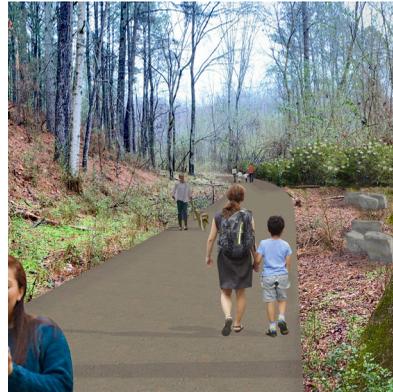




Crooked Creek Multi-Use Trail Concept and Feasibility Report

September 30, 2020



ACKNOWLEDGEMENTS



The Crooked Creek Trail Concept and Feasibility Report was created for the City of Peachtree Corners by CPL with high-level environmental analysis provided by NV5. This project was jointly funded by the City of Peachtree Corners and the Atlanta Regional Commission (ARC).

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The project team thanks the numerous stakeholders and community members who provided information and feedback through in-person meetings, virtual meetings, and online project surveys. The engagement response to this study was tremendous and provided the project team with valuable insight.



EXECUTIVE SUMMARY

In the summer of 2019, the City of Peachtree Corners contracted CPL to perform high level transportation planning and design services for a proposed multi-use trail along Crooked Creek in the northwestern corner of the City. The Crooked Creek multi-use trail will commence at Spalding Drive on the northern side and will terminate at the Holcomb Bridge Road / Peachtree Parkway intersection. This 10-foot concrete trail with bridges and boardwalks will follow Crooked Creek in an area of the City that is currently inaccessible due to densely wooded and steep terrain. The purpose of this project was to determine whether a multi-use trail along Crooked Creek is feasible, what challenges need to be overcome to bring it to fruition, and the estimated cost of this facility. The project deliverables include a Concept and Feasibility Study as well as a Draft GDOT Concept Report. These items will serve as a springboard for the next phase of community outreach, environmental analysis, and engineering design.

The Crooked Creek Multi-Use Trail Concept and Feasibility Study builds upon the City's vision of extending its' non-motorized transportation and recreational network and providing additional access to neighborhoods, multi-family complexes, businesses, schools, parks, and other City amenities. The vision for trail was first identified in the 2015 Livable Centers Initiative (LCI) and the 2015 Holcomb Bridge Corridor Study and further detailed in the City's 2018 Comprehensive Transportation Plan (CTP). The Crooked Creek multi-use trail is envisioned to be one segment of a larger community-wide trail system used for recreation and transportation purposes.

This 14 month project included an extensive review of previous plans and studies, existing conditions in the area, and stakeholder and community outreach. The outreach campaign included project websites in English and Spanish, face to face stakeholder meetings, social media postings, flyers, information in the City e-Newsletter, and online surveys. In total, the City received more than 1,500 survey responses and comments which are included in the report.

Through this focused study of the Crooked Creek corridor, the project team identified numerous opportunities for the multi-use trail including, but not limited to, the following:

- The widening of Spalding Drive and installation of new pedestrian facilities.
- New sidewalks along Holcomb Bridge Road and Jimmy Carter Boulevard.
- Connection with existing multi-use trails north of Spalding Drive (City of Sandy Springs) and along Peachtree Parkway.
- Numerous multi-family complexes which could connect to the trail via spurs. (Access and privacy will be carefully considered as this project moves forward.)
- Parking lots which could serve as trailheads.
- Floodplain and wetland areas which are potential locations for trail loops where users can experience nature.

Additionally, a wayfinding and branding strategy (including a logo) was developed to both match the City's existing guidelines and to provide the Crooked Creek multi-use trail with its' own character. Given the Peachtree Corners "Smart City" designation, the project team recommends providing WiFi along the trail and implementing digital wayfinding through websites, mobile apps, text message maps, QR codes, and wireless transmitter beacons. Additionally, the project team studied the high level environmental considerations and best design practices to help identify the preferred multi-use trail alignment as shown below in Figure ES-1.

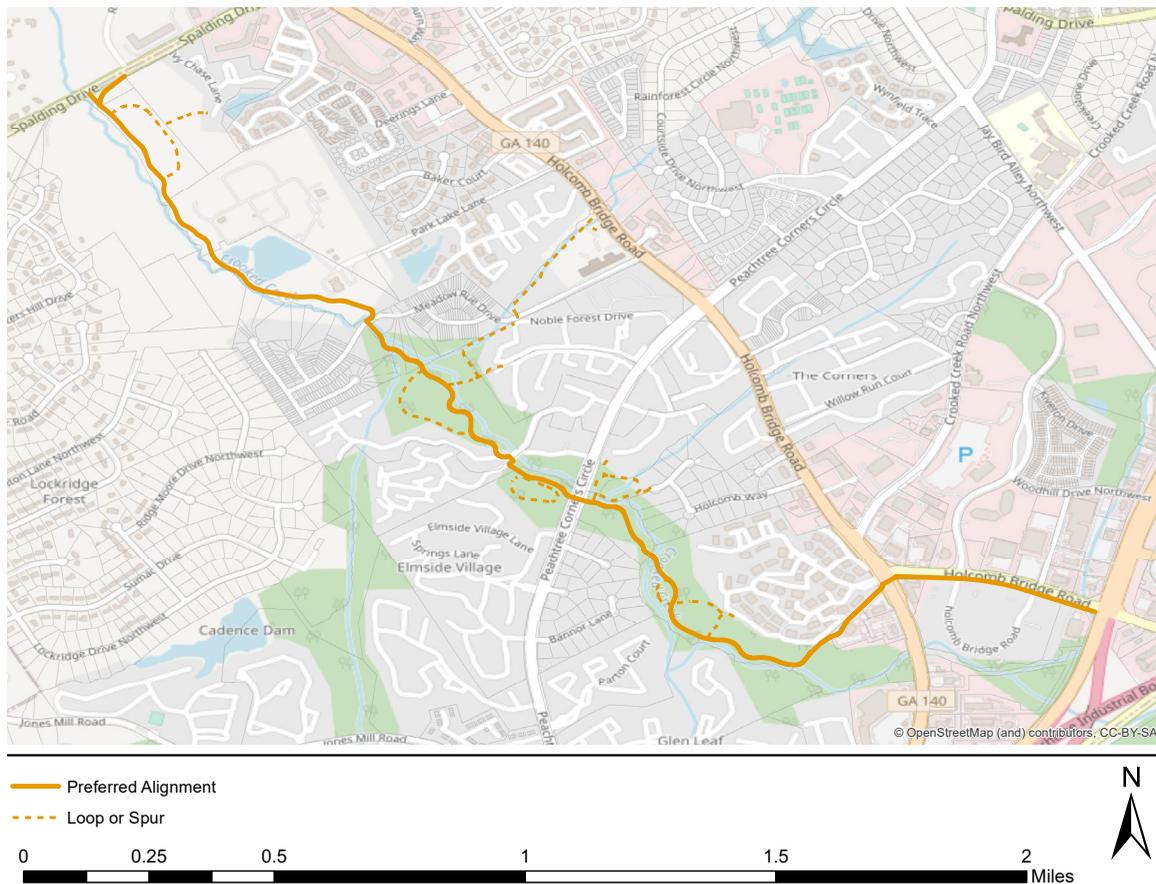


Figure ES-1: Preferred Crooked Creek Multi-Use Trail Alignment

This alignment includes a street level crossing at Meadow Rue Drive, a below-grade crossing at Peachtree Corners Circle, a street-level crossing at the intersection of Jimmy Carter Boulevard / Holcomb Bridge Road, and numerous trailheads, spurs, and loops.

The preferred alignment has two phases, and the City anticipates that the northern section extending from Spalding Drive to Peachtree Corners Circle will be implemented first. The second phase extends south from Peachtree Corners Circle to the intersection of Holcomb Bridge Road / Peachtree Parkway where it connects with the City's existing trail system. The estimated cost of the preferred alignment is \$12,798,000.

In addition to items named above, this report includes detailed discussion of the preferred and alternative alignments, a comprehensive list of funding sources, and considerations for the City to address in the operation and maintenance plan. The Draft GDOT Concept Report provides additional detail about the design features, bridge and boardwalks, utilities, right of way, and the preferred and alternative alignment costs.

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INTRODUCTION

In the summer of 2019, the City of Peachtree Corners contracted CPL to undertake a Concept and Feasibility Study and produce a Draft Georgia Department of Transportation (GDOT) Concept Report for a proposed multi-use trail along Crooked Creek. This approximately 2.5 mile trail builds upon the City's vision of adding to and connecting existing non-motorized transportation facilities for recreation and commute purposes.

The proposed Crooked Creek trail corridor extends from Spalding Drive, on the north, to Holcomb Bridge Road / Peachtree Parkway (SR 141), on the south. The trail is envisioned to be a 10 foot to 12 foot concrete path adjacent to Crooked Creek, a currently hidden natural feature abutting numerous multifamily parcels. On the northern end across of Spalding Drive, the City of Sandy Springs has recently constructed a multi-use trail which leads to the Chattahoochee River Recreational Area. On the southern end, the Crooked Creek trail will connect with an existing multi-use trail along Peachtree Parkway. A few trailheads are proposed along the corridor, and the trail may connect with multifamily complexes in the area.

The Crooked Creek multi-use trail will cross or tunnel under Meadow Rue Drive, Peachtree Corners Circle, and Jimmy Carter Boulevard. These crossings will be studied as part of this effort. An overview map of the intended trail corridor is shown in Figure 1.1.

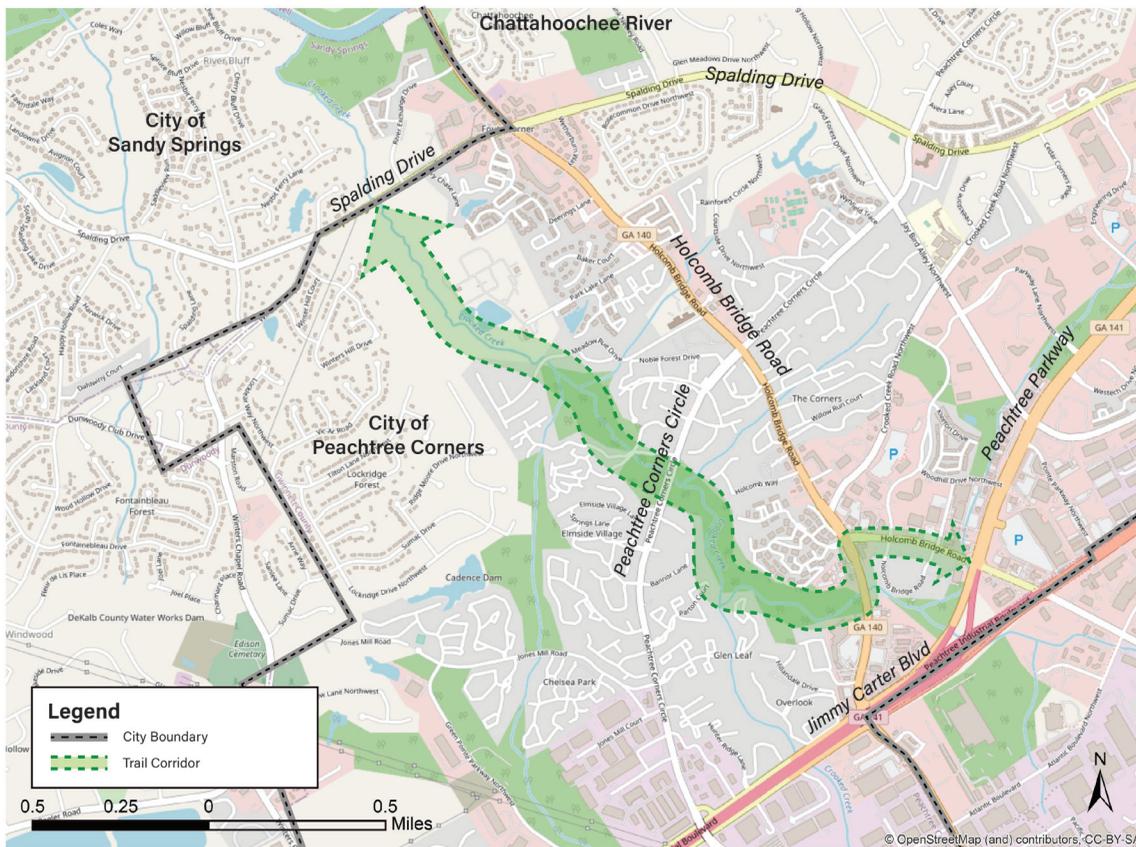


Figure 1.1. Trail Corridor Overview Map

Schedule

The schedule and major milestones for this project are illustrated in Figure 1.2.

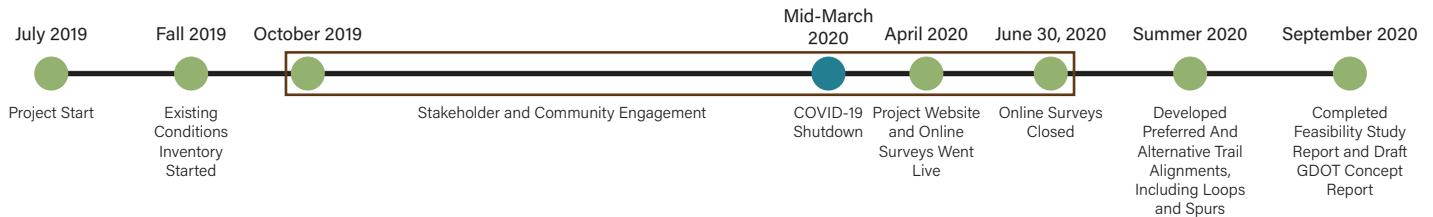


Figure 1.2. Project Schedule

Peachtree Corners Profile

The City of Peachtree Corners, located northeast of downtown Atlanta, was formally incorporated by the Georgia General Assembly on July 1, 2012¹. It is currently the largest municipality in Gwinnett County² covering a land area of approximately 17.4³ square miles and is also the 18th most populated city⁴ in the state with a population of approximately 43,509 residents in 2019. Designed to be a hub of technological innovation⁵, Peachtree Corners is a family-oriented City characterized by traditional suburban development, excellent Gwinnett County Schools, and ethnic diversity. The City wishes to build upon this history, revitalizing Technology Park to meet 21st century needs, improving publicly accessible open space and trails, and supporting a transportation network that is safer and easier to use by pedestrians, cyclists, and others.

Peachtree Corners offers unique and strategic access to I-285 and to critical regional arterials including Peachtree Industrial Boulevard (SR-141), Holcomb Bridge Road (SR-140), Jimmy Carter Boulevard, Spalding Drive, and Winters Chapel Road. These connectors provide Peachtree Corners residents and businesses ease of access throughout Fulton, DeKalb, and Gwinnett Counties and to neighboring metro-Atlanta communities located inside the I-285 perimeter. Most residents (77.1%) commute to work by car alone and experience an average commute time of 28.9 minutes, on par with the state average. Those who do not drive alone, either carpool (11%) or work from home (8%).

Peachtree Corners has a varied economy with both high and low wage industries. In 2018, the City's unemployment rate was approximately 4.3%⁶. As of August 2020, unemployment is likely closer to 7.6%, in line with Metro Atlanta trends, due to the COVID-19 pandemic⁷. Most employed individuals work in management, business, science and arts occupations (48.5% or 11,218 people), followed by sales and office occupations (24% or 5,540 people), and service occupations (12% or 2,776 people). These occupations offer local median individual earnings of \$65,730, \$34,479, and \$20,831, respectively, in 2018-inflation adjusted dollars. Median household income city-wide in 2018 was \$67,949.

Higher income households currently concentrate in census tracts located north-east of Holcomb Bridge Road. These northern occupied units earn a median household income of \$136,840, an amount roughly three times greater than

¹ Incorporation History: <https://www.peachtreecornersga.gov/visitors/city-history>

² Largest City in Gwinnett: <https://www.gwinnettdaily.com/local/cities/auburn/gwinnett-cities-by-2018-estimated-population-size/collection/d2061092-824e-11e9-bc14-af44e362d031.html>

³ City Total Area : <https://www.peachtreecornersga.gov/visitors/community-profile-demographics>

⁴ 18th largest in the State: <https://statisticalatlas.com/place/Georgia/Peachtree-Corners/Population#figure/place-in-georgia/total-population>.

⁵ Origins as Innovation Hub. Comprehensive Plan 2040, page 14: <https://www.peachtreecornersga.gov/home/showdocument?id=7470>

⁶ Civilian Unemployment Rate 2018: <https://data.census.gov/cedsci/table?q=0400000US131600000US1359735&d=ACS%205-Year%20Estimates%20Data%20Profiles&tid=ACSDP5Y2018.DP03>

⁷ Bureau of Labor Statistics Report including Covid 19 effects July 23, 2020: <https://beta.bls.gov/dataViewer/view/timeseries/LASST130000000000003>

reported by occupied units located south of Holcomb Bridge Road⁸. Housing units on the southern end of Holcomb Bridge Road earn a median household income of \$45,418. Recognizing that gentrification and environmental justice issues most frequently impact communities with fewer resources, CPL's public engagement process actively reached out to multifamily complex owners throughout the trail corridor.

Peachtree Corners offers residents and visitors year-round recreation opportunities at the Chattahoochee National Recreational Area, Jones Bridge Park, Holcomb Bridge Park, and Simpsonwood Park⁹. In 2019, the city also completed its 21-acre mixed-use Town Center development¹⁰, a popular neighborhood destination which includes 14 restaurants and various personal service and shopping opportunities.

Between 2010 and 2019, Peachtree Corner's population grew from 38,343 to 43,509. This 13.7% growth rate was faster than the rate for the neighboring municipalities of John's Creek (10.4%), Dunwoody (6.3 %), and Norcross (11%). Hispanics of all races make up 15.2% of the population. The non-Hispanic population is 50% White, 22% Black, and 9.6% Asian. The Hispanic and Black population increased by 0.5% and 3.2% between 2010 and 2018, while the White and Asian population declined by 3.1% and 0.7% respectively. The city median age of 36.5 years is slightly older than other Gwinnett municipalities, with the fastest growing segment being people over the age of 65, in line with national trends.



Figure 1.3. Potential Area for a Trail Head



Figure 1.4. Crooked Creek

⁸ Poverty (By Census Tract) 2018. Search for Peachtree Corners. <https://opendata.atlantaregional.com/datasets/poverty-by-census-tract-2018?geometry=-84.545%2C33.928%2C-83.892%2C34.028>

⁹ City Parks Listing: <https://www.peachtreecornersga.gov/visitors/points-of-interest>

¹⁰ City Town Center Construction - Timeline of Events: <https://www.peachtreecornersga.gov/Home/Components/PhotoAlbum/PhotoAlbum/48/378#ad-image-9>

¹¹ Cinebistro Peachtree Corners: <https://www.cmxcinemas.com/theaters/14/cmx-cinbistro-peachtree-corners>

City's Vision for Trails

Since incorporating as a City, Peachtree Corners has placed significant importance on the creation of an interconnected, multi-use trail system which spans the jurisdiction. The Crooked Creek trail is included in the Peachtree Corners' 2015 Livable Centers Initiative (LCI) and 2018 Comprehensive Transportation Plan (CTP). The LCI plan found that residents wanted additional pedestrian and bicycle amenities. And in response, the City began construction on an 11.5 mile multi-use trail system that will connect residents with employment centers, parks, schools, and shopping destinations.

The City's 2018 CTP builds upon six previous planning efforts, including the 2015 Holcomb Bridge Road Corridor Study, the 2015 LCI, the 2018 Gwinnett Countywide Trails Master Plan, and the 2016 Technology Park Trail Plan. Technical analysis of community feedback, census statistics, community points of interest, and existing roadway conditions were used to create and refine the City's vision for its multi-use trail network. Implementation of a city-wide, multi-use trail system is envisioned to consist of 53 distinct projects. Each project is assigned to a short-term (2017-2021), mid-term (2022-2031) or long term (2032-2040+) timeline, upon consideration of variables such as the level of financial commitment, project complexity, and level interjurisdictional collaboration required.

The proposed Crooked Creek multi-use trail supports two significant goals of the 2018 CTP. The first goal is, "Maintain a high-quality natural environment" and the second is, "Integrate transportation and accessibility into development decisions." These goals seek to address community desire for improved citywide mobility and increased access to recreational facilities and community gathering points. Also, the community desires access to the Chattahoochee River and to also protect wetlands, streams, tree canopy and other natural resources at risk by land development patterns.



Figure 1.5. Crooked Creek Trail and Wooded Creek

Crooked Creek was identified as a potential location for a trail with medium to high feasibility as part of the 2014 Gwinnett County Open Space and Greenways Master Plan Update and the 2015 Holcomb Bridge Road Corridor Study. This hidden natural resource was recognized then, as it is now, as an opportunity to provide open space in an area of Peachtree Corners which has historically lacked open space and general investment. A trail along the banks of the Crooked Creek provides an opportunity to connect to a larger trail network including the Technology Parkway trail, the county's Western Gwinnet Bikeway-Peachtree Industrial Boulevard Trail to the south, and the regional 100+ mile Chattahoochee River Trail to the north. The proposed Crooked Creek multi-use trail segment between Spalding Drive and Peachtree Corners Circle is a designated "Trails with Partners" in the 2018 Gwinnett Countywide Trails Masterplan. This information is found in the Previous Plans and Studies Chapter.

Stakeholder and Community Engagement

A major component of this study is the stakeholder and community engagement process. The project team reached out to numerous stakeholders including local agencies, apartment and condominium complex owners, and businesses in the corridor. In total, the project team held eighteen (18) in-person or phone/video meetings. In the spring of 2020, Covid-19 required the project team to pivot from scheduled in-person meetings at Creek clean-up events hosted by the Friends of Crooked Creek and the June Summer Festival to creating a project website, an online survey, project flyers in English and Spanish, and social media postings with informative messages about the project. The online survey included questions about trail programming, amenities, and access. In addition, a Wikimapping survey was created which allowed respondents in close proximity to Crooked Creek to “Drop A Pin” on their residence or employment location and answer specific questions about trail access. In total, over 1,500 survey responses, comments, and social media interactions were received.

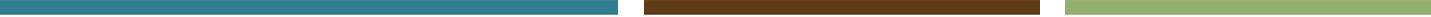
Trail Alignment Development

The project team produced an inventory of existing conditions in the area. Geographic Information Systems (GIS) data was utilized to understand the topography, parcel boundaries, utilities, wetlands/water bodies, roadway characteristics, and other conditions. The preferred trail alignment was guided by the outreach results, technical information, and local knowledge / site observation. The area has challenging terrain and is densely wooded in some places. Additionally, there are wetlands and water bodies that will require the trail to be on bridge and/or boardwalk sections. An important component of the Existing Conditions chapter is understanding other planned and proposed roadway and non-motorized transportation investments in the area and how the Crooked Creek multi-use trail can best connect.



Figure 1.6. Sidewalks Along Peachtree Corners Circle at Crooked Creek which runs from right to left in the photo

In addition to a primary, preferred alignment, the project team studied trail loops and spur opportunities, which add character and additional access to the trail. Loops will likely be sited over wetland and floodplain areas as locations to lengthen the trail and add educational opportunities. Trail spurs are connections to potential trailheads or possible connections to multifamily complexes or neighborhoods. The preferred trail layout, along with alternative sections, are detailed in the Recommended Trail Alignment Chapter. A detailed study of trail placemaking and wayfinding was also undertaken to increase the trail’s recognizability and align the branding with that of other City projects.



Recommendations

The deliverables for this project this Concept and Feasibility Report as well as a Draft GDOT Concept Report for the preferred trail alignment and alternate alignments. These alignment sections are described in detail and contain cost estimate information. Implementation guidance is also included with various funding sources identified that may play a role in bringing this important multi-use trail to fruition.

These materials have been prepared using GDOT Plan Development Process and in accordance with AASHTO, GDOT, ARC, and the Gwinnett County Department of Transportation Design Policies.

BENEFITS OF TRAILS



Figure 2.1. Multiuse Path

Many studies have shown a myriad of benefits associated with trails and greenways. Direct benefits of trails and greenways include improved public health, social equity and inclusion, safety and livability, economic development, and environmental justice/stewardship outcomes.

In the winter/spring of 2020, the United States was hit by the Covid-19 pandemic. To reduce the spread of the virus, private indoor spaces such as bars, gyms, hair salons, and offices were required to close or reduce operations to comply with Centers for Disease Control (CDC) social distancing and cleaning guidelines. Parks and trails were among the few spaces to remain open to the public due to reduced risk of contagion outdoors. As a result, more people rediscovered parks and trails across their communities, as well as their utility in getting out of the house, staying active, and relieving stress.

Expanding scientific literature supports trail-user claims that being outdoors is good for one's health. In a study published in 2019 in *Frontiers in Psychology*, Dr. MaryCarol Hunter¹ at the University of Michigan and her colleagues showed that spending 20 minutes in nature could significantly lower stress hormone levels and boost immune systems. In response to many such peer-reviewed articles, health care practitioners have begun prescribing time in nature - whether on trails or in backyards - as a way of improving patient's health². The pandemic has reaffirmed the important role of parks and trails when planning for community resilience.

Health Benefits

Well-designed trails and greenways fulfill many community functions. They enhance sense of place, foster a culture of health, provide a venue for community gatherings, and offer a place for physical activity. In particular, trails and greenways separated from vehicular traffic offer protected space upon which persons can bike, walk, or conduct recreational activities. As such, these facilities can have a significant effect in reducing the probability of adverse health outcomes and associated healthcare expenses. Mental health benefits are more difficult to quantify than outcomes linked to physical activity, but nonetheless represent important benefits for trail-based recreation participants. Specific physical and mental benefits highlighted in current public health literature are summarized in the subsections below.



Figure 2.2. Children on Bikes

¹ <https://news.umich.edu/feeling-stressed-take-a-nature-pill-says-u-m-researcher/>

² <https://www.nytimes.com/2018/07/16/well/writing-prescriptions-to-play-outdoors.html>



Figure 2.3. Race on a Trail

Physical Health

- Research conducted by Dr. Guijing Wang, former economist at the CDC Division for Heart Disease and Stroke Prevention, found that for each dollar spent on bicycle and pedestrian trails, approximately three dollars are saved on healthcare costs³.
- Physically active adults have approximately 30% lower health care costs than physically inactive adults⁴.
- Trail-based activities can improve cholesterol levels and offer protection against chronic diseases like cardiovascular disease, diabetes and obesity⁵.
- 79.3% of Georgia adults do not meet CDC recommendations for daily physical activity. According to the annual State of Obesity report, Georgia now has the 19th highest adult obesity rating in the country. Studies indicate that the closer people live to trails, the more likely they will be active. Providing convenient access to a walking and biking path can help those who want to exercise find an easier way to do so.
- Commuting by foot or bike gains popularity when trails are introduced in a community. This both reduces vehicular traffic and creates a healthier, more physically active communities.

Mental Health

- Psychological benefits can arise for trail users from exposure to natural environments. Multiple studies demonstrate that outdoor exercise and contact with nature can improve mood and happiness, restore attention, increase prosocial behavior, improve sleep and decrease anger, depression, anxiety and stress.
- Countless studies show people self-reporting reduced stress, clearer thought patterns, more optimism, and an overall heightened sense of well-being after being outdoors.
- Children may particularly benefit from physical activity in nature as social play, emotional development and improved cognitive function are all positively associated with time spent in nature⁶.

³ Wang, G., Macera, C. A., Scudder-Soucie, B., Schmid, T., Pratt, M., Buchner, D. (2005). A cost-benefit analysis of physical activity using bike/pedestrian trails. *Health Promotion Practice* 6, 2, 174-79.

⁴ Pratt, M., Macera, C. A., & Wang, G. (2000). Higher direct medical costs associated with physical inactivity. *Physician and Sports Medicine*, 28(10), 63-70.

⁵ Albright & Thompson, 2006; Ball, Bauman, Leslie, & Owen, 2001; Parkkari et al., 2000.

⁶ Bodrova & Leong, 2005; Gray et al., 2015; Rivkin, 1995.



Figure 2.4. ADA Compliant Trail

Inclusion and Social Equity

Lower income communities face more significant health challenges, and more barriers to accessing trails than more affluent areas. Improving access and decreasing barriers to trails for these communities could help address these disparities.

