Campus to Campus Connector Report

FOR REVIEW AND COMMENT

I. Executive Summary

One of the requirements of the Carolina North Development Agreement is for the University and the Town of Chapel Hill to collaborate on identifying a greenway and bike path connection between the main campus and Carolina North (5.16.2). Through a series of public meetings, staff evaluation, and field review of three primary options (Route A, B, and C), 'Route A' was identified as the preferred candidate for the Campus-to-Campus Connector.

Route A emerged as the preferred route for a number of reasons:

1. Relatively flat topography, with only a few sloped sections.
2. Located entirely on Town of Chapel Hill, Town of Carrboro and NCDOT-owned property.
3. Requires only restriping or minor improvements at some locations.
4. Less environmental impact compared to the other routes.
5. Least number of at-grade street crossings which increases safety and is less costly to build.
6. Significant portions of the route would be off-road which increases safety and is less costly to build.

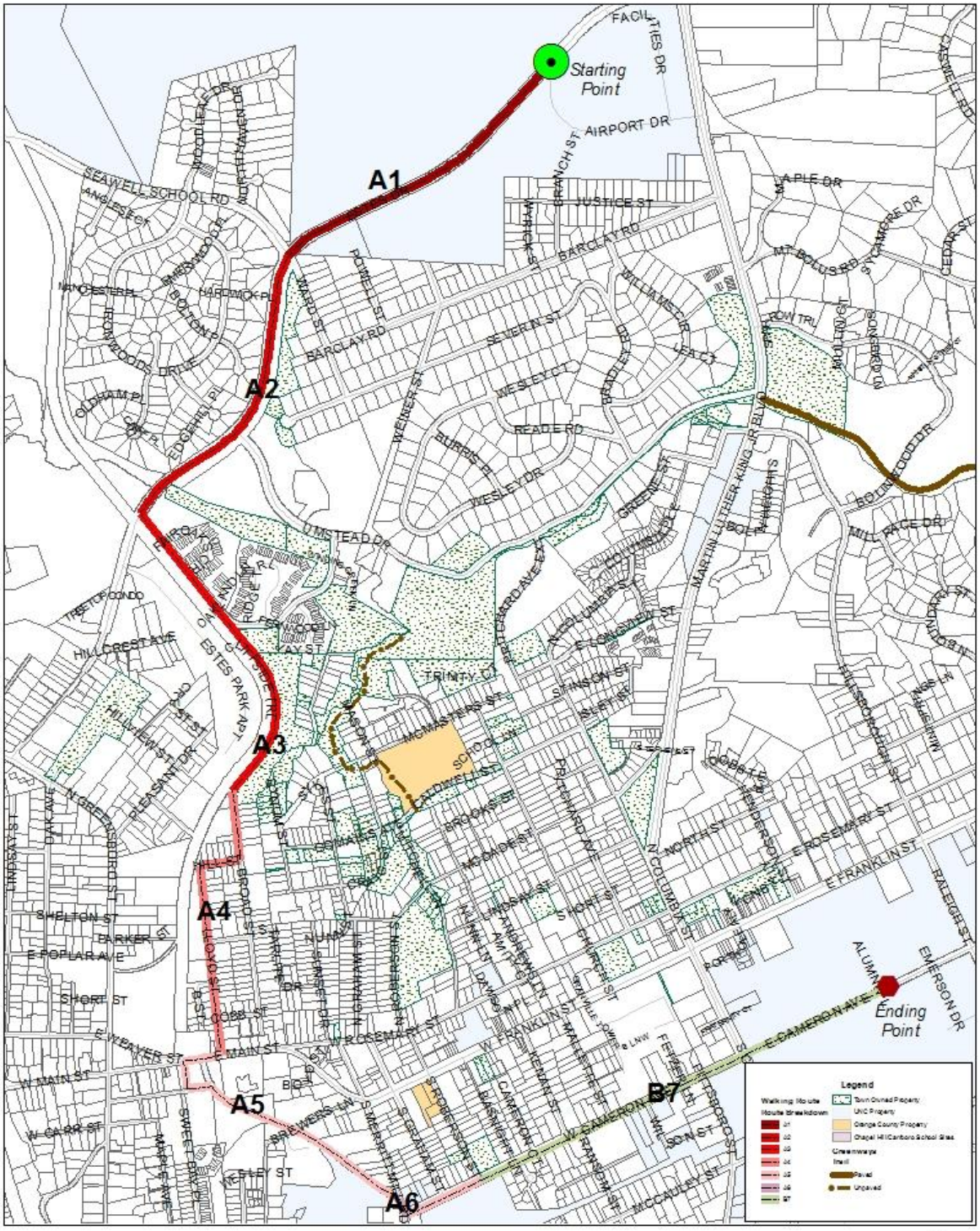
Factors that will need to be considered during a design phase of Route A include the following:

