

Part 4

The proposed Chapel Hill Greenway System encompasses over 38 miles of linear open space. Over 28 miles are suitable for trail development.

Strategic Planning



This Plan directly addresses the following “Big Idea” from the Town’s 2020 Comprehensive Plan- “Implement a bikeable, walkable, green communities plan by 2020.” Additional information can be found on page 2 of the 2020 Comprehensive Plan.

The proposed Chapel Hill greenway system potentially encompasses over thirty-eight miles of linear open space. Within the Stream Corridors and Man-Made Corridors, over twenty-eight miles are suitable for trail development. While providing important pedestrian links within the community, a thorough assessment of Connector Trails is not presented within this Master Plan.

TRAIL SYSTEMS

Trails and potential trails are grouped by geographical coverage. A major goal of the Town’s trail network is to eventually achieve complete interconnectivity. Such an interconnected system would provide an effective alternative transportation option to Chapel Hill residents. However, since the system is not currently completely connected, planned trails can be easily grouped by the basic geographical area that they directly serve. Map 4.1 summarizes the division of the Town’s trails into geographic trail systems.

Recommendations for individual trail segments comprising the greenway system are formatted to provide the following information and commentary:

- Resource Protection
- Potential for Trail Development
- Summary of Constraints for Potential Trail Development

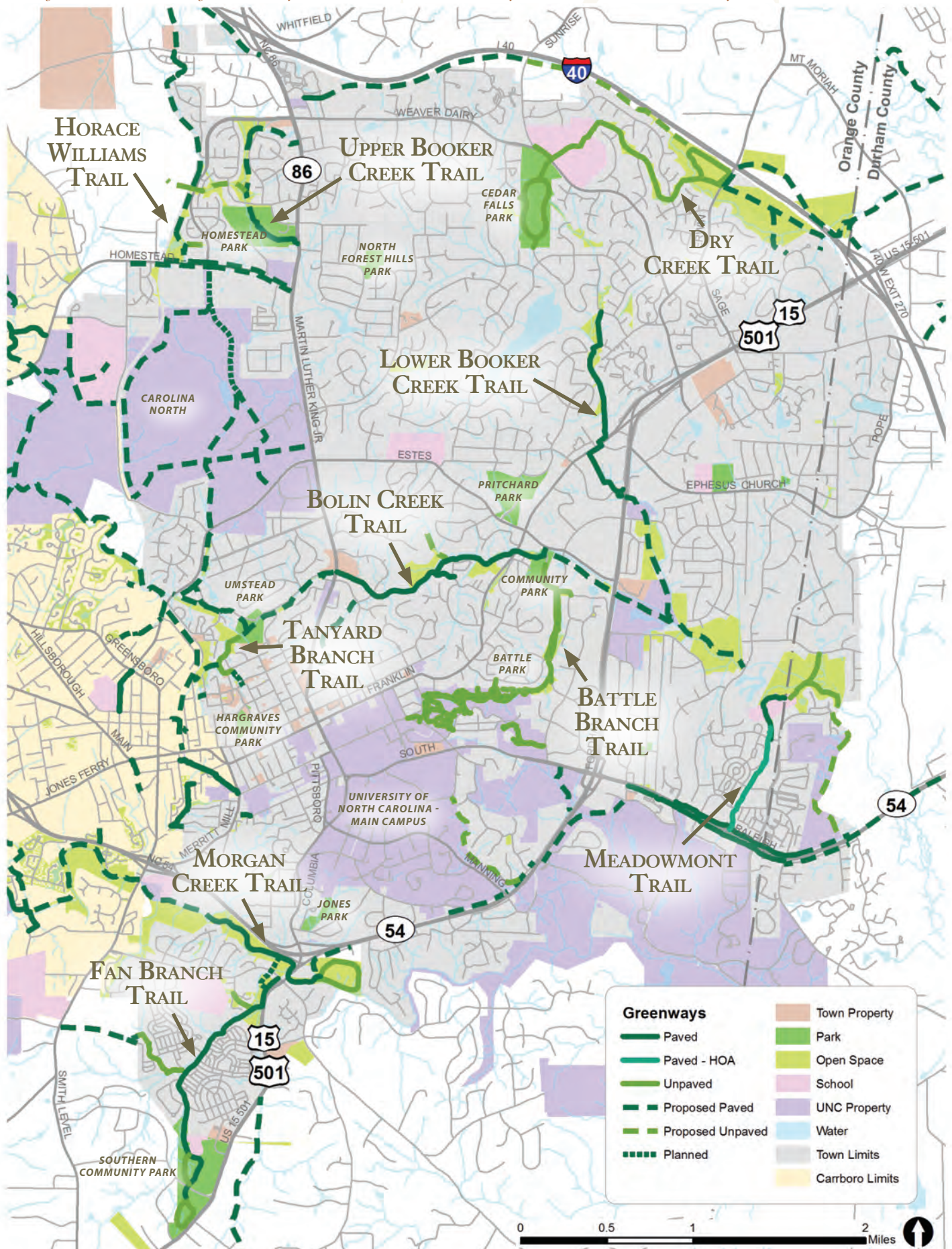
- Summary of Factors Favorable for Potential Trail Development
- Planning Recommendations

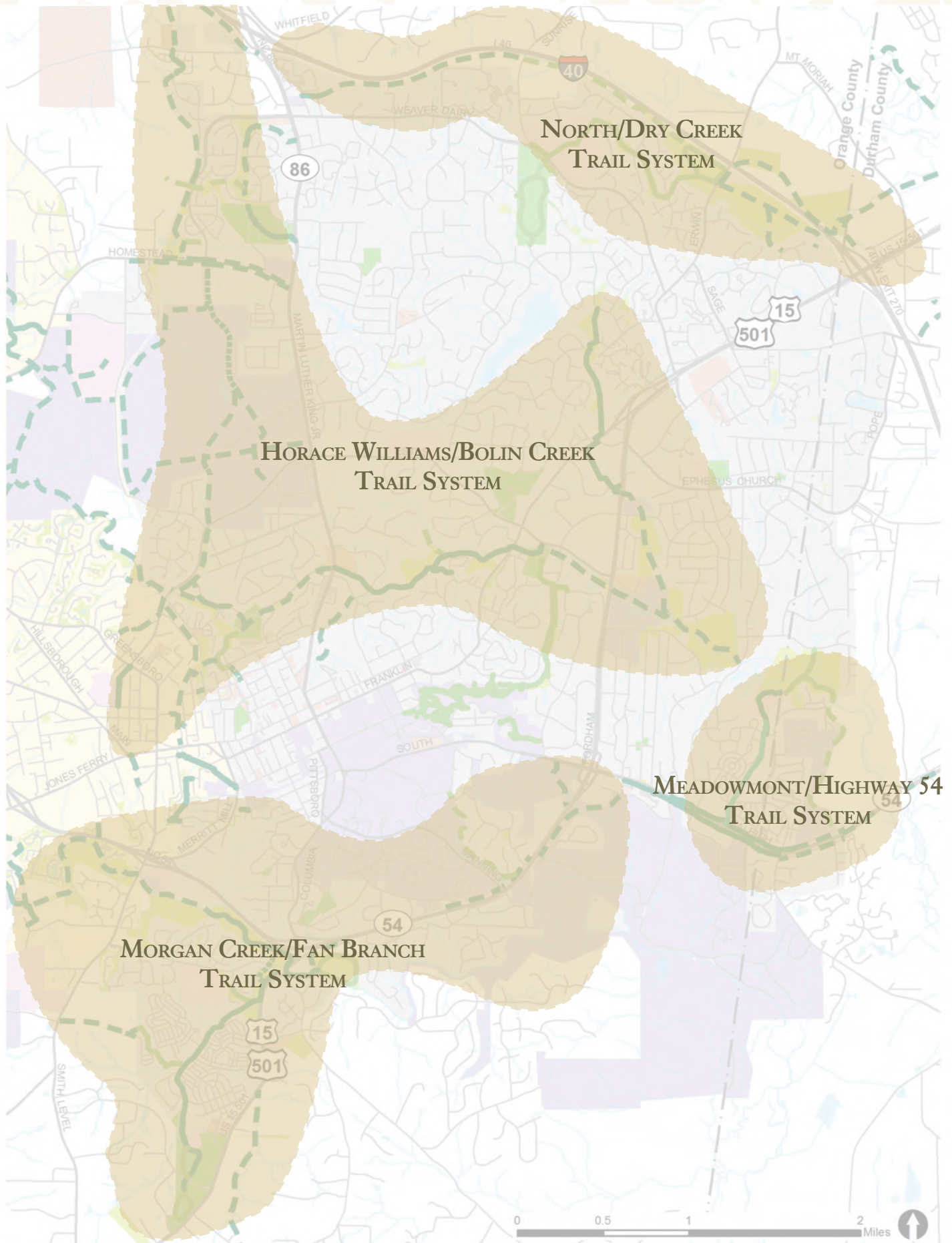
In the following recommendations, all proposed greenway groupings are described either north to south or west to east. Compass point directions are given with the understanding that, despite the many meanders a trail or stream will make, the path or watercourse will tend to travel in a general direction. For example, the Bolin Creek Trail runs more west-to-east than north-to-south. For this reason, descriptions are given with the reference points of northern bank and southern bank.