- The gap between the healthiest and least healthy residents may decrease in areas with more access to green space.
- Trails can promote social, racial, gender, and economic equity, as they are often free to use, open during daylight hours, and accommodating of transportation modes accessible to persons of all ages and abilities.
- Trails provide affordable exercise and recreational opportunities within the community.
- Trails also provide a unique facility to serve those who may otherwise have limited opportunities to access natural areas, due to financial or transportation constraints.
- There is preliminary evidence that that socioeconomic inequality in mental and physical wellbeing narrows in communities reporting good access to green/recreational areas, compared to those with poorer access⁷.

⁷ Mitchell RJ, Richardson EA, Shortt NK, Pearce JR. Neighborhood Environments and Socioeconomic Inequalities in Mental Well-Being. *Am J Prev Med.* 2015;49(1):80-84. doi:10.1016/j.amepre.2015.01.017



Figure 2.5. Creek Clean-Up

Safe and Livable Communities

Trails promote safe and livable communities. The recreation, health, transportation and environmental benefits collectively can contribute to an overall enhanced quality of life in communities⁸.

- A review of separate studies conducted between 1987 and 1998 concluded that there is little evidence to support the fear that greenway trails will produce disturbance to private landowners or cause increases in crime⁹.
 - Trails and greenways can reduce crime and illegal activity through regular use and high visibility of users.
 - Trails and greenways provide informal opportunities to meet and interact with neighbors.
 - Integrating unique features such as trails and greenways into communities provide a sense of place and community pride.
 - Trails make communities better places to live by preserving and creating open spaces for recreation.
- Trails and greenways provide new opportunities for outdoor recreation and non-motorized transportation.
 - Trails that connect to activity centers from surrounding neighborhoods provide an opportunity to access jobs and other daily destinations by walking or biking. Within activity centers, trails provide workers, visitors, and residents a place to visit, socialize, travel, and be active.



Figure 2.6. Runners and Walkers on the Atlanta Beltline

⁸ Benefits of Trails & Greenways, National Parks Service, 2008. Benefits of Trails & Greenways, National Parks Service, 2008.

⁹ <https://www.carolinathreadtrail.org/wp-content/uploads/2018/08/Greenway-Public-Safety-Study.pdf>



Figure 2.7. The Atlanta Beltline as a Transportation Corridor

Economic Benefits

In addition to the economic contributions of health benefits, trail-based recreation provides other economic benefits to users and local economies. These other benefits include those that users receive from trail-based recreation (i.e. recreational-use values), increased local property values for homes located near trails, and a general increased quality of life.

- Trails contribute to the economic activity of local communities by attracting people who spend money on goods and services like restaurants, lodging (in the case where trails are long enough to support multi-day adventures), and equipment.
- Trails attract new residents, bring in new businesses, and contribute to the prosperity of a community. Although difficult to monetize, trails provide a key factor in improving the quality of life for those living and working nearby. Businesses who are trying to recruit and retain employees in sectors like technology, research and development or other professional services have prioritized quality of life as an important factor in deciding where to locate or expand their operations¹⁰.
- The Atlanta BeltLine has generated a direct economic impact of nearly \$4.6 billion dollars in private development as of the end of 2018. This is seven times greater than the total public/private investment of \$559 million to date¹¹.

¹⁰ Reilly, Catherine J. , and Henry Renski. "Place and Prosperity: Quality of Place as an Economic Driver." *Maine Policy Review* 17.1 (2008) : 12 -25, <https://digitalcommons.library.umaine.edu/mpr/vol17/iss1/5>.

¹¹ <https://beltline.org/the-project/project-funding/>

- Property adjacent to/nearby trails can be an amenity that attracts buyers and makes the property easier to sell. Property value impact from trails depends on the location and site conditions.
 - An economic analysis of the Atlanta BeltLine Eastside Trail concluded that since 2010, neighborhoods along the Eastside Trail have seen 1,150 units of new construction, with a 5.0% average annual increase in rents and is one of the most sought-after areas of Atlanta for young professionals¹².
 - Studies in Denver, Minnesota, Seattle, and San Antonio and other communities across the country have consistently found that that proximity to trails increases the value of homes from 1 - 6.5%^{13 14}.
 - Another study in Charlotte, North Carolina found that for every 1 % increase in the distance from a trail, the sales price of the home declines by approximately 0.03 %¹⁵.
 - Even larger property value impacts have been found in the literature, including up to 14 % for homes within one-half mile of a rail-trail in Indianapolis, Indiana¹⁶.

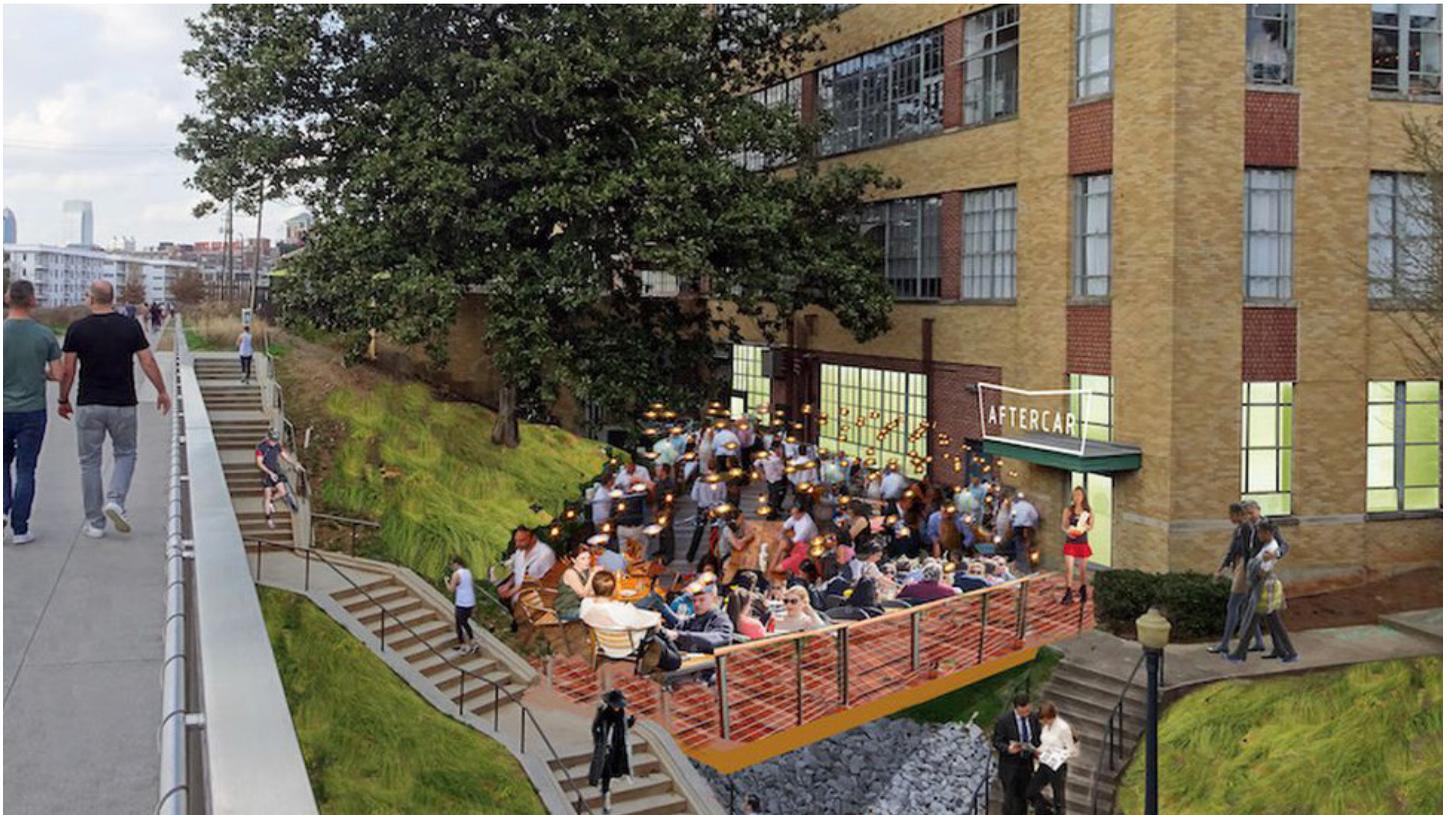


Figure 2.8. Proposed Development Along the Atlanta Beltline

¹² www.rclco.com/case_studies/atlanta-beltline

¹³ Benefits of Trails & Greenways, National Parks Service, 2008

¹⁴ Asabere, P. K., & Huffman, F. E. (2009). The relative impacts of trails and greenbelts on home price. *The Journal of Real Estate Finance and Economics*, 38(4), 408-419.

¹⁵ Campbell Jr, H. S., & Munroe, D. K. (2007). Greenways and greenbacks: the impact of the Catawba Regional Trail on property values in Charlotte, North Carolina. *Southeastern Geographer*, 47(1), 118-137.

¹⁶ Lindsey, G., Man, J., Payton, S., & Dickson, K. (2004). Property Values, Recreation Values, and Urban Greenways. *Journal of Park & Recreation Administration*, 22(3).

Environmental Benefits



Figure 2.9. Stream Clean-Up



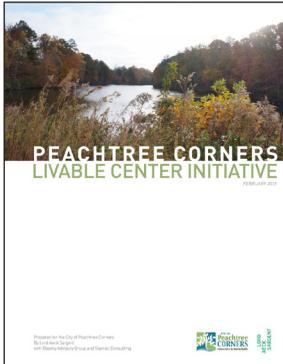
Figure 2.10. Georgia Audubon Bird

The preservation of the natural landscape adjacent to trails and greenways creates ecosystem service benefits, like carbon sequestration, air filtration and habitats for various plants and animals.

- By protecting land along creeks and rivers, trails and greenways prevent soil erosion, filter pollution found in stormwater runoff, and serve as natural floodplains, preventing potential flood damage.
- Trail corridors can improve air quality by protecting the plants that naturally create oxygen and filter out air pollutants.
- Trail corridors and their associated tree canopy, plants and waterways provide important habitat for birds and wildlife.
- Engaging in activities in nature can foster people's appreciation for the environment and its health.

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PREVIOUS PLANS AND STUDIES



Peachtree Corners Livable Center Initiative (February 2015)

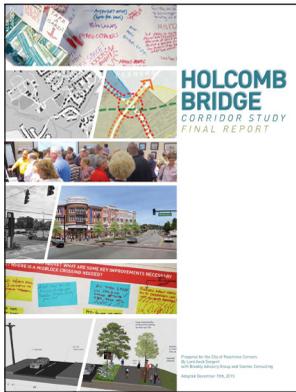
The Atlanta Regional Commission's Livable Center Initiative (LCI) is a grant program that incentivizes local jurisdictions to re-envision their communities as walkable places that offer improved access to activity centers and corridors. Communities with an adopted LCI Study are eligible to apply for funding for mobility projects that support the goals of the LCI program as a whole. Peachtree Corners' first comprehensive plan, *The Peachtree Corners 2033 Comprehensive Plan*, adopted in 2013, divided the new city into character areas including an approximately 1450-acre Central Business District (CBD), which serves as the study area for the LCI. Flanked by the Peachtree Parkway Corridor, the CBD provides access to major attractions, including The Forum, Town Center, City Hall, and Technology Park. Recognizing the area's strong commercial, retail, and office presence, the LCI Study refines the vision for the CBD as the economic heart and "downtown" for the new city.

The public outreach process conducted as part of the LCI Study identified "walking and biking trails" as the most desired public amenities. Given this and recognizing Technology Park as the key economic driver for the study area, the LCI explores options to modernize the auto-centric office park to better meet the demands of today's walkability and livability-focused office hubs. Existing conditions analysis reveals a large network of connected greenspaces and lakes tucked behind Technology Park and surrounding developments. Its potential for use as a paved trail system could be marketed to improve Technology Park's competitiveness. The study further identifies the Innovation District Multi-Use Trail, a conceptual trail network of existing and future paths and sidewalks, linking neighborhoods to jobs centers and retail destinations. The latter is designated a priority project in the LCI Action Plan, split into Phase 1 (Short Term) and Phase II (Long Term) segments.

With respect to the current Crooked Creek Concept and Feasibility Study, the western end of the LCI study area is within ¼-mile walking distance of the proposed Crooked Creek Trail alignment. A spur is proposed in the LCI, running west along a utility corridor from Crooked Creek Road, south of Jay Bird Alley. This spur could tie into the Crooked Creek Trail.

Project	Modification by 2017 City Transportation Plan	Status or Related Activity
Tier 1 - Priority Trails		
Segment B - 1.23 miles Peachtree Parkway to Holcomb Bridge	Alignment east of Parkway Lane remains as originally proposed, to be completed in two phases: LCI 03, 04. 1st Trail Hub at Peachtree Corners Circle and Holcomb Bridge Road changed to an intersection improvement project (GDOT_03)	Trail implementation planned for 2022 to 2031. GDOT_03 → CIP#24: Completed Winter 2018. Added northbound right turn lane bay on SR140 turning onto Peachtree Corners Circle.

Table 3.1. Peachtree Corners Livable Center Initiative



Holcomb Bridge Corridor Study (December 2015)

Like the LCI, the *Holcomb Bridge Corridor Study* (HBCS) adopted in 2015 grew out of a recommendation from *The Peachtree Corners 2033 Comprehensive Plan*. The comprehensive plan created and acknowledged the Holcomb Bridge Corridor and Transitional Growth Character Areas as locations where investment is necessary to strengthen sense of place and provide greater connection to the City as a whole. Given their proximity and similar development history, the HBCS explores a comprehensive vision for the Holcomb Bridge Corridor and a portion of the Transitional Growth Character Area, together totaling approximately 1,224-acres. The study area includes the entire proposed Crooked Creek Trail alignment.

Public outreach received during the development of the corridor study indicated strong community support for new open spaces and multi-use trails along the Holcomb Bridge Corridor. Trails were regarded as an important and necessary component of the transportation network. To satisfy this community need and want, the HBCS declared “Connect Crooked Creek” and “Create Remarkable Spaces” to be important community goals. To achieve these goals, the study recommended that Peachtree Corners construct trails along Crooked Creek and along the Colonial gas easement, explore opportunities to connect to regional amenities and to form interjurisdictional partnerships, and to create a new park system along the creek which could connect to new City gathering spaces and trail hubs.

Recommended policies and projects targeting or bordering the study area of the Crooked Creek Concept and Feasibility Study are summarized in Table 3.2. below.

#	Project	Modification by 2017 City Transportation Plan	Status or 2017 CTP Timeline Update
Underway Dec. 2015			
Existing	Spalding Drive – Widening from Winters Chapel Road to Holcomb Bridge Road.	WCR_08: Proposes to minimize curve on WB approach, extend the WB left turn lane, adding a dedicated free-flow NB right turn lane with additional EB receiving lane. Widening to four lanes.	Capital Improvement Project #40: Planning and Engineering underway. Multi-jurisdictional project; managed by Gwinnett County F-1069-03.
Existing	Holcomb Bridge Road at Jimmy Carter Boulevard Intersection Improvements	N/A	Capital Improvement Project #20 – Completed Winter 2017.
Existing	Jimmy Carter Boulevard sidewalks and signal upgrade	New sidewalks on south side of Jimmy Carter Boulevard between LA Fitness and Crooked Creek Rd.	Part of Capital Improvement #20. Sidewalk built.
Short Term Projects (2015 – 2020)			
T1	Crooked Creek Multiuse Trail – Segment 1 (from Spalding Drive to Peachtree Corners Circle) Designated: Trail with Partners on 2018 GC Trails Plan	HBR_01: Same alignment along riverbed.	Trail implementation updated to 2022-2031.
T2	Peachtree Corners Circle Multi-Use Path (from Holcomb Bridge Road to Jones Mill Court) Designated: Trail with Partners on 2018 GC Trail Plan	HBR_02: Extends alignment from Jones Mill Court to Peachtree Industrial Boulevard. Path proposed on one side of roadway. Can consider with or without road diet.	Trail implementation updated to 2022-2031.
T3	Holcomb Bridge Road Pedestrian Improvements - Segment 1 (from Spalding Drive to Peachtree Corners Circle)	HBR_06: Sidewalks, shade trees, pedestrian lighting on both sides of Holcomb Bridge Road. Midblock HAWK crossing.	Pedestrian improvements updated to 2022-2031.
T4	Holcomb Bridge Road Pedestrian Improvements - Segment 1 (from Spalding Drive to Peachtree Corners Circle)	HBR_05: Study required to improve resident access to Holcomb Bridge Road.	Study implementation updated to 2032-2040+.
T5	Spalding Drive at Holcomb Bridge Rd Intersection Improvements	HBR_10: Proposes upgraded signal, including right turn lanes on NB, SB, and EB approaches. Should improve access management in and around the area.	Operational improvements updated to 2022-2031.

Long Term Transportation Projects (2020-2025)			
T7	Gas Easement Trail – Crooked Creek to Holcomb Bridge Road Spur Trail	HBR_03: Takes CC Trail #1 to Holcomb Bridge Road.	Trail implementation updated to 2032-2040.
T8	Holcomb Bridge Road / Jimmy Carter Pedestrian Improvements – Segment 2 (from Peachtree Corners Circle to Peachtree Industrial Boulevard)	HBR_07: Sidewalks, shade trees, pedestrian lighting on both sides of Holcomb Bridge Road. Midblock HAWK crossing.	Pedestrian improvements updated to 2022-2031.
T9	Crooked Creek Multi-Use Trail – Segment 2 (from Peachtree Corners Circle to Peachtree Parkway)	HBR_04: Same alignment along riverbed. Provides southern loop, connecting CC Trail to Peachtree Parkway intersection at either Woodhill Drive or Holcomb Bridge Road.	Trail implementation updated to 2022 to 2031.

Table 3.2. Holcomb Bridge Corridor Study Projects

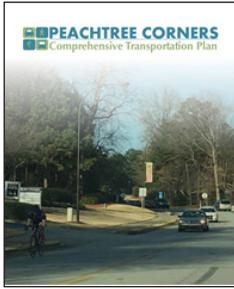
Peachtree Corners Technology Park Multi-Use Trails Study (February 2016)



Following a recommendation from *The Peachtree Corners Livable Center Initiative Study* adopted in 2015, the City commissioned the *Technology Park Multi-Use Trails Study* in 2016. The study provides a field survey of proposed LCI trails, identifies schematic trail lengths and alignments, presents conceptual cost estimates and provides schematic design and detailed costing for the most feasible initial trail segment (Segment A1).

Through a public open house and online survey, participants identified their most desired connections outside of the Technology Park Trail network. In 2016, the top 5 destinations included the Chattahoochee River National Recreation Area (CRNRA) and Crooked Creek Park in Sandy Springs. The Crooked Creek Trail currently being studied will bring users directly to the Sandy Springs Crooked Creek Park and within a ½-mile of the CRNRA.

With respect to the current Crooked Creek Trail Concept and Feasibility Study, the proposed Technology Park Trail includes Segment B, proposed to connect with the future Crooked Creek Trail at the intersection of Peachtree Corners Circle and Holcomb Bridge Road. A Technology Park trailhead is proposed at this location.



Peachtree Corners Comprehensive Transportation Plan (March 2017)

The 2017 Peachtree Corners Comprehensive Transportation Plan (CTP) is the City's first comprehensive transportation plan. It is an analysis of all applicable modes of transportation used to determine existing and future mobility needs, to identify solutions, and to prepare an implementation plan that supports the goals of the community. Since the life cycle of transportation decisions and investments can span decades, the plan's findings and recommendations cover a similarly long period of time, through 2040.

Building on recommendations derived from previous planning efforts, the CTP identifies several new transportation projects as part of the transportation needs assessment and in response to community feedback. Recommended bicycle and pedestrian improvements to enhance the work already completed as part of the Technology Park Multi-Use Trail Study include three projects related to the proposed Crooked Creek Trail (Project ID HBR_01, HBR_03, HBR_04). All these projects received high feasibility scores.

#	Name	Description	Status or Related Activity
Short Term Projects (2017- 2021)			
CTP_31	Chattahoochee River Greenway: Holcomb Bridge Connector	From Gwinnett County Chattahoochee River Greenway (GCP_01) to Spalding Drive. Provides multi-use path on east side of Holcomb Bridge Road with access to GCP_01.	No Capital Improvement Project #
CTP_32	HHolcomb Bridge Road at Spalding Drive and River Exchange Drive / Station Mill Court Improvements – Additional Study	To be modified based on results of the study. Currently two lanes in each direction, a center turn lane, and occasional right turn lane.	Rolled into Winters Chapel Road Widening (CIP#40). Existing traffic signals to be updated, and curb/gutter/drainage improvements to be installed.
Mid-Term Projects (2022-2031)			
CTP_33	Spalding Drive Multi-Use Trail: From Peachtree Corners Circle to Holcomb Bridge Road	Replace existing sidewalk on north side of Spalding Drive with continuous multiuse path. Path should parallel Segment B, traveling E-W, but located closer to northern city limit.	CPI#12: Construction underway. Adding sidewalks along Spalding Drive from Peachtree Corners Circle to Engineering Drive. Managed by Gwinnett County (Project F#1114). Part of greater project includes sidewalks on Crooked Creek Road and Jay Bird Alley.
CTP_34	Peachtree Corners Circle Multi-Use Trail	From Holcomb Bridge Road intersection at Peachtree Corners Circle to Jay Bird Alley. Multi-use path on southside of roadway.	No Capital Improvement Project #

Long Term Projects (2031 - 2040+)			
CTP_44	SR140/Jimmy Carter/HBR	From north city limit at Chattahoochee River to south city limit at Buford Highway. Widening the road from 5 lanes (two in each direction, center left) to 7 lanes (three in each direction, center left)	No Capital Improvement Project #

Table 3.3. CTP Projects Near Crooked Creek Study Area



Gwinnett County 2040 Comprehensive Transportation Plan (December 2017)

Gwinnett County’s Comprehensive Transportation Plan, Destination 2040, focuses on all modes of transportation, including roadways and bridges, transit, bicycle and pedestrian facilities, and freight and air. It sets a direction for transportation in Gwinnett looking forward to the year 2040. The plan balances technical evaluation of Gwinnett’s transportation system with qualitative input from the community. Throughout the development of Destination 2040, the planning team worked with stakeholder groups, committees, and the public to draft a vision statement for the plan and a set of goals. Final plan goals include:

- Improve connectivity;
- Leverage the County’s transportation system to improve economic vitality and quality of life;
- Improve safety and mobility for all people across all modes of travel;
- Proactively embrace future transportation opportunities; and,
- Continue to serve as responsible stewards of transportation resources.

These goals were used to establish a list of priority projects classified as either Short-Range, Mid-Range, or Long-Range plans, depending on the identified source of funding for the project.

For the purposes of the Crooked Creek Multi-Use Trail Concept and Feasibility Study, one important recommendation listed in *Destination 2040* was the call to complete and adopt a county-wide trails master plan. Adopted in 2018, the Gwinnett Countywide Trails Master Plan shows the proposed Crooked Creek Trail system as an anticipated “trails with partners” project. Additional Gwinnett County transportation improvements recommended by the plan in the vicinity of the Crooked Creek Study Area, are listed in Table 3.4. below.

#	Description	Also Called	Status and Related Activity per 2020 Update of 2017 GC SPLOST projects.
Short Range / Level 1 Improvements - 6 year (consistent with timing for 2017 Gwinnett SPLOST 2017-2023)			
GCmir_303	Spalding Drive Widening from SR140/Holcomb Bridge Road to Winters Chapel Road	See WCR_08	Project# F-1058: P&E Construction: Early 2022.
GCint_032	Holcomb Bridge Road at Spalding Drive Intersection Improvements	See WCR_05	Project #M-1066: Design. Construction 2023.
GCsps-14	SR141 Jimmy Carter Boulevard sidewalks from Peachtree Industrial Boulevard to Holcomb Bridge Road		Project # F-1302: ROW Acquisition. Construction: Mid. 2020.
GCsps-29	Holcomb Bridge Road sidewalks from Smithpointe Drive to Peachtree Corners Circle		Project# F-1317: Design. Construction: 2022
GCsps-43	Spalding Drive sidewalks SR140/Holcomb Bridge Road to Wetherburn Way		Project # not assigned as of March 2020. Est. 780-foot length.
GCsps-46	SR140/Holcomb Bridge Road sidewalks Spalding Drive to Chattahoochee River		Project # not assigned as of March 2020. Est. 2,200-foot length.
Midrange / Level 2 Improvements - 9 year (following completion of 2017 Gwinnett SPLOST, assuming sales tax continue)			
GCint_059	SR140/Holcomb Bridge Road at Peachtree Corners Circle – Intersection and Corridor Improvements		TBD
Long Term / Level 3 Improvements - 10 year			
CTpnd_001a	SR140/Holcomb Bridge Road/ Jimmy Carter Capacity Improvements – from north city limit to Peachtree Industrial Boulevard	CTP_44	TBD

Table 3.4. Destination 2040 Projects Near Crooked Creek Study Area.

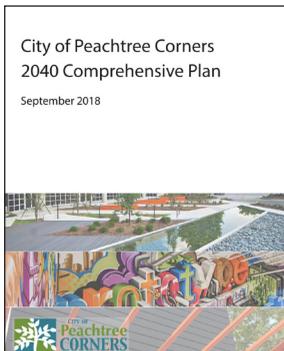


Gwinnett Countywide Trails Master Plan (April 2018)

During the update of its Comprehensive Transportation Plan in 2017, Gwinnett County identified the need to develop a high-quality network of trails to provide an alternative mode of transportation and additional recreational opportunities for residents. In response to this need, the Gwinnett County Departments of Community Services and Transportation developed the Countywide Trails Master Plan (CTMP). Completed in 2018, the CTMP lays out a framework for selecting, estimating costs, determining funding options, and implementing trail projects. It also catalogs trail projects recommended by earlier planning efforts at the county and city levels and identifies opportunities to better connect all trail systems across Gwinnett.

The CTMP classifies the proposed Crooked Creek Trail segment from Spalding Drive to Peachtree Corners Circle as a Trails with Partners. Trails with Partners are those projects which are encouraged to be built through County development / redevelopment requirements or by the County identifying additional partnerships for implementation.

In addition to the Crooked Creek Trail, two other Trails with Partners are shown. The first is a new trail proposed along Holcomb Bridge Road, running from Peachtree Corners Circle to Spalding Drive. The second is the Peachtree Corners Circle Trail that will intersect with the Western Gateway Signature Trail proposed along Peachtree Industrial Boulevard. Linking the Crooked Creek segment with the Peachtree Corners Circle Trail can provide a regional trail connection that leads north to Sugar Hill.



City of Peachtree Corners 2040 Comprehensive Plan (September 2018)

The Peachtree Corners 2040 Comprehensive Plan updates the goals, policies, and Community Work Program (CWP) recorded in city's first comprehensive plan adopted in 2013. Public feedback received as part of the 2018 comprehensive planning process reaffirmed resident commitment to the 2013 vision. Accordingly, various goals supportive of this vision were carried over into the new plan which extended their implementation through the year 2040. Two such goals which directly impact the Crooked Creek Study Area are "maintain a high quality natural and cultural environment" and "integrate transportation and accessibility into development decisions."

To achieve the first goal, the plan recommends that Peachtree Corners adopt policies to "expand greenspace, greenway connections, and publicly-accessible parks and recreation" and "protect and enhance community enjoyment of Peachtree Corner's abundant rivers and streams, especially the Chattahoochee River." To advance the second goal, the plan advises that the City adopt policies to "improve walkability, especially in activity centers and around schools," "improve bicycle facilities"; and, "refine development standards according to the Complete Streets approach". The Community Work Plan (CWP) located at the end of the plan summarizes all goals and policies, linking them to specified action items, each assigned an estimated cost and party responsible for implementation.

To improve the likelihood of implementation success, the new Comprehensive Plan generally advises the City to leverage its strengths and opportunities. For example, the plan recommends converting plentiful city stream buffers and undeveloped flood zones into community greenspace. Community Work Plan items directly relevant to the Crooked Creek Study Area are listed in Table 3.5. below.

