It seems possible and viable to channel this traffic to enter 54 on the East side of the wetlands.</p>	<p>Please see response to comment C-2 above.</p>

	<p>Finally, the MPO charter specifically calls out NOT running arterial streets through neighborhoods. Please see the following statement for the DCHC MPO Goals and Objectives under Section 2 point D,</p> <p>d) Preserve and enhance the traffic carrying capacity of arterial street systems, while minimizing traffic intrusion in residential neighborhoods.</p> <p>The URL link to see the DCHC MPO document cited above is: http://www.dchcmpo.org/index.php?option=com_wrapper&Itemid=41</p> <p>Therefore, please do not release a 54 Corridor study that proscriptively recommends a routing alignment for SWDD that puts Rashkis elementary school and the Cedars retirement community in the arterial traffic crosshairs when there are compelling and viable alternative routes that circumvent this inherently flawed and environmentally destructive route selection.</p>	Please see response to comment C-2 above.
C-17 Geoffrey Geist. prepared notes from March 14 Public Hearing	<p>For the record:</p> <p>Greetings and many thanks to members of the MPO-TAC for this opportunity to share community concerns about the 54-40 study, its recommendations and proposals.</p> <p>In regards to the 54/I-40 study and its proposed SW Durham Drive and Meadowmont Lane extention, the situation is about process, place and people.</p> <p>The LRT routing process, community support for C2 and the decisions of the Orange County Board of Commissioners, the Chapel Hill Town Council and the MPO-TAC in support of C2 as the preferred alternative should not be de-coupled from the routing of the SW Durham Parkway</p>	Please see response to comment C-2 above.

within the 54-40 study. Namely, with C2 the preferred alternative, not to mention the Environmental study yet to be concluded on the LRT routing, the 54-40 study should mirror the ongoing course of the LRT routing. Therefore, the routing for the SWDD thru Meadowmont Lane should not be de-coupled from the LRT study. Since they both follow similar routes thru the Little Creek Natural Heritage site-and Meadowmont, they should remain, essentially, coupled. To do otherwise would be to undermine community trust in the process, not to mention the proposals and votes of support from local government.

In terms of place, the 54-40 study proposes rather clearly that the SWDD cut thru and degrade, not unlike C1, the Little Creek Bottomlands and Slopes, a key Significant Natural Heritage Area. Significant voices of support within the community have spoken rather clearly on the need to preserve and leave whole this unique and irreplaceable place. Furthermore, UNC actions in avoiding a Rizzo Center expansion, not to mention the votes of support for C2 from the Chapel Hill Town Council, MPO-TAC and the Orange County Board of Commissioners would be undermined if SWDD and it's plans were not informed by and updated by these important decisions. In essence, sauce for the goose is sauce for the gander and, therefore, it's of utmost importance that these two projects, seemingly coupled in their original planning, not be de-coupled. Both would do inalterable damage to a unique and protected environmental resource and both should therefore be joined. To do otherwise, would make a mockery, not only of the process but of the place.

And, finally, making Meadowmont Lane an extension of the SWDD would create unacceptable harm to the people of the neighborhood that straddles Meadowmont Lane, namely, the children and their families of Ratchiss Elementary, local homeowners and residents of the Cedars Community who would be adversely affected by such a massive project.

In the end, to de-couple the SWDD extension from the course of the LRT

	<p>routing would do irreparable harm to people, place and process and we respectfully submit to the TAC today that the 54-40 study be informed and updated by the course of the LRT process, with C2 the preferred alternative, not only for the LRT but also for the extension of the SWDD thru Meadowmont Lane as proposed in the 54-40.</p>	
<p>C-18 John Wilson, prepared notes from March 14 Public Hearing</p>	<p>Dear DCHC-MPO Transportation Advisory Committee members:</p> <p>Page 6-37 of the 54/40 corridor study mentions two options for connecting Southwest Durham Drive to NC 54, namely Meadowmont Lane and George King Road. The study concludes that “both connections are necessary to maintain mobility within this corridor.”</p> <p>The Meadowmont Lane route would essentially follow the flawed and overwhelmingly unpopular C1 light rail alignment, raising similar environmental and safety issues. It would require building an expensive bridge through a state-designated Significant Natural Heritage Area (SNHA), which includes wetlands managed by ownership or easement by the U.S. Army Corps of Engineers (USACE).</p> <p>The N.C. Natural Heritage Program documented that the Little Creek Bottomlands and Slopes SNHA “contains one of the last remnants in the state of the large bottomland forests that once dominated the Triassic Basins and still supports a high diversity of the wildlife typical of this region...The upland buffers surrounding the wildlife impoundments...are particularly important...This buffer could be completely eliminated, drastically affecting the entire ecosystem associated with the floodplain forest.” i</p> <p>I asked USACE last week if it would be commenting on the 54/40 corridor study and got the following response: “Thanks for the heads up on this project. We had not received an official notification. We do provide comments on corridor studies and will be preparing a letter on</p>	<p>Please see response to comment C-2 above.</p>

	<p>this one.”</p> <p>Following are excerpts from the ensuing (3/13/12) USACE letter, which I just saw this morning. (Full letter attached to this message).</p> <p>“Routes not impacting government property should be utilized first. Routes crossing government property must avoid and minimize adverse impacts to these resources. Mitigation would be required for unavoidable adverse impacts including loss of flood storage capacity...It also appears that the proposed routes may include wetlands and waters of the United States under the jurisdiction of the U.S. Army Corps of Engineers Regulatory Division, pursuant to Section 404 of the Clean Water Act.”</p> <p>Transportation Advisory Committee members, please do whatever you can to prevent the building of a bridge that will drastically affect a critical natural area and perhaps an entire ecosystem. George King Road is an already disturbed transportation corridor that avoids these sensitive lands. Farrington Road is another arterial option connecting Southwest Durham Drive.</p>	
	<p>Finally, I would like to express serious concern that we have had two large, expensive transportation planning studies in a row – Triangle Transit’s Durham-Orange corridor alternatives analysis and now the 54/40 corridor study – that recommended cutting through the Little Creek Bottomlands and Slopes SNHA without even mentioning the SNHA’s existence, much less its significance. Given that this SNHA comprises a major portion of the 54/40 study area, this is a glaring omission.</p> <p>I respectfully request that the Transportation Advisory Committee attempt to ensure that future such studies under its auspices acknowledge any impacted SNHAs. Please see that these critical natural areas are taken as seriously in transportation planning studies as they</p>	<p>Comment noted. The DCHC MPO is taking steps to improve the communication and coordination with Resource Agencies during the update of the LRTP and for future planning studies. The Resource Agencies will be provided ample opportunity to comment on the projects, including highway and rail transit projects, proposed for the updated Long Range Transportation Plan.</p>

	<p>are by Durham and Orange county citizens and the municipal and county governments they elect.</p> <p>Also, please try to ensure that input and information from state and federal resource agencies is more effectively obtained and made available to the public and local decision makers as part of these important studies and the planning processes they inform.</p>	
<p>C-19 Tom Stark Letter Rc'vd 03/16/12 (see attached for details)</p>	<p>Comment 1 - ... the zoning desingation of the parcel currently occupied by Farrington Road Baptist as R-20 versus Office on the Comprehensive Plan</p>	<p>It is the vision for this study that new office and retail development be directed into a nodal development pattern around future transit light rail stations. While the recommended land use for the NC 54 corridor study is conceptual in nature and not directed towards specific parcels, it is envisioned that the development intensity decrease and development type become more residential in nature the further away the area is from the light rail station.</p>
	<p>Comment 2 - ... limited access for Farrington Road from NC 54</p>	<p>Forecast congestion and gridlock conditions for this intersection will lead to an increased number and severity of crashes at this location. Additionally, high levels of unmitigated congestion will have an economic cost, not only to adjoining properties, but also to the community at large. These conditions necessitate limiting direct access to Farrington Road from NC 54. Traffic analysis shows that as this area approaches gridlock conditions, the required travel time for accessing the properties along Farrington Road in the vicinity of NC 54 will actually improve with the grade separation of Farrington Road with access provided by a collector street system accessing NC 54 at Falconbridge Road. Please see Tables 6-1 and 6-2.</p>

	Comment 3 – ... the importance of the Farrington Road/NC 54 intersection to Durham, the preservation of safe and easy movement to Farrington Road from NC 54, and the preservation of property values	Please see response to C-19 Comment 2 above.
	Comment 4 – ... the planned transit station at Leigh Village and the optimal location for the light rail corridor	Comments noted and shared with Triangle Transit.
C-20 Geoffrey Geist Letter to Chapel Hill Town Council Rc'vd 3/7/12 (see attached for details)	... the recommendation for Southwest Durham Drive in the NC 54 Corridor Study recommendations	Please see response to comment C-2 above.
	... inclusion of the Chapel Hill Town Council support for C-2 in the NC 54 Corridor Study	Please see response to comment C-2 above.

Agency Comments – NC 54 Phase II Draft Final Report – March 2012

Source	Comment	Response
A-1 Letter from UNC and UNC Health Care Rc'vd 3/16/12 (see attached for details)	Comment 1 – ... inclusion of the C-2 alignment on all study maps and the need to re-design the Barbee Chapel/NC 54 solution if C-2 is selected	Please see page 2-17 and page 6-25 in the December 2011 draft final report. The C-2 alignment has been added to all relevant maps and figures in the report.
	Comment 2 – ... the superstreet concept and the reconfiguration of the NC 54/I-40 interchange impeding access to services and businesses along the route and confusing the public	The report has been revised to include a discussion on the importance of wayfinding signage to assist the public in navigating the superstreet design.
	Comment 3 – ... the interference of the superstreet design on bus operations to and from the Park and Ride lots at the Friday Center	Comments noted. Additional traffic analysis indicates that in the future bus operations will be improved with the implementation of the superstreet design as compared to doing nothing to address the forecast traffic and associated congestion.
	Comment 4 – ... the transit costs reflected in the plan	Transit costs have been modified where necessary; however, the costs provided in the report are estimates based on the best available information. A detailed cost analysis will be conducted prior to implementation.
	Comment 5 – ... the expansion of transit service within the corridor	Comments noted. This recommendation would require an additional investment in transit service.
	Comment 6 – ... the feasibility of the proposed park-and-ride solution	Comments noted.
A-2 Letter from Army Corps of Engineers Rc'vd 3/13/12 (see attached for details)	... depiction of routes that require widening of NC 54 along government property	The NC 54 report has been revised to better reflect the impact of roadway projects on environmental resources within the corridor.
	... other routes that impact wildlife lands and lands designated as a Significant Natural Heritage Area	See response to comment A-2 above.
	... impacts on wetland properties	See response to comment A-2 above.

A-3 Letter from NCDENR Rc'vd 3/16/12 (see attached for details)	... the C-1 Alternative for the LRT	The NC 54 report has been revised to better document natural resources in this corridor and to capture the potential impact of roadway improvement on these resources.
	... collector street extensions and improvements	See response to comment A-3 above.
	... the widening of NC 54 to six lanes	See response to comment A-3 above.
	... the effects of high density development	The NC 54 report has been revised to address the tradeoffs between high density development, the benefits that such a development pattern has on reducing the effects automobile travel, and the potential impacts to natural resources.
A-4 Letter from Orange County BOCC to TAC Chair Rc'vd 3/13/12 (see attached for details)	Comment 1 - Chapel Hill Transit operates 30 buses in the 54 corridor. The study should include a discussion about how the transit elements of the plan address this issue;	This is an operations issue and beyond the scope of this study.
	Comment 2 - Orange County supports the recommendation that Bus Rapid Transit (BRT) be included in the 54 corridor. However, it is suggested that BRT service include dedicated bus lanes to further alleviate high traffic volumes. This could be possible by redesigning some or all of the new lanes built or suggested in the Orange/Durham County portion of the corridor to accommodate BRT or a combination of BRT and High-Occupancy Vehicles (HOV);	Comment noted.
	Comment 3 - A more detailed explanation of how the recommendations accommodate the high commuter volume to Orange County from southern Durham and western Wake County would be beneficial;	Comment noted, please see Appendix C – Travel Demand Modeling Methodology and Appendix E – Synchro Traffic Analysis for additional details.
	Comment 4 - Orange County further suggests that the study explore incorporating dedicated bus lanes and/or HOV on the 6-lane section of NC 54 in Orange County (from the Durham County line west) to complement the previous suggestion of including BRT/HOV lanes in the Durham	Comment noted.

	County portion of NC 54;	
	Comment 5 - Orange County supports the recommendation for a park and ride facility at NC 751 and Southpoint Auto Park Blvd and agrees that park and ride accommodations east of the 54/I-40 intersection is a good strategy for increasing mobility in the corridor;	Comment noted.
	Comment 6 - There are questions about the total number of parking and ride spaces available in the 54 corridor and at locations adjacent to the proposed LRT stations in this larger Durham-Orange County sub-region. Will these park and ride facilities be adequate to support demand to support projected ridership. In addition, a reconciliation of the number of spaces at Leigh Village since it has decreased from the original 2000 estimate;	Recent analysis by Triangle Transit during the light rail alternatives analysis has suggested that over 1000 parking spaces will be needed at the proposed Leigh Village transit station. While the details of this analysis will be decided during the final analysis for the LRT, the NC 54 report has been modified to reflect the possible change in the number of required spaces.
	Comment 7 - Orange County suggests that the study further accent the travel patterns and note how many trips are taken traveling west (from Durham County) and east (from Orange County) in both the a.m. and p.m. peak periods;	Please see response to A-4 Comment 3 above.
	Comment 8 - The Board is concerned about how the density of development recommended in the plan and the densities necessary to support Light Rail Transit do not seem to match;	Recommended densities support Light Rail Transit, please see page 2-17 in the December 2011 draft final report.
	Comment 9 - Light Rail Transit may not be enough to alleviate the congestion in the study area, so other modes of public transit should be considered and coordinated;	Comment noted, please see discussion in Chapter 4 Transit Recommendations
	Comment 10 - The Board would like to see how the recommendations in the plan may be funded including which projects could be funded through the proposed ½ cent sales tax and what additional funding sources have	These details will be determined a project implementation and are beyond the scope of this study.

	been identified;	
	Comment 11 - The Board expressed concerns that the transit portion of the plan is becoming too complex and that citizens may not utilize transit in this corridor because they may have to make multiple transfers;	Comment noted.
	Comment 12 - Orange County suggests that the study ensure that transportation monies are spent efficiently and transportation improvements are not overlapped or duplicated by widening roads, building Light Rail Transit and recommending Bus Rapid Transit in the same corridor;	Comment noted.
	Comment 13 - Orange County would like the study to make certain that most recent socioeconomic and demographic information is used;	The most recent officially adopted socioeconomic and demographic data available at the start of the study was used to inform the land use element of the plan.
A-5 Letter from Durham Bicycle & Pedestrian Advisory Commission Rc'vd 2/21/12 (see attached for details)	... bicycle/pedestrian crossings at ramps	Comments noted.
	... multi-use side path between the I-40 interchange and Garrett Road	These recommendations are beyond the scope of this study.
	... grade separated facilities	Report has been modified to include a recommendation for considering bicycle lanes on grade separated roadway crossings. The comment related to the grade separated transit crossing is noted and forwarded to Triangle Transit.
	... remaining clarifications and enhancements to maps and phasing	Comments noted.
A-6 Chapel Hill Transit Email Rc'vd 3/16/12	Comment 1 - Review and clarification of the park and ride recommendations is needed. For example in Table 3.1: <ul style="list-style-type: none"> ▪ Overall comment – capital costs, related to buses seem to be geared to the short-term recommendations and there doesn't appear to be a bus cost associated with the long-term solution. Similar thought on O&M – (e.g. 751/54 - 	Comments noted, many reference detailed operational issues that will be addressed more fully during operations planning.

	<p>is it \$565K for the short-term cost, seems expensive if this is the cost to provide service for 50 spaces, or long-term cost?) Shouldn't there be a range of costs or a cost for both?</p> <ul style="list-style-type: none"> ▪ NC 751/54 – mentions a CHT express route if needed (although page 4-6 says CHT will provide this service) and an enhancement to TTA's 805 to provide 15 minute peak hour service, with a capital need of 2 buses: <ul style="list-style-type: none"> ○ Seems that Table 3-1 and Page 4-6 should say the same thing ○ Not sure that capital needs are adequate – it takes 3 buses to provide 10 minute service, during peak hours, from Friday Center area and believe it would be difficult to provide 15 minute service from a location 3 miles further away with only 2 buses. ▪ Gateway Center – suggests we modify the D/DX route and provide 15-minute service, but doesn't show the need for additional buses. The D is currently at capacity during peak hours and operates at a 20-minute frequency - additional buses would be needed to provide 15-minute service and extend the route past Eastowne. The D would also need to be significantly reconfigured to provide this service and would suggest that an express service from the park and ride would be needed (Note - we're looking at some options for providing a park & ride service from the Eastowne area and our preliminary plans show the need for 4 buses to provide 15 minute service from this area). ▪ Patterson Place – not sure that 2 buses could provide 15 minute peak hour service to this area for 300 spaces, let alone a 1,000 spaces ▪ Leigh Village – not sure that 2 buses could provide 15 minute peak hour service to this area for 500 spaces ▪ Governors - not sure that 2 buses could provide 15 minute peak hour service to this area, we currently 	
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	<p>operate 3 buses from the Chatham P&R to provide 15 minute service. Also, the cost per ride would be very high for a service like this (assuming 100% occupancy and that users would ride the bus each way: 200 rides per day * 250 weekdays = 50,000/\$565K = \$11.30/ride)</p>	
	<p>Comment 2 - The cost per bus differs between tables 3-1 and 4-1 (\$527K v. \$350k)</p>	<p>This difference is intentional. The costs in Table 3-1 assume a mix of hybrid and non-hybrid buses. Whereas the costs of the buses in the transit chapter do not assume hybrids and were simply taken from the 2011 Transportation Improvement Program costs for consistency.</p>
	<p>Comment 3 - Table 4-1 shows express bus service from the 54/751 park and ride and from Gateway. It seems that these services are also mentioned in Table 3-1, is this a duplication or separate services?</p>	<p>This is the same service, shown in both places to clarify the need for supportive transit service for the park-and-ride.</p>
	<p>Comment 4 - Table 4-1 BRT: seems that the O&M and Capital Costs amounts could be transposed? Also, is it assumed that BRT will replace existing transit services in the corridor? If so, 6 peak hour buses is likely not adequate (assuming no change in parking) – we’re currently operating 16 peak hour buses and additional trippers in this corridor.</p>	<p>The numbers in the table are not transposed. BRT is not assumed to replace existing transit services in the corridor, but to supplement existing service; especially until the LRT is operational.</p>
	<p>Comment 5 - BRT on page 4-9: seems like it should mention that in order to obtain fed \$’s for these projects, additional study is necessary (show study steps in the recommendations).</p>	<p>The level of BRT anticipated within this corridor would not require Federal funds. The BRT referenced in this study refers to express buses with signal prioritization and possible queue jump lanes.</p>
	<p>Comment 6 - Superstreet (page 6-31) – we are very concerned that the proposed design will negatively impact CHT services, causing increased travel time and costs. Can Marriott Way handle the vehicle and bus traffic?</p>	<p>Comment noted. Analysis shows that the recommended superstreet design will greatly improve travel time within the NC 54 corridor in the future and that Marriott Way can be designed to handle the anticipated demand. Please see Appendix E – Synchro Traffic Analysis for additional details.</p>

A-7 Chapel Hill Town Council Resolution (attached)	Resolution 1 - The recommendations of the NC54/I-40 Corridor Study should be considered for incorporation into the Durham-Chapel Hill-Carrboro 2040 Long Range Transportation Plan. Implementation of the Corridor Study recommendations should be phased and revised to reflect changing conditions within the NC54 corridor.	Comment noted.
	Resolution 2 - The recommendations of the NC54 Corridor Study should be revised as necessary to reflect the C2 light rail alignment. Maps and related text should be revised to include the C2 rail alignment. If the C2 alignment is selected for implementation the Study should be revised to address the need for a grade separated crossing of Barbee Chapel Road and provision for a grade separated pedestrian crossing between the Hillmont light rail station and the University property on the north side of NC54. Selection of the C2 alignment should also require revisions to the adopted Southwest Durham/Southeast Chapel Hill Collector Street Plan.	The NC 54 has been revised to reflect these concerns and modifications.
	Resolution 3 - The land use assumptions and transportation improvements recommended in the NC54/I-40 Corridor Study should be revised to reflect elements of the adopted Chapel Hill 2020 Comprehensive Plan.	The Chapel Hill 2020 Comprehensive Plan land use assumptions were not available to the study team in time to include in the final report. Subsequent studies and revisions will consider these assumptions.
	Resolution 4 - The proposed transit and park and ride facility recommendations and estimated costs should be revised to reflect current operating conditions and financial information.	Costs captured in the report are based on the best available information at the time of the study. Current costs will be considered at project planning and implementation.



NC 54 / I-40 CORRIDOR STUDY

TRANSPORTATION-LAND USE MASTER PLAN

EXECUTIVE SUMMARY

DECEMBER 2011

Durham-Chapel Hill-Carrboro
Metropolitan Planning Organization

Edited by the DCHC MPO in April 2012 to capture feedback from the public during the public comment period.
All edits to the Executive Summary are referenced in the text and included in the Executive Summary Addendum at the end of this document.



RENAISSANCE PLANNING GROUP

Baker



Executive Summary

Overview

A primary route connecting much of southern Orange, Durham and Wake Counties, as well as new growth occurring in Chatham County, with the academic and medical destinations at the University of North Carolina at Chapel Hill (UNC) and other destinations in Research Triangle Park, the NC 54/I-40 corridor is facing pressures unlike many others in the region. In addition to the regional access that NC 54 provides for UNC and its medical facilities for commuters, patients and visitors from across the state and region, the corridor is experiencing adjacent land development changes that require careful planning with transportation improvements to serve the long-term vitality of the corridor and its surrounding neighborhoods. With environmental, physical and policy constraints limiting expansion of portions of the roadway and the development of parallel roadway connections, the corridor requires a multimodal solution to meet future demand while improving safety for all users and traffic operations.

The NC 54/I-40 corridor is extremely important to the communities in both Durham and Chapel Hill, where it serves residential, commercial and institutional land uses, creating an eclectic mix of local and regional traffic competing for limited space. The corridor is fast becoming the most congested in the region, and has begun a transition from low-density suburban development with a semi-rural feel to a more urban pattern, with approved and pending development proposals expected to accelerate that transition as the economy rebounds. With more than 600 acres of vacant developable land surrounding it and likely development and infill of the future light rail station areas, NC 54 is poised for dramatic changes. As a result, the corridor is rising in statewide importance and regional prominence.

“NC 54 is an extremely complex corridor, involving multiple travel markets with each having unique characteristics and needs.”

However, rising congestion levels threaten property values and economic growth for both jurisdictions, as well as the ability for UNC to compete for jobs and patients. There are policies in place in Chapel Hill and on the UNC campus that restrict the amount of available parking, and encourage the use of transit in reaching destinations served by this corridor. Yet the heavy traffic, high speeds and lack of multimodal facilities along the corridor create barriers that limit the usefulness and safety of walking and bicycling for transportation. This also influences transit usage, where heavy demand exists due to the parking constraints, but better pedestrian access is needed to make transit more effective as a travel option. As a result of those existing and anticipated future demands, NC 54 is an extremely complex corridor, serving multiple travel markets and a diverse array of stakeholder and community interests focused on the success of different transportation modes, protection of neighborhoods and the economic viability of their land.

Study Objectives

In that context, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) initiated the NC 54/I-40 Corridor Study to develop a land use – transportation blueprint for this regionally significant corridor. With its development potential and the plan to construct a regional light rail system that would serve this corridor, the goal of the study is to define complementary land use and transportation strategies that will guide public and private actions, investments and capital project priorities to improve mobility, safety and access for all modes. The dynamic nature of this critical corridor requires a bold vision supported by practical, achievable strategies in the near term and set the right foundation for longer term improvements through the 2035 horizon year.

Through a planning process that examined future land use-transportation scenarios, the NC 54/I-40 Corridor Study seeks to build upon various transportation and land use plans and engage corridor stakeholders and the public in finding solutions that are effective and find the right balance between mobility and accessibility for all users. Study recommendations in the final report offer a multimodal approach to meeting existing

and future transportation needs. They address the functional design for specific geometric improvements at intersections along NC 54 and at the interchanges with I-40 and US 15-501, the expansion and integration of various types of transit services to help more people reach their destinations as an alternative to driving, an interconnected network of bicycle and pedestrian facilities to provide a more comfortable environment with safe access along the corridor for walking and cycling, and a phased implementation plan for capital projects and service improvements.

These transportation recommendations support a land use strategy designed to create more opportunities for location-efficient housing and transportation in the corridor to improve livability and regional mobility. The corridor is becoming increasingly employment-oriented, and more proximate housing choices – particularly for a range of income levels – will create shorter trip distances and help make the use of non-auto travel options more viable. The report includes design guidelines to provide further support for implementing the recommended land use and transportation strategies.

Study Partners and Process

The DCHC MPO led the study, serving as the project manager in partnership with the consultant team hired for the project, Renaissance Planning Group, in association with ICF International and Michael Baker Corporation. The MPO coordinated the active involvement of a broad group of study partners that include the North Carolina Department of Transportation (NCDOT), Triangle Transit Authority (TTA), the City of Durham, Durham County, the Town of Chapel Hill, the University of North Carolina at Chapel Hill (UNC), Chapel Hill Transit (CHT) and the Durham Area Transit Authority (DATA). The MPO, the City of Durham, Durham County, and the Town of Chapel Hill funded the study. The study partners formed a steering committee that met monthly to guide the process, provide input at key milestones, and review study work products.

While the NC 54 corridor study limits are from I-40 to US 15-501, the study did not just focus on the linear right-of-way along NC 54. It captured a regional context, including growth patterns, transportation plans and the planned regional light rail system anticipated to connect this corridor to other points in the Triangle Region. The study area boundaries encompass surrounding neighborhoods and the existing and planned street networks, including Ephesus Church Road, Barbee Chapel Road, Farrington Road, NC 751 and others providing parallel routes or interconnecting with NC 54.

Public engagement is critically important to the study. A part of the corridor's complexity is the multitude of interested stakeholders with diverse expectations about the future of the NC 54 corridor. These include landowners, institutions, businesses, neighborhood

residents, students and, of course, the commuting public. A vigorous public participation process was employed to guide the development of study recommendations. This entailed a series of in-depth focus group discussions with each of the key stakeholder groups (residents and non-residents alike) early in the project and again once initial recommendations were nearing completion. In addition, a series of three public workshops at key milestones defined priority issues and opportunities, provided the basis for creation and evaluation of scenarios, and enabled participants to react and suggest refinements to draft land use and transportation master plan recommendations.

These outreach activities were augmented through use of a project web site (<http://www.nc54-i40corridorstudy.com/>) to share information and provide additional opportunities for the community to review materials and weigh in with ideas or issues of concern. The DCHC MPO staff and consultant team also met informally with various individuals and groups throughout the study. The recommendations contained in this report are a direct reflection of the input provided over the entire public engagement process.

Vision for the Corridor

Through the study process, analysis and broad-based feedback, a vision emerged for a regionally significant multimodal corridor that serves both regional and local travel through an expanded and more efficient network of streets, bus routes, bicycle facilities and pedestrian enhancements. The integrated land use and

The NC 54 Corridor Master Plan promotes location-efficient decisions to help lower combined housing and transportation costs per household. It puts people together, served by a more efficient transportation system that enables more trips to be made by walking, bicycling and transit. The plan defines target growth areas that help reduce sprawl in outlying areas.

transportation vision is to promote community livability by guiding future development into targeted mixed-use areas to reduce trip lengths, enable greater use of non-auto travel options and provide location-efficient choices for housing and transportation. These areas are within ¼ to ½ mile of the four planned light rail stations in the corridor. This will effectively support the investment in rail passenger service that will strengthen regional and local travel options between the UNC campus, Orange County, Durham County and elsewhere in the Triangle Region. Over time, the centers help transform the corridor from a drive-by strip into highly accessible, well-connected places that function as vibrant focal points serving local and regional needs.

Land Use Strategy

Figure ES-1 presents the recommended nodal development vision for the corridor. This land use-transportation blueprint embraces livability principles that provide more transportation choices, promote equitable, affordable housing through location and energy-efficiency, enhance economic competitiveness through reliable and timely access to employment, educational opportunities and services, and by supporting existing communities through transit-oriented, mixed-use development that will help safeguard existing neighborhoods and preserve rural landscapes.

Table ES-1 shows the proposed height and density targets for the nodal development plan, which provides the compact, mixed-use framework necessary to create a series of vibrant walking districts that enables reliance primarily on non-auto travel modes as they approach build-out of the development program.

The creation of highly developed mixed-use centers can help mitigate automobile travel demand by creating an environment where walking and access to transit are priorities. It also provides a mechanism to advance transportation funding opportunities that are unlikely to be available with the status quo or trend development pattern. For instance, more intense development at the planned Leigh Village station and other “nodes” along the corridor can provide incentive to obtain mitigation funding from future development to offset transportation costs for the roadway improvements that eventually will

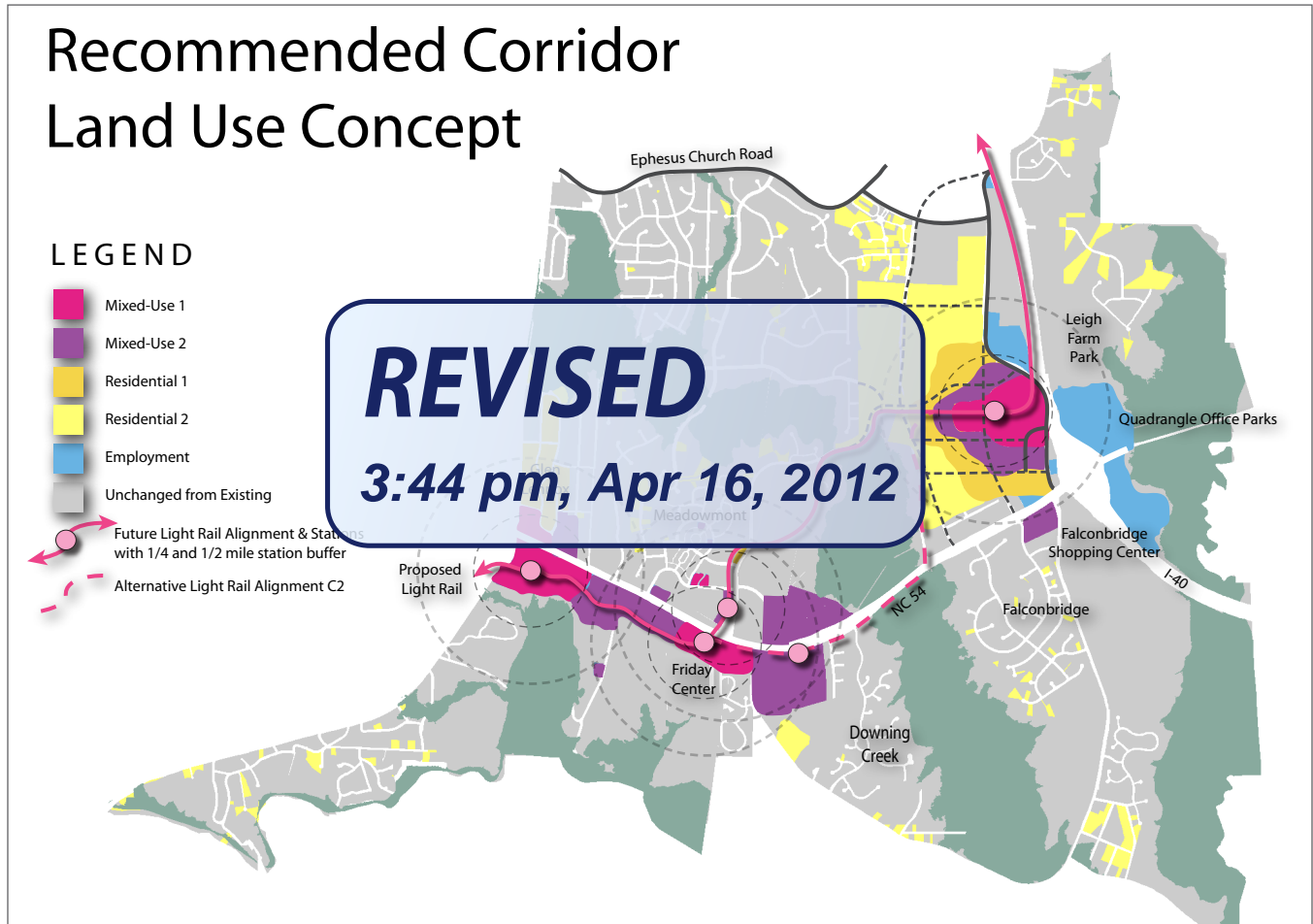


Figure ES-1: Recommended Corridor Land Use Concept

Table ES-1: Concept Land Uses

	Mixed Use 1	Mixed Use 2	Residential 1	Residential 2	Employment
No. of Stories	3 - 8	2 - 4	2 - 4	1 - 3	4 - 12
Floor-to-area ratios (non-residential)	1.25 - 2.25	1.0 - 1.5	-	-	0.5 - 1.0
Dwelling Units per Acre	35 - 60	20 - 35	12 - 35	6 - 12	-
Employees per Acre	45 - 90	25 - 50	9 - 15	6 - 12	35 - 175

be needed in the corridor even without the development. The traffic projections for the MPO's adopted 2035 Long Range Transportation Plan – without the nodal development plan in the NC 54 corridor – show that major capacity improvements to NC 54 and I-40 will be needed. Higher densities also enable developers to incorporate a greater percentage of workforce housing into the development program, helping to shorten trip lengths and creating more purchasing power for those residents who can effectively lower both housing and transportation costs.

Transportation has a profound influence to shape growth in a region and along a corridor. The parking constraints on the UNC campus and elsewhere in the Town of Chapel Hill have certainly influenced the use of transit, and, at least to a certain extent, where people choose to live. Developers and their clients (businesses, residents) respond to transportation conditions when they decide where to build, live, or locate their business. A new or improved roadway or transit project can make access to a location easier – making it more attractive to develop. A transportation improvement can also improve visibility – an important consideration for commercial developers. Many businesses rely on being seen by “pass-by” traffic and want to locate where there is a lot of vehicle and/or pedestrian traffic. This has been the case at the NC

54/Farrington Road intersection, where development depends on highway visibility. Conversely, rail transit is likely to result in more compact development clustered within walking distance of the station, and opens up new opportunities for how people choose to live and travel.

The response is also strongly influenced by the land use policy and planning context – for example, when the predominant mode of travel is the automobile, rail transit needs to be accompanied by strong land use policies in order to concentrate development in station areas. This type of strategy in the NC 54 corridor is necessary to avoid a future scenario where rising levels of congestion will occur due to regional growth forecasts, and the demands placed on the NC 54 corridor and its interchange with I-40 will lack any financial support from planned development.

The timing of the nodal development plan is dependent on the schedule for light rail in the corridor. If the funding mechanism is approved and the light rail plan moves forward, detailed station area plans would guide the development for the areas around each station in the corridor. Due to the roadway capacity constraints of this corridor, only relatively modest increases in development intensity can be supported until the light rail system is operational.

Transportation Strategy

Table ES-2 presents the phased multimodal transportation recommendations associated with the recommended nodal development plan. The recommendations are divided into short-term, mid-term and long-term strategies. These are described in detail in the full report, with supporting data in a series of appendices. In general, the short-term roadway strategies consist of a series of local street connections including the collector streets to provide alternate routes for local trips and improve traffic flow and operational efficiency.

The interim components include reconstruction of the I-40 interchange, where the critical intersection of Farrington Road and NC 54 causes significant congestion due to its proximity to the I-40 interchange, grade separation to eliminate traffic signals at the most critical intersections,

and unconventional intersection designs commonly referred to as “superstreets.” Together these strategies will reduce delay and support anticipated traffic growth in the corridor.

Longer term, with the recommended nodal development, a redesign of the US 15-501 interchange at NC 54 will be needed, and can enhance bicycle and pedestrian safety in the future Hamilton Road light rail station area.

Transit is an integral part of this overall strategy. In addition to the planned light rail system, a network of premium Bus Rapid Transit lines, expanded local bus service, and additional park-and-ride lots are recommended for the corridor. The key park-and-ride strategy is the implementation of multiple facilities north and east of the NC 54/I-40 interchange to capture trips

before they enter the corridor. The package of facilities will together serve regional commuters, latent demand for satellite parking, and future parking for light rail transit, and could provide an alternative to the Friday Center lot should it redevelop in the future.

From a bicycle and pedestrian network standpoint, the recommended plan fills in gaps and improves safety and access along NC 54 through geometric modifications and the creation of a 15' shared use path adjacent to the roadway between Barbee Chapel Road and the I-40 interchange. This is a critical gap in the corridor, and high speed traffic precludes an on-road solution for the section east of the Friday Center. Additional non-motorized transportation recommendations are identified throughout the corridor, including along Barbee Chapel Road and at US 15-501.

The roadway improvements, especially the superstreet intersection design and partial cloverleaf interchange design at US 15-501, take advantage of existing infrastructure and will provide maximum capacity for the cost of construction. The transportation recommendations for other modes will help to manage demand in the corridor, further extending the life of the roadway improvements. The recommendations for each mode are linked to others, to support a well-balanced and interconnected mobility network. Each improvement is an investment in another, and together will build a stronger system for mobility than optimizing the network for one particular mode.

The Durham-Orange County Corridor Alternatives Analysis (AA) was conducted concurrently with the NC 54/I-40 Corridor Study. The AA recommends two light rail alignments be carried forward to the PE/NEPA phase within the NC 54/I-40 study area. Both alignments, shown in **Figure ES-1**, recommend elevated crossings over NC 54. Alignment C1 will have no adverse impacts along the NC 54 corridor. Alignment C2 may cause complications at the Barbee Chapel Road intersection with NC 54, where the proposed C2 alignment crosses Barbee Chapel Road just south of NC 54. With the current intersection configuration, an at-grade light rail

crossing will likely not result in significant traffic impacts beyond the congestion that already exists or will exist in the future without substantial intersection capacity improvements. Constructing a grade-separated interchange at Barbee Chapel Road will ease congestion and lessen delays as traffic grows in the future. A grade-separated interchange at Barbee Chapel Road could likely be designed to accommodate the C-2 light rail alignment, but may entail significantly higher costs for extending the elevated segment of the light rail and a potential tri-level structure. Another option for the C2 alignment would be to move the alignment further to the south to avoid conflicts with the proposed ramp. These additional costs will need to be considered in the next phase of the Light Rail development process.

The potential construction of the C2 alignment and the potential development of the Lloyd property on the north side of NC 54 would likely generate high pedestrian demand across NC 54. This would be located just slightly east of the future elevated crossing that would be constructed at Barbee Chapel Road. While crossing at Barbee Chapel Road would still provide access to the Hillmont light rail station within a half-mile walk of the Lloyd property, a more substantial direct pedestrian crossing may be needed. This is another cost implication that should be considered in the EIS process.

Conclusion

The analysis of growth and transportation indicates that substantial capacity improvements will be needed by 2035 with or without new development anticipated to occur in the corridor. The I-40 interchange at NC 54 is fast approaching its capacity, and the proximity of the Farrington Road intersection creates operational challenges that affect much of the corridor. Heavy through traffic volumes projected along the corridor require intersection modifications that will help reduce delay. While the planned light rail transit system will help when it becomes operational sometime around 2025, it will not eliminate congestion. Rather, the light rail network provides a sound basis to guide future growth into the planned station areas as part of a nodal development strategy that will help reduce trip lengths, lower vehicle miles traveled per capita, and provide for more location-efficient housing choices to increase the financial flexibility of those residents.

While the recommended land use plan increases growth in the corridor beyond the levels assumed for the adopted Long Range Transportation Plan, most of that additional growth is expected to occur in Orange County because the LRTP assumptions appear low relative to development potential and future plans.

The recommended phasing plan for the transportation network creates better mobility for the next 25 years through a series of improvements to enhance local street connectivity for alternate routes, relieve bottlenecks at key interchanges and intersections through grade separation, and increase operational efficiency through "superstreet" intersection treatments.

As indicated, due to traffic impacts, much of the potential future growth will need to wait until the light rail system is operational and can help moderate auto travel demand. However, the plan calls for expanded park-and-ride opportunities north and east of the NC 54/I-40 interchange to serve regional commuters, satellite parking for nearby employment centers, and future light rail transit station by capturing a reasonable share of single occupancy vehicles before they enter the corridor. Expanded local bus, Bus Rapid Transit, and commuter

express routes are planned to meet the corridor's growing needs in the interim to light rail, and these services will complement the rail system when it is built.

A network of non-motorized transportation facilities, along with signage/markings for shared on-road use where appropriate, is needed to create a more accessible corridor and study area. This addresses travel along the NC 54 corridor by bicyclists and pedestrians, as well as crossing the corridor safely and efficiently. Elsewhere in the study area, the network provides additional connections between residential areas, commercial destinations and regional facilities, such as the American Tobacco Trail.

Establishing benchmarks and targets is an effective way to measure progress toward plan implementation. The NC 54/I-40 Corridor Study is a multi-year, multi-phase master plan aimed at improving overall mobility and accessibility, consistent with plans to create development focal points as places that become multipurpose destinations. Given the concerns of some residents and many stakeholders about traffic conditions and future development plans, it makes sense to take an approach in partnership with NCDOT and the local governments that addresses various aspects of this report to track progress toward achieving outcomes of this planning effort, not merely the programming and construction of capital projects.

The recommended approach is for the MPO to prepare a biannual monitoring report every two years to document progress toward achieving the mobility goals outlined in this study. This monitoring report would document transportation system conditions over time using the performance measures defined through this study and expanded to address specific implementation activities and accomplishments on the part of each study partner or jurisdiction. The report would fit within the MPO's established Congestion Management Process, and should document actions from a land development, transportation and urban design framework to implement the recommendations for improved livability, mobility, safety and access.