Connector trails linking to the main corridors are included based on their location along the corridor.

Note: Connector trails are shown with blue circles for ease of recognition, while the main corridor segments are identified with grey circles.

The Master Plan recommendations provided for each trail segment offer general planning parameters within which individual trails and plans may be conceived. The recommendations should be used as a basis from which more detailed analysis and design of individual greenways and trails may be prepared. As trails are brought on-line as specific capital projects, the environmental conditions of the corridor, status of surrounding land use, potential for access, location, and specific alignment should be revisited and reevaluated at the conceptual design phase of each trail project.





MAP 4.2 - CHAPEL HILL TRAIL SYSTEMS

THE HORACE WILLIAMS/BOLIN CREEK TRAIL SYSTEM

ELEMENTS

- Old Field Trail
- Horace Williams Trail
- Bolin Creek Trail
- Booker Creek Trail
- Little Creek Trail

OVERVIEW

The Horace Williams/Bolin Creek trails system is envisioned to be the “crown jewel” of the Town’s trails system. If built in its entirety the interconnected trails would provide around 15 miles of pedestrian and bicycle access through a broad swath of Chapel Hill, beginning in the northwest quadrant and ending in the southeast. The system would be comprised of the following trails: Horace Williams, Bolin Creek, Upper and Lower portions of Booker Creek, Tanyard Branch, Battle Branch, and a portion of the Little Creek Trail. This trail system has tremendous potential to serve as a truly important alternative to motorized transportation. As envisioned it would allow large areas of Chapel Hill to directly access parks, schools, shopping districts, many neighborhoods, and two university campuses by foot or bicycle. It would also provide an important recreation element.

1 OLD FIELD TRAIL

This would be a spur trail south of Interstate 40, north of Eubanks Road, and west of Martin Luther King Jr. Blvd.

Development of a trail along most of this section of the Interstate would be relatively easy. Much of the land has reasonable topography with few steep or wet areas to contend with. The trail would provide a direct connection to the Horace Williams Trail from future businesses and homes.

Town Operations Center to NC 86

This section begins at the Town Operations Center. The corridor would follow the Interstate east to NC 86.

Resource Protection

The Town currently controls the site of the Town Operations Center. Other properties would be required.

Potential for Trail Development

This section of the trail corridor would present no unusual difficulties to trail development. An opportunity exists to tie the Old Field into the Horace

Williams Trail at the Town Operations Center.

Summary of Constraints for Potential Trail Development

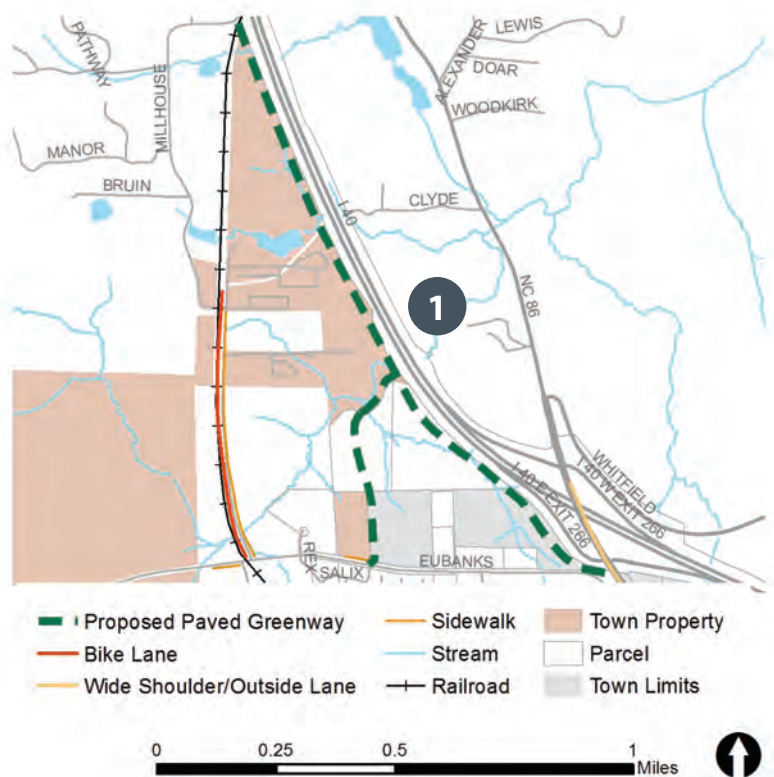
- Land acquisition east of the Town Operations Center would be required.

Summary of Factors Favorable for Potential Trail Development

- There are few physical constraints to trail construction.

Recommendations

- Easements and land should be acquired as opportunities arise.
- Once the land rights are acquired, the Town or a developer should build a Class 6 trail.
- Trail development should be planned in conjunction with future development of the area.
- Acquire large enough easements so that the trail can be built as far from the creek as possible.



HORACE WILLIAMS TRAIL

A spur of the Norfolk Southern Railroad leaves the main rail line near Hillsborough and trends southeast to Chapel Hill. The line serves the needs of the University of North Carolina co-generation plant and extends over 4.1 miles along this potential greenway.

- 1 Millhouse Road to Eubanks Road**
The trail would begin at Millhouse Road just south of I-40 and continue through the Town's Operations Center and northern park and ride lot to Eubanks Road.

Resource Protection

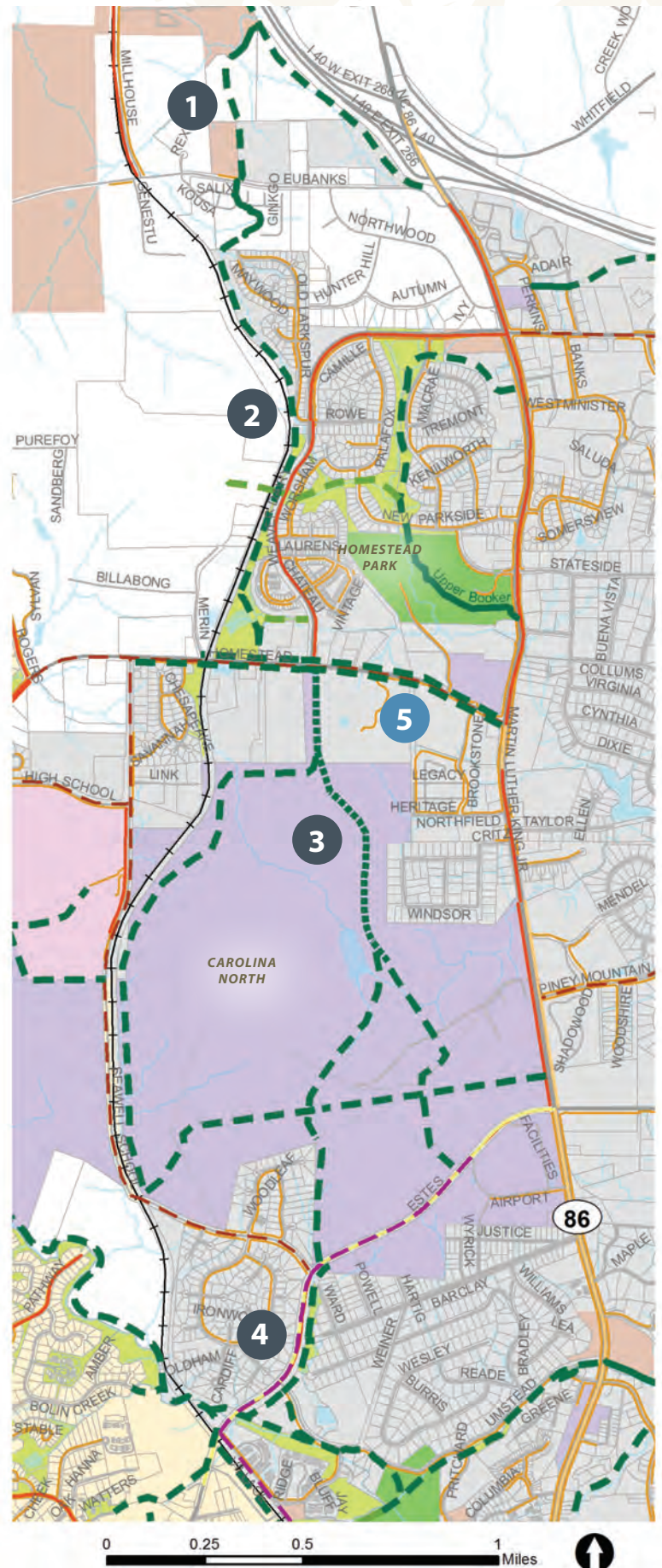
The Town controls almost all of the land in this section. Only one parcel is currently missing. The Town can likely preserve a trail corridor on that tract when the property is developed in the future. The Town should be prepared to act swiftly to preserve the rail corridor in the event that the railroad should abandon the line.

