



DOWNTOWN OPEN SPACE PLAN

DURHAM, NORTH CAROLINA

DURHAM CITY-COUNTY
PLANNING DEPARTMENT
ADOPTED OCTOBER 20, 2014



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INTRODUCTION

If architecture can make a city grand, then open spaces make it livable. In a city's downtown, open spaces, such as parks, plazas, squares, and even sidewalks, can function as outdoor offices or impromptu playgrounds, creating unique microclimates. Because downtowns are typically the most intensely built part of a city, they should offer open spaces to provide relief from the built environment, opportunities for play, and venues for public gatherings.

Because of its industrial legacy as a railroad and tobacco town, Durham's Downtown did not develop around a planned network of open spaces. Furthermore, the Downtown lacks a central natural feature, such as a riverfront, around which to organize community trails and parks. Despite these challenges, Durham is experiencing a resurgence of activity in its Downtown, and the public is voicing a strong desire to create and preserve open spaces in the heart of the City.

This open space plan builds on the Downtown Durham Master Plan, which seeks to create a dense, mixed-use district that is the center of Durham in all respects, including its businesses, housing, retail, tourism, and government. Crucial to that vision is an interconnected network of high-quality open spaces that support sustainability, economic competitiveness, and livability. In a city's downtown, every open space should provide environmental, meeting, or recreational opportunities.

The Downtown Open Space Plan is one of the guiding documents to help Durham navigate its next 30 years of development as a great city. The Plan presents a starting point from which to begin to envision how to create an active, vibrant and, sustainable downtown. The plan advocates for more open space and recognizes the interrelationship between successful open space and buildings. It provides a framework for taking advantage of new building development, transportation improvements, and open space opportunities. The Plan examines and recommends improvements for many aspects of the urban environment in order to enhance the quality of downtown civic life.

A. Goals and Objectives

The purpose of this Plan is to assess the current inventory of open spaces in Downtown, identify locations for new public open space, recommend improvements for existing spaces and for the network of connections between them, and propose policy and ordinance changes to secure a mix of public and private open spaces as development occurs in the future. With this in mind, the Durham City-County Planning Department engaged community stakeholders in a process to identify a vision for Downtown's open spaces. That process, detailed in Chapter 2, resulted in the establishment of the following goal:

To create an interconnected network of high-quality open spaces that promotes sustainability, placemaking, and livability, featuring:

- ▷ A variety of open spaces promoting natural and civic engagement;
- ▷ Diverse and dynamic opportunities for outdoor social, civic, and recreational activities;
- ▷ Linked corridors and streetscapes that connect urban neighborhoods to Downtown; and
- ▷ Landscape design that promotes safety, serves environmental functions, and complements the urban fabric.

"In this vision, Downtown Durham is a quality of life asset for the entire community, bringing unique social spaces, recreation, excitement, history, social opportunities, and cultural resources to all Durham residents."

*Downtown Durham
Master Plan, page 55*

"Recreation opportunities are an important amenity, particularly for residents, who look for open space, recreation trails, and other amenities to complement their choice for a high-density lifestyle.... Downtown planners therefore need to seek out new opportunities for open/green space to replace that which may be lost, as well as to complement the overall aesthetic and appeal of Downtown."

*Downtown Durham
Master Plan Update,
page 32*

B. Support for this Plan

This Plan is intended to work in tandem with several planning efforts and initiatives to improve and revitalize Downtown:

1. Downtown Planning

Downtown Durham Master Plan, 2000. After decades of the City's slow decline, the City Council adopted the Downtown Durham Master Plan in 2000. The Plan addressed specific development-related issues, such as infrastructure, but also more broadly set the goal of making Downtown a desirable place to live, work, and play. Since then, a boom in both civic investment and private development has reshaped and invigorated Downtown and its street life.

Downtown Master Plan Update, 2007. With change came renewed energy to promote continued development, particularly to attract residents to the Downtown core. In 2007 an updated Downtown Durham Master Plan called for "a strategy of intentional open space, redeveloping key properties where informal open space exists, while organizing new open space throughout Downtown, in a manner that complements pedestrian movement and provides an amenity to downtown workers, residents, and businesses."

Downtown Zoning Update. In a move toward implementation of the Downtown Durham Master Plan, the City and County adopted the Downtown Zoning Update in 2009. The Downtown Zoning Update established the current boundary for the Downtown Tier (Figure 1) and amended the Unified Development Ordinance to create a form-based Design District specific to Downtown. This regulatory framework focuses on urban design principles that enhance the private and public realms rather than on land use and development intensity.