Table ES-2: List of Transportation Recommendations

PARK-AND-RIDE					
Description	Location	Jurisdiction	Phase	O&M	Capital
Coordinate with retailers to designate 50 shared park-and-ride spaces. Enhance TTA 805 service through Woodcroft.	Retail Center at NC 751 / NC 54 Intersection ¹	Durham	Short Term (2012-2020)	\$565,000 ²	n/a
Construct surface lot with 500 spaces. Implement a new CHT express route (or modify CHT Routes D and DX to serve facility. Extend Danziger Drive over I-40 for additional access.	Gateway Center Future Light Rail Station	Chapel Hill	Short Term (2012-2020)	\$565,000 ²	\$3,555,000 ^{3,4}
Coordinate with retailers to designate 300 shared park-and-ride spaces. Extend existing CHT DX route to serve facility.	Patterson Place	Durham	Short Term (2012-2020)	\$565,000 ²	n/a
Coordinate with retailers to designate 100 park-and-ride spaces for carpool and vanpool.	Retail Center at Governors Village	Durham	Short Term (2012-2020)	n/a	n/a
Coordinate with retailers to designate 160 park-and-ride spaces. Add a stop along TTA Route 405 to serve facility.	Oak Creek Village	Durham	Mid Term (2020-2025)	\$565,000 ²	n/a
Coordinate with retailer to replace or expand existing facilities in Southpoint Mall. Modify TTA and DATA routes as necessary.	Renaissance Parkway Target Store	Durham	Mid Term (2020-2025)	\$565,000 ²	n/a
Construct small facility with up to 500 spaces after construction of I-40 interchange improvements. Provide express bus service if constructed before light rail.	Leigh Village Future Light Rail Station	Durham	Long Term (2025-2035)	\$565,000 ²	\$10,000,000 ⁵
Convert surface lot into structured facility with 1,000 spaces.	Gateway Center Future Light Rail Station	Chapel Hill	Long Term (2025-2035)	n/a	\$20,000,000 ⁵
Construct structured parking facility with 1,000 spaces to service light rail station.	Patterson Place	Durham	Long Term (2025-2035)	n/a	\$20,000,000 ⁵
Implement CHT express route	Retail Center at Governors Village	Durham	Long Term (2025-2035)	\$565,000 ²	n/a

- 1 The pursuit of several locations for a park-and-ride facility along NC 751 is recommended, including Southpoint Auto Park Boulevard and the Renaissance Parkway Target Store. The retail center at the NC 751/NC 54 intersection represents an ideal location, but all three locations should be pursued.
- 2 Operating costs based on additional total annual hours multiplied by \$86, with 15 minute frequency during peak hours and 30 minute frequency during off-peak hours
- 3 Assumes \$5,000 per space, the average surface parking construction cost from the National Parking Association's 2009 study Parking in America: Annual Review of Parking Rates in the United States and Canada
- 4 Includes cost of two new buses based on a 50/50 split of \$400,000 non-hybrid buses and \$655,000 hybrid buses for an average of \$527,500 per bus
- 5 Includes cost of multi-level parking structure at \$20,000 per space.

TRANSIT					
Description	Location	Jurisdiction	Phase	O&M	Capital
Expanded Local Bus service with 30 minute frequency	Southeast along Barbee Chapel Rd and returning north back to NC 54 along Farrington Rd with transfer to regional service	Durham	Short Term (2012-2020)	\$1,355,400 ¹	\$700,000 (2 buses at \$350,000 each) ²
Express Bus service along NC 54 from the NC 751 park-and-ride facilities	From NC 751 park-and-ride facilities to downtown Chapel Hill along NC 751 and NC 54	Durham & Chapel Hill	Short Term (2012-2020)	\$1,355,400 ³	\$700,000 (2 buses at \$350,000 each) ²
Express bus service us service along US 15-501 or Franklin St from the Gateway Center park-and-ride.	From Gateway Center at the I-40/US 15-501 interchange to downtown Chapel Hill along US 15-501 or Franklin St	Chapel Hill	Short Term (2012-2020)	\$1,355,400 ³	\$700,000 (2 buses at \$350,000 each) ²
Light Rail Transit Preliminary Engineering and Design	Durham to Chapel Hill	Durham & Chapel Hill	Mid-Term (2020-2025)	n/a	n/a
Expanded Local Bus service with 30 minute frequency	North of NC 54 along Farrington Rd & SW Durham Dr to US 15-501 (Durham- Chapel Hill Blvd)	Durham	Mid-Term (2020-2025)	\$1,355,400 ¹	\$700,000 (2 buses at \$350,000 each) ²
Bus Rapid Transit - Phase 1. Five minute frequency with daily peak vehicle need of six buses	From Meadowmont along NC 54 to downtown Chapel Hill	Chapel Hill	Mid-Term (2020-2025)	\$11,566,080 ⁴	\$3,400,000
Bus Rapid Transit - Phase 2. Five minute frequency with daily peak vehicle need of six buses.	From NC 751 park-and-ride facilities along NC 54 towards Chapel Hill, aligning with Bus Rapid Transit - Phase 1	Durham	Mid-Term (2020-2025)	\$11,566,080 ⁴	\$3,400,000
Flex Route service	General service north and south of study area along Barbee Chapel Rd, Pinehurst Dr, Farrington Rd, Ephesus Church Rd, serving the Falconbridge Community, Downing Creek community, and Glen Lennox	Chapel Hill	Mid-Term (2020-2025)	\$4,066,200 ⁵	\$307,200 (4 buses at \$76,800 each) ²
Light Rail Transit (Final Design and Construction)	Durham to Chapel Hill	Durham & Chapel Hill	Long Term (2025-2035)	TBD ⁶	\$2,750,000 ²

1 Operating cost for normal fixed route service with 30 minute frequency is based on Long Range Transportation Plan.

2 Source of vehicle cost is 2011 Transportation Improvement Program.

3 Operating cost for express bus service is based on the operation of a fixed route service, but at a higher frequency.

4 Bus Rapid Transit costs are based on the 2009 Long Range Transit Plan study conducted by the Town of Chapel Hill. They include the cost of roadway improvements.

5 Flex Route costs are based on the normal operations of a fixed route service. Flex service is essentially the same type of service, only different in the method of delivery.

6 Operating cost estimates for the light rail project cannot be provided. The project has a more complete analysis and cost estimated being conducted by Triangle Transit. The current cost for this project is limited to an estimate of preliminary engineering and design.

PEDESTRIAN AND BICYCLE				
Description	Location	Jurisdiction	Phase	Cost ¹
Install crosswalks and pedestrian signals at signalized intersections with pedestrian refuge islands and street lighting for crossing NC 54. ²	Burning Tree Dr/ Finley Golf Course Rd & NC 54	Chapel Hill	Short Term (2012-2020)	\$80,000
	W Barbee Chapel Rd & NC 54	Chapel Hill	Short Term (2012-2020)	
	Meadowmont Ln/ Friday Center Dr & NC 54	Chapel Hill	Short Term (2012-2020)	
	E Barbee Chapel Rd & NC 54	Chapel Hill	Short Term (2012-2020)	
	Huntingridge Rd & NC 54	Durham	Short Term (2012-2020)	
	Farrington Road (northern, southern and eastern approaches) & NC 54	Durham	Short Term (2012-2020)	
	Leigh Farm Rd/ Quadrangle Dr & NC 54	Durham	Short Term (2012-2020)	
Install crosswalks with pedestrian-activated flashers and expand refuge islands.	US 15-501 on/off ramps	Chapel Hill	Short Term (2012-2020)	\$40,000
Extend the solid marking designating the westbound exclusive right turn lane for US 15-501 on-ramps to minimize weaving movements at interchange and increase safety for on-road bicyclists.	From SB US 15-501 on ramp to 500 feet to the east	Chapel Hill	Short Term (2012-2020)	\$2,700,000
Provide a minimum 5-foot wide on-road bicycle lane by restriping travel lanes to be 11 feet wide and making minor median modifications.	NC 54 from Burning Tree Dr/ Finley Golf Course Rd to the west	Chapel Hill	Short Term (2012-2020)	
Modify sloped abutment wall to provide 8-foot wide sidewalk behind overpass structural piers.	NC 54 underneath US 15-501 overpass	Chapel Hill	Short Term (2012-2020)	
Pave road shoulders to accommodate bicyclists on select roads to provide connections to the American Tobacco Trail.	From NC 54 to the American Tobacco Trail via Barbee Chapel Rd, Farrington Rd, Stagecoach Rd, NC 751, and Massey Chapel Rd	Durham	Short Term (2012-2020)	\$4,000,000

PEDESTRIAN AND BICYCLE				
Description	Location	Jurisdiction	Phase	Cost ¹
Ensure adequate facilities for pedestrians and cyclists are available. Provide a 5-foot wide bicycle lane where possible, or provide "share the road" signage and a paved shoulder or sharrow markings for on-road bicycle travel. Many of the collector streets are designed with for low vehicular speeds with the intent for bicycles to share the travel lane. Fill in sidewalk gaps. ³	Farrington Road through the study area (Old Chapel Hill Rd to Stagecoach Rd)	Durham	Short Term (2012-2020)	Variable cost. Paving five-foot wide bike lanes on both sides of the roadway would cost approximately \$1,200,000 per lane assuming medium duty pavement. Striping a bike lane without paving would cost approximately \$5,000 per mile. Installing signage would cost about \$1,500 per sign. Installing sidewalks would cost about \$265,000 per mile.
	Ephesus Church Rd from Farrington Rd to E Franklin St	Durham & Chapel Hill	Short Term (2012-2020)	
	George King Rd & Crossland Dr (proposed collector street) from Ephesus Church Rd to NC 54	Durham	Short Term (2012-2020)	
	SW Durham Dr from Ephesus Church Rd to NC 54	Durham & Chapel Hill	Short Term (2012-2020)	
	Lancaster Dr and E/W collector street from Farrington Rd to Pinehurst Dr	Durham & Chapel Hill	Short Term (2012-2020)	
	Pinehurst Dr from Ephesus Church Rd to Burning Tree Dr	Chapel Hill	Short Term (2012-2020)	
	Burning Tree Dr from Pinehurst Dr to NC 54	Chapel Hill	Short Term (2012-2020)	
	Hamilton Rd from NC 54 to Cleland Dr	Chapel Hill	Short Term (2012-2020)	
	Cleland Dr from Burning Tree Dr to US 15-501	Chapel Hill	Short Term (2012-2020)	
Construct Little Creek Trail to connect Meadowmont Trail to Lancaster Drive.	Meadowmont Trail at Rashkis Elementary School	Chapel Hill	Short Term (2012-2020)	TBD
Widen the existing bicycle path to a 15-foot wide shared use path.	Along the east side of US 15-501 from Cleland Rd to S Estes Dr	Chapel Hill	Short Term (2012-2020)	TBD
Construct the Bolin Creek Greenway connection to Pinehurst Dr.	Bolin Creek Greenway	Chapel Hill	Short Term (2012-2020)	TBD

PEDESTRIAN AND BICYCLE				
Description	Location	Jurisdiction	Phase	Cost ¹
Construct an off-road shared-use path, with a boardwalk bridge as an alternative solution in environmentally sensitive areas. Path should have minimum 10-foot width; ideally 15 feet if possible.	Along NC 54 from E Barbee Chapel Rd to I-40 overpass	Durham & Chapel Hill	Mid-Term (2020-2025)	The cost for these improvements is included in the roadway projects list under the item "Widen NC 54 to six lanes in the Durham section. Construct the multi-use path concurrent with the road project."
	Along the NC 54 frontage to connect to the existing multi-use path at Burning Tree Dr	Chapel Hill	Mid-Term (2020-2025)	
Construct pedestrian facilities with ramps at Falconbridge Rd and Farrington Rd bridges over NC 54	Falconbridge Rd & Farrington Rd	Durham	Mid-Term (2020-2025)	
Construct sidewalk on south side of NC 54 to connect to I-40 overpass.	South side of NC 54 from Huntingridge Rd east to I-40 overpass	Durham	Mid-Term (2020-2025)	
Construct a 10-foot wide shared use path on south side of overpass.	NC 54 bridge over I-40	Durham	Mid-Term (2020-2025)	
Implement crosswalks and landscaped median refuges at superstreet intersections.	Huntingridge Rd & NC 54	Chapel Hill	Mid-Term (2020-2025)	The cost for these improvements is included in the roadway projects list under the item "Construct EB NC 54 to EB I-40 flyover from Farrington Road to I-40 EB on-ramp."
	Meadowmont Ln/ Friday Center Dr & NC 54	Durham	Mid-Term (2020-2025)	
Design and construct light rail bridge over NC 54 to serve as an elevated pedestrian crossing.	Across NC 54 connecting Meadowmont and Friday Center	Chapel Hill	Long Term (2025-2035)	TBD
Construct Southwest Rail Trail along light rail alignment during light rail construction.	Along future light rail corridor	Durham & Chapel Hill	Long Term (2025-2035)	TBD
Construct US 15-501 underpass to connect Bolin Creek Greenway.	S Estes Dr & US 15-501	Chapel Hill	Long Term (2025-2035)	TBD
Continue to make regional connections with greenways	where possible	Durham & Chapel Hill	Long Term (2025-2035)	variable cost

1 Cost estimates do not include right-of-way, utilities or escalation.

2 Crosswalks, refuge islands, pedestrian signals and street lighting can be installed with developer mitigation funds. They may also be implemented concurrently with road maintenance projects such as resurfacing, or as part of more substantial road improvements (i.e., construction of the superstreet intersections)

3 Although it may not be feasible to provide bike lanes or paved shoulders and construct sidewalks on all of these roads within the next five years, these recommendations should remain a priority and should be constructed as soon as funds are available.

ROADWAY				
Description	Location	Jurisdiction	Phase	Cost ¹
Construct Farrington Rd slip ramp for northbound traffic on Farrington Rd to access eastbound I-40 directly. Modify on-ramp to allow for transition.	Farrington Rd	Durham	Short Term (2012-2020)	\$3,400,000
Construct collector street system including turn lanes on NC 54.	As specified in the adopted Southwest Durham – Southeast Chapel Hill Collector Street Plan	Durham	Short Term (2012-2020)	\$31,400,000
Construct access road behind the Farrington Road shopping center for connection between Farrington Rd and Falconbridge Rd.	Between Farrington Rd and Falconbridge Rd	Durham	Short Term (2012-2020)	\$400,000
Obtain Marriot Way, then upgrade to NCDOT standards and extend to Barbee Chapel Rd.	Between Friday Center Dr and E Barbee Chapel Rd	Chapel Hill	Short Term (2012-2020)	\$800,000
Construct other connections as opportunities arise through development proposals.	Through study area	Durham & Chapel Hill	Short to Long Term	Variable cost
Close Glenwood Square shopping center driveways along NC 54 and provide access via Hamilton Rd	Glenwood Square Shopping Center at US 15-501 interchange	Chapel Hill	Short Term (2012-2020)	\$100,000 ³
Construct dual exit lanes for I-40 WB to NC 54 WB loop ramp plus two thru lanes on NC 54 WB. Widen bridge for four EB lanes, three WB lanes, and 10-foot sidewalk on south side.	I-40 Interchange with NC 54	Durham	Mid-Term (2020-2025)	\$6,100,000 ⁴
Add new partial cloverleaf ramp for I-40 EB to NC 54 EB, remove existing signal and install yield sign at the I-40 EB to NC 54 WB ramp. Reconfigure EB approach at I-40 EB on-ramps for two free-flow lanes to EB I-40.	I-40 Interchange with NC 54	Durham	Mid-Term (2020-2025)	\$2,100,000
Widen NC 54 to six lanes east of Barbee Chapel Rd to match six lane section to the west. Construct the multiuse path concurrent with the road project.	Barbee Chapel Rd to I-40 Interchange	Durham	Mid-Term (2020-2025)	\$22,700,000
Implement superstreet configuration at Crossland Drive.	Future western collector street ⁵ & NC 54	Durham	Mid-Term (2020-2025)	\$3,900,000
Convert Farrington Rd intersection to an overpass over NC 54 with pedestrian facilities.	Farrington Rd at NC 54	Durham	Mid-Term (2020-2025)	\$6,500,000
Convert Falconbridge Rd intersection to a grade separated interchange with pedestrian facilities.	Falconbridge Rd at NC 54	Durham	Mid-Term (2020-2025)	\$9,800,000

ROADWAY				
Description	Location	Jurisdiction	Phase	Cost ¹
Implement superstreet configuration at Meadowmont Ln/ Friday Center Dr.	Meadowmont Ln/ Friday Center Dr & NC 54	Chapel Hill	Mid-Term (2020-2025)	\$4,300,000
Construct Barbee Chapel Rd Grade separation.	Barbee Chapel Rd & NC 54	Chapel Hill	Mid-Term (2020-2025)	\$9,200,000
Construct partial cloverleaf redesign of US 15-501 interchange.	US 15-501 & NC 54 interchange	Chapel Hill	Long Term (2025-2035)	\$17,300,000
Implement superstreet configurations at W Barbee Chapel Rd and Burning Tree Dr/ Finley Golf Course Rd.	NC 54 intersections with W Barbee Chapel Rd and Burning Tree Dr/ Finley Golf Course Rd	Chapel Hill	Long Term (2025-2035)	\$4,900,000

- 1 Cost estimates do not include right-of-way, utilities or escalation.
- 2 Cost estimates include fourth travel lane on eastbound I-40 to bridge across creek prior to NC 751 interchange. Recommended to extend travel lane to NC 751 interchange.
- 3 Cost estimates do not include right-of-way damages.
- 4 Cost estimate extends from I-40 ramps to Leigh Farm Rd/Quadrangle Dr.
- 5 Crossland Drive refers to the future western collector street. Throughout the study process, public citizens raised concerns over the Crossland Drive alignment and proposed George King as a future collector street. The superstreet configuration is recommended for whichever road alignment becomes the collector street.



RENAISSANCE PLANNING GROUP

Baker

ICF
INTERNATIONAL

Executive Summary Addendum

Addendum #1

Figure ES-1 revised to label light rail alignments as C-1 and C-2. See revised figure on following page.

Addendum #2

While highly developed mixed-use centers can help mitigate automobile travel by enhancing opportunities for walking, biking, and transit, this type of development may also have negative impacts on the Little Creek Significant Natural Heritage Area (SNHA) and the wildlife supported by this natural area. To mitigate the environmental impacts of high-density mixed-use development, every effort should be made to provide a buffer between the developed area and the SNHA, including the preservation of large, continuous areas of open space and the preservation of wetlands, floodplains, and riparian corridors.

Addendum #3

At the February 8, 2012 meeting, the DCHC Transportation Advisory Committee (TAC) voted to approve the Locally Preferred Alternative (LPA) for the Durham-Orange Transit Corridor indicating that both C-1 and C-2 will be carried forward for further study, with a preference for option C-2.

Addendum #4

Recent analysis by Triangle Transit during the light rail alternatives analysis has suggested a need for over 1000 parking spaces at the proposed Leigh Village transit station. The final analysis for the LRT will include details on the sizing requirements for all LRT park-and-ride facilities.

Recommended Corridor Land Use Concept

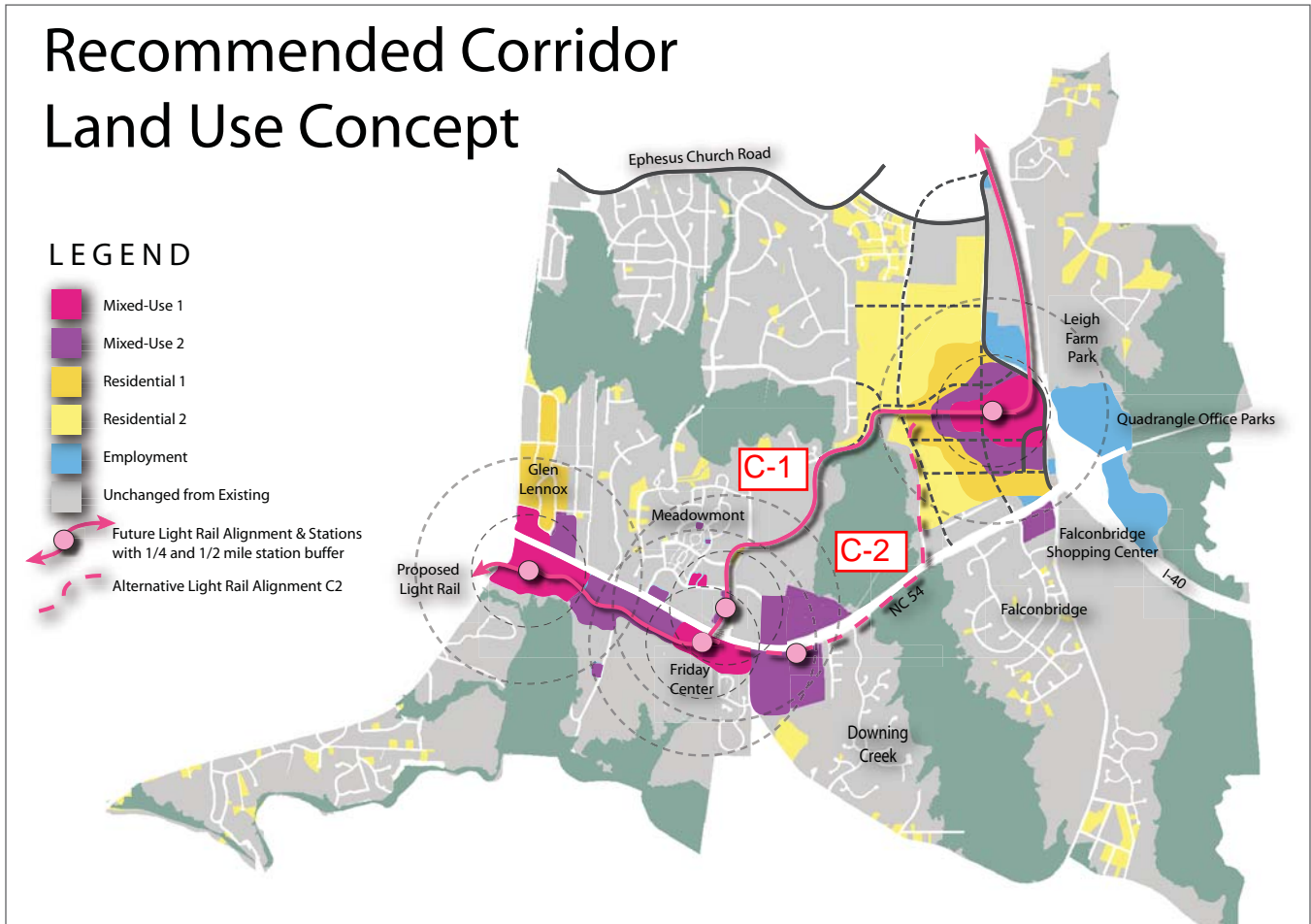


Figure ES-1: Recommended Corridor Land Use Concept Revised April 16, 12

Table ES-1: Concept Land Uses

	Mixed Use 1	Mixed Use 2	Residential 1	Residential 2	Employment
No. of Stories	3 - 8	2 - 4	2 - 4	1 - 3	4 - 12
Floor-to-area ratios (non-residential)	1.25 - 2.25	1.0 - 1.5	-	-	0.5 - 1.0
Dwelling Units per Acre	35 - 60	20 - 35	12 - 35	6 - 12	-
Employees per Acre	45 - 90	25 - 50	9 - 15	6 - 12	35 - 175

Final Report Addendum

Addendum #1

Figure 1-1 revised to label light rail alignments as C-1 and C-2. See revised figure below.

Addendum #2

Figure 1-2 revised to label light rail alignments as C-1 and C-2. See revised figure below.

Addendum #3

Recent analysis by Triangle Transit during the light rail alternatives analysis has suggested a need for over 1000 parking spaces at the proposed Leigh Village transit station. The final analysis for the LRT will include details on the sizing requirements for all LRT park-and-ride facilities.

Addendum #4

Figure 2-5 revised to add light rail alignment C-2 and to label alignments as C-1 and C-2. See revised figure below.

Addendum #5

The discussion of station areas considers the C-1 alignment as proposed in the 2035 Long Range Transportation Plan (LRTP). At the February 8, 2012 meeting, the DCHC Transportation Advisory Committee (TAC) voted to approve the Locally Preferred Alternative (LPA) for the Durham-Orange Transit Corridor indicating that both C-1 and C-2 will be carried forward for further study, with a preference for option C-2. Consideration of the C-2 alignment results in the removal of the Meadowmont Station Area and the addition of a new station area referred to as the Woodmont Station Area. This new station area is not discussed in detail in this report as the decision to include the C-2 alignment was made following the station area analysis for the NC 54 Corridor Study.

Addendum #6

The Meadowmont Station Area does not exist for the C-2 LRT alignment.

Addendum #7

While highly developed mixed-use centers can help mitigate automobile travel by enhancing opportunities for walking, biking, and transit, this type of development may also have negative impacts on the Little Creek Significant Natural Heritage Area (SNHA) and the wildlife supported by this natural area. To mitigate the environmental impacts of high-density mixed-use development, every effort should be made to provide a buffer between the developed area and the SNHA, including the preservation of large, continuous areas of open space and the preservation of wetlands, floodplains, and riparian corridors.

Addendum #8

Figure 2-8 revised to label light rail alignments as C-1 and C-2. See revised figure below.

Addendum #9

Figure 2-11 does not include the C-2 alignment because Scenario 1 reflects the LRTP Policy Scenario and the C-2 alignment, at the time, was not a part of the officially adopted LRTP.

Addendum #10

Figure 2-12 does not include the C-2 alignment because Scenario 2 reflects the light rail alignment as recommended in the officially adopted LRTP. At the time of this analysis, the C-2 alignment was not under consideration.

Addendum #11

Recent analysis by Triangle Transit during the light rail alternatives analysis has suggested a need for over 1000 parking spaces at the proposed Leigh Village transit station. The final analysis for the LRT will include details on the sizing requirements for all LRT park-and-ride facilities.

Addendum #12

Figure 3-2 revised to add light rail alignment C-2 and to label alignments as C-1 and C-2. See revised figure below.

Addendum #13

Figure 3-3 revised to add light rail alignment C-2 and to label alignments as C-1 and C-2. See revised figure below.

Addendum #14

The discussion of park-and-ride facilities considers the C-1 alignment as proposed in the 2035 Long Range Transportation Plan (LRTP). At the February 8, 2012 meeting, the DCHC Transportation Advisory Committee (TAC) voted to approve the Locally Preferred Alternative (LPA) for the Durham-Orange Transit Corridor indicating that both C-1 and C-2 will be carried forward for further study, with a preference for option C-2. Consideration of the C-2 alignment may result in an additional park-and-ride facility at the proposed C-2 Woodmont Station Area.

Addendum #15

Figure 3-5 revised to add light rail alignment C-2 and to label alignments as C-1 and C-2. See revised figure below.

Addendum #16

Recent analysis by Triangle Transit during the light rail alternatives analysis has suggested a need for over 1000 parking spaces at the proposed Leigh Village transit station. The final analysis for the LRT will include details on the sizing requirements for all LRT park-and-ride facilities.

Addendum #17

Figure 4-2 revised to add light rail alignment C-2 and to label alignments as C-1 and C-2. See revised figure below.

Addendum #18

The potential construction of the C-2 alignment and the potential development of the Lloyd property on the north side of NC 54 would likely generate high pedestrian demand across NC 54. This would be located just slightly east of the future elevated crossing that would be constructed at Barbee Chapel Road. While cross at Barbee Chapel Road would still provide access to the Woodmont light rail station within a half-mile walk of the Lloyd property, a more substantial direct pedestrian crossing may be needed.

Addendum #19

During the alternatives analysis for the light rail project, the C-1 alignment was identified as having a greater potential for impacts to the Little Creek Significant Natural Heritage Area (SNHA) and to property under the stewardship of the U.S. Army Corps of Engineers, as compared to the proposed C-2 alignment. At the February 8, 2012 meeting, the DCHC Transportation Advisory Committee (TAC) voted to approve the Locally Preferred Alternative (LPA) for the Durham-Orange Transit Corridor indicating that both C-1 and C-2 will be carried forward for further study, with a preference for option C-2. During the next phase of analysis for the light rail, Triangle Transit will conduct a detailed environmental analysis to better identify impacts to the natural areas and to inform the final decision on the LRT alignment.

Addendum #20

Figure 4-4 revised to add light rail alignment C-2 and to label alignments as C-1 and C-2. See revised figure below.

Addendum #21

Figure 5-5 revised to add light rail alignment C-2 and to label alignments as C-1 and C-2. See revised figure below.

Addendum #22

The implementation of R4-11 signing (BICYCLES MAY USE FULL LANE) should be considered where warranted.

Addendum #23

The section discussing the elevated pedestrian bridge crossing at the light rail crossing pertains to the C-1 alignment. The potential construction of the C-2 alignment and the potential development of the Lloyd property on the north side of NC 54 would likely generate high pedestrian demand across NC 54. This would be located just slightly east of the future elevated crossing that would be constructed at Barbee Chapel Road. While cross at Barbee Chapel Road would still provide access to the Woodmont light rail station within a half-mile walk of the Lloyd property, a more substantial direct pedestrian crossing may be needed.

In addition to this location, pedestrian and bicycle facilities should also be considered at all grade separated crossing within the corridor.

Addendum #24

Recent analysis by Triangle Transit during the light rail alternatives analysis has suggested a need for over 1000 parking spaces at the proposed Leigh Village transit station. The final analysis for the LRT will include details on the sizing requirements for all LRT park-and-ride facilities.

Addendum #25

The widening of NC 54 to six lanes will affect adjacent natural areas and neighborhoods. During project planning, design, and construction action should be taken to minimize these impacts including widening into the existing median where possible and providing opaque landscaping and buffering for adjacent residential areas.

Addendum #26

The details for the landscaping plan will be determined during project planning, design, and construction and should include the provision of an opaque buffer or adjacent residential areas.

Addendum #27

The NC 54 corridor serves local, regional, and statewide travelers, some whom may be unfamiliar with superstreet intersections and how to utilize these intersections to access nearby businesses and activities. To minimize driver confusion and to facilitate navigation, wayfinding is recommended as a key component of the superstreet implementation.

Addendum #28

Figure 6-22 revised to add light rail alignment C-2 and to label alignments as C-1 and C-2. See revised figure below.

Addendum #29

At the February 8, 2012 meeting, the DCHC Transportation Advisory Committee (TAC) voted to approve the Locally Preferred Alternative (LPA) for the Durham-Orange Transit Corridor indicating that both C-1 and C-2 will be carried forward for further study, with a preference for option C-2.

Addendum #30

During the public review for the NC 54 Corridor Study, much concern was raised over the proposed Southwest Durham Drive. Key concerns include impacts to environmental resources, impacts to the U.S. Army Corps of Engineers (USACE) property, and impacts to the Meadowmont community, specifically Rashkis elementary school and the Cedars retirement community.

NC 54 runs through a Significant Natural Heritage Area (SNHA) referred to as the Little Creek Bottomlands and Slopes, as well as USACE wetlands. The proposed Southwest Durham Drive also runs adjacent to these important environmental resources. While proposed to be entirely on private lands, this proposed facility does have the potential to fragment wildlife habitats.

Southwest Durham Drive is part of the adopted 2035 Long Range Transportation Plan (LRTP) for Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) region. The NC 54 Corridor Study reaffirmed the need for such a connection, but did not include a full systems level analysis for how to address this transportation need given the status of this project as a part of the 2035 LRTP. An update of the LRTP is currently underway. This update will include a more in-depth systems level analysis of options for addressing this particular transportation need and for solving related connectivity and congestion problems. Environmental Resource Agencies will be provided many opportunities to comment on the projects, including highway and rail transit projects, proposed for the updated LRTP.

Addendum #31

The figure above showing a concept from the 1991 Thoroughfare Plan and the adopted Collector Street Plan shows that while details have changed, there has been a long-term vision for better connectivity for this area.

Addendum #32

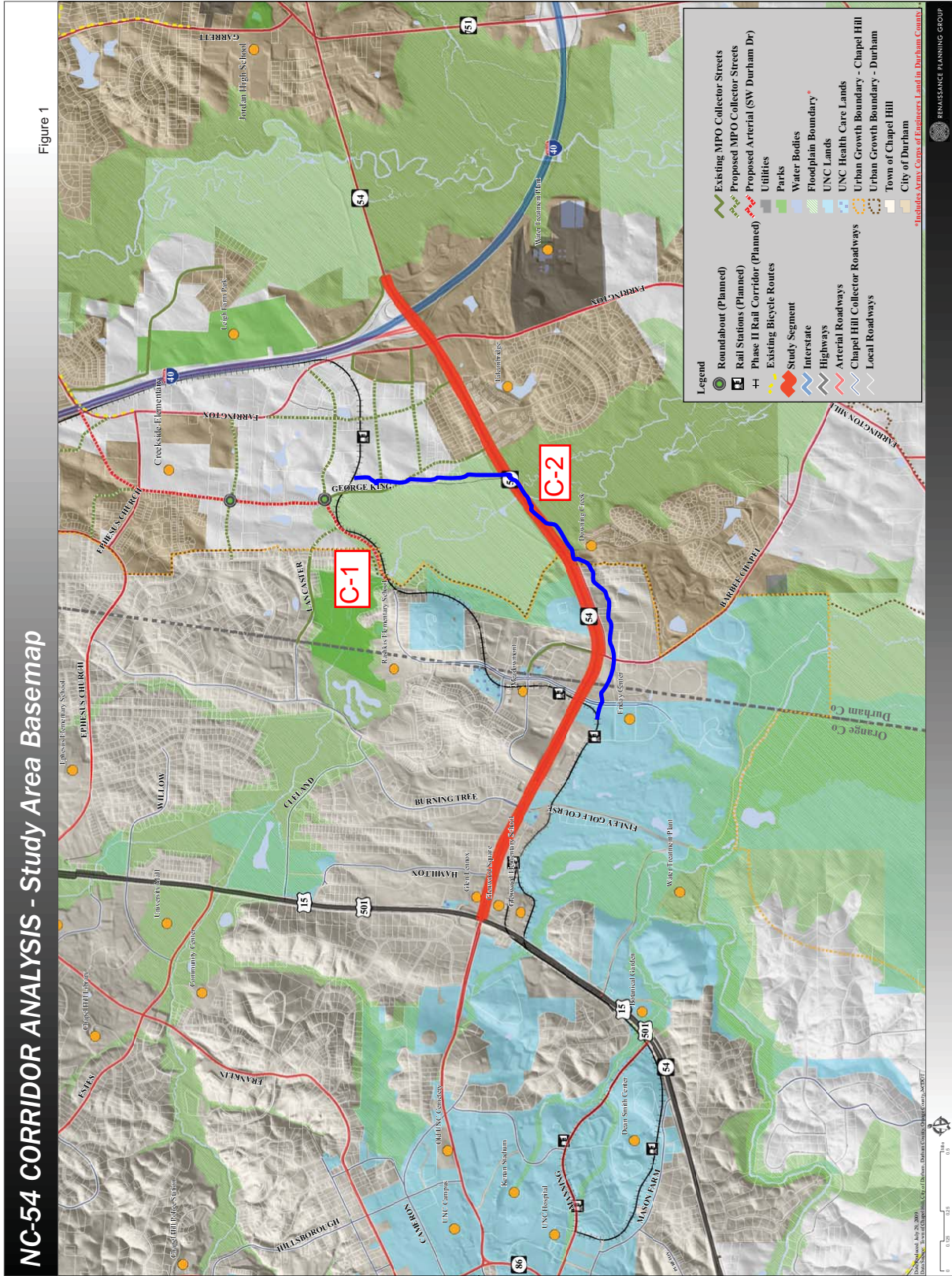
Figure 6-27 revised to add light rail alignment C-2 and to label alignments as C-1 and C-2. See revised figure below.

Addendum #33

Figure 6-28 revised to add light rail alignment C-2 and to label C-1 and C-2. See revised figure below.

Addendum #34

Figure 6-29 revised to add and label light rail alignment C-2. See revised figure below.



Recommended Corridor Land Use Concept

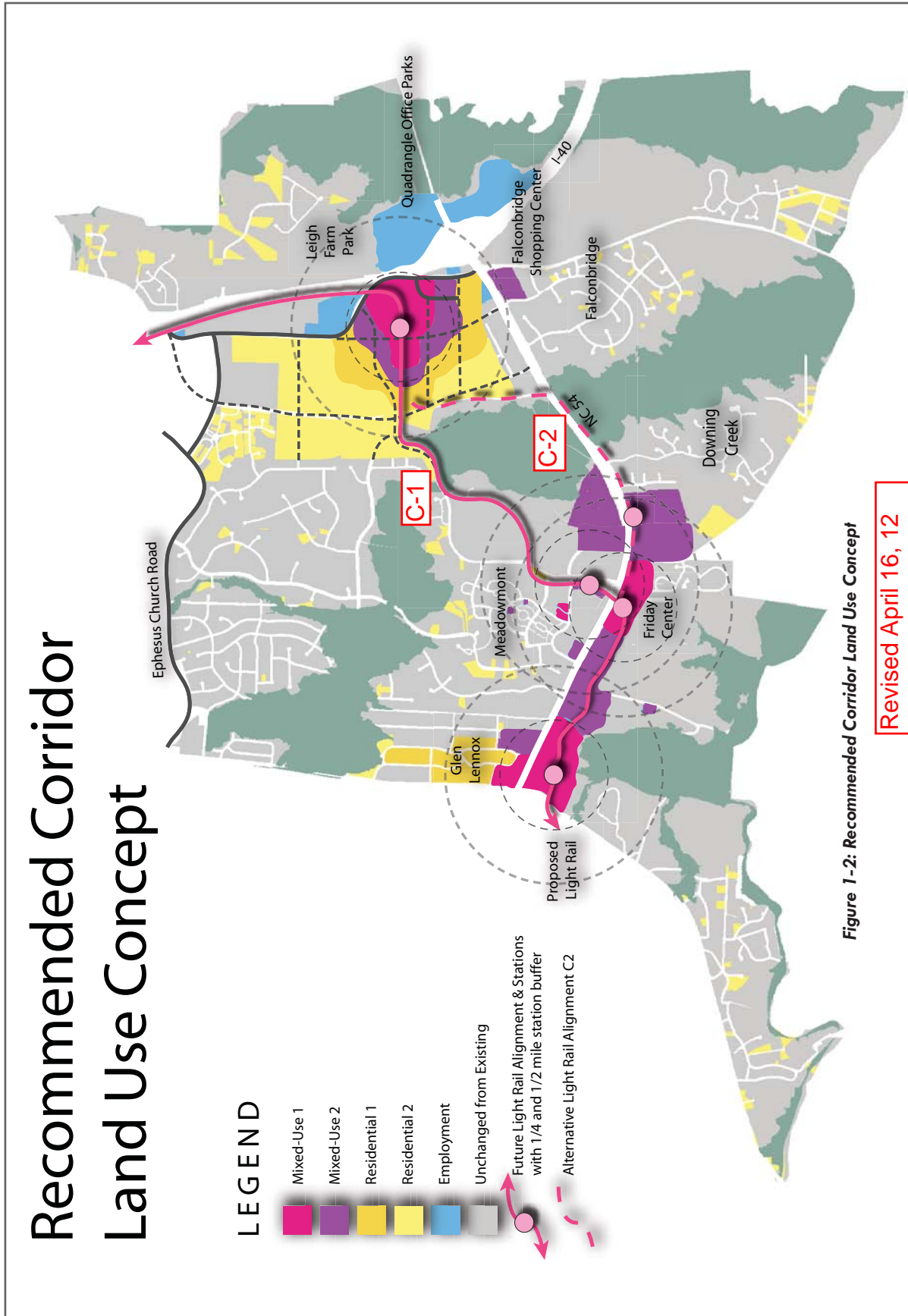


Figure 1-2: Recommended Corridor Land Use Concept

Revised April 16, 12

As indicated in the series of charts, the increase in Orange County over the LRTP projection is primarily due to anticipated redevelopment of the Friday Center park-and-ride facility, as well as the likely build-out of the Woodmont and Lloyd properties, which are located east of the Friday Center on the south and north sides of the roadway, respectively. **Figure 2-5** indicates the locations of these potential development sites. Each of these locations is within a ¼ to ½ mile of a planned transit station, and the LRT alignment could be adjusted

slightly to more directly serve these potential land uses. Based on the input of the relevant stakeholders and analysis of the capacity for future development, this projection appears to be quite reasonable and appropriate for a corridor that is clearly becoming more urban in character, with the close proximity to significant regional destinations.

The following sections describe the specific changes in the recommended plan.

Reference Map

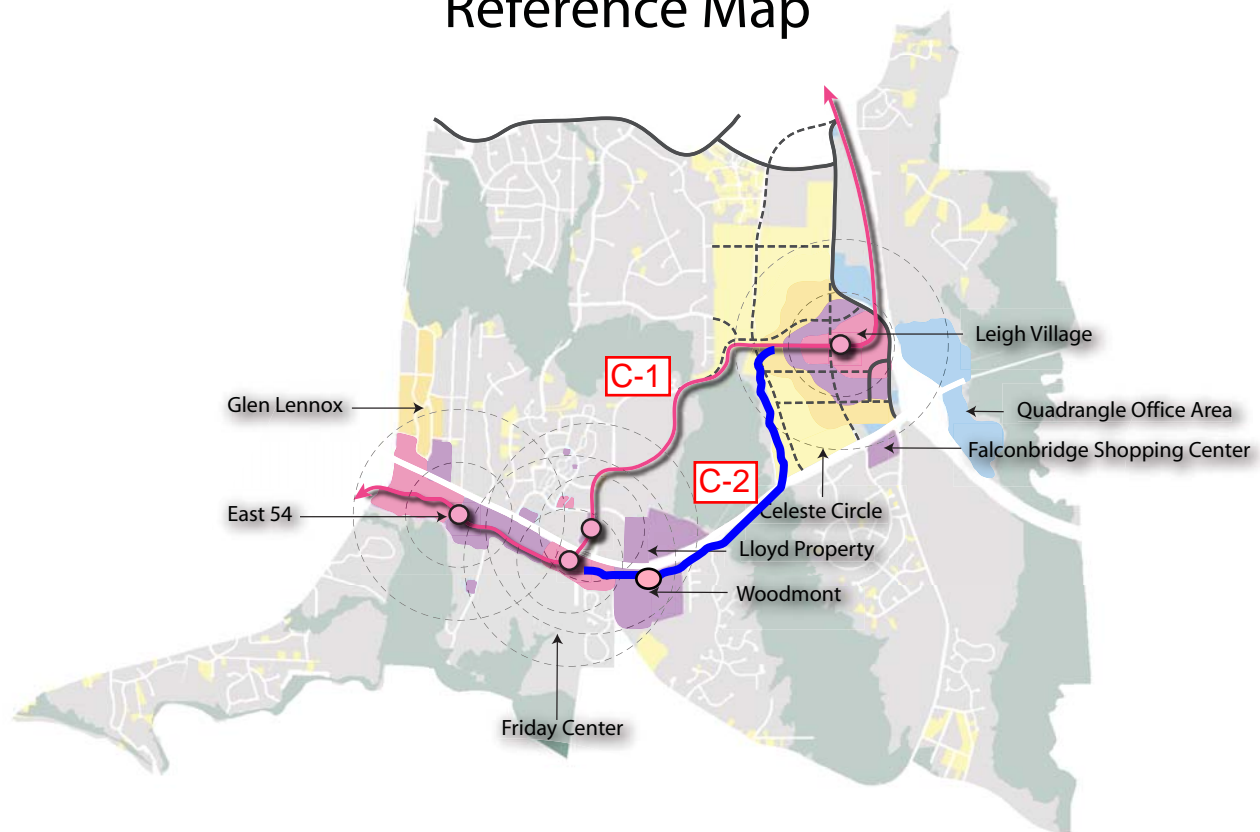


Figure 2-5: Locations of Potential Development Sites

Note: The potential development site labeled as Woodmont has been renamed to Hillmont.