Potential for Trail Development

The physical limitations of trail development in this section are few. An important connection could be made from the Horace Williams Trail to the Old Field Trail.

Summary of Constraints for Potential Trail Development

- One parcel of land is in private ownership.
- It would be necessary to build a portion of the trail on the existing park and ride lot property.
- It would be necessary to negotiate a crossing access with the Norfolk Southern Railroad to allow trail access to Millhouse Road.



MAP 4.4 - HORACE WILLIAMS TRAIL

Summary of Factors Favorable for Potential Trail Development

- The land has little topographical relief.
- Most of the corridor is in Town ownership.

Recommendations

- The Town should work with the one remaining owner or developer to acquire the last required easement.
- The Town should work with the Norfolk Southern Railroad to acquire rights to cross the railroad right-of-way at Millhouse Road.
- In the event that the Norfolk Southern Railroad attempts to abandon the railroad spur, the Town should work to see that it is banked and used for trail purposes until a need for a rail use arises in the future.

2 Eubanks Road to Homestead Road

A 1,000 foot section of the trail currently exists within the Chapel Watch development. From the south side of Chapel Watch the trail would continue through easements in the Larkspur development to a Town-owned recreation/open space area. The trail would continue through the Town property over a dam to Homestead Road. The trail would continue along the north side of the Homestead Road frontage to Weaver Dairy Extension. Proposed connector trails would link to the Upper Booker Creek Trail and the Greene Tract.

Resource Protection

The Town controls all of the land along the tracks.

Potential for Trail Development

The physical limitations of trail development in this section are few.

Summary of Constraints for Potential Trail Development

- It would be necessary to negotiate access with the Norfolk Southern Railroad. Crossings of the tracks to access the Greene Tract might require expensive safety precautions.
- The dam north of Homestead Road would have to be replaced with a structure capable of supporting a paved trail.

Summary of Factors Favorable for Potential Trail Development

- The land has little topographical relief.

- Most of the corridor is in Town ownership.

Recommendations

- In the event that the Norfolk Southern Railroad attempts to abandon the railroad spur, the Town should work to see that it is banked and used for trail purposes until a need for a rail use arises in the future.

3 Homestead Road to Estes Drive Extension

This section of the proposed trail would be located within the University's planned Carolina North campus and end at Chapel Hill's planned Phase III of the Bolin Creek Trail. The location of this section is described in the Carolina North Development Agreement signed in 2009. In 2011 the University had started construction of the duct bank. The trail will use the duct bank clearing from Homestead Drive to a point near Municipal Drive. Phase 1 is expected to be built in 2013.

Resource Protection

The University owns all of the land in this section and is scheduled to develop it as a second campus called Carolina North (See page 11). The plan for Carolina North includes a 1.25 mile long section of the proposed Horace Williams Trail. The University is required to build this section of the Horace Williams Trail per the executed Carolina North Development Agreement.

While the current trail route for this section does not follow the rail corridor itself, the legal status of the railroad right-of-way should be watched carefully. If the Norfolk Southern Railroad ever moves to abandon the spur, the Town should be prepared to move quickly to have the easement banked for future rail use. The rail corridor could then create an additional trail route through the Carolina North tract and create a loop with the other proposed trails within that tract. Banked rail easements can be used for trail purposes until such time as they are required for rail purposes.

Potential for Trail Development

Physical and legal obstacles for the proposed route of the Horace Williams Trail have been overcome through the Carolina North planning process.

Summary of Constraints for Potential Trail Development

- The timeline of the Carolina North development is uncertain at this time.

Summary of Factors Favorable for Potential Trail Development

- The trail has been incorporated into existing plans.
- Except for the area immediately adjacent to Estes Drive Extension, the grade is less than 5%.

Recommendations

- The Town should continue to work with the University to ensure that the University builds its segment of the Horace Williams Trail as part of the construction of the Carolina North campus.
- The project should explore including crosswalks and a pedestrian refuge to allow safe crossings of Homestead Road at Weaver Dairy Road.
- In the event that the Norfolk Southern Railroad attempts to abandon the railroad spur, the Town should work to see that it is banked and used for trail purposes until a need for a rail use arises in the future.

4

Estes Drive Extension to Village Drive

The Horace Williams Trail would cross Estes Drive Extension after exiting the Carolina North property. The trail would extend along the south side of Estes Drive Extension to Umstead Drive. It would then turn east along Umstead Drive as a wide sidewalk to Village Drive and an intersection with the Bolin Creek Trail corridor.

Resource Protection

The trail would be located along or within the right of way of Estes Drive Extension and Umstead Drive.

Potential for Trail Development

There is enough room for a trail in this location although several constraints would have to be dealt with in both planning and construction.

Summary of Constraints for Potential Trail Development

- A crossing of Estes Drive Extension would have to be designed to account for large volumes of traffic.
- The trail location would have to be planned in a way to leave room for a potential future widening of Estes Drive Extension.
- Several areas would require either bridges or large areas of fill.
- Grades on Umstead Drive exceed recommended grades for ADA purposes.

Summary of Factors Favorable for Potential Trail Development

- There is enough land to make the connection

while keeping the necessary separation between the trail and any future widening of Estes Drive Extension.

Recommendations

- The Town should continue to work with the University to ensure that the crossing of Estes Drive Extension is accomplished in a safe yet cost effective manner.
- The project should be designed to allow for a possible future widening of Estes Drive.
- Options that would allow ADA compatible grades along Umstead Drive should be explored.

5

Homestead Road Connector Trails

Many important public facilities are located along or near Homestead Road, west of Martin Luther King Jr. Blvd. These facilities include Homestead Park, Southern Human Resources Center, Orange County Senior Center, a 14 acre Town open space that has potential to be an important developed facility, Chapel Hill High School, Smith Middle School, and Seawell Elementary School. This plan recommends that Class 6 trails be built on both sides of Homestead Road to serve these facilities and the adjacent residential neighborhoods. The spur trails would directly link to the Horace Williams Trail and the future Carolina North campus. The trail on the north side of Homestead Road would extend from Merin Road to Martin Luther King Jr. Blvd. The trail on the south side of Homestead Road would extend from Seawell School Road to Martin Luther King Jr. Blvd.

Resource Protection

The majority of the affected property is in or adjacent to the Homestead Road right of way.

Potential for Trail Development

There appears to be ample space for such a facility on both sides of Homestead Road.

Summary of Constraints for Potential Trail Development

- There are some grade issues.

Summary of Factors Favorable for Potential Trail Development

- The Town owns some of the property.
- One development on the north side of Homestead Road has been approved with the requirement to provide this trail along its frontage.

Recommendations

- The Town should work with the University to ensure that the connector trail on the south side of Homestead Road is incorporated into its segment of the Horace Williams Trail.
- The project should explore the use of crosswalks and a pedestrian refuge to allow safe crossings of Homestead Road at Weaver Dairy Road.
- Future developments should be required to build segments of the spur trails along their frontages on Homestead Road.

BOLIN CREEK TRAIL

Bolin Creek begins in south-central Orange County and enters Chapel Hill’s jurisdiction near the Estes Drive Extension. The creek flows for approximately 3.8 miles within the Town limits, until it merges with Booker Creek to form Little Creek.