1. Its length is about a third longer than the other routes although travel times may be offset by relatively flat topography and fewer vehicular conflicts.
2. It requires clearing and grading on the Town of Chapel Hill owned property.
3. It connects with an unpaved section of Broad Street in Carrboro.
4. Coordination with Carrboro is required for part of the route.

While this report contains an evaluation of Route A, a full design study would be required to estimate its costs and benefits and to propose an implementation schedule. Information on Federal and State funding options is included in the evaluation of Route A.

The input of the technical group and the community participants was key to developing a thoughtful and well-researched recommendation for the Campus to Campus Connector. A description of the public evaluation process is included in the body of this report.

Map 1: Recommended Route A



"A" Route for Campus to Campus

Report

Introduction

One of the requirements of the Carolina North Development Agreement is for the University and the Town of Chapel Hill to identify the priority route for a greenway and bike path connection between the main campus and Carolina North (Section 5.16.2). University and Town staffs were directed to identify and recommend the most direct and flat connections (not located on Martin Luther King Jr. Boulevard), and to avoid steep grades where feasible. The route might include existing or planned greenways for a portion of the route.

Materials developed during this review process, including maps, presentations and public comments, have been posted to the Town's website on the Carolina North Campus to Campus Connector page.

Stakeholders Input / Public Participation

A technical group of Town of Chapel Hill staff, UNC at Chapel Hill staff and a representative of the Town's Transportation Advisory Board and Bicycle and Pedestrian Advisory Board organized a series of public meetings to involve the community in identifying the preferred connector.