Revised Mar 28, 12

Nodal Development

The recommended land use plan for the NC 54/I-40 study area is a nodal development pattern that guides future growth into existing and emerging centers. A nodal development pattern, as opposed to the linear or strip development pattern, creates more opportunities to capture shorter trips by walking, bicycling and transit, and by creating centers of relatively dense and diverse land use types, the nodes provide a focal point for longer trips by transit, as well as the convenient interchange between modes. The nodal pattern primarily follows the planned future light rail station locations, with the understanding that it is likely these exact locations may change during more detailed transit alignment planning to be undertaken by the Triangle Transit through 2011. These locations have been defined at a planning level through the DCHC MPO's Long Range Transportation Plan, and there is a reasonable expectation that these will be the final locations.

The NC 54/I-40 corridor land use blueprint needs to be considered in a regional context of growth expected to occur throughout the Triangle Region. The nodal development plan assumes more growth in

the study area than the adopted 2035 Long Range Transportation Plan, particularly in the Orange County portion of the study area, where employment and population projections were very low. For the most part, on the Durham side of the corridor, the growth totals in the recommended plan are consistent with the adopted LRTP. The regional context is an important consideration, because the growth identified in this plan is likely to happen elsewhere in the region if it does not occur within the study corridor, yet the trips will continue to be made by automobile into the study corridor.

According to the relatively modest growth projections in the adopted LRTP, by 2035, the NC 54 corridor will become a severely congested roadway, even with an investment in light rail transit. Widening the road to six lanes is needed, but only makes it easier for long distance trips to navigate through the corridor to their ultimate destination. By creating a nodal, mixed use development plan that provides opportunities for shorter distance trips through walking and bicycling, changes in the NC 54 corridor can contribute to lower levels of VMT and resulting lower energy demands and air pollution.

Potential Station Areas

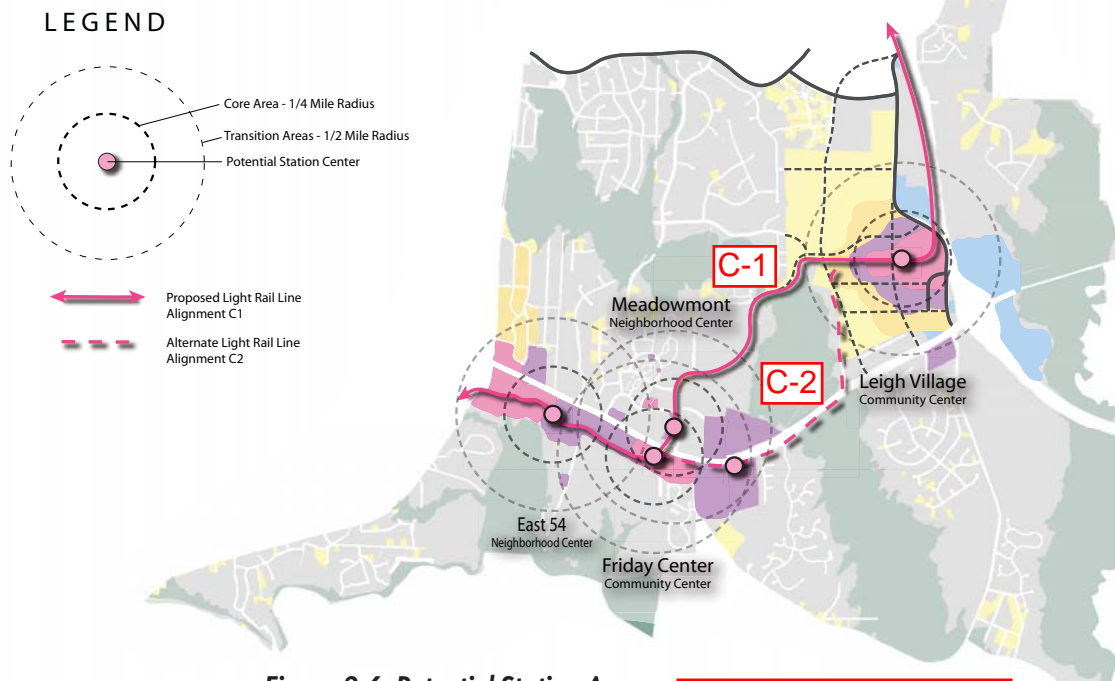


Figure 2-6: Potential Station Areas

Revised April 16, 12

Land Use Blueprint

Figure 2-8 presents the recommended corridor land use plan for development potential within the next 25 years. The plan leaves much of the study area as it is today – established residential neighborhoods and supporting retail and office uses – but focuses future growth in the corridor around planned light rail transit station areas. As shown in the figure, areas in various colors represent changes from existing land use, either filling in vacant parcels or redeveloping specific land areas. Individual parcels outside of planned station areas and shown in grey are intended to build out at the current planned development intensity as specified in the future land use designations already adopted by Durham and Chapel Hill. This land use blueprint is intended to guide each of the local governments in modifying their adopted Comprehensive Plans and development regulations to implement the plan.

There are five conceptual land use categories defined for the land use blueprint:

- **Mixed Use 1** – highest density core station area mixed use, with primarily retail and office uses
- **Mixed Use 2** – retail on the ground floor with residential land uses above
- **Residential 1** – mostly multi-family uses with neighborhood supporting uses (e.g., retail, schools, etc.) as appropriate
- **Residential 2** – mostly single-family homes with neighborhood uses as appropriate
- **Employment** – may include office, institutional or health care facilities. This includes some mix of land uses and will be transit oriented to the maximum extent possible. Higher density workforce or student housing may be included in this category.

Recommended Corridor Land Use Concept

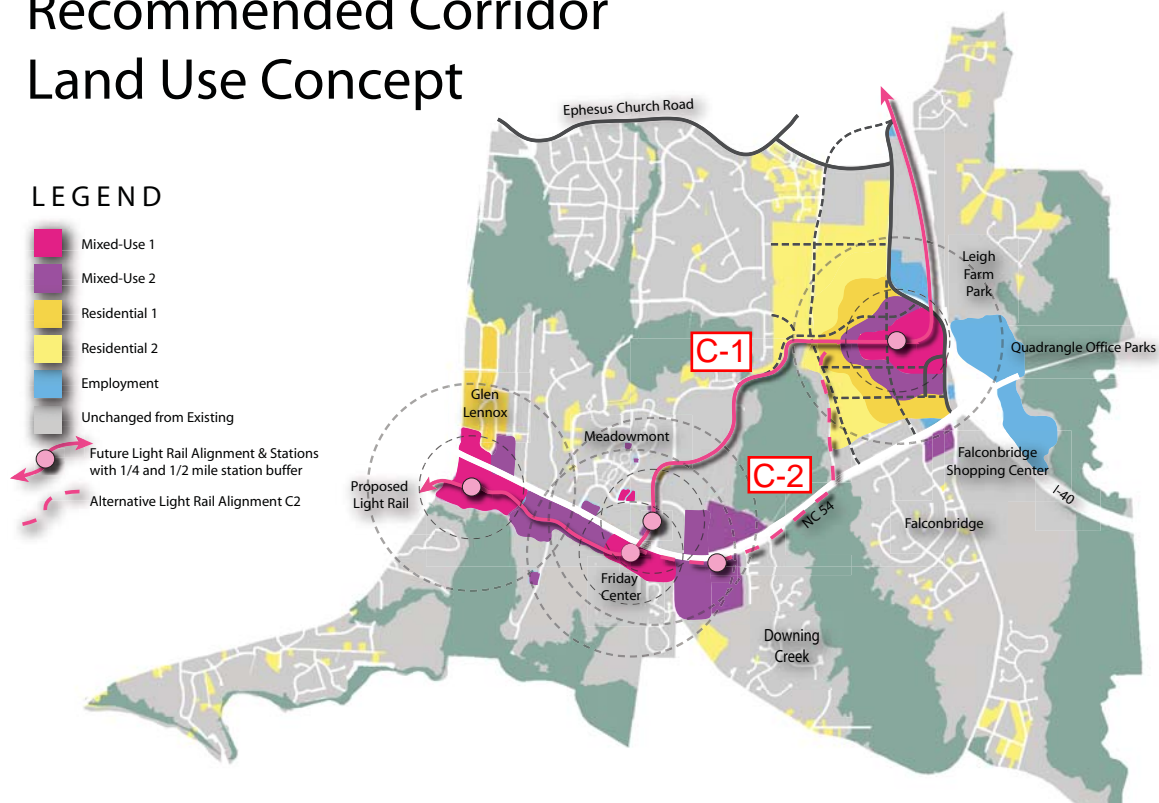


Figure 2-8: Recommended Corridor Land Use Concept Revised April 16, 12

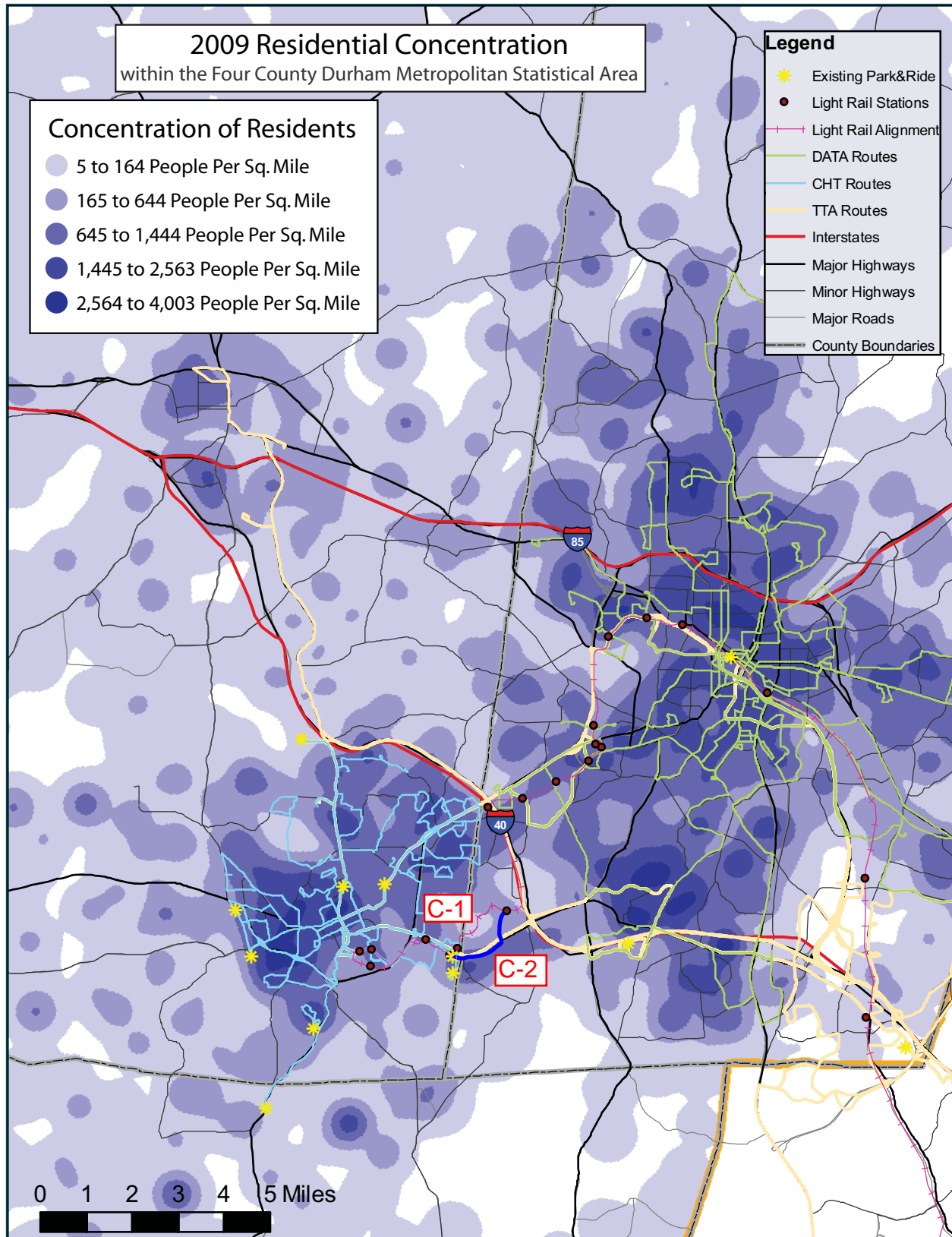


Figure 3-1: Concentration of Residents within Durham County Metropolitan Statistical Area **Revised Mar 28, 12**

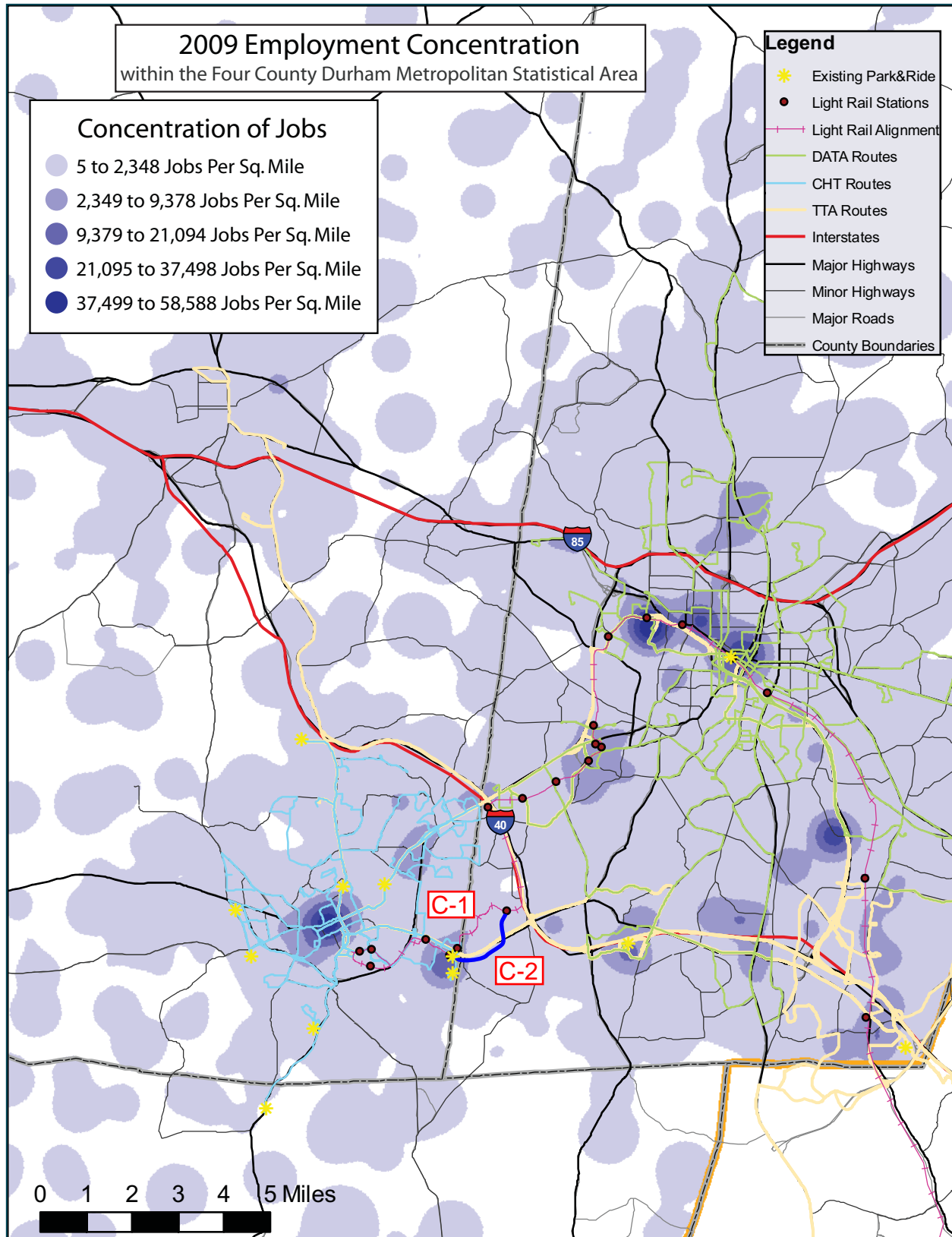


Figure 3-2: Concentration of Employment within Durham County Metropolitan Statistical Area **Revised Mar 28, 12**

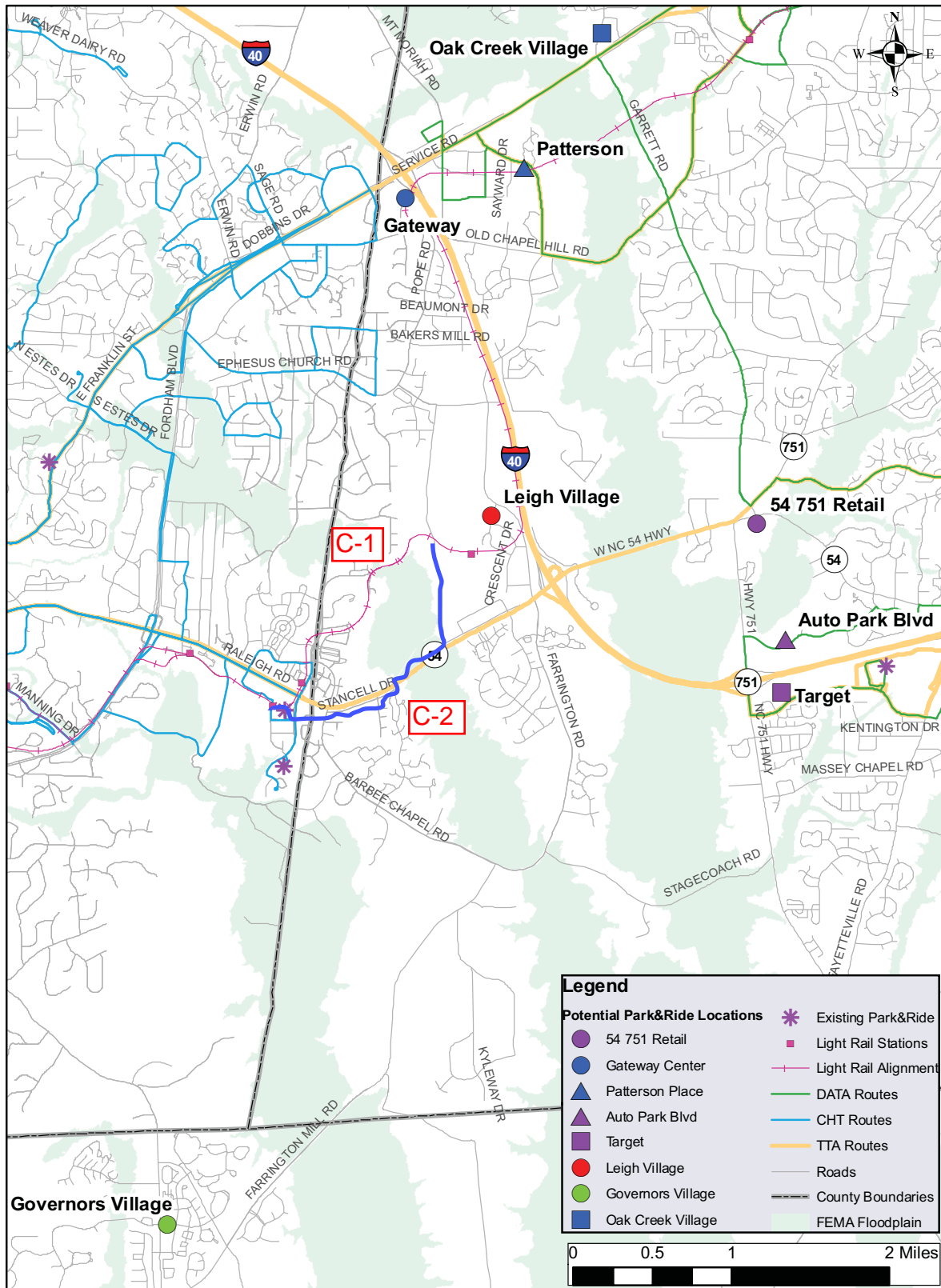


Figure 3-5: Recommended Park-and-Ride Facility Locations **Revised Mar 28, 12**

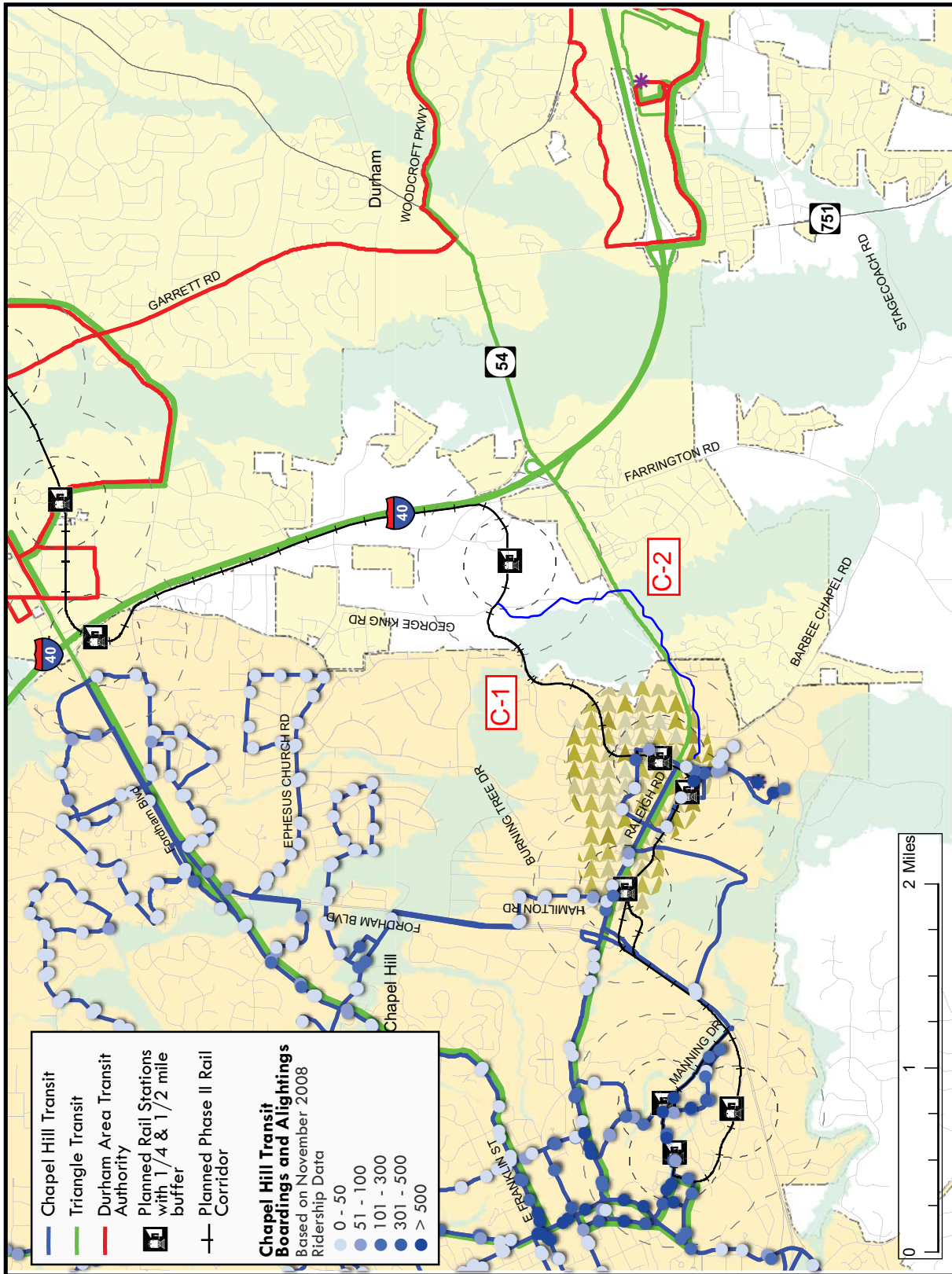
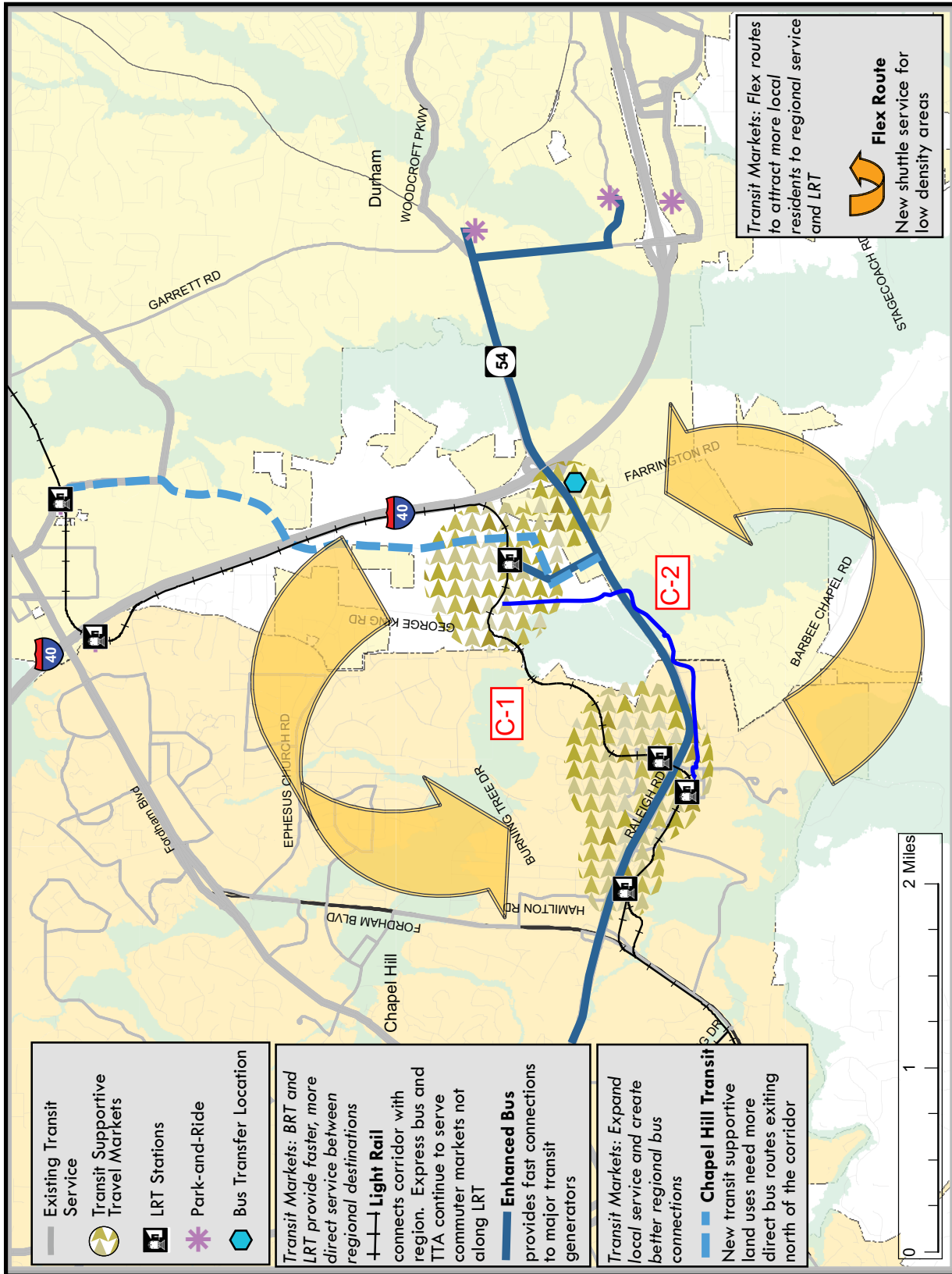
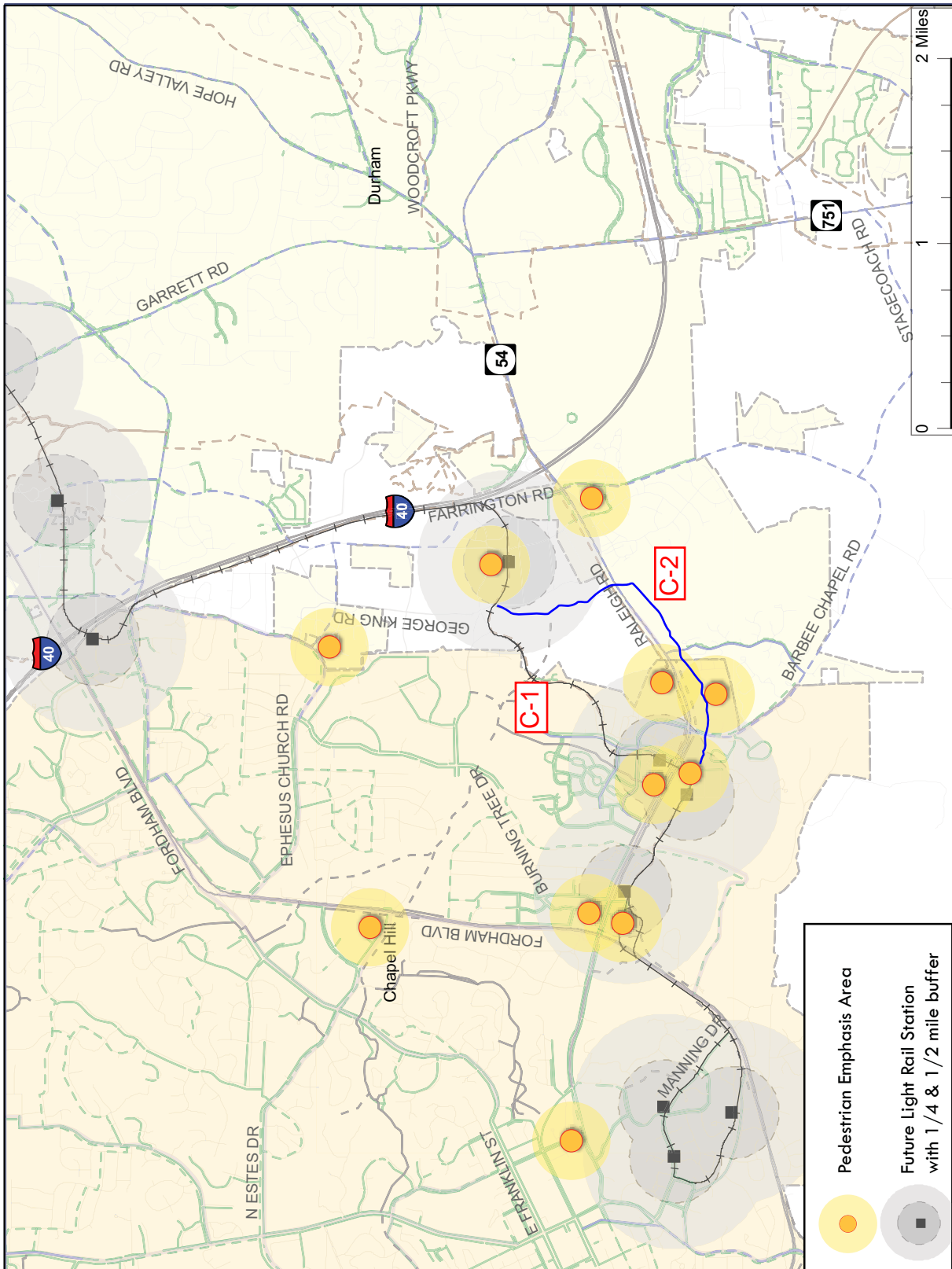


Figure 4-2: Chapel Hill Transit Daily Boardings by Bus Stop within the NC 54 Corridor **Revised Mar 28, 12**



Revised Mar 28, 12

Figure 4-4: Long Term Recommendations



Revised Mar 28, 12

Figure 5-5: Pedestrian Emphasis Areas



Figure 6-27: Combined NC 54 Roadway Recommendations Sheet 2 - Rogerson Drive to Meadowmont Lane/Friday Center Drive

Revised Mar 28, 12



Figure 6-28: Combined NC 54 Roadway Recommendations Sheet 3 - Meadowmont Lane/Friday Center Drive to Little John Road

Revised Mar 28, 12; C-2 location approximate

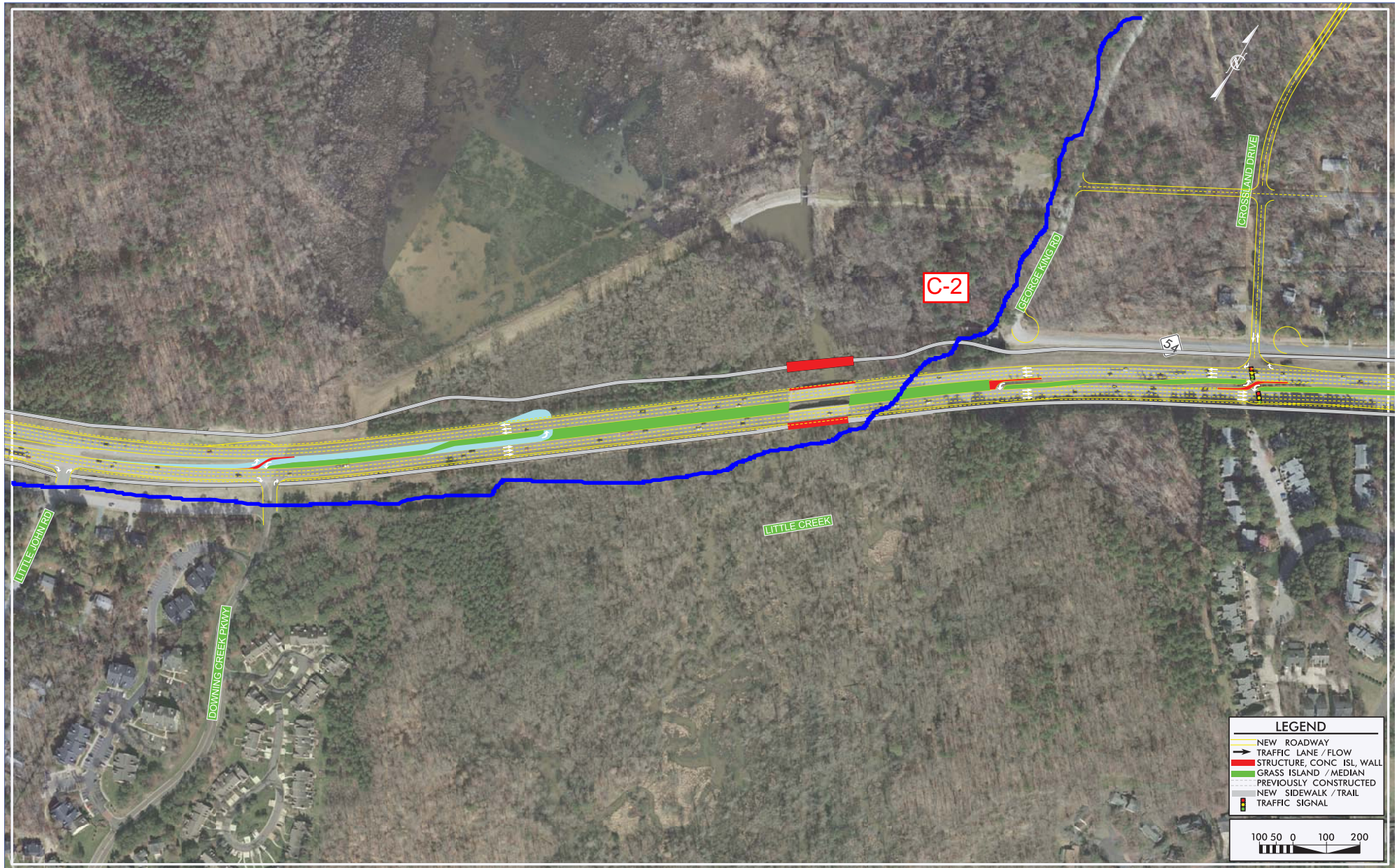


Figure 6-29: Combined NC 54 Roadway Recommendations Sheet 4 - Little John Road to Crossland Drive

Revised Mar 28, 12; C-2 location approximate

MEMORANDUM

To: Technical Coordinating Committee
DCHC MPO

From: DCHC MPO Lead Planning Agency

Date: April 25, 2012

Subject: **FY 2013-2015 CMAQ Changes**

DATA and the Town of Hillsborough have requested changes to the FY 2013-2015 Congestion Mitigation Air Quality funding approved by the TAC on August 11, 2010. The TCC received this information in March, but deferred a recommendation and asked to receive additional information.

Town of Hillsborough Request

The TAC approved \$496,000 federal CMAQ for the Hillsborough Riverwalk Phase II project. NCDOT required us to decrease the funding for the Hillsborough Riverwalk project by \$9,690 after the TAC approved the funding since the MPO was slightly over our federal CMAQ allocation (less than 0.1%). As a result, the federal funding for the project is now \$486,310.

The Town of Hillsborough has requested modifying this project to use the funds for the construction of sidewalks that will provide access to the Riverwalk greenway and a portion of greenway trail (map attached). The Town is making this request because they believe that the NCDOT local programs management requirements for the use of federal funds will be easier to meet for a sidewalk project than a greenway project. The replacement project is closely related to the original project and will be obligated on a similar schedule. NCDOT staff have requested a revised CMAQ application form. LPA staff are currently developing emission reduction estimates based on the new project for use in the Town's revised application. The emission estimates were unavailable at the time of the agenda posting and will be handed out at the TCC meeting.

DATA Request

The TAC approved \$1,949,755 federal CMAQ funds for operating assistance for a new Southpoint to Duke bus route. The original route was proposed to be all-day everyday service (15,607 annual service hours). In the draft Designing Better Bus Services report, DATA is now recommending that this service be commuter-oriented so the number of hours and funding necessary to operate the service is lower than originally proposed (3,060 annual service hours). In addition, the new route will now be linked to a Duke to Durham Regional Hospital route. DATA has requested that the project be modified to include the two linked routes plus the addition of passenger amenities and AVL equipment along this route, the funding decreased to match the current amount estimated to run the service, and the service implementation be delayed until FY 2014 (description and maps attached). This new service is now estimated to cost \$464,000 for operating assistance and \$201,756 for amenities in FY 2014 and \$484,000 for operating assistance in FY 2015. DATA has requested that \$800,000 of the remaining funds

be approved for a third year of operating assistance for the Bull City Connector route. The Bull City Connector has received CMAQ funds for capital and operating assistance for two years (FY 11 and FY 12). The total needed for the two projects is \$1,949,756 federal CMAQ.

NCDOT staff have requested a revised CMAQ application form for the new transit route. NCDOT staff say that a new application for the third year of operating for the Bull City Connector is not needed since it is the continuation of an already approved CMAQ project. Ridership statistics for the Bull City Connector are provided as an attachment.

Summary

The table below compares the original and the revised projects. Only the federal funding is shown. A minimum 20 percent local match is required for all phases of the projects listed below.

Project	TIP #	FY 13	FY 14	FY 15	Total
Original – Hillsborough Riverwalk Phase II	C-5184	\$40,000 (ROW)	\$345,600 (ROW)	\$100,710 (Construction)	\$486,310
Revised – Hillsborough Riverwalk Access Sidewalks	C-5184	\$48,728 (Planning) \$80,000 (ROW)	\$357,582 (Construction)		\$486,310
Original – DATA Operating Assistance	TO-5130B	\$951,100 (Operation)	\$998,655 (Operation)		\$1,949,756
Revised – DATA Operating Assistance	TO-5130B		\$464,000 (Operation)	\$484,000 (Operation)	\$948,000
Revised – DATA Passenger Amenities	TG-4738		\$201,756 (Capital)		\$201,756
Revised – BCC Operating Assistance	C-5103B	\$800,000 (Operation)			\$800,000

Next Steps

- The Town of Hillsborough and DATA will complete new CMAQ applications for the revised projects (see attachments).
- NCDOT and the interagency review team will approve the new CMAQ application forms.
- The DCHC MPO will amend the projects in the MTIP. The NC Board of Transportation will approve a STIP amendment.
- The DCHC MPO will request that the CMAQ funds for DATA be flexed to FTA.

TCC Action: Recommend that the TAC approve the revised CMAQ program through a MTIP amendment.



CMAQ PROJECT APPLICATION

FOR NCDOT USE ONLY	
APP ID	STIP ID

IN ORDER TO BE CONSIDERED A COMPLETE APPLICATION PACKAGE, ALL FIELDS MUST BE APPROPRIATELY COMPLETED & REQUIRED ADDITIONAL INFORMATION AS NOTED MUST BE ATTACHED. INCOMPLETE APPLICATIONS WILL BE RETURNED.