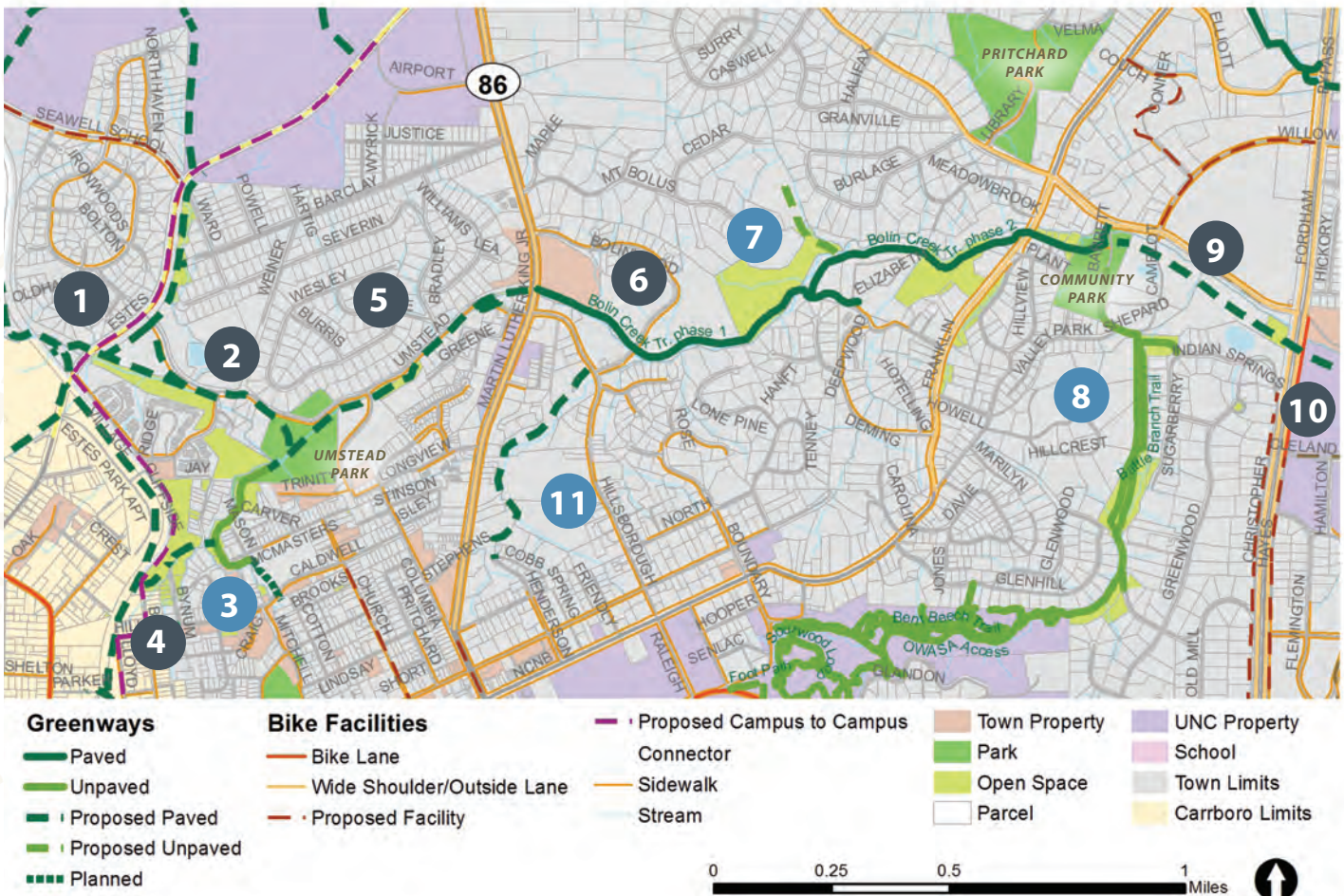
If the proposed trail system were fully developed along the entire length of the Bolin Creek corridor, it would connect directly to the following existing and proposed trails: Horace Williams Trail, Tanyard Branch, Battle Branch, Booker Creek, and Little Creek. The Bolin

Creek Trail would connect indirectly, through the above mentioned greenways, to the Old Field Trail. The trail has been completed from Martin Luther King Jr. Boulevard to Community Center Park.

- 1 Estes Drive Extension to Village Drive**
Bolin Creek enters Chapel Hill near Estes Drive Extension. Where the creek crosses under the Estes Drive Extension, the land is characterized by steep slopes reaching down from the Estes Drive Extension roadbed. Once on the eastern side of the Estes Drive Extension, the creek flows in a small valley with steep slopes on the southern bank and a broad floodplain on the northern bank. The steep southern bank is forested with mixed hardwoods, but it also contains a cleared sewer easement that parallels the creek. Some residential development exists on the northern bank.

Potential for Trail Development

This section could provide an important connection to any greenways developed within Carrboro’s jurisdiction. Trail development is possible on both banks, although there are problems to overcome



with both options. The northern bank has existing residential developments that may require greater than usual mitigation efforts if a trail is located adjacent to the developments. The southern bank has areas with steep slopes and an OWASA interceptor sewer line.

The most difficult area for construction of a trail exists at the western end of this section. The pipe that currently channels Bolin Creek under Estes Drive Extension is too small to allow human passage. This plan recommends that the trail be designed to match whatever trail that the Town of Carrboro decides to build along this section of Bolin Creek. Estes Drive Extension is an NCDOT road. Please see the list of NCDOT critical intersections in Table 5.2.

Recommendations

- The exact type and location of the trail in this area should be coordinated with the Town of Carrboro. At the time this report was adopted the Town of Carrboro had not decided the exact type and location of its Bolin Creek Trail upstream of Estes Drive Extension. The trail could range from a natural surface trail with an at grade crossing of Estes Drive Extension to a Class 6 trail following the stream corridor, with an underpass crossing below the Estes Drive Extension.

2 Village Drive to Umstead Park

After passing under Village Drive, Bolin Creek flows through a broad floodplain with considerable development. After a short distance, the creek flows through Umstead Park.

Potential for Trail Development

A trail in this area would provide access from Village Drive to the Tanyard Branch Trail and Umstead Park. The trail could provide a safe pedestrian and non-motorized vehicle alternative to Umstead Drive.

Both banks could provide a location for a future trail, but each presents significant difficulties. Pre-existing development on the northern bank would require special mitigation efforts. The southern bank outlet onto Village Drive would place any trail uphill and out of alignment with any upstream trail section. This would likely result in pedestrians and bicyclists using a portion of Village Drive. Given the constraints along the creek, the only feasible option in this section is to widen the sidewalk along the south side of Umstead Drive.

Recommendations

- The Town should pursue the construction of a

Class 6 trail along the southern side of Umstead Drive.

3 Tanyard Branch Trail

Tanyard Branch is a completed, Class 3 natural surface trail. It is nearly one-half mile in length, connecting Cotton Street and Umstead Park.

Potential Improvements to the Existing Trail

The trail has a number of highly eroded areas that should be corrected.

Potential for Additional Trail Development

Although this trail has been in existence for years, recent land acquisition has created the potential to upgrade the trail as a paved extension of the Bolin Creek Trail. This possible expansion would allow a connection to Carrboro's and Chapel Hill's Northside neighborhood in the vicinity of Bynum and Broad streets. It also forms a part of Alternative B of the proposed Campus to Campus Connector. The Chapel Hill/Carrboro City School have partnered with the Town to develop the first portions of the paved Tanyard Branch Trail. At the time this report was written the Schools were constructing a paved greenway trail from Cotton Street to McMasters Street. The Schools also provided the Town \$150,000 to construct a further extension of the paved Tanyard Branch Trail from the end of McMasters Street to Jay Street.

Summary of Constraints for Potential Trail Development

- The land that would allow the extension is steeper than what would be ideal. Retaining walls would be necessary.
- The trail would have to be designed to avoid large trees near the junction of Tanyard Branch and Bolin Creek.

Summary of Factors Favorable for Potential Trail Development

- A trail could provide a direct bicycle and pedestrian connection from the Bolin Creek Trail to the Northside neighborhood and Carrboro's Lloyd-Broad neighborhood.
- This trail would provide the least grade from the Bolin Creek Trail to the most populated areas of Chapel Hill and Carrboro.

Recommendation

- The Town should explore the possibility of continuing the Bolin Creek Trail as a Class 6 trail

along Tanyard Branch Trail to the Northside neighborhood. This idea was shown as Alternative B in the Campus to Campus Plan.

- Continue to design and then build the paved trail from the end of McMasters Street to Jay Street that has been partially funded by the Chapel Hill/Carrboro City Schools

4 Northside Open Spaces Trails

The Town owns several open space tracts between the Carrboro Town line, the Norfolk Southern Rail line, and the Tanyard Branch Trail. This area has several informal trails and the potential for more formalized trail opportunities.

Potential for Trail Development

These Town properties could be developed in a number of ways including as a part of the proposed Campus to Campus Bicycle Route (see page 66), as spur trails to the Tanyard Branch Trail, and as a connector to Carrboro's Baldwin Park.

Recommendations

- The Town should work with the Town of Carrboro to develop a trail connection to Baldwin Park.
- Options should be explored to create spur trails to connect neighborhoods to the Tanyard Branch Trail.

5 Umstead Park to Martin Luther King Jr. Blvd.

The Bolin Creek valley just east of Umstead Park has a broad floodplain for a short distance until it passes under Pritchard Avenue Extension. Just east of Pritchard Avenue Extension, Bolin Creek enters a very narrow valley with extremely steep slopes on both banks. The short but dramatic gorge ends at Martin Luther King Jr. Boulevard, where the creek enters an area of moderate topography. Other than an intensely developed area along the southern bank- between Umstead Park and Pritchard Avenue Extension- the slopes of this gorge are too steep to allow extensive development. Umstead Drive occupies the only flat land along the creek.

