



Connecting Chattanooga Neighborhoods by Rail-Trail: An Examination of Railroad Corridors





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ABOUT US

Rails-to-Trails Conservancy (RTC) serves as the national voice for more than 160,000 members and supporters, 30,000 miles of rail-trails and multi-use trails, and more than 8,000 miles of potential trails waiting to be built, with a goal of creating more walkable, bikeable communities in America. Since 1986, we have worked from coast to coast, supporting the development of thousands of miles of rail-trails for millions to explore and enjoy. With a command of national and best practices in trail development, RTC specializes in creating customized trail planning strategies for communities of all sizes.



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EXECUTIVE SUMMARY



When Rails-to-Trails Conservancy (RTC) opened its doors in 1986, there were fewer than 250 miles of open rail-trail in America. Today, just three decades later, more than 22,000 miles grace our nation. Running through urban, suburban and rural landscapes, they are woven into the fabric of countless lives. Tens of millions of people use them every year for recreation, transportation and the joy of the experience. As trails become ubiquitous, their benefits, both the obvious and the unsuspected, are becoming more widely understood. Trails increase our mobility, improve our health, spur economic development and job creation, spark tourism, protect our environment and create powerful connections within, to and across communities.

Concurrent with the evolution of rail-trails has been a rise in walking and biking. Since that touchstone year of 1986, bicycle and pedestrian commuting has increased dramatically. Rail-trails are forging new movement in American communities. Those places that have been able to incorporate rail corridor networks into their active-transportation systems have leapt way ahead in serving citizens who want to walk and bike, elevating the mode share of non-motorized transportation.

Chattanooga is a part of this unfolding story. It is making impressive strides toward growing its active-transportation network. However, almost the entire focus has been on establishing bike routes, lanes and protected lanes on existing streets. The extant rail network remains a tremendous untapped resource for expanding the city's trail network, connecting

neighborhoods and reaching throughout Hamilton County. It is thus far a missed opportunity.

An examination of right-of-ways and linear corridors for possible trail connections reveals nearly 190 miles of rail corridor in Hamilton County. A scan of the region's railroad landscape evokes several questions: What if the same railroad corridors that helped build Chattanooga could help develop the active-transportation network and provide the key to connecting city neighborhoods via a network of rail-trails and rails-with-trails? Could the utilization of former and existing railroad corridors offer residents and visitors of all ages and abilities care- and car-free active-transportation and recreation opportunities? Could these corridors provide more skilled riders more expeditious ways to get around town? Could a blast from the past infuse new opportunity into the Chattanooga's efforts to create a more walkable, bikeable community?

To begin answering these questions, RTC presents this report, a preliminary assessment of rail-trail and rail-with-trail opportunities to increase and improve active-transportation and recreation options. This assessment is the first of its kind, and all supporting documentation and data have been provided to the Chattanooga Department of Transportation (CDOT) for integration into its Bicycle Implementation Plan as appropriate. It is RTC's hope that the report will lead to a more detailed feasibility study of the recommended corridors and ultimately to the creation of a rail-trail system integrated into the city's bicycle-pedestrian network.

INTRODUCTION: RAILS-WITH-TRAILS AND TRAIL BENEFITS

Rails-with-Trails

Many people are familiar with the concept of rail-trails: shared-use paths developed on former railroad corridors. With the increasing popularity of rail-trails across the country, communities are looking for other innovative ways of securing land for safe, popular and effective trail development. Rails-with-trails—shared-use paths that are within or directly adjacent to active railroad corridors—provide even more opportunities for



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bolstering active-transportation systems by offering safe, attractive community connections. Currently, there are more than 240 rails-with-trails in the United States, totaling hundreds of miles and more are being built each year.

Benefits of Trails

Trails are essential elements of any active-transportation system. Where trails have been prioritized, surrounding communities have benefited greatly from economic, quality-of-life, health, accessibility and mobility improvements.