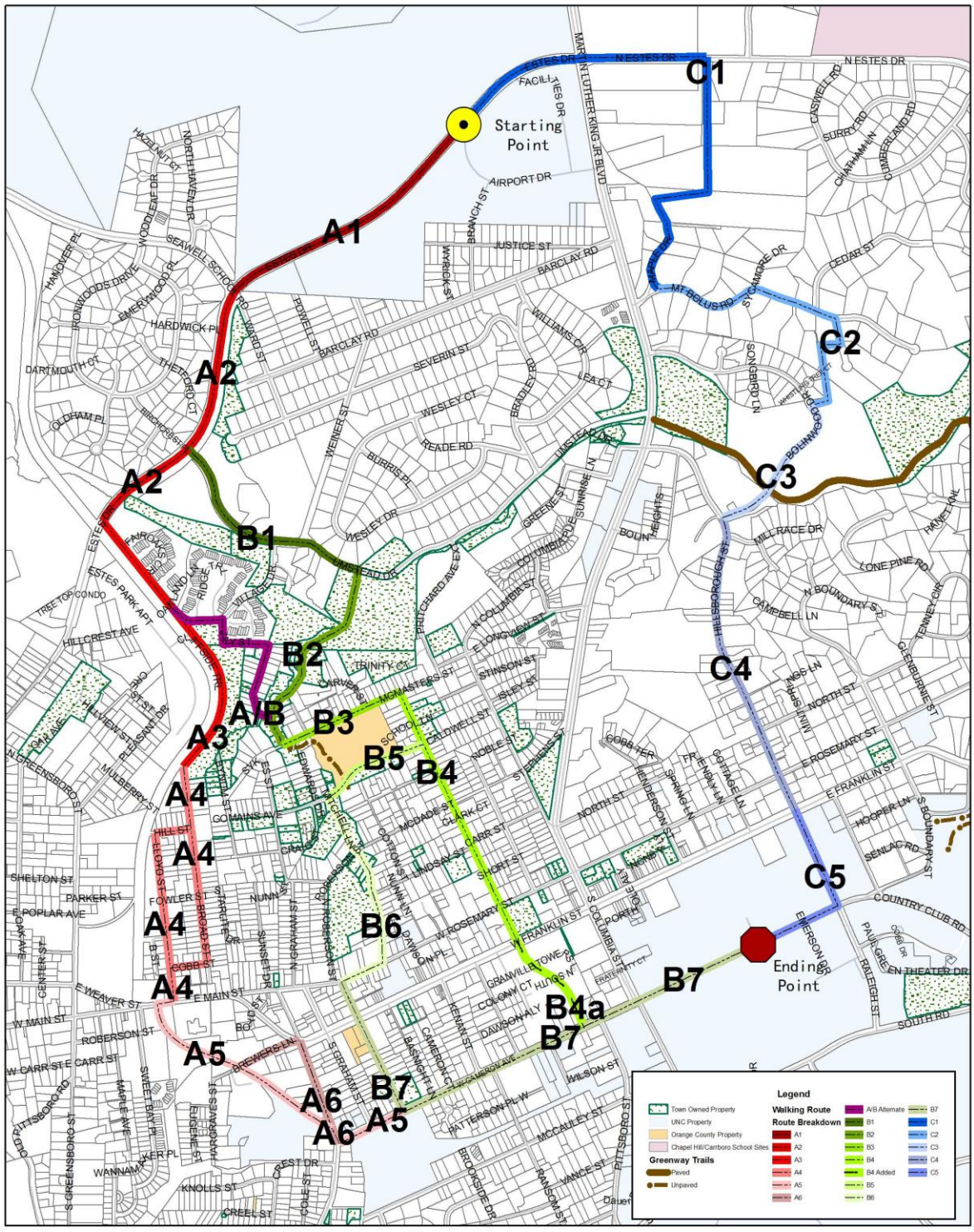
December 5, 2010 – 1st Public Meeting

- Technical group of Town of Chapel Hill and the University of North Carolina at Chapel Hill staff prepared background materials
- About 75 participants analyzed topography, parcel maps and aerial photography of the areas of Chapel Hill between Estes Drive and Cameron Street, along Fordham Boulevard, and areas in Carrboro.
- The group identified possible routes for the connector.
- Comments and suggested routes were posted on the town's webpage with a meeting summary and presentations.

February, 2010 – Data Collection

- Technical staff evaluated the possible alignments and identified three primary alternative routes with options/variations (see Map 2: Possible Routes Compiled from December 5, 2009 Public Meeting).
- The alternative routes and an evaluation form were published on the webpage and two walks were organized.
- The community was invited to join the walks; a citizen group, Campus to Campus Bike Connector, also organized two walks of the routes.
- Groups walked the three primary routes and collected images and data.

Map 2: Possible Routes Compiled from December 5, 2009 Public Meeting



April 15, 2010 – 2nd Public Meeting

- Data, maps and photos were presented at a public meeting with about 45 participants (See Appendix 2 for the data).
- Route A was identified by participants as the most appropriate option.
- Comments were collected and posted on the town's website.

Summer 2010 – Data Analysis

- Staff analyzed the preferred Route A in more detail,
- Evaluation and recommendation were drafted for this report

August 12, 2010

- *A third public meeting is scheduled to seek additional comments or suggestions from community members before the final recommendation is submitted with the first Annual Report for Carolina North.*

Communications

The Town and University used a variety of electronic and face-to-face communications tools to support the project.

- Town website updates for meeting announcements, background, presentation materials, maps and feedback.
- University website updates on the connector project.
- Email addresses for meeting attendees were complied and used for invitations.
- Town of Chapel Hill Advisory Boards were invited to meetings.
- Presentations on the project by request to Advisory Boards.
- Presentations on the project by request to Town of Carrboro Staff.
- Contact with interested community groups, NC DOT, and property owners.

Based on the input from the entire process, a summary of the pros and cons of all three routes follows.

Pros and Cons

Route A

Pros

- Relatively flat topography, with only a few sloped sections.
- Located entirely on Town of Chapel Hill, Town of Carrboro and NCDOT-owned property.
- Requires only restriping or minor improvements at some locations.
- Less environmental impact compared to the other routes.
- Least number of at-grade street crossings which increases safety and is less costly to build.
- Significant portions of the route would be off-road which increases safety and is less costly to build.