#	Description	Supports/Impacts	Status and Related Projects
Goal 2: Maintain a high quality natural and cultural environment			
1	Work with private property owners to provide public access to the Chattahoochee River where possible.	CTP_31: HBR Connector	Community Work Program task for 2023
2	Prioritize the cleanup and stabilization of Crooked Creek.	HBR_01: CC Trail North HBR_04: CC Trail South	Community Work Program task for 2022-2023
3	Cohost events between UPCCA, Gwinnett Clean and Beautiful, and the City for cleanup and education	All Character areas, including Transitional Growth & HBR Corridor where Crooked Creek flows.	Community Work Program task for 2020 - 2023
4	Provide education to the community regarding debris and storm drains.	All Character areas, including Transitional Growth & HBR Corridor where Crooked Creek flows.	Community Work Program task for 2020-2023
5	Coordinate with neighboring jurisdictions about the possibility of a jointly acquired open space.	All Character areas, including Transitional Growth & HBR Corridor where Crooked Creek flows.	Community Work Program task 2019 - 2023
7	Study existing stream buffer regulations and investigate the impact of increasing stream protection buffers to community, property owners, and environment and codify as needed.	HBR_01 HBR_04 HBR_03: CC Spur	Community Work Program task for 2023 *if buffers expanded prior to construction, may require variances to achieve project.
Goal 3: Integrate transportation and accessibility into development decisions			
1	Develop preferred roadway cross-section for Holcomb Bridge Road, including landscaping and public art.	CTP_31: HBR_06 / HBR_07: HBR Ped Improvement New HBR Trail per 2018 GC Trails Plan as updated by GC 2040 Unified Plan design standards.	Community Work Program task for 2022-2023
2	Modify zoning to require new developments to connect and/or provide easements to any identified pedestrian linkages as part of development approval.	All Character Areas	Community Work Program task for 2020-2022 *Could be used to fund & construct CC via mixed-use projects / redevelopment.
6	Look for opportunity to partner with private developers in the Holcomb Bridge Road Corridor	May redevelop land uses around Crooked Creek likely through increase in density.	Community Work Program task for 2020-2023

Table 3.5. Peachtree Corners Comprehensive Plan Projects Near Crooked Creek Study Area.



City of Peachtree Corners Public Art Initiative (October 2018)

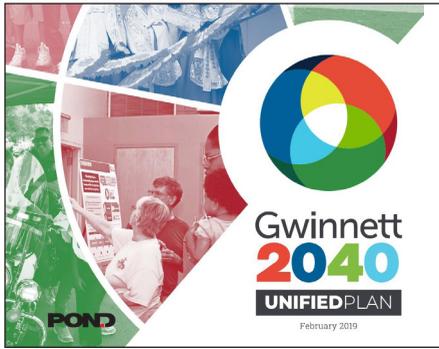
The Peachtree Corners Public Art Initiative document adopted in 2018 provides city leaders and community stakeholders with a Vision Map that identifies six priority areas for the public across the city, called Opportunity Zones. The document also proposes public art themes that should be associated with each Opportunity Zone and provides sample illustrations that can serve as a starting point for future artists' own research and engagement processes. The idea for this vision map stems from a 2018 City Council resolution establishing a Public Art Initiative in Peachtree Corners. The resolution, still in effect, requires developers to meet with the newly established Peachtree Corners Arts Council to discuss possibilities for public

art on their property. Developers are asked to voluntarily set aside one percent of their project costs for public art - either by installing public art works on-site or by contributing money to a public art fund administered by the City.

In the Greenways/Multi-use Trails Opportunity Area, public art should focus on the theme of Green City, which can be reflected in artworks that explore natural processes or make of use natural materials. The theme could be explored through surface murals or graphics along trail surfaces or through artwork at key intersections at select intersections. The table below summarizes locations in the Crooked Creek Study area identified for public art improvements, and its recommended theme.

Location	Description	More on Theme	Status or Related Activity
Public Art Opportunity Zones near Crooked Creek Study Area			
Crooked Creek Trail at Spalding Drive	Theme: Green City Art Type: Multi-Use Trail	Value the natural setting. Explore natural processes or make use of natural materials. Consider the interplay of light, wind, water; annual planting cycles; or areas related to stormwater management.	Arts Council has been established to organize events, galleries, theatres and studios to the City. City Council encourages sculpture and visual art as part of new projects, while developers are in building and permitting stage.
Crooked Creek Trail at Peachtree Corners Circle	Use to signal the presence of roads or provide an amenity.		
Crooked Creek Trail at Holcomb Bridge Road			
Holcomb Bridge Road at Spalding Drive	Theme: Welcoming Art Type: Gateway Use to establish sense of arrival into the City, distinct sense of place, strengthen community identity	Create a sense of arrival for people entering from surrounding cities. Convey sense of timelessness and stature, particularly through material and scale.	Developers are asked to voluntarily set aside 1% of total project costs for public art, either by including art on site or contributing money to public art fund administered by City. Trail implementation updated to 2022-2031.
Holcomb Bridge Road at Peachtree Corners Circle	Theme: Cultural Diversity Art Type: Corridor	New sidewalks on south side of Jimmy Carter Boulevard between LA Fitness and Crooked Creek Rd.	
Holcomb Bridge Road at Jimmy Carter Blvd	Use temporary art to interrupt traffic dominated perception of regional corridors. Integrate permanent artwork as part of redevelopment to lay framework for new aesthetic.		

Table 3.6. Peachtree Corners Public Art Initiative Near Crooked Creek Study Area.



Gwinnett 2040 Unified Plan (February 2019)

The 2040 Unified Plan, also known as a comprehensive plan, contains analysis, maps, and policies to help guide progress and development countywide on multiple fronts through the year 2040. It blends technical analyses, public input, and previously adopted plans and studies (i.e. - *Destination 2040: Gwinnett's Comprehensive Transportation Plan*, *Connect Gwinnett: Transit Plan*, and *Gwinnett Trails: Countywide Trails Master Plan*) into single, coordinated vision to allow all county departments and partners to move in the same direction. The community vision is explored through a framework of five themes which emerged from Needs and Opportunities articulated by the public. The five

themes are: Maintain Economic Development and Fiscal Health, Foster Redevelopment, Maintain Mobility and Accessibility, Provide More Housing Choices, and Keep Gwinnett a Preferred Place. Policy recommendations are provided for each theme, along with considerations to keep in mind during implementation.

Policies in support of trail development across Gwinnett are found in Theme 5: Keep Gwinnett A Preferred Place: These include:

- Policy 5.1. – Improve the Walkability of Gwinnett's Activity Centers and Neighborhoods
- Policy 5.7 - Provide Incentives for Enhanced Open Space/Trails.
- Policy 5.8 - Create Trail Connections Between Existing Parks, Schools, Libraries, and Other Community Facilities as Appropriate.

These policies work together to support incremental implementation of the Countywide Trails Master Plan through long-term collaboration with non-profit and private sector partners. Strategic use of tax benefits, smaller lot sizes, and increased densities are suggested to help off-set costs of providing public infrastructure and providing infrastructure and continuing to spur economic development



Chattahoochee RiverLands Study (April 2020)

The Chattahoochee RiverLands Study establishes an aspirational vision for the Chattahoochee River which proposes the creation of an uninterrupted 125-mile long multi-modal trail running from Buford Dam on Lake Lanier to Chattahoochee Bend State Park in Coweta County. Its recommended alignment would follow the Chattahoochee River, itself re-imagined as a 104-mile long water trail with 42 water access points spaced in two-mile increments on average. The resulting plan serves broadly as a regional corridor plan linking 19 cities across seven counties. It identifies greenway connections, directs greenspace development, and promotes ecological sustainability and restoration at selected locations. If implemented as designed, one million metro Atlanta residents would be within a 15-minute bike ride of the proposed greenway.

In Peachtree Corners, the Study envisions a new trailhead into the Chattahoochee River National Recreation Area (CRNRA) at Jones Bridge Park and a new boat ramp to the CRNRA at Medlock Bridge. The Jones Bridge trail head will provide connection to an existing bike path that crosses to the west side of the River and connects with Barnwell Road in the city of John's Creek. The preferred alignment will provide access to the Chattahoochee River Environmental and Educational Center (CREEC), where a new kayak launch is proposed. Where Barnwell Road intersects Holcomb Bridge Road the preferred trail alignment splits, with the formal path continuing west towards Steeple Chase Road, and a new tributary trail continuing east towards Peachtree Corners.

This Tributary Trail links a proposed ecological restoration point and a new boat ramp at Gerrard Landing in Sandy Springs before entering Peachtree Corners via Holcomb Bridge Road. Its alignment overlaps with HBR_06, a pedestrian improvement project along Holcomb Bridge Road recommended by the 2018 Peachtree Corners Comprehensive Transportation Plan. Notably, however, the 2018 Gwinnett Countywide Trails Master Plan depicts the same alignment as a "Trail with Partners" which parallels the Crooked Creek trail segment immediately adjacent to the creek.

INVENTORY OF EXISTING CONDITIONS

City of Peachtree Corners: Snapshot

City Profile

As discussed in the Introduction section, the City of Peachtree Corners incorporated in 2012 and has quickly gained a reputation within the Atlanta region as a place where residents and workers desire to locate. Peachtree Corners is 17.4 square miles and is the largest city within Gwinnett County. The City has a diverse racial and ethnic population.

The majority of commuters drive to work alone (77%) with an additional 8 percent carpooling. Just over 1% take public transit, and 0.9 percent walk to work. At 28.9 minutes, the City of Peachtree Corner's average commute time is slightly less than the regional average (40 minutes)¹ for a similar timeframe. However, areas inside and close to I-285 report shorter commute times than the counties farther out due to a denser urban fabric. In terms of public health, Gwinnett County reports 1.1 recreation or fitness facilities per 10,000 residents and an obesity rate of 26% for adults. Figure 4.1 provides a snapshot of the City based on the 2018 U.S. Census American Community Survey (ACS), data from the Atlanta Regional Commission's Research and Analytics Division, and Gwinnett County public health statistics.

Population



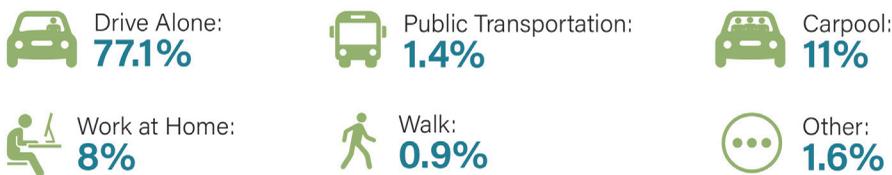
Demographics



Housing



Commute to Work



Source: US Census, 2018 ACS 5 Year Estimate Data, ARC: 2018 Research and Analytics Division

Gwinnett County: Health Statistics



Source: https://static.nichq.org/obesity-factsheets/Georgia/GA_Gwinnett_factsheet.pdf

Figure 4.1. City Snapshot

Study Area Description

The area surrounding Crooked Creek from Spalding Drive to the Holcomb Bridge Road / Peachtree Parkway intersection has numerous apartment / condominium complexes and residential neighborhoods. The Gwinnett County Crooked Creek Water Reclamation Facility is located to the east of Crooked Creek, just south of Spalding Drive. The area to the west has established neighborhoods with single family homes. The area to the east and south-east (along Holcomb Bridge Road, Jimmy Carter Boulevard, and Peachtree Parkway) is characterized by multi-family housing as well as suburban strip shopping and commercial developments. The area immediately surrounding Crooked Creek is densely wooded with steeply sloped, challenging terrain. In Figure 4.2, the map below identifies a quarter mile buffer (orange) around Crooked Creek, parcels, and green/wooded areas surrounding the Creek. The City of Sandy Springs Crooked Creek trail is shown just north of Spalding Drive.

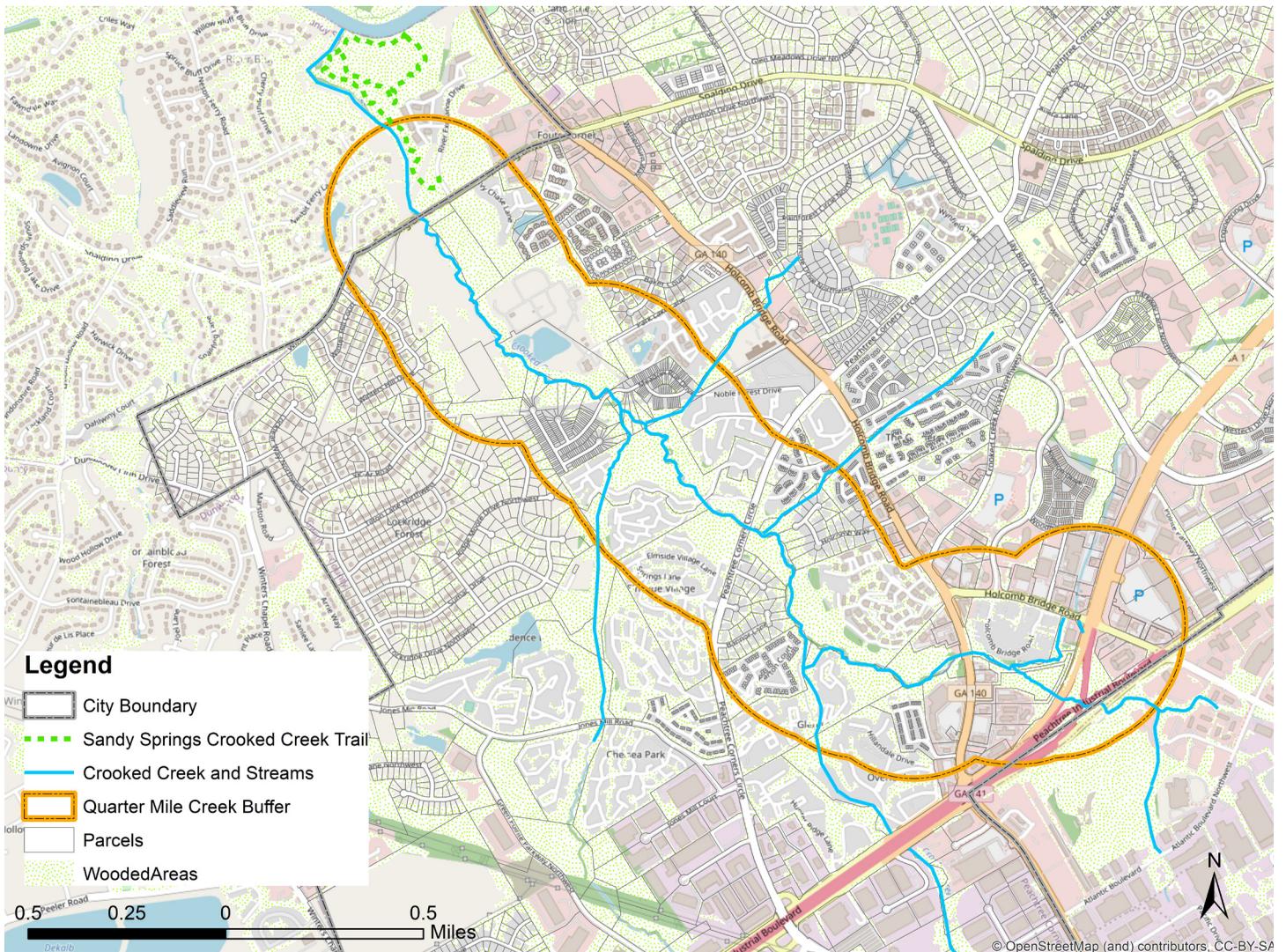


Figure 4.2. Crooked Creek Area Map

Name	Type	Within distance
Veranda Estates Apts.	apartment	0.5 mile
Ashford Lake Apts.	apartment	0.5 mile
Highland Corners Apts.	apartment	0.5 mile
Bristol Court Apts.	apartment	0.5 mile
Silver Oaks Apts.	apartment	0.5 mile
Ivey Brook Apts.	apartment	0.5 mile
Valencia Park Apts.	apartment	0.5 mile
The Columns at Peachtree Corners	apartment	0.5 mile
Highland Lakes Apts.	apartment	0.5 mile
The Atlantic Peachtree Corners	apartment	0.5 mile
Conservatory Apts.	apartment	0.5 mile
Barrington Hills Apts.	apartment	0.5 mile
The Centre at Peachtree Corners	apartment	0.5 mile
Fields at Peachtree Corners	apartment	0.5 mile
Hunters Ridge Apts.	apartment	0.5 mile
The Deerings	residential subdivision	0.5 mile
Deerings Lake	residential subdivision	0.5 mile
The Deerings Townhomes	residential subdivision	0.5 mile
Spalding Bridge	residential subdivision	0.5 mile
Spalding Chapel	residential subdivision	0.5 mile
Spalding Glen	residential subdivision	0.5 mile
Lockridge Forest	residential subdivision	0.5 mile
Meadowbrook Village	residential subdivision	0.5 mile
Meadowbrook Green	residential subdivision	0.5 mile
Spalding Corners	residential subdivision	0.5 mile
Courtside	residential subdivision	0.5 mile
Forest Hills at Peachtree Forest	residential subdivision	0.5 mile
La Hacienda	residential subdivision	0.5 mile
Summit Trails Townhomes	residential subdivision	0.5 mile
Woodland Condos	residential subdivision	0.5 mile
Brookwood Condos	residential subdivision	0.5 mile
Woodmont Landing	residential subdivision	0.5 mile
Glenleaf Condos	residential subdivision	0.5 mile
The Views at Peachtree Corners	residential subdivision	0.5 mile
Apple Valley Condos	residential subdivision	0.5 mile
Evergreen Corners	residential subdivision	0.5 mile
Four Corners	residential subdivision	0.5 mile
Kedron Falls	residential subdivision	0.5 mile
Autumn Trace	residential subdivision	0.5 mile
Hidden Cove	residential subdivision	0.5 mile
The Mansions at Sandy Springs	senior housing	0.5 mile
Peachtree Elementary	school	> 1 mile
Susan Stripling Elementary	school	0.5 mile
Landmark Church	church	0.5 mile
Winters Chapel Baptist Church	church	0.5 mile
Holcomb Bridge Park	park	0.75 mile
Chattahoochee River NRA	park	0.75 mile
Chattahoochee River NRA - Holcomb Bridge Area	park	0.5 mile
Crooked Creek Park with trail	park	0.5 mile

Table 4.1. Points of Interest and Distance from Crooked Creek

Transportation Network

There are several major roads in the study area including Spalding Drive, Peachtree Corners Circle, Holcomb Bridge Road, Peachtree Parkway, and Jimmy Carter Boulevard. Spalding Drive and Peachtree Corners Circle are minor arterials, and the others are principle arterials. The speed limit for all of the roads is in the range of 35 mph – 45 mph. The segment of Holcomb Bridge Road that runs north-south as well as Jimmy Carter Blvd are maintained by Georgia Department of Transportation. The others are Gwinnett County roads. Table 4.2 includes a detailed description of each roadway.

Road Name	From / To	Description	Functional Classification	Posted Speed Limit
Spalding Drive	Winters Chapel Road and Holcomb Bridge Road	Currently being widened to two lanes in each direction with a center turn lane. The bridge over Crooked Creek is also being widened, and 10 ft pedestrian paths are being added on both sides of the roadway.	Minor Arterial (may change)	"35-40 mph (*different posted speed limits on each approach)"
Peachtree Corners Circle	Holcomb Bridge Road and Peachtree Industrial Boulevard.	Two lanes in each direction with a center turn lane and center median. Gwinnett County Transit (GCT) bus stops on both sides of the road	Minor Arterial	45 mph
Holcomb Bridge Road	Spalding Drive to Jimmy Carter Blvd	Two lanes in each direction with a center turn lane and center median. Right turning lanes in each direction in portions of the road. Gwinnett County Transit (GCT) Bus stops on both sides of the road.	Principal Arterial / State Highway Route	45 mph
Holcomb Bridge Road	Jimmy Carter Blvd to Peachtree Parkway Blvd	Two lanes in each direction with one center median. Gwinnett County Bus stops on both sides of road.	Minor Arterial	40 mph
Peachtree Parkway	Jimmy Carter Blvd to Holcomb Bridge Road	Currently a 3 lane highway in one direction converting to a 2 lane highway on a portion of the segment.	Principal Arterial / State Highway Route	55 mph
Peachtree Parkway	Holcomb Bridge Road to Technology Parkway	Currently 3 lanes and GCT bus stop on the Holcomb Bridge Rd to Technology Pkwy approach and 2 lanes on the opposite approach. Turning lanes where appropriate on both sides of the road and Xpress bus stops on both sides of the roads.	Principal Arterial / State Highway Route	55 mph
Jimmy Carter Blvd	Holcomb Bridge Road and Peachtree Industrial Blvd	Two lanes and a right turning lane in each direction. One center turn lane and one center median.	Principal Arterial / State Highway Route	45 mph

Table 4.2. Roadway Characteristics

Sources

- Functional Classification: GDOT Functional Classification Application: <https://itos.maps.arcgis.com/apps/webappviewer/index.html?id=962a2591f91a4303aeafe016ba8db96b> Walkability Score: <https://peachtreecorners.maps.arcgis.com/apps/webappviewer/index.html?id=5f2393c3ba7c4b478f8fe249697b5a49>
- Road Ownership: Peachtree Corners GIS
- AADT: GDOT TADA Application - <https://gdottrafficdata.drakewell.com/publicmultinodemap.asp>
- % Truck Traffic: GDOT TADA Application - <https://gdottrafficdata.drakewell.com/publicmultinodemap.asp>

Non-Motorized Facilities	Land Use	Walkability Status	Ownership	GDOT Traffic Counter ID	2018 ADT	Truck Percentage
Currently: Sidewalks on both sides of the road from Holcomb Bridge Rd to River Exchange / Bike Lane on one side of the Rd from Spalding Corners Driveway to River Ex Dr. Future: Pedestrian walkways are being added along Spalding Drive on both sides of the road.	Commercial / strip shopping centers and multi-family housing	Orange	Gwinnett County	135-0434	20,200	1%
Sidewalks on both sides of the road	Multi-family housing	Orange	Gwinnett County	135-6713	11,200	N/A
Sidewalks throughout one side of road / Sidewalk along portions of road (Jimmy Carter to Spalding Dr approach)	Commercial / strip shopping centers, single family and multi-family housing / neighborhoods	Red	GDOT	135-6222	38,500	3%
Sidewalks on both sides of the road	Commercial / strip shopping centers and multi-family housing	Orange	Gwinnett County	135-6327	15,000	N/A
Sidewalk on one side of the road near the Jimmy Carter Boulevard	Commercial / strip shopping centers	Red	GDOT	N/A	N/A	N/A
Multi-Use Trail on one side	Commercial / strip shopping centers	Red	GDOT	135-0227	44,200	3%
Sidewalks along portions of Jimmy Carter Blvd	Commercial / strip shopping centers	Red	GDOT	135-6220	34,800	5%

Table 4.2. Roadway Characteristics - Continued

Roadway Crossings

There are three roadway crossings to consider in this study: Spalding Drive, Meadow Rue Drive, Peachtree Corners Circle, and Jimmy Carter Boulevard.

Meadow Rue Drive is a quiet residential street with one lane in each direction. The trail can likely cross at street-level with additional pedestrian accommodations. Peachtree Corners Circle has two lanes in each direction with a center turning lane and raised median. Apartment complexes are located on both sides of the roadway. The Georgia Department of Transportation 2018 Average Annual Daily Traffic (AADT) is reported to be 11,200 vehicles. The Project Team will look at the option of crossing at-grade as well as in a tunnel under the street.

Jimmy Carter Boulevard has two lanes and a right turning lane in each direction. It also has a center, raised median. The Georgia Department of Transportation 2018 Average Annual Daily Traffic (AADT) is reported to be 34,800 vehicles with 5 percent truck traffic. Due to the high volume of traffic and lane configuration, the Project Team will evaluate a few options for crossing Jimmy Carter Boulevard.

Non-Motorized Transportation Network

In terms of the non-motorized transportation network, Spalding Drive, Peachtree Corners Circle, Holcomb Bridge Road, Jimmy Carter Boulevard, and Peachtree Parkway have sidewalks. The sidewalks along the southern side of Spalding Drive are currently being extended and widened between Winters Chapel Road and River Exchange Drive. There is an existing multi-use trail along Peachtree Parkway that commences at the Holcomb Bridge Road / Peachtree Parkway intersection. This trail extends along Peachtree Parkway until it connects into Peachtree Corners Circle, just south of The Forum and Town Center.

The Gwinnett County Transit bus route 35 runs within the study area. There are numerous bus stops along Peachtree Corners Circle as well as a stop south of the Holcomb Bridge Road / Peachtree Parkway intersection. Route 35 runs 2 times per hour between 5:20am – 9:50pm on weekdays. On Saturdays, this route is serviced one time per hour between 6:25am – 8:15pm. There is currently no service on Sunday. Figure 4.4. illustrates this information.

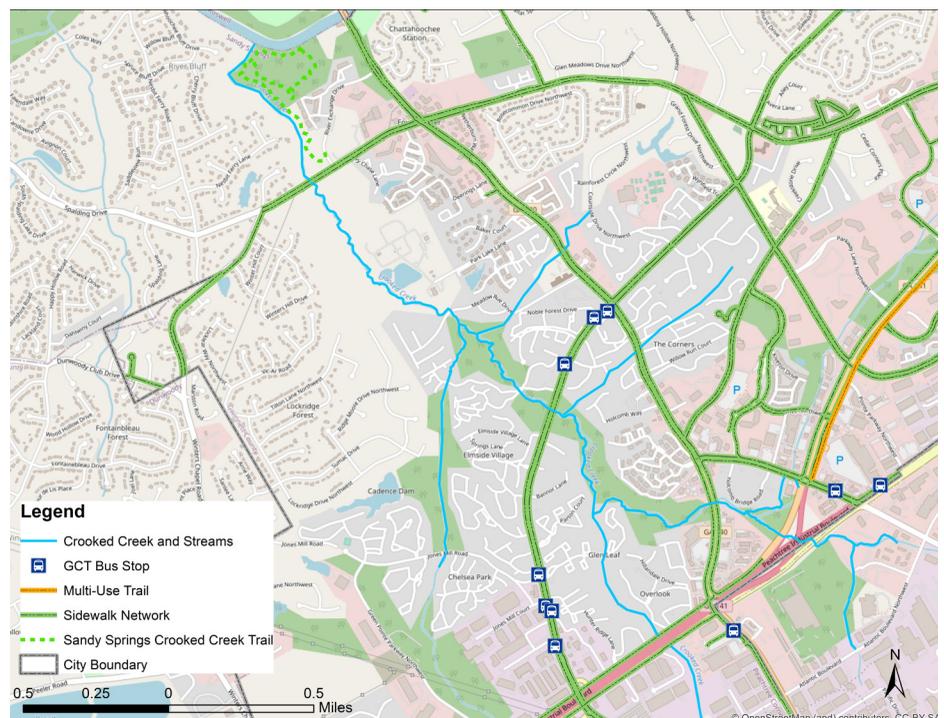


Figure 4.4. Non-Motorized Transportation Network

Source: https://www.gwinnettcounty.com/static/departments/transportation/routes/2018/Nov_12_2018/RT%2035_Web.pdf

Planned and Programmed Projects

As noted in the Previous Plans and Studies chapter, there are numerous transportation projects underway or planned for the near-term within Peachtree Corners that increase the accessibility and connectivity of the proposed Crooked Creek Trail. The map in Figure 4.5. illustrates the major projects which are planned for the next decade. (Projects with a longer time frame have not been included.)



Figure 4.5. Planned and Programmed Projects

These projects are included in the bulleted list below:

- Widening of Spalding Drive and new pedestrian path (10 feet on both sides) between Winters Chapel Road and Holcomb Bridge Road
- Intersection improvements and pedestrian facility upgrades along Holcomb Bridge Road
- New sidewalks along Jimmy Carter Boulevard just south of Holcomb Bridge Road
- New multi-use trails along Peachtree Industrial Boulevard and Peachtree Parkway

Environmentally Sensitive Areas

A desktop scan and site visits were performed to identify high-level environmental conditions within a quarter-mile buffer around Crooked Creek. As shown in the map on Figure 4.6, these environmentally sensitive areas include wetlands, open water, and five protected species within the quarter mile buffer, as well as historic properties in the neighborhoods to the west of Crooked Creek. Additionally, this area is likely an Environmental Justice sensitive area and has a higher population of low-income and /or minority residents.



Figure 4.6. Environmental Areas within a 1-Mile of Crooked Creek

The protected species with state or federal protection status are shown in Table 4.3. below. Of these species, three have been characterized as potentially occurring based on the habitats identified within the project survey area. Additional field investigation could confirm the presence or absence of protected species habitat.

Common Name	Scientific Name	Species Present
Black-spored quillwort	<i>Isoetes melanospora</i>	Unlikely
Georgia aster	<i>Symphyotrichum georgianum</i>	Unlikely
Chattahoochee crayfish	<i>Cambarus howardi</i>	Potentially Occurring
Bay star-vine	<i>Schisandra glabra</i>	Potentially Occurring
Pink ladyslipper	<i>Cypripedium acaule</i>	Potentially Occurring

Table 4.3. Protected Species

The environmental considerations will be taken into account during the engineering design phase to minimize impacts and plan for bridge and boardwalk sections over wetland / floodplain areas, if needed. The Environmental Analysis Report is included in Appendix D.