Boosting Economies

In national surveys¹, consumers have repeatedly chosen trails and walkable streets as desired neighborhood amenities, boosting local real estate values. Trails also enhance local economies through trail-based tourism, a major economic driver in many small communities—which supports local businesses through annual revenues of millions of dollars per trail in direct consumer spending in many cases.² Additionally, design, engineering and construction of walking and bicycling facilities such as trails create more jobs per dollar than any other type of transportation infrastructure construction.³

Increasing Mobility and Improving Health

Access to more equitable multi-modal transportation options is very important to the American public. A bipartisan 2010 national poll⁴ found that nearly three-quarters of Americans felt they “have no choice but to drive as much as” they do, and two-thirds indicated that they “would like more transportation options.” In a 2009 national survey⁵, 88 percent of rural Americans said “pedestrian-friendly” transportation facilities were important. Trails enhance multi-modal transportation systems by providing safe, accessible active-transportation routes while also helping people of all ages and abilities incorporate physical activity into their daily routines by connecting them with places they want or need to go.

BICYCLE FACILITIES AND TRAILS: EXISTING CONDITIONS AND PLANS

More than a decade of work by city leaders, cycling advocates and outdoor enthusiasts has led to Chattanooga becoming a more walkable, bikeable city. Several collaborative planning efforts are helping to direct that change. A few of the more recent initiatives that could influence and/or be impacted by potential trail development are summarized below.

Chattanooga Bicycle Implementation Plan (2014)⁶

This plan was established to expand the city's bicycle facility network and expand connectivity over an ambitious four-year timeframe. Implementation of the plan includes a variety of bicycle facilities, including "greenways," or shared use paths—the only type of facility within the plan that is accessible to both bicyclists and pedestrians. The city plans to nearly double greenway mileage by 2017, from 19 miles to 37 miles. Corridors identified for potential rail-trail and rail-with-trail development in this study would boost the planned greenway network mileage to exceed 100 miles, making active transportation a feasible option for residents in many more Chattanooga neighborhoods.

Chattanooga Complete Streets Ordinance (2014)⁷

The City of Chattanooga adopted a progressive Complete Streets Ordinance in 2014, creating a collaborative policy that ensures the development of all public transportation facilities are "designed, built and operated to enable safe access for all users"—including pedestrians and bicyclists. The ordinance outlines specific performance measures that the city will use to evaluate progress. The addition of rail-trail and rail-with-trail projects would directly affect two of those measures—total miles of bike facilities (by increasing shared-use pathway mileage) and total miles of pedestrian accommodation—and could also affect several other measures (commute mode share, rate of crashes by mode, etc.).



Chattanooga Multimodal Transportation Center Study (MTCS)⁸

The MTCS is a current planning effort that is evaluating existing and potential routes, and other opportunities to create a truly multi-modal transportation system in the Chattanooga region. With goals of building safe, healthy communities that are connected to transportation options and economic centers, MTCS will help shape and prioritize investment in a more equitable and accessible multi-modal transportation system. Corridors identified in this study may increase opportunities to create facilities for pedestrians and bicyclists that are integrated with public transit hubs or help fill existing gaps.