Cons

- Its length is about a third longer than the other routes although travel times may be offset by relatively flat topography and fewer vehicular conflicts.
- It requires clearing and grading on the Town of Chapel Hill owned property.
- It connects with an unpaved section of Broad Street in Carrboro.
- Coordination with Carrboro is required for part of the route.

Route B

Pros

- Shortest route in terms of distance, appeals to time-sensitive cyclists.
- Serves densely-populated residential neighborhoods and Northside School between Carolina North and UNC main campus.
- Provides a connection to the central part of downtown Chapel Hill.
- Could be coordinated with the University Square redevelopment design.

Cons

- Umstead Park creek crossings with a paved path could be difficult to permit.
- Topography in the park is challenging further complicates environmental permitting.
- Access around the proposed school site is unclear.
- Bicycle facilities on existing streets in the Northside neighborhood could be challenging due to narrow street widths.
- Connection from Northside neighborhood across Rosemary Street, Franklin Street, and University Square property could require extensive design.

Route C

Pros

- Provides a shorter distance connection than Route A.
- Provides a connection to the eastern side of main campus.

Cons

- Significant topography at creek crossings.
- Stream impacts on Cole Springs Branch.
- Could require use of power and sewer easements, unlikely to be permitted.
- Some areas of connection in existing neighborhoods are not well-defined or access is unclear.

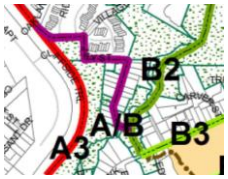
Evaluation of Route A

The technical group proceeded to evaluate Route A more closely, based on the four categories below: ownership, regulatory, environmental, and funding

Ownership: Establishing a Right-of-Way

Route A is located on publicly-owned property. It runs parallel to a railroad right-of-way, but does not cross or enter the railroad right-of-way. This public ownership means planning and design phases could proceed without requiring much, if any, purchase of easements or property. There is an option to create a direct connection from Lloyd Street to the Libba Cotton bike trail through the private property at 300 West Main in Carrboro. This would be more direct than using public right-of-way on West Main Street and Roberson Street. In early discussions with NCDOT and an owner's representative for the 300 West Main Street property, there is support for that direct connection. Whether it can be implemented will need to be determined during a later design phase.

Challenge: the railroad tracks block eastbound access to the route between Village Drive and Broad Street in Carrboro; this does not interfere with the north-south connection between the two campuses



Challenge: Implementation in a second jurisdiction requires additional coordination. If a connection through Carrboro was not viable for any reason, an option to connect Route A with Route B via Umstead Park should be explored (purple A/B).

Challenge: Coordinating a direct connection across West Main Street through the proposed 300 West Main development could make the route easier to navigate but requires additional design consideration.

Regulatory: North Carolina Department of Transportation (NCDOT) Areas of Impact

There are two main NCDOT areas of impact: Estes Drive Extension in Chapel Hill and West Main Street in Carrboro. Both of these roadways are owned and maintained by the NCDOT.

On Estes Drive Extension, the connector could be implemented in a number of different ways, depending on the final design considerations, NCDOT requirements and available funding sources. At present, the roadway has wide shoulders that are frequently used by cyclists. The least costly and least intrusive option could involve resurfacing and widening the existing roadway in order to construct striped bicycle lanes. This option could also include installing sidewalks on both sides of Estes Drive

Extension. The Development Agreement requires the University to provide sidewalks and bike lanes between Martin Luther King Jr. Blvd and Seawell School Road. A second option Could involve installing a multi-purpose path on the southern side of Estes Drive Extension, with crossings at the existing and planned intersections at Seawell School Road and Airport Drive in Chapel Hill and at the planned Estes Park crossing in Carrboro.

> *Challenge:* Estes Drive crosses Bolin Creek, any changes to that crossing would need to be carefully evaluated.

As proposed, Route A crosses West Main Street in Carrboro. One option would involve construction of a perpendicular crossing from Lloyd Street through the proposed 300 West Main development project to the existing Libba Cotton bicycle trail.

> *Challenge:* This preferred option requires coordination with the property owners of 300 West Main Street.