GENERAL PROJECT INFORMATION

1 SELECT CMAQ PROJECT TYPE

- STATEWIDE
 REGIONAL
 SUBREGIONAL

2 SELECT MPO/RPO(S)

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Burlington-Graham MPO | <input type="checkbox"/> Hickory MPO | <input type="checkbox"/> NW Piedmont RPO | <input type="checkbox"/> Unifour RPO |
| <input type="checkbox"/> Cabbarus-Rowan MPO | <input type="checkbox"/> High Point MPO | <input type="checkbox"/> Piedmont Triad RPO | <input type="checkbox"/> Upper Coastal Plain RPO |
| <input type="checkbox"/> Capital Area MPO | <input type="checkbox"/> Kerr-Tar RPO | <input type="checkbox"/> Rocky Mount MPO | <input type="checkbox"/> Winston-Salem MPO |
| <input checked="" type="checkbox"/> Durham-Chappel Hill-Carrboro MPO | <input type="checkbox"/> Lake Norman RPO | <input type="checkbox"/> Rocky River RPO | |
| <input type="checkbox"/> Gaston MPO | <input type="checkbox"/> Land of Sky RPO | <input type="checkbox"/> Southwestern RPO | |
| <input type="checkbox"/> Greensboro MPO | <input type="checkbox"/> Mecklenburg Union MPO | <input type="checkbox"/> Triangle RPO | |

3 PROJECT SPONSOR INFORMATION

Agency : Town of Hillsborough
 Contact Name : Margaret Hauth, Planning Director
 Address : 101 East Orange Street, P.O. Box 429, Hillsborough NC 27278
 Telephone : 919-732-1270 ext 86
 Email Address : margaret.hauth@hillsboroughnc.org

4 PROJECT INFORMATION

Title : Riverwalk Phase II Sidewalks
 Description : Construction of 1208 linear feet of 5-foot wide concrete sidewalk and 615 linear feet of 8-foot wide asphalt greenway to provide pedestrian and bicycle connections to the 1.5 mile, off road, paved greenway along the Eno River known as Riverwalk Phase II, which will connect Occoneechee State Mountain Area trails to Riverwalk Phase I in Gold Park and then on to downtown Hillsborough and River Park. The greenway is shown on the NC-DENR Mountains-to-Sea Trail Map as the preferred route for the statewide walking trail. The trail will serve Town residents and visitors. The connecting sidewalks allow local traffic to access the greenway for both recreation and commuting.

Include project details, proposed improvements, purpose, need, how it will provide service, who are the primary stake holders & where it will operate & serve. Attach a sketch design plan of the proposed project which shows the general location.

PROJECT COSTS & DELIVERY SCHEDULE

5 APPLICABLE PROJECT PHASES, FUNDING & YEARS

- CMAQ projects are awarded by Federal Fiscal Years (FFY). FFY run from October 1st of the prior year through September 30th of the next year. For example, FFY 2016 runs from October 1, 2015 through September 30, 2016.
- Cost estimates should reflect anticipated inflation compounded annually at 5% from the current calendar year.
- Minimum 20% match is required for most projects. See 23 U.S.C. §120 paragraph (c) for listing of safety projects that may be funded at up to 100% Federal share.
- In the case of purchasing alternative fueled vehicles (AFV) for general governmental use, CMAQ funding is limited to the cost difference between standard and AFV vehicles. For example, a 2011 Ford Escape lists for \$27,000 and a 2011 Ford Escape Hybrid lists for \$33,000. The total CMAQ-eligible funding for purchase of this AFV would be: \$33,000 - \$27,000 = \$6,000 (subject to local match).

Check box if this project is not typical 80/20 split

Phases(s)	CMAQ \$	Matching \$	Total \$	FFY 2016	FFY 2017
<input checked="" type="checkbox"/> Planning, Engineering & Design	\$48,728.00	\$12,182.00	\$60,910.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Right-of-Way	\$80,000.00	\$20,000.00	\$100,000.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Construction	\$357,582.00	\$89,396.00	\$446,978.00	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Transit Operation				<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Transit Implementation				<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Non-transit Implementation				<input type="checkbox"/>	<input type="checkbox"/>
Project Total	\$486,310.00	\$121,578.00	\$607,888.00		

6 ANTICIPATED PROJECT MILESTONE DATES

- Milestone dates must coordinate with funding schedule in Section 5.
- Planning & environmental document; plans, specifications & estimate package; and right of way certification must be complete prior to let date.

	Month/Year
• Planning & Environmental document to be complete:	1/2013
• Plans, Specifications & Estimate package to be complete:	4/2013
• Right-of-Way acquisition to begin:	7/2013
• Anticipated let date (opening of bids):	1/2014
• Anticipated completion date of project (including project close-out & reimbursement of all eligible expenses):	12/2014

7 LIST THE SOURCE(S) OF MATCHING FUNDS:

Town of Hillsborough General Funds

8 TRANSIT START-UP INFORMATION

Operation assistance under CMAQ is intended to help start up viable new transportation services that will benefit air quality and eventually cover their own costs. This funding is limited to three years. Other funding sources should supplement & ultimately replace CMAQ funds for operation assistance. Briefly describe how funding will be secured to continue the program after year three. (ATTACH ADDITIONAL SHEET(S) IF NEEDED)

GENERAL PROJECT INFORMATION

9 SELECT NC NONATTAINMENT/MAINTENANCE COUNTY(IES):

- | | | | | | | | |
|-----------------------------------|-----------------------------------|------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|--|---------------------------------|
| <input type="checkbox"/> Cabarrus | <input type="checkbox"/> Davidson | <input type="checkbox"/> Edgecombe | <input type="checkbox"/> Gaston | <input type="checkbox"/> Haywood* | <input type="checkbox"/> Lincoln | <input checked="" type="checkbox"/> orange | <input type="checkbox"/> Swain* |
| <input type="checkbox"/> Catawba | <input type="checkbox"/> Davie | <input type="checkbox"/> Forsyth | <input type="checkbox"/> Granville | <input type="checkbox"/> Iredell* | <input type="checkbox"/> Mecklenburg | <input type="checkbox"/> Person | <input type="checkbox"/> Union |
| <input type="checkbox"/> Chatham* | <input type="checkbox"/> Durham | <input type="checkbox"/> Franklin | <input type="checkbox"/> Guilford | <input type="checkbox"/> Johnston | <input type="checkbox"/> Nash | <input type="checkbox"/> Rowan | <input type="checkbox"/> Wake |

*Indicates partial county AQ designation

10 SELECT CMAQ-ELIGIBLE IMPROVEMENT TYPE (check all that apply):

- | | |
|---|--|
| <input type="checkbox"/> Transportation Control Measures | <input type="checkbox"/> Extreme Low-Temperature Cold Start Programs |
| <input type="checkbox"/> Alternative Fuels | <input type="checkbox"/> Congestion Relief & Traffic Flow Improvements |
| <input type="checkbox"/> Transit Improvements | <input checked="" type="checkbox"/> Bicycle/Pedestrian Facilities & Programs |
| <input type="checkbox"/> Transportation Management Associations | <input type="checkbox"/> Carpooling & Vanpooling |
| <input type="checkbox"/> Freight/Intermodal | <input type="checkbox"/> Diesel Engine Retrofits |
| <input type="checkbox"/> Idle Reduction | <input type="checkbox"/> Training |
| <input type="checkbox"/> Travel Demand Management | <input type="checkbox"/> Public Education & Outreach Activities |
| <input type="checkbox"/> I/M Programs | <input type="checkbox"/> Experimental Pilot Projects |

11 IF TRANSPORTATION CONTROL METHOD, CHECK THE ALLOWABLE TYPE(S):

- Programs/ordinances to facilitate non-automobile travel, provision/utilization of mass transit & general reduction of the need for SOV travel, as part of transportation planning & development efforts of a locality, including programs & ordinances applicable to new shopping centers, special events & other centers of vehicle activity
- Programs for improved public transit
- Restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or HOV

- Employer-based transportation management plans, including incentives
- Trip-reduction ordinances
- Traffic flow improvement programs that reduce emissions
- Fringe & transportation corridor parking facilities serving multiple-occupancy vehicle programs or transit services
- Multiple-occupancy vehicle programs or transit service
- Programs to limit/restrict vehicle use in downtown areas/other areas of emission concentration during peak periods
- Programs for the provision of all forms of high-occupancy, shared-ride services
- Programs to limit portions of road surfaces/certain sections of metro area to the use of non-motorized vehicles or pedestrian
- Programs for secure bicycle storage facilities & other facilities, including bicycle lanes in both public & private areas
- Programs to control extended idling of vehicles
- Reducing emissions from extreme cold-start conditions
- Employer-sponsored programs to permit flexible work schedules
- Public Education & Outreach Activities

12 IF TRANSIT IMPROVEMENT, SPECIFY HOW SERVICE WILL BE IMPROVED:

- New facilities associated with a service increase
- New vehicles used to expand the transit fleet
- Operating assistance for new service (limit three years)
- Fare subsidies as part of program to limit exceedances of NAAQS

13 EMISSIONS REDUCTION CRITERIA

QUANTATIVE analysis of air quality impacts is required for most project types. **QUALITATIVE** analysis is only allowable when it is not possible to accurately quantify emissions benefits, such as public education, marketing & other outreach efforts, which can include advertising alternatives to SOV travel, employer outreach & public education campaigns. The qualitative analysis should be based on a reasoned & logical determination that the project/program will decrease emissions & contribute to attainment or maintenance of NAAQS. The primary benefit of these activities enhanced communication & outreach that is expected to influence travel behavior & air quality.

- Indicate the type of analysis completed: **QUANTITATIVE** **QUALITATIVE**
- Describe the method used to estimate the emissions reduction and show calculations:
(ATTACH ADDITIONAL SHEET(S) IF NEEDED)

For QUANTATIVE analyses, list the expected daily emissions BEFORE and AFTER project implementation:

Pollutant	Daily Emissions Before (kg)	Daily Emission After (kg)	Daily Emissions Reduction (kg)
Carbon Monoxide (CO)			
Volatile Organic Compounds (VOC)			
Oxides of Nitrogen (NOx)			
Total	<input type="text"/>	<input type="text"/>	<input type="text"/>

14 MISCELLANEOUS

- For construction of trails, has the Department of Interior been contacted? Yes No N/A
- Is the fare/fee subsidy program part of a broad program to reduce emissions? Yes No N/A
- Will the ITS project conform to the National ITS architecture? Yes No N/A

15 SUPPORTING INFORMATION CHECK LIST

Check supporting information included as attachment(s) to this application:

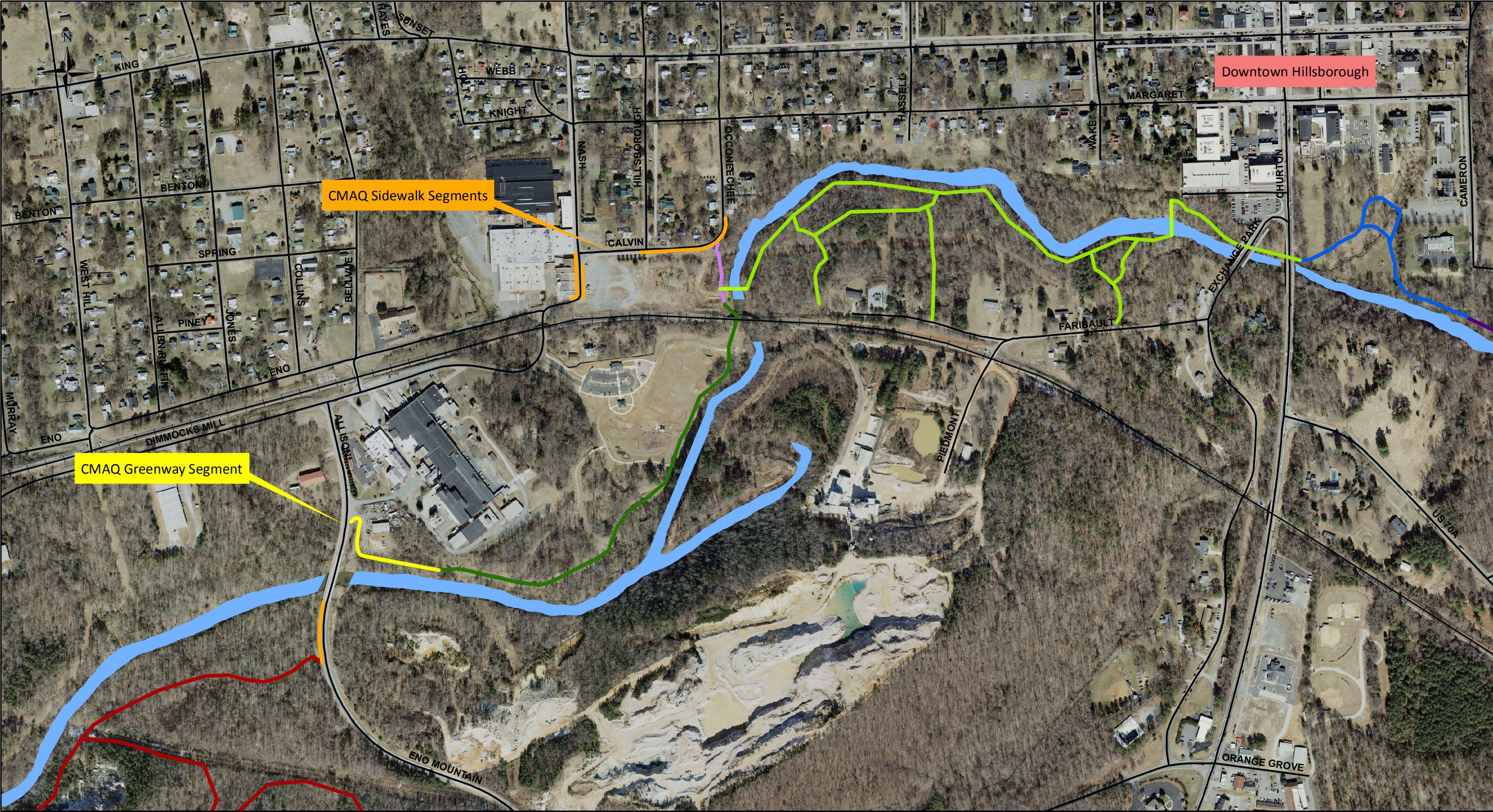
- MPO/RPO Support Resolution (Required for SUBREGIONAL proposals)
- Additional project description and/or details
- Map of general project location
- Complete emissions calculations
- Any assumptions used
- Other, please specify:

16 MPO/RPO PRIORITY INFORMATION

This project has been prioritized by the MPO/RPO and received the following ranking among all CMAQ requests (UNRANKED APPLICATIONS WILL NOT BE PROCESSED):

17 SUBMIT APPLICATION

- **SAVE APPLICATION AND ALL ATTACHMENTS IN A SINGLE PDF DOCUMENT**
- **ENTER APPROPRIATE PROPOSAL DETAILS AND UPLOAD PDF APPLICATION IN PARTNER CONNECT BY OCTOBER 31, 2011**



CMAQ Project: Vicinity Map

- CMAQ Greenway Segment
- Occonechee Mountain Trails
- Riverwalk Phase I
- River Park Trails
- Eno River
- CMAQ Sidewalk Segment
- Calvin Street Connector Trail
- Riverwalk Phase II
- Existing Sidewalks





CMAQ PROJECT APPLICATION

FOR NCDOT USE ONLY	
APP ID	STIP ID

IN ORDER TO BE CONSIDERED A COMPLETE APPLICATION PACKAGE, ALL FIELDS MUST BE APPROPRIATELY COMPLETED & REQUIRED ADDITIONAL INFORMATION AS NOTED MUST BE ATTACHED. INCOMPLETE APPLICATIONS WILL BE RETURNED.

GENERAL PROJECT INFORMATION

1 SELECT CMAQ PROJECT TYPE

STATEWIDE REGIONAL SUBREGIONAL

2 SELECT MPO/RPO(S)

<input type="checkbox"/> Burlington-Graham MPO	<input type="checkbox"/> Hickory MPO	<input type="checkbox"/> NW Piedmont RPO	<input type="checkbox"/> Unifour RPO
<input type="checkbox"/> Cabbarus-Rowan MPO	<input type="checkbox"/> High Point MPO	<input type="checkbox"/> Piedmont Triad RPO	<input type="checkbox"/> Upper Coastal Plain RPO
<input type="checkbox"/> Capital Area MPO	<input type="checkbox"/> Kerr-Tar RPO	<input type="checkbox"/> Rocky Mount MPO	<input type="checkbox"/> Winston-Salem MPO
<input checked="" type="checkbox"/> Durham-Chappel Hill-Carrboro MPO	<input type="checkbox"/> Lake Norman RPO	<input type="checkbox"/> Rocky River RPO	
<input type="checkbox"/> Gaston MPO	<input type="checkbox"/> Land of Sky RPO	<input type="checkbox"/> Southwestern RPO	
<input type="checkbox"/> Greensboro MPO	<input type="checkbox"/> Mecklenburg Union MPO	<input type="checkbox"/> Triangle RPO	

3 PROJECT SPONSOR INFORMATION

Agency : Durham Area Transit Authority
 Contact Name : Pierre Osei-Owusu
 Address : 1907 Fay Street
 Telephone : 919 560-1535 x36214
 Email Address : pierre.osei-owusu@durhamnc.gov

4 PROJECT INFORMATION

Title : OPERATING ASSISTANCE FOR 2 BUS ROUTES & PASS AMENITIES INCLUDING REAL-TIME INFORMATION SYSTEMS (📍)
 Description : CMAQ FUNDING REQUEST TO OPERATE TWO NEW COMMUTER ROUTES IN DURHAM FROM SOUTH POINT MALL TO DUKE UNIVERSITY & FROM DUKE MEDICAL CENTER TO DURHAM REGIONAL HOSPITAL

Include project details, proposed improvements, purpose, need, how it will provide service, who are the primary stake holders & where it will operate & serve. Attach a sketch design plan of the proposed project which shows the general location.

PROJECT COSTS & DELIVERY SCHEDULE

5 APPLICABLE PROJECT PHASES, FUNDING & YEARS

- CMAQ projects are awarded by Federal Fiscal Years (FFY). FFY run from October 1st of the prior year through September 30th of the next year. For example, FFY 2016 runs from October 1, 2015 through September 30, 2016.
- Cost estimates should reflect anticipated inflation compounded annually at 5% from the current calendar year.
- Minimum 20% match is required for most projects. See 23 U.S.C. §120 paragraph (c) for listing of safety projects that may be funded at up to 100% Federal share.
- In the case of purchasing alternative fueled vehicles (AFV) for general governmental use, CMAQ funding is limited to the cost difference between standard and AFV vehicles. For example, a 2011 Ford Escape lists for \$27,000 and a 2011 Ford Escape Hybrid lists for \$33,000. The total CMAQ-eligible funding for purchase of this AFV would be: \$33,000 - \$27,000 = \$6,000 (subject to local match).

Check box if this project is not typical 80/20 split

Phases(s)	CMAQ \$	Matching \$	Total \$	FFY 2016	FFY 2017
<input type="checkbox"/> Planning, Engineering & Design				<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Right-of-Way				<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Construction				<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Transit Operation	\$948,000.00	\$237,000.00	\$1,185,000.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Transit Implementation	\$201,756.00	\$50,439.00	\$252,195.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Non-transit Implementation				<input type="checkbox"/>	<input type="checkbox"/>
Project Total	\$1,149,756.00	\$287,439.00	\$1,437,195.00		

6 ANTICIPATED PROJECT MILESTONE DATES

- Milestone dates must coordinate with funding schedule in Section 5.
- Planning & environmental document; plans, specifications & estimate package; and right of way certification must be complete prior to let date.

Month/Year

- Planning & Environmental document to be complete:
- Plans, Specifications & Estimate package to be complete:
- Right-of-Way acquisition to begin:
- Anticipated let date (opening of bids):
- Anticipated completion date of project (including project close-out & reimbursement of all eligible expenses):

June 2015

7 LIST THE SOURCE(S) OF MATCHING FUNDS:

City of Durham \$287439

8 TRANSIT START-UP INFORMATION

Operation assistance under CMAQ is intended to help start up viable new transportation services that will benefit air quality and eventually cover their own costs. This funding is limited to three years. Other funding sources should supplement & ultimately replace CMAQ funds for operation assistance. Briefly describe how funding will be secured to continue the program after year three. (ATTACH ADDITIONAL SHEET(S) IF NEEDED)

Additional funding for the continuation of the service would be obtained through regular budget requests

GENERAL PROJECT INFORMATION**9 SELECT NC NONATTAINMENT/MAINTENANCE COUNTY(IES):**

- | | | | | | | | |
|-----------------------------------|--|------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|---------------------------------|---------------------------------|
| <input type="checkbox"/> Cabarrus | <input type="checkbox"/> Davidson | <input type="checkbox"/> Edgecombe | <input type="checkbox"/> Gaston | <input type="checkbox"/> Haywood* | <input type="checkbox"/> Lincoln | <input type="checkbox"/> orange | <input type="checkbox"/> Swain* |
| <input type="checkbox"/> Catawba | <input type="checkbox"/> Davie | <input type="checkbox"/> Forsyth | <input type="checkbox"/> Granville | <input type="checkbox"/> Iredell* | <input type="checkbox"/> Mecklenburg | <input type="checkbox"/> Person | <input type="checkbox"/> Union |
| <input type="checkbox"/> Chatham* | <input checked="" type="checkbox"/> Durham | <input type="checkbox"/> Franklin | <input type="checkbox"/> Guilford | <input type="checkbox"/> Johnston | <input type="checkbox"/> Nash | <input type="checkbox"/> Rowan | <input type="checkbox"/> Wake |

*Indicates partial county AQ designation

10 SELECT CMAQ-ELIGIBLE IMPROVEMENT TYPE (check all that apply):

- | | |
|---|--|
| <input type="checkbox"/> Transportation Control Measures | <input type="checkbox"/> Extreme Low-Temperature Cold Start Programs |
| <input type="checkbox"/> Alternative Fuels | <input type="checkbox"/> Congestion Relief & Traffic Flow Improvements |
| <input checked="" type="checkbox"/> Transit Improvements | <input type="checkbox"/> Bicycle/Pedestrian Facilities & Programs |
| <input type="checkbox"/> Transportation Management Associations | <input type="checkbox"/> Carpooling & Vanpooling |
| <input type="checkbox"/> Freight/Intermodal | <input type="checkbox"/> Diesel Engine Retrofits |
| <input type="checkbox"/> Idle Reduction | <input type="checkbox"/> Training |
| <input type="checkbox"/> Travel Demand Management | <input type="checkbox"/> Public Education & Outreach Activities |
| <input type="checkbox"/> I/M Programs | <input type="checkbox"/> Experimental Pilot Projects |

11 IF TRANSPORTATION CONTROL METHOD, CHECK THE ALLOWABLE TYPE(S):

- Programs/ordinances to facilitate non-automobile travel, provision/utilization of mass transit & general reduction of the need for SOV travel, as part of transportation planning & development efforts of a locality, including programs & ordinances applicable to new shopping centers, special events & other centers of vehicle activity
- Programs for improved public transit
- Restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or HOV
- Employer-based transportation management plans, including incentives
- Trip-reduction ordinances
- Traffic flow improvement programs that reduce emissions
- Fringe & transportation corridor parking facilities serving multiple-occupancy vehicle programs or transit services
- Multiple-occupancy vehicle programs or transit service
- Programs to limit/restrict vehicle use in downtown areas/other areas of emission concentration during peak periods
- Programs for the provision of all forms of high-occupancy, shared-ride services
- Programs to limit portions of road surfaces/certain sections of metro area to the use of non-motorized vehicles or pedestrian
- Programs for secure bicycle storage facilities & other facilities, including bicycle lanes in both public & private areas
- Programs to control extended idling of vehicles
- Reducing emissions from extreme cold-start conditions
- Employer-sponsored programs to permit flexible work schedules
- Public Education & Outreach Activities

Emissions Reduction

Off-model Air Quality Analysis for Buses based on 2009 Standard (mobile E. 6 Emissions):

The calculation below is for two hybrid-electric Gillig buses. The buses would be 40' models powered by diesel fuel. The emissions reduction would be achieved partly as a result of the new Allison electric drive train technology and the reduction in auto use caused by commuters who would park-and-ride using these buses who would otherwise use their cars as shown in the calculations below.

Service Expansion and Related Emissions Calculation	
Auto Emissions	
Two buses running 6 hours per day at 30 minutes Headway during peak hrs (Mon-Fri)	
Hours of Operations/Day (2 buses-peak hr only service)	12
Estimated # of passengers per hour (30 pass/hr/bus)	30
Total trips per service day (12 * 30)	360
Average Auto Occupancy ratio	1.1
Equivalent Auto trips per day	327
Estimated Average Trip Length (32 mile round trip/4 trip legs)	8.0
Average Daily VMT reduced (327 * 8.0)	2618
VMT reduced with 10% increase in ridership due to AVL systems	2880
LDGV CO Emissions Factor g/mile for Urban minor arterial	11.832
LDGV VOC Emission factor g/mile for Urban minor arterial	0.647
<u>LDG NOX Emission factor g/mile for urban minor arterial</u>	<u>0.465</u>
Net Change in Auto CO g per day (2880*11.832)	34076
Net Change in Auto VOC g/day (2880* 0.647)	1863
Net Change in Auto Nox g/day (2880 * 0.465)	1253

Bus Emissions = 32 miles/trip * 6 trips * 2 buses = 384 miles/day * Emission Factor for hybrid buses

$$\begin{aligned} \text{Bus CO} &= \text{Bus VMT} \times 1.05 \text{ g/mi} &= 403 \text{ g/day} \\ \text{Bus VOC} &= \text{Bus VMT} \times 0.0 \text{ g/mi} &= 0 \\ \text{Bus NOx} &= \text{Bus VMT} \times 4.41 \text{ g/mi} &= 1693 \text{ g/day} \end{aligned}$$

Source: "Transit Bus Lifecycle Costs and Year 2007 Emissions Estimation". U.S. DOT Federal Transit Administration, FTA-WV-26-7004.2007.1 July 2, 2007. FTA document shows 0.0 g/mi emission factor for VOC.

Net Emission Reduction (Car emission reduced-Bus Emissions increase)

$$\begin{aligned} * \text{ CO} &= 34076 - 403 = 3373 \times (260 \text{ days}/365) = 23,986 \text{ g/day} \\ * \text{ VOC} &= 1863 - 0 = 1862 \text{ g/day} \times (260 \text{ days}/365) = 1,327 \text{ g/day} \\ * \text{ NOX} &= 1253 - 1693 = -440 \text{ g/day} \times (260 \text{ days}/365) = -313 \text{ g/day} \end{aligned}$$

*The bus will operate 260 days /year therefore avg g/day is multiplied by 260 & divided by 365

Automatic Vehicle Location (AVL) Passenger Amenities Induced Ridership:

A recent longitudinal (Mixed Model) study conducted by Chicago Transit Authority (CTA) from August 2006 to May 2009, that evaluated the ridership effect of real-time (AVL) information technology on the CTA system, determined that the provision of AVL technology does increase bus ridership at a modest level (Tang, & Thakuriah, 2012).

Additionally, a synthesis project conducted by Transportation Research Board (2006), noted that many Transit systems in Europe had demonstrated significant ridership gains resulting from the introduction of AVL technologies (Transportation research Board, 2006).

We assumed a modest 10% increase in ridership resulting from the provision of passenger amenities including the outdoor AVL system.

References:

Tang, L. Thakuriah P. (2012). Ridership effects of real-time bus information system, a case study in the City of Chicago. *Transportation Research Part C 22*, 146-161, Elsevier

Transportation Research Board (2006). Real-Time Bus Arrival Information Systems Transit, *TCRP Synthesis 48*: Transit Cooperative Research Program, Washington D.C.

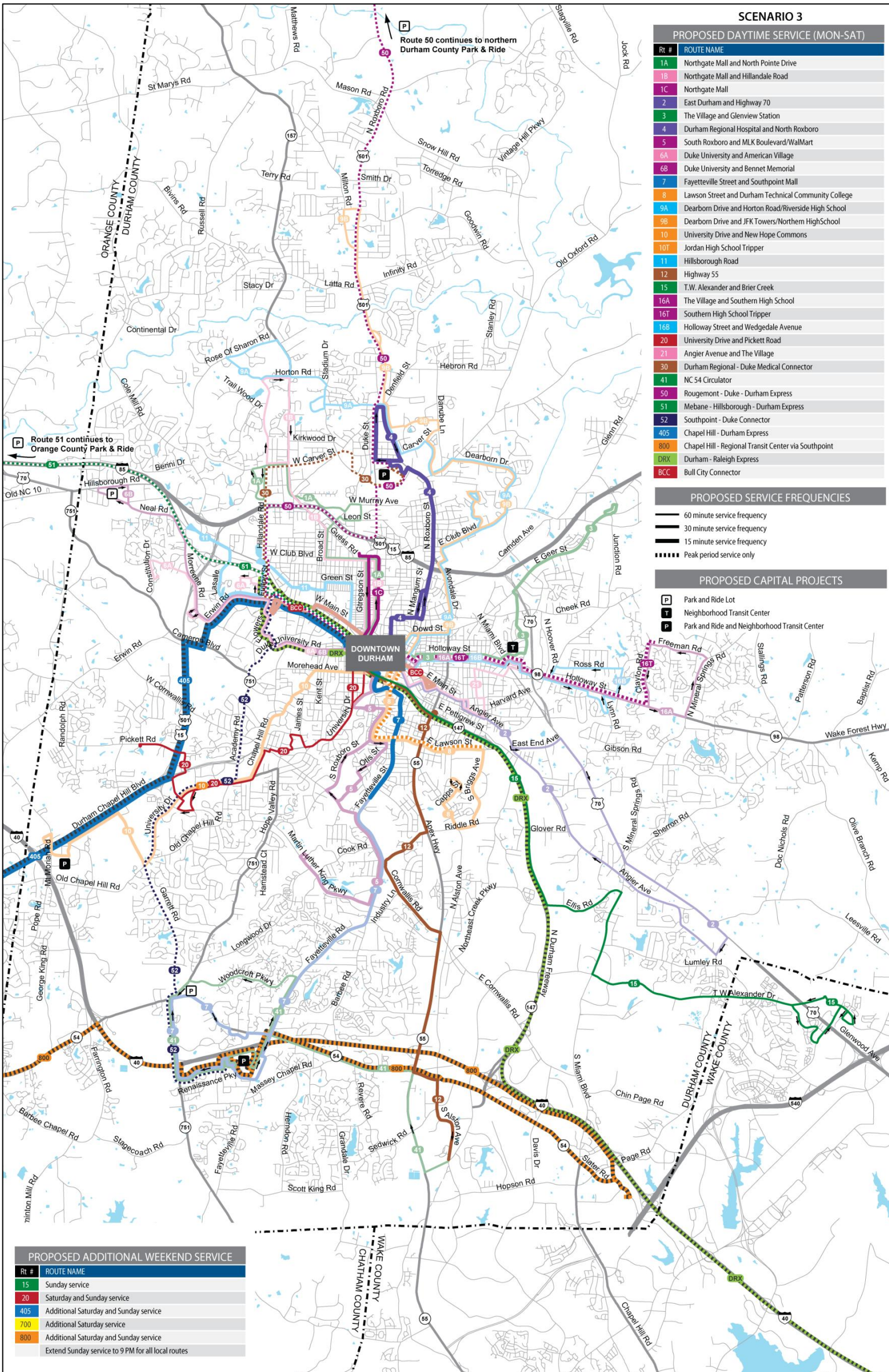
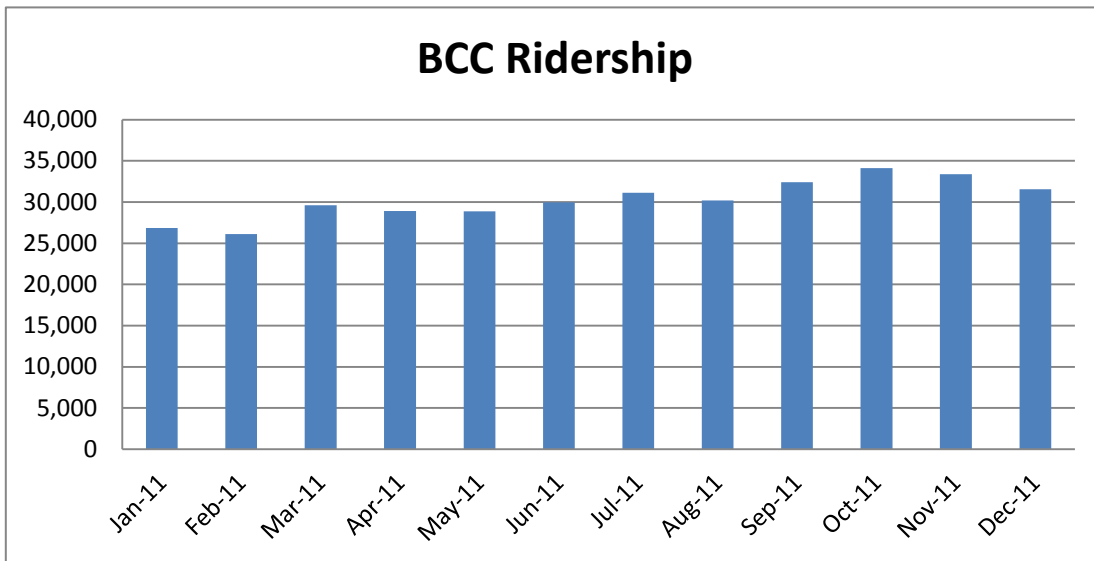


Figure 7-38: Scenario 3 Daytime System Map



Bull Cty Connector Ridership Statistics Sent by DATA April 19, 2012

Month	BCC Ridership
Jan-11	26,837
Feb-11	26,109
Mar-11	29,602
Apr-11	28,917
May-11	28,886
Jun-11	29,946
Jul-11	31,126
Aug-11	30,209
Sep-11	32,409
Oct-11	34,123
Nov-11	33,369
Dec-11	31,566



MEMORANDUM

To: Transportation Advisory Committee
DCHC MPO

From: DCHC MPO Lead Planning Agency

Date: May 9, 2012

Subject: **MTIP Amendment #4 –Triangle Transit, FY 2013-2015 CMAQ, STIP Amendments**

FY 2012-2018 MTIP Amendment #4 is needed to amend Triangle Transit projects, reflect changes to the FY 2013-2015 CMAQ program, and match recent amendments to the STIP.

Triangle Transit

Amendment #4 clarifies the description and funding estimates for the Durham-Orange transit corridor in the MTIP. The project was included in the adopted MTIP as a placeholder for the result of the Alternatives Analysis. The project was not included in the STIP. The amendment shows the cost of the project with a proposed 50 percent federal, 25 percent state, and 25 percent local funding source. NCDOT will amend the STIP in May to reflect this.

The second amendment listed under Triangle Transit was recommended by the TCC in March. This amendment was removed from the April TAC agenda because staff had concerns that it was inconsistent with the FY 12 UPWP. Upon further explanation from Triangle Transit, we have determined that it is consistent with the FY 12 UPWP. It adds a project for Planning Assistance that was inadvertently not included in the STIP/MTIP. NCDOT will amend the STIP in May to reflect this.

FY 2013-2015 CMAQ

DATA and the Town of Hillsborough have requested changes to the MPO's FY 2013-2015 CMAQ program. A more thorough explanation of these changes is included in another agenda item. In summary, DATA has requested delaying and reducing the funding for a project to operate a new route, adding funding for passenger amenities, and adding a third year of operating assistance for the Bull City Connector. Hillsborough has requested modifying the description and funding schedule of their Riverwalk Phase II project.

DATA and Hillsborough have submitted revised CMAQ applications to NCDOT. Once NCDOT approves the applications, a STIP amendment will be requested.

Modifications Necessary to Match the STIP

In April and May, the State Board of Transportation adopted several modifications for the STIP. Amendment #4 reflects these changes.

U-0624, the NC 86 corridor upgrade in Chapel Hill, has been delayed one year. In January 2012, bids were opened for this project which exceeded the engineer's estimate. As a result, the project must be rebid. In order to accommodate the University's request that the work begin in the summer, the rebidding has been scheduled for October 2012. This schedule will allow the initial work to commence in the summer of 2013.

W-5205, W-5207, and W-5208 are Division Highway Safety Improvement Program funded projects for Durham, Orange, and Chatham counties, respectively. K-5500B and M-0451 are statewide STIP projects that may or may not occur within our MPO.

TCC Recommendation: That the TAC adopt the Resolution to Modify the 2012-2018 Transportation Improvement Program for the Durham-Chapel Hill-Carrboro Urban Area Amendment #4.

TAC Action: Adopt the Resolution to Modify the 2012-2018 Transportation Improvement Program for the Durham-Chapel Hill-Carrboro Urban Area Amendment #4.

**RESOLUTION TO MODIFY THE
2012-2018 TRANSPORTATION IMPROVEMENT PROGRAM
FOR THE DURHAM-CHAPEL HILL-CARRBORO URBAN AREA**

**AMENDMENT #4
May 9, 2012**

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

WHEREAS, the Metropolitan Transportation Improvement Program (MTIP) is a staged multiple year listing of all federally funded transportation projects scheduled for implementation within the Durham-Chapel Hill-Carrboro Urban Area which have been selected from a priority list of projects; and

WHEREAS, the document provides the mechanism for official endorsement of the program of projects by the Transportation Advisory Committee (TAC); and

WHEREAS, the inclusion of the TIP in the transportation planning process was first mandated by regulations issued jointly by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) and no project within the planning area will be approved for funding by these federal agencies unless it appears in the officially adopted TIP; and

WHEREAS, the procedures for developing the MTIP have been modified in accordance with certain provisions of the SAFETEA-LU Federal Transportation Act and guidance provided by the State; and

WHEREAS, projects listed in the MTIP are also included in the State TIP (STIP) and balanced against anticipated revenues as identified in the STIP; and

WHEREAS, the North Carolina Department of Transportation and the Transportation Advisory Committee have determined it to be in the best interest of the Urban Area to amend the FY 2012-2018 Metropolitan Transportation Improvement Program as described in the attached sheet; and

WHEREAS, there has been no change in the MTIP project schedule or project design concept and scope with regard to the air quality conformity finding made by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization Transportation Advisory Committee on September 14, 2011; and

WHEREAS, the DCHC MPO certifies that this MTIP amendment is consistent with the intent of the DCHC MPO 2035 LRTP; and

BE IT THEREFORE RESOLVED that the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization Transportation Advisory Committee hereby amends the FY 2012-2018 Metropolitan Transportation Improvement Program of the Durham-Chapel Hill-Carrboro Urban Area, as approved by the TAC on September 14, 2011, and as described in the “Attachment to Resolution for Amendment #4 to DCHC 2012-2018 MTIP” provided here on this, the 9th day of May, 2012.

Lydia E. Lavelle, TAC Chair

Durham County, North Carolina

I certify that Lydia E. Lavelle personally appeared before me this day acknowledging to me that she signed the forgoing document.

Date: May 9, 2012

Frederick Brian Rhodes, Notary Public
My commission expires: May 10, 2015

Attachment to Resolution for Amendment #4 to DCHC 2012-2018 MTIP

Triangle Transit

Existing										
<u>IDNUM</u>	<u>SYSTEM</u>	<u>DESCRIPTION</u>	<u>FUNDING</u>	<u>FY12</u>	<u>FY13</u>	<u>FY14</u>	<u>FY15</u>	<u>FY16</u>	<u>FY17</u>	<u>FY18</u>
NA	TRIANGLE TRANSIT	NA	NA							
Modified										
<u>IDNUM</u>	<u>SYSTEM</u>	<u>DESCRIPTION</u>	<u>FUNDING</u>	<u>FY12</u>	<u>FY13</u>	<u>FY14</u>	<u>FY15</u>	<u>FY16</u>	<u>FY17</u>	<u>FY18</u>
TE-5202	TRIANGLE TRANSIT	Fixed Guideway - Durham-Orange	FED TBD		6,890	6,890	10,335	6,890	6,890	10,335
			STAT TBD		3,445	3,445	5,168	3,445	3,445	5,168
			L TBD		3,445	3,445	5,168	3,445	3,445	5,168

Existing										
<u>IDNUM</u>	<u>SYSTEM</u>	<u>DESCRIPTION</u>	<u>FUNDING</u>	<u>FY12</u>	<u>FY13</u>	<u>FY14</u>	<u>FY15</u>	<u>FY16</u>	<u>FY17</u>	<u>FY18</u>
N/A										
Modified										
<u>IDNUM</u>	<u>SYSTEM</u>	<u>DESCRIPTION</u>	<u>FUNDING</u>	<u>FY12</u>	<u>FY13</u>	<u>FY14</u>	<u>FY15</u>	<u>FY16</u>	<u>FY17</u>	<u>FY18</u>
TP-4732	TRIANGLE TRANSIT	Planning Assitance-UPWP	FUZ US	989	1018	1048	1079	1111	1145	1179
			STAT	124	127	131	135	139	143	147
			L	124	127	131	135	139	143	147

Modifications Necessary to Match STIP

DIVISION 7

<p>U-0624 ORANGE</p>	<p>- DURHAM-CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION</p>	<p>NC 86 (SOUTH COLUMBIA STREET), SR 1906 (PUREFOY ROAD) TO SR 1902 (MANNING DRIVE) IN CHAPEL HILL. CORRIDOR UPGRADE TO INCLUDE BICYCLE LANES. <u>DELAY CONSTRUCTION FROM FY 12 TO FY 13 TO LESSEN IMPACTS TO UNIVERSITY AND HOSPITAL FUNCTIONS.</u></p>	<p>CONSTRUCTION</p>	<p>FY 2013 - <u>\$4,850,000</u> (STP) \$4,850,000</p>
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DIVISION 5

<p>* W-5205 WARREN FRANKLIN PERSON GRANVILLE VANCE WAKE DURHAM</p>	<p>VARIOUS, DIVISION 5 RUMBLE STRIPS, GUARDRAIL, SAFETY AND LIGHTING IMPROVEMENTS AT SELECTED LOCATIONS. <u>ADD RIGHT OF WAY AND CONSTRUCTION IN FY 13 THROUGH FY 15 NOT PREVIOUSLY PROGRAMMED.</u></p>	<p>RIGHT-OF-WAY CONSTRUCTION</p>	<p>FY 2012 - \$50,000 (HSIP) FY 2013 - \$100,000 (HSIP) FY 2014 - \$100,000 (HSIP) FY 2015 - \$100,000 (HSIP) FY 2012 - \$100,000 (HSIP) FY 2013 - \$600,000 (HSIP) FY 2014 - \$600,000 (HSIP) FY 2015 - <u>\$600,000</u> (HSIP) \$2,250,000</p>
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DIVISION 7

<p>* W-5207 ALAMANCE CASWELL GUILFORD ORANGE ROCKINGHAM</p>	<p>VARIOUS, DIVISION 7 RUMBLE STRIPS, GUARDRAIL, SAFETY AND LIGHTING IMPROVEMENTS AT SELECTED LOCATIONS. <u>ADD RIGHT OF WAY AND CONSTRUCTION IN FY 13 THROUGH FY 15 NOT PREVIOUSLY PROGRAMMED.</u></p>	<p>RIGHT-OF-WAY CONSTRUCTION</p>	<p>FY 2012 - \$50,000 (HSIP) FY 2013 - \$100,000 (HSIP) FY 2014 - \$100,000 (HSIP) FY 2015 - \$100,000 (HSIP) FY 2012 - \$100,000 (HSIP) FY 2013 - \$600,000 (HSIP) FY 2014 - \$600,000 (HSIP) FY 2015 - <u>\$600,000</u> (HSIP) \$2,250,000</p>
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DIVISION 8

<p>* W-5208 RICHMOND SCOTLAND LEE HOKE MONTGOMERY MOORE RANDOLPH CHATHAM</p>	<p>VARIOUS, DIVISION 8 RUMBLE STRIPS, GUARDRAIL, SAFETY AND LIGHTING IMPROVEMENTS AT SELECTED LOCATIONS. <u>ADD RIGHT OF WAY AND CONSTRUCTION IN FY 13 THROUGH FY 15 NOT PREVIOUSLY PROGRAMMED.</u></p>	<p>RIGHT-OF-WAY CONSTRUCTION</p>	<p>FY 2012 - \$50,000 (HSIP) FY 2013 - \$100,000 (HSIP) FY 2014 - \$100,000 (HSIP) FY 2015 - \$100,000 (HSIP) FY 2012 - \$100,000 (HSIP) FY 2013 - \$600,000 (HSIP) FY 2014 - \$600,000 (HSIP) FY 2015 - <u>\$600,000</u> (HSIP) \$2,250,000</p>
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<p>* K-5500B STATEWIDE</p>	<p>PIEDMONT REGION REST AREA RENOVATIONS. REPLACE LIGHTING WITH EFFICIENT LOW MAINTENANCE LED FIXTURES. <u>ADD CONSTRUCTION IN FY 13 NOT PREVIOUSLY PROGRAMMED.</u></p>	<p>CONSTRUCTION</p>	<p>FY 2013 - <u>\$458,000</u> (S) \$458,000</p>
<p>* M-0451 STATEWIDE</p>	<p>STATEWIDE LANDSCAPE PLANS FOR STIP CONSTRUCTION PROJECTS. <u>ADD PRELIMINARY ENGINEERING IN FY 12 THROUGH FY 18.</u></p>	<p>ENGINEERING</p>	<p>FY 2012 - \$70,000 (S) FY 2013 - \$70,000 (S) FY 2014 - \$70,000 (S) FY 2015 - \$70,000 (S) FY 2016 - \$70,000 (S) FY 2017 - \$70,000 (S) FY 2018 - <u>\$70,000</u> (S) \$490,000</p>

TOWN OF HILLSBOROUGH

Downtown Access Study



Final Report | February 2012



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Acknowledgements

The *Hillsborough Downtown Access Study* was a collaborative process that built upon previous planning efforts and provided functional design-level detail for improvements to the Churton Street corridor. The plan was initiated by the Town of Hillsborough and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization. The plan was directed by a staff-level Advisory Committee. The planning process was rooted in a public design charrette attended by residents, business owners, local agency representations, and local staff. Everyone's effort to produce a functional and implementable plan is greatly appreciated.

