Project Team

DURHAM • CHAPEL HILL • CARRBORO
DCHC
METROPOLITAN PLANNING ORGANIZATION

CAMPO
NC Capital Area Metropolitan Planning Organization

McADAMS

WSP

TOOLE DESIGN

McADAMS
Study Area
A Jobs Corridor

“I am excited about this plan for a protected bike and pedestrian path that will tie together our region and create another transit and recreation option for Triangle residents. Many people want to get out of their vehicles and enjoy bike and pedestrian options for work or play. The vision of this Triangle Bikeway is to make this a reality,”

~Wendy Jacobs
Durham County Commissioner
The study of the proposed corridor from the North Carolina Mountains to the coast of South Carolina is ongoing. The project aims to connect the Triangle Bikeway to the Coastal Bikeway, thereby enhancing regional connectivity and promoting active transportation modes.

**2003**
The idea for the Triangle Bikeway was first proposed during the planning stages of the Capital Area Metropolitan Planning Organization (CAMPO) Bicycle and Pedestrian Plan.

**2010**
A proposed alignment has been developed. The project is proceeding through the planning stages, with the focus on improving regional connectivity.

**2017**
The Triangle Bikeway project is proceeding as a Triangle Department of Transportation initiative. The project is now in the planning stage and will be implemented in phases.

**2019**
CAMPO and CAMPOCBP partners have identified the need for a bikeway connection between Triangle and Coastal Bikeways. The project is being planned in phases, with the first phase focusing on the Triangle Bikeway segment.

**2020**
The project is expected to be completed by 2025, with the final phase focusing on the Coastal Bikeway segment.

**2025**
The project is expected to be fully implemented, with the Triangle Bikeway segment completed and the Coastal Bikeway segment under construction.
Case Studies
In 2011, public engagement, land acquisition, and data collection began. Key stakeholders include: Livable Buckhead, City of Atlanta, GDOT, Marta, and the PATH Foundation. Trail funding sources have included a local sales tax (TSPLOST), state funding and federal grants. The trail will soon extend north into Sandy Springs, connect to the Atlanta Beltline to the south and the Peachtree Creek Greenway to the southwest.

- Atlanta, Ga
- Trail length: 5.2 miles
- Construction timeline: 2014-2020
- Right of way: 66% in GDOT ROW
- Total cost: $28 million
US 36 Bikeway was part of a larger CDOT project to create bus rapid transit (BRT) service and tolled express lanes along the busy US 36 corridor. These investments were part of FasTracks, a multibillion-dollar public transportation expansion throughout metropolitan Denver. Additional funding sources included CDOT, FHWA, and Regional Transportation District (RTD). US 36 Bikeway is well used (an estimated 500 daily users) for commuting to work, accessing activity centers, local businesses, transit stations, and to the greater bike network in Denver metro region.

- Metro Denver, CO
- Trail length: 18 miles
- Construction timeline: 2015-2016
- Right of way: 100% in CDOT ROW
- Total cost: $16.6 million
Added on to the Business 40 Improvement Project, this side path will connect several neighborhoods and key destinations (e.g. baseball stadium, hospital, and commercial areas) in Downtown Winston-Salem. Key partners include the City of Winston-Salem, NCDOT, Downtown Winston-Salem Partnership, and Creative Corridors Coalition. Funding sources include several federal (CMAQ and STBG Programs), state (NCDOT’s STI Prioritization), and local (bond referendums) sources. Once complete, the side path will connect to a growing network of bike facilities and 25 miles of greenways throughout the region.

- Winston-Salem, NC
- Trail length: 1.2 miles
- Construction timeline: 2018-2020
- Right of way: 100% in NCDOT ROW
- Total cost: $8-10 million
Engagement Reimagined
By the numbers...