Opportunities and Constraints

Through GIS mapping, stakeholder and community feedback, and site visits, the Project Team has identified key opportunities and constraints for a new trail in the vicinity of Crooked Creek. The following pictures, text, and map illustrate these findings.

- 1 **Opportunity:** On-going widening of Spalding Drive and new pedestrian facilities. Potential to cross at-grade or tunnel under the bridge. Connection to the City of Sandy Springs Crooked Creek trail and access to the Chattahoochee River area and parks.



- 2 **Opportunity:** The land adjacent to the Gwinnett County Water Reclamation Facility (WRF) is relatively flat next to the Creek and ideal for a multi-use trail. The terrain also will prohibit views into the WRF.



- 3 **Opportunity:** The Landmark Church has a large parking lot which may serve as a trailhead. It's location along Holcomb Bridge Road provides accessibility to numerous multi-family residences, neighborhoods, and businesses in the area.



- 4 **Opportunity and Constraint:** There are numerous multifamily complexes in the area, and there is potential to connect trail spurs at a few of these locations. There are access and privacy issues that will be carefully considered and worked through at the next phase of this project.

5 Constraint: The Creek bisects neighborhoods in a few places and creative solutions for the trail alignment will be critical.



6 Opportunity and Constraint: A large parking lot adjacent to the Creek is located just south of the Holcomb Bridge Road / Jimmy Carter Boulevard intersection. This lot could serve as a trailhead.



7 Opportunity and Constraint: Peachtree Corners Circle has sidewalks which will provide accessibility to apartment complexes if the trail is at-grade. However, a grade separated crossing may be advantageous due to vehicular speeds along this roadway and steep terrain.



8 Opportunity and Constraint: Trail loops which go through potential floodplain and wetland areas offer the opportunity for experiencing nature and educational/informational signage. Trail design will need to protect these environmentally sensitive areas.



9 Opportunity: Sidewalks are planned for the eastern side of Jimmy Carter Boulevard adjacent to The Centre at Peachtree Corners apartment complex. Currently the area has a well-worn, dirt sidepath.



10 Opportunity and Constraint: Ideally the trail would be in a tunnel under Jimmy Carter Boulevard. However, this option may be cost prohibitive. An alternative solution is to use the signalized intersection at Holcomb Bridge Road / Jimmy Carter Boulevard for a safe trail crossing. Existing sidewalks could be widened to extend the trail along Holcomb Bridge Road to Peachtree Parkway and connect with the bike and pedestrian facilities along Technology Parkway.



STAKEHOLDER AND COMMUNITY ENGAGEMENT

The community engagement portion of this project centered around discussing the potential for a new, multi-use trail in the vicinity of Crooked Creek with stakeholders and the community in order to gain feedback and insight into this plan. Since this study is the first phase in planning for a multi-use trail, the City sought to understand if this was an amenity that the community desired. And if so, the City wanted to understand which trail amenities, trail programming, connections and trail head locations were desired and feasible.

The engagement process included several different methods for reaching the community, including the following:

- Project branding / messaging
- Stakeholder meetings
- A project website in Spanish and English
- A survey with interactive mapping for residents and workers in close proximity to the trail
- Trail amenity and programming surveys in English and Spanish
- Social media posts on Facebook
- Project information in the City e-Newsletter
- Project information on the City's website banner
- Hardcopy project information and survey links in English and Spanish

It is important to note that this project's engagement activities changed course in the spring of 2020 due to COVID-19. Several in-person events were cancelled including the City's Summer Festival scheduled for the weekend of June 13-14, 2020. The project team had planned to attend the Summer Festival for two days to discuss the project, have festival participants draw their ideal trail alignment on maps, experience what a 10 foot – 12 foot trail looked like (mapped out with chalk), and play games related to trail amenities. The project team quickly pivoted in late March to create a project webpage in English and Spanish as well as a general survey with trail amenity, programming, and demographic questions. All stakeholder meetings from mid-May through the end of the project were conducted via Microsoft Teams.

Project Branding / Messaging

As shown in Figure 5.1, the Project Team developed a logo to identify the Crooked Creek Trail within the Corners Connector Trail System. This circular logo has been included on all engagement materials along with the logo color scheme.

When the project commenced, the City had a trail origin and destination in mind and wanted the trail to follow Crooked Creek. The City sought to gain feedback and understand the conditions for a preferred alignment, connections to residential neighborhoods and businesses, and trailhead locations.



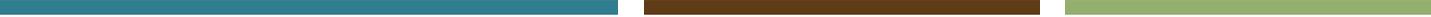
Figure 5.1. Project Logo

Stakeholder Meetings

As shown in Table 5.1, eighteen stakeholder meetings were conducted in-person, via phone, and through Microsoft Teams video conference from the fall of 2019 through June 2020. Stakeholders included a varied group of partner agencies, apartment and condominium complex owners, adjacent cities, Gwinnett County, and individuals involved in Crooked Creek interest groups. The table below shows the stakeholder meetings that occurred by date and communication method.

Meeting #	Date	Stakeholder Group or Agency	Communication Method
1	11.07.2019	Glenleaf Condo Complex	Phone Call
2	11.14.2019	Gwinnett County Crooked Creek Water Reclamation Facility	In-Person
3	11.18.2019	Gwinnett County Department of Water Resources	In-Person
4	11.21.2019	Friends of Crooked Creek Non-Profit Organization	In-Person
5	12.10.2019	City of Peachtree Corners Green Committee	In-Person
6	12.11.2019	Gwinnett County Department of Water Resources (2nd Meeting)	In-Person
7	02.13.2020	The Centre at Peachtree Corners Apartment Complex	Phone Call
8	02.20.2020	The Atlantic Peachtree Corners Apartment Complex	Phone Call
9	02.25.2020	Landmark Church	In-Person
10	02.27.2020	The Park at Peachtree Corners Apartment Complex	Phone Call
11	02.27.2020	The Corners at Holcomb Bridge Apartment Complex	In-Person
12	05.26.2020	3500 The Vine Apartment Complex	Video Call
13	06.02.2020	The Fields at Peachtree Corners Apartment Complex	Video Call
14	06.02.2020	Gwinnett County Transit	Video Call
15	06.03.2020	City of Sandy Springs Recreation and Parks and Public Works Department	Video Call
16	06.08.2020	Gwinnett County Community Services and Transportation	Video Call
17	06.09.2020	City of Sandy Springs Recreation and Parks Department (2nd Meeting)	Video Call
18	06.19.2020	Chattahoochee Riverlands Plan Project Team	Video Call

Table 5.1. Stakeholder Meetings



Summary meeting notes are included in Appendix A, and the information gained from stakeholders is summarized below.

- Crooked Creek is a natural resource that is currently inaccessible. There are numerous community members who have invested time and effort into cleaning up portions of the Creek and envisioning a trail along its banks.
- Many stakeholders are aware of the City's investment in trails and desire for additional trails and connectivity. There is support for a direct trail connection to the Chattahoochee River.
- Apartment and condominium complex owners view a multi-use trail as a positive amenity for the area and their complex residents. Numerous owners spoke about economic benefits of having a trail close by and were aware of other trails (within Peachtree Corners, Gwinnett County, and the Atlanta region).
- Among the apartment and condominium owners, there was unanimous concern about providing direct access to and from the trail into apartment and condominium complexes. A few of the complex owners are open to further discussions about ways to provide gated access or key code access for their residents, and the City will pursue these conversations in the next phase of the project.
- The Landmark Church has a large, unused parking lot that may be an ideal location for a trailhead. The City will explore this location in the next phase.
- Many stakeholders mentioned the need to connect to existing and future sidewalks to further connectivity in the area.
- The Gwinnett County Transit Department is supportive of moving and/or adding a bus stop along Peachtree Corners Circle to ensure transit accessibility to the trail.
- The City of Sandy Springs is completing the construction of a trail along Crooked Creek from Spalding Drive to the Chattahoochee River (completed summer 2020). There is desire to connect the cities' trails on either side of Spalding Drive.

Project Webpages

Project webpages (English and Spanish) were created and linked to the City's main website. The webpage included an overview of the project, project description, project maps (low and high resolution), outreach events, project survey, and contact information for the project team. The webpages went live in early April 2020 and are shown below in Figures 5.2 and 5.3.



Figure 5.2. English Website



Figure 5.3. Spanish Website

Survey with Interactive Mapping

A survey with interactive mapping was created for individuals who live and work in close proximity to Crooked Creek. The purpose of this survey was to obtain feedback regarding the desire to have a direct connection, within a short walk, to the trail from a residence or place of employment.

As shown in Figures 5.4 and 5.5., the survey was hosted via Wikimapping and allowed participants to "Drop A Pin" on their home/neighborhood and/or employment location. Survey respondents were also asked about trail amenities, programming, and demographics. The Wikimapping site was live from early April through the end of June, and during this time 152 comments were submitted. Of these, 84 provided additional information about their home/neighborhood location, and 21 provided information about their employment location. It is important to note that while a buffer was shown around the Crooked Creek area (about one mile on either side of the Creek), there were numerous "Pins" dropped farther away from the Creek.

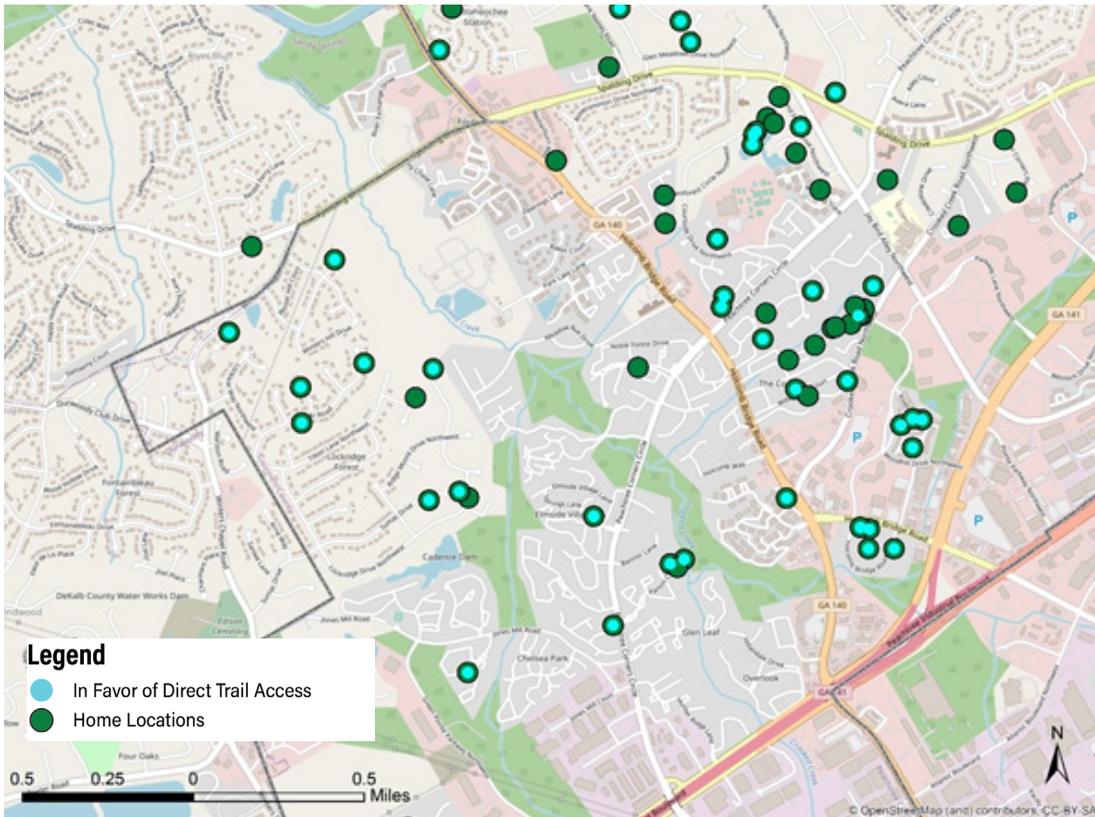


Figure 5.4. Home Locations. Light blue pins indicate support for trail access from home locations.

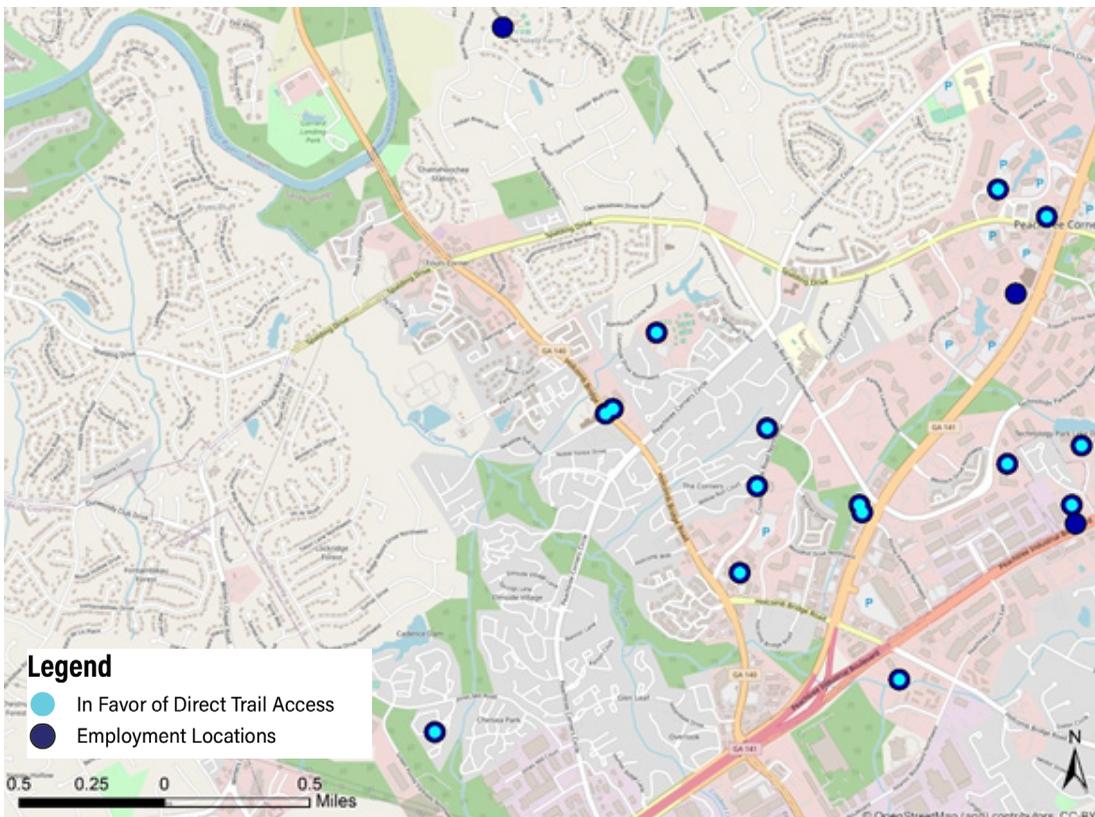


Figure 5.5. Employment Locations. Light blue pins indicate support for trail access from work locations.



The results from the Wikimapping Survey show that:

- 46 of 84 (54%) of City residents who “Dropped A Pin” on their home/neighborhood location would like direct access to the trail. Of these 46, multiple residents at the Corners at Holcomb Bridge, The Vine, and the Glenleaf Condo Complex supported direct access.
- Comments made by residents in support of a direct connection included the need for a gate to access their condo complex, security and lighting on the trail, and desire for connection to other trails.
- Comments made by residents who did not support a direct connection included concerns about crime, trail safety, additional noise, and litter in the neighborhood.
- Pins in the neighborhoods to the west of the Crooked Creek show support in this area for direct access to the trail. This will be explored via sidewalks and a trailhead location near Spalding Drive, as property ownership, development patterns and steep terrain generally prevent direct access to the trail from the west
- 16 of 21 (76%) of respondents who work in the City who “Dropped A Pin” on their employment location expressed interest in direct access to the trail. Two pins were placed at the Landmark Church.

Trail Amenity and Programming Surveys

The trail amenity and programming surveys (in English and Spanish) were hosted on the project webpage. The English and Spanish surveys opened in early April and closed on June 30, 2020. During this period, 1,182 responses were submitted.

Figure 5.6 shows the demographic and socio-economic distribution of the survey results.

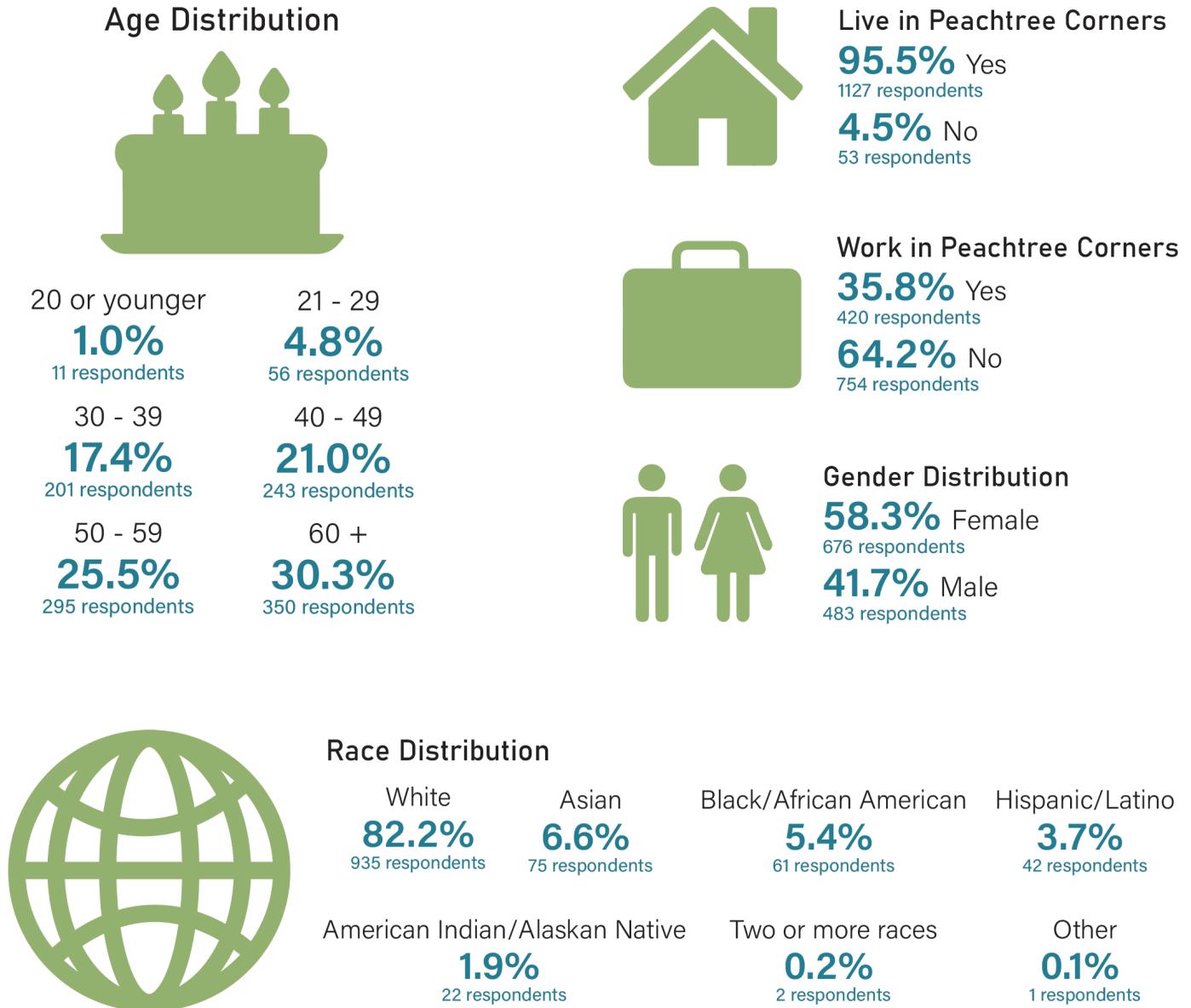


Figure 5.6. Demographic and Socio-economic Survey Results

As compared with the City's demographic profile reported in the 2018 U.S. Census American Community Survey (ACS), the majority of the survey participants were older than the median age of City residents (36.1 years old). The gender distribution in the City is close to 50% female and 50% male, and there was a slightly higher percentage of female respondents (58.3%). The City is racially and ethnically diverse with 50.6% White, 22.2% Black, 15.2% Hispanic/Latino, and 9.6% Asian residents. Of the survey participants, the racial and ethnic distribution shows a higher percentage of white respondents (82.2%) and lower percentage of other race and ethnicities.

Based on survey responses, the top three Trail Activities are: Recreation, Using the trail to connect to destinations, and walking dogs. The results for the Trail Activities question are shown below in Figure 5.7.

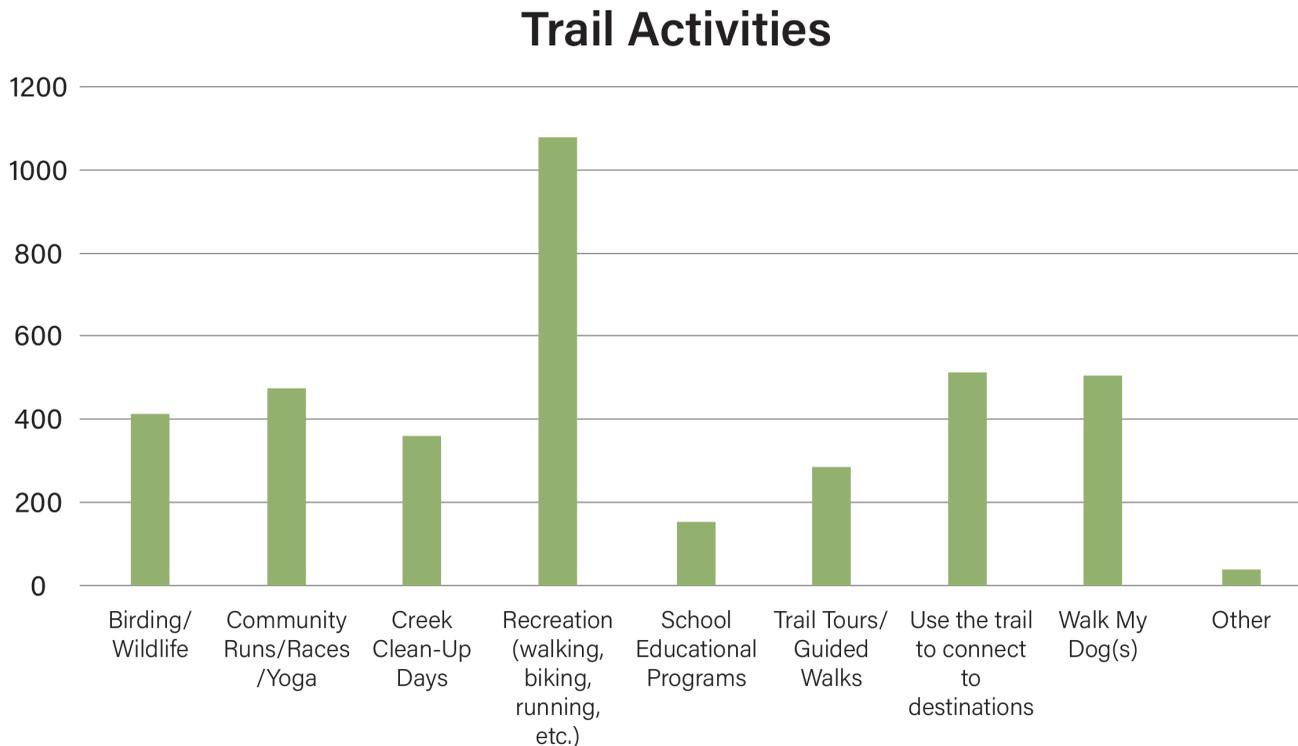


Figure 5.7. Survey Results from the Trail Activities Question

The Project Team combined the responses from the webpage and Wikimapping survey to understand the community's desired Trail Amenities. Top amenity choices are below and included in Figure 5.8.

- Benches
- Trash/recycling bins
- Lighting
- Restrooms
- Trail signage/info
- Parking
- Emergency call boxes

The Project Team is exploring security options which could include having WiFi access along the entire trail. It is important to note that the webpage survey included an option for "Public Area," and the Wikimapping survey included "Public Art." Unfortunately, this typo means that these results cannot be aggregated together. However, both options received responses but were not at the top of the list.

Trail Amenities

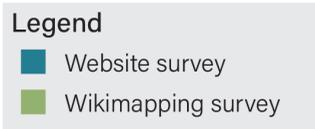
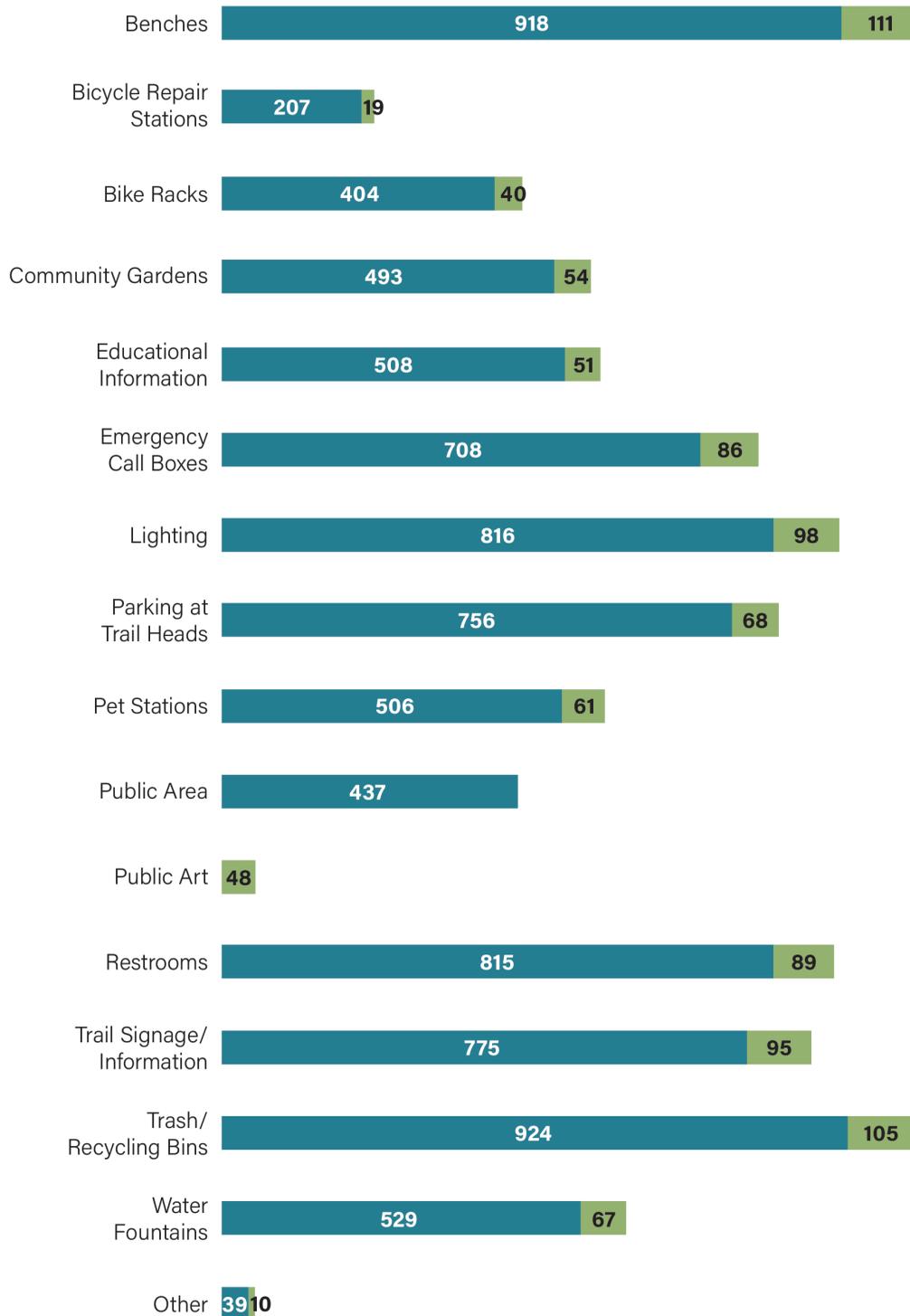
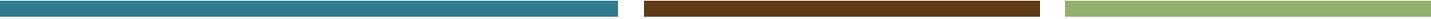


Figure 5.8. Survey Results from the Trail Amenities Question



Hundreds of additional comments were provided by survey respondents. Key comment themes included the following:

- Consider the connections to other trails and sidewalks.
- The trail should be wide enough for pedestrians and bicycles using it at the same time.
- The trail surface is important – suggestions for a soft surface for walkers.
- Suggestion of viewing areas / nature center / gardens.
- Trail security is important in this area. Numerous suggestions were provided for how to implement safety along the trail.
- Suggestion for amenities including places to fish, dog parks, beer / food stations, public art, geocaching, exercise areas / workout equipment, and commercial destinations
- Shaded areas are necessary for trail enjoyment.
- Concern about the trail alignment going through established residential neighborhoods. (There was a prior plan to site the trail through the pipeline easement.)