EVALUATION OF RAILROAD CORRIDORS FOR TRAIL DEVELOPMENT



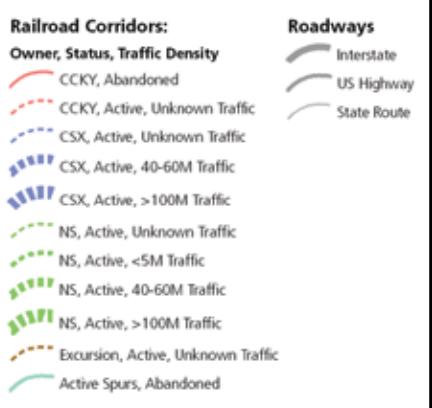
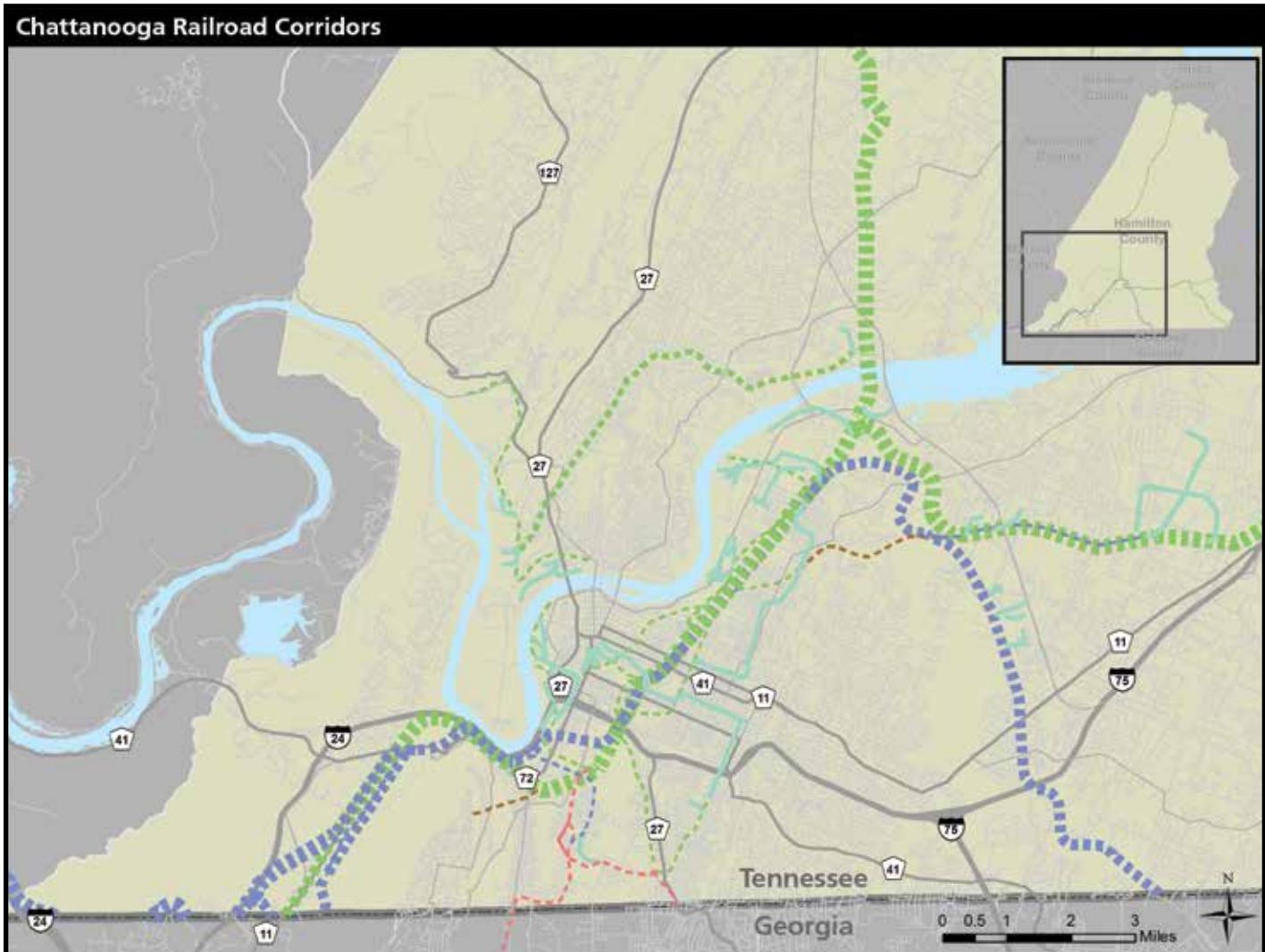
This assessment of rail-trail opportunities began with a close look at Chattanooga's railroad corridor network to better understand how active or unused railroad corridors might fill gaps in the active-transportation network, or create additional trail connections between and within neighborhoods. Railroad corridor data from the Federal Railroad Administration (FRA)⁹ and the Center for Transportation Analysis (CTA)¹⁰ reveals an expansive network—not surprising from a place that inspired the song “Chattanooga Choo-Choo”—with nearly 190 miles of active and abandoned corridor in Hamilton County, the study boundary. Next, railroad corridor network data was overlaid with existing/planned bicycle facilities data provided by CDOT to determine corridors that might help strengthen and improve active-transportation network connectivity. A dozen corridors emerged as possible locations for rail-trail or rail-with-trail development through a preliminary examination of railroad and bicycle data.