Churton Street is many things to the Town of Hillsborough and its residents and visitors. It's the Town's "Main Street," a conduit to one of the state's historic and cultural gems, and a north-south access road to residential neighborhoods in the downtown core. And, despite the efforts of state and local planners, it's a cut-through for regional traffic including heavy trucks.

Previous plans focused on rerouting traffic around town with significant cost, environmental obstacles, and likely negative impacts to downtown merchants. Recently, the Elizabeth Brady Road Extension project (Hillsborough Bypass) was eliminated from the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC-MPO) 2035 Long Range Transportation Plan at the request of the Town of Hillsborough. Instead, the Town and DCHC-MPO turned their attention to a series of projects to address anticipated long-term congestion along Churton Street. These projects include:

- South Churton Street widening
- Eno Mountain Road/Mayo Street re-alignment and safety improvements.
- NC 86 widening between US 70-A and Old NC 10
- NC 86 widening from US 70 Bypass to Coleman Loop Road
- Orange Grove Road Extension to US 70 Alternate

For the most part, these projects are long-term unfunded solutions and cannot be expected to address existing congestion. As a result, the Town shifted its focus to analyzing existing and near-term congestion within the Churton Street corridor and identifying immediate and short-term solutions for mobility. The Town of Hillsborough with support from the DCHC-MPO initiated the *Hillsborough Downtown Access Study* to answer the following questions:

- What cost effective solutions will improve traffic downtown, not necessarily to speed people through town but rather to make a "slow" trip enjoyable?
- Can improvements at intersections (e.g. turn signals, longer or new turn lanes) improve traffic flow?
- What traffic calming measures could protect or enhance the walkability of downtown?
- What are the impacts—positive and negative—if on-street parking along Churton Street was removed to provide wider sidewalks for outside dining?
- How can we accommodate the need for loading zones without compromising other goals or desires?
- What other behavior or built improvements, including bicycle, pedestrian, transit, and streetscaping, can we make to reduce congestion, improve safety, and enhance the downtown experience?
- How can improvements be phased or prioritized?

In general, the *Hillsborough Downtown Access Study* outlines a plan for Churton Street that places concept design-level detail toward answering to these questions. Previous planning efforts have established the need for an approach that balances mobility, safety, aesthetics, and corridor vitality. To a degree, the study embraces the framework of Context Sensitive Solutions, which encourages roadway design decisions to address to the context through which the roadway passes. Thus, three distinct context zones appear, each of which require unique design treatments. As detailed in the recommendations of this plan, a one size fits all approach is not the right strategy.

Guiding Principles

The *Hillsborough Downtown Access Study* empowers the Town to evaluate coordinated planning concepts explored in previous plans and develop design solutions for the corridor that balance the sometimes competing interests of local access, mobility, safety, vitality, and quality of life. Early in the planning process, the project's Guiding Principles were developed by the staff-level Advisory Committee to summarize the core philosophy that guides the Hillsborough Downtown Access Study:

- *Improve circulation and mobility for local traffic.*
- *Use innovative ideas and tools for potential solutions.*
- *Enhance walkability through design applications.*
- *Implement access management where appropriate.*
- *Advocate streetscape improvements that enhance downtown vitality, pedestrian comfort, and historic integrity.*
- *Protect the viewshed to historic properties.*
- *Identify policy and regulatory recommendations to complement physical improvements.*
- *Establish recommendations that are functional and implementable.*

Study Purpose

The Town realizes the trade-offs associated with not supporting a bypass – higher congestion. However, it is here that the focus of the study lies. What can we do to offset traffic congestion or at least mitigate it to acceptable levels? An acceptable level for the purpose of this study is a corridor that is safe for all users, promotes walkability, accentuates the historic character of the core, enhances the aesthetic appeal of the area, and encourages economic vitality.



Corridor Limits & Study Area

The concept design for the *Downtown Access Study* focuses on the Churton Street corridor from the Eno River to the US 70 Bypass, a distance of approximately 1 mile. Detailed traffic analysis was conducted for the heart of the study area from Tryon Street south to Nash and Kollock Street as well as the intersection of US 70 Business and Churton Street just south of the Eno River. While the focus of this study is on Churton Street, the cross streets—particularly in the downtown business and governmental core—require some attention paid to treatments at intersections and just beyond the main corridor. Detailed design concepts extend from the Eno River north to the US 70 Bypass.

Context Zones

The character of Churton Street experiences distinct changes across the 1-mile corridor between the Eno River and US 70 Bypass. A practical planning approach requires each segment be considered for recommendations that respond to the unique needs and issues of each zone. From north to south, the three context zones are:

- Context Zone 1: US 70 Transition
- Context Zone 2: Historic Neighborhood
- Context Zone 3: Central Business District

Zone 1: US 70 Transition

Context Zone 1 provides the northern terminus of the study corridor and is anchored by the North Hills (Maxway) Shopping Center. The east side of this segment of Churton Street includes a mix of retail, services, and offices. The west side is largely residential. The character transitions at Corbin Street to residences and historic properties.

Zone 2: Historic Neighborhood

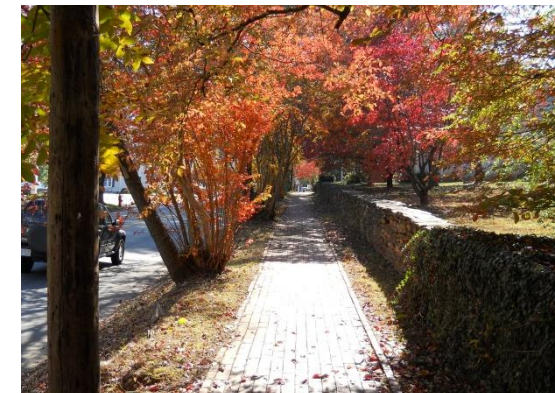
Context Zone 2 stretches between Corbin Street and Tryon Street and bridges the gap between the North Hills (Maxway) Shopping Center and the historic downtown. Activity at the northern intersection of this zone includes Town Hall and a renovated former service station. This stretch of Churton Street is bordered by residences and historic properties such as the Burwell School.

Zone 3: Central Business District

Context Zone 3 consists of the area from the Eno River north to Tryon Street. The area is the governmental and commercial heart of the Town, with few residences located along or within several hundred feet of Churton Street. The Orange County government complex, restaurants, shops, historic sites, and other public buildings are located along this segment of the corridor.



Churton Street Today



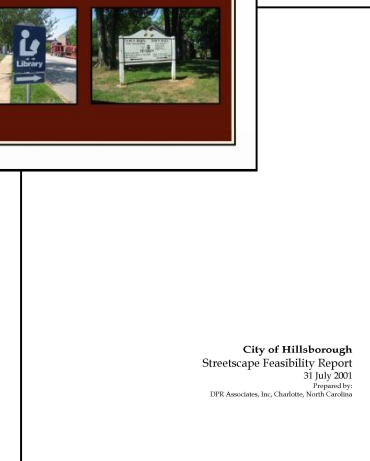
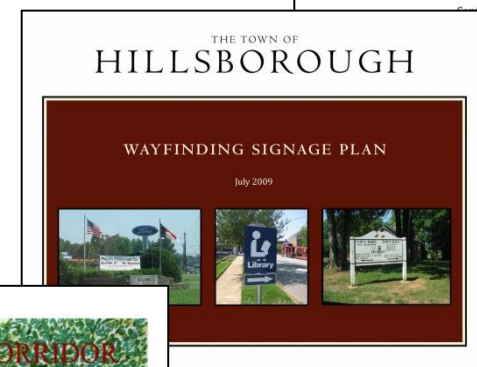
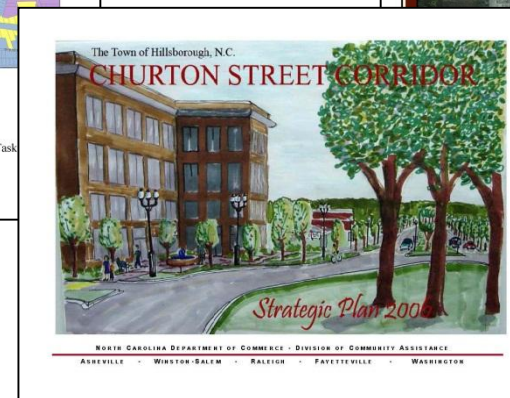
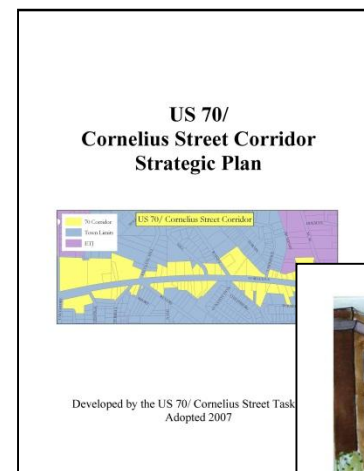
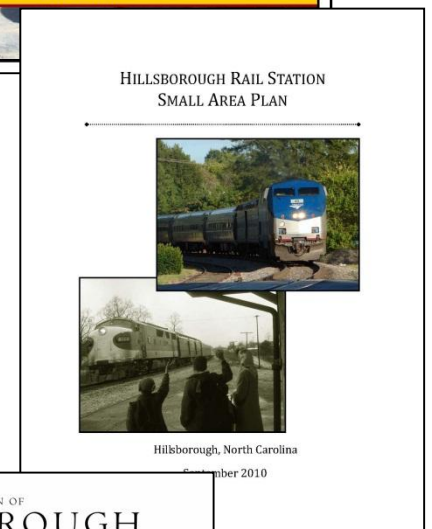
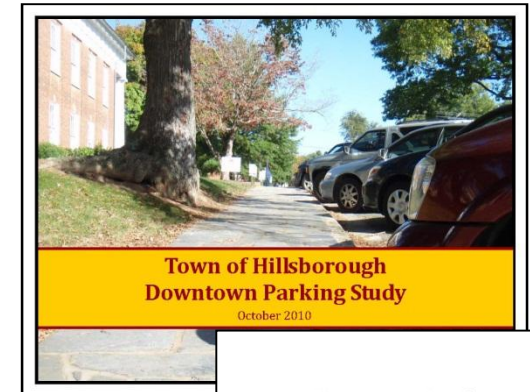
Previous Planning Efforts

Local, regional, and state agencies have initiated projects and studies to identify solutions for Downtown Hillsborough. The *Hillsborough Downtown Access Study* leaned on these previous planning efforts in developing strategies specific to issues facing the corridor. At times, the recommendations described in Chapters 3 may deviate from these previous and ongoing planning efforts due to new information or a new way to consider existing data. The following plans (presented in order of completion) highlight the prior efforts used to define the study.

- City of Hillsborough Streetscape Feasibility Study (2001) – The Hillsborough Streetscape Feasibility Study evaluated the feasibility of improving the streetscapes of sections of Churton Street, Margaret Lane, and East King Street. The study also offered recommendations and cost estimates for improvement alternatives. Recommendations included the relocation of overhead utility lines, installation of decorative street lights, installation of decorative crosswalks, and sidewalk improvements. However, no design concepts were developed as part of this study.
- Churton Street Corridor Strategic Plan (2006) – This plan’s vision is to transform Hillsborough into an innovative and future-focused town while celebrating its history. The plan intends to accomplish this vision by improving Churton Street’s appearance and economic vitality, protecting the historic and cultural identity of Hillsborough, promoting environmental stewardship, and encouraging active lifestyles for residents and visitors to the Town. The plan stopped short of establishing cost estimates, funding mechanisms, and phasing for these improvements. These recommendations have not proceeded to a feasibility study.

- US 70/Cornelius Street Corridor Strategic Plan (2007) – The potential solutions and recommendations described in this plan include improvements to transportation, crime and code enforcement, economic development, development and redevelopment potential, landscaping and signage, and compatibility with other planning documents. The strategic plan intends to improve the existing Cornelius Street portion of US 70 Bypass, encourage new business enterprises, and expand current businesses to sustain the local economy. Improvements to US 70/Cornelius Street could have secondary impacts on Churton Street.
- Town of Hillsborough Community Connectivity Plan (2009) – The Hillsborough Parks and Recreation Board created a community connectivity plan to forward detailed recommendations to improve the pedestrian and bicycle facilities in Hillsborough. These recommendations include improvements to existing facilities as well as new infrastructure. The existing and planned facilities outlined in this report formed the basis for the bicycle and pedestrian recommendations in the *Downtown Access Study*.
- Town of Hillsborough Wayfinding Signage Plan (2009) – The purpose of the Wayfinding Signage Plan is to improve navigation for residents and visitors by planning, designing, implementing, and maintaining a signage system that directs motorists, pedestrians, and bicyclists to destinations in Hillsborough. The plan includes both the removal of existing directional signs and the construction of new directional signs. Access to and navigation around the downtown area is an important consideration of this plan.

- Hillsborough Rail Station Small Area Plan (2010) – The Rail Station Small Area Plan is a conceptual site and land use plan for 20 acres of land (also known as the Collins Tract) located adjacent to Orange Grove Street. The plan includes a rail station building, a fire station, space for a civic arts center, and other high-density commercial and residential land uses. The *Downtown Access Study* addresses connectivity to the proposed rail station area.
- Town of Hillsborough Downtown Parking Study (2010) – The Downtown Parking Study assesses the current parking situation in Downtown Hillsborough, projects the impact of future development on parking, and develops recommendations for parking improvements to benefit business owners, customers, and visitors. Analysis and outcomes from the Downtown Parking Study was used in the *Downtown Access Study*.



Workbook Premises

The Summary Workbook for the *Downtown Access Study* tackles issues and concerns identified during the planning process, including discussions with staff, downtown merchants, meetings associated with the Public Design Charrette, and issues identified during previous planning efforts. The Workbook summarizes the planning efforts, outlines the issues, and presents recommendations to achieve the community's vision for Churton Street and the downtown core. The following premises regarding the Summary Workbook hold true.

- The Workbook is not intended to educate the reader on standard planning practice. Instead, it focuses on processes and results specific to the Churton Street corridor.
- The Workbook documents issues and concerns for the study corridor and presents recommendations based on analysis, planning, and public input.
- The Workbook has been organized to provide concise representation of issues and recommendations, and to the extent possible, utilizes visual cues to effectively convey ideas.
- The Workbook is not a formal policy document, though the ideas represented herein are presented for adoption.
- The Workbook and its supporting deliverables (Concept Design Maps) are intended to be living documents that provide structured recommendations with flexibility in phasing these improvements.

Workbook Components

The *Downtown Access Study* primarily focuses on transportation issues along Churton Street, though sustainability and vitality of the Town's core also are addressed. Components of the workbook include the following.

Process and Framework

Following this introductory chapter, the workbook presents a brief overview of the planning process and preliminary study area evaluation that forms the foundation of the issues and recommendations presented later in the workbook.

Planning Process

Chapter 2 presents a brief overview of the planning process. Comments and ideas summarized here form the foundation of the issues and recommendations presented later in the Workbook. A collaborative effort provided the essence of a planning process that built upon the previous efforts of Town staff and other agencies. The planning process is summarized here with a focus on the public design charrette.

Resource Maps

Recommendations of the *Downtown Access Study* are rooted in an evaluation of transportation conditions. Chapter 3 presents an overview of this evaluation in the form of various resource maps.

Issues and Recommendations

Chapter 4 presents the issues and recommendations in a series of interrelated elements. Given the overlap between the elements, some repetition is expected. These elements include:

- Traffic Congestion & Safety
- Traffic Noise
- Parking
- Pedestrian Connectivity and Safety
- Transit Accessibility
- Aesthetics and Business Vitality

Action Plan

Considerable interest exists—among Town staff, elected officials, residents, and business owners to create a desirable and sustainable future for the Town core. This planning process was developed with implementation in mind, and many individuals have shown interest in seeing it through to implementation. The Action Plan (Chapter 5) sends out a charge for active citizens and staff members to champion the recommendations of the study.

Workbook Structure

The *Downtown Access Study* balances the competing interests of mobility, access, safety, and aesthetics with the evolution of a public planning process built around a collaborative public design charrette. The Summary Workbook not only presents the approach but also a realistic future in an al-a-carte format. The heart of the workbook is the elements in Chapter 4 for which a series of general issues and specific recommendations are presented. The relationships between issues and recommendations may create repetition but in this repetition overarching themes emerge. Issues and recommendations are presented in a consistent format throughout these chapters. Each chapter begins with a broad summary of existing conditions and an overview of the element's role in the study area. Following the summary, each issue or recommendation uses the same format:

- Issue — States the issue concisely.
- Observation — Summarizes existing conditions and highlights particular problems including causational factors where possible.
- Recommendations — Puts forth specific directives, both physical infrastructure and policies, to mitigate the problem.

Where applicable, photos of existing conditions, sketches, diagrams, and maps are used to illustrate existing conditions and/or recommendations.

Churton Street serves an important role in the Town's transportation network, functioning as a primary commercial corridor for the downtown core and a corridor that serves a disproportionate amount of regional traffic. Numerous businesses rely on the corridor as their primary means of access. In addition, residents along the corridor rely on the link for access and to and from their homes. As a result, it is important to get feedback from a wide expanse of public participants during the visioning and recommendations development process.

The *Town of Hillsborough Downtown Access Study* primarily focuses on approximately one mile of Churton Street between the Eno River and the US 70 Bypass. The need for a coordinated approach to the corridor that yields immediate results is amplified by the attention given to the downtown core and Churton Street in recent plans and studies. The *Downtown Access Study* enables the Town of Hillsborough to develop solutions for the corridor that balance the need for mobility and access and respect the vitality of existing businesses. This Workbook builds on previous plans as well as the visioning exercises conducted in the initial phase of the corridor study.



Planning Process

Collaboration and transparency provided the core strategies for establishing trust among the participants of the planning process. The consultant team and local staff began working together early on and continued to do so as the process moved into the design charrette. This continuity resulted in a shared learning environment and timely communication among participants. Major elements of the planning process included the following.

Advisory Committee

The Advisory Committee, comprised of Town of Hillsborough staff, was established to assist the project team in guiding the planning process. The main focus of the Advisory Committee was to steer the project's initial steps, assist with data collection, and help coordinate key public outreach activities. While the primary role of the committee was to serve in an advisory role, significant participation in visioning exercises and information feedback provided value to the planning process. The Advisory Committee addressed ongoing project activity issues, key decision discussions, presentations of pertinent information and evaluations, and recommendations for the consideration by the project team. Meetings prior to the public design charrette established a framework for the rest of the public outreach and planning process.



Public Design Charrette

To gather feedback from individuals and groups with diverse backgrounds, the *Downtown Access Study* included a charrette with participation by the Advisory Committee, meetings with stakeholders, and design work sessions. The intent of using this outreach method not only was to hear from a diverse group of people but also to build consensus and validate recommendations throughout the planning process.

The core element of the public outreach process for the *Downtown Access Study* was a public design charrette, held November 8 through 10 at the Durham Technical Community College (DTCC) Orange County Campus on Waterstone Drive. The charrette process was used to understand local context and design plans for Churton Street. During the charrette, the project team sat down with the Advisory Committee, businesses, and the general public to identify issues, affirm guiding principles, and validate proposed recommendations. The charrette schedule is illustrated below.

Hillsborough Downtown Access Study - Design Charrette					
Tuesday - November 8		Wednesday - November 9	Thursday - November 10		
DTCC - Satellite Campus - Rm 103 Waterstone Drive		off-site	DTCC - Satellite Campus - Rm 103 Waterstone Drive		
8:00 a.m.	Set-up Design Studio		Set-up Design Studio		
9:00 a.m.	Open Design Studio	Advisory Committee Meeting	Open Design Studio	9:00 a.m.	
10:00 a.m.		Parking & Mobility		Open Design Studio	10:00 a.m.
11:00 a.m.					11:00 a.m.
12:00 p.m.	Lunch		Lunch		
1:00 p.m.	Lunch		Lunch		
2:00 p.m.	Open Design Studio	Multimodal Transportation	Refine Materials and Prepare for Open House	2:00 p.m.	
3:00 p.m.		Streetscape & Downtown Vitality		Refine Materials and Prepare for Open House	3:00 p.m.
4:00 p.m.					4:00 p.m.
5:00 p.m.	Public Workshop (Issues Identification)		Public Open House (Present Alternatives)		
6:00 p.m.	Public Workshop (Issues Identification)		Public Open House (Present Alternatives)		
7:00 p.m.	Public Workshop (Issues Identification)		Public Open House (Present Alternatives)		

Advisory Committee Meeting
 Open Design Studio

Focus Group Discussions
 Public Outreach

Day 1 – On the first day of the charrette, the project team set-up a working design studio and unveiled a series of maps depicting existing conditions. The team then met with the Advisory Committee to establish guiding principles and conduct a mapping exercise. The team then hosted a series of three focus group sessions related to parking and mobility, multimodal transportation, and streetscape and downtown vitality. Concurrently with these scheduled sessions, the project team conducted field reviews and refined design concepts in working studio. The day concluded with a Public Workshop attended by a small group of citizens.

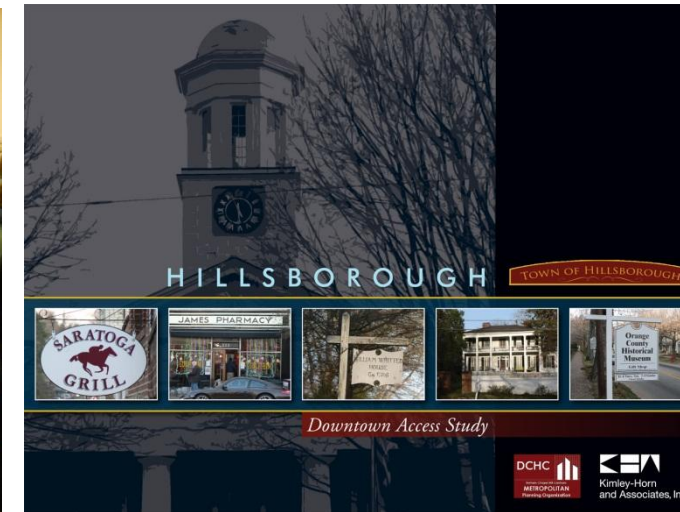
Day 2 – The second day of the charrette consisted of an off-site work day held in the offices of the consultant team. During this time, the project team polished the sketch ideas developed during the previous day into feasible engineering and planning concepts.

Day 3 – The development of detailed conceptual designs continued on the third day of the charrette. Working on-site at DTCC as well as in the offices of consultant team, the project team refined plans and exhibits in anticipation of the evening Public Open House. The final event of the charrette allowed participants to view maps, make comments, and vote for priority recommendations. The evening included a short presentation by the project team and local staff as well as brief remarks by the mayor.

Images captured at the three-day charrette are displayed on this page.

Other Meetings

To present preliminary concepts and gather feedback from local business owners, the project team met with the Downtown Merchants Association on December 2, 2011. The outcome of this meeting yielded some revisions to the corridor concept designs as presented in Chapter 4.



What We Heard

At the outset of the study, the project team conducted a kickoff meeting with members of the Advisory Committee to identify key issues and objectives of the study. These discussions helped define the planning framework and ultimately provided the guidance used to develop the preferred alternatives along the corridor.

At the Public Open House on the third day of the charrette, the project team presented a series of maps that described exactly what was heard during the first two days of the charrette. Specific comments are discussed in detail in Chapter 4. The recommendations presented there address many of these comments and suggestions. This chapter concludes with those maps.

General Themes

Parking & Mobility

- Install turn lanes where appropriate
- Improve sight distances
- Prevent neighborhood cut-through traffic
- Consider construction of roundabouts

Multimodal Transportation

- Fill gaps in the sidewalk network
- Install high-visibility patterned crosswalks
- Provide bicycle racks
- Improve existing bus stops

Streetscape & Downtown Vitality

- Maintain historic character
- Plant trees along street and add green spaces
- Provide wide sidewalks for outdoor dining

What We Heard



What We Heard



Sidewalk needed

Add green space

Delineate curb

Install patterned crosswalks

Accommodate left turns

Construct wide sidewalk

Crossings unsafe
Install patterned crosswalks

Relocate bus stop and construct bus pullout

Provide access to park

Install patterned crosswalks

Sidewalk needed

86

Create Siren Free Zone

Replace vegetation to improve sight distance

Museum

Police Station

Construct bus pullout
Bicycle rack needed

Redesign parking lot

Create loading zones

Street is wide due to on-street parking

outdoor seating

Remove parking to add dedicated left-turn lane

Install patterned crosswalks and pedestrian crossing signs

Bicycle rack needed

Fire Station

Improve sight distance

Library

Orange County Offices

Eno River Parking Deck

Consider roundabout

Gateway Center

Bicycle rack needed

Install pedestrian crossing sign

Gateway signage needed

Traffic calming

Potential 4-way stop

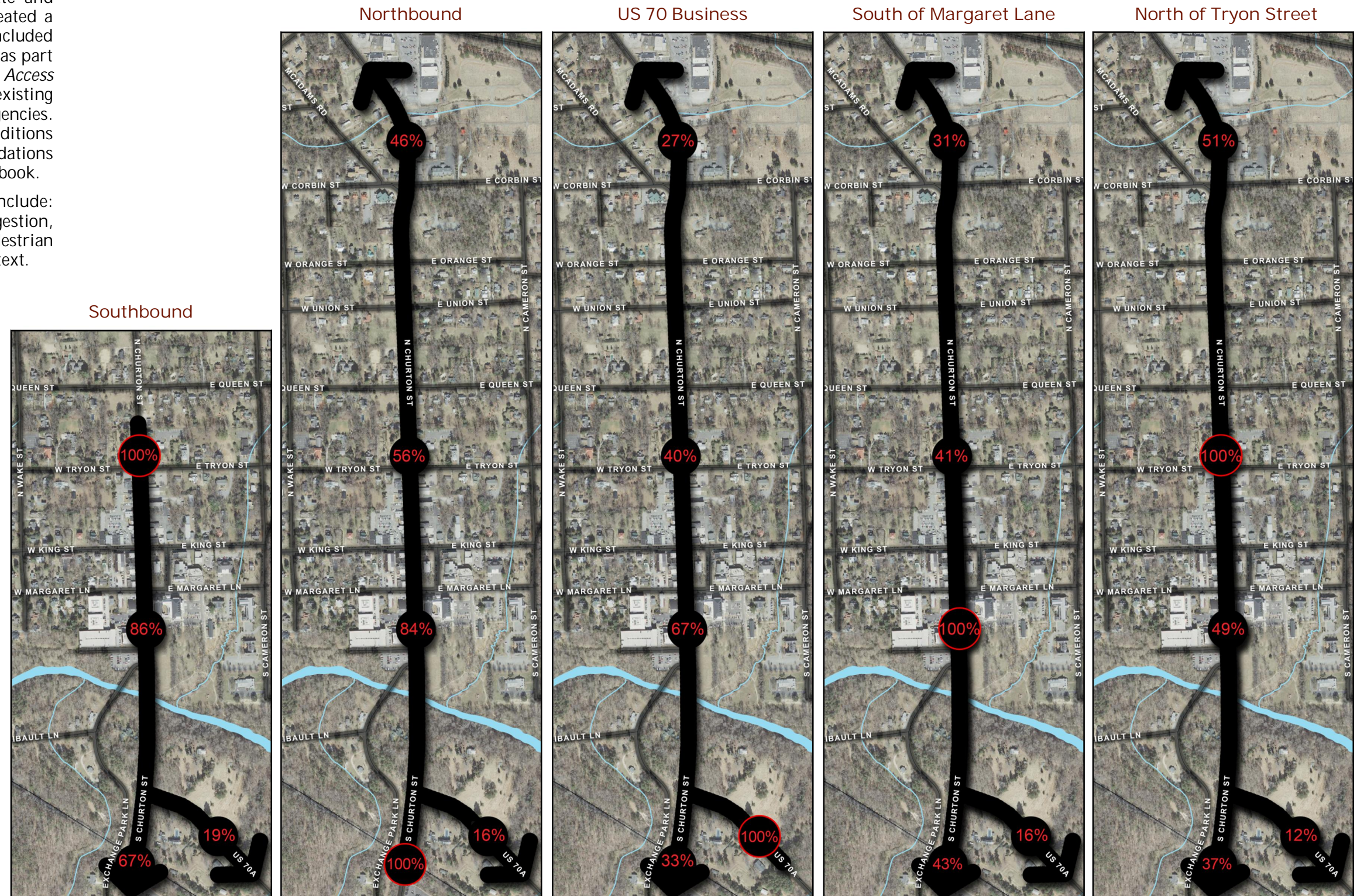
For display at the public design charrette and subsequent analysis, the project team created a series of resource maps. These maps included maps created based on new data collected as part of the *Town of Hillsborough Downtown Access Study* as well as exhibits taken from existing plans created by Town staff and other agencies. These resource maps illustrate existing conditions and provide a foundation for recommendations made in Chapter 4 of the Summary Workbook.

Resource maps found in this chapter include: Origin/Destination results, Traffic & Congestion, Turning Movements, Bicycle & Pedestrian Context, Transit Context, and Parking Context.

Origin/Destination Results

Sensors were set up at five points in the study area to capture anonymous bluetooth signals from passing cars and cell phone devices. By matching unique identifiers at individual locations, the project team was able to determine how much traffic is introduced to the network and the percentage of traffic that moves through the study area. Exhibits showing origin and destination percentages based on average daily traffic are displayed to the right. These maps show:

- 67% of southbound traffic at Tryon Street and 46% of northbound traffic proceeds through the study area.
- For traffic entering at US 70 Business, 33% travel south on Churton Street while 67% travel north across the Eno River bridge. 27% of this traffic proceeds northbound through the study area.
- Approximately 28% of traffic from the south are being captured within downtown or are diverting to St. Marys Road.



Traffic & Congestion

Traffic volumes signify the total number of vehicles traveling along a roadway segment on an average day. Overall, traffic volumes on minor arterials are lower than those on major arterials. This tendency reflects the purpose and function of each roadway class design and location. In 2010, Churton Street experienced traffic volumes ranging from 19,000 just south of Margaret Lane to 12,000 vehicles per day (vpd) approach the US 70 Bypass (Cornelius Street). These volumes are relatively unchanged from 2002, though volumes on Churton Street typically exceed the US 70 Bypass.

Traffic volumes alone should not be used to determine congested corridors because this measurement does not take into account functional classification and roadway capacity. A better measurement is volume-to-capacity (V/C) ratios. V/C ratios are calculated by dividing the traffic volume of a roadway segment by the theoretical capacity of the roadway. The resulting universal measurement standardizes traffic analysis and provides a benchmark for levels of congestion. V/C ratios often are simplified into categories such as Approaching Capacity and Over Capacity.

The map to the right shows congestion levels on Churton Street as well as volumes for 2002 and 2010.



Turning Movements

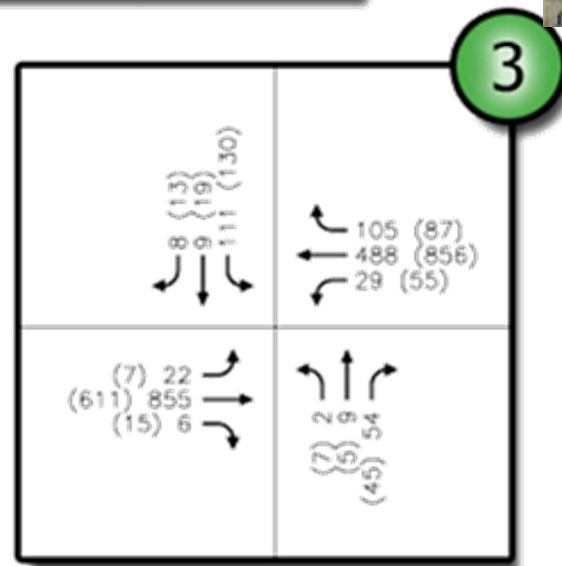
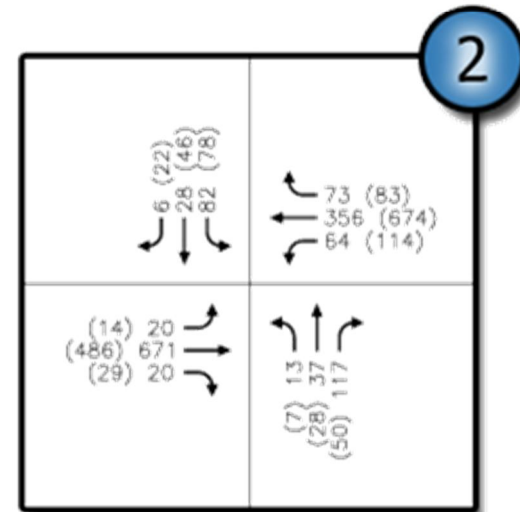
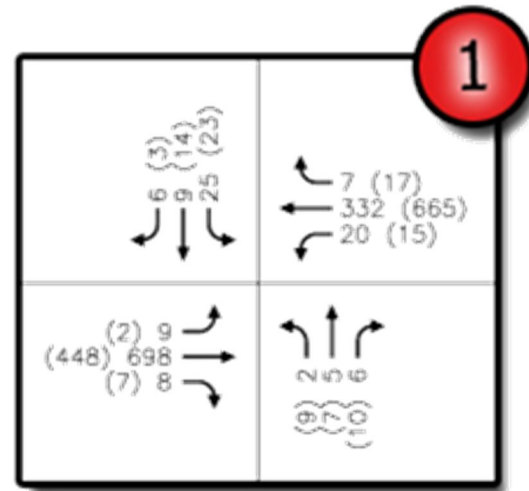
Turning movement count data was collected on September 27, 2011 at five intersections within the study area:

- Churton Street at Tryon Street
- Churton Street at King Street
- Churton Street at Margaret Lane
- Churton Street at Nash & Kollock Street
- Churton Street at US 70 Business

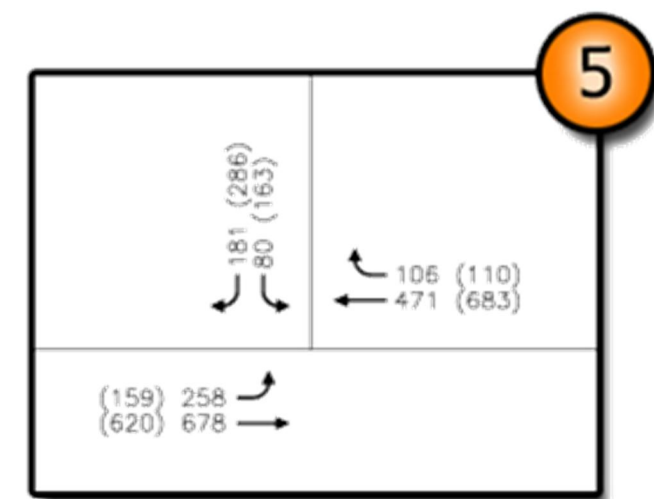
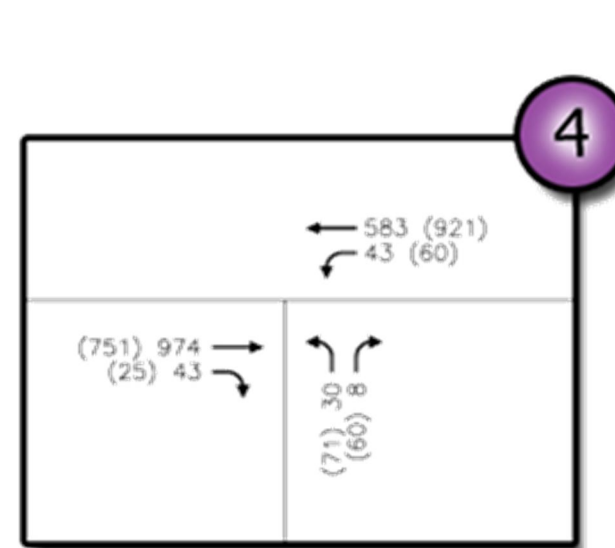
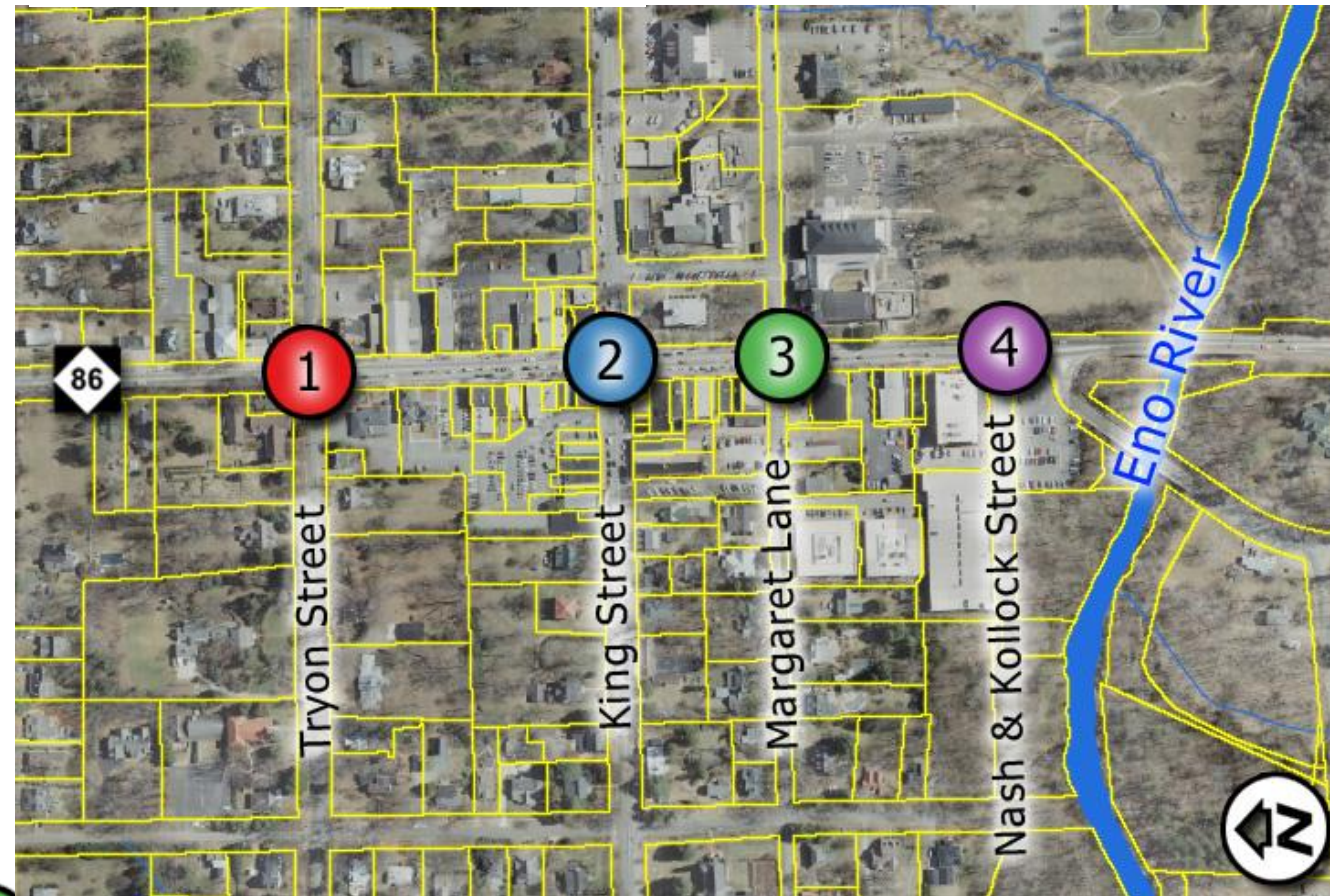
These counts were performed for the AM and PM peak hour periods, and peak hour volumes are shown in the graphics to the right for each intersection. The number closest to the arrow represents the AM peak hour volume while the number in parentheses represents the PM peak hour volume.