The trail has been designed and permitted to the following route. The trail is planned to bridge over Bolin Creek from the developed portion of Umstead Park to the south bank. The trail will proceed eastward to Pritchard Avenue Extension. The trail will pass

under Pritchard Avenue Extension and continue quite close to Bolin Creek, mostly within an already cleared OWASA sewer easement, to Umstead Drive. The trail will cross Umstead Drive at-grade and then bridge back over Bolin Creek to the north bank. The trail will split at this location with a spur trail leading to the sidewalk along Martin Luther King Jr. Blvd. The main trail will descend the steep bank to the culvert that allows Bolin creek to cross under Martin Luther King Jr, Blvd. The trail will be located along the north wall of the culvert. Once on the east side of the culvert the trail will continue and connect with the existing Bolin Creek Trail.

Potential for Trail Development

This short section of trail has the potential to be the most difficult trail section in Town from a construction standpoint, yet it also has the potential to be one of the Town's most useful and aesthetically pleasing trail segments. A trail along this section could enhance Umstead Park and provide for safe pedestrian and bicycle traffic to the park. The Tanyard Branch Trail would connect directly to the Bolin Creek Trail in Umstead Park.

The trail has been designed and most permits acquired.

Summary of Constraints for Potential Trail Development

- Trail development from Umstead Park to Martin Luther King Jr. Boulevard will be difficult due to existing development and extremely steep slopes.
- Trail construction along the narrow sections of the stream corridor will have major erosion control issues and powerful stream hydraulics during periods of flood.

Recommendations

The Town should pursue the construction of a Class 6 trail as soon as possible.

6 Martin Luther King Jr. Boulevard to Community Center Park

This is a completed, paved, ten foot wide asphalt trail designed as a Class 6 trail. It is 1.5 miles in length. A spur trail leads to Elizabeth Street.

Recommendations

- A sidewalk should be constructed along the eastern side of Bolinwood Drive from the Bolin Creek Trail to the existing sidewalk on Hillsborough Street. This connection would mitigate current

conflicts between pedestrians traveling to the trail with the numerous parked cars along Bolinwood Drive.

- In the event of future widening or replacement of the Bolinwood Drive Bridge, lanes for safe pedestrian and bicycle travel should be accommodated.
- The Town has completed the design for a flight of stairs from the north side of Franklin Street to the Bolin Creek Trail near the Franklin Street Bridge over Bolin Creek. The Town should install the stairs as soon as possible as they will improve pedestrian access to the library.

7

Cole Springs Branch

The Cole Springs Branch runs in a northwest-to-southeast direction and extends over 0.75 miles to its confluence with Bolin Creek. It is comprised of two major forks: one that begins near the intersection of Estes Drive and Martin Luther King Jr. Boulevard, and a second that begins at Martin Luther King Jr. Boulevard south of Estes Drive near the YMCA. The two forks join into a single stream channel approximately 2,500 feet above the Cole Springs Branch confluence with Bolin Creek.

Potential for Trail Development

The southern bank of Cole Springs Branch directly north of Bolin Creek is characterized by a wide, dry stream terrace, which would allow for a variety of options for trail alignment. An existing sanitary sewer easement follows the northern bank. There are no significant conflicts with existing residential development for the first 2,500 feet of the stream.

Above this segment of the stream, existing residential development may pose considerable difficulty to trail placement. Coupled with a narrowing of the stream terrace and steep side slopes, trail development may be problematic.

Summary of Constraints for Potential Trail Development

- Extensive land or easement acquisition would be necessary for trail development.
- There are some existing residential conflicts. Residents have complained about existing use on the informal trails in the area.
- Slope conditions may make trail continuity and linkage with adjacent neighborhoods difficult.

Summary of Factors Favorable for Potential Trail Development

- Large portions of Cole Springs Branch are relatively flat and exhibit dry, stable soils.

Recommendations

- The Town should take advantage of any opportunities to acquire easements or land along both banks of Cole Springs Branch and continue to search for linkages to public streets adjacent to the corridor.
- Any trail should be designed as a Class 3 trail to connect with the Phase II segment of the Bolin Creek Trail.

8

Battle Branch Trail

The Battle Branch Trail is a completed, Class 3 natural surface trail with some boardwalk and a paved sidewalk connection. About 50% of the trail is owned by the Town, while the remaining 50% is owned by the University of North Carolina at Chapel Hill. It totals 1.5 miles in length and connects Battle Park with the Chapel Hill Community Center. The portion of the corridor in UNC ownership has significant slopes.

Potential Improvements to the Existing Trail

A major bridge was replaced in 2011. A major boardwalk near Sugarberry Road was scheduled for replacement in the summer of 2013. The bridge in this area should be replaced as soon as possible. Opportunities exist to build structures or grade portions of the trail to remove steep sections. If two easements could be acquired it would be possible to abandon one bridge and boardwalk segment. See the section related to capital renovations, page 68.

Potential for Trail Upgrade

It would be possible to upgrade the trail to a Class 6 facility. This would allow a direct bicycle/pedestrian connection to the UNC-CH campus from the Bolin Creek Trail and the eastern side of Town.

Summary of Constraints for Potential Trail Development

Many citizens hold the view that Battle Park is a special natural area that should be protected. The opinion expressed by a majority of neighbors at a public forum, and at several subsequent Greenways Commission meetings, was that an improved trail would be out of character with the natural character of Battle Park, and that the increase in use would further damage the area.

- Any improvement would require cooperation by the university. UNC-CH owns half of the corridor and would have to agree to any change in trail classification before construction. The university staff members we contacted were not supportive of a paved trail in Battle Park.
- Some steep slopes would be encountered.
- Soils are generally poor.
- A number of bridges would be required.

Summary of Factors Favorable for Potential Trail Development

- A paved trail could provide a direct bicycle and pedestrian connection from the Bolin Creek Trail to UNC-CH.
- Most slopes are reasonable, and the corridor is wide enough in most locations to allow consideration of multiple options for trail development.
- Most of the needed corridor is in public ownership.

Recommendation

- This report does not recommend paving the Battle Branch Trail.
- As repairs are needed, the Town should make such improvement as necessary to eliminate barriers to bicycle users on its property. Bridges, boardwalks, and erosion structures should all be designed to allow continuous bicycle use without the need to dismount. Steeper slopes should be eliminated where possible.
- Easements should be obtained over two private properties. These properties lie across some of the flattest sections of land near Greendale Park.
- The University should be encouraged to improve its section of trail to allow easy use of bicycles designed for natural surface conditions.

9 Community Center Park to Fordham Boulevard

For 3,000 feet the creek corridor is surrounded by streets, businesses, and homes. Estes Drive is located along the northern bank. Residences dominate the southern bank. The Community Center Park is also located on the southern bank.

Potential for Trail Development

Once past Community Center Park, there are two opportunities for trail development: as a sidewalk along Estes Drive or a Class 6 trail in front of Brookwood and Camelot condominiums. This section ends at Fordham Boulevard, which acts as a barrier that may discourage pedestrian and bicycle transportation.

Summary of Constraints for Potential Trail Development

- The sidewalk option is constrained by a narrow area for construction and the presence of a number of utility poles and street trees within the desired alignment. The feasibility of this option is diminished by these constraints.
- The Town currently owns no land between the Community Center and Fordham Boulevard.
- The grade change between the elevation of the trail and Fordham Boulevard would be difficult to negotiate.
- The trail would need to be extended eastward to the Estes Drive intersection, where the existing traffic signal would allow for safe crossing of Fordham Boulevard. This extension might require a bridge over Bolin Creek.

Summary of Factors Favorable for Potential Trail Development

- A trail located on the southern bank could follow the existing sewer easement.

Recommendations

- The Town should explore the possibility of continuing the Bolin Creek Trail as a Class 6 trail along the southern bank.

10 Fordham Boulevard to Booker Creek

Once Bolin Creek passes under Franklin Street, the character of the stream banks changes from the narrow valleys of the upper stretches to a very broad floodplain with little topographical relief. As the creek flows under Fordham Boulevard, it enters an area subject to fewer human intrusions. The surroundings become either park like or low density residential. The creek flows along the Rainbow Soccer fields and then continues a short distance downstream, where it joins with Booker Creek to form Little Creek. Over 60 acres of Town-owned open space is located at this juncture.

Potential for Trail Development

Development of a trail along this portion of Bolin

Creek is possible, although much of this area is prone to flooding. Trails in this area would likely require either extensive boardwalk sections or raised trail beds.

Summary of Constraints for Potential Trail Development

- This area is generally low-lying and exhibits poorly drained soils.
- It is likely that there are extensive wetlands in this greenway segment.
- At least two bridge crossings would be required, in addition to extensive boardwalk sections over wet areas.
- Fordham Boulevard is a major barrier to pedestrian and bicycle use.
- The potential costs would be very high due to the need to construct boardwalk sections.