There are several factors, or attributes of the railroad, that influence the feasibility of rail-trail or rail-with-trail development. These include but are not limited to: status (active, unused, abandoned), right-of-way width, railroad owner, rail service type (passenger, freight) and train frequency. As part

of this initial evaluation, relevant attributes of the identified preliminary corridors were assembled and presented with an interactive map to Jim Johnson and leadership at CDOT and the Trust for Public Land for further consideration. An overview map of identified corridors is provided on the next page. Some railroad attributes are included to provide context and a basic understanding of which corridors receive more traffic, indicated by the corridor “density.” Railroad owner and status (e.g., active, abandoned) are also included on the map.

Five priority corridors were identified by local stakeholders after a more extensive review of the initial group of 12 and are described in detail on pages 8–9. All deliverables, including maps and GIS data, will be provided to relevant city agencies and local organizations to supplement short- and long-term planning initiatives that contribute to Chattanooga's active-transportation system vision. In addition to the corridor descriptions and maps included in this report, an interactive map is available at: tiny.cc/Chattanooga-corridors.

OVERVIEW MAP



The legend includes symbology that indicates railroad owner, corridor status (i.e., active or abandoned), and traffic density. Known density figures equate to the total gross tons of freight moved on the corridor per year. For example, the most heavily trafficked CSX and Norfolk Southern (NS) mainlines move more than 100 million gross tons of freight per year, or ">>100M Traffic" as indicated in the legend. Corridors labeled "Active Spurs, Abandoned" are a mixture of short spurs and sidings, some of which are still used and some of which are abandoned. The Chattooga & Chickamauga Railway (CCKY) was acquired by shortline railroad Genesee & Wyoming, Inc. in 2008.

PRIORITY CORRIDORS



Each priority corridor is described below and assigned a letter beside its name that corresponds with corridor labels on the Priority Corridor Map (page 10). Some of the corridors extend well beyond the study area, which includes the railroad corridor network as it exists within Hamilton County. Additional regional and interstate trail possibilities are referenced in the descriptions below.

“North Shore to North Chick” [A]

This active Norfolk Southern corridor comprises two segments totaling 12 miles. The first segment, running north-south, begins across from Renaissance Park and ends just off Signal Mountain Boulevard near Bi-Lo. The second segment, running east-west, begins and intersects with the first segment near the intersection of Pineville Road and West Elmwood Drive and extends through Red Bank along Dayton Boulevard, with the eastern terminus near the confluence of North Chickamauga Creek and the Tennessee River. This potential rail-with-trail could be a key piece toward creating a north shore “loop” with connection to the Riverwalk across the CB Robinson Bridge. At present, the “S Curves” on Hixson Pike and the Stringer’s Ridge Tunnel make it hazardous to cycle from Red Bank, Hixson and points north to the North Shore and Downtown. On the northern end, the rail-with-trail could also link to the potential Mountain Creek Greenway with park-and-bike opportunities at the existing Bi-Lo and Wal-Mart locations. Other community destination connections include Baylor School, residential and retail development on Manufacturers Road,

Stringer’s Ridge, Coolidge Park and the North Shore Shopping District. Rail traffic on both corridors is less frequent since these corridors are spurs off of the mainline. For large portions of the east-west corridor, the right-of-way averages 100 feet or more. Both of these conditions are favorable for rail-with-trail development and present a promising opportunity in an area currently underserved by trails and greenways.