2. Durham Open Space and Trails Commission Resolution

Although the development of open space remained outside the scope of the Downtown Master Plan and Zoning Update, stakeholders recognized it as a key component for creating a vibrant Downtown in which people live, work, and play. One such stakeholder group, the Durham Open Space and Trails Commission (DOST), championed the idea of an urban open space planning effort in a 2006 resolution that stated:

A comprehensive urban open space plan for the City is needed to provide proper guidance for further decision making processes, which may include possible acquisition/preservation or development of those areas deemed important to Durham's quality of life and our environment.

3. City of Durham Strategic Plan

The City of Durham's Strategic Plan, updated in 2013, is used by all areas of City government as a guide for directing work programs and fiscal expenditures. Goal 3 of the City's Strategic Plan is to promote "thriving and livable neighborhoods" by strengthening the foundation, enhancing the value, and improving the quality and sustainability of neighborhoods. The Downtown Open Space Plan advances these efforts by identifying new locations for public open space, recommending improvement of existing spaces, and proposing policy and ordinance changes to secure a mix of public and private open spaces as part of future development.

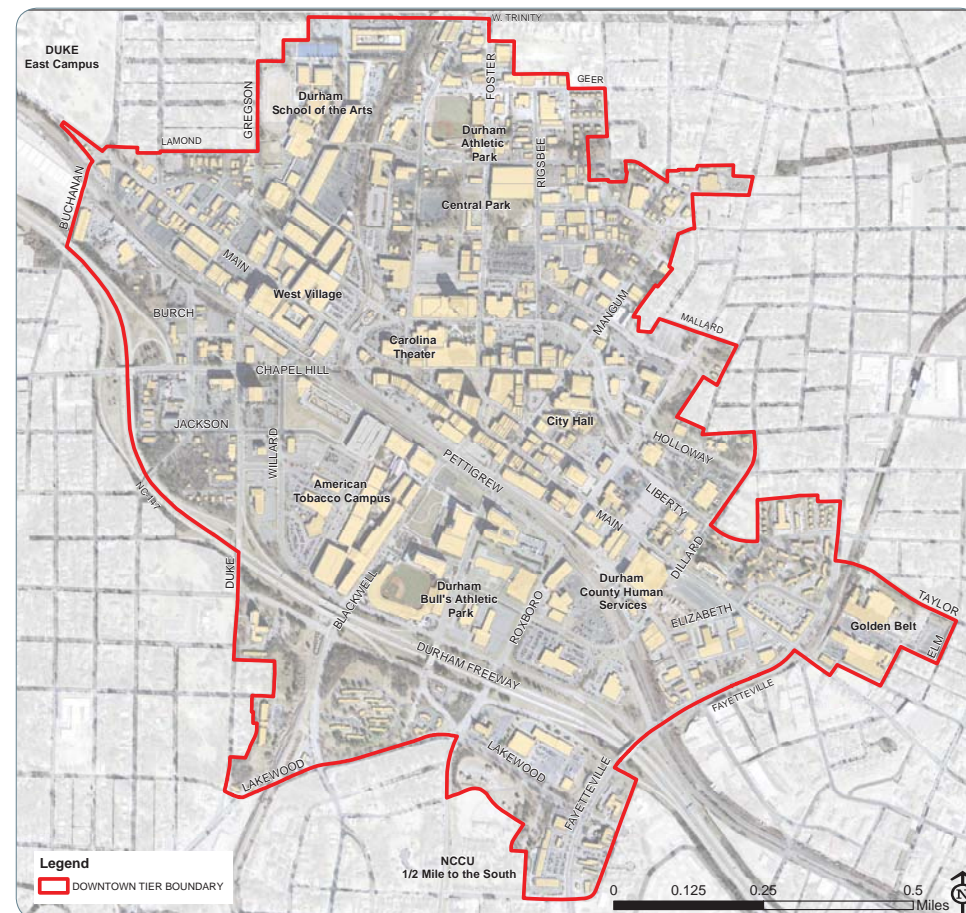


Figure 1. Downtown Tier Planning Boundaries. These boundaries were established through the 2009 Downtown Zoning Update, with subsequent minor adjustments.



CHAPTER TWO

PLANNING PROCESS

The Downtown Open Space planning process occurred over a two-year period, beginning in early 2011. During the planning process, planning staff collected data, conducted field work, researched best practices, and held numerous meetings with stakeholders. This chapter details the various methods and results of community outreach. It also provides a framework for the inventory and assessment of open spaces, and analyzes issues and opportunities that will be addressed through the Plan's recommendations.

A. Community Engagement

Extensive community engagement informed the direction of the Plan and the goals for Downtown open space. Methods of engagement included surveys, charrettes, informational meetings, presentations to citizen advisory boards, videos and presentations posted online, and a planned booth at the Durham Farmer's Market. The following is a summary of this effort.