Recommendations

- The Town should build a Class 6 trail with boardwalk sections.
- Fordham Boulevard should be improved with an underpass or a pedestrian refuge in order to allow safer pedestrian and bicycle transportation across this busy road. Please see the list of NCDOT critical intersections in Table 6.3 of Section 6, Implementation.

11 Mill Race Branch

A small tributary to Bolin Creek flows from the downtown area, between Martin Luther King Jr. Boulevard and Hillsborough Street, to Bolin Creek. The area contains several large multi-family developments that serve primarily university students.

Potential for Trail Development

A greenway along this drainage could potentially connect the Bolin Creek Trail with the downtown through an area of high density residential development. Some problems exist due to pre-existing development and steep slopes. However, the potential for a significant pedestrian facility is great enough to warrant a search for solutions.

Recommendations:

- Secure greenway easements throughout the drainage whenever opportunities arise for the purpose of allowing pedestrian traffic to access the

downtown area.

- Work with developers and residents to arrive at a permanent access area to the downtown in the vicinity of Cobb Terrace.
- Develop sections of trail whenever logical connections allow.

BOOKER CREEK TRAIL

Booker Creek begins as two small branches. The southern branch rises near Homestead Road east of the existing rail line. The northern branch begins near the intersection of Weaver Dairy Road and Martin Luther King Jr. Boulevard and is joined by a smaller tributary midway through its course. The two branches eventually merge just west of Martin Luther King Jr. Boulevard. From the juncture of the two branches, Booker Creek flows generally south and east across areas of Town that include both developed and undeveloped tracts. The creek flows into Lake Ellen and Eastwood Lake. From Eastwood Lake, the creek flows through a wide flood plain, continues under Franklin Street, and then literally flows under the Eastgate shopping area. Once past Fordham Boulevard, the creek flows through very low, wet areas until it merges with Bolin Creek. Both Bolin and Booker Creeks lose their separate identities at this point as they become Little Creek.

Booker Creek flows for nearly 5.7 miles and has five major segments which may be developed with trails of varied classifications. The central section of the creek has been too heavily developed to practically support a trail program; however Class 6 trails could be built west of Martin Luther King Jr. Boulevard and east of Eastwood Lake, and a Class 3 or Class 6 trail could be included south of Fordham Boulevard.

If the proposed Chapel Hill trail system were fully developed, the various sections of the Booker Creek Trail would total nearly 3.2 miles and would connect directly to the Bolin Creek and Horace Williams Trails. Various segments of the Booker Creek Trail would connect indirectly, through the above mentioned greenways, to the following trails: Battle Branch, Tanyard Branch, Cole Springs Branch, North Trail, and Dry Creek.

1 Upper Booker Creek Trail – Martin Luther King Jr. Blvd. to Lonebrook Drive

The Upper Booker Creek trail is proposed to be located on primarily flat land to the west of Martin Luther King Jr. Boulevard and south of Weaver Dairy Road Extension.

Resource Protection

This portion of the corridor has a small Resource Conservation District. The Town currently owns a portion of the corridor near Lonebrook Drive (Fire Station and training facility).

Potential for Trail Development

Trails could be constructed to any class with few

constraints.

Summary of Factors Favorable for Potential Trail Development

- There are few topographical constraints.
- There are no current conflicts with residences or businesses.

Summary of Constraints for Potential Trail Development

- The majority of the property is privately owned.

Recommendations

- The Town should pursue the construction of a Class 6 trail from Martin Luther King Jr. Blvd. to Lonebrook Drive.

2

Upper Booker Creek Trail - Lonebrook Drive to Homestead Park

The northern branch of Booker Creek drains primarily flat land to the west of and parallel to Lonebrook Drive.

Resource Protection

The Town owns all of the low land adjacent to the creek and has built the 40.77 acre Homestead Park. Public lands in this segment total over 4,000 feet of greenway corridor.

Potential for Trail Development

Trail development would be relatively easy along the eastern side of the creek. Trails could be constructed to any class with few constraints.

Summary of Factors Favorable for Potential Trail Development

- There are few topographical constraints.
- There are few conflicts with residences or businesses.

Summary of Constraints for Potential Trail Development

- Some wetland areas may be encountered.

Recommendations

- The Town should pursue the construction of a Class 6 trail from the vicinity of Weaver Dairy Road to Homestead Park.
- A Class 3 spur trail should be built westward to the proposed Horace Williams Trail.
- Special design considerations should be made to account for nearby stream and wetlands. Boardwalks may be needed.

3 **Greene Tract to Upper Booker Creek Trail**
 The western branch is a minor tributary which joins the northern branch of Booker Creek at a point north of Homestead Park. The branch also crosses the corridor of the proposed Horace Williams Trail. The creek drains large areas of relatively flat land to the west of Martin Luther King Jr. Boulevard.

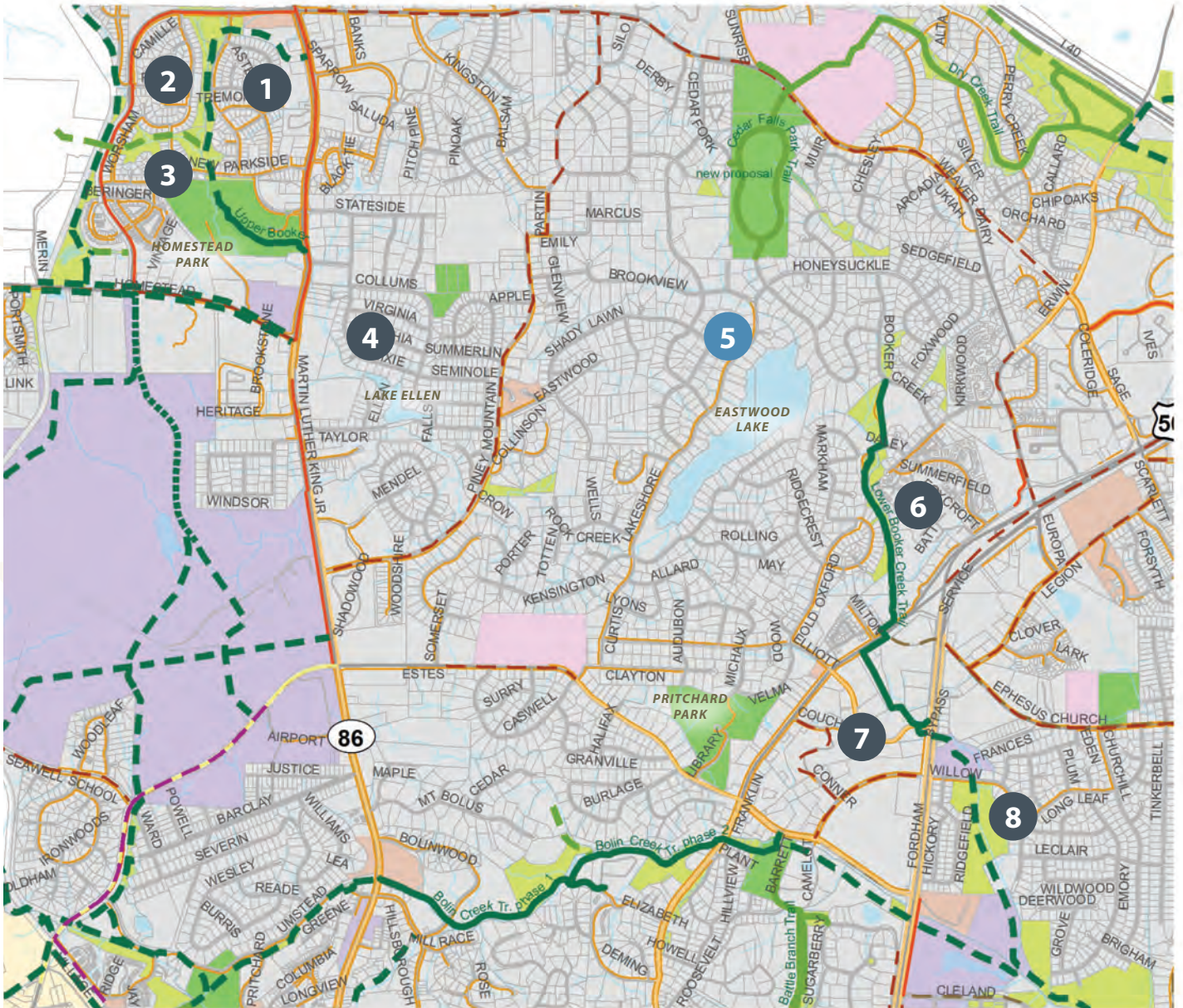
both sides of the tributary. Trails could be constructed to any class with few constraints and could potentially be extended westward across the rail line to the Greene Tract. The Greene Tract is a 164.5 acre, undeveloped tract that was once jointly owned by the Town of Chapel Hill, the Town of Carrboro and Orange County. A connection should be determined upon final resolution of ownership of the Greene Tract.