**Effective Multi-Jurisdictional Coordination**
- Include decision makers early.

**Broad Stakeholder Involvement**
- Ensure all necessary parties are involved.

**Meaningful Engagement with Under-Engaged Groups**
- Engage groups historically excluded from planning.

**Adaptive Engagement During Covid-19**
- Combine virtual and socially distanced in-person engagement.

40+ Bi-weekly Project Meetings
- 9 Working Group Meetings
- 7 MPO Meetings
- 3 Focus Group Meetings
- 10 Elected Officials Meetings

20+ Key Stakeholder Meetings
- 4 Virtual Public Meetings
- 8 Pop-Up Events
- 11 Jurisdictional Meetings
- 4,025 User Surveys Completed

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**2,116 People Responded**
- to the **Phase I Survey**

**5,508 Points**
- added to the **Destination Survey Maps**

**2,009 People Responded**
- to the **Phase II Survey**

**15 Meetings, Workshops and Events**

**133 Comments**
- on the **Crowdsourced Web Map**
The Triangle Bikeway project will study the idea of a 13-mile bicycle path. This project will link Raleigh, Research Triangle Park (RTP), Durham and Chapel Hill along I-40 and NC 54. The current planning effort includes design and construction recommendations between Raleigh and RTP, and a future assessment for the connection west to Durham and Chapel Hill. The bikeway will connect Triangle communities making both short and long bike trips for work, play and daily errands possible. Ideas from residents will shape the plan. Agencies across the region are working together in the planning process, which will take approximately 18 months.

“Excited to see this project happening. I will be able to safely switch to 100% bike commuting when the bikeway is complete.”

- Comment on project website
Elected Officials

We are pleased to present the Triangle Bikeway Study, through the diligent and committed leadership of the Capital Area and Durham-Chapel Hill Combined MPOs, this study has taken us back to the napkin idea and developed it into a viable, community-supported project that will change our region for the better in the following ways:

Model for Regional Transportation Projects - The Triangle has sometimes struggled to act as one region when advancing transportation projects. The evolution of the Triangle Bikeway is deeply rooted in each community that it touches. This deliberate, data-driven model of planning yielded energetic consensus and clear next steps.

Bold Step to Future Proof our Region - With the advent of electric assist bikes, bicycling for transportation is no longer limited to experienced cyclists. People of all ages and abilities are finding the freedom and satisfaction that comes with making trips under our own power. The stable and maximized locations where the Triangle Bikeway route connects to existing and future transit to further expand commuting options.

Low Cost / No Emissions Connections to Piedmont Corridor - The I-40 corridor is the gateway for thousands of jobs in both professional and service industries. The Triangle Bikeway will provide low-cost access to employment opportunities without increasing traffic congestion on our highways.

Powerful Partnership Model with NCDOT - NCDOT has been engaged and supportive throughout the entire study process. The agency's growing commitment to multi-modal transportation is an essential element to the success of this and other projects relating to taking state resources to create safe and vibrant transportation corridors.

The Triangle Bikeway's success is the result of the collective work of citizens, elected officials, staff and advocates across two counties and five municipalities. Over roughly 16 months, nine working group meetings, two extensive public engagement campaigns, over 30 meetings with individual stakeholders and countless work hours have resulted in a vibrant common vision.

As County Commissioners, our charge is to position our communities to thrive, adapt and evolve to maintain our position as one of the best places in the country to live and work. Our goal is to bring the Triangle Bikeway as part of our everyday lives in the Triangle. Funding, design and construction will require creativity, perseverance, and teamwork across jurisdictions. We look forward to standing with you on the Triangle Bikeway ribbon cutting day!

Chairman Wendy Jacobs
Vice Chair
Durham County
Chair of Commissioners
Chair, DCHC MPO Board

Chairman Sig Hutchinson
Chair
Wake County
Chair, Board of Commissioners
Chair, CAMPO Executive Board
Stakeholders
Corridor Demographics

RACE + ETHNICITY

In North Carolina, approximately 66 percent of residents identify as “White alone”, and 22 percent of residents identify as “Black alone”. The corridor mirrors this demographic spread, with 67.2 percent of the corridor identifying as “White alone” and approximately 19.9 percent of the population identifying as “Black alone”. The corridor has a higher rate of residents identifying as “Asian alone” at 8.3 percent. In North Carolina overall, 3 percent of the population identifies as “Asian alone”.