A compilation of Additional Survey Comments is included in Appendix B.

Social Media

As shown in the Figure 5.8 and Table 5.2 below, there were 3 Facebook posts made on the City's Facebook site. Each post shared information about the trail, a picture, and directed viewers to the project webpages and surveys. The posts were "boosted" out to mobile phones within the City boundaries.

Overview of the Study

Trail Visualization

Opportunity for Trail tie in

Figure 5.8. Social Media Posts

Facebook Post	Date	Likes	Shares	Comments
Overview of the Study	May 22	62	21	24
Trails Visualization	June 9	224	15	11
Opportunity for the Trail to tie in with other planned and proposed transportation projects	June 24	40	11	0

Table 5.2. Facebook Post Descriptions

Other Engagement Items

Project information was also shared on the City's website banner, in the City's e-Newsletter (May and June issues), and via hard-copy project flyers. The flyers were emailed to apartment complex owners to post in their complexes and/or email out to their residents. The City of Peachtree Corners also delivered flyers by hand, as shown in Figures 5.9, 5.10, and included in Appendix C.



Crooked Creek Multi-Use Trail Project Webpage and Survey

The City of Peachtree Corners, together with a consultant team from CPL, is conducting the Crooked Creek Multi-Use Trail Concept and Feasibility Study. The proposed trail will be located in the vicinity of Crooked Creek between Spalding Drive and Holcomb Bridge Road / Peachtree Parkway. This study builds upon the community feedback and desire for additional miles of trails that was received as part of the 2015 Holcomb Bridge Corridor Study and the 2040 Comprehensive Plan adopted in March 2017. The City of Peachtree Corners is committed to adding to and connecting additional miles of trail network, neighborhoods, and destinations.

This study has a robust public outreach component to understand potential trail alignment, access and amenities. Due to COVID-19, several spring and summer in-person outreach events have been cancelled. Please visit the project webpage to learn more about the project, view a map of the study area, and provide feedback through a short survey to help the City understand desire for trail amenities and access. The survey will close on June 30, 2020.

www.peachtreecornersga.gov/government/public-works/crooked-creek-trail



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Figure 5.9. English Project Flyer



Página web y encuesta del proyecto del sendero de usos múltiples de Crooked Creek

La ciudad de Peachtree Corners junto con el equipo de consultores de CPL están conduciendo el estudio de concepto y viabilidad del sendero de usos múltiples de Crooked Creek. El sendero propuesto se ubicará en las proximidades del arroyo Crooked entre Spalding Drive y Holcomb Bridge Road/Peachtree Parkway. Este estudio se basa en la respuesta de la comunidad y el deseo de millas de senderos adicionales que fue recibido como parte del estudio hecho en 2015 del Pasillo de Holcomb Bridge y en el Plan Integral 2040 adoptado en marzo de 2017. La Ciudad de Peachtree Corners se comprometa a agregar y conectar millas adicionales de red de senderos, vecindarios y destinos.

Este estudio tiene un sólido componente de divulgación pública para comprender la posible alineación de caminos, acceso y comodidades. Por causa de COVID-19, se han cancelado varios eventos durante la primavera y verano de divulgación en persona. Por favor visite la página web del proyecto para obtener más información sobre el proyecto, ver un mapa del área de estudio, y brindar comentarios a través de una breve encuesta para ayudar a la ciudad comprender el deseo de acceso servicios del sendero. La encuesta se cerrará el 30 de junio de 2020.

<https://www.peachtreecornersga.gov/government/public-works/crooked-creek-trail/sendero-crooked-creek>



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Figure 5.10. Spanish Project Flyer

Summary

The Project Team engaged with a large and diverse group of stakeholders and community members from late 2019 through June 2020. The engagement process resulted in at least 1,500 sets of comments and feedback from stakeholder meetings, survey responses and comments, and Facebook post likes/shares/comments. This is a significant response to the high-level planning of a multi-use trail, and the overall feedback has been supportive of a new trail along Crooked Creek. The Project Team received numerous suggestions with ways to enhance the user experience of the trail, and the City will take these comments into consideration as the project develops.

The Project Team has noted the concern about trail access and security in the area, and these important issues will need to be further addressed through the trail design and during subsequent phases of this project.

TRAIL DESIGN GUIDELINES

The term trails is loosely used to describe a variety of pathway types, uses and experiences. In the regulatory, planning, design and trail management professions however, the term trails *used by itself refers to paths designed for recreational use by pedestrians and hikers*. Descriptors are added to denote other types of pathways, such as water trails, equestrian trails, or shared-use paths. *Shared-use paths are multi-use trails designed primarily for use by bicyclists and pedestrians, including pedestrians with disabilities, for transportation and recreation purposes*. Care should be taken not to use these terms interchangeably because they have distinctly different design guidelines.



Figure 6.1. Shared-Use Path

Shared use paths (also referred to as multi-use trails) may be used by skaters, wheelchair users, joggers, and other non-motorized users. Most shared use paths are designed for two-way travel. Unlike most sidewalks or bike lanes, shared-use paths are physically separated from streets by an open space or barrier, and are either within the highway right-of-way or within an independent right-of-way. They also differ from trails because they are designed not just for recreation purposes (hiking and pedestrian use) but for transportation as well. It is important to note that the Crooked Creek multi-use trail could also be called a shared use path. The Project Team has chosen to keep the original name for this project for consistency.

Based on the vision outlined in previous City and County planning documents, the Crooked Creek Trail will be designed as a shared-use path along its entire main route, side loops and spurs. The following outlines the design guidelines and best practices for trail and shared-use path design, with an emphasis on shared-use paths. Several case studies of design guidelines from successful shared-use path systems are also presented.

Trails (Pedestrian and Hiking)

The Forest Service Outdoor Recreation Accessibility Guidelines (FSORAG), the Forest Service Trail Accessibility Guidelines (FSTAG), and the applicable sections of the Americans with Disabilities Act/Architectural Barriers Act Accessibility Guidelines (ADA/ABAAG) address the design of trails for the outdoor recreation environment. The portion of ADA/ABAAG that applies to Federal agencies is also known as the Architectural Barriers Act Accessibility Standards (ABAAS). The ABAAS Guidelines for Outdoor Developed Areas were developed as a supplement to address the accessibility of trails. These guidelines are required for federal projects and are the recommended best practices for other trail projects. (If a project receives federal funds but is not a project for a federal agency, the guidelines are only recommended, not required.)

The Purpose of FSORAG and FSTAG

FSORAG and FSTAG provide guidance for maximizing accessibility while recognizing and protecting natural settings, which can be challenging. The guides explain the accessibility requirements for trails designed for hiker and pedestrian use. Some basic assumptions:

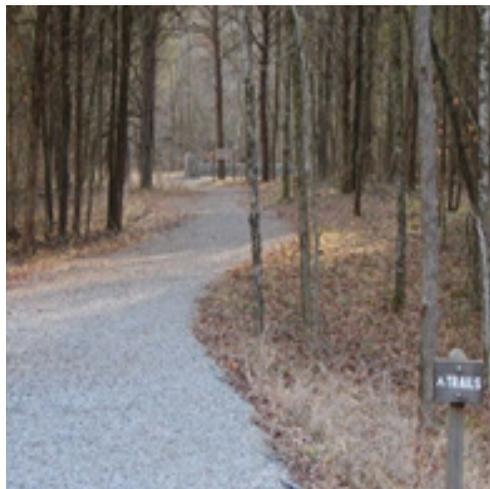


Figure 6.2. ADA Accessible Path

- Accessibility is to be considered up front, not as an afterthought.
- The Forest Service policy of universal design is integrated into FSORAG and FSTAG.
- All new construction and alterations for Forest Service outdoor recreation facilities and trails must meet the requirements of FSORAG and FSTAG.
- FSORAG and FSTAG incorporate ABAAS sections that are applicable to outdoor developed areas.
- Compliance with FSORAG and FSTAG does not mean that all recreation areas and trails will be accessible to all persons with disabilities; in some locations, the natural environment will prevent full compliance with some of the technical requirements.

The surfaces of trails, passing spaces, and resting intervals must be firm and stable. A firm surface resists deformation by indentations. A stable surface is not permanently affected by expected weather conditions and can sustain normal wear and tear from the expected use(s) of the area between planned maintenance cycles. Firm and stable surfaces prevent assistive devices from sinking into the surface. Surfaces that are not firm and stable make travel difficult for a person using crutches, a cane, a wheelchair, or other assistive device. Use a rule of thumb to estimate firmness and stability: What sort of surface is firm and stable? If the answer to both of the following questions is yes, the surface is probably firm and stable. (While this method for determining firmness and stability isn't scientifically accurate, it has proven to be effective.) (FSORAG)



Figure 6.3. ADA Accessible Table

- Could a person ride a narrow-tired bicycle across the surface easily without making imprints? (Bicycle tires are similar to the large rear wheels of a wheelchair.)
- Could a folding stroller with small, narrow plastic wheels containing a 3-year-old be pushed easily across the surface without making imprints? (A stroller's wheels are similar to the front wheels of a wheelchair.)

A firm and stable surface does not always mean concrete and asphalt. The provision states that surface material should be appropriate to the setting and level of development. Some natural soils can be compacted so they are firm and stable. Other soils can be treated with stabilizers without drastically changing their appearance. Many surface materials that appear natural and that meet the firm and stable requirements also are available on the market. Investigate these options and use surface materials that are consistent with the site's level of development and that require as little maintenance as possible. (FSORAG and US Access Board Outdoor Developed Areas)

Shared-use Paths

National Guidance



Figure 6.4. Runner Enjoying the South Peachtree Creek Trail

According to the Federal Highway Administration (FHWA), the popularity of many urban and suburban shared-use paths has shown that large volumes of pathway traffic, with a diverse user mix, can create congested and conflictive path conditions similar to that on urban highways. Therefore, planning and design of shared-use paths must be done with the same care and attention to recognized guidelines and user needs as the design of on-roadway bikeways and other transportation facilities. National guidance on the design of shared-use paths includes:

- The American Association of State Highway and Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities* (2012) is the primary design guide for shared-use paths. It provides guidance on dimensions, use, and layout of multi-use paths and on-street bicycle facilities.
- The Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (MUTCD) defines the standards used by road managers nationwide to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to public traffic. "Part 9: Traffic Controls for Bicycle Facilities" is the primary source for guidance regarding signing and striping of shared-use paths.
- *FHWA Designing Sidewalks and Trails for Access* is a two-part report on pedestrian accessibility. *Part 2, Best Practices Design Guide*, provides recommendations on how to design sidewalks, street crossings, intersections, shared use paths, and recreational pedestrian trails.
- Shared-use paths must meet accessibility requirements of the Americans with Disabilities Act.

Because shared-use paths are used by pedestrians, all newly constructed shared-use paths should be built to provide access for people with disabilities. A single source of accessibility guidance for shared-use trails has not been compiled; however, taken together, the sources above address the essential topics.¹ Key issues for accessibility include trail access points, grade, cross-slope, street crossings, curb ramp design, railings, and signage.

- Surfaces can be paved (asphalt or concrete) or unpaved (crushed stone or aggregate), but should be firm, stable, and slip resistant.
- Grades should generally be less than 5 percent, but can be up to 12.5 percent for short distances (up to 10 ft). Level landings or rest areas should be provided at appropriate intervals on grades steeper than five percent.
- Cross-slopes for drainage or superelevated curves should be no greater than two percent.

As mentioned above, the AASHTO Guide for the Development of Bicycle Facilities (AASHTO Guide) is the primary

¹ Federal Highway Administration University Course on Bicycle and Pedestrian Transportation, Chapter 19: Greenways and Shared-Use Paths, FHWA, 2006.

design guide for shared-use paths. Due to a large percentage of path users being adult bicyclists, they are the primary design user for shared use paths and are the basis for most of the design recommendations in the AASHTO Guide. Components addressed in the AASHTO Guide include:

- Widths and Clearance
- Design Speed
- Horizontal Alignment
- Cross Slope
- Grade
- Stopping Sight Distance
- Other Considerations (Surface, Bridges & Underpasses, Drainage, Lighting, Intersection Design)

The AASHTO Guide recommends a minimum paved width for a two-directional shared use path of 10 ft. Typically, widths range from 10 to 14 feet, with the wider values applicable to areas with high use and/or a wider variety of user groups. Wider pathways, 11 to 14 feet are recommended in locations that are anticipated to serve a high percentage of pedestrians (30% or more of the total pathway volume) and high user volumes (more than 300 total users in the peak hour). Additionally, a graded shoulder of 3 to 5 feet (2 feet minimum) is recommended. The desirable vertical clearance to obstructions is 10 feet.

Hard, all-weather pavement surfaces are generally preferred over those of crushed aggregate, sand, clay, or stabilized earth. The latter unpaved surfaces may cause bicyclists to more easily lose traction (particularly bicycles with narrower, higher-pressure tires), and may need more maintenance. On unpaved surfaces, bicyclists and other wheeled users must use a greater effort to travel at a given speed when compared to a paved surface. Some users, such as inline skaters, are unable to use unpaved paths. In areas that experience frequent or even occasional flooding or drainage problems, or in areas of moderate or steep terrain, unpaved surfaces will often erode and are not recommended.

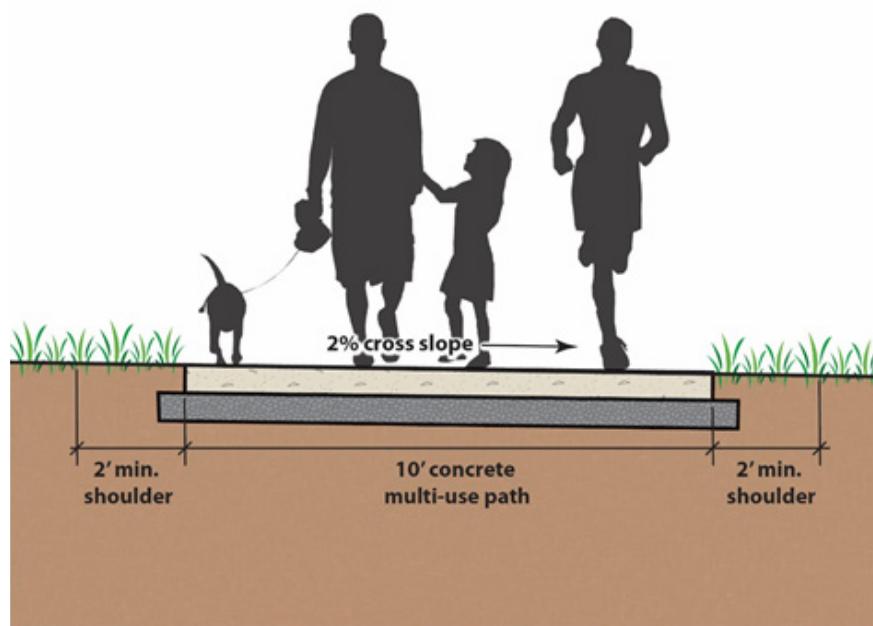


Figure 6.5. Typical Multi-Use Trail / Shared-Use Path Cross Section



Figure 6.6. Silver Comet Trail Underpass

A bridge or underpass may be needed to provide continuity to a shared use path. The clear width from inside of rail or barrier to inside of opposite rail or barrier should allow 2 ft of clearance on each side of the pathway. A minimum vertical clearance of 10 feet is desirable. Access by emergency, patrol, and maintenance vehicles should be considered in establishing design clearances of structures on shared use paths.

The design of intersections between shared use paths and roadways has a significant impact on users' comfort and mobility. Intersection design should not only address cross-traffic movements, but should also address turning movements of riders entering and exiting the path. The AASHTO Guide provides a general overview of crossing measures; other sources, such as AASHTO's Guide for the Planning, Design, and Operation of Pedestrian Facilities, should be consulted for more detail.

Per the FHWA *Designing Sidewalks and Trails for Access: Part 2, Best Practices Design Guide*, signs that clearly describe the conditions of the shared-use path are an essential component to enhance pedestrian access. Signs should be provided in an easy to understand format with limited text and graphics that are understood by all users. Providing accurate, objective information about actual shared-use path conditions will allow people to assess their own interests, experience, and skills in order to determine whether a particular shared-use path is appropriate or provides access to them with their assistive devices. Objective information about the shared-use path conditions (e.g., grade, cross slope, surface, width, obstacles) is preferable to subjective difficulty ratings (e.g., easier, most difficult). It is recommended that the following information be objectively measured and conveyed to the user through appropriate information formats:

- Shared-use path name
- Permitted users
- Path length
- Change in elevation over the total length and maximum elevation obtained
- Average running grade and maximum grades that will be encountered
- Average and maximum cross slopes
- Average tread width and minimum clear width
- Type of surface
- Firmness, stability, and slip resistance of surface

State Guidance

The Georgia Department of Transportation (GDOT) *Design Policy Manual* (2018) is the primary resource for roadway and active transportation facility design guidelines and standards of GDOT. Chapter 9, Complete Streets Design Policy, addresses multi-use paths, but refers the user to the AASHTO Guide (for design) and the MUTCD (for signing and pavement marking).

The GDOT Pedestrian and Streetscape Guide (2018) provides guidance on design of walkways and pedestrian support facilities, but does not address multi-use facilities, nor does not provide standards or specifications.

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TRAIL ALIGNMENT RECOMMENDATIONS

Given the high-level nature of this study, Geographic Information Systems (GIS) datasets, outreach feedback, and site evaluation were utilized to assess the study area and trail corridor in the development of a preferred trail alignment as well as alternative alignment sections, loops, and spurs. GIS data was used in lieu of a design survey. Table 7.1 lists the GIS datasets employed in this effort.

GIS Datasets
City Boundary
Elevation Contours
Water Bodies Including Streams, Wetlands, and Floodplains
Parcel Boundaries and Tax Assessor's Database
Transportation Network

Table 7.1 Geographic Information Systems Datasets

Preferred and Alternative Trail Alignments

The proposed Crooked Creek Trail will connect Spalding Drive with the Holcomb Bridge Road / Peachtree Parkway intersection. Figure 7.1 identifies the preferred alignment with a solid orange line. Alternatives to the preferred alignment are indicated by solid purple lines. All loops and spurs, indicated by dashed lines and labeled as "L" or "S," respectively, are optional extensions to the primary alignment. Trailheads are shown with "T" followed by a number from 1 to 5. The alignment has been phased into two sections (Northern and Southern), and the Trailheads, Loops, and Spurs are listed in Table 7.2 and Table 7.3 below.

Trailhead	Trailhead Locations (North to South)
T1	Close to Spalding Drive/Crooked Creek
T2	Landmark Church Parking Lot
T3	Peachtree Corners Circle / Apple Valley Condominium Complex
T4	Jimmy Carter Boulevard / Mazzy's Sports Bar Parking Lot
T5	Center at Peachtree Corners Apartment Complex Recreational Area (Alternative Alignment Only)

Table 7.2 Trailhead Locations (North to South)

Loops and Spurs (North to South)	Description
T1	Trailhead close to Spalding Drive / Crooked Creek
Spur 1	Connection to Spalding Drive at street level
Loop 1, Spur 2	Wetland loop with connection to Veranda Estates neighborhood
Loop 2	Floodplain loop
Spur 3	Connections to (1) trailhead at Landmark Church and (2) Highland Corners and Silver Oaks apartment complexes
Loop 3	Floodplain loop
Loop 4, Spur 4, T3, Spur 5	Boardwalk with connection to (1) Apple Valley Condos and potential trailhead (T3) and (2) McEachern Way
Loop 5, Spur 6	Wetland/floodplain loop with connection to The Atlantic
Spur 7, T4	Connection to trailhead (T4) at Mazzy's off of Jimmy Carter Boulevard from the preferred alignment
Spur 7A	Connection to trailhead (T4A) at Mazzy's off of Jimmy Carter Boulevard from the alternative alignment
Spur 8A	Connection to trailhead (T4A) at Mazzy's off of Jimmy Carter Boulevard (alternative alignment only)
Spur 9A, T5A	Connection to Center at Peachtree Corners and potential trailhead T5A (alternate alignment only)
Loop 6A	Connection to Center at Peachtree Corners and potential trailhead T5A (alternate alignment only)

Table 7.3 Loops and Spurs (North to South)

Northern Segment: Spalding Drive to Peachtree Corners Circle

The northern segment of the trail is shown in Figure 7.1 below.

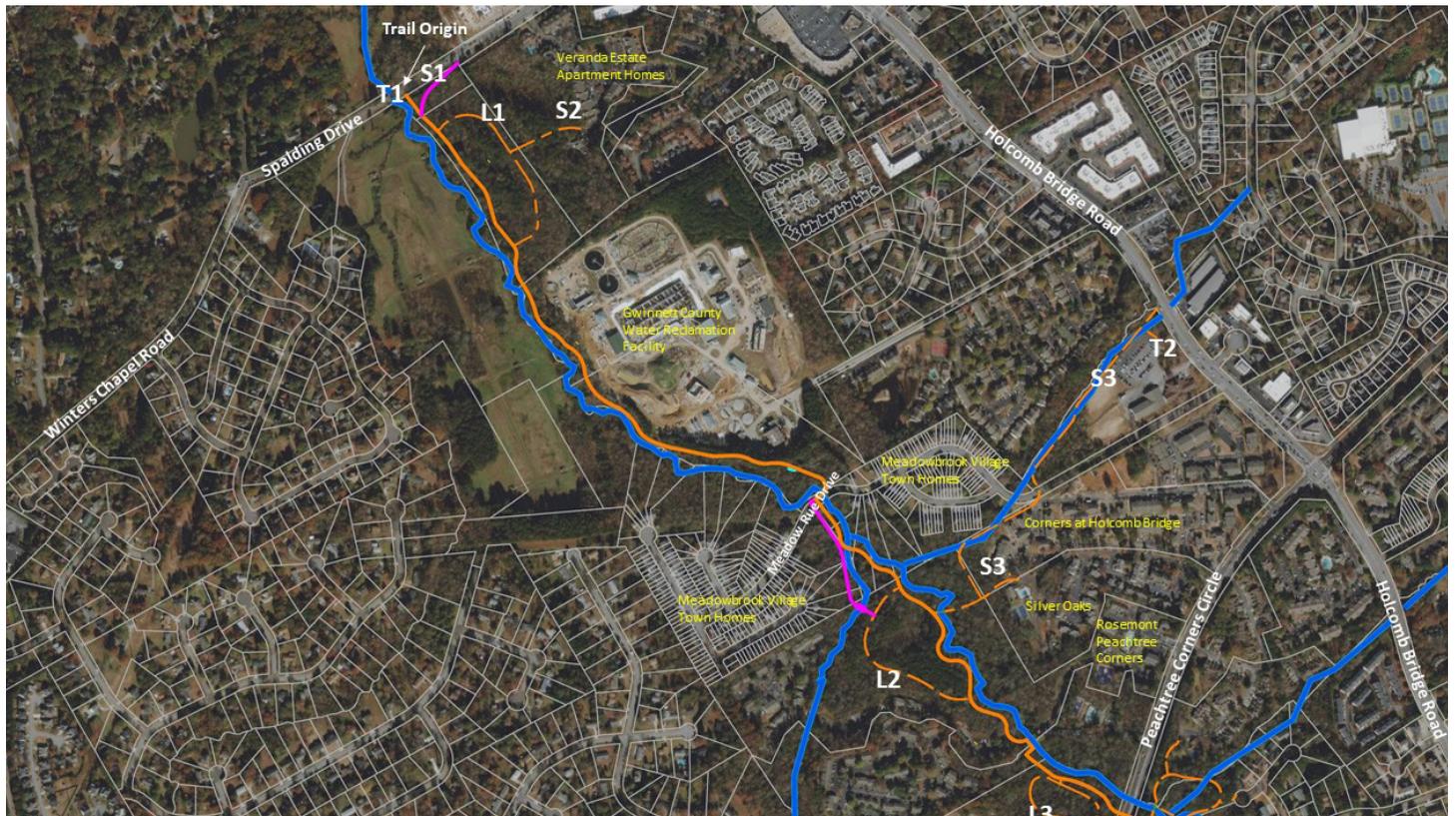


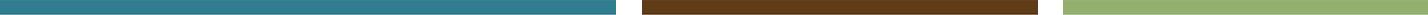
Figure 7.1. Northern Segment Preferred and Alternative Alignments, Trailheads, Loops, and Spurs

A parking area located off Spalding Drive will function as the northernmost trailhead (T1) of the Crooked Creek Trail. Visitors will be able to access the trail via T1 from Spalding Drive or via Spur 1 (S1) located at an existing signalized intersection with River Exchange Drive that connects into the City of Sandy Springs and its multi-use trail and trailhead parking. The trailhead T1 is the northern most entrance point for this section of the Crooked Creek Trail.

South of Spalding Drive, the preferred route traverses wetlands and is parallel to the Creek on the eastern side. Prior to reaching the Gwinnett County Crooked Creek Water Reclamation Facility (WRF), maps and signage will provide directions to Loop 1 (L1). In addition to providing connection to Veranda Estates through use of Spur 2 (S2), the loop can function as:

- Location with natural wetland views, shaded benches for sitting, and trash bins for waste disposal;
- A place to wait for members of one's group who may have forgotten an item in the car;
- Route featuring educational signage on topics such as wetlands, bird watching, trail design, or city history.

Given the wetlands in this area, it is most likely that this northern most portion of the preferred route as well as S1, L1, and S2 are bridge or boardwalk section. Such materials are commonly used in floodplain and wetland areas to minimize interference with natural water rise or sensitive habitats.



After passing the Water Reclamation Facility on the facility's western side, the preferred route will continue to gently meander south, enhanced by changing views that support engagement with one's surroundings. The trail will cross Meadow Rue Drive at street level and also cross to the western side of the Creek at this point. There is an alternative alignment in this area (shown in pink) that the City will consider at the next phase of this project.

South of the Meadow Rue community, the multi-use trail will open to additional floodplain areas currently hidden behind two multifamily communities (i.e., Rosemont and 3500 The Vine). The depth of these multifamily tracts could allow for the construction of two additional loops (L2, L3) and another spur (S3) with limited impact on community privacy and residential character. Loops 2 and 3 may be narrower trail sections on bridge or boardwalk over wetlands. These areas provide opportunity for lengthening the trail and also allowing users to experience their natural surroundings. S3 will connect to a second trailhead (T2) at the Landmark Church parking lot located on Holcomb Bridge Road. This spur provides access to the trail from the Church, multifamily complexes, and businesses along Holcomb Bridge Road. It also provides an alternative route for first responders to quickly reach interior sections of the Crooked Creek Trail. If so desired by property owners and residents, S3 could also provide direct access to The Corners at Holcomb Bridge Apartments and/or the Silver Oaks residential complex.

After Loop 3 (L3), trail users will arrive at Peachtree Corners Circle. The preferred alignment has the trail crossing at street-level with a mid-block pedestrian crossing. In this scenario, a larger pedestrian median and additional signage would be needed, at a minimum. The City may explore adding a pedestrian hybrid beacon (PHB) too. (A PHB is a traffic control device which can be utilized to help pedestrians safely cross busy roadways.) Peachtree Corners Circle has sidewalks on both sides as well as numerous multifamily complexes. A small trailhead could be added to increase connectivity with sidewalks and Gwinnett County Transit bus stops. An alternative alignment has the trail crossing in a box culvert under the roadway to eliminate hazards of a street-level crossing. In the future, Peachtree Corners Circle may also offer access to a protected bike path providing direct connection from the Crooked Creek Trail to the Technology Park Phase 2 Trail.

Southern Segment: Peachtree Corners Circle to Holcomb Bridge Road / Peachtree Parkway

The southern segment of the trail is shown in Figure 7.2 below.