1. March 2011 Workshop Summary

Participants in the first public workshop explored the nature of open space by focusing on the qualities and characteristics that help create successful outdoor spaces in a downtown setting. Feedback from group discussion questions and survey responses yielded information instrumental in setting the goals and direction for this Plan. Key points garnered from this workshop include:

- ▷ Downtown open spaces should be multifunctional and accommodate a wide variety of activities;
- ▷ Downtown open spaces should allow for day and nighttime use, both during the week and on weekends;
- ▷ Both passive and active recreational opportunities should exist throughout Downtown, although each open space need not provide both functions;
- ▷ Downtown open spaces would benefit from being part of a connected, walkable network that encourages pedestrian activity;
- ▷ Successful open spaces should be publicly accessible to all, although the ownership and management of these spaces may be private; and
- ▷ Privately owned open space, although limited in access, is still an important element of Downtown that provides visual relief for all and physical benefits to a select group.



2. June 2011 Workshop Summary

At the second public workshop, stakeholders developed guiding principles for the location of open spaces, and worked in groups to map conceptual plans for new parks, plazas, and pedestrian corridors. Ideas showcased by each group are highlighted below. Figure 2 shows an overlay of several groups' conceptual plans. Some patterns and important corridors emerged and helped to form the basis for the proposed Downtown Open Space Master Plan.

Summary of Participants' Ideas

Creating connections:

- ▷ Create connections between open spaces through greener streets;
- ▷ Create a linear open space system;
- ▷ Create connections to transportation systems;
- ▷ Create pedestrian-friendly walking zones, and connect them;
- ▷ Improve the streets with trees, paving, and street furniture, and make them more pleasant to walk;
- ▷ Create open space gateways to Brightleaf Square, Durham Performing Arts Center, and Downtown; and
- ▷ Connect to the Ellerbe Creek Trail.

Create and improve spaces:

- ▷ Establish or create multipurposed spaces;
- ▷ Make an American Tobacco Trail gateway, and improve the trailhead;
- ▷ Emphasize greenway connections;
- ▷ Include greenspace in large developments;
- ▷ Maintain visual connection to other open spaces, and distribute open spaces throughout the City;
- ▷ Improve the public space at City Hall;
- ▷ Place near cultural areas, recreation, and food; and
- ▷ Create places that showcase interesting views into town.

3. September 2011 Workshop Summary

The third public meeting explored the design potential of specific sites. Prior to the workshop, volunteers visited open spaces and took note of uses, activities, amenities, and other design features. At the workshop, groups were given sites to conceptually design. Common features incorporated into the proposals included public art, water elements, and stormwater ponds. Some groups included adjacent building footprints to help define the scale and sense of enclosure of the space. This activity provided a wealth of information to guide the conceptual site designs recommended in this Plan.

4. May 2013 Workshop Summary

Draft conceptual designs and policy and implementation recommendations were presented at an open house, which members of the public attended. Staff collected comments and engaged in one-on-one conversations to receive feedback.

5. Citizen Advisory Boards

Throughout the planning process, Staff briefed the Durham Open Space and Trails Commission (DOST) of progress made at key milestones; the recommendations have incorporated this feedback where appropriate. In addition to DOST, Plan recommendations were discussed with the chairs of the Historic Preservation Commission, the Environmental Affairs Board, the Planning Commission, the Public Art Committee, and the Durham City-County Appearance Commission, prior to receiving the Durham City Council's consideration.

6. City and County Departments

City departments, including General Services, Transportation, Parks and Recreation, Public Works, and the Office of Economic and Workforce Development, were consulted during the plan-making process. In addition, each of these departments had the opportunity to review and comment on the draft.