Potential for Trail Development

Trail development would be relatively easy along

Summary of Constraints for Potential Trail Development

- A crossing of the rail line would be necessary.



Greenways

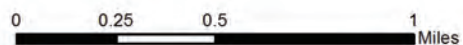
- Paved
- Unpaved
- - - Proposed Paved
- - - Proposed Unpaved
- - - - - Planned

Bike Facilities

- Bike Lane
- Wide Shoulder/Outside Lane
- - - Proposed Facility

- Proposed C to C Connector
- Connector
- Sidewalk
- Stream

- Town Property
- UNC Property
- Park
- Open Space
- Parcel
- Town Limits
- Carrboro Limits



MAP 4.6 - BOOKER CREEK TRAIL

- The local governments would have to agree to a trail building program within the Greene Tract.

Summary of Factors Favorable for Potential Trail Development

- There are few topographical constraints and few existing residential conflicts.
- The proposed Horace Williams Trail corridor, including all Town property and easements, lies on the eastern side of the tracks.

Recommendations

- The Town should work with all Greene property partners to determine a trail program for the property, including potential areas to cross the rail corridor.

4 Martin Luther King Jr. Boulevard to Eastwood Lake

Booker Creek crosses under Martin Luther King Jr. Boulevard and flows for a short distance through an area that is mostly wooded. The northern shore of the stream corridor becomes highly developed as it parallels Dixie Drive. Booker Creek eventually flows into Lake Ellen, which is surrounded by single-family homes and steep slopes. Below the dam, the creek enters a valley, which is often steep, with extensive areas of exposed rock. Homes are found throughout this section- some quite near the creek, while others are located on bluffs overlooking the stream. The stream passes under Piney Mountain Road. Eventually the creek flows into Eastwood Lake, near Curtis Road and Kensington Drive.

Resource Protection

The Town has protected some open space downstream of Lake Ellen and at the intersection of Kensington Drive and Curtis Road.

Potential for Trail Development

Trail development would be extremely difficult along this section of Booker Creek. Although cleared Orange Water and Sewer Authority (OWASA) sanitary sewer easements could provide a good surface for the trail along some sections of the creek, portions of the corridor are steep, rocky, and narrow. The greatest constraint to trail development is the absence of Town controlled rights-of-way in a densely developed area. In many locations, trails would have to be constructed very close to established homes and in several places would have to cross over maintained lawns.

Summary of Constraints for Potential Trail Development

- Extensive land acquisition would be necessary.
- Some bridges may be required.
- Trail development may be difficult given proximity of existing homes.
- Steep slopes predominate the section.
- Feasible access to Orange Water and Sewer Authority (OWASA) sanitary sewer easements is not apparent in at least two locations.
- Tree and rock outcroppings would be disturbed by the construction of a Class 5 or greater trail.
- Trails in the vicinity of the two lakes would be difficult to locate.

Summary of Factors Favorable for Potential Trail Development

- An Orange Water and Sewer Authority (OWASA) sewer easement would allow for easy construction of trails in some areas.

Recommendations

- The Town should take advantage of any opportunities to acquire easements or land, for resource protection purposes, along both banks of Booker Creek.
- The Town should not promote a trail in this area unless requested by residents. The corridor should remain undeveloped to a Class 1 or 2 level.

5 Cedar Fork

Cedar Fork drains much of the area north of Honeysuckle Road and south of Interstate 40. The creek flows generally southeast, over 1.1 miles, until it empties into Booker Creek near the intersection of Brookview Drive and Cedar Falls Court. The stream flows through an area which is heavily developed by both residential and commercial structures.

Potential for Trail Development

Trail development would be difficult along Cedar Fork due to the existing development encountered along the stream. A trail currently exists within Cedar Falls Park (see page 57). The park trail and this portion of Cedar Fork could provide a natural connector for persons wishing to travel from the proposed North Trail and Dry Creek Trail to the Booker Creek Trail. Although some travel on streets would be required to connect these trails, Cedar Falls Park greatly reduces the need

to walk on Town streets.

Recommendations

- The Town should acquire easements and land along Cedar Fork.
- The Cedar Fork corridor should remain as a Class 1 or 2 greenway.

6 Lower Booker Creek Trail - Eastwood Lake to Franklin Street and the Northeast Branch

From the spillway of Eastwood Lake, Booker Creek crosses several private lots until it merges with the northeastern branch, east of Eastwood Lake. From the juncture with the northeastern branch, the creek flows almost due south through a broad, vegetated floodplain until it crosses under Franklin Street near the Eastgate Shopping Center. The northeastern branch of the creek begins near Honeysuckle Road and flows south to meet the main branch just south of Booker Creek Road.

The trail, which is called the Lower Booker Creek Trail, is complete. It is a 10' wide, paved Class 6 trail approximately 0.85 miles long, and it includes a bridge crossing of Booker Creek that provides a connection between Daley Road and Tadley Drive.

Resource Protection

The Town has acquired a great deal of land along this section of the Booker Creek greenway, including a majority of the acreage along 5,000 ft. of the stream corridor. In addition to fee-simple ownership of land, the Town has established a large recreation area and over 2,000 feet of pedestrian and non-motorized vehicle easements. The Resource Conservation District (RCD) ordinance assists in protecting the remaining portions of the greenway corridor not directly controlled by the Town.

Potential for Additional Trail Development

Trail development would be extremely difficult from Eastwood Lake to the juncture with the northeastern branch due to the private property along the lake. Another issue relates to providing neighborhood access from the Oxford Hills neighborhood to the existing trail. Although the Town owns two potential connectors, neighboring property owners have expressed concern related to privacy issues if a connector trail is built. In addition, trail safety and use would be greatly enhanced with the addition of an underpass of Franklin Street adjacent to the culvert that carries Booker Creek. Please see the list of NCDOT critical intersections in Table 5.2.

Recommendations

- The Town should provide direct access from the Oxford Hills neighborhood to the Lower Booker Creek Trail in the event that such a goal is supported by adjacent residents.
- The Town should pursue the addition of an underpass of Franklin Street to assure a safer and more useful trail crossing of this major road.

7 Lower Booker Creek Trail - Franklin Street to Fordham Boulevard

The landscape surrounding Booker Creek changes character once the stream passes under Franklin Street. The entire creek immediately passes beneath the parking lot and main building of Eastgate Shopping Center. From the outflow of the creek on the southern side of the Eastgate Shopping Center, the creek resumes a more natural course, although the surroundings are predominantly urban. The creek flows near several commercial buildings and roads until it passes beneath Fordham Boulevard near Willow Drive.

This trail section is complete, with a pedestrian activated crossing signal at Franklin Street. It is a 10' wide, paved Class 6 trail that runs for 0.5 miles between businesses at Fordham Blvd. and along the creek as it emerges near the intersection of Elliot Road and Fordham Blvd.

Resource Protection

The entire corridor is in private ownership and is almost completely developed.

Potential for Additional Trail Development

The trail follows sidewalks along businesses before emerging as a separate facility south of the Eastgate shopping centers, and it is therefore difficult to follow. Improved wayfinding signage through the shopping center would benefit users. Additionally, a safe crossing at Fordham Boulevard should be considered to provide access to residential areas on the eastern side of the busy roadway.

Recommendations

- If Eastgate Shopping Center is redesigned or rebuilt, the Town should take advantage of the opportunity to assure a trail corridor along the full length of the creek in this section. This plan supports the idea of daylighting the creek, while allowing expansion of the shopping center.
- Options for safe pedestrian and bicycle crossing

of Fordham should be a high priority. The best solution would be an underpass of Fordham Boulevard and a redesigned Elliott Road that would eliminate the Elliott Road culvert. Meanwhile, provision of a pedestrian refuge and pedestrian-activated crossing signal would improve safety and increase use in this location.

- Once the section becomes a priority, the Town should pursue construction of a Class 6 trail.
- The Town should negotiate with the university to gain access across the UNC-CH property.

8 Lower Booker Creek Trail - Fordham Boulevard to Little Creek

Once past Fordham Boulevard, Booker Creek enters a floodplain that is very flat and poorly drained. The areas surrounding Booker Creek probably contain significant areas of wetlands, as defined by the Army Corps of Engineers. Booker Creek ends as it joins with Bolin Creek to form Little Creek.

Resource Protection

The Town owns 26 acres of land along this portion of the Booker Creek corridor.

Potential for Trail Development

Trail development in this area would be challenging although beneficial to the neighborhoods in the southeastern Chapel Hill. A trail could be used to access the shopping and commercial areas near Elliott and East Franklin Streets and to the Bolin Creek Trail.

Summary of Constraints for Potential Trail Development

- Land acquisition would be necessary for trail development.
- Engineering would be required to overcome problems with trail development in wet areas.
- Extensive use of boardwalks may be required.
- The University of North Carolina at Chapel Hill owns a 9.8 acre tract of low-lying land straddling Booker Creek between Fordham Boulevard and Willow Drive. An agreement with the university would be needed to complete the trail corridor.