McAdams
Gaps in the Survey

**Corridor Demographics**

- White: 53%
- Black: 20%
- Asian: 11%
- Hispanic Origin: 7%
- Two or More Races: 3%
- American Indian: 3%
- Some Other Race: 3%
- Pacific Islander: 1%

**Survey Demographics**

- White: 86.8%
- Black: 3.3%
- Asian: 4.6%
- Hispanic Origin: 3.1%
- American Indian: 0.7%
- Some Other Race: 1.0%
- Pacific Islander: 0.4%
Focus Groups

› Under-represented groups
  › Black
  › Hispanic
  › Asian
  › Transit Users
  › Modest and Low Income
› Strong Support for Project
› Desired Equitable Access
› Should Integrate with Transit
› Designed for Users of all Ages and Abilities
Calibrating Respondents

- Strong & Fearless (<1%)
- Enthusiastic & Confident (7%)
- Interested, but Concerned (60%)
- No Way, No How (33%)

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Skew Towards Enthusiasts

Portland Study

Triangle Bikeway Survey

McAdams
Current vs. Desired Commute Pattern

Current Commute:
- 73% Car
- 20% Combo
- 6% Bike / Walk
- 1% Other

Desired Commute:
- 61% Bike / Walk
- 28% Combo
- 10% Carpool / Bus
- 1% Other
Frequency of Use by Cyclist Type

68% Would Use at Least Weekly
Community Values

**EQUITY**
Prioritize equal access to the Triangle Bikeway for all, through public engagement, project delivery and investment.

**CONNECT TO JOBS**
Provide seamless connections between the Triangle Bikeway, the regional transportation network, employment centers and local neighborhoods.

**SAFETY**
Address the safety needs of users of all ages and abilities in the design and development of the Triangle Bikeway.

**REGIONAL COLLABORATION**
Collaborate with government entities and other regional stakeholders to understand priorities and concerns. Build support of jurisdictional partners for future funding, design, construction and maintenance.

**TRANSPORTATION CHOICE**
Provide a direct and accessible route separated from traffic as a bicycling and walking option for commuters and recreational users. Make meaningful connections to transit and active transportation networks.

**PUBLIC BENEFIT + SUPPORT**
Listen to the community to help identify opportunities and challenges. Recommend an alignment that will generate public support and build momentum for future funding efforts.

**FEASIBILITY**
Utilize locations for the bikeway alignment that are permitable and reduce the time required for implementation. Minimize the impact of the bikeway on environmental features and the natural habitat.

**IDENTITY**
Create a unique identity for the bikeway that will be instantly recognizable and highlight the regional commitment to both recreational and commuter bicycling to residents and visitors alike.

**RESILIENCY**
Support mode shift goals and reduce emissions / other transportation-related environmental impacts while expanding access to active living and positively impacting community health.
Outreach Lessons Learned

› Avoid outreach during Presidential Election and/or pandemic surge
› Partner with Paid Community Rooted Outreach Professionals
› Create events that draw people, then ask questions
› Hybrid In-Person and Virtual is a breakthrough in outreach
   › Much higher participation
   › All meetings were more highly attended
   › Public meetings during lunch hours were a big hit
   › Dynamic website is essential
› Trust must be built and earned – it will take time
ALTERNATIVES ANALYSIS
### Alternative Evaluation