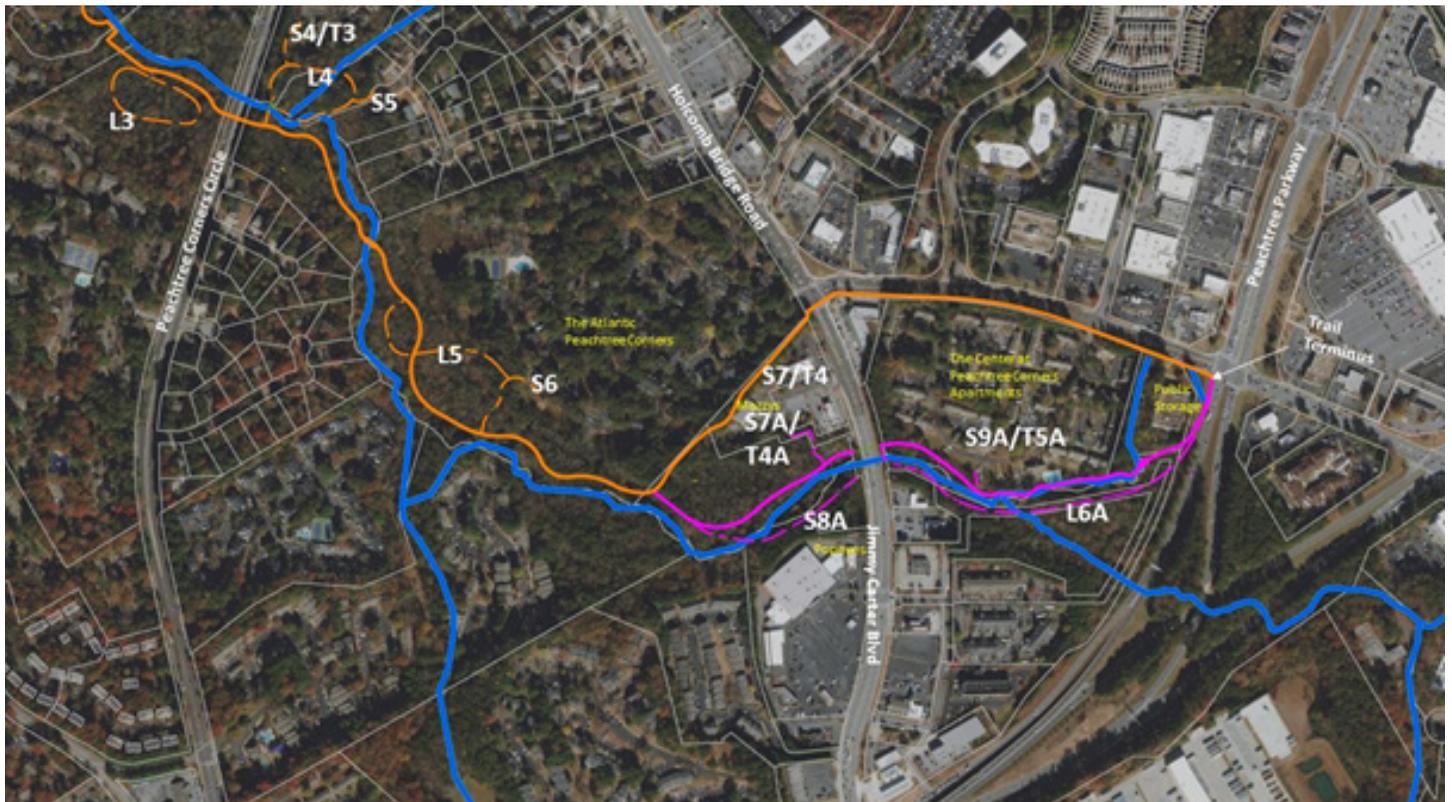


Figure 7.2. Southern Segment Preferred and Alternative Alignments, Trailheads, Loops, and Spurs

The preferred route progresses south from Peachtree Corners Circle through an undeveloped tract approximately 5.3-acres in size. Trail users may also access the preferred route at this point via a trailhead (T3) proposed in the vicinity of Apple Valley Condominiums. Loop 4 (L4) is a proposed extension which crosses over Crooked Creek connecting to two spurs that lead to adjacent residential areas (Hawthorne Terrace and McEachern Way).

After traversing the full length of the undeveloped tract, the preferred route will cross Crooked Creek and remain on its eastern bank. The preferred route will then traverse undeveloped floodplain areas hidden behind The Atlantic multifamily complex. At approximately 53-acres in size, this multifamily tract is largest in the system, offering sufficient land area to create Loop 5 (L5). Depending on property owner and resident feedback, L5 can be designed to provide direct access to the rear of the apartment complex via use of Spur 6 (S6).

Upon reaching the southern property line of The Atlantic, the preferred route will head north-west along the rear of the property line shared by three commercial tracts. Visitors seeking to enter/exit the system at this point may do so using Spur 7 (S7). This spur will connect trail users to the parking lot at Mazzy's Sports Bar and Grill, which will function as the southernmost trailhead of the system (T4). Those persons who bypass S7 will exit onto 10 foot-wide sidewalks along the edge of Jimmy Carter Boulevard. These sidewalks can be followed north to the existing signalized intersection with Holcomb Bridge Road to gain access to the commercial tracts on the opposite side of the roadway.

After crossing Jimmy Carter Boulevard, the preferred route will continue along the edge of Holcomb Bridge Road, passing The Centre at Peachtree Corners Apartments. The preferred route will end upon reaching the intersection of Holcomb Bridge Road / Peachtree Parkway where it connects with existing multi-use trails.



Southern Segment: Alternative Route to Holcomb Bridge Road / Peachtree Parkway

South of The Atlantic and Mazzy's is an undeveloped tract owned by the Georgia Piedmont Land Trust (GPLT). In an alternate alignment, the multi-use path could follow the Creek south through GPLT's property, rather than heading north along the three commercial tracts. This alternative route would still provide access to a trailhead located adjacent to Mazzy's (T4A) via use of Spur 7A (S7A). However, it would also provide access to the commercial plaza located at 7500 Jimmy Carter Boulevard via Spur S8A which will connect to Jimmy Carter Boulevard through an undeveloped parcel.

Due to its distance from an existing signalized intersection, this route will likely require crossing Jimmy Carter Boulevard below grade in order for the multi-use trail to continue to Peachtree Parkway. After crossing Jimmy Carter Boulevard, the alternative alignment will continue to follow the creek via an adjacent trail easement. If residents and property owners so desire, either a new trailhead (T5A) or new spur (S9A) can be used to provide direct access from the easement to The Centre at Peachtree Corners Apartments. Visitors who do not exit the trail at this point, can use a proposed wetland loop (L6A) to circle back towards the primary route or stay on the alternative route until its terminus at the intersection of Holcomb Bridge Road / Peachtree Parkway.



Creative Placemaking

The planning and design term “placemaking” is both a process and a philosophy. Placemaking capitalizes on a local community’s assets, characteristics, culture, and history, with the intention of creating public spaces that reinforce the community’s story, promote people’s health, happiness and well-being, and maximize shared value. Community-based participation is at the center of effective placemaking. The results of the stakeholder and community engagement process described previously have been used to inform the recommended placemaking opportunities that follow. The character of existing amenities within this City and the logo and branding strategy developed for Crooked Creek Trail were also taken into consideration. Together, these considerations help define the placemaking elements of:

- Desired Character and Materials
- Color Palette
- Trailhead Amenities
- Amenities Along the Trail
- wayfinding

Site Design for Trailheads and Access Points

Trailheads are major access points to a trail that also include amenities to facilitate the use of the trail and the convenience and comfort of trail users. The combined results from the project surveys, trail best practices and consultation with the City has identified the following desired amenities (in order) that should be considered at trailheads:

1. Seating (benches or seat wall)
2. Trash, recycling
3. Lighting
4. Restrooms
5. Info signage/kiosk with trail map
6. Gateway signage at entrance from street
7. Parking (minimum 12 - 15 spaces)
8. Water fountains
9. Dog waste station
10. Bike racks
11. Bike repair stations
12. Wi-fi

Five potential trailheads have been identified for Crooked Creek Trail. The layout of parking and amenities will be specific to each site, given the variation in the site dimensions, topography and environmental features (mature trees, wetlands, etc.). Figure 7.3 below illustrates the spatial configuration of amenities at a typical trailhead. Given the list of desired amenities, an area of approximately 1/3 acre of developable space will be required for a trailhead.

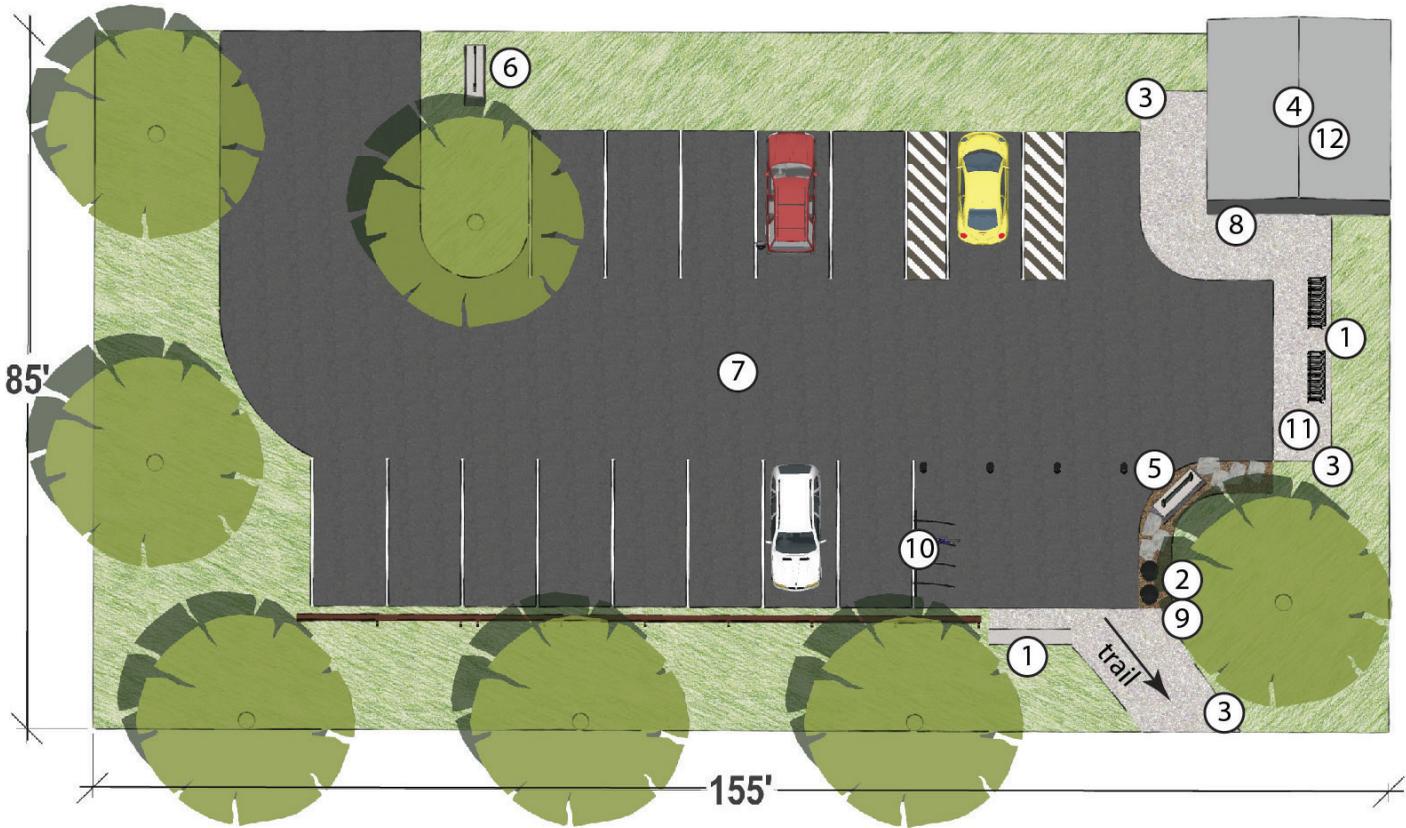


Figure 7.3. Illustration of a Typical Trailhead Layout (1/3 acre)

In addition to trailheads, there are other access points along the trail. These occur where the trail crosses a road, or a spur of the trail leads to a neighborhood. These access points are not as developed as a trailhead, but should have an indication that one can enter the trail from this point. Typically, all that is required is a trail post or trail blaze embedded in the trail pavement. If the access point is along a road, a bench with shade could be useful as well. The Wayfinding section has more information on this topic.

Amenities Along the Trail

While trail heads provide services-type amenities for trail users, amenities along the trail can encourage (or enable) a trail user to walk farther, explore longer or return again. The combined results from the project surveys, trail best practices and consultation with the City has identified the following desired amenities that should be along the trail:

- Seating (benches)
- Lighting
- Interpretive panels and other trail signage
- Emergency call boxes
- Exercise equipment
- Linear play stations
- Wi-fi
- Public art

Existing lighting and site furniture used throughout the City is black powder-coated steel. To reinforce this character, the City would like to use this same finish and color for amenities along the trail. It is also important the the style of the lighting and site furniture reinforces the City's technology-focussed image. The lighting and site furniture amenities shown on the following page have been chosen for use along the trail to reinforce these characteristics and the image, or sense of place, desired for the City.

An amenity with a "signature color" may also be used at points along the trail to provide visual interest. It can also help to tie the trail together when repeated at intervals. The signature color may be selected from the colors identified in the trail branding or a complimentary color. An example of this idea is a set of bright yellow chairs located at a creek overlook at intervals along the trail, or a signature color repeated in play and exercise equipment along the trail.

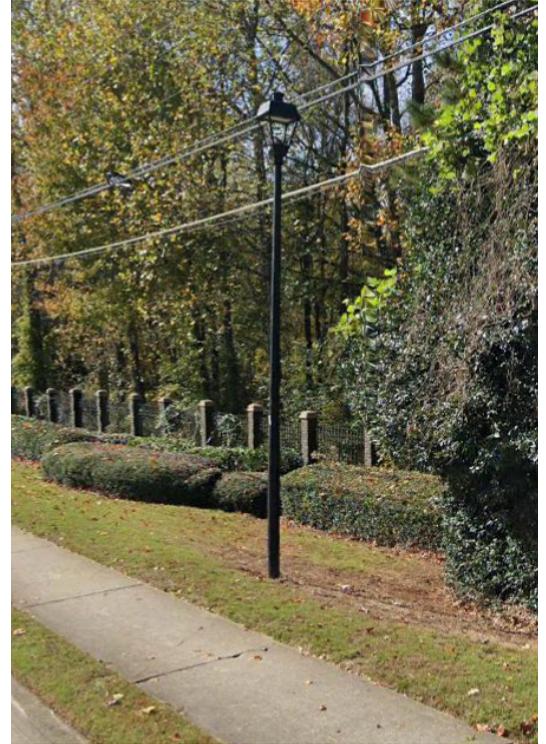


Figure 7.4. Traditional Black Lantern-Style Street Light on Peachtree Corners Circle, Near the Proposed Trail



Figure 7.5. Example of an Item with a Signature Color



Pedestrian lighting:

Sternberg Millenia ML 660 medium scale post top LED luminaire on 9-foot high, 4-inch square post (or approved equal)

This lighting style has been chosen as a tech-saavy interpretation of the traditional lantern-style street light used elsewhere in the City.



Bike rack:

Victor Stanley Freesia BFRE-161 single arch with cross bar in black powder-coat (or approved equal)

This bike rack style has been chosen for its tradition style yet contemporary character, which blends the traditional style of the City's existing site furniture with the City's technology-focussed image. The fan shape of the bike rack also repeats the shape of the selected Millenia luminaire and the domed top of the selected A-36 trash receptacle.



Figure 7.6. Lighting, Bike Rack, Trash Receptacle, and Bench Examples

Trash receptacle:

The Victor Stanley A-36 trash receptacle in black powder-coat (or approved equal) is used elsewhere in the City and should also be used along the trail to reinforce the City's existing character.

Bench:

The Victor Stanley Steelsites RB-28 6-foot bench in black powder-coat with intermediate solid steel armrest (or approved equal) is used elsewhere in the City and should also be used along the trail to reinforce the City's existing character.



Figure 7.7. Seat Wall

Seat Wall:

Seat walls can be incorporated as seating and placemaking amenities at trailheads. The seatwall concept pictured at left continues the placemaking character of the planned City of Peachtree Corners bridge towers and gateways. Used with the column as pictured, it can also help frame entrances to the trail.



Figure 7.8. Outdoor Exercise Equipment

Outdoor Exercise Equipment:

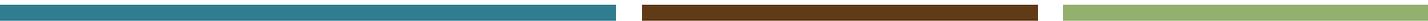
Outdoor exercise equipment has been gaining popularity in Europe and the United States over the past decade. Including outdoor exercise equipment in one's community has multiple benefits including providing residents with the opportunity to improve their health through fitness, providing equitable access to fitness opportunities, encouraging people to spend more time outdoors, and providing exercise opportunities for those who might not have access to such.



Figure 7.9. Example of Public Art

Public Art:

Public art provides the opportunity for the community to collaborate with artists to create art installations that both engage with the outdoor space in which they're located and help provide a unique and creative take on placemaking. Including art in public spaces along Crooked Creek Trail can also drive interest in visiting the trail.



Wayfinding

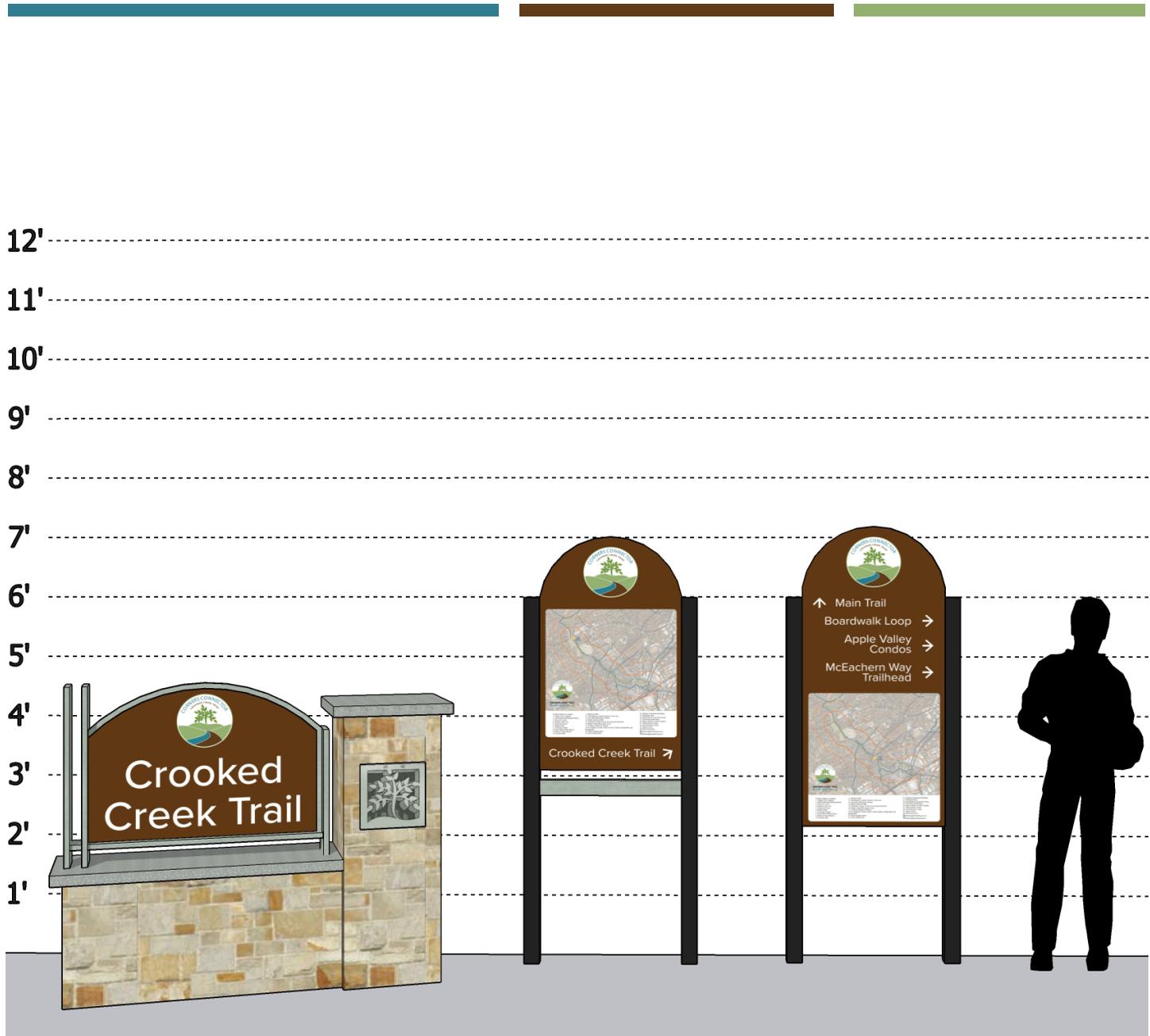
As shown in Figures 7.10 and 7.11, wayfinding signs provide communication with trail users to keep them safe and oriented on the trail. Effective wayfinding signage prevents trail users from getting “lost in the woods” or taking a route beyond their desires or abilities. It provides clearly defined routes where users know the way and feel welcomed. Properly designed directional signage with attention to minimum text height can be understood while remaining in motion and cut down on user conflict.

Additionally, using consistent signage can be a way to promote brand recognition for the trail and make visitors and residents alike aware of this amenity in the community. The design of wayfinding signage should compliment the placemaking efforts by utilizing colors from trail branding and repeating materials and forms from the preferred trail amenities, site furniture and lighting. The proposed family of wayfinding signage for Crooked Creek Trail includes:

- Vehicular arrival signage (at entry to trailhead parking)
- Trailhead directory with trail map (with “you are here” and nearby amenities (avoid listing specific businesses))
- Mid-trail map with pedestrian/cyclist directionals
- Directional signage at decision points or road crossings
- Trailblazer
- Trail post
- Interpretive panels
- Light pole banners (where trail crosses over/under road, where trail runs parallel to road)
- Digital wayfinding technology (smart phone app, QR codes)

The proposed vehicular signage is designed in the same style as the planned City of Peachtree Corners bridge towers and gateway structures, to continue to build upon the placemaking vision for the City. It should be located at the entrances to trailhead parking areas along major roads, and functions to direct motorists as well as raise awareness of the trail. Trail maps at trailheads and at key points along the trail enable users to find their destination with minimum stress, locate points of interest such as restrooms, and discover information in an easy to digest way. Wayfinding along the trail is accomplished with a combination of directional signage, trailblazers and trail posts, which should be located at decision points along the trail, such as entrances/exits without trailheads, forks in the trail and along long stretches of uninterrupted trail. Light pole banners can raise awareness of the trail when used in locations where the trail crosses a road, and can serve as a directional feature when used on light poles where the trail runs parallel to a road.

Interpretive panels instill a sense of appreciation for the story that needs to be told. Ideally, interpretive signs or exhibits offer stories that are designed to stimulate trail visitors’ interest while challenging their imaginations, and perhaps present new perspectives on familiar topics. Through the use of interpretive signage, the trail presents themes that enable visitors to understand more clearly the messages of history, the environment, or a nearly forgotten culture.



Vehicular Arrival Signage

Locate along the main road at entrances to trailhead parking areas. Repeats materials and style of planned City of Peachtree Corners bridge towers and gateways.
Text height: 5.0"

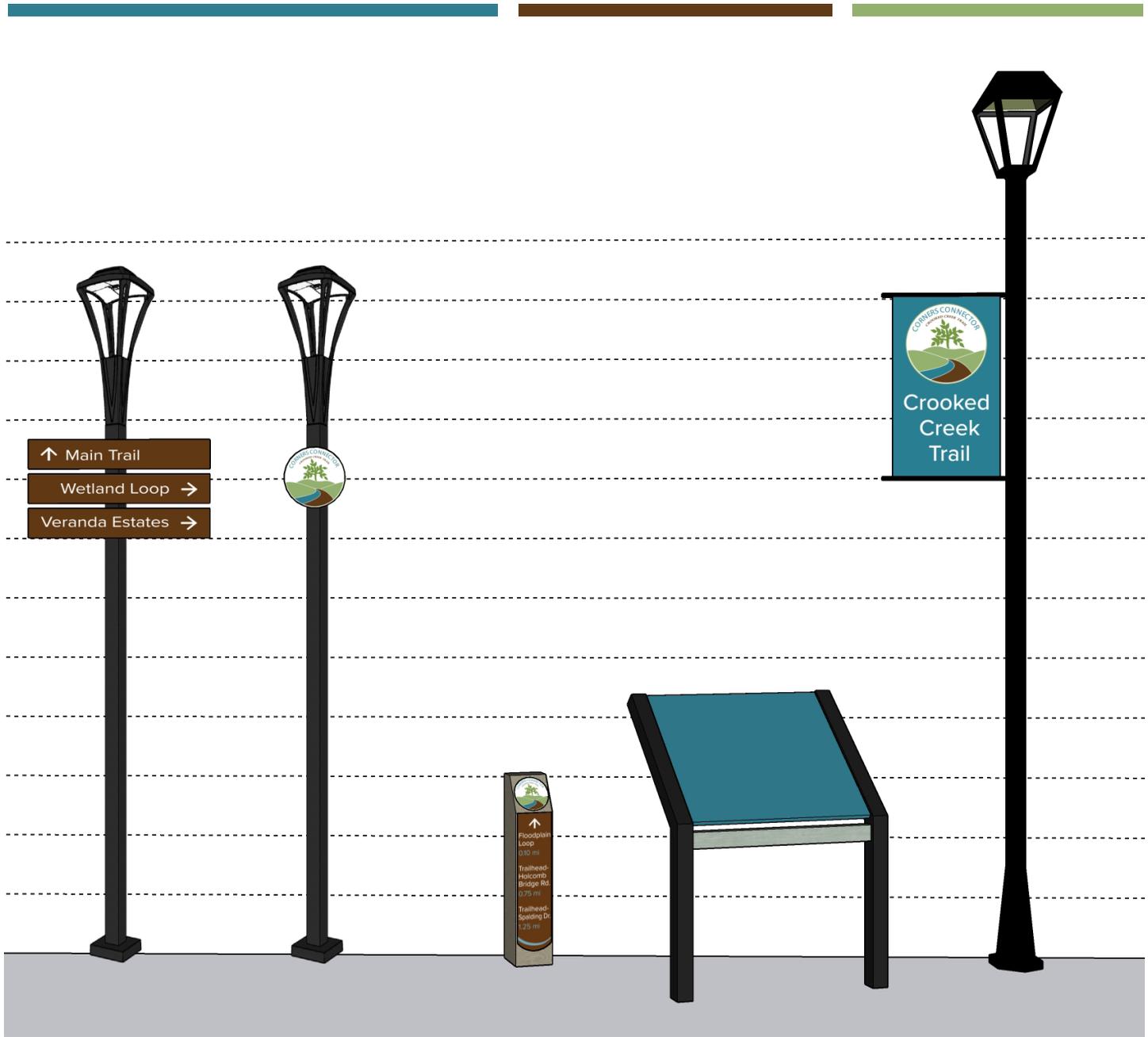
Trailhead Directory with Trail Map

Locate at trailheads. Fossil Industries Upright Double Post Pedestal UDGR6 (or approved equal). 3" square black powder-coat posts coordinate with light pole style. Aluminum accent bar under panel coordinates with Vehicular arrival style.
Directional text height: 1.5"

Mid-Trail Map with Directionals

Locate along trail at decision points/forks in trail that lead to 3-5 destinations. Fossil Industries Upright Double Post Pedestal UDGR6 (or approved equal). 3" square black powder-coat posts coordinate with light pole style.
Directional text height: 1.5"

Figure 7.10 Wayfinding Signage - Set 1



Directional Signage

Locate along trail at decision points/forks in trail that lead to up to 3 destinations. Utilize light poles along the trail. Text height: 2.0"

Trail Blaze

Locate along the trail at approximately 1/4-mile intervals to reinforce trail identity. Utilize light poles along the trail. Medallion diameter: 12.0"

Trail Post

Locate at trail access points and exits other than trailheads. 8" square polywood post with chamfered top, silver-gray color. Text height: 1.0"

Interpretive Panel

Fossil Cantilever Pedestal (or approved equal), 3" square black powder-coat posts and aluminum accent bar coordinates with other signs.