Alternately, the cyclists could be directed to turn right on West Main Street, go through the light then cross at the existing Robeson Street crosswalk. South Roberson Street then connects to the existing Libba Cotton bike trail. This would create a less direct connection than turning left at the Main/Roberson light, but the lack of room and existing conditions at that intersection do not support construction of a left turn lane for cyclists or cars so that movement is prohibited during peak hours. During non-peak hours, when the motor vehicle operators are allowed to make left turns, bicyclists could make the left turn as well, as opposed to advancing to the crosswalk.

<u>Environmental: Stormwater and Stream Impacts</u>

The stormwater and stream impacts would need to be considered for all sections of the route in order to insure compliance with updated regulations.

Along Estes Drive Extension, the crossing of Bolin Creek would be the primary concern. Village Drive would require only restriping that would result in no significant stream impacts.

Improvements on the Town of Chapel Hill-owned property parallel to the railroad right-of-way would have to consider the following: a simple stream crossing, Resource Conservation District issues, and verification of whether Jordan Lake Buffer requirements are applicable. According to the existing floodplain mapping, there are no existing floodplain concerns in the study area. .

The Broad Street section of Route A in Carrboro from the Town of Chapel Hill owned property to the Broad/Hill intersection could be best served by paving the current width of unpaved road. Widening the road cross-section here could be problematic due to environmental impacts where the mid-section descends to an existing low point. This section of the path, while short, has the steepest grades.

> *Challenge:* During the design phase of the project, the existing stream regulations will need to be evaluated.

<u>Funding: Federal and State Options</u>

Federal and State funding could be utilized for the Campus to Campus project if it is intended to provide general purpose transportation access rather than serve primarily as a recreation facility.

Federal Surface Transportation Program Direct Allocation (STP-DA) and Congestion Mitigation Air Quality (CMAQ) funds could be allocated to the project. These funds are administered by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC-MPO) and require a 20% local match. The STP DA funds available to the MPO have been allocated through FY2017 while the CMAQ program funds have been allocated though FY2013. The CMAQ funds require the preparation of an air quality assessment documenting the impact of the proposed project on travel behavior and air pollution.

The State of North Carolina provides limited funding through the Transportation Improvement Program (TIP) for bicycle and pedestrian projects, although grant awards are limited to approximately $600,000 per project.

A portion of the route along Estes Drive Extension is scheduled for improvement under the terms of the Carolina North Development Agreement. Bike lanes and sidewalks will be added by the University on both sides of Estes Drive Extension from Martin Luther King Jr. Blvd to Seawell School Road.

II. Recommendation

Based on the public input and the data collected during the evaluation of all three routes, the technical group recommends Route A as the location for a Campus to Campus Connector. This recommendation does not preclude implementing other routes or connections that are important to the overall network of bicycle and pedestrian connectivity in Chapel Hill.

If and when the Town and University decide to proceed with the Campus to Campus connector, the technical group would encourage that the follow steps be considered:

1. Identify design funding for Route A.
2. Establish and confirm a Right-of-Way and/or grant access.
3. Establish Route A design guidelines (main trunk, pedestrian/bike waysides & connections, landscape enhancements, lighting, wayfinding etc.) .
4. Prepare a design and cost estimate for Route A.
5. Identify an implementation strategy that addresses:
    a. Management and maintenance of the pathway,
    b. Identify appropriate construction funding mechanisms, and
    c. Define and schedule implementation phases.

III. Other findings

Although this report is based on the specific direction of the Development Agreement to seek a connector that does not use the Martin Luther King Jr. Blvd. right-of-way, during each of the public sessions, participants noted that Martin Luther King Jr. Blvd. does provide the most direct access between the campuses and when schedules are a concern, active cyclists will likely choose the direct route over the more circuitous Route A. Based on this consistent input, the technical group recommends that improvements to Martin Luther King Jr. Blvd. continue to be part of the ongoing town-wide efforts to improve bicycle access and increase the use of non-motorized transportation.

Similarly, many participants in the workshops noted that this connector is only one element of a comprehensive system of greenways, sidewalks and bicycle facilities in Chapel Hill. While this report recommends Route A, it is important to continue looking system-wide for improvements to support all alternative transportation modes in the community. This recommendation should not be to the exclusion of other equally viable components of the system.

IV. Appendices:

1. December notes and maps
2. April data sheets
3. April route evaluation posters with public comment:
    a. Route A, April 15, 2010
    b. Route B, April 15, 2010
    c. Route C, April 15, 2010
4. (*August 2010 public input)*