#### Segments Removed from Further Consideration

<table>
<thead>
<tr>
<th>ID</th>
<th>Jurisdiction</th>
<th>Category</th>
<th>Notes</th>
<th>Key Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Chapel Hill</td>
<td>Dependent Upon Infeasible Alignment</td>
<td>Barberry Chapel Road in this area includes a large tract preserve under the NC Agricultural Development and Farmland Preservation Trust, which creates a narrative difficulty.</td>
<td>USACE: Chapel Hill; NCDOOT: Durham</td>
</tr>
<tr>
<td>4</td>
<td>Durham</td>
<td>Safety Concerns</td>
<td>Pedestrian bridge over I-40 west of the exit would require several high ADT crossings with three flow turning movements of I-40/NC14 interchange.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>5</td>
<td>Durham</td>
<td>Dependent Upon Infeasible Alignment</td>
<td>Segment #13 has been removed from consideration and therefore makes this segment void.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>6</td>
<td>Durham</td>
<td>Environmental Constraints</td>
<td>Under the conditions for the creation of Jordan Lake the Army Corps of Engineers is obligated to keep these lands open to hunting and deer trails an infeasible use. Any trails need to be located in existing NCDOOT right-of-way. In addition to USACE mitigation commitments all options through Waterford Impoundment would require extensive backroads and would likely be prohibitively expensive.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>7</td>
<td>Durham</td>
<td>Included in Another Project</td>
<td>Shared use paths are recommended on both sides of NC54 as part of the UST744 project.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>11</td>
<td>Durham</td>
<td>Environmental Constraints</td>
<td>Under the conditions for the creation of Jordan Lake the Army Corps of Engineers is obligated to keep these lands open to hunting and deer trails an infeasible use. Any trails need to be located in existing NCDOOT right-of-way. This south side of I-40 through USACE property would also require building structure over a spillway.</td>
<td>USACE: Durham; NCDOOT: Durham; DDA: Durham Energy</td>
</tr>
<tr>
<td>12</td>
<td>Durham</td>
<td>Environmental Constraints</td>
<td>Under the conditions for the creation of Jordan Lake the Army Corps of Engineers is obligated to keep these lands open to hunting and deer trails an infeasible use. Any trails need to be located in existing NCDOOT right-of-way. In addition to USACE mitigation commitments all options through Waterford Impoundment would require extensive backroads and would likely be prohibitively expensive.</td>
<td>USACE: Durham; NCDOOT: Durham; DDA: Durham Energy</td>
</tr>
<tr>
<td>13</td>
<td>Durham</td>
<td>Environmental Constraints</td>
<td>Under the conditions for the creation of Jordan Lake the Army Corps of Engineers is obligated to keep these lands open to hunting and deer trails an infeasible use. Any trails need to be located in existing NCDOOT right-of-way which not wide enough on Stegeon Road to accommodate the facility.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>14</td>
<td>Durham</td>
<td>Environmental Constraints</td>
<td>Under the conditions for the creation of Jordan Lake the Army Corps of Engineers is obligated to keep these lands open to hunting and deer trails an infeasible use. Any trails need to be located in existing NCDOOT right-of-way. This segment through USACE property would also require building structure over a spillway.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>15</td>
<td>Durham</td>
<td>Dependent Upon Infeasible Alignment</td>
<td>Segment #6 has been removed from consideration and therefore makes this segment void.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>16</td>
<td>Durham</td>
<td>Indirect/Lake Connections</td>
<td>Route conflicts with development plans and would be redundant to shared use paths planned for NC54 in UST744.</td>
<td>USACE: Durham</td>
</tr>
<tr>
<td>18</td>
<td>Durham</td>
<td>Dependent Upon Infeasible Alignment</td>
<td>Segment #45 has been removed from consideration and therefore makes this segment void. Aligned north of I-40 is recommended due to lesser environmental conflicts and better corridor geometry with NC130.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>19</td>
<td>Durham</td>
<td>Dependent Upon Infeasible Alignment</td>
<td>Segments #15-14 have been removed from consideration and therefore make this segment void.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>21</td>
<td>Durham</td>
<td>Indirect/Lake Connections</td>