Light Pole Banners

Industries Angled CDDG224 (or approved equal). Banner size: 21" W x 36" H. Medallion diameter: 15-7/8". Text height: 3.0"

Figure 7.11 Wayfinding Signage - Set 2

Digital Wayfinding

Given that Peachtree Corners is a “Smart City,” digital wayfinding is a placemaking option that is appropriate for Crooked Creek Trail. Digital Wayfinding helps to connect users with features of the trail on demand. Digital wayfinding options include websites, websites with mobile apps, text message maps, quick response (QR) codes and beacons.

Websites and Mobile Apps

Interactive websites and mobile apps can be designed to help the user navigate to and along the trail. They can also be embedded in the City of Peachtree Corner’s existing app. Examples of well-designed interactive websites are the Atlanta Beltline website shown in Figure 7.12 and the Boston Tour of the Freedom Trail included in Figure 7.13.

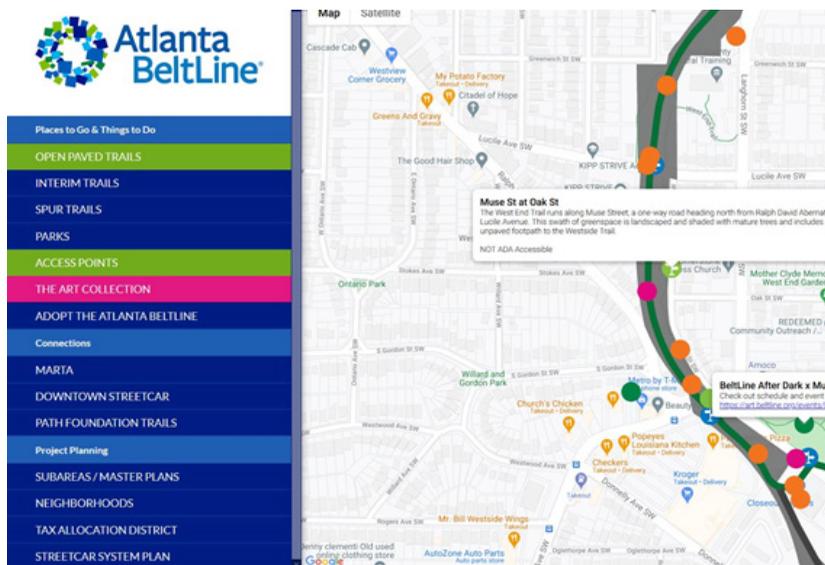
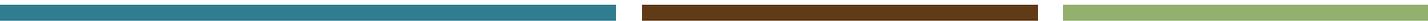


Figure 7.12. Interactive Website Example



Figure 7.13. Interactive Website Example



An interactive website or mobile app can include the following functionality:

- Show on an overview map that indicates where you are relative to the rest of the trail (a “you are here” symbol);
- Provide driving directions from a user-specified location to a featured destination chosen from a drop-down list.
- Include information on and locations of activities along the trail as well as transit, walk/bike, and drive/park connections.
- Suggest walking routes/itineraries (with route length noted).
- Identify attractions along the trail, such as loops, interpretive/educational opportunities, playgrounds, exercise stations, restrooms, bicycle racks and repair stations, public art etc.

Text Message Maps

Text message maps are static (non-interactive) maps located at a site, which include a “text message number”. When the number is texted from a mobile device, the user receives a return text message with information about that site/area. The message often provides brief information about the site/area, events, hours of operation or nearby attractions. Text message maps could be located on kiosks or signs.

Quick Response (QR) Codes

QR Codes can be incorporated into kiosks and pedestrian wayfinding signage. Mobile phone users can use a free app on their mobile device to scan the QR code. Their mobile device’s internet browser then takes them to a web page with additional information. Braille-like QR codes can be developed to provide audible wayfinding information for the visually impaired. Scanning the QR code with a mobile device could bring up features such as an audio clip with interpretive information about that location along the trail, one’s location on the interactive trail map, a scavenger hunt or other interactive game related to the trail, or directions for use of adjacent exercise equipment for example.

Beacons

Beacons are small, wireless transmitters that broadcast radio signals short distances. Beacons utilize Bluetooth Low Energy (BLE) technology to communicate with iPhone/iPod/iPad and Android mobile devices. With a specially designed app open on a phone or tablet, the beacon will recognize the location of the user and guide the user through the area of interest on a map. As the user approaches an attraction, hours of operation or attraction information could be sent to the mobile device and pop up on the map. Beacons can offer personalized content based on a user’s location. A beacon can sense when a user enters a perimeter, where they are within the perimeter and when they exit a perimeter. Based on this, it can then send information such as a welcome message, information about nearby attractions, wayfinding between attractions, calendars of events and activities, special offers, a thank you for coming message, etc. The integration of beacon technology with mobile devices is an emerging technology, typically used on a small scale (inside a hospital, for example, or indoors and outdoors within a campus).

Experiencing Nature

Trails can provide valuable opportunities for outdoor environmental education, providing a controlled natural experience for visitors to enjoy without disrupting the environment. Objectives in designing natural trails include:

- Education - in an interactive setting where visitors can see, feel, smell and hear living examples of the natural history of the region
- Interpretation - signs and labels help visitors learn about the natural features (Crooked Creek, wetlands, plants, animals) and natural processes (flooding, erosion, invasive species) surrounding them
- Conservation - the trail environment can raise awareness of environmental issues and demonstrate conservation techniques and solutions to local problems

Environmental education has been found to increase conservation awareness and affect change in personal attitudes from apathy to concern for environmental issues. It can capture a curiosity, develop an interest, and leave the visitor with an undeniable sense of place and a little bit more knowledge than he or she had before.

Through the use of interpretive signage and labels, the trail can present themes that enable visitors to understand more clearly the messages of natural history, habitat, natural processes and human effects on natural places and processes. People enjoy sequenced stories, not lectures, so the idea is to draw visitors from one area of the trail to another by beginning a story on one panel and concluding it on another panel farther down the trail. However, visitors don't have to learn everything there is to know about a subject at that very moment. The goal instead is to stimulate people and provide guidance for those who want to pursue the topic further.

The most obvious themes for environmental education along Crooked Creek Trail include the creek itself, flooding and the natural functions that floodplains provide, and the function and benefits of wetlands. Loops and spurs have been designed into the preferred trail alignment to give the trail user the opportunity to pass through and experience these varied environments. Interpretive themes that can be introduced to the trail user as they experience the trail include:



- Crooked Creek
- Riparian buffers
- Floodplains
- Wetlands
- Upland forest
- Forest edge
- Meadows
- Views
- Plants, shrubs and trees
- Birds and wildlife
- Seasonal variations

Figure 7.12 Interpretive Sign to Promote Cultural Resources

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IMPLEMENTATION

The implementation of the Crooked Creek Trail will likely be an incremental process requiring a strategic funding strategy and long-term collaborations with area property owners, Gwinnett County Departments of Transportation, Transit, and Community Service, and the neighboring City of Sandy Springs. The City of Peachtree Corners should be prepared to leverage a flexible land use approach, together with corridor development incentives, to more effectively encourage trail expansion opportunities at the city-level.

For example, as redevelopment of key properties along the Crooked Creek alignment occur, there may be opportunities for the City to require those projects to dedicate land or easements, or to potentially construct segments of the Crooked Creek Trail alignment or access points along their property. Those opportunities should be seized as they become available based on private sector development. For city-initiated projects, the City should focus on projects that are more easily implemented or that would advance construction of a demonstration segment. Such projects could be used to leverage pre-existing community interest in the environmental restoration of Crooked Creek and construction of new gathering and greenspaces along the Holcomb Bridge Road Corridor into support for investment in the greater city trail system.

Trail Phasing Plan

The alignments are founded upon an approach that balances technical analysis of existing conditions, opportunities, and constraints with feedback received and preferences expressed during the community outreach process. Where implementation of the preferred alignment may not be feasible given land ownership, environmental, or other challenges discovered in more detailed design phases, the strategy should revisit alternative alignment options suggested in this document. For the purposes of this study, the loops, spurs, and trailheads have been included in the alignments as they provide access, additional interest, and lengthen the trail. Table 8.1 and Figure 8.1 provide the preferred and alternative alignments, loops, spurs, and trailheads.

Implementation	Alignments, Loops, Spurs, and Trailheads	Description
Phase I	Northern Trail Alignment	Spalding Drive - Meadow Rue Drive - Peachtree Corners Circle
	Northern Trail Alignment - Alt	Spalding Drive - Meadow Rue Drive Alt - Peachtree Corners Circle (Alternative Alignment Only)
	T1	Trailhead close to Spalding Drive / Crooked Creek
	Spur 1	Connection to Spalding Drive at Street Level
	Loop 1, Spur 2	Wetland Loop with Connection to Veranda Estates Neighborhood
	Loop 2	Floodplain Loop
	Spur 3	Connections to (1) trailhead at Landmark Church and (2) Highland Corners and Silver Oaks Apartment Complexes
	T2	Trailhead at the Landmark Church Parking Lot
	Loop 3	Floodplain Loop
Phase II	Southern Trail Alignment	Peachtree Corners Circle - Jimmy Carter Boulevard - Holcomb Bridge Road (With a Crossing at the Signalized Intersection) - Peachtree Parkway
	Southern Trail Alignment Atl	Peachtree Corners Circle - Jimmy Carter Boulevard (With a Crossing Below-Grade in a Tunnel) - Peachtree Parkway (Alternative Alignment Only)
	Loop 4, Spur 4, T3, Spur 5	Boardwalk with Connection to (1) Apple Valley Condos and Potential Trailhead (T3) and (2) McEachern Way
	Loop 5, Spur 6	Wetland/Floodplain Loop with Connection to The Atlantic Apartment Complex
	Spur 7, T4	Connection to Trailhead (T4) at Mazzy's off of Jimmy Carter Boulevard from the Preferred Alignment
	Spur 7A, T4A	Connection to trailhead (T4A) at Mazzy's off of Jimmy Carter Boulevard (Alternative Alignment Only)
	Spur 8A	Connection to Georgia Piedmont Land Trust parcel and access to 7050 Jimmy Carter Boulevard (Alternative Alignment Only)
	Spur 9A, T5A	Connection to the Center at Peachtree Corners and Potential Trailhead T5A (Alternative Alignment Only)
	Loop 6A	Wetland Loop that Terminates at Peachtree Parkway (Alternate Alignment Only)

Table 8.1. Preferred and Alternate Alignments (North to South)

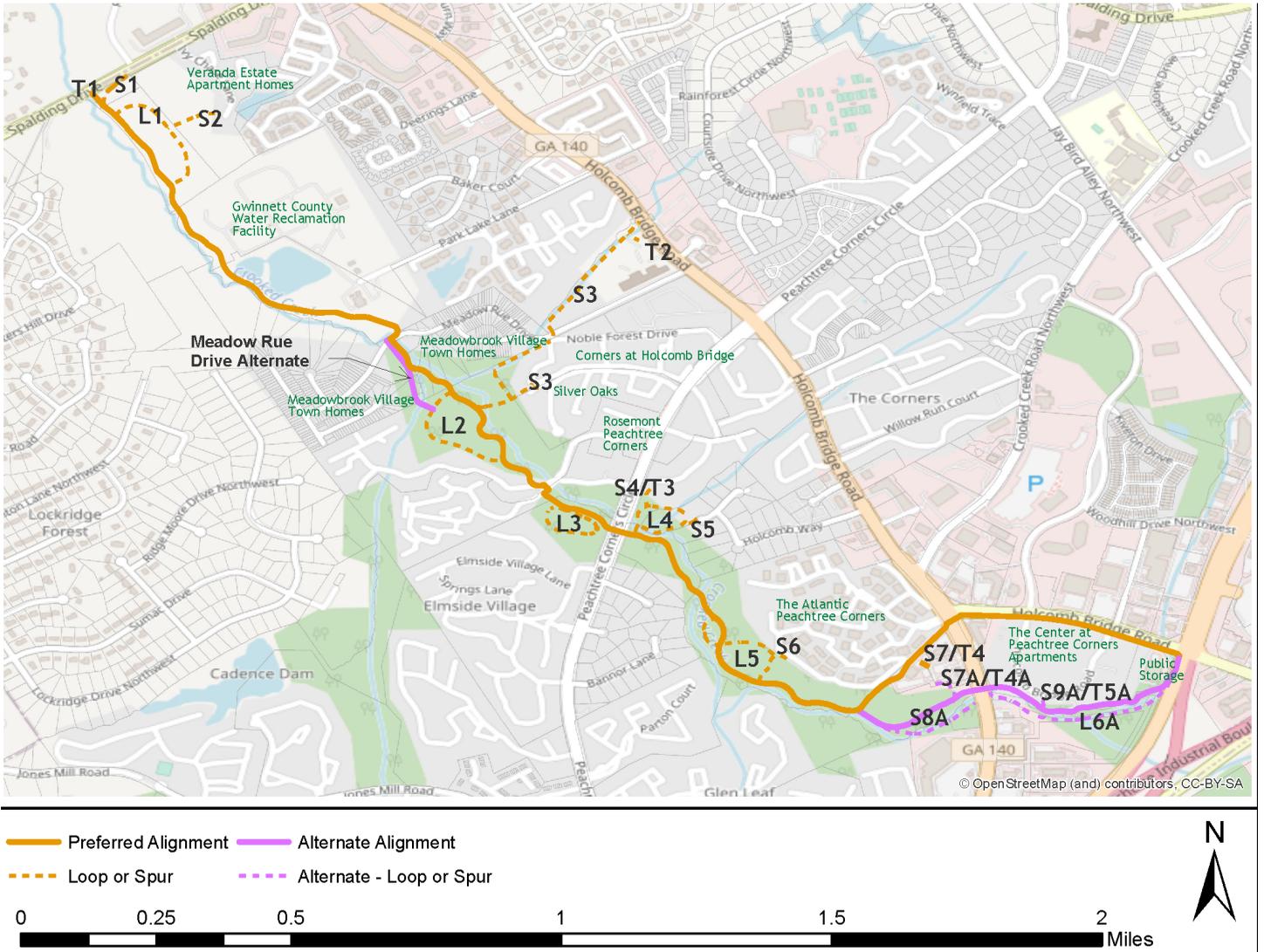


Figure 8.1. Preferred and Alternative Alignments

The northern section of the trail is recommended as Phase 1. As shown in Figure 8.2 and described in detail in the Trail Alignment Recommendations chapter, this section starts at Spalding Drive and ends at Peachtree Corners Circle (at-street grade). It contains T1, Spur 1, Loop 1, Spur 2, Loop 3, Spur 3, and T3 crosses Meadow Rue Drive and Peachtree Corners Circle at-grade. The northern section alternative alignment crosses Meadow Rue Drive at a different location and connects into Loop 2 just south of the Meadow Brook neighborhood.



Figure 8.2. Preferred and Alternate Alignment - Phase 1

The southern section of the trail is recommended as Phase 2. As shown in Figure 8.3 and described in detail in the Trail Alignment Recommendations chapter, this section commences at Peachtree Corners Circle and terminates at the Holcomb Bridge Road / Peachtree Parkway intersection.

The preferred alignment weaves it's way south from Peachtree Corners Circle adjacent to Crooked Creek with Loop, 4, Spur 4, Trailhead 3, Spur 5, Loop 5, and Spur 6. It continues to follow the Creek and contains Spur 7 and Trailhead 4 at Mazzy's. West of Jimmy Carter Boulevard, the multi-use trail heads north and crosses Holcomb Bridge Road at the signalized intersection, continuing along Holcomb Bridge Road until it's terminus at the intersection with Peachtree Parkway. At The Atlantic Peachtree Corners, the alternate alignment diverges on a southern route and crosses Jimmy Carter Boulevard below-grade. It winds through wetlands and floodplains south of The Center at Peachtree Corners until it meets with the Holcomb Bridge Road / Peachtree Parkway intersection. Spurs and loops included in the alternate are Loop 6A, Spur 7A, Trailhead 4A, Spur 8A, Spur 9A, and Trailhead 5A.

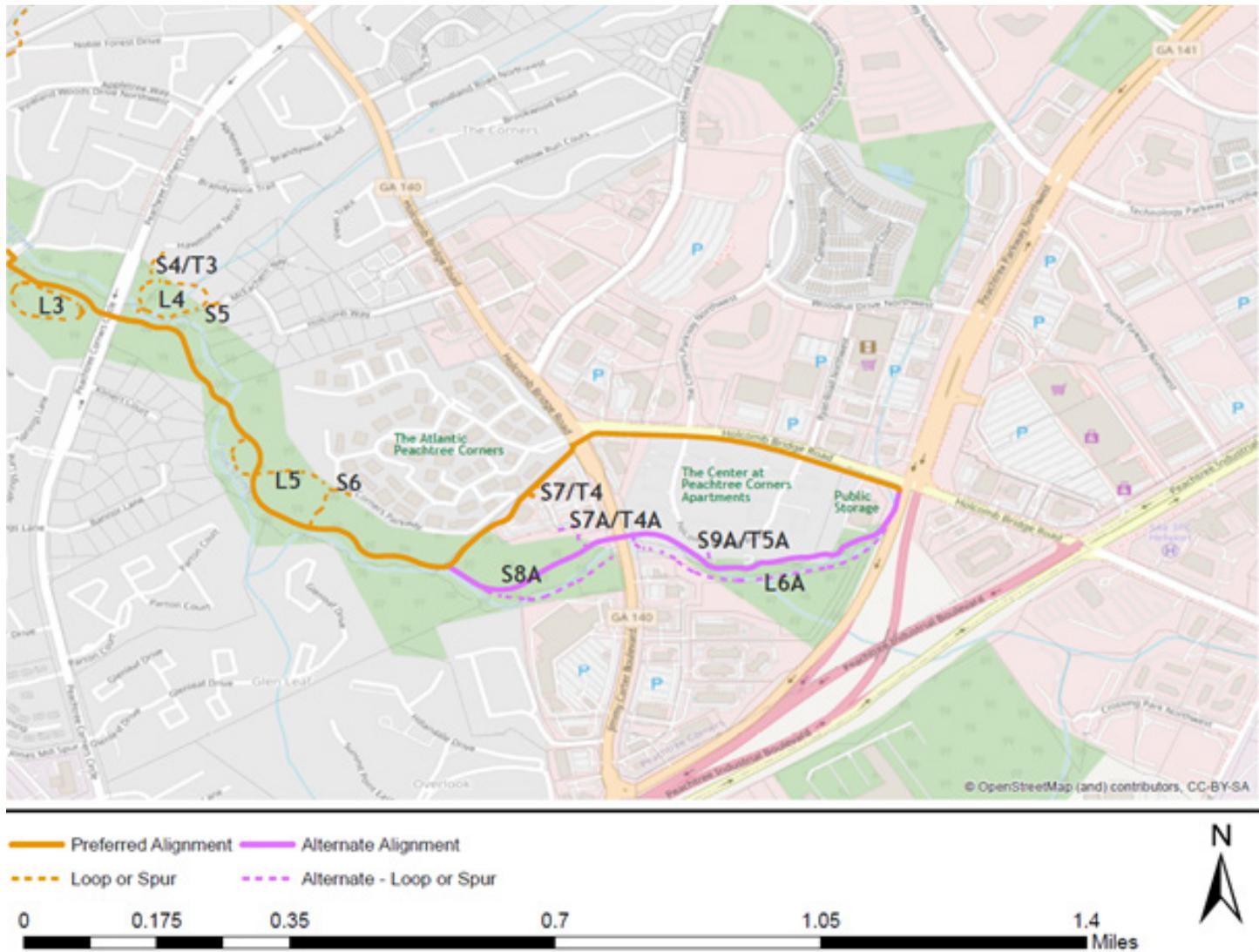


Figure 8.3. Preferred and Alternate Alignment – Phase 2

Four Alternative Alignments

Four alternative alignments were selected for further consideration based on configurations of the Northern and Southern preferred and alternate alignments as shown in Figure 8.4 – Figure 8.7. The four alternatives are the following:

- Northern preferred + Southern preferred – PREFERRED ALTERNATIVE
- Northern (with Meadow Rue Drive Alt) + Southern preferred
- Northern preferred + Southern Alt
- Northern (with Meadow Rue Drive Alt) + Southern Alt

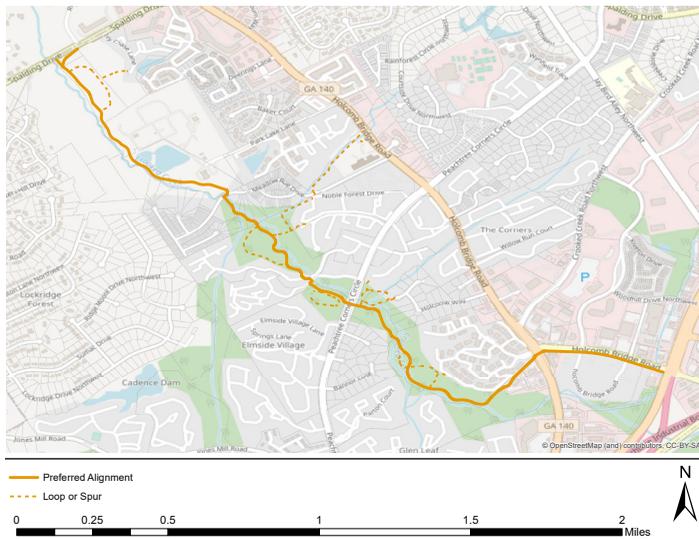


Figure 8.4 – Preferred Alignment

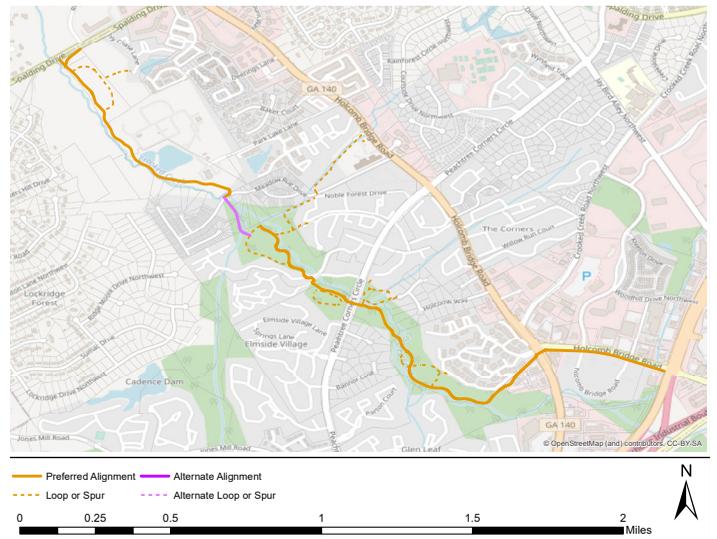


Figure 8.5 – Northern Alignment (with Meadow Rue Drive Alt) and Southern Preferred Alignment

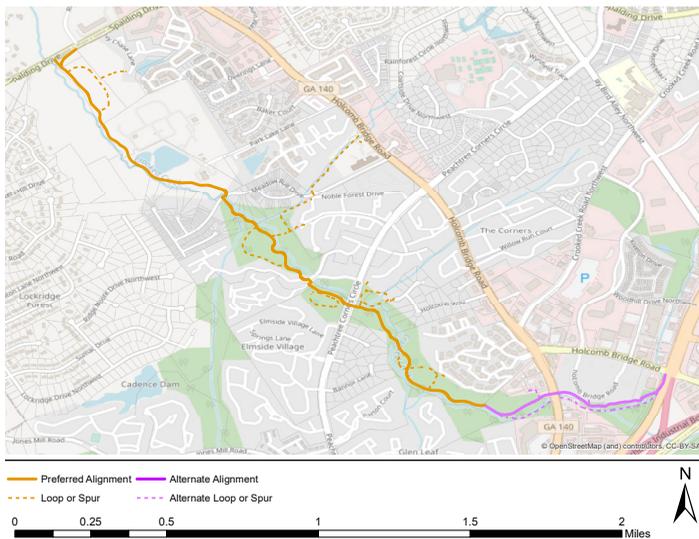


Figure 8.6 – Northern Preferred Alignment and Southern Alt Alignment

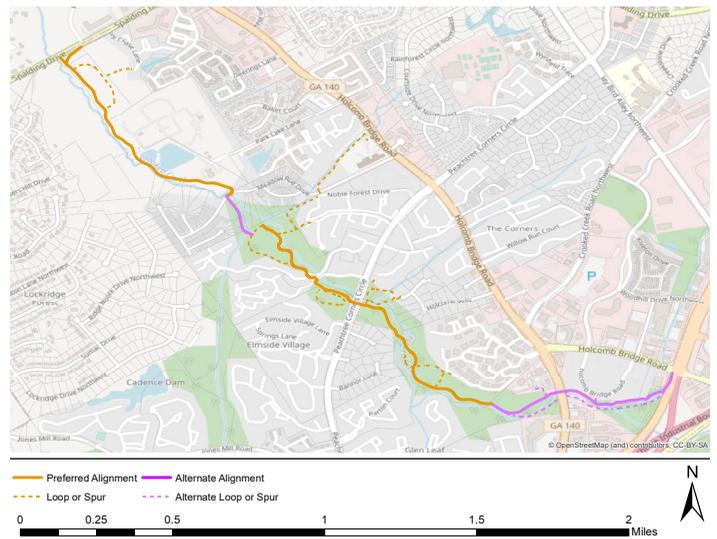


Figure 8.7 – Northern Alignment (with Meadow Rue Drive Alt) and Southern Alt Alignment

Construction Cost Estimates

Cost estimates were calculated to understand the Crooked Creek multi-use trail construction costs. The costing methodology and assumptions are listed below:

- Costs are calculated in 2020 dollars.
- On the main trail alignment sections, costs include a 10 foot concrete trail and a 10 foot concrete boardwalk with railings.
- On the loop and spur sections, costs include a 8 foot concrete trail and a 8 foot concrete boardwalk with railings. An 8 foot concrete section is in the ballpark of \$80 per linear foot. If a cheaper, natural material is used for loops and spurs (such as mulch), the overall cost will be much lower. Mulch has an estimated cost of \$6 per linear foot.
- The cost for an 8 foot wide concrete boardwalk with railings is estimated to be \$1,000 per linear foot which is a higher cost than a wooden boardwalk (\$600 per linear foot). However, the maintenance of a concrete boardwalk is less, and the durability is greater.
- Costs for loops and spurs are included in the alignment total costs.
- Roadway crossings for at-grade and below grade crossings have been included.
- Costs include roadway crossings, clearing and grubbing, fine grading, earthwork, seeding, matting, drainage, and erosion control. (As started above these costs are construction costs only. They do not include design engineering, permitting, ROW acquisition, or easements.)
- Costs for roadway crossings have been estimated for:
 - At-grade crossing at Peachtree Corners Circle (HAWK signal, larger pedestrian median, enhanced signage, etc.) = \$120,000
 - At-grade crossing at Meadow Rue Drive (Rapid flashing beacon, enhanced signage, marking, etc.) = \$30,000
 - Upgraded at-grade crossing at Holcomb Bridge Road (enhanced signage, ramp work, etc..) = \$20,000
- Costs for below-grade crossings at Peachtree Corners Circle and Jimmy Carter Boulevard are estimated to be \$1,400,000 and \$1,500,000 respectively.
- A contingency of 25% has been added to all costs.

Table 8.2 includes the cost estimates based on the above methodology for the four alternatives listed below. Appendix E contains the detailed cost estimate summary sheet.

Trail Alternative	Standard Typical Length (ft)	Concrete Boardwalk (with Railings) Length (ft)	Total Length (ft)	Number of Parcels	Estimated Cost
Northern Preferred + Southern Preferred	10,972	4,810	15,782	27	\$12,789,000
Northern with Meadow Rue Drive Alternate + Southern Preferred	11,043	8,010	19,053	26	\$12,809,000
Northern Preferred + Southern Alternate	11,802	6,750	18,372	29	\$17,698,000
Northern with Meadow Rue Drive Alternate + Southern Alternate	11,873	9,770	21,643	28	\$17,718,000

Table 8.2 – Construction Cost Estimates for the Four Alternatives

The number of parcels potentially impacted by the multi-use trail are shown above in Table 8.2 and illustrated below in Figure 8.8.