Not surprisingly, most of the observed traffic was along Churton Street. The traffic counts indicated a fairly typical directional split with approximately 65% of the traffic driving southbound and 35% northbound in the AM peak. The PM peak hour is similar but with approximately 60% driving northbound and 40% southbound.

Throughout the day, significant left-turn volumes occur from the side streets to southbound Churton Street, most notably at King Street and Margaret Lane. These left turn volumes likely are due to the government complex located east of Churton Street as well as traffic from St. Mary's Road.



Existing Peak Hour Traffic Volumes
AM (PM)

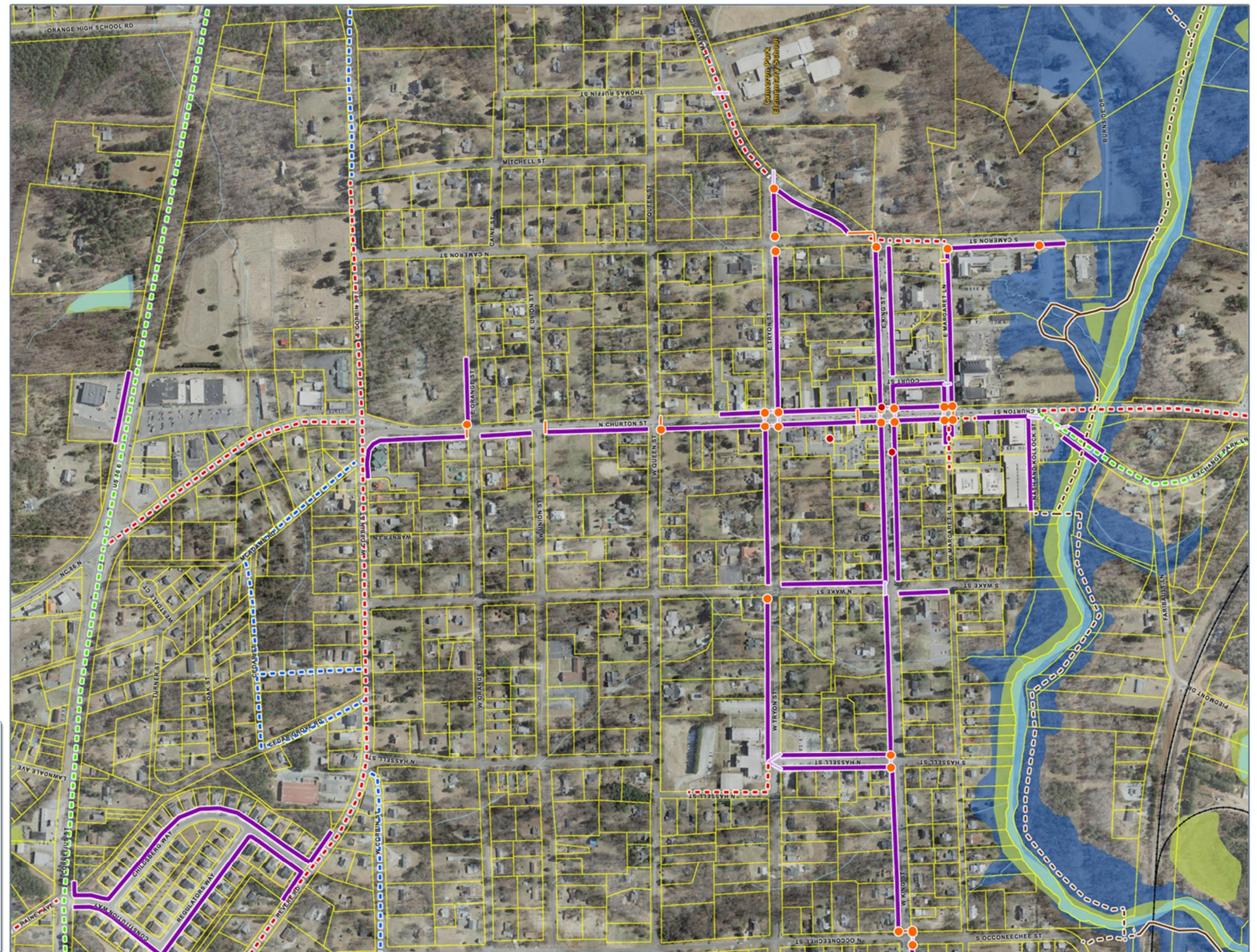


5 →
at US 70 Business

Bicycle & Pedestrian Context

The review of existing conditions and recommendations for bicycle and pedestrian activity in Hillsborough is directed by the 2009 Community Connectivity Plan developed by Town staff. As mentioned in Chapter 1, this plan provides detailed recommendations to improve the pedestrian and bicycle facilities throughout Hillsborough, including improvements to existing facilities and new infrastructure.

The map to the right details existing and planned facilities outlined in the Community Connectivity Plan and served as the launching point for the bicycle and pedestrian connectivity discussion. As shown, crossing improvements are recommended along Churton Street.



Legend:

- Sidewalk (Existing)
- Low Priority Sidewalk (Recommended)
- High Priority Sidewalk (Recommended)
- Crosswalk (Existing)
- Crosswalk (Identified Need)
- Riverwalk (Existing)
- Riverwalk (Recommended)
- Shared Use (Recommended)
- Curb Ramp (Identified Need)
- Pedestrian Kiosk (Planned)

Transit Context

Transit service in Hillsborough consists of two routes—one route provided by Triangle Transit (Route 420) and the other route provided through a partnership with the Town and Orange County (Hillsborough Circulator). Route 420 connects Hillsborough with Chapel Hill with northbound stops at the historic courthouse and North Hills (Maxway) Shopping Center and a southbound stop at the Police Station. The Hillsborough Circulator route travels along Churton Street downtown, and continues along NC 86 toward Chapel Hill. The bus shares two northbound stops on Churton Street with Triangle Transit Route 420 – at the historic courthouse and North Hills (Maxway) Shopping Center. Other stops are on King Street and Margaret Lane.

The map to the right and on the following page shows these routes and stops in detail.

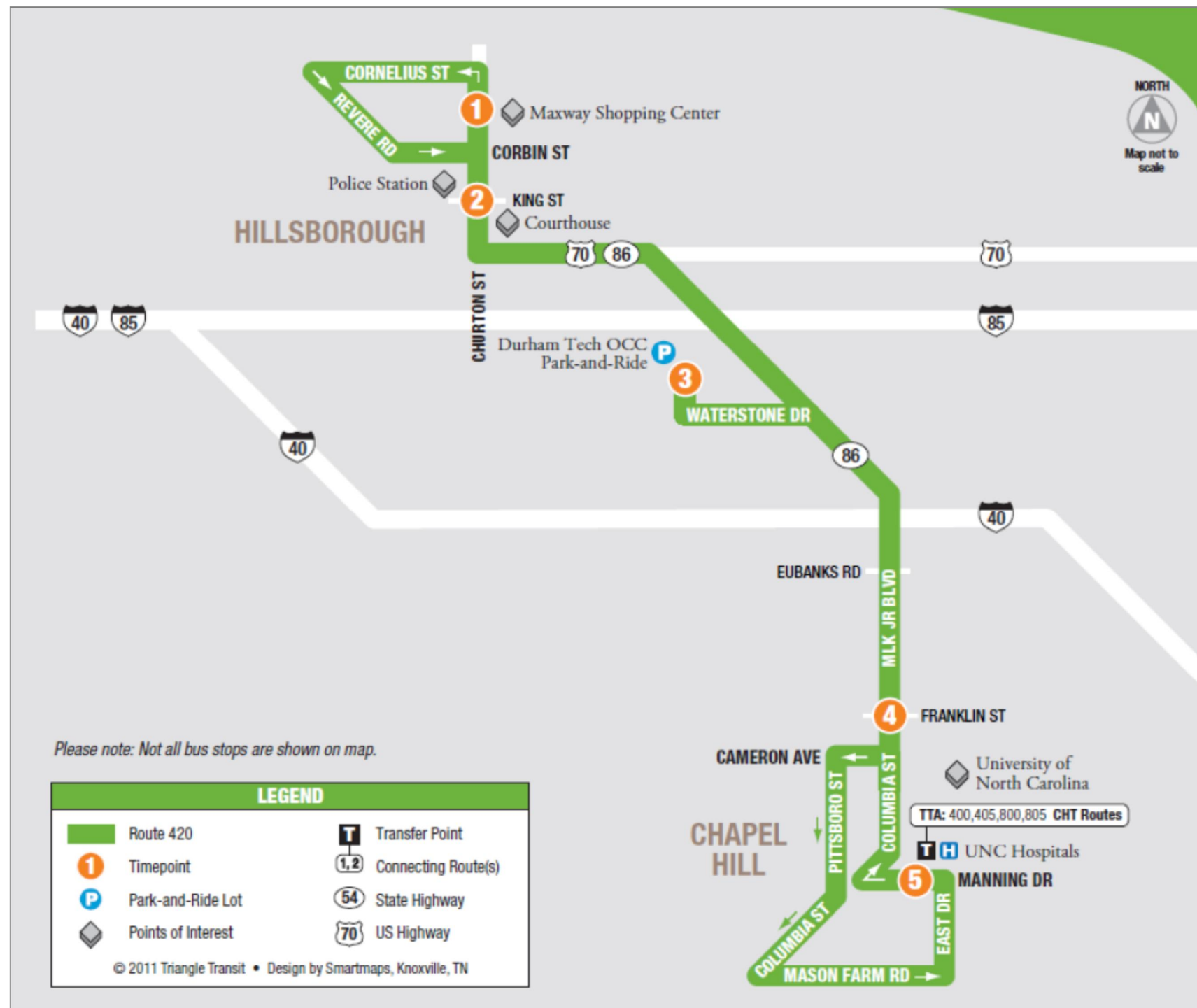


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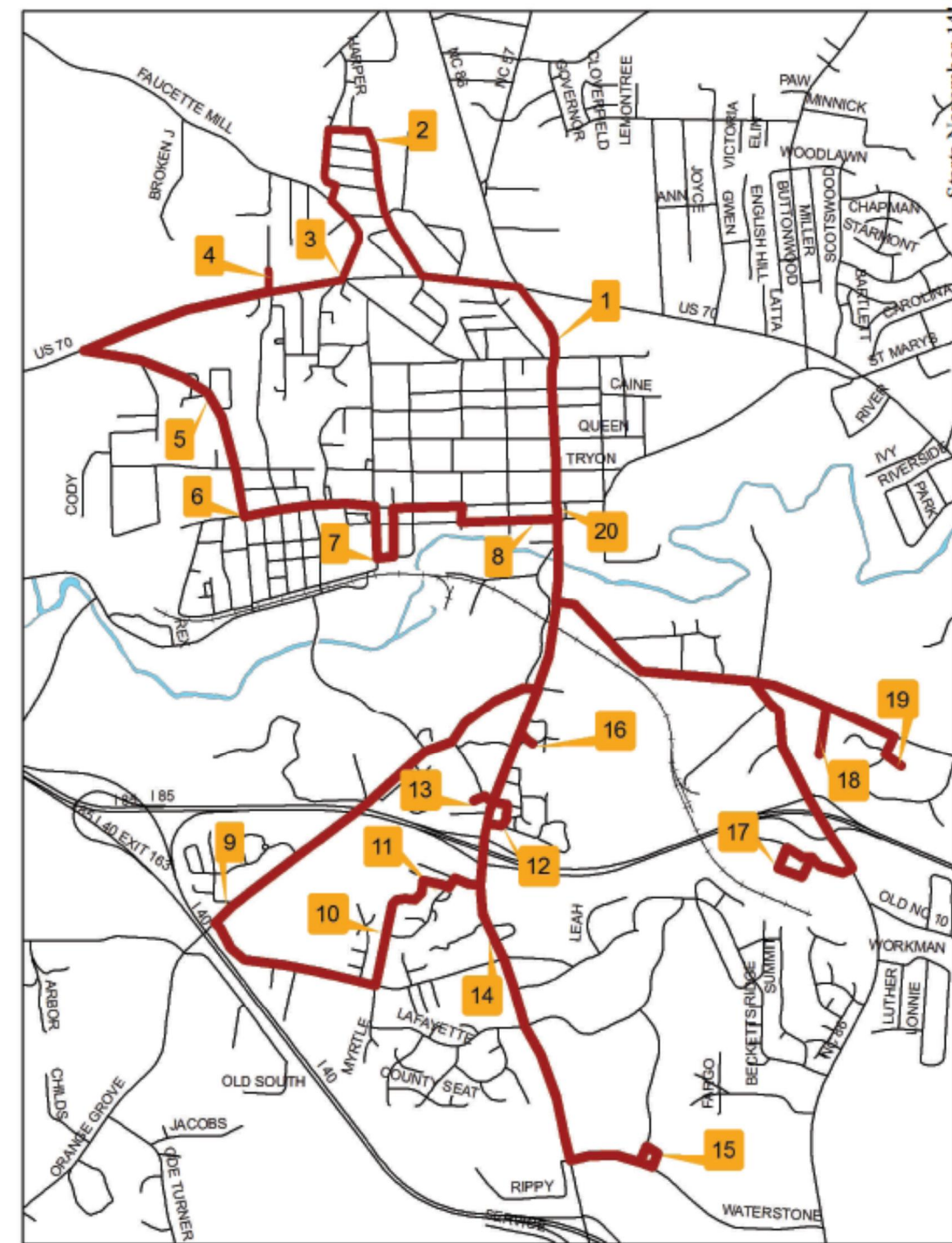
- Hillsborough Circulator Stop
- Hillsborough Circulator Route
- Triangle Transit Route 420
- Triangle Transit Route 420 Stop



Triangle Transit Route 420



Hillsborough Circulator



Parking Context

The 2010 Downtown Parking Study included numerous exhibits based on data collected by Town staff. This data included a complete inventory of on- and off-street parking as well as occupancy data during a couple times over the course of two days in June 2010. The outcome of the plan is a series of recommended improvements ranging from physical improvements to enforcement and signage.

The maps on this page represent two exhibits from the Downtown Parking Study. The map on the left illustrates the location of on-street parking. As described in Chapter 4, recommended improvements to Churton Street as part of the *Downtown Access Study* will impact on-street parking along the corridor, and in some cases, on side streets near their intersection with Churton Street. The map on the right shows vacancy rates on a Wednesday at noon. This map shows high vacancy in the Eno River Parking Deck and lower occupancy on-street and in the Bank of America parking lot.

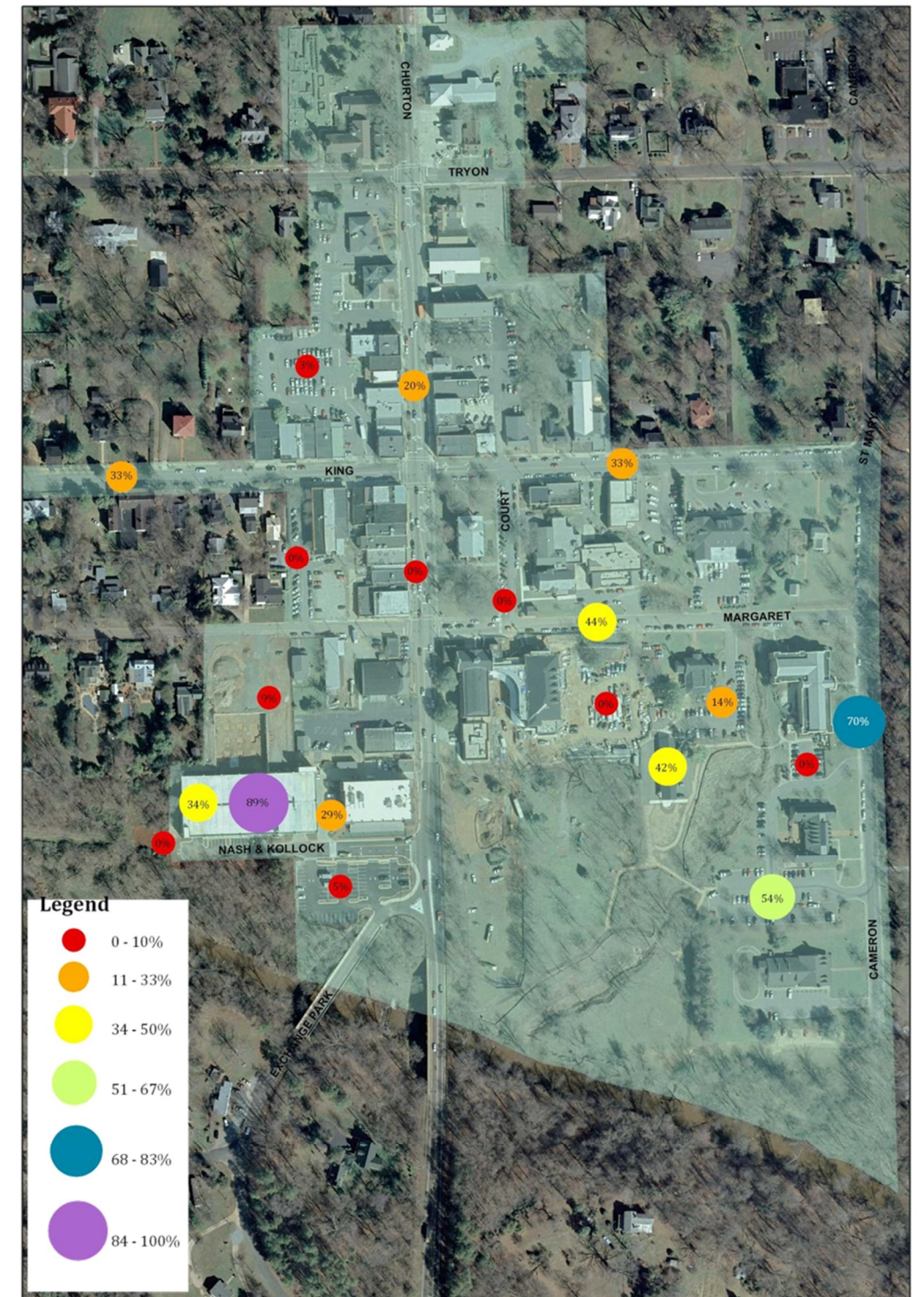


Parking Space Inventory

• Parking Spaces ■ Parking Study Area

100 50 0 100 Feet

Map Prepared by Hillsborough Planning Department 8/2010



Vacancy Rates on Wednesday June 2, 2010 at 12 pm

Map prepared by Hillsborough Planning Department 8/2010

Traffic congestion and safety are the most pressing issues facing Churton Street. Volumes, intersection delay, and crashes can be computed in a variety of ways. High traffic volumes and constrained capacity along the corridor cause traffic backups—especially during peak periods—and the lack of adequate storage for turning vehicles compound the problem. The project team collected traffic counts, reviewed crash data, and conducted capacity analyses to assess these issues. But what often is lost in the planning process is the perception of congestion and safety as well as a host of other issues such as traffic speed, traffic noise, and pedestrian safety. This perception was revealed through discussions with residents and business owners at the public design charrette. For Churton Street to effectively serve the community and the diverse demands placed upon it, improvements are needed. This chapter discusses a series of issues and observations centered around the three focus group sessions from the public design charrette—1) parking & mobility, 2) multimodal transportation, and 3) streetscape & downtown vitality. This discussion sets the stage for the detailed recommendations that follow. These recommendations not only address the current needs along the corridor but also anticipate future issues.

Parking & Mobility

While delay can be uncomfortable for motorists, the purpose of this plan is not to solve all traffic problems. Indeed, local officials and members of the community agree that some level of congestion is good for the vitality of the area and supportive of the shops, bars, and restaurants that line Churton Street. The key to the analysis of traffic and parking was determining the acceptable level of congestion with the understanding that a bypass will not be constructed. The issues that follow relate to the traffic operation of the corridor.

Issue: Traffic Congestion and Safety

An evaluation of traffic operations (including an origin/destination survey, traffic and turning movement analysis, and a review of 3-year crash history) helped determine existing conditions along the corridor. Traffic congestion and safety issues were illustrated in the resource maps in the previous chapter, notably showing traffic volumes approaching 20,000 vehicles per day on Churton Street across the Eno River and revealing the corridor operates over capacity south of Tryon Street.

- Lack of loading zones leads to congestion.
- The lack of left-turn storage for northbound vehicles turning into at the police station/Bank of America lot contributes to congestion as vehicles queue.
- The poorly delineated driveway on the east side of Churton Street just north of Tryon Street creates a potential safety problem.
- Sight distance is an issue at the entrance to the Annex from Tryon Street.
- The bus stops within travel lanes create additional congestion
- The geometrics of the intersection of Churton Street and US 70 Bypass (Cornelius Street) create a wide intersection with right turns/merge areas at odd angles.
- The angle of the right turn lane from eastbound Corbin Street to southbound Churton Street creates a difficult view for motorists to observe oncoming traffic. Safety concerns at this intersection are compounded by the downgrade for southbound vehicles on Churton Street.
- Sight distance is an issue on West Margaret Lane at the intersection with Churton Street.



Issue: Traffic Signal Timing

Because of the close intersection spacing between Nash and Kollock Street, Margaret Lane, King Street, and Tryon Street, traffic signal timing is critical to minimize delays and queues along Churton Street. Currently, peak hour signal timing is such that the northbound Churton Street approaches at Nash and Kollock Street, Margaret Lane, and King Street turn green at the same time. However, there is a delay (or offset) of 34 seconds before the signal at Tryon Street turns green. While a minor offset may be appropriate, the current offset is too long and contributes to the congestion in this area. NCDOT should modify the timing at the Tryon Street intersection to be concurrent with, or more closely follow the initial green indication at the adjacent intersections.

Issue: Traffic Speeds

Safety issues also increase as traffic speeds increase. However, higher traffic volumes and congestion suppress speeds through the central business district. Speed limits along the corridor vary from 20-35 miles per hour.

- Speeding traffic is apparent on southbound Churton Street near Corbin and Orange Streets. These speeds are the result of southbound vehicles cresting the hill and accelerating through the intersection of Corbin Street as well as motorists accelerating through and quickly merging from the free flow right turn from eastbound Corbin Street to southbound Churton Street. Speeding traffic creates potentially unsafe conditions for pedestrians at the unsignalized crossings of Corbin Street at Orange, Union, and Queen Streets.
- Traffic calming is needed on Margaret Lane and King Street west of Churton Street. The cross-section of this segment of King Street is wide due to the on-street parking. This extra width makes drivers feel more comfortable which tends to encourage higher operating speeds.



Issue: Traffic Noise & Cut-Through Traffic

Traffic noise was identified during the public design charrette as an important issue in both Context Zone 2 (Historic Neighborhood) and Context Zone 3 (Central Business District). Traffic noise affects pedestrians and patrons in the outdoor dining areas in the downtown core and impacts residents in historic neighborhoods north of Tryon Street. This noise comes from three main sources – large trucks, motorcycles, and emergency vehicles.

- Vehicle classification data shows 4% of traffic on Churton Street are semi-trucks, which indicate as many as 750 trucks travel the corridor on a given day. While signage directs trucks away from the Churton Street corridor, these volumes and percentages indicate significant volumes of trucks are still present.
- The origin/destination study conducted for the *Downtown Access Study* and presented in Chapter 3 reveals a high percentage of through traffic both northbound and southbound on an average day.
- Residents expressed concern for cut through traffic along cross streets such as Orange Street, particularly if improvements to Churton Street fail to improve traffic flow. The concern is that traffic will divert through the neighborhoods to avoid congested areas of the downtown core.



Issue: Parking

The 2010 Downtown Parking Study included an inventory of on- and off-street parking spaces. This inventory showed 3 on-street spaces northbound, 18 spaces southbound, 66 in the Bank of America lot, and 206 non-reserved spaces in the Eno River Parking Deck. Discussions with local staff, residents, and business owners during the public design charrette as well as a review of the parking study and field verification revealed the following issues associated with parking.

- The layout and ingress/egress points for the Bank of America parking lot create an inefficient use of space.
- On-street parking along Churton Street near intersections impedes sight distances for turning motorists and creates unsafe conditions.
- Some on-street parking is underutilized, especially the few spots near SunTrust on northbound Churton Street.
- The Eno River Parking Deck is underutilized by visitor parking in part due to a lack of pedestrian connectivity to the shops and restaurants near King Street.



Recommendations

It's clear that no silver bullet will solve the traffic issues in Downtown Hillsborough. Feasible solutions come only through the combined application of strategic capacity improvements and various demand management alternatives such as turn lane improvements, access management, signal timing and coordination improvements, traffic calming, multimodal considerations, and transit integration. The recommendations described below highlight key consideration to tackle the issues described in this section. This discussion is followed by a series of maps that show the corridor concept in its entirety.

Churton Street Laneage

Laneage improvements on Churton Street can improve traffic flow by reducing delay associated with queuing for left-turning vehicles. These changes will not require removal of existing curb and gutter, though some underutilized parking will be taken. A critical recommendation is the provision of a two-way left-turn lane that provides storage for vehicles turning left into the Bank of America parking lot at the police station.



These images show laneage on Churton Street between Nash and Kollock Street and Margaret Lane (above) and Margaret Lane to Tryon Street (below). The improvements shown below will require the removal of underutilized northbound on-street parking at SunTrust.



Corbin Street Intersection

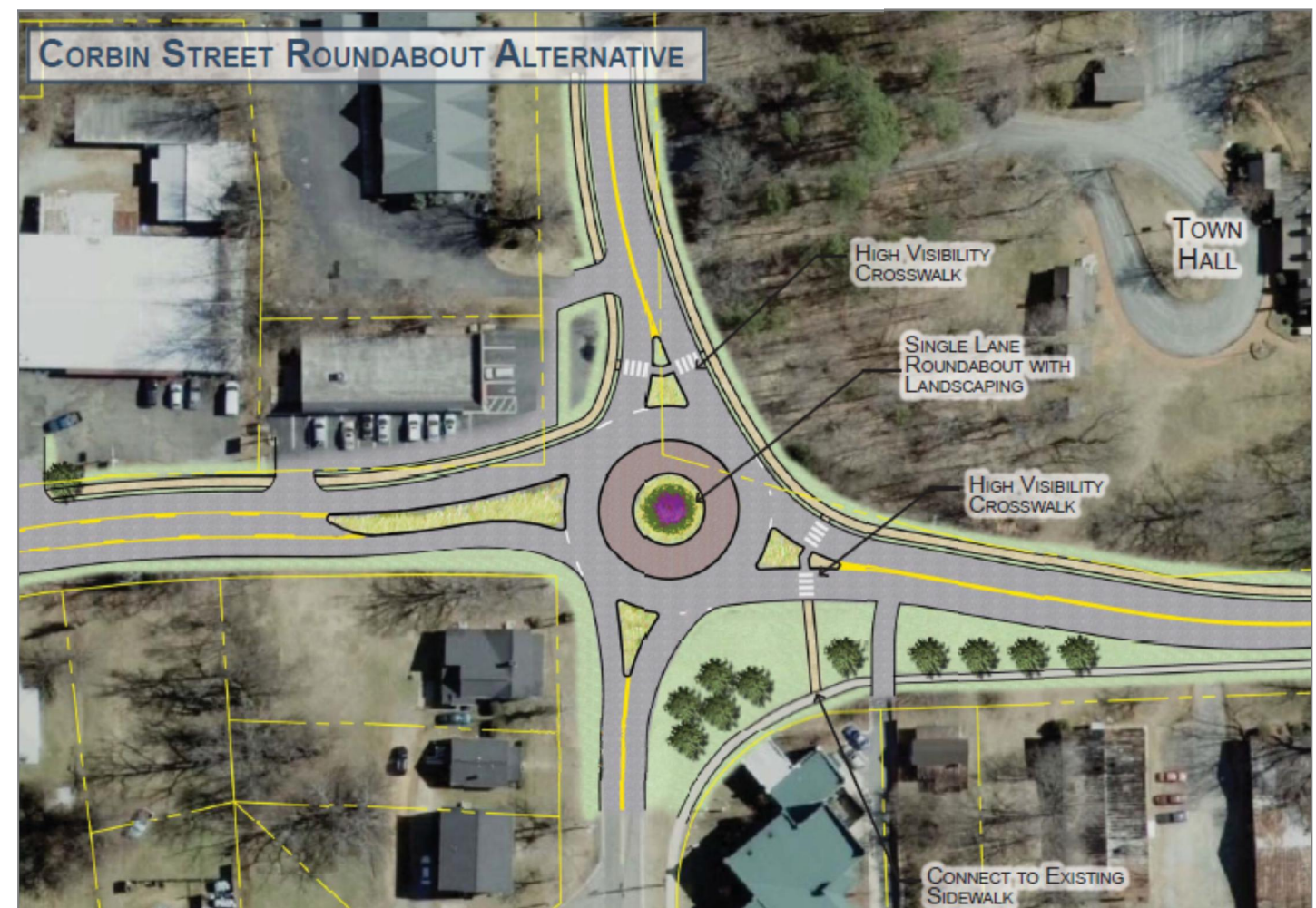
The design issues affecting the intersection of Churton Street and Corbin Street previously described (such sight distance issues due to the angle of the right turn lane from eastbound Corbin Street to southbound Churton Street as well as speeding traffic exiting the intersection) can be corrected with one of the two alternatives described on this page.

Alternative 1 – Turn Lane Improvements and Crosswalks

This alternative removes the free-flow right turn lane to tighten the intersection, improve sight distance issues for vehicles turning right on southbound Churton Street, and slow speeds exiting the intersection southbound. Landscaping is an option at the intersection in the area where the existing right-turn lane is removed.

Alternative 2 – Roundabout

This alternative involves the construction of a single-lane roundabout with high visibility crosswalks. The roundabout provides an enhanced landscaped entrance that contributes to the character of the area and calms southbound traffic. High-visibility crosswalks are provided, connecting to the existing sidewalk. The design shown below requires a 110-foot inscribed circle and maintain access to businesses in the northeast and southwest quadrants and minimizes impacts to residences in the northwest and Town Hall in southeast quadrants.



Margaret Lane Right-In/Right-Out

This exhibit illustrates an alternative treatment for the intersection of Margaret Lane and Churton Street. This alternative restricts movements to and from Margaret Lane to right turns only. Eliminating left turns from Margaret Lane will improve traffic flow on Churton Street.

Associated improvements will be required such as providing a protected left-turn signal phase at King Street and potentially widening Tryon Street to provide a left turn lane. This widening could occur on the north side of Tryon Street.

The Margaret Lane right-in/right-out conversion is projected to provide the most congestion relief along Churton Street per dollar spent. This improvement could be implemented today and would significantly improve traffic congestion in downtown.



Parking

While the focus of the *Downtown Access Study* is on the public realm, parking improvements will require the coordination of public and private efforts. The 2010 Downtown Parking Study noted the changing dynamic of parking in Hillsborough as private entities have invested in parking. A comprehensive on-street and off-street parking study should be conducted to address parking adequacy and location versus parking demand. This study should also include and comment on handicap parking in the area of downtown.

On-Street Parking

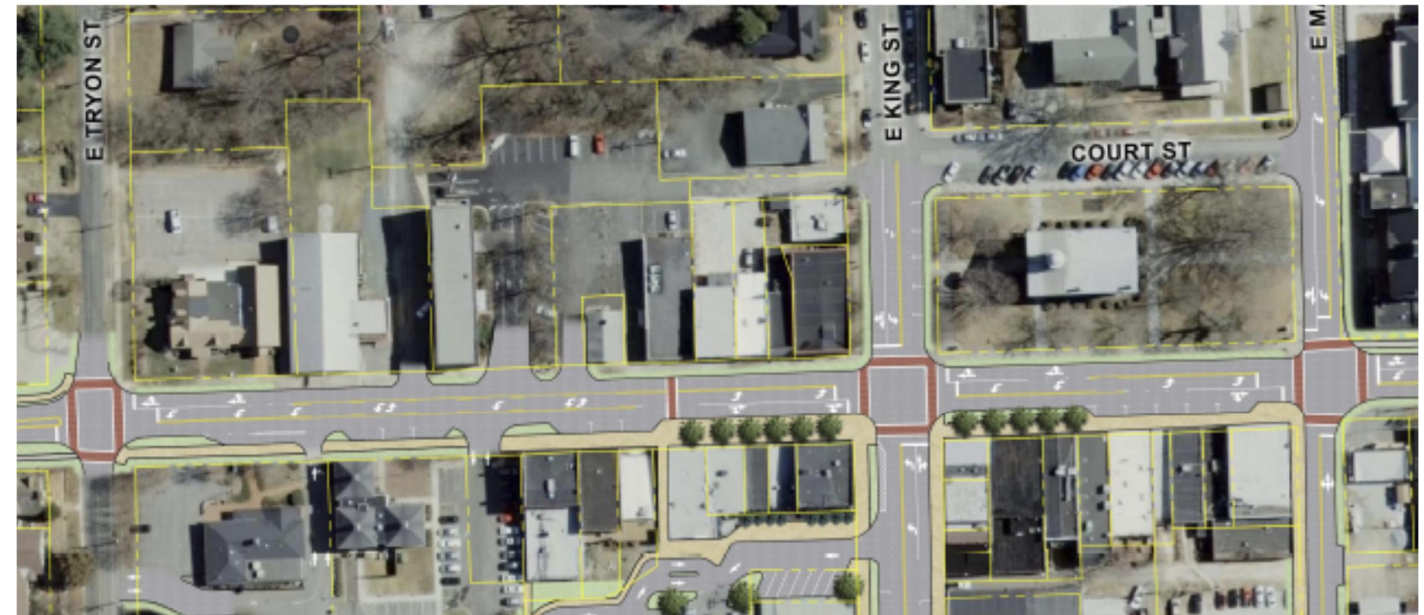
The Downtown Parking Study indicates a total of 21 parking spaces on Churton Street in the downtown core. These spaces include

Parking Inventory		
	Existing	Proposed
Northbound		
King St to Tryon St	3	0
Southbound		
Margaret Ln to King St	9	5
King St to Tryon St	9	6
Total	21	11

The image to the right shows the location of on-street parking along Churton Street between Margaret Lane and Tryon Street. Parking is provided on the southbound side, though some spaces have been removed for a bus pullout and wide sidewalks for outdoor dining.

Bank of America Parking Lot

Improvements to the Bank of America parking lot could improve circulation through the parking lot, reduce delay, create loading zones for delivery vehicles, provide screening for the rear of businesses, and provide opportunities for green space. Two alternatives are presented, with varying levels of public investment and connectivity to Tryon Street.

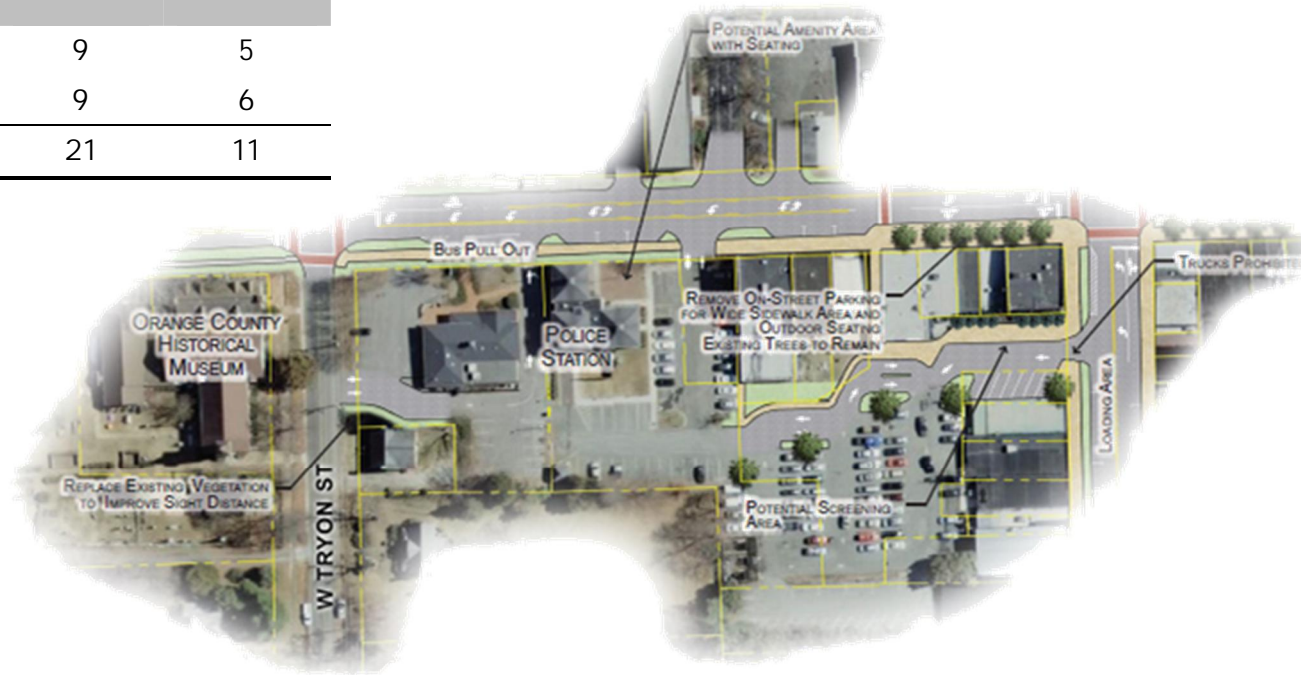


Bank of America Parking Lot – Alternative 1

This alternative focuses on ingress/egress at two points – King Street and Churton Street. The King Street access points would be converted to one-way inbound and a loading zone designated on King Street.

Bank of America Parking Lot – Alternative 2

This alternative is a more whole-scale change to ingress/egress and internal circulation. Vehicular access is provided behind the Annex and police station, allowing vehicles to turn right onto Tryon Street. Circulation improvements and required landscaping improves the functionality of the main portion of the lot. A loading zone near King Street provides a designated area for deliveries that is removed from traffic and close to the restaurants and businesses along Churton Street.



Multimodal Transportation

Downtown Hillsborough's grid network of interconnected streets provides an ideal setting for bicycle and pedestrian movements. Multiple route choices with lower speeds typical of a downtown area help mitigate congestion and safety issues of all modes. However, portions of the transportation network continue to experience significant constraints and challenges. Mobility through the community often conflicts with access to downtown amenities and neighboring residences. These conflicts become magnified when viewed through the lens of bicycle, pedestrian, and transit mobility.

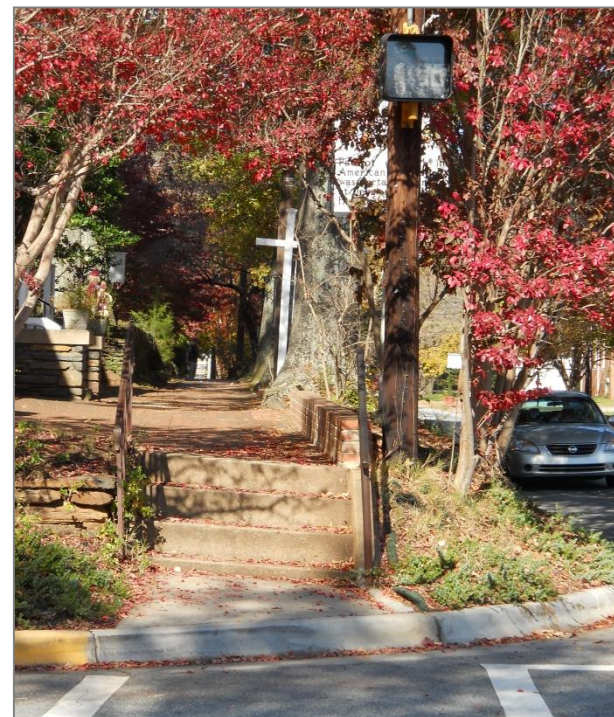
The Town of Hillsborough examined the needs of pedestrian and bicycle travel through its Community Connectivity Plan, finalized in June 2009. This plan identified barriers to travel, documented near-term improvements to the bicycle and pedestrian network, and proposed mid-term and long-term recommendations for the system. These improvements consisted of both on-street and off-street facilities as well as ancillary bicycle and pedestrian facilities and amenities. The issues and recommendations identified by this plan have been folded into the *Downtown Access Study*. Based on feedback during the planning process, some of these recommendations have been augmented or enhanced to best reflect the desires of the public.

The issues that follow relate to the pedestrian, bicycle, and transit operations of Churton Street and key cross-streets.

Issue: Pedestrian Connectivity & Safety

Through feedback from the Advisory Committee, public design charrette, and field review, the desire for enhanced pedestrian connectivity along Churton Street emerged as a clear priority. The following observations were noted during this process:

- Many pedestrian intersection crossings of Churton Street are unsafe.
 - Crosswalks are needed at strategic intersections.
 - Patterned crosswalks would call greater attention to crossing locations and enhance streetscape features.
 - Pedestrian crossing signs at high-volume locations would provide additional notification for vehicles.
- Mid-block crossings of key side street connections near destinations could attract high pedestrian volumes.



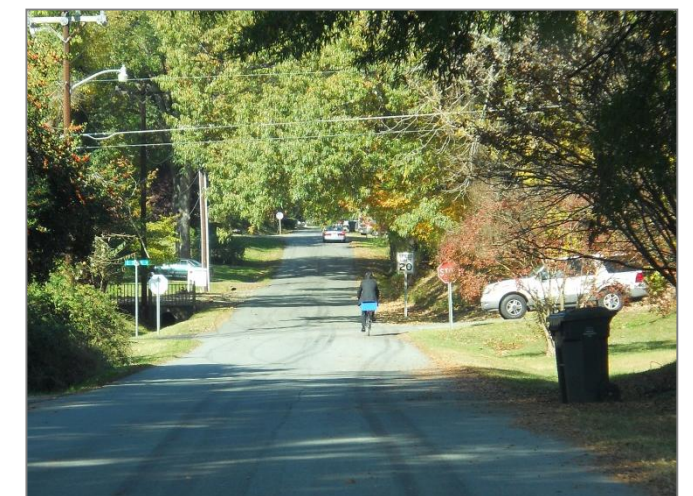
- Gaps in the sidewalk network create an uneven system, making Churton Street difficult for pedestrian travel.
 - The gap in the sidewalk network in front of Town Hall is a high priority.
 - Sidewalk extensions on Churton Street north to the US 70 Bypass and south across the Eno River bridge as well as supporting facilities on Corbin Street and Margaret Street have been identified as high priorities.
- Sidewalk connections need to be provided to destination points such as River Park.
- Churton Street is bookended by a high-traffic roadway (US 70 Bypass) and a bridge crossing the Eno River. These barriers need to be mitigated as much as possible.
- Improvements to the Eno River bridge crossing also need to consider the planned tie-in to Phase II of the Riverwalk greenway facility.