“Dayton to Tennessee River” [B]

From a regional trail development perspective, this corridor affords excellent connectivity north of Chattanooga to Hixson, Soddy-Daisy, and even Dayton and beyond. A Norfolk Southern corridor that extends far beyond the northern boundary of Hamilton County to east Tennessee and beyond, it is a heavily trafficked mainline. For this study’s purposes, we’ve segmented the corridor; the southern terminus meets the eastern terminus of the “North Shore to North Chick” corridor near the confluence of North Chickamauga Creek and the Tennessee River, and Dayton acts as the northern terminus. Providing excellent access to the North Chickamauga Greenway, the Hixson and Middle Valley neighborhoods, Northgate Mall, Soddy Daisy, Sale Creek and Dayton, this potential rail-with-trail could become the spine of a major regional trail system. Although the average right-of-way width is 100-plus feet, negotiating with the railroad for access may be difficult due to its mainline status and frequent service.

PRIORITY CORRIDORS



"River Park to Collegedale and Apison" [C]

This potential rail-with-trail comprises two separate segments of an active Norfolk Southern corridor, much of which is being studied for light rail. The first segment follows an east-west corridor and begins near Lightfoot Mill Road, providing access to South Chickamauga Greenway, and continues east beyond the county boundary to Cleveland, Tennessee. Rail-with-trail development along the western half of this 24-mile corridor could greatly enhance bicycle commuting opportunities to both the Amazon and Volkswagen campuses; for recreational use, there's easy access to the hiking and mountain bike trails at Enterprise South Nature Park, and a possible park and bike opportunity exists at Redoubt Soccer Association fields on Bonny Oaks Drive. As the corridor extends east past Ooltewah, a regional trail opportunity emerges to Cleveland and beyond.

The second segment of this potential rail-with-trail diverges from the first after crossing Wolftever Creek, near Little Debbie Parkway. Continuing through Collegedale and the Southern Adventist University Campus into Apison, with access to the trails at White Oak Mountain, this corridor extends beyond the state line into Georgia. The corridor presents exciting opportunities to link the existing Wolftever Creek Greenway with Enterprise South Nature Park. Again, both segments of this corridor present trail development challenges due to the frequency of active rail service. However, average right-of-way width of 100 feet (on north-south line) to 150 feet or greater (east-west line) could afford ample space for inclusion of a rail-with-trail.