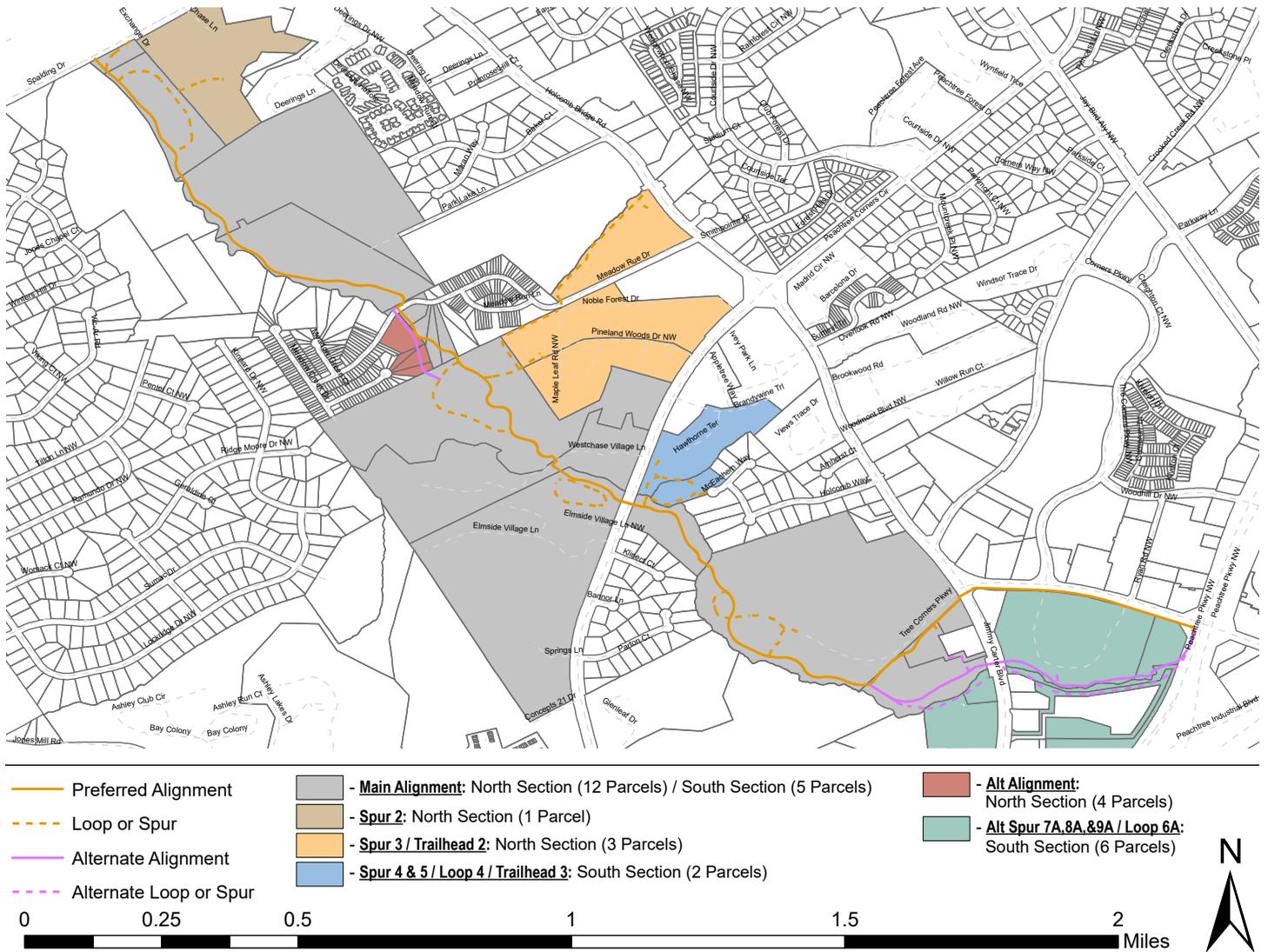


Figure 8.8 – Parcels Potentially Impacted by the Trail



Potential Funding Sources

Funding will be essential to successfully implement the Crooked Creek Trail and the recommendations of this Study. The projects will not be able to be funded solely through the City's general fund, so the City will have to be creative with identifying opportunities to stretch available budget through the use of grants and other funding sources. There are variety of funding sources available for greenway, open space, and trail projects from the federal, state, and regional levels. Below is a brief summary of potential sources; however, the list is not exhaustive.

Community Development Block Grant (CDBG)

This is a federal program generally available to metropolitan areas and urban counties (such as Gwinnett County) and used for a variety of planning purposes (individual cities are not eligible on their own). Communities in the Atlanta metropolitan area have applied these to transportation and planning programs in the past, including local matches for LCI studies and related projects.

Community Improvement District (CID)

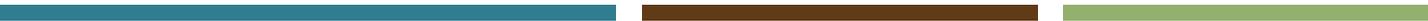
CIDs are self-taxing districts on commercial and industrial properties, and they have been broadly used in the Atlanta metropolitan area to catalyze and lead infrastructure enhancements, capital projects, and special programs to encourage investment and economic development. Many of the Atlanta region's CIDs have focused their capital programs on transportation projects, leveraging their funds as a source of local match funding and attracting state and federal funds that constitute the bulk of a project's resources.

Transportation Improvement Program (TIP)

Administered by the Atlanta Regional Commission (ARC), the Transportation Improvement Program allocates federal funds for use in the construction of priority items identified in the Regional Transportation Plan (RTP), the long-term transportation vision for the 20-county region represented by the ARC. Proposals generally fall into one or more of eight project types: Bicycle and Pedestrian; Trail; Roadway Asset Management and Resiliency; Roadway Expansion; Roadway Transportation Systems Management and Operations; Transit Expansion; Transit Asset Management and System Upgrades; and Miscellaneous Emissions Related Projects. Applications are evaluated against performance criteria intended to advance the vision and goals outlined by the Atlanta Region's Plan, the comprehensive plan for the 20-county region. Historically, the ARC issued separate project calls for each funding category. TIP replaced this process with a universal call for projects, allowing for the distribution of multiple funding categories at one time. Solicitation for applications generally opens in summer.

Livable Centers Initiative Program (LCI)

The Atlanta Regional Commission's LCI is a grant program that incentivizes local jurisdictions to re-envision their communities as vibrant, walkable spaces that support healthy lifestyles and provide multimodal access to activity centers. With help from many funding sources, including the Federal Transit Administration and Federal Highway Administration, ARC provides grants to local governments and non-profit organizations to link transportation improvements with land use development strategies outlined in the jurisdiction's completed and adopted LCI Study. LCI Grants are awarded through TIP and cover 80% of total study or project cost. Recipients are responsible for a 20% local match.



Transportation Alternatives Program (TAP)

This program supports construction of pedestrian and bicycle facilities, streetscape improvements, and Safe Routes to School (SRTS). Projects are limited to urban areas with populations between 5,001 and 200,000 persons and rural areas with populations below 5,000. In urban areas, the call for TAP projects is managed by the community's assigned Metropolitan Planning Organization (MPO). In rural areas, the call for projects is managed by GDOT. Eligible applicants include local governments, transit agencies, natural resources or public lands agencies, school districts, or other governmental entities with responsibility for oversight of transportation or recreational trails. Project sponsors must be Local Administered Project (LAP) certified by GDOT and match at least 20% of the total project cost. TAP funding for projects within the City of Peachtree Corners would be awarded through TIP.

Surface Transportation Block Grant (STBG)

The Surface Transportation Block Grant, commonly known as the Surface Transportation Program (STP) in other parts of the country, is among the most flexible of all the highway programs and provides the most financial support to local agencies. Projects eligible for STBG funding include highway and bridge construction and repair; transit capital projects; bicycle, pedestrian, and recreational trails; and tunnel projects on any public road. STBG funds are awarded through TIP.

Congestion Mitigation and Air Quality Program (CMAQ)

The Congestion and Air Quality Program is a federal funding program authorized as part of the FAST Act. It focuses on reducing congestion and improving air quality in areas that do not meet National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter. The Atlanta Region is classified by the Environmental Protection Agency (EPA) as in violation of the Clean Air Act standards for fine particulate matter and ozone. Projects that advance the goals of the program are eligible for federal funds. CMAQ funds are awarded through TIP.

Transportation Enhancement Program (TE)

The Transportation Enhancement (TE) Program is a federal reimbursement program managed by GDOT that provides funds for aesthetic and functional improvements to historical, natural, and scenic areas. The Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) requires TE projects to meet one or more of twelve categories set by the Federal Highway Administration (FHWA).

Examples of eligible projects include provision of facilities for pedestrians and bicycles; acquisition of scenic easements and scenic or historic sites; landscaping and other scenic beautification; and environmental mitigation to address water pollution. Additionally, projects must have a relationship with the surface transportation system and be available for public access and use.

TE funds may be used to cover 80% of total project cost, subject to a maximum award of \$1 million. A local match of at least 20% of the total project cost is required. However, because this a reimbursement program rather than a grant, the authorized sponsor must incur the expenses before federal funds are received. Bicycle and pedestrian facilities funded by this program cannot be used solely for recreation. They must primarily support commuter work trips, connectivity to downtowns or school districts, or other related uses.



Special Purpose Local Option Sales Tax (SPLOST)

Special Purpose Local Option Sales Taxes are a funding mechanism used in Georgia to allow counties and municipal governments to tax themselves for a specific purpose. SPLOSTs have been used across the Metro Atlanta region to fund capital improvements for transportation facilities, technology, public safety, education, and public services. Gwinnett County's current 6-year SPLOST was adopted by voters in a referendum held in November 2016. Expected to generate \$950 million during its lifetime, SPLOST funds are divided among the County and 16 cities. The City of Peachtree Corners received the largest percentage of funds (4%) among all municipalities. SPLOST funding will require renewal by voters in 2022. Successful implementation of touchstone projects like the Crooked Creek Trail can motivate the community to vote to renew SPLOST as an ongoing funding source.

Recreational Trails Program (RTP)

The Recreational Trail Program (RTP) is an assistance program of the U.S Department of Transportation's Federal Highway Administration (FHWA). The program provides funds from the Highway Trust Fund (motor fuel excise tax) to states to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trails. States are required to use 40% of their RTP funds for diverse recreational trail use, 30% for motorized recreation, and 30% for nonmotorized recreation. In Georgia, the 2019-2020 grant cycle had awarded an estimated \$3 million in available funds. Local project examples include the Carrollton Greenbelt-Southside Spur and the City of Smyrna Mountain Bike Park at North Cooper Lake Park – Phase 1.

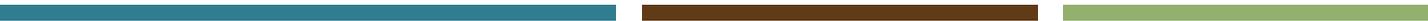
Projects must provide or maintain recreational trails or trail-related facilities identified in or that further a specific goal of the Statewide Comprehensive Outdoor Recreation Plan (SCORP). Eligible applicants include qualified local governments, authorized commissions, and state or federal agencies. The pre-application window typically opens in fall, with first-round notifications in spring, and final approval the following fall.

Conserve Georgia – Georgia Outdoor Stewardship Program (GOSP)

This grant program dedicates funding to support parks and trails that protect and acquire lands critical to wildlife, clean water, and outdoor recreation across the State of Georgia. It is funded through existing sales and use taxes on outdoor sporting goods. Applicants may apply for Conserve Georgia grants and loans through the GOSP. Eligible projects include local parks, trails, or conservation lands of regional significance. The application process involves a pre-application which serves as the basis for selecting which projects advance towards approval.

Nonpoint Source Management Program (Clean Water Act Section 319)

The Nonpoint Source Management Program Section 319 addresses the need for greater federal leadership to help focus state and local nonpoint source management efforts. Eligible applicants include city or county governments with Qualified Local Government status; regional and State agencies; authorities that operate public service or delivery programs, such as sewer or water; regional commissions; resource conservation councils; and others. Funding supports a variety of activities including technical assistance, financial assistance, education, training, demonstration projects, and monitoring to assess the success of specific nonpoint source implementation projects. The grant's cost share policy requires a maximum of 60% Federal funding and a minimum of 40% non-federal cash or in-kind matching contributions towards the total project cost. In FY 2018, the maximum award for any individual project was \$400,000.



Federal Brownfields Program

The Environmental Protection Agency's (EPA) Brownfields Program provides grants and technical assistance to eligible individual and coalitions of communities, states, and non-profit organizations to help assess, remediate, and reuse contaminated properties. A brownfield is a property, land and/or buildings, where expansion, redevelopment, or reuse may be complicated by known or potential contamination of petroleum or hazardous substances. The federal 2002 Small Business Liability Relief and Brownfields Revitalization Act and 2018 Brownfields Utilizations, Investment, and Local Development (BUILD) Act authorize and establish policies for EPA's Brownfields Program. Examples of projects in the region which have benefited from this grant include the Atlanta Beltline and PATH Foundation East Decatur Greenway.

Rivers, Trails, and Conservation Assistance Program (RCTA)

This program of the National Park Service provides access to staff support and technical assistance to develop trails and open space park plans.

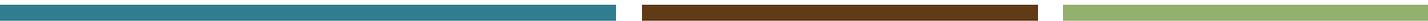
Impact Fees

Commonly regulated through local subdivision regulations, impact fees are imposed on new or proposed projects to pay for all or a portion of the costs of providing public facilities to a new development. These can be used by communities as a funding mechanism for project-specific improvements, as each developer is only required to pay its proportionate share of the improvements. A criticism of impact fees is that they could be an impediment to economic development, compounding the cost to do business in the community; however, careful consideration of the fee schedule can help mitigate those concerns. If the City Council enables impact fees, they could be leveraged upon projects within a specified distance of the proposed Crooked Creek Trail.

While impact fees provide an ongoing and reliable funding source for project implementation, they are regulated by the Georgia Development Impact Fee Act (DIFA). There is a highly prescriptive process outlined under the DIFA for local governments to be able to enact the legislation necessary to collect such fees. A minimum of 18 months should be anticipated to pursue this funding source.

Foundation and Company Grants

Some private foundations provide trail grants and technical assistance. In Georgia, the PATH Foundation offers several grant cycles during the year to help nonprofits and government agencies improve quality of life in their communities. They offer Program and Planning Grants, General Operation Grants, Make It Happen! Grants, and Technical Assistance Grants. Selected non-profit and government agencies must sign the PATH Foundation's Grant Agreement and coordinate any publicity efforts with PATH Foundation Communications staff. Requests are considered for projects which reflect the organization's four areas of focus: Access to Health; Childhood Wellness; Mental Health; and Senior Services.



Partnerships

Successful implementation of the Crooked Creek Trail network will also require support and active participation of residents as well as key stakeholders, local government partners, and the private sector.

Community at Large

Throughout the public engagement process, the Study Team developed surveys, interviews, and strategies for engaging with residents and key stakeholders. The Crooked Creek Trail Concept and Feasibility Study page hosted on the City of Peachtree Corners' website listed upcoming events, activities, and served as the primary platform for residents to directly reach out to the Team.

Continuing to use this platform to maintain a direct line of communication with the public and to provide up-to-date information regarding trail implementation efforts can help sustain the political momentum, transparency, and accountability necessary to make the Crooked Creek Trail a reality.

Another suggested method to build support for trail implementation is the creation of the Trail Advisory Committee (TAC). Members would be charged with promoting the benefits of investing in the environmental restoration of Crooked Creek and developing new greenspaces and trails along the Holcomb Bridge Corridor. Further, this team could function as an important sounding board for discussing opportunities, concerns, and recommendations for the development, improvement, and management of the greater trail network envisioned by the Comprehensive Plan.

Homeowner Owner Associations (HOAs) and Apartments

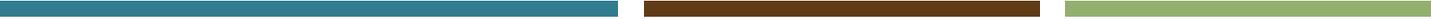
Several HOAs, condominium owner associations, and apartments have undeveloped land in the vicinity of Crooked Creek. In many cases, this land is limited in its development potential but would be ideal for a trail. Access to the trail may increase property values, improve recreation opportunities, and provide alternative mode of transportation across the study area. Additionally, trail access can be marketed by owners of rental properties to gain a competitive advantage in attracting tenants. The correlation between gentrification and sudden environmental investment near older and/or historically underserved neighborhoods is well known. It is strongly advised that Peachtree Corners integrate anti-displacement measures and principles of equitable development as part of the long-term strategy to construct the trail.

Churches

Multiple churches are in the vicinity of the Crooked Creek, including Landmark Church and Winters Chapel Baptist Church. This presents opportunities for the City to partner with organizations to provide land for the trail or negotiate easements. Trail construction would provide churches with improved connections to their surrounding neighborhoods, greater visibility to potential congregation members, potential increase in property value, and direct access to a recreational and transportation amenity.

Gwinnett County

Because parts of the Crooked Creek Trail will need to be on land belonging to the Gwinnett County Crooked Creek Water Reclamation Facility, it will be necessary to coordinate with Gwinnett County. The inclusion of any County facilities within the corridor, such as county maintained right of way and Gwinnett County Transit bus stops, will also require close coordination and present an opportunity for joint pursuit of funding.

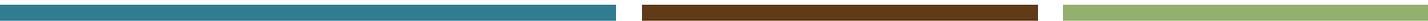


City of Sandy Springs and National Parks Service

Sandy Springs owns land adjacent to the Holcomb Bridge Unit of the Chattahoochee River National Recreation Area (CRNRA) owned and managed by the National Parks Service (NPS). The Holcomb Bridge Unit comprises approximately 33-acres of undisturbed forestland bordered by the Chattahoochee River to the north and Crooked Creek to the west. NPS recently granted Sandy Springs permission to construct a loop trail totaling 3,060 linear feet on their land. The hiking loop will connect to a one-mile access trail terminating at the Sandy Springs' new Crooked Creek Park to be constructed near the intersection of Spalding Drive and River Exchange Drive. Construction of the new park began in June 2020. The City of Peachtree Corners should approach Sandy Springs about a potential partnership to link both city trail systems. Prioritizing regional connections through these partnerships will make the City's grant funding pursuits more competitive and may help the cities leverage more funds with more significant impacts.

The Trust for Public Land

The Trust for Public Land helps communities raise funds for conservation; protect and restore natural spaces; and, plan, design, and create parks, playgrounds, gardens, and trails. They have played an important role in various projects across Metro Atlanta, including the purchase of several properties now home to the Historic Fourth Ward Park near the Beltline. Their Conservation Finance Program provides local governments and others with expert technical assistance in researching, evaluating, and securing funding for projects that further their mission.



Operations and Maintenance Planning

Operations and Maintenance Plans (O&M Plans) are written narratives which summarize policies, strategies, resources, and partnerships available for trail construction, use, and up-keep. It may incorporate maps, pictures or drawings to illustrate key concepts and locations. O&M Plans should be reviewed at least once a year and after major events to ensure all items are up-to-date and working. Effective O&M Plans commonly address the following topics: Rules and Regulations; Maintenance; Security; Programming and Events; Resource Stewardship and Enhancement; Marketing, Promotion and Fundraising; and Oversight and Coordination. This section explores some of those elements.

Rules and Regulations

Rules and regulations help deter unwanted activities which may degrade the trail or diminish public enjoyment of its use. Enforcement can be done through various methods. If the trail will be patrolled by bike-mounted police, compliance will likely be enforced through citations for activities such as littering, after hours use, or unauthorized vehicles. If using volunteer patrols, individuals cannot issue citations, but they can aid police by calling in criminal activity. It is strongly advised that volunteers receive regular training in public engagement, appropriate circumstances to call for assistance, first aid, and bike repair. Penalties for different violations may range from first time warning to loss of use privileges. The Crooked Creek Trail will, in effect, function as linear park. Therefore, it is generally advised that operational guidelines set for the park mirror those in effect for other park facilities across the City of Peachtree Corners.

Security Plan

Security plans help protect trail users from injury and offer a measure of protection from lawsuits for trail managers. Their objective is not to eliminate all user risk, but to reduce the likelihood of unforeseen hazards. Security techniques generally fall into one or more of the following categories:

- *Surveillance*: These strategies include designing the trail to reduce blind or hidden spots along the route. It can also include use of bike-mounted police, trained volunteers, and technology. Police and volunteers can actively monitor the trail for violations or users in need of assistance. These individuals should receive regular training on best practices in public engagement, de-escalation, first aid, and bike repair topics. Technology, such as security cameras, lighting, and emergency call boxes, also improves public safety by capturing record of trail activity, improving visibility of other users or obstacles along routes, and providing a method for summoning help when a phone is not readily available.
- *Controlled access*: This refers to the use of structures, barriers, landscaping, signage, and lighting to keep users within authorized areas. These features help clarify the boundary between public and private lands, helping to reduce accidental encroachments and potential conflicts with landowners. They also highlight the route to access points or desired destinations.
- *Territoriality*: Uncared for public areas may invite graffiti or other vandalism. Maintenance is essential to sustaining the perception that all trail sections are monitored and cared for by the City. The idea is to continuously demonstrate ownership of the trail through activities such as regular mowing, landscaping, replacement of broken furnishings, or repair of minor facilities.



Emergency Response Plan

Emergency response plans clearly indicate how to deal with urgent situations, such as severely injured visitors or missing children. Such plans generally include the following:

- Contact information for local police, hospitals, fire, and rescue agencies.
- Contact information for specialized services such as search and rescue groups, tow trucks, helicopter services.
- 24-hour contact information for trail managers or responsible trail organizations.
- Identification of all trail or path access points, along with descriptions of any limitations to its use (e.g. maximum vehicle size, difficult terrain, etc.) and who is responsible for keys to any locks at each access point.
- Inclement weather plan for closing sections of the trail that might be hazardous during floods or ice storms.
- Plans for evacuating users currently using the trails during an identified emergency.
- Names and contact information of the emergency team staff or volunteers who will be called into action to man hotlines, websites, or email addresses for requests for information; post closure signs at trail heads; and lock gates or block access points.

Maintenance Standards

Regular maintenance is one of the easiest ways to mitigate lawsuits, improve trail user experience, and gain community support for trail expansion or other infrastructure projects. Maintenance plans should include the following:

- Contact information for trail managers, organizations, and/or volunteers responsible for maintaining the trail or path.
- Written inspection and maintenance policies that include tasks, timeframes, and responsible parties.
- Inspection forms that document date, time, person/group, condition of trail, hazards, and other pertinent information.
- Trail maintenance schedule that identifies timeframes for regularly-scheduled maintenance activities such as pruning, trash pick-up, and pothole filling.
- List of constructed features, such as bridges, culverts, and fences that require regular inspection and care.



Mechanisms for Land Acquisition and Construction

Construction of the Crooked Trail system will require acquisition of right-of-way and/or easements to accommodate the proposed trail construction, width adjacent to the trail for maintenance, crossings, amenities, and/or necessary parking areas. Right-of-way or land acquisition may account for a substantial portion of project costs. If federal financial assistance will be needed to procure sufficient suitable land or easements, the complexity of the project may increase along with its proposed timeline. Projects funded locally typically progress much faster. To maximize implementation, the City can prioritize lower cost, visible, or high impact segments for local funding and reserve lower priorities or more costly segments for federal funding opportunities. The prioritized segments will help build momentum and demand for the trail and will support applications for federal funds by demonstrating the local commitment to the project.

There are many options for property acquisition – the most appropriate for Peachtree Corners will depend upon the surrounding land uses, zoning regulations, and other considerations. For example, if construction coincides with market forces supporting on-going real estate speculation and high redevelopment pressure, it may be possible to construct the trail by encouraging or requiring segments be installed as part of new developments or redevelopment projects through the legislative decision-making process or updated zoning and land development codes. If construction coincides with a cooler market, outright purchase of property or a portion of a property may be a better option. The following section briefly summarizes some acquisition strategies and purchase considerations to keep in mind.

Development Contributions

While the City currently requires on-street sidewalk and road improvements for new developments, this concept and feasibility study provides a framework that can be referenced in the City's regulatory documents to require on-site contributions in accordance with the conceptual trail alignment. The City should incorporate provisions into the zoning and land development ordinances that require new developments to dedicate the land or easements necessary for operations and maintenance, as well as construction of on-site portions of the trail.

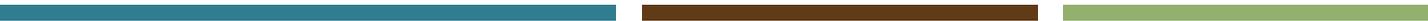
While this mechanism cannot be used in combination with impact fees, it allows for the incremental expansion of a trail network on a property-by-property basis that mitigates the costs of developing the full network. The City can fill gaps on sites that are unlikely to redevelop or as connections become necessary to complete major portions of the network. For a more aggressive strategy, the City could also consider incorporating thresholds that trigger development of the trail improvements on properties that exceed a certain value of improvements, even if they are not pursuing a full site redevelopment.

Overlay Zoning

The City should consider the development of a trail zoning overlay. Overlays are applied on top of existing zoning categories to add requirements to establish or maintain the distinct character of an area. In the case of trails, overlays may be applied along a planned trail corridor to require owners to address the trails with active development, provide direct access from the development to the trail, and provide amenities like parking and furniture. It can also be used to introduce trail design and wayfinding standards. Overlays provide a complementary strategy to the other zoning and land development options discussed herein, so they should be used in combination for the most holistic approach.

Conservation Zoning and Conservation Easements

Conservation Zoning focuses on protecting ecologically sensitive areas by limiting potential uses of the space to trails or other similarly compatible uses. By contrast, conservation easements protect natural resources from disturbance by new development. The latter are more frequently used to protect scenic views, waterways, or farmland. While



the City has a Conservation Subdivision Overlay District, it is limited to use in combination with just two residential zoning districts. The City should consider enabling these zoning tools for commercial properties to introduce another implementation mechanism.

Stream Buffers

The State of Georgia requires a 25-foot undisturbed buffer around streambeds and a 50-foot buffer around trout streams to protect these sensitive environments. The City of Peachtree Corners may require additional buffer extending beyond the state guideline in certain areas to prohibit land disturbance and the addition of impervious surfaces. These protected distances should be carefully reviewed at the next phase of this project.

Variations may need be required from the City of Peachtree Corners or the State of Georgia to install impervious materials or trail facilities within these areas. To reduce barriers for passive improvements on private property, the City should consider incorporating limited exceptions from stream buffer requirements. If some of the zoning recommendations are incorporated, these exemptions would offset some of the procedural barriers that would accompany the introduction of trail requirements on private property owners. The state has some exemptions that would be a logical starting point for consideration, but the City may need additional exemptions for trail-specific development in the City-administered portions of the buffer.

Property Acquisition

To gain control of the land required to install, maintain, and operate the Crooked Creek Greenway, the City has the option to seek easements, fee simple ownership, or a combination thereof. Each of those ownership terms can be secured either through the purchase of the land rights or in the form of a donation. When a final alignment is determined, the City can first seek donations of the land but will need to fund the appropriate appraisals and professionals to manage and execute the process. A transparent and sequential property acquisition process is especially critical. If it is possible the City will pursue federal funds at any point in the process.

Easements

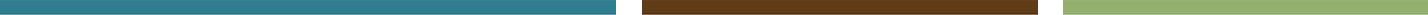
Easements allow property owners to grant another party consent to use the land for a specified purpose for a specified period of time, whether it be temporary or in perpetuity. Types of easements that may be necessary to accommodate the trail improvements include temporary construction, access, and maintenance easements. The City of Peachtree Corners will likely need to pursue funding easements

Fee Simple Purchase

Fee simple purchase is the outright purchase of land, including all rights associated with it. Unlike easements, this action allows local governments unencumbered control and access to the space. Likewise, with any easements, fee simple purchase requires a rigorous process to negotiate and fairly compensate the property owner or determine the value of a donation.

Land Trusts

Land trusts are organizations that work to preserve important land resources for public benefit. They work collaboratively with property owners to complete real estate transactions, including acceptance of easements, land donations, or fee simple purchases.



Conclusion

In order to successfully implement the preferred alignment illustrated in the Crooked Creek Trail Concept and Feasibility Study, the City of Peachtree Corners will need to bring together its stakeholders and community partners with effective leadership, internal team coordination, and regular communications with the public.

Elected officials will play a critical role in advancing the timely implementation of recommended alignments, whether spearheaded by the public or private sector. They may also be called upon to review and amend zoning and development regulations to better respond to trail corridor specific challenges. Establishing effective internal communication protocols among leadership and City staff across various departments (e.g., Planning and Development, Parks and Recreation, and Public Works) will also facilitate success as many tasks will require heavy use of staff time, rather than use of funds.

Furthermore, the City of Peachtree Corners should continue to cultivate public support for trail implementation projects. Building community ownership is critical for transforming infrastructure into spaces that support sense of place. Providing regular updates on completed tasks and challenges that have been overcome can go a long way to strengthening public ties. Communications methods may include GIS enabled platforms and the City's website, as well as app, social media accounts, and one-on-one digital or in-person outreach events with constituents and project advocates.

In conclusion, the Crooked Creek multi-use trail provides an important link between Spalding Drive, Peachtree Corners Circle and the Holcomb Bridge Road / Peachtree Parkway intersection. It reinforces adopted planning objectives, provides continuity with existing multi-use trail and sidewalk infrastructure, and connects with other roadway improvement projects in the area. Most importantly, it will open up the Crooked Creek area to numerous Peachtree Corners residents in nearby neighborhoods and multifamily complexes for transportation and recreation purposes for decades to come.