Issue: Bicycle Mobility

No roads in the Downtown Hillsborough area currently signed as bicycle routes. It's important to remember that since bicycles are considered vehicles they have equal right to use any non-restricted roadway. However, bicyclists can be encouraged to frequent certain routes that have amenities while connecting desired attractions and destination points. The following observations were noted during the public involvement process:

- Additional bike racks are needed for near downtown destination points.
 - Existing bike racks in the area could be augmented through donations or public funds.
- Churton Street near the US 70 Bypass and the Eno River Bridge is not bicycle friendly.
- An alternate bicycle route is needed to give cyclists an option to riding on Churton Street through downtown



Issue: Transit Accessibility

Downtown Hillsborough currently is served by two bus routes. Triangle Transit's Route 420 connects Downtown Hillsborough with Chapel Hill. This route travels along Churton Street in the downtown, and continues along NC 86 towards Chapel Hill. The bus makes two stops on Churton Street – near the Maxway Shopping Center and near the intersection with King Street. The Town of Hillsborough and Orange County are currently partnering to run a Hillsborough Circulator Bus. This bus system is funded through a grant from the Congestion Management and Air Quality Program. Through Downtown Hillsborough, this bus runs along Churton Street, with stops at the same locations as Triangle Transit Route 420.

The existing transit options provide service to a large portion of the town. To improve efficiency and functionality in the downtown area, the following observations were noted:

- Lack of bus pullouts creates congestion and safety issues along Churton Street
- Additional amenities such as shelters and parking are needed at certain bus stops to make them more desirable for use
- Bus stop locations need to be re-evaluated to make sure they are at the most suitable locations



Recommendations

Effective bicycle, pedestrian, and transit movement is critical to the success of the Downtown Hillsborough area. With its proliferation of civic, retail, and recreational destination points, the downtown area is a natural hub for non-motorized activities. Based on the issues identified through the Downtown Access Study as well as the issues and proposed solutions developed in the *Community Connectivity Plan*, the following projects are recommended to serve pedestrian, bicycle, and transit users. These improvements can also be seen on the Concept Design maps that follow.

Pedestrian Connectivity and Safety

Overall, the desire expressed by the Advisory Committee and the public was to create a connected sidewalk network that allows pedestrians to travel safely through downtown. The Town's *Community Connectivity Plan* sought to address this at a larger scale. Recommendations for pedestrian improvements also tie closely with recommendations for streetscape enhancements and traffic congestion. The following improvements are recommended to the pedestrian network:

Pedestrian connectivity improvements

Add sidewalk on the east side of Churton Street between US 70 Bypass and Tryon Street. In some areas, adding this sidewalk will necessitate adjusting the curb so that the current treeline can be preserved. Adding sidewalk in this area will reduce the width of the travel lanes from approximately 15' to 12'. These narrower lanes will encourage lower speeds.

Minimize impact of pedestrian barriers

Create a new sidewalk connection on the east side of Churton Street to the Eno River Bridge. This will need to be elevated in some areas to remain consistent with the existing grade. Having

sidewalks in this location will also facilitate a future connection to the Riverwalk Greenway.

Enhance high-pedestrian traffic areas

Remove on-street parking to add a wide sidewalk on the west side of Churton Street between Tryon Street and Margaret Lane.

Install decorative crosswalks

The intersections of Churton Street with Corbin Street, Tryon Street, King Street, Margaret Lane, and Nash and Kollock Street should be considered for this treatment on some or all legs. This enhances the streetscape feel and creates a higher-visibility crossing location. Short sidewalk segments may need to be added in some locations to connect these crosswalks to the existing sidewalk network. A crosswalk also needs to be added across the minor legs at Queen Street.

Based on a citizen request, it is our understanding that NCDOT plans to upgrade the Churton Street at King Street traffic signal to an ADA compliant Accessible Pedestrian Traffic Signal. Funding for this project has not yet been identified.

Designate mid-block crossings

Decorative mid-block crossings are recommended on Churton Street between Tryon Street and King Street, on King Street west of Churton Street, and on Margaret Lane west of Churton Street. Mid-block crossings should always be well marked since they invite pedestrians to cross the street at a non-intersection location. The decorative element assists with this while remaining consistent with the proposed streetscape.

Install ground-mounted pedestrian crossing markers

These warning signs will help to alert drivers of mid-block crossing locations. The signs are recommended at the existing crosswalk on Nash and Kollock Street west of Churton Street and the proposed mid-block crossings of King Street and Margaret Lane.

Connect to River Park

A sidewalk connection to River Park is recommended on the east side of Churton Street from Nash and Kollock Street. This connection will create a link between the activity points on Churton Street and the recreational opportunities at River Park. Careful engineering will be needed to determine if this connection is feasible with current grades and existing infrastructure in the area.



This portion of the Concept Design shows many features that aim to improve the safety and mobility for non-vehicular traffic. Improvements shown here include a sidewalk connection that fills the gap between the existing sidewalk near the Courthouse to the Eno River bridge. A decorative crosswalk at the Nash and Kollock Street signal and connection to River Park also is shown. Mid-block crossings on side streets are shown on the Concept Designs with an emphasis on ground-mounted pedestrian crossing markers.

Bicycle Mobility

In order to best serve bicyclists in the Downtown Hillsborough area, improvements need to be made to both the roadways and the supporting facilities. Bicycle recommendations need to balance the desire to access destinations along Churton Street with the viability for more bicycle-friendly routes. In addition, many of the recommendations identified for traffic congestion and safety improvements will also yield benefits for bicycle travel. The following improvements are recommended to the bicycle network:

Designate an alternative bicycle route

The Community Connectivity Plan recommended designating a signed bicycle route that runs along Cameron Street from Margaret Lane to Corbin Street. This route would encourage bicyclists to bypass Churton Street, while still placing them close to desired destination points.

Minimize travel barriers

Signage and other ancillary features should be considered to support bicycle travel along Churton Street near the Eno River Bridge and US 70A. The Community Connectivity Plan recommends striped bicycle lanes in these locations. Since adding these lanes would necessitate additional pavement (including replacement of the Eno River Bridge), they are not part of the near-term recommendations in this plan. However, they should be considered as other roadway improvements are made to this area in the future.

Create bicycle parking areas

As with any vehicle, each bicycle trip begins and ends with a need for parking. To serve these users, bicycle racks should be added near key destination points not currently served with these amenities.

Transit Accessibility

The best way to continue to serve transit riders and grow the ridership population is to provide attractive services and amenities. The existing transit services do provide a variety of connections and opportunities to potential riders. Recommendations to enhance transit service focus on siting bus stops at optimal locations while also giving the user a comfortable waiting experience. The following improvements are recommended for the transit network:

Relocate bus stops

Where bus stops are deemed inadequate, they should be shifted to more suitable locations. Relocations are recommended for the stop near the North Hills (Maxway) Shopping Center and near the Gateway Center. These locations can be seen on the Concept Designs noted as bus pullouts.

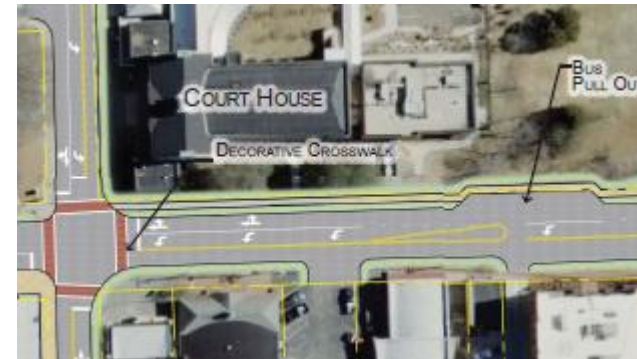
Create bus pullouts

Bus pullouts can alleviate congestion issues, improve safety, and create a more comfortable environment for patrons to wait since they are removed from the flow of traffic. Bus pullouts are recommended at the following locations:

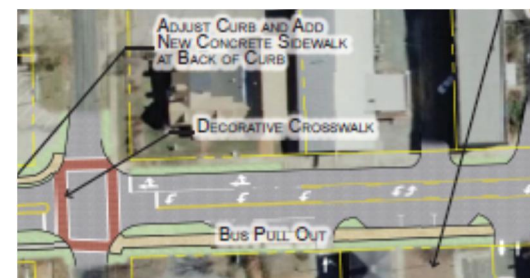
- Northbound Churton Street across from the Gateway Center
- Northbound Churton Street in front of the Highway 70 BBQ, North Hills (Maxway) Shopping Center
- Southbound Churton Street in front of the Town Annex

Enhanced bus stop

A particular need was communicated to provide amenities at the bus stop near the North Hills (Maxway) Shopping Center. Amenities should include a bus shelter and dedicated parking. The bus stop near the Town Annex would benefit from a recommended bicycle rack at that location.



This series of three images show the bus pull out locations along Churton Street, two northbound and one southbound.



Streetscape & Downtown Vitality

Downtown Hillsborough has an incredibly rich history spanning over 250 years. This history is reflected in the character of the area and contributes to look and feel of downtown. Much of the Town's vibrancy is the result of its historical charm. Churton Street functions as an important north-south link in the Town's transportation network and serves as a gateway into the historic downtown.



Issue: Streetscape

The Context Zones introduced in Chapter 1 are very distinct when viewed in terms of streetscape. The portion of the study area north of Corbin Street (Context Zone 1) includes an aging strip retail center, which is a stark contrast to the historic neighborhood just to the south anchored by the Burwell School (Context Zone 2). These areas are quite different from Context Zone 3 and the mix of commercial establishments, governmental buildings, and historic properties. The following list describes points of emphasis from outreach efforts.

- Street trees are needed along Churton Street between Corbin Street and the US 70 Bypass.
- Landscaping at the Corbin Street intersection could signal a change in character as motorists enter the historic district.
- Greenspace is needed throughout the corridor.
- Trees along the eastside of Churton Street north of Tryon Street need to be preserved.
- Street trees are needed along Churton between King Street and Margaret Lane.
- Patterned crosswalks, especially in the central business district, would serve the dual purpose of improving safety and enhancing the look of the area.

Issue: Enhanced Landscaped Entrances

Enhanced landscaped entrances define a change of character for a given area. While the charm and unique character of the Town of Hillsborough is obvious to motorists traveling the Churton Street corridor, the area could benefit from enhanced landscaped entrances with coordinated landscaping and signage as recommended in the Town's recent Wayfinding Signage Plan. These areas that serve as the first impression for many visitors and customers to downtown should not be overlooked. Specific comments from the public design charrette included:

- The North Hills (Maxway) Shopping Center near the US 70 Bypass needs attention.
- Better landscaping on the south end of the Corridor (near the Eno River) could improve the feel of the area as motorists enter the historic district.



Issue: Downtown Vitality

Like most communities, the downtown area of Hillsborough plays a critical role in the health of the community. The area provides much of the community's historical value, tax revenue, tourism generators, and cultural heritage. The vitality of a downtown area is deeply woven into the fabric of its transportation network, in terms of connectivity, choice, safety, mobility, and appearance. Discussions regarding downtown vitality for the *Downtown Access Study* were conducted alongside discussions regarding streetscape. But the conversation often overlapped with topics covered in the parking and mobility and multimodal transportation topic discussions. As such, many of the issues described previously relate to a discussion of the community vitality. Key points include:

- Wide sidewalk with outdoor dining areas would add to the vibrancy of the area.
- Views to historic properties need to be preserved or enhanced.
- Streetscape improvements need to be planned to be continuous and coordinated.

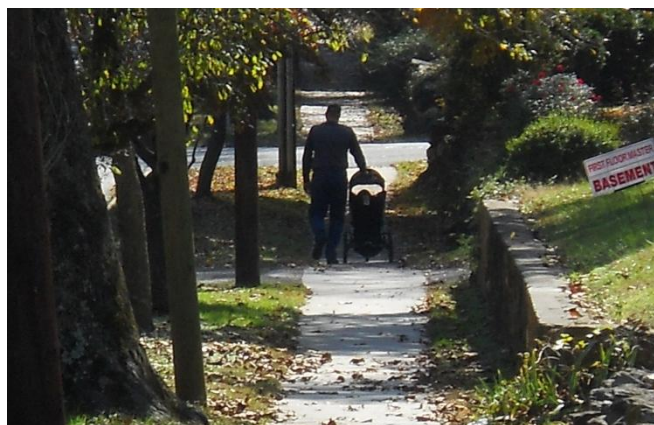


Recommendations

Just as a discussion of issues related to streetscape and downtown vitality overlap with discussions on parking, mobility, and multimodal transportation, improvements in these areas will have a positive impact on the look and feel of the corridor. As such, these improvements should be implemented with an eye toward the impact on the streetscape and downtown vitality. Indeed, the *Downtown Access Study* considered how improvements to the roadway network and system of bicycle and pedestrian facilities can be coordinated with streetscape design. The result is the following list of recommendations:

Street Trees

Street trees are recommended throughout the corridor including understory street trees along the east side of Churton Street north of Corbin and between Tryon Street and Queen Street. Locations with existing, mature street trees should be preserved. For example, the recommended sidewalk along the east side of Churton Street north of Queen Street will be constructed by narrowing the travel lanes to protect existing trees. The existing street trees near the King Street intersection also should be protected as other improvements are completed. Though not street trees, it should be noted that improvements associated with the redesign of the Bank of America Parking Lot likely will require planting trees based on existing Town ordinances.



Wide Sidewalks

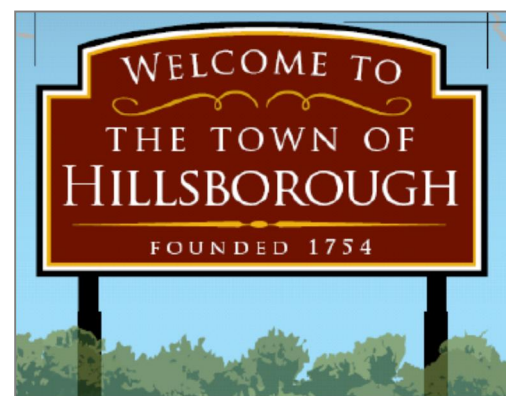
Outdoor dining currently is popular in Hillsborough, though the width of the sidewalk limits the functionality of these spaces and can impede safe pedestrian travel. Wide sidewalks are recommended along the west side of Churton Street in the first half block north and south of King Street to accommodate outdoor dining, street trees, and other urban design features.

Historical Views

This historical charm of the Town should be preserved through screenings (e.g. the rear of the existing restaurants along Churton Street).

Enhanced Landscaping Treatments

Enhanced landscaped entrances can be a combination of specific entrance points as well as linear entrance corridors, key thoroughfares and highways. They can be an ensemble of streets, buildings, natural features and landscapes, bridges, and special elements such as signage and public art. The major entrances into downtown Hillsborough along main travel corridors can convey the Town's identity by utilizing characteristic design elements that reflect Hillsborough's character. In addition, development along major entranceways influences the visitor's first impressions and their image of Hillsborough.

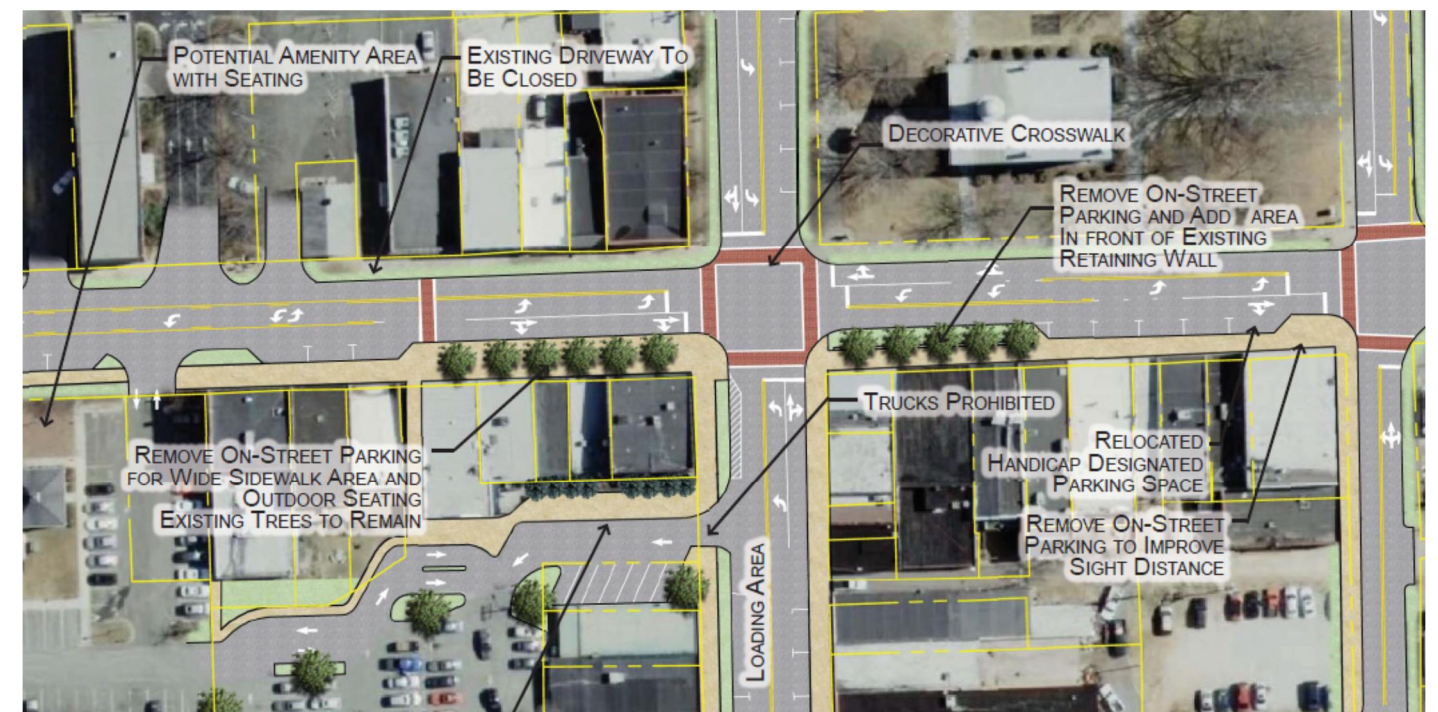


Concept Designs

(See pages 4-11 & 4-12)

The preceding sections highlighted introduced a series of recommendations based on three categories: 1) Parking & Mobility, 2) Multimodal Transportation, and 3) Streetscape & Downtown Vitality. These sections showed select recommendations usually accompanied by a graphic that depicts the proposed improvements. The maps that follow are the critical deliverable of the *Downtown Access Study*. These exhibits provide more full conceptual designs for the corridor. These plans show design detail regarding the specific recommendations, including intersection improvements, access management strategies, pedestrian enhancements, and streetscape elements. These Concept Designs are included as page 4-11 and 4-12.

Wide sidewalks are recommended to enhance the vitality of the area by providing outdoor seating for restaurants.



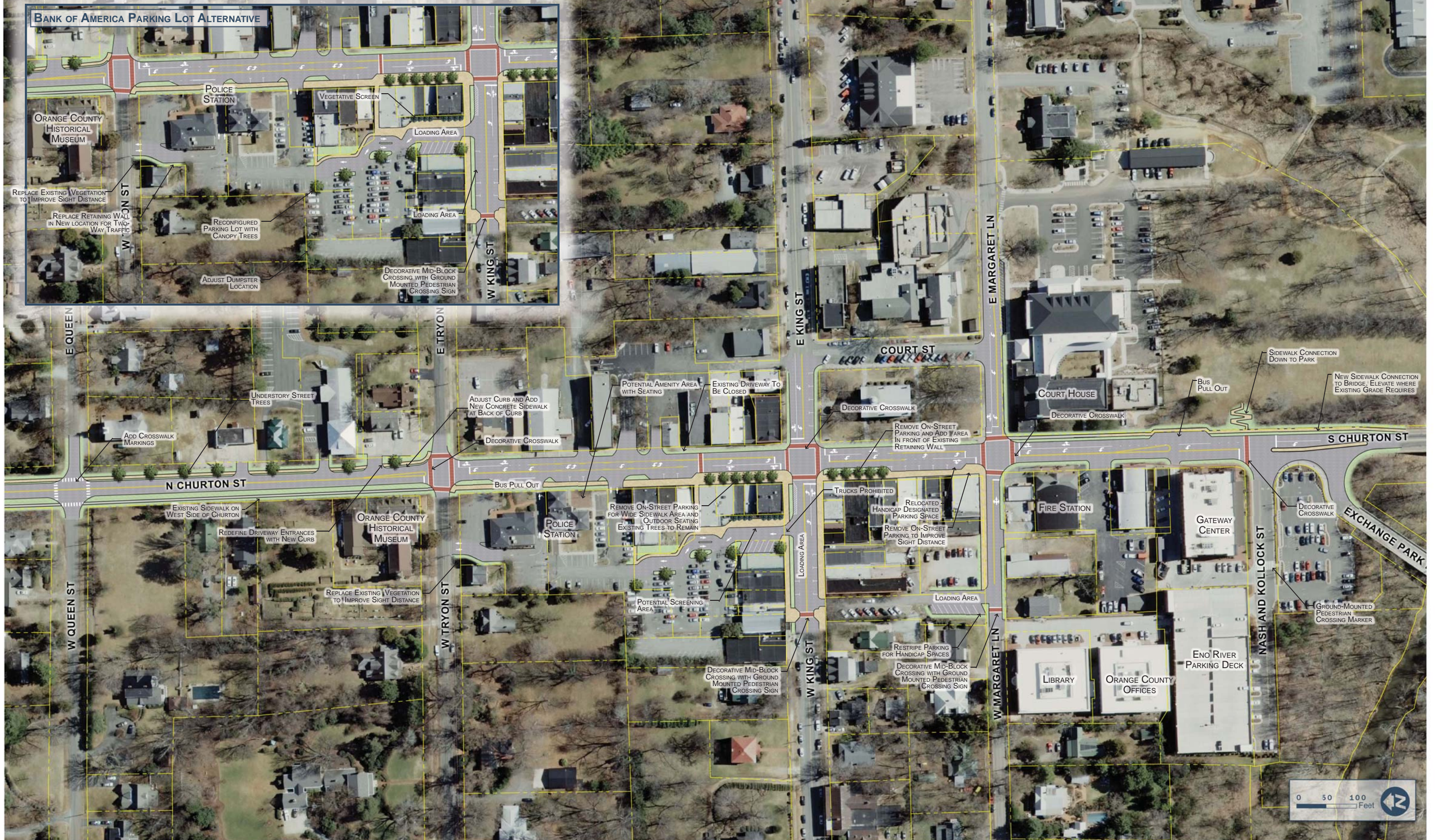
Churton Street Concept Design North

This exhibit details improvements from the North Hills (Maxway) Shopping Center near the US 70 Bypass to Union Street, including alternative treatments for the Corbin Street intersection.

Churton Street Concept Design South

This exhibit details improvements from Queen Street south to the Eno River. This area represents the focus of the *Downtown Access Study* and provides design detail for the heart of Hillsborough. Alternative treatments are shown for the Bank of America parking lot.

CHURTON STREET CONCEPT DESIGN SOUTH



The Town of Hillsborough is ready for a paradigm shift. No longer will they rely solely on decisions made by others that impact the character and well-being of their community. They have made a conscious decision to balance the tradeoffs associated with building a bypass versus protecting the vitality and attractiveness of their community. The choice has been made; community leaders have decided to put their resources and commitment into the enhancement of Churton Street, the primary entryway for their citizens, visitors and commerce into their historic community.

This plan memorializes the Guiding Principles developed at the outset of the Hillsborough Downtown Access Study:

Vision, Plan, Design, and Action

These principles reflect a concerted effort to develop a plan that can be implemented. A well-designed Action Plan for implementation is a critical element to meet the needs of the traveling public, whether by vehicle, bicycle or by foot. Some actions identified here seek to provide a framework in which public and private investments and the development of appropriate programs, policies, projects, and other actions lead to change. The intent of the Action Plan is two-fold. First, it must enable decision-makers to track progress and schedule future year improvements. Second, it must clearly define ways the Town of Hillsborough, Durham-Chapel Hill-Carrboro MPO (DCHC), and NCDOT can leverage public and private investment that foster quality design, economic vitality, and community character through sustainable transportation and land use policies.

Now is the time to plan for the future. Today's conditions on Churton Street are inconvenient at best, potentially unsafe at worst. One thing is certain, without the bypass (i.e., Elizabeth Brady Road Extension) the community will still have to deal with congestion issues. The intent of this study is to develop recommendations that go beyond moving vehicles, but rather connect people with places throughout the community.

The refocusing has begun. Private investment along Churton Street and within the community has energized this historic town into a quality historic village. Completion of the Hillsborough Downtown Access Study represents an important step toward extending this momentum toward a long-term vision of enhanced mobility, improved safety, and renewed development. By design, the plan does not require all improvements to be completed in tandem. Instead, a flexible approach has been created that allows local officials to partner with Town leaders, businesses, development community, and NCDOT to implement the vision in several phases as development occurs and funding surfaces. The plan also protects previous and planned infrastructure investment with careful consideration of how initial phases interact with long-term plans.

This study focuses on identifying multimodal transportation solutions within the corridor to help accommodate immediate and short-term traffic growth while protecting and enhancing the character of the area.

Controlling Factors

The implementation steps identified in this chapter will be executed in phases and will be subject to a variety of factors that will determine their timing. These factors include:

- The degree of control or influence DCHC MPO and the Town of Hillsborough has relative to their desire to implement changes.
- The availability of personnel and financial resources necessary to implement specific improvements.
- The degree to which Hillsborough and NCDOT can proactively work with the development community to enhance the quality of development and urban design within the study area.
- Whether an implementation step is an independent project or program, an

Guiding Principles

The *Hillsborough Downtown Access Study* empowers the Town to evaluate coordinated planning concepts explored in previous plans and develop design solutions for the corridor that balance the sometimes competing interests of local access, mobility, safety, vitality, and quality of life. Early in the planning process, the project's Guiding Principles were developed by the staff-level Advisory Committee to summarize the core philosophy that guides the Hillsborough Downtown Access Study:

- *Improve circulation and mobility for local traffic.*
- *Use innovative ideas and tools for potential solutions.*
- *Enhance walkability through design applications.*
- *Implement access management where appropriate.*
- *Advocate streetscape improvements that enhance downtown vitality, pedestrian comfort, and historic integrity.*
- *Protect the viewshed to historic properties.*
- *Identify policy and regulatory recommendations to complement physical improvements.*
- *Establish recommendations that are functional and implementable.*

incidental part of a larger project, or a component of the rational evaluation of a new development project.

- The interdependence of various implementation items, in particular the degree to which implementing one item is dependent on the successful completion of another item (e.g. intersection improvements to Churton Street before streetscape enhancements).
- The relative severity of the problem that a particular implementation item is designed to remedy.

The Action Plan identifies next step items (priorities) for all categories described and summarized in the preceding chapters. Specific categories include recommendations for Policy & Regulatory, Parking & Mobility, Multimodal Transportation, and Streetscape & Downtown Vitality. Ultimately, these recommendations can be administered concurrently or as priorities and regional initiatives present the opportunity to do so.

Funding Considerations

The Town Board in partnership with DCHC MPO, should explore the feasibility of implementing one or more of the preferred funding strategies identified during the planning process. Initial considerations for implementing the various funding strategies should include:

- The feasibility of implementing a self-finance funding strategy for the Town of Hillsborough, including required state authority, regulatory limitations, or political feasibility.
- The extent of the political jurisdiction that would be subject to the provisions of the new funding strategy (e.g., study corridor or town-wide).
- The amount of revenue that can be generated from the funding strategy.
- A list of eligible projects or planning initiatives that could be implemented with the funding source.

Action Plan Matrix – Policy & Regulatory Items	
	Responsible Party
Adopt the Town of Hillsborough Downtown Access Study	DCHC / Town
Work cooperatively with the Town and NCDOT during the next update of their Capital Improvement Program (CIP) and Transportation Improvement Program to incorporate the phased recommendations of this study	Town/ NCDOT
Update Town ordinance to require/enforce the use of truck loading zones as identified on the Concept Designs	Town
Town should proactively support the truck route (service trucks only) enforcement including processing the traffic citations	Town
Consider the creation of an access management and design overlay ordinance. The ordinance will provide a legal framework for the Town to administer and enforce consistent access management and urban design standards along the Churton Street corridor as depicted in this study. The ordinance should contain rules and requirements for the “core” components of the Concept Design Plans, including travel lane delineation for traffic signals, streetscape, and driveways; and provisions for corner clearance. The ordinance also should require cross access (where applicable) between adjacent commercial properties, consolidation/elimination of excessive driveways, and retrofitting site access to the side and rear portions of the site	Town
Continue to require developers to fund roadway and access improvements that are rational and proportional to the impact created by development	Town/ NCDOT
Update Town ordinances to clarify design guidance for sidewalk, greenways, and preferred parking layout standards	Town
Enforce time-of-day restrictions and/or time limits for on-street parking along Churton Street	Town
Work with NCDOT to install a pre-emption system for emergency service vehicles along Churton Street	Town/ NCDOT
Conduct a Comprehensive Parking Demand Study (Including availability of handicap spaces)	Town

Action Plan Matrix – Phased Improvements

	Planning/Design Cost Estimate	Cost Estimate ^A	Responsible Party ^B
Section 1			
Design and Construct sidewalk along east side of North Churton from Corbin Street to US 70 Bypass. Includes bus pullout, street trees and entranceway landscaping. (See page 4-9).	\$20,000	\$90,000	Town
Section 2			
Install Hi-Visibility crosswalks on all four legs of Churton Street intersections with Queen Street, Union Street and Orange Street. Also includes sidewalk connection at Town Hall	\$3,500	\$15,000	DCHC / Town/ NCDOT
Work with NCDOT to design and install improvements to Churton Street at Corbin Street – Alternate 1: includes crosswalks, landscaping and removal of the free-flow right turn lane.	\$50,000	\$180,000	DCHC / Town/ NCDOT
Work with NCDOT to design and install improvements to Churton Street at Corbin Street – Alternate 2: incorporates landscaping and crosswalk elements of Alternate 1 above into a one-lane roundabout intersection.	\$135,000	\$550,000	DCHC / Town/ NCDOT
Narrow the cross section of Churton Street and add sidewalk on the east side between Tryon Street and Corbin Street.	\$155,000	\$620,000	DCHC / Town/ NCDOT
Section 3			
Install mid-block decorative crosswalk and West King Street and West Margaret Lane. Includes pedestrian crossing signs.	\$1,000	\$5,000	Town
Design and install sidewalk connection along east side of Churton from Courthouse to US 70A with access to River Park (see page 4-7) bus pullout at Nash and Kollock. Planning/Design will assess feasibility of portion of this project. Construction costs should be in four segments – courthouse to Nash & Kollock, Nash and Kollock to Eno bridge, Eno bridge to US 70A, and River Park connection.	\$13,000	\$75,000	DCHC / Town
Remove portions of on-street parking to widen sidewalk and enhance streetscape in ½ block north and south of King Street; also includes bulb-out at Margaret Lane, mid-block crosswalk on Churton Street at "brick alley".	\$15,000	\$65,000	DCHC / Town/ NCDOT
Redesign and modify the Bank of America Parking Lot – Alternative 1 (see page 4-5) this improvement include modifications to ingress/egress, one-way operation and new loading zone on King Street.	\$5,000	\$15,000	DCHC / Town
Redesign and modify the Bank of America Parking Lot – Alternative 2 (see page 4-5) this improvement include modifications to internal circulation, modified access near Annex, new loading area, and landscaping/screening improvements.	\$10,000	\$70,000	DCHC / Town/ NCDOT
Restripe Churton Street to provide greater northbound left turn storage between Tryon and King Streets; includes decorative crosswalks at Tryon Street & bus pullout at Annex. Removes three parking stalls on east side of Churton St.	\$20,000	\$95,000	DCHC / Town/ NCDOT
Design and install a median along Churton Street at intersection of Margaret Lane (see Concept Design Maps) Includes conversion of Margaret Lane to right-in/right-out. Eliminate traffic signal at Margaret Lane, includes decorative crosswalks at King, Margaret and Nash & Kollock; modify traffic signal at King Street to provide westbound protected left turn phase.	\$60,000	\$160,000	DCHC / Town/ NCDOT

^A Cost estimate includes estimated design cost and twenty percent contingency. Probable construction cost estimate is engineer's approximation in current year dollars and is subject to change based on increased construction materials, design, or time of implementation.

^B Timeframe for implementation will depend on project need and available funding. Actual timeframe may vary based on externalities. All projects and "Action Items" have been vetted through a collaborative process which included the following agencies: DCHC, NCDOT, and Town of Hillsborough.

Action Plan Matrix – Funding Strategies

	Responsible Party
Lobby NCDOT and members of the State Board of Transportation (BOT) to include partial funding of the design and implementation of recommended improvements in the next Transportation Improvement Program (TIP).	DCHC / Town/ NCDOT
Leverage NCDOT District funding allocations for “spot safety” improvement monies to implement safety improvements at key intersections along the Churton Street corridor. See Chapter 4 recommendations for intersection priority list.	DCHC / Town/ NCDOT
Solicit NCDOT Division Hazard Elimination, Governor’s Highway Safety Program (GHSP), Small Construction and Contingency funds improvement monies to implement corridor access and safety improvements at key intersections and segments along the Churton Street corridor.	DCHC / Town/ NCDOT
Pursue Enhancement Grants to construct bike, pedestrian and streetscape improvements as outlined in Chapter 4 recommendations. State and federal grants can play an important role in implementing strategic elements of the transportation network. Several grants have multiple applications, including Transportation Enhancement Grants as well as State and Federal Transit Grants. The Enhancement Grant program, established by Congress in 1991 through the Intermodal Surface Transportation Efficiency Act (ISTEA), ensures the implementation of projects not typically associated with the road-building mindset. While the construction of roads is not the intent of the grant, the construction of bicycle and pedestrian facilities is one of many enhancements that the grant targets and could play an important role in enhancing the pedestrian safety and connectivity within the study area.	DCHC / Town/ NCDOT
Continue to aggressively pursue Safe Routes to School (SRTS) funding to enhance bicycle and pedestrian improvements in proximity to the public schools (Cameron Park School, Stanford Middle School, and Hillsborough Elementary School) within the study area. SRTS is a program receiving federal funding through the newest SAFETEA-LU legislation. The program provides funding for individual schools to create route plans or develop facilities that create a safer walking and biking environment for their students. North Carolina has a yearly application program for which any school, school district, municipality or other governmental body, or non-profit association may apply. For more information, visit www.saferoutesinfo.org/ . Projects funded through the SRTS program receive 100% federal funding.	DCHC / Town/ NCDOT
Consider passing a Transportation Bond referendum to potentially fund the Churton Street recommendations. Projects that historically have been funded through transportation bonds include sidewalks, road extensions, new road construction, and streetscape enhancements.	Town
Aggressively pursue Recreational Trails Program to construct the River Walk Trail (greenway, part of the Mountains to Sea Trail) in accordance with this Study. According to the FHWA, “the Recreational Trails Program (RTP) provides funds to the States to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation's Federal Highway Administration (FHWA). Federal transportation funds benefit recreation including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles.”	DCHC / Town/ NCDOT

Conclusion

Churton Street serves many purposes. As the Town's "Main Street", a lifeline to numerous historic resources, and a north-south connection to a host of residences, improvements to mobility and safety must respect the values of the Town and its residents, business owners, and visitors. These stakeholders united with the Town to establish a corridor vision – *"To create a Plan that enhances the safety, mobility, and appearance of the Churton Street corridor, in a manner that promotes quality development and economic vitality"*. This collective vision will move forward only through the efforts of those engaged with the planning process, the "champions" of the Study.

The evolution of NC 86 continues. As a regional commuter route, local north-south connector, lifeline to businesses and neighborhoods, and front door to a historic community a one-size fits all solution is not feasible or desirable. The Town of Hillsborough Downtown Access Study represents a new direction for a corridor that means many things to many people. It's a study built upon the foundation of four directives that demands a renewed focus on coordinated, feasible solutions to address not only the issues we face today but the emerging issues that threaten our way of life. These directives permeate a planning process built on results:

- Vision — The Town of Hillsborough Downtown Access Study will respect previous and ongoing efforts that fostered the current vision for the corridor.
- Plan — The Town of Hillsborough Downtown Access Study will emerge from a planning process grounded in stakeholder involvement and structured analysis and community support.
- Design — The Town of Hillsborough Downtown Access Study will establish realistic design solutions for the

transportation and land use interests of the corridor.

- Action — The Town of Hillsborough Downtown Access Study will conclude with a prioritized implementation strategy that assigns responsibility and funding sources.

Funding Reality

The realization that federal and state dollars are becoming more difficult to secure is one illustration of why we must change the way we do business. No longer can we rely on the status-quo for addressing our regional transportation needs. We must take a proactive approach to address identified needs through innovative partnerships and financing mechanisms that support the historic integrity, growth and prosperity Hillsborough. One thing is certain. Funding and implementing the Churton Street corridor improvements will require partnership between local officials and leaders at Durham-Chapel Hill-Carrboro MPO (DCHC) and NCDOT. Ultimately, continued collaboration between state, local agencies, economic development partners, and the general public will provide more opportunities to foster a safe, aesthetically-pleasing, and well-balanced multimodal transportation system that reinvents this critical gateway corridor. In collaboration with state and local officials, the Town's collective efforts will lead to a safe, multimodal corridor that supports sustainable development opportunities through the heart of Hillsborough's historic community.



Orange County Transit Plan Overview

Public Input Session
April 17 2012

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Purpose of Tonight's Meeting

OTo provide information on:

- Authorizing Legislation
- Sales and Vehicle Registration
- Intent of Legislation: Equity

OTo receive public comment on the Orange County Transit Plan including:

- Plan expenditures
 - Light Rail
 - New and Expanded Bus Service (Provided by CHT, TTA and OPT)
 - Martin Luther King Jr. Blvd Bus Lanes
 - Small Capital Projects (Hillsborough Train Station, Park and Ride, etc)
- Enhanced vs. Core Plans

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**CONGESTION RELIEF AND
INTERMODAL 21ST CENTURY
TRANSPORTATION FUND**

Triangle Regional Transit Program
our transit future

- Passed in July 2009
- Authorizes a county to:
 - Hold a referendum on a ½ cent sales and use tax to fund public transportation
 - Increase the county vehicle registration fee up to \$7.00
- Authorizes a Regional Public Transportation Authority to:
 - Increase the vehicle registration fee by and additional \$3.00

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**CONGESTION RELIEF AND
INTERMODAL 21ST CENTURY
TRANSPORTATION FUND**

Triangle Regional Transit Program
our transit future

- To levy tax, these requirements must be met:
 - Approval County Commissioners
 - Develop and approve a financial plan in conjunction with Triangle Transit
 - Adoption by Metropolitan Planning Organizations
 - Adoption by Triangle Transit Board
 - County public hearing prior to referendum
 - Referendum passed by voters

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SPECIAL ORANGE COUNTY CONSIDERATIONS RELATING TO THE LEGISLATION

Triangle Regional Transit Program
our transit future



- Orange County intends to adopt a unique joint agreement with Triangle Transit to set the timing of the tax levy
- Cost sharing agreement with Durham County regarding Light Rail costs

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1/2 Cent Sales Tax

Triangle Regional Transit Program
our transit future



- 1/2 cent sales tax will add 5 cents to a \$10 retail purchase.
- Food, pharmaceuticals, gasoline, housing and health care are exempt from the sales tax.

VEHICLE REGISTRATION TAX

- Orange County is authorized to impose a Vehicle Registration fee of \$7.00 that can be used to support existing services

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Orange County Draft Plan Overview

Triangle Regional Transit Program
our transit future



- **Background**
- **Core Plan**
 - **Bus Capital Investment (2013 – 2017)**
 - **Bus Services (2013 – 2017)**
 - **Intercity Rail Station in Hillsborough (2015/2016)**
 - **Bus Lane(s) on MLK in Chapel Hill (2019)**
- **Enhanced Plan**
 - **Core Plan**
 - **Light Rail Transit (2026)**

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Background

Triangle Regional Transit Program
our transit future



- **Special Transit Advisory Commission (STAC) recommendations (2008)**
- **DCHC-CAMPO Joint 2035 Long Range Transportation Plan Adopted (2009)**
- **NC House Bill 148: Congestion Relief & Intermodal 21st Century Transportation Fund (2009)**
 - Option of ½ sales tax (referendum required) for public transportation purposes in Triangle and Triad
 - Option of ¼ cent sales tax (referendum required) for public transportation purposes in all other NC Counties
 - Option of vehicle registration fee increase (up to \$7) for public transportation purposes in all NC Counties

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Agency & Public Involvement

Triangle Regional Transit Program
our transit future

- Major Corridor Planning:
- 3 Sets of Public Workshops totaling 19 meetings
 - June and Sept 2010; March 2011
 - Multiple locations in Orange County
- Bus Planning
 - Onboard-bus customers surveys
 - Short Range Transit Plans
 - Transit Agency Staff Input
 - Call Center Data: "Does the bus go to _____?"