<td>While this alignment does connect to existing bicycle facilities in South Durham, it services away from employment and commercial centers. Would also require extensive property/basement acquisition.</td>
<td>USACE: Durham; Duke Energy</td>
</tr>
<tr>
<td>22</td>
<td>Durham</td>
<td>Indirect/Lake Connections</td>
<td>While this alignment does connect to existing bicycle facilities in South Durham, it services away from employment and commercial centers. Would also require extensive property/basement acquisition.</td>
<td>USACE: Durham; Duke Energy</td>
</tr>
<tr>
<td>23</td>
<td>Durham</td>
<td>Dependent Upon Infeasible Alignment</td>
<td>Segments #12-14/#15-20 and #21 have been removed from consideration and therefore make this segment void.</td>
<td>USACE: Durham</td>
</tr>
<tr>
<td>24</td>
<td>Durham</td>
<td>Indirect/Lake Connections</td>
<td>While this alignment does connect to existing bicycle facilities in South Durham, it services away from employment and commercial centers. In addition, segment #21 has been removed from consideration, which would also make this segment void.</td>
<td>USACE: Durham</td>
</tr>
<tr>
<td>25</td>
<td>Durham</td>
<td>Included in Another Project</td>
<td>Shared use paths are recommended on both sides of NC54 as part of the UST744 project.</td>
<td>USACE: Durham</td>
</tr>
<tr>
<td>26</td>
<td>Durham</td>
<td>Safety Concerns</td>
<td>NC54 would under I-40 bridge does not have adequate space for a protected bike facility. Recommended alignment uses American Tobacco Trail Bridge over I-40 to cross southern alignment to avoid punch point.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>27</td>
<td>Durham</td>
<td>Dependent Upon Infeasible Alignment</td>
<td>Segment #26 has been removed from consideration and therefore makes this segment void.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>28</td>
<td>Durham</td>
<td>Dependent Upon Infeasible Alignment</td>
<td>All alternatives connecting to this route from the north have been removed from further consideration and therefore make this segment void.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>29</td>
<td>Durham</td>
<td>Dependent Upon Infeasible Alignment</td>
<td>Segment #27 has been removed from consideration and therefore makes this segment void. In addition, this route would require an underpass under I-40 and traversing across a power line easement.</td>
<td>USACE: Durham; NCDOOT: Durham</td>
</tr>
<tr>
<td>30</td>
<td>Durham</td>
<td>Included in Another Project</td>
<td>Shared use paths are recommended on both sides of NC54 as part of the UST744 project.</td>
<td>USACE: Durham; RFP: NCDOOT</td>
</tr>
<tr>
<td>33</td>
<td>Durham</td>
<td>Dependent Upon Infeasible Alignment</td>
<td>Segment #27 has been removed from consideration and therefore makes this segment void. This route would also require an at-grade crossing on the railroad.</td>
<td>USACE: Durham; RFP: NCDOOT</td>
</tr>
<tr>
<td>36</td>
<td>RFP</td>
<td>Indirect/Lake Connections</td>
<td>Preferred alternative utilizes NC54 to provide greater connections to jobs. This route also conflicts with NCDOOT future plans for I-40.</td>
<td>USACE: RFP; NCDOOT: RFP</td>
</tr>
<tr>
<td>37</td>
<td>RTP/Morrisville</td>
<td>Indirect/Lake Connections</td>
<td>Routing the bikeway south along NC147 to continue north on I-40 would require extensive pedestrian bridges and tunnels. There is no feasible option for crossing of railroad and Church Street.</td>
<td>USACE: RTP/Morrisville; NCDOOT: RTP/Morrisville</td>
</tr>
<tr>
<td>38</td>
<td>RTP/Durham</td>
<td>Conflicts with NCDOOT Project</td>
<td>Preferred alternative utilizes NC54 to provide greater connections to jobs. This route also conflicts with NCDOOT future plans for I-40.</td>
<td>USACE: RTP/Durham; NCDOOT: RTP/Durham</td>
</tr>
<tr>
<td>39</td>
<td>RTP/Durham</td>
<td>Conflicts with NCDOOT Project</td>
<td>Preferred alternative utilizes NC54 to provide greater connections to jobs. This route also conflicts with NCDOOT future plans for I-40.</td>
<td>USACE: RTP/Durham; NCDOOT: RTP/Durham</td>
</tr>
</tbody>
</table>
| 40 | RTP          | Conflicts with NCDOOT Project | Preferred alternative utilizes NC54 to provide greater connections to jobs. This route also conflicts with NCDOOT future plans for I-40. | USACE: RTP; NCDOOT: RTP
Recommended Alignment
Desired Walk Locations
NCDOT Coordination

Managed Lanes

Airport Blvd

Aviation Pkwy

1440
IMPLEMENTATION
Implementation Scenarios

Scenario 1
Accelerated

Scenario 2
Incremental

Scenario 3.1
Gradual

Scenario 3.2
Gradual