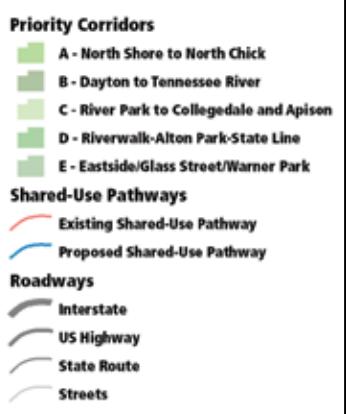
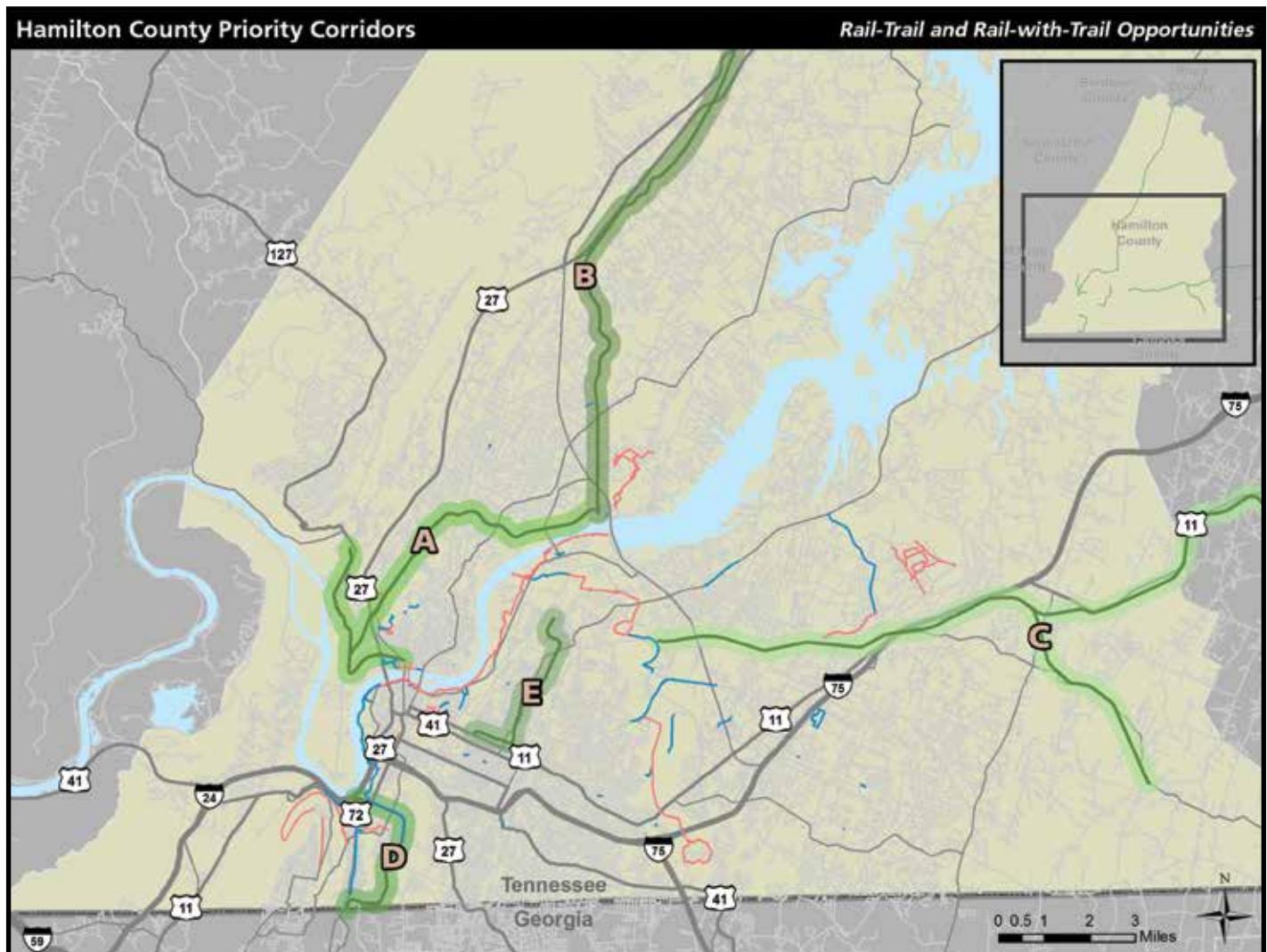
"Riverwalk-Alton Park-State Line" [D]

Beginning near I-24 and the Tennessee River and extending south to the state line, this four-mile CSX/Genesee and Wyoming corridor provides excellent connections to the Alton Park, Piney Woods and St. Elmo neighborhoods, as well as to Central Avenue, and also links with a proposed interstate trail—the TAG Line—which could eventually connect Chattanooga to the Silver Comet Trail (Georgia) and the Chief Ladiga Trail (Alabama). A segment of the corridor from 45th Street to the Tennessee Riverwalk extension is a planned rail-trail being pursued by The Trust for Public Land.

"Eastside/Glass Street/Warner Park" [E]

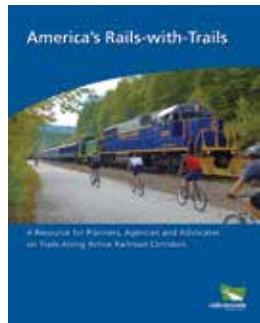
Sections of this abandoned four-mile corridor that stretches from Wilder Street to Warner Park are currently being considered for bicycle facility development. The railroad right-of-way footprint is sometimes evident as the corridor gently curves through Eastside, and portions of the former corridor run along current roadways (e.g., North Kelly Street and Wheeler Ave.). Developing a trail within the right-of-way of this former railroad corridor could potentially require negotiations with private landowners, but segments that exist within current public right-of-ways are good candidates for development of a shared-use path or other type of bicycle facility.

PRIORITY CORRIDOR MAP



For a closer look, visit the interactive map at:
tiny.cc/Chattanooga-corridors.

RAILS-WITH-TRAILS: A CLOSER LOOK



As this study reveals, there are several promising opportunities to connect Chattanooga neighborhoods by utilizing railroad corridors for trail development. However, this is merely a glimpse into those possibilities. Further evaluation is needed to determine feasibility for a rail-trail or rail-with-trail in each corridor.