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Bus Capital Investment: \$6 Million over 5 Years

Triangle Regional Transit Program
our transit future

Chapel Hill Transit	2.41
D-East Lane	4.49
F-Colony Woods	24.64
H-Ch Hill Lib	35.88
U-Boules Drive	18.28

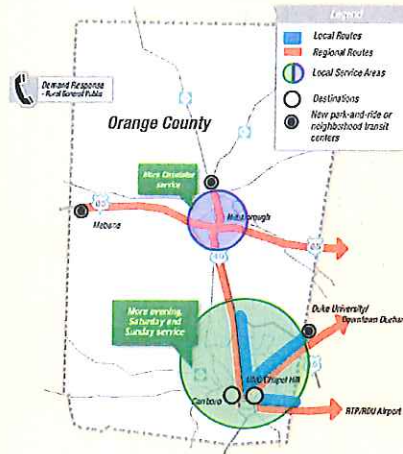
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Bus Services: 34,650 hrs Implemented by 2017

Triangle Regional Transit Program
our transit future

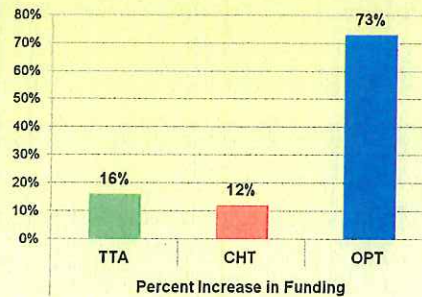
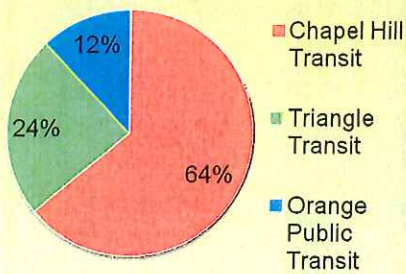


DRAFT Orange County Bus Investment Plan



Bus Services: Proposed Apportionment by Agency

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Intercity Rail: Hillsborough Train Station

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- Access from Hillsborough to Durham, Raleigh, Greensboro, Charlotte, more NC cities 4 times/day
- Direct service to NYC, DC, Richmond via Carolinian
- \$4 to \$8 million in investment



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MLK Bus-Only Lanes by 2019

Triangle Regional Transit Program
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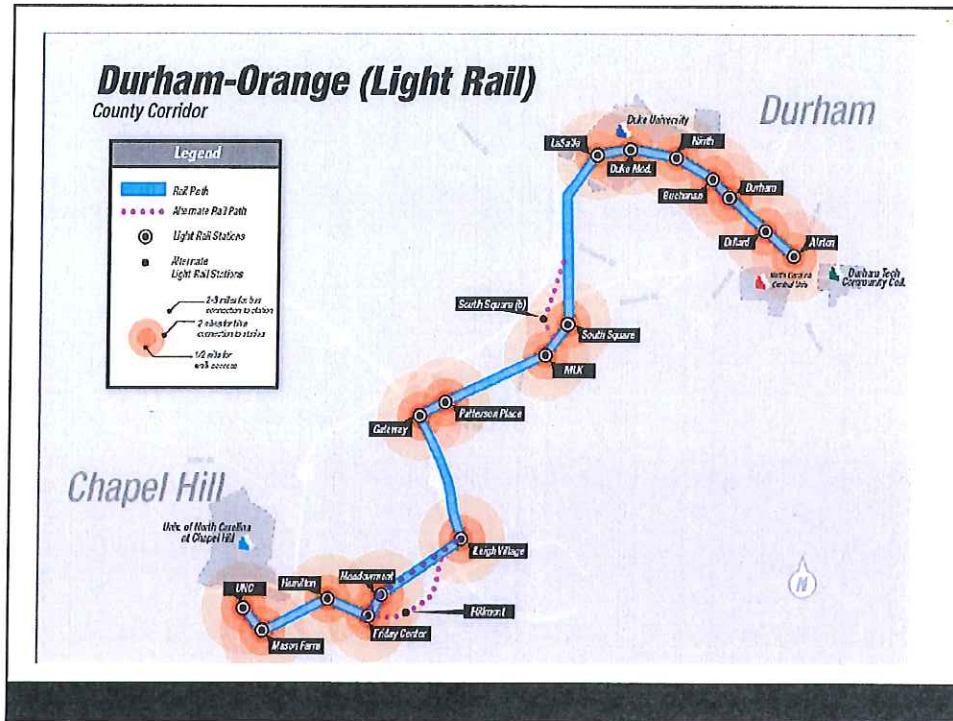
- From I-40 area to Estes Drive
- Will improve access to main campus and Carolina North



Photo is for demonstration; implementation on MLK may be different

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Examples: Light Rail Transit (LRT)

*Triangle Regional Transit Program
our transit future*


Charlotte

Salt Lake City

Phoenix


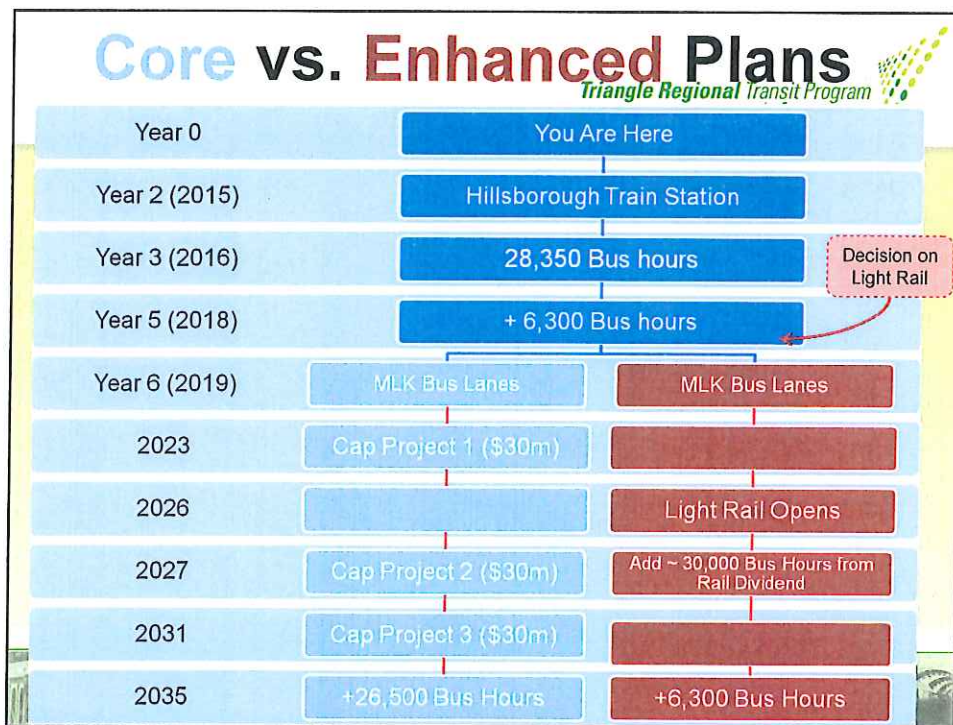
Denver

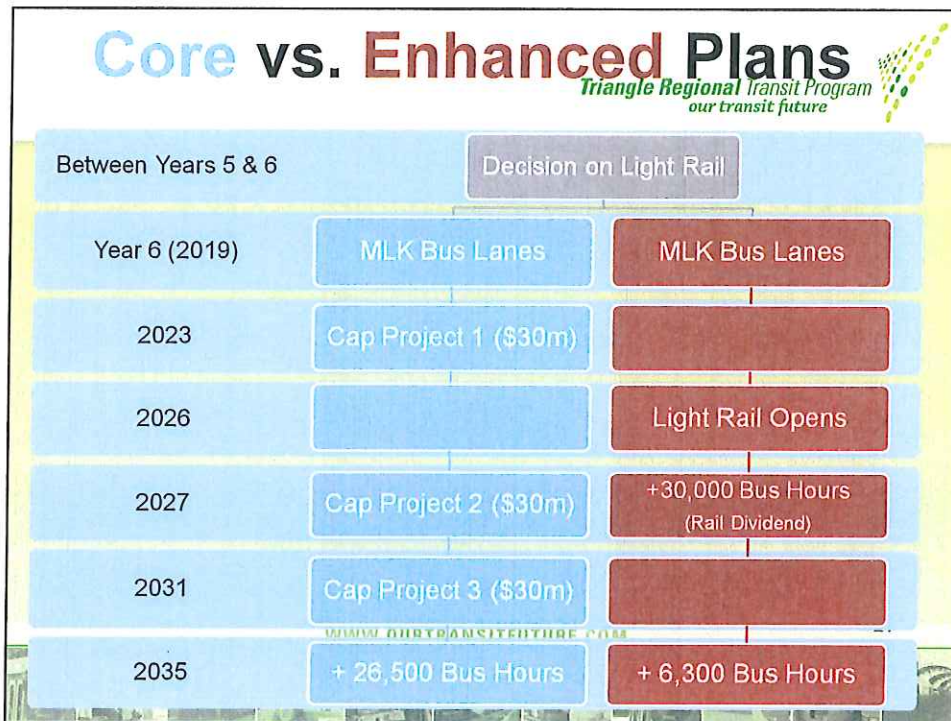
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Triangle Regional Transit Program
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PUBLIC COMMENTS

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ORANGE COUNTY DRAFT BUS PLAN - FUNDED AND FUTURE COMPONENTS

CHAPEL HILL/CARRBORO/UNC SERVICES - FUNDED FIRST FIVE YEARS				
Service Type	Projects	Enhanced or New	Cumulative New Service Hours	Service Description
Local	Service Improvements - 15/501 corridor	New / Enhanced	7,279	Reconfigure existing CL, D, D Express route services to improve frequency, span coverage. Improve travel time and connectivity. Extend routes to connect with TTA and DATA
Local	Service Improvements - 54 corridor	New / Enhanced	11,295	Reconfigure existing routes in the 54 corridor. Introduce new service for expanded park and ride operations for new developments. Increase hours of operation to be consistent with demand.
Local	Support Existing Service	Enhanced	17,295	Support the growth in cost of established services.
Local	Introduce Sunday service in Chapel Hill, Carrboro, UNC	New	22,391	Introduce fixed route bus service on Sundays in the CHT service area
Local	Expand Saturday service in Chapel Hill, Carrboro, UNC	Enhanced	26,031	Redesign routes to expand coverage, hours of service and frequency on Saturdays routes
Local	Expand CHT evening service	Enhanced	30,111	Redesign evening routes to serve demand, expand operating hours to meet later work times and make schedules consistent
Local Express	Expand Pittsboro / Chapel Hill	Enhanced	30,927	Expand service operating hours and trips
Local	Improve CHT peak hours service frequency	Enhanced	33,136	Add additional buses on peak hour routes that are experiencing peak hour overcrowding

ORANGE COUNTY DRAFT BUS PLAN - FUNDED AND FUTURE COMPONENTS

HILLSBOROUGH LOCAL AND RURAL ORANGE COUNTY SERVICES - FUNDED FIRST FIVE YEARS

Service Type	Projects	Enhanced or New	Cumulative New Service Hours	Service Description
Local	Hillsborough Circulator	Enhanced	2,008	Operage Hillsborough Circulator Mon-Fri 8 hours per day
Local	Improve Service in Unincorporated Orange County	Enhanced	4,200	Improve capacity of demand response service to rural areas
Local	Hillsborough Circulator Phase 2	Enhanced	4,702	Add Saturday Service to Hillsborough Circulator
Local	Improve Service in Unincorporated Orange County	Enhanced	6,887	Further improve capacity of demand response service to rural areas

ORANGE COUNTY DRAFT BUS PLAN - FUNDED AND FUTURE COMPONENTS

TCC 4/25/2012 Attachment 10

REGIONAL SERVICES - FUNDED FIRST FIVE YEARS

Service Type	Projects	Enhanced or New	Cumulative New Service Hours	Service Description
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405)	Enhanced	1,506	Increase peak-hour frequency of the express route between Durham and Chapel Hill to 15 minutes during the peak commute, directly serve Downtown Carrboro with rush hour service to Durham
Regional Exp	Mebane-Hillsborough-Durham Express Introduce Service	New	2,510	Introduce a new express route serving Mebane, Hillsborough, and Durham
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405) - mid-day	Enhanced	4,016	Increase frequency of the express route between Durham and Chapel Hill or Carrboro
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405) - Sundays	New	4,640	Introduce Sunday service on route between Durham and Chapel Hill or Carrboro
Regional	Chapel Hill-Regional Transit Center via Southpoint (Route 800) - Sundays	New	5,264	Introduce Sunday service to the existing TTA route 800
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405) - Saturday	Enhanced	5,484	Extend service between Durham and Chapel Hill or Carrboro to 11 p.m. on Saturdays
Regional	Chapel Hill-Regional Transit Center via Southpoint (Route 800) - Saturdays	Enhanced	5,704	Extend service between RTP and Chapel Hill (via Southpoint) 11 p.m. on Saturdays
Regional	Route 800-SW Durham (Southpoint)-Chapel Hill peak	Enhanced	7,210	Phase 1 service improvement - increase peak hour frequency on the existing TTA Route 800. Currently the route operates at 30-minute frequency
Regional Exp	Chapel Hill-Raleigh Express (Route CRX) - peak	Enhanced	7,963	Introduce mid-day service on the express route between Chapel Hill and Raleigh
Regional	Hillsborough-Chapel Hill (Route 420) - peak: IMPLEMENTED in 2012	Enhanced	7,963	Increase frequency of the regional route between Hillsborough and Chapel Hill to 30 minutes during the peak commute
Regional	Additional Service Hours TBD	Enhanced	8,200	237 additional hours that may augment any of the services above

REGIONAL SERVICES - UNFUNDED, FUTURE PRIORITIES AFTER YEAR 2020

Service Type	Projects	Enhanced or New	Cumulative New Service Hours	Service Description
Regional Exp	Mebane-Hillsborough-Durham Express Expansion	New	9,204	Increase the frequency on an express route serving Mebane, Hillsborough, and Durham to 30 minutes at peak
Regional	Hillsborough-Chapel Hill (Route 420) - mid-day	Enhanced	13,722	Increase the frequency on the regional route between Hillsborough and Chapel Hill to 30 minutes during the mid-day
Regional Exp	White Cross to Carrboro to Chapel Hill Express	New	15,228	Phase I - Introduce a new express route serving Alamance County and Chapel Hill (via NC-54) at an hourly frequency
Regional Exp	White Cross to Carrboro to Chapel Hill Express	New	16,734	Phase I - Introduce a new express route serving Alamance County and Chapel Hill (via NC-54) at a 30-minute frequency
Regional Exp	Chapel Hill-Raleigh Express (Route CRX) - mid-day	Enhanced	18,366	Introduce mid-day service on the express route between Chapel Hill and Raleigh
Regional	Chapel Hill-Regional Transit Center via Southpoint (Route 800) - mid-day	Enhanced	19,997	Increase frequency of the regional route between RTP and Chapel Hill (via Southpoint) to 30 minutes during the mid-day
Regional	Route 800 - RTC via SW Durham (Southpoint)-Chapel Hill peak	Enhanced	20,813	Phase 2 service improvement - increase frequency of the existing Route 800 between RTP and Chapel Hill (via Southpoint) to 15 minutes during the peak commute
Regional	Chapel Hill-Regional Transit Center via Woodcroft (Route 808) - mid-day	Enhanced	21,691	Introduce mid-day service on the express route between Woodcroft and Chapel Hill

DURHAM-ORANGE REGIONAL SERVICES - FUNDED FIRST FIVE YEARS - Comparison of Plans**Triangle Transit Regional Bus Projects**

Service Type	PROJECTS	Enhanced or New	Orange Plan Description	Orange Plan Hours	Durham Plan Description	Durham Plan Hours
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405)	Enhanced	Increase peak-hour frequency of the express route between Durham and Chapel Hill to 15 minutes during the peak commute, directly serve Downtown Carrboro with rush hour service to Durham.	1,506	Carrboro-Chapel Hill-Durham Express (Route 405) - 15 minute service during peak hours	1,500
Regional Exp	Mebane-Hillsborough-Durham Express Introduce Service	New	Introduce a new express route serving Mebane, Hillsborough, and Durham.	1,004	Mebane-Hillsborough-Duke/VA Medical Centers Exp	1,600
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405) - mid-day	Enhanced	Increase frequency of the express route between Durham and Chapel Hill or Carrboro to 30 minutes during the mid-day.	1,506	Not included.	
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405) - Sundays	New	Introduce Sunday service on route between Durham and Chapel Hill or Carrboro.	624	Carrboro-Chapel Hill-Durham Express (Route 405) - Sundays	600
Regional	Chapel Hill-Regional Transit Center via Southpoint (Route 800) - Sundays	New	Introduce new Sunday service to the existing TTA route 800.	624	Chapel Hill-Regional Transit Center via Southpoint (Route 800) - Sundays	600
Regional Exp	Carrboro-Chapel Hill-Durham Express (Route 405) - Saturday	Enhanced	Extend service between Durham and Chapel Hill or Carrboro to 11pm on Saturdays.	220	Chapel Hill-Durham Express (Route 405) - extend Saturday hours to 11pm	200
Regional	Chapel Hill-Regional Transit Center via Southpoint (Route 800) - Saturdays	Enhanced	Extend service between RTP and Chapel Hill (via Southpoint) to 11pm on Saturdays.	220	Chapel Hill-Regional Transit Center via Southpoint (Route 800) - extend Saturday hours to 11pm	200
Regional	Route 800-SW Durham (Southpoint)-Chapel Hill peak	Enhanced	Phase 1 service improvement - increase peak hour frequency on the existing TTA Route 800. Currently the route operates at 30-minute frequency.	1,506	Chapel Hill-Regional Transit Center via Southpoint (Route 800) 15 minute service during peak hours	1,500
Regional	Additional service Hours TBD	Enhanced	237 additional hours that may augment any of the services above	237	By 2035 (both regional and local)	27,000

Durham-Orange Corridor Rail Project**Opening Date**

Durham Plan - opens 2025 (this date is not actually noted anywhere in the text of the plan)
 Orange Plan - opens 2026

Capital Cost

Durham Plan - \$1.4 billion total, \$1.05 billion Durham County (2011 \$)
 Orange Plan - ?

Operations and Maintenance Cost

Durham Plan - \$15 million/year, \$11.3 million/year Durham County (2011 \$)
 Orange Plan - ?

Local Revenue Share

Durham Plan - "Durham County to fund all rail investment (capital, operations, and maintenance costs) within Durham County with the exception of the light rail investment found within those portions of the Chapel Hill town limit which are inside Durham County"
 The percentages are not noted in the text of the plan, but these would be 23.9% Orange County, 76.1% Durham County
 Orange Plan - Agreement proposed by Durham County in March 2012 was 22.9% Orange County, 77.1% Durham County

MEMORANDUM

To: Transportation Advisory Committee (TAC)
DCHC MPO

From: DCHC MPO Lead Planning Agency

Date: April 11, 2012

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

This memorandum provides a summary status of tasks for projects in the FY 2011-2012 Unified Planning Work Program.

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

FY 2011- 2012 Unified Planning Work Program (UPWP) – Projects

Town of Carrboro Transportation Study/Main Street Road Diet

- ✓ Consultant selected
- ✓ Scope development/contract negotiation complete
- ✓ Data Collection to commence in September 2011 – Analysis Underway

Town of Hillsborough Downtown Transportation Study

- ✓ Consultant selected
- ✓ Scope development/contract negotiation complete
- ✓ Data Collection to commence in September 2011 – Analysis Underway

2040 Long Range Transportation Plan LRTP

- ✓ LRTP Schedule/Timeline TAC Approval – August 2011
- ✓ Socio-economic and demographic data analysis completed
- ✓ LRTP Public Involvement plan – March/April/May 2012
- ✓ LRTP Goals and Objectives – March/April/May 2012
- Approval of LRTP Targets - March/April/May 2012
- Deficiency Analysis – March/April/May 2012
- Socio-economic Forecasts – March 2012
- Land use Scenario – March 2012
- Alternative Analysis – May –July 2012
- Draft LRTP Recommendation - September 2012
- Air Quality analysis and Conformity Adopted - October 2012 - February 2013
- Approval of LRTP and Conformity determination - April/May 2013
- Technical report and implementation

Comprehensive Transportation Plan (CTP)

- Draft CTP –Depends on NCDOT Schedule
- Public Input

- Recommended CTP
- Adopted CTP - September 2012
- Technical report and implementation

NC 54/I-40 Corridor/Sub-Area Study

- ✓ Staff study initiation meeting
- ✓ Draft scope of services
- ✓ Agency review of scope and time
- ✓ Request for Proposal notice – October 2008
- ✓ Proposal due January 2009
- ✓ Consultant selected
- ✓ Contract negotiation underway
- ✓ Council contract approval – May 18, 2009
- ✓ Notice to Proceed – June 2009
- ✓ Kickoff Meeting – July 2009
- ✓ Public Outreach Plan – August 2009
- ✓ Prepare Corridor / Subarea Community Profile – Dec 2009
 - ✓ Public Workshop #1 – Fall 2009
- ✓ Development and Evaluation of Scenarios – Apr 2010
 - ✓ Public Workshop #2 – Feb 25, 2010
- ✓ Transportation/Land Use Master Plan – June 2010
 - ✓ Public Workshop #3 – May 11, 2010
- ✓ Documentation and Final Presentation – June 2010
- ✓ Local agency review – ongoing
- ✓ Additional study to address issues raised during public comment
- ✓ Phase 2 – Draft plan completed
- Study completion – June 2012

GIS/Data Integration and Automation

- ✓ Phase I completed. Internal review and implementation in progress
- ✓ Phase I deployment
- Database development – ongoing.
- Phase 2 – underway

Land-use Model Development

- ✓ Multi-year project in progress
- ✓ Phase 1 completed
- ✓ Sensitivity analysis and testing in progress
- ✓ Data development in on-going
- Phase 2- Parcel level model for DCHC
 - Initial database – TBD
 - Initial model estimation – TBD
 - Initial calibration – TBD

MPO Parking Survey and Study (postponed)

- Parking model specification
- Regional Coordination and planning
- Draft scope of services
- Request for Proposal notice
- Consultant selection

- Council contract approval
- Project commences

MPO Community Viz. Scenarios Planning and Visualization

- ✓ Project kick- off in November 2010 – completed
- ✓ Data collection – completed
- ✓ Build Scenario Planning Tool
- ✓ Develop and approve Place Typology – Place Type Palette – completed
- ✓ Focus Group Meetings – completed
- ✓ Trend Forecasts
- ✓ Partnering Strategy
- ✓ Build Development Strategy
- ✓ Rationalize Scenarios
- Land use and Transportation MOEs
- Documentation/Protocol Report

MPO Congestion Management Process CMP

- ✓ CMP Procedure Plan approval – completed
- ✓ FHWA Approval of CMP procedure plan – August 2011
- ✓ CMP data requirement collection plan – Fall of 2011
- ✓ CMP Data collection and monitoring – ongoing
- ✓ CMP implementation – ongoing
- State- of Systems Report – December 2012
- Evaluation of effective of CMP projects and funded projects - ongoing

MPO Safety and Security Plan

- ✓ Action Plan and schedule to be completed in September 2011

Update of the MPO Public Involvement consistent with Federal Certification Review

- ✓ Action Plan and schedule completed in September 2011

MPO Title VI/Environmental Justice (EJ)/Limited English Proficiency (LEP) Plan

- ✓ Action Plan and schedule completed in September 2011

MPO Climate Change (Sustainability Adaptation) Plan/ Update of Greenhouse Emissions Plan

- ✓ Action Plan and schedule completed in September 2011

MPO Freight Plan and Integration

- ✓ Action Plan and schedule completed in September 2011

Contract Number: C201994 **Route:** NC-147
Physical Division: 5 **County:** Durham
Administrative Division: 15 **TIP Number:** U-4763B
Length: 4.2 miles **Federal Aid Number:** TIFIA-540(2)
Resident Engineer: D. Brian Harrington, PE **RE Phone Number:** (919)836-4873
Location Description: TRIANGLE PARKWAY FROM NC-540 IN WAKE CO TO I-40 IN DURHAM CO
Type of Work: GRADING, DRAINAGE, PAVING, SIGNALS, TOLL FACILITIES & STRS.
Contractor Name: S. T. WOOTEN CORPORATION
Contract Amount: \$137,446,000.00 **Cost Overrun/Underrun:**
Availability Date: 9/19/2008 **Letting Date:** 8/5/2008
Completion Date: 7/1/2011 **Work Began:** 8/3/2009
Revised Completion Date: **Estimated Completion:**
Last Estimate Thru: **Scheduled Progress:**
Last Estimate Paid: **Actual Progress:**

Contract Number: C202064 **Route:** SR-2028
Physical Division: 5 **County:** Durham
Administrative Division: 5 **TIP Number:** U-3309A
Length: 1.165 miles **Federal Aid Number:** STP-2028(4)
Resident Engineer: Cadmus Capehart, PE **RE Phone Number:** (919)840-0914
Location Description: SR-2028 (TW ALEXANDER DR) FROM CORNWALLIS RD TO EAST OF NC-147 IN DURHAM.
Type of Work: WIDENING, GRADING, DRAINAGE, PAVING & SIGNALS.
Contractor Name: GELDER AND ASSOCIATES, INC.
Contract Amount: \$6,502,648.68 **Cost Overrun/Underrun:** 1.61%
Availability Date: 2/1/2010 **Letting Date:** 12/15/2009
Completion Date: 8/15/2011 **Work Began:** 2/8/2010
Revised Completion Date: **Estimated Completion:** 4/30/2012
Last Estimate Thru: 3/31/2012 **Scheduled Progress:** 100%
Last Estimate Paid: **Actual Progress:** 97.84%

Contract Number: C202164 **Route:** SR-1959
Physical Division: 5 **County:** Durham
Administrative Division: 5 **TIP Number:** U-4011
Length: 0.767 miles **Federal Aid Number:** STP-1959(3)
Resident Engineer: Mark W. Luther, PE **RE Phone Number:** (919)220-4680
Location Description: SR-1959 (S MIAMI BLVD) FROM SOUTH OF SR-2112 (METHODIST ST) TO NORTH OF SR-1960 (BETHESDA AVE).
Type of Work: GRADING, DRAINAGE, PAVING & SIGNALS.
Contractor Name: TRIANGLE GRADING & PAVING, INC
Contract Amount: \$4,666,751.41 **Cost Overrun/Underrun:** -0.42%
Availability Date: 6/27/2011 **Letting Date:** 5/17/2011
Completion Date: 7/13/2012 **Work Began:** 7/13/2011
Revised Completion Date: **Estimated Completion:** 7/13/2012
Last Estimate Thru: 3/15/2012 **Scheduled Progress:** 47.82%
Last Estimate Paid: 3/23/2012 **Actual Progress:** 55.2%

Contract Number: C202340 **Route:** SR-1321
Physical Division: 5 **County:** Durham
Administrative Division: 5 **TIP Number:** U-3804
Length: 1.07 miles **Federal Aid Number:** STM-0505(50)
Resident Engineer: Mark W. Luther, PE **RE Phone Number:** (919)220-4680
Location Description: SR-1321 (HILLDALE RD) FROM I-85 TO NORTH OF SR-1407 (CARVER AVE).
Type of Work: GRADING, DRAINAGE, PAVING, AND SIGNAL.
Contractor Name: REA CONTRACTING A DIVISION OF THE LANE CONSTRUCTION CORPORAT
Contract Amount: \$4,222,625.78 **Cost Overrun/Underrun:** 14.18%
Availability Date: 8/30/2010 **Letting Date:** 7/20/2010
Completion Date: 6/15/2012 **Work Began:** 9/30/2010
Revised Completion Date: **Estimated Completion:** 10/1/2012
Last Estimate Thru: 3/7/2012 **Scheduled Progress:** 69.7%
Last Estimate Paid: 3/14/2012 **Actual Progress:** 58.66%

Contract Number: C202507 **Route:** I-540
Physical Division: 5 **County:** Durham
Administrative Division: 15 **TIP Number:** R-2635, U-4763B
Length: 18.8 miles **Federal Aid Number:** TIFIA-540(2)
Resident Engineer: Jason R. Peterson, PE **RE Phone Number:** (919)571-3000
Location Description: NC-540 FROM NC-55 NEAR APEX TO NC-54 NEAR RTP AND NC-147 FROM I-40 TO

NC-540. Type of Work: DESIGN-BUILD LANDSCAPING. Contractor Name: SOUTHERN GARDEN, INC. Contract Amount: \$4,800,000.00 Cost Overrun/Underrun: Availability Date: 8/15/2011 Letting Date: 4/21/2011 Completion Date: 7/1/2015 Work Began: Revised Completion Date: Estimated Completion: Last Estimate Thru: Scheduled Progress: Last Estimate Paid: Actual Progress:	
Contract Number: C202538 Physical Division: 5 Administrative Division: 5 Length: 22.96 miles Resident Engineer: Cadmus Capehart, PE Location Description: 1 SECTION OF US-70, 1 SECTION OF NC-55, 1 SECTION OF NC-751 & 13 SECTIONS OF SECONDARY ROADS. Type of Work: MILLING, RESURFACING & SHOULDER RECONSTRUCTION. Contractor Name: TRIANGLE GRADING & PAVING, INC Contract Amount: \$4,474,348.51 Cost Overrun/Underrun: 1.58% Availability Date: 3/15/2010 Letting Date: 1/19/2010 Completion Date: 12/16/2010 Work Began: 4/5/2010 Revised Completion Date: Estimated Completion: 3/30/2012 Last Estimate Thru: 6/22/2011 Scheduled Progress: 100% Last Estimate Paid: 7/7/2011 Actual Progress: 98.01%	Route: NC-55, NC-751, SR-1118 SR-1357, SR-1404, SR-1615 SR-1641, SR-1646, SR-1656 SR-1670, SR-1671, SR-1901 SR-1954, SR-1955, SR-1981 US-70 County: Durham TIP Number: Federal Aid Number: RE Phone Number: (919)840-0914
Contract Number: C202610 Physical Division: 5 Administrative Division: 5 Length: 6.8 miles Resident Engineer: Cadmus Capehart, PE Location Description: NC-147 FROM NORTH OF SR-1322 (BROAD ST) TO NORTH OF SR-2028 (TW ALEXANDER BLVD). Type of Work: DIAMOND GRINDING, CONC PVT SLAB REMOVAL & SHOULDER RECONST. Contractor Name: FSC II LLC DBA FRED SMITH COMPANY Contract Amount: \$4,274,880.20 Cost Overrun/Underrun: 22.74% Availability Date: 3/15/2011 Letting Date: 9/21/2010 Completion Date: 11/1/2011 Work Began: 3/15/2011 Revised Completion Date: Estimated Completion: 4/30/2012 Last Estimate Thru: 3/7/2012 Scheduled Progress: 100% Last Estimate Paid: 3/13/2012 Actual Progress: 86.27%	Route: NC-147 County: Durham TIP Number: R-5164D Federal Aid Number: STM-0147(3) RE Phone Number: (919)840-0914
Contract Number: C202620 Physical Division: 5 Administrative Division: 5 Length: 12.6 miles Resident Engineer: Cadmus Capehart, PE Location Description: I-85 FROM NORTH OF US-70 IN DURHAM COUNTY TO NORTH OF NC-56 IN GRANVILLE COUNTY. Type of Work: PAVEMENT REHABILITATION AND BRIDGE REPAIR OVERLAYS. Contractor Name: FSC II LLC DBA FRED SMITH COMPANY Contract Amount: \$8,098,211.15 Cost Overrun/Underrun: 3.49% Availability Date: 6/1/2011 Letting Date: 4/19/2011 Completion Date: 7/15/2012 Work Began: 6/10/2011 Revised Completion Date: Estimated Completion: 7/15/2012 Last Estimate Thru: 3/15/2012 Scheduled Progress: 56% Last Estimate Paid: 3/21/2012 Actual Progress: 69.29%	Route: I-85 County: Durham TIP Number: I-5145 Federal Aid Number: IMS-085-4(118)178 RE Phone Number: (919)840-0914
Contract Number: C202875 Physical Division: 5 Administrative Division: 5 Length: 17.133 miles Resident Engineer: Cadmus Capehart, PE Location Description: I-540 FROM I-40 OVERPASS TO TRIANGLE TOWN BLVD, AND TRIANGLE TOWN	Route: I-540 County: Durham TIP Number: I-5307, I-5310 Federal Aid Number: IM-0540(23) RE Phone Number: (919)840-0914

Completion Date: 11/7/2011	Work Began: 7/11/2011
Revised Completion Date: 8/28/2012	Estimated Completion:
Last Estimate Thru:	Scheduled Progress:
Last Estimate Paid:	Actual Progress:

ACTIVE NCDOT PROJECTS LOCATED IN DCHC MPO- ARRA

County	TIP/WBS #	Description	Let Date	Completion Date	Status	Cost	Comments
Orange	ER-5100 GE	Landscape planting on US 15-501 @ SR 1734 (Erwin Rd./Europa Dr.)	11/24/2009	4/30/2012	on schedule	\$65,000	ARRA
Orange	U-3306 34913.3.ST1 STM-1733 (16)	Grading, drainage, paving, signals, curb and gutter, and retaining wall on SR 1733 (Weaver Dairy Rd.) from NC 86 to Old Sterling Road	7/20/2010	6/15/2013	on schedule	\$13.4 million	ARRA
Orange	U-4704	Computerized Traffic Signal System for Chapel Hill-Carrboro	9/15/2009	8/1/2012	behind schedule	\$5.175 million	ARRA
NCDOT PROJECTS CURRENTLY IN 12 MONTH LETTING LIST							
County	TIP #	Description	Let Date	Completion Date	Status	Cost	Comments

ACTIVE NCDOT PROJECTS LOCATED IN DCHC MPO-NON ARRA

County	TIP/WBS #	Description	Let Date	Completion Date	Status	Cost	Comments
Orange	36945	Upgrade traffic signal with mast arm and install pedestrian signal heads on SR 1010 (Franklin St.) @ Mallette St.	11/4/2010	TBD	work underway	\$140,000.00	Small Construction
Orange	C-4932 A	Construct a Transit Shelter at the Park and Ride Lot for DTCC in Hillsborough and install bike racks on Orange Public Transportation buses	5/17/2011		Bike racks installed and reimbursed ; bus shelter ordered by Contractor	\$20,275	CMAQ
Orange	ER-2971 G 3607.3.09	Widen roadway, install curb and gutter and construct sidewalk along SR 1750 (Estes Drive) between Burlage Circle and SR 1010 (Franklin Street)		10/3/2012	MA with Town executed	\$200,000.00	Small Construction/ STP-Division Enhancement
Orange	ER-2973 G 3707.3.16	Rehabilitation of landscape plantings on I-40/I-85 at SR 1114 (Buckhorn Rd.) and installation of landscape plantings at the Hillsborough Maintenance Yard on SR 1009 (Old NC 86)	10/13/2011	3/15/2012	work underway	\$137,500.00	STP-Division Enhancement
Orange	SR-5000 S 40922.1.18 PE	Education, encouragement, evaluation, and neighborhood outreach for Carrboro Elementary School	N/A	N/A	Municipal Agreement with Town; program underway	\$12,865	Safe Routes to Schools
Orange	SR-5001 AE	Construct 870 linear feet of 5' sidewalk on Elm Street from existing sidewalk near Weaver Street to Shelton Street in Carrboro	2/21/2012	4/21/2012	Concurrence in award to White Oak Construction Corporation	\$300,000.00	SRTS
Orange	SR-5001 AR	Construct 320' of 5' sidewalk on Culbreth Road between Cobbleridge Rd. in Chapel Hill and Rossburn Rd. in Carrboro	4/12/2012	8/10/2012	Mandatory pre-bid held 3/29/12	\$50,000/\$108,000	SRTS/STP-DA
Orange	SS-4907 U 42205.2 42205.1 42171	Improve sight distance on SR 1710 by lowering the crest vertical curve on the westbound approach to the intersection of SR 1710 (Old NC 10) @ SR 1713 (Mt. Herman Church Road)	N/A	Revised to 6/1/2012	Utility relocation underway; FA construction in Spring 2012	\$320,000	Spot Safety-State
Orange	SS -4907 V 42423.3 42423.1	Realign intersection of SR 1005 (Old Greensboro Rd.) @ SR 1951 (White Cross Rd.)	R/W/U 7/20/12	Let 12/20/12	Consultant design underway	\$198,000	Spot Safety-State

ACTIVE NCDOT PROJECTS LOCATED IN DCHC MPO-NON ARRA

TCC 4/25/2012 Attachment 14

Orange	SS-4907 AI 43404.1.1	Revise signals on US 70 at SR 1561/1709 (Lawrence Rd.) and at SR 1002 (St. Mary's Rd.) near Hillsborough			F.A. construction	\$7000 PE	Spot Safety-State
Orange	SS-4907 AM 43504.1.1	Install near-side supplemental signal heads on NC 54 @ SR 1010 (W. Main St.)			Design underway	\$1500 PE	Spot Safety-State
Orange	U-4726 DC	Wilson Park Multi-Use Path	3/13/2012	6/30/2012	Municipal Agreement with Town of Carrboro; CEI RFQ underway	\$39,262.65 PE \$129,431.35 C	STPDA
Orange	U-4726 DD	Construct sidewalk on Rogers Road from Homestead Road to Meadowrun Ct.	6/20/2012		Municipal Agreement with Town of Carrboro; Design underway	\$67,025 PE \$469,175 C	STPDA
Orange	U-4726 DE	Construct Bolin Creek Multi-use Path from Homestead Road to Chapel Hill High School	6/20/2012		Municipal Agreement with Town of Carrboro for construction (replaces EL-4994) Design underway	\$59,000 PE	STPDA
Orange	U-4726 DF	Bicycle detection at Signalized Intersections	10/18/2012	FFY 2013	Municipal Agreement with Town of Carrboro	\$36,000	STP-DA
Orange	U-4726 IF	Design and install stairs from the sidewalk on the north side of Franklin St. to the Bolin Creek Trail	N/A	N/A	plans pending NCDOT review; Supplemental to remove construction pending	\$20,000 PE	STPDA
Orange	U-4726 IG	Construct 10' wide greenway from existing Fan Branch Trail near Culbreth Rd. and US 15/501 to Phase I	6/20/2012-to be revised		Municipal Agreement with Town of Chapel Hill; structure designs in review	\$1,310,000	STPDA
Orange	W-5207 E 45337.1.5 PE	Installation of a roundabout on SR 1734 (Erwin Rd.) and SR 1791 (Mt. Moriah Rd.) near Chapel Hill	Revised to 8/2012	12/31/2012- to be revised	Consultant design underway	\$450,000	High Hazard Safety
NCDOT PROJECTS CURRENTLY IN 12 MONTH LETTING LIST							

ACTIVE NCDOT PROJECTS LOCATED IN DCHC MPO-NON ARRA

County	TIP #	Location Description	Est. Let Date	Completion Date	Status	Cost	Comments
Durham/ Orange	EB-4707	Bicycle improvements(Bikeway and signals) on Durham/ Chapel Hill (SR 1838/SR 2220)from SR 1116 (Garrett Road) in Durham County to US 15-501 in Orange County				\$4.0 million	Delayed R/W to 3/12 and Construction to 5/13 to allow City to secure increased funding
Orange	U-0624	Corridor upgrade on NC 86 (S. Columbia St.)including Bicycle lanes from SR 1906 (Purefoy Rd.) to SR 1902 (Manning Dr.)	10/16/2012			\$4.2 million	STP
Orange	U-2803	Widening of SR 1919 (Smith Level Road) from Rock Haven Road to Bridge# 88 over Morgan Creek	12/18/2012			\$3,7 million	
Orange	W-5318	GRADE, DRAIN, AND PAVE NC 86 FROM NC 57 TO CASWELL COUNTY LINE GEOMETRIC IMPROVEMENT, PAVED SHOULDERS AND RUMBLE STRIPS	1/15/2013			\$4.75 million	
ALAMANCE, ORANGE	17BP.7.P.2	BRIDGE PRESERVATION - BRIDGES 38, 41, 51, 52, 121, AND 293 IN ALAMANCE COUNTY; BRIDGES 6, 59, 81, AND 82 IN ORANGE COUNTY	5/15/2012			\$2.3 million	

Member Organizations: Town of Carrboro • Town of Chapel Hill • County of Chatham • City of Durham
Durham County • Town of Hillsborough • NC Department of Transportation • Orange County

April 11, 2012

Mr. Tyler Bray, PE
North Carolina Department of Transportation
Transportation Planning Branch
1554 Mail Service Center
Raleigh, NC 27699-1554

Dear Mr. Bray:

Thank you for attending our April Transportation Advisory Committee meeting and presenting on the NCDOT 2040 Plan. We understand the challenges facing the state in crafting a financially feasible plan that meets our state's growing transportation needs. We support exploring new revenue options such as increased motor fuels taxes and fees, user fees such as tolling, and fees based on vehicle miles traveled. However, we have concerns over using any new local property or sales taxes for supporting the state transportation system. State assets should be supported with state revenue sources. Local governments do not have the financial resources to take on responsibility for the state transportation system.

We also have a concern over the plan's proposed emphasis on the statewide tier for investment priorities. Further justification for this decision is requested. Our understanding is that this emphasis was identified because of the perception that the investments in the statewide tier are most critical for economic development. While the statewide tier includes many of the busiest highways and interstates in the state, it also includes some lower volume highways. We believe that there may be some regional and subregional roads that are more critical for our MPO and the state's economic development than some statewide tier roads. Rather than simply prioritizing the statewide tier, the 2040 Plan should prioritize based on the desired outcomes, for example, economic development, improving safety, environmental sustainability, or increasing transportation choices.

We agree that the integration of land use and transportation is important. As the governments responsible for land use planning, cities and counties should be given greater input on highway planning and design decisions. Furthermore, implementing smart growth principles through land use planning and expanding Transportation Demand Management (TDM) programs can help reduce the transportation needs identified in the 2040 Plan and should be included in the report as recommendations. Focusing growth in developed areas, supported by pedestrian, bicycle, and transit infrastructure, uses existing transportation infrastructure more efficiently and can help lessen the need for future highway improvements. The Triangle's TDM program has been a cost effective way to encourage travel by means other than single-occupancy vehicles and reduce the growth of vehicle miles

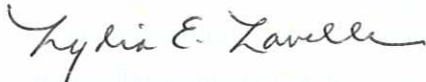
of travel. The 2040 Plan should recommend expanding and strengthening TDM programs across the state.

In addition, we would like the 2040 Plan to identify the implementation of the Complete Streets policy and guidelines as an emphasis. Additional federal and state resources are necessary to implement the Complete Streets policy and guidelines. Local governments cannot be solely responsible for retrofitting state roads to accommodate all users.

Lastly, we want to know how the 2040 Plan will be coordinated with the prioritization work being done by NCDOT's Strategic Planning Office of Transportation (SPOT). We understand that the 2040 Plan establishes a long-term vision while SPOT's prioritization is used to develop the short-term work plan and Transportation Improvement Program. SPOT's prioritization process includes a step where investment priorities are developed using stakeholder involvement. As recommended in the 2040 Plan, the Department must recognize that urban and rural areas do not have the same transportation needs. We think that both long-term and short-term investment priorities should be established at a MPO or RPO level using extensive stakeholder involvement. The 2040 Plan needs to reflect our needs as identified in our 2035 Long Range Transportation Plan, and the SPOT prioritization process should support the funding and implementation of our long-term vision.

Again, we appreciate the presentations that you have given at our MPO meetings on the 2040 Plan. Please consider our comments in finalizing the 2040 Plan. If you have any questions, please contact Ellen Beckmann at ellen.beckmann@durhamnc.gov.

Sincerely,



Lydia Lavelle, Chair
Transportation Advisory Committee