Summary of Factors Favorable for Potential Trail Development

- There are few topographical constraints to trail development.
- The Town controls a significant tract of land along the creek.

Recommendations

- The Town should take advantage of any opportunities to acquire easements or land along both banks of Booker Creek.

LITTLE CREEK

The confluence of Bolin Creek and Booker Creek occurs between the Rainbow Soccer fields and 52 acres of Town-owned open space. Beyond the confluence, Little Creek flows for over 1.1 miles within the Town limits, flowing eastward into the Town-owned tract, through the Chapel Hill Country Club property, through the site of the 72 acre Meadowmont park, and then out of the Town’s jurisdiction to Jordan Lake.

1 Confluence to Pinehurst Drive

Resource Protection

The Town owns a 52 acre tract of land, which includes approximately 2,000 feet of greenway corridor.

Potential for Trail Development

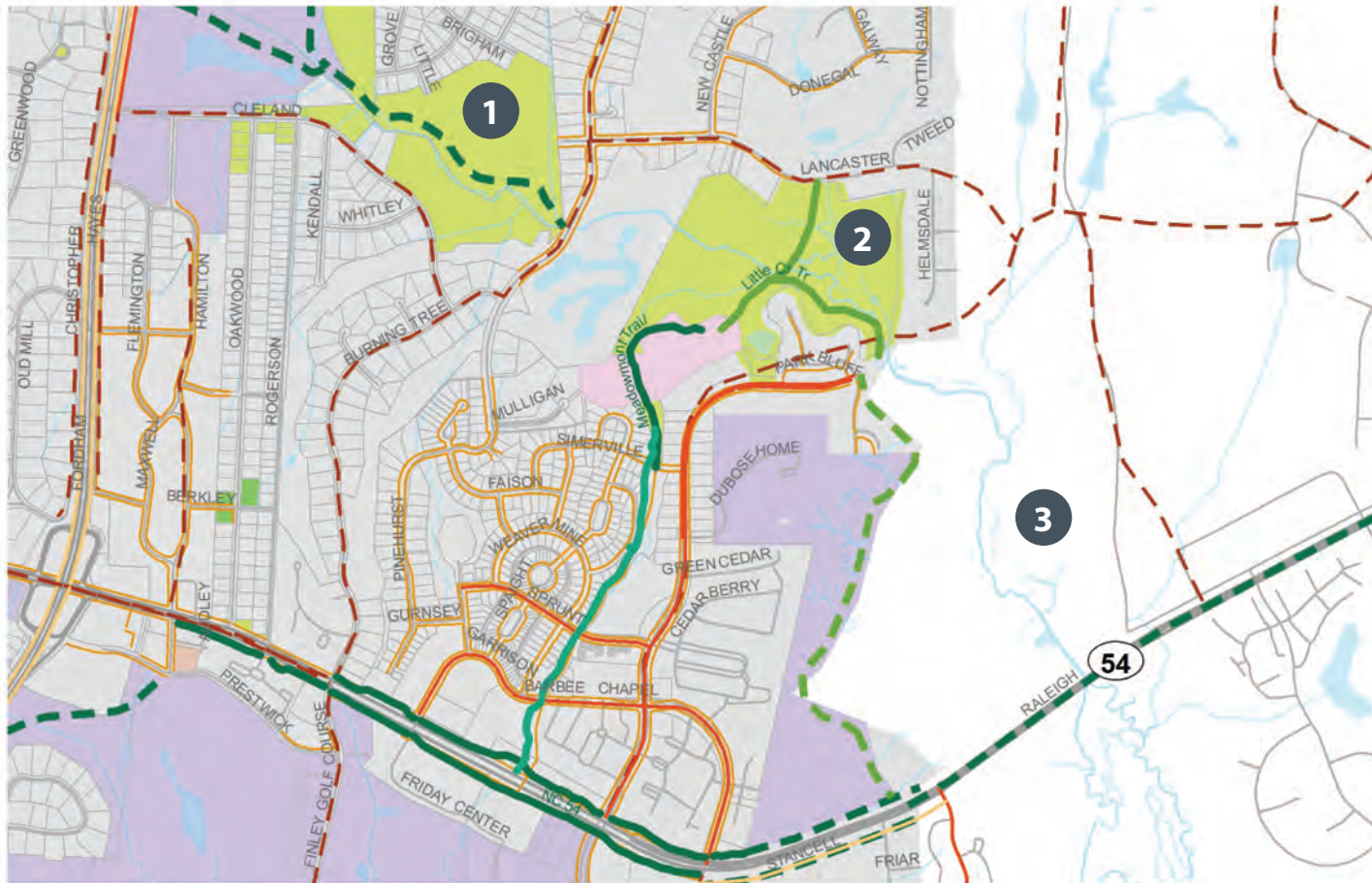
Most of the required land within this corridor segment is controlled by the Town.

Summary of Constraints for Potential Trail Development

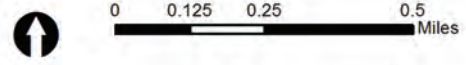
- Extensive wetlands might exist along portions of the trail corridor.
- Beaver activity has resulted in flooding of a large area north of the creek.
- Trail development would likely require expensive and difficult to permit boardwalks in some areas.

Summary of Factors Favorable for Potential Trail Development

- There are few topographical constraints to trail development.



Greenways	Bike Facilities	Town Property
— Paved	— Bike Lane	— Park
— Paved - HOA	— Wide Shoulder/Outside Lane	— Open Space
— Unpaved	— Proposed Facility	— School
— Proposed Paved	— Sidewalk	— UNC Property
— Proposed Unpaved	— Stream	— Parcel
— Planned		— Town Limits



MAP 4.7 - LITTLE CREEK TRAIL

- The Town controls a significant tract of land along the creek.

Recommendations

- A Class 6 trail should be constructed with integrated boardwalks through wet areas.

2 Pinehurst Drive to NC 54

Resource Protection

The Town owns the 72 acre Meadowmont Park, located downstream from the Chapel Hill Country Club property. The park includes soccer fields, a picnic area, trails, and a portion of land along the Little Creek corridor.

Potential for Trail Development

A major obstacle to the continuity of the Little Creek corridor for recreational and transportation purposes is the existing Chapel Hill Country Club golf course. Natural surface and boardwalk trails from Rashkis School to Lancaster Drive and the eastern end of Meadowmont Drive have been completed. The trails could continue eastward, following the edge of the Jordan Lake flood land and on land owned by UNC to the Town limits at NC 54. The natural surface trail would tie into the planned paved trail that will front NC 54.

Summary of Constraints for Potential Trail Development

- Some land acquisition or easements would be necessary for trail development.
- A continuous trail across the existing Chapel Hill Country Club golf course may not be feasible.
- The North Carolina Division of Wildlife manages the Army Corps of Engineers land near NC 54. Cooperation from the Corps and the North Carolina Division of Wildlife would be required to construct the trail.
- Some portions of the trail would require acquisition of land or easements to avoid wet areas or steep slope conditions.

Summary of Factors Favorable for Potential Trail Development

- The majority of the Little Creek Trail downstream of the 52 acre Town-owned parcel would be constructed on land exhibiting somewhat variable slope conditions with dry, stable soils.
-

- The juncture of planned residential uses and development of the trail can be coordinated to minimize potential conflicts.

Recommendations

- Easements and land acquisition should be acquired as opportunities arise.
- If possible work with the country club to find a trail corridor across the golf course.
- Until such time as a trail can be located across the golf course, the Town should pursue the potential of a street and sidewalk connection to bypass the golf course property. Trail users could be routed on public sidewalks southward on Pinehurst Drive to connect with new roads within the Meadowmont development, eventually connecting with the Meadowmont Trail. This link could be marked as part of the Town's greenway system to assist trail users following the route. Trail users could also be routed to the trailhead on Lancaster Drive.
- The Town should make all efforts to work with the Country Club and surrounding neighborhoods to make the connections possible.
- The Town should pursue a connection with future Durham trail development as it occurs along Little Creek.

3

Potential American Tobacco Trail Connection

See Highway 54 Trail on the following page for a recommended Class 6 connection to currently proposed Durham city trails and, ultimately, the American Tobacco Trail. The construction of a Class 3 trail connector to the American Tobacco Trail is partially possible along Little Creek, although conflicts with the Chapel Hill Country Club golf course would remain. The extent of poorly drained soils and wetland areas may also require significant environmental trade-offs.

Recommendations

- Chapel Hill should coordinate with the Durham Open Space and Trails Commission to connect the Little Creek Trail in Town to any trail development occurring along the creek in Durham.
- The bicycle transportation component should be addressed in part by the provision of off-road bicycle paths along NC 54. See Highway 54 section.