Most priority corridors identified in the previous pages are owned and operated by Norfolk Southern, one of the largest railroad companies in the U.S. Precedent for rail-with-trail on Norfolk Southern right-of-way exists, but the company holds a policy that does not permit trail development within active rail right-of-way.¹¹ This does not mean that rail-with-trail is impossible in these corridors, but it does mean that negotiating with the railroad for access to their right-of-way may be challenging.

America's Rails-with-Trails, a comprehensive study produced by RTC in 2013, presents key findings and best practices to help address concerns that railroads and communities may have when considering rail-with-trail facilities. For example, one of the most common concerns expressed by railroad companies is safety. However, at the time of publication, our study found

that out of the tens of thousands of fatalities on railroad corridors in recent decades, only one involved a trail user on a rail-with-trail. This suggests that a well-designed pathway provides a safe travel alternative and reduces the incentive to trespass or use the tracks as a shortcut.

To address challenges and common concerns, involve the railroad early on and discuss viable options: Are they willing to allow access if a minimum setback can be achieved? Would installation of a barrier allay their concerns? Are there improvements to the rail corridor that could be included in the project (e.g., enhancement of grade crossings to improve overall safety)? Are there trespassing issues that a rail-with-trail may actually improve by providing controlled access to corridors?

RTC's report provides a collection of data, examples and practical tools to assist trail planners and advocates in increasing awareness of the rail-with-trail concept, and advance local and state policies and practices that support rail-with-trail development. As the discussion and consideration of rail-with-trail development in Chattanooga evolves, draw from the experience of the hundreds of communities that have successfully developed trails within or immediately adjacent to active railroad corridors. View the report at: railstotrails.org/railwithtrail.

RECOMMENDATIONS AND CONCLUSION



Recommendations and Next Steps

The corridors highlighted in this study represent only 119 miles of the total of 190 miles of rail corridors within Chattanooga and research involved analysis of public and proprietary data resources. Support for this project was intended to provide a preliminary examination of the railroad network, focusing on select high priority corridors. Further exploration with “feet on the ground” will be necessary to assess feasibility of trail development along the corridors. The following recommendations would help advance this effort should additional support become available:

- Study and identify additional corridors, especially shorter segments that could augment existing or planned bicycle facilities if only for a matter of blocks.
- Engage RTC or other organization to conduct feasibility study on one or more priority corridors, which would create a vision for the trail project, evaluate the project’s potential and establish guidelines for its implementation.
- Engage RTC or other organization to develop strategies approaching railroads and government officials and to identify potential funding sources.

More immediately, information and data from this study can be used to support existing initiatives and plans by: 1) integrating the priority corridors as a layer of the Bicycle Implementation Plan and including them in the planning process and 2) coordinating with other related efforts such as greenways, regional rail-trail planning and the U.S. Bike Route System.

Conclusion

The history of Chattanooga is inseparable from that of railroading. The introduction and location of rail lines into the city shaped its commercial, neighborhood and industrial contours. Placement often segmented and divided the community with furnaces, mills and quarries hugging the corridors and residential areas shying away. But that which divides can also bind. The key is creative, shared use of the linear rail passageways that thread their way through the city.

Connecting Chattanooga Neighborhoods by Rail-Trail identifies five prime corridors that could provide excellent connectivity within the city and beyond. For years the physical challenge of tunneling through Missionary Ridge blocked the city’s potential as a railroad hub. But daring entrepreneurs and engineers tackled that barrier and train access through the ridge was opened in 1858. Once that obstacle was overcome, Chattanooga and its businesses grew exponentially. Today’s challenge is not one of topography, but instead one of vision. Is the sight line just straight or does it also allow for a peripheral viewing to the side? In this case to see rails-with-trails running alongside the tracks. If the field of vision is expanded, Chattanooga can once more leap forward to an era in which its citizens and visitors routinely pursue transportation and recreation as the bipedal people we are meant to be. This change, this evolution, could be just as impactful on the city’s future as was the engine’s breach of the mountainside.



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