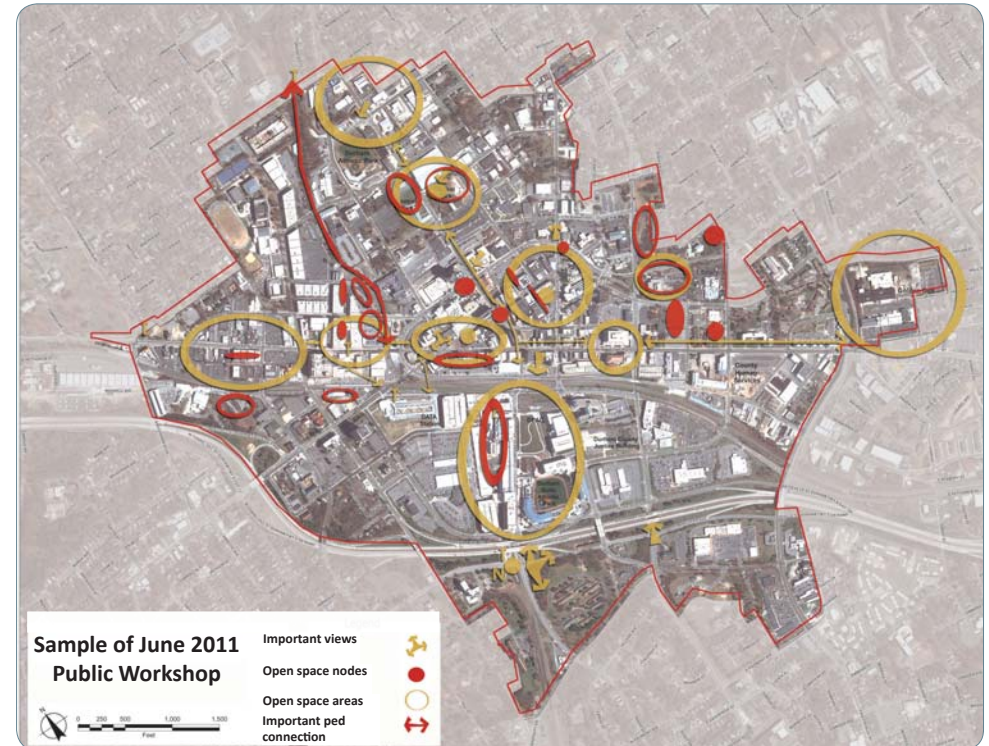


Figure 2. Public Workshop Results. A sample of overlapping the results from two groups compiled at the second public workshop.

7. Universities

The local universities are major population and employment centers, and often have their own master plans that address open space. Staff presented recommendations related to this Plan to North Carolina Central University and Duke University architects as well as to landscape architects, to ensure compatibility and coordination.

B. Inventory and Analysis

Downtown Durham is home to an assortment of existing open spaces, ranging from large plazas to impromptu pocket parks created by building demolitions. Because there is no singular way to characterize open spaces, this inventory and analysis focuses on three main attributes: public access, character, and function.

1. Open Space Access

a. Open Space Access Inventory

The map of existing open spaces (on page 6) reveals a range of open spaces in Downtown that can be divided into categories of ownership and access.

Public Open Space: This is open space that is publicly owned or dedicated and accessible to the general public. Examples include Durham Central Park, CCB Plaza, Convention Center Plaza, Rotary Park, Durham Centre Plaza, and Oakwood Park. In some places, open space is accessible to the public but primarily associated with a civic building. For example, areas in front of the Durham County jail may provide an important waiting space but might not be useful for other functions.

Semipublic Open Space: This is open space that is privately owned and managed but open and accessible to the general public at the property owner's discretion. Semipublic open space can be found in the American Tobacco Campus and at Brightleaf Square, Diamond View, and the Durham Performing Arts Center.

Private Open Space: This is open space that is privately owned and managed, with access limited to a select user group. The gated courtyards of West Village are an example, as are green roofs or private plots in an urban garden. While an important aspect of Downtown, private open spaces are not a central focus of this Plan.

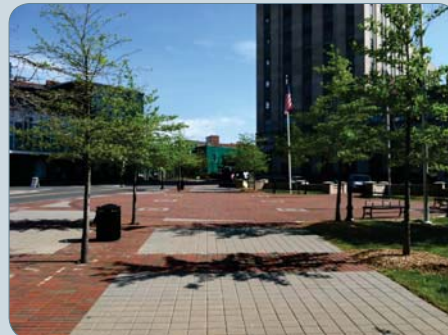
Public Open Space Examples



1. Durham Central Park



2. Civic Center Plaza



3. CCB Plaza

Semipublic Open Space Examples



1. Brightleaf Square



2. Diamond View Plaza



3. American Tobacco Campus

Private Open Space Examples



1. Courtyard in West Village



2. Trinity Methodist Church Courtyard



3. Courtyard on Morgan Street

b. Open Space Access Analysis

Figure 3 highlights the following:

- ▷ Downtown has a few traditional public parks that are programmed and maintained by the Parks and Recreation Department. These public open spaces and greenways include Oakwood Park, Central Park/Farmers' Market, and the American Tobacco Trail. Most of these spaces are located within the Downtown Loop, including CCB Plaza, Rotary Park, Five Points, and 102 West Main Street.
- ▷ Many public open spaces were formed when a building was demolished or a roadway realigned. For example, CCB plaza was the former site of the Washington Duke Hotel, and Rotary Park was created when the Downtown Loop was built. As a result, open spaces are not evenly distributed or connected throughout Downtown.
- ▷ The responsibility of maintaining open spaces at public buildings is divided across agencies. Such spaces include Civic Center Plaza, the Durham County Library, the Durham Arts Council, the Durham County Justice Center, the Durham Police Headquarters, Durham Station, and the Durham Performing Arts Center.
- ▷ Some of the most frequently used spaces are privately owned yet accessible to the public; these are termed semipublic open spaces. Such spaces include the American Tobacco Campus, Diamond View, and Brightleaf Square. Semipublic open spaces, although somewhat limited in access, are still an important element of Downtown, providing visual relief for all, and physical benefits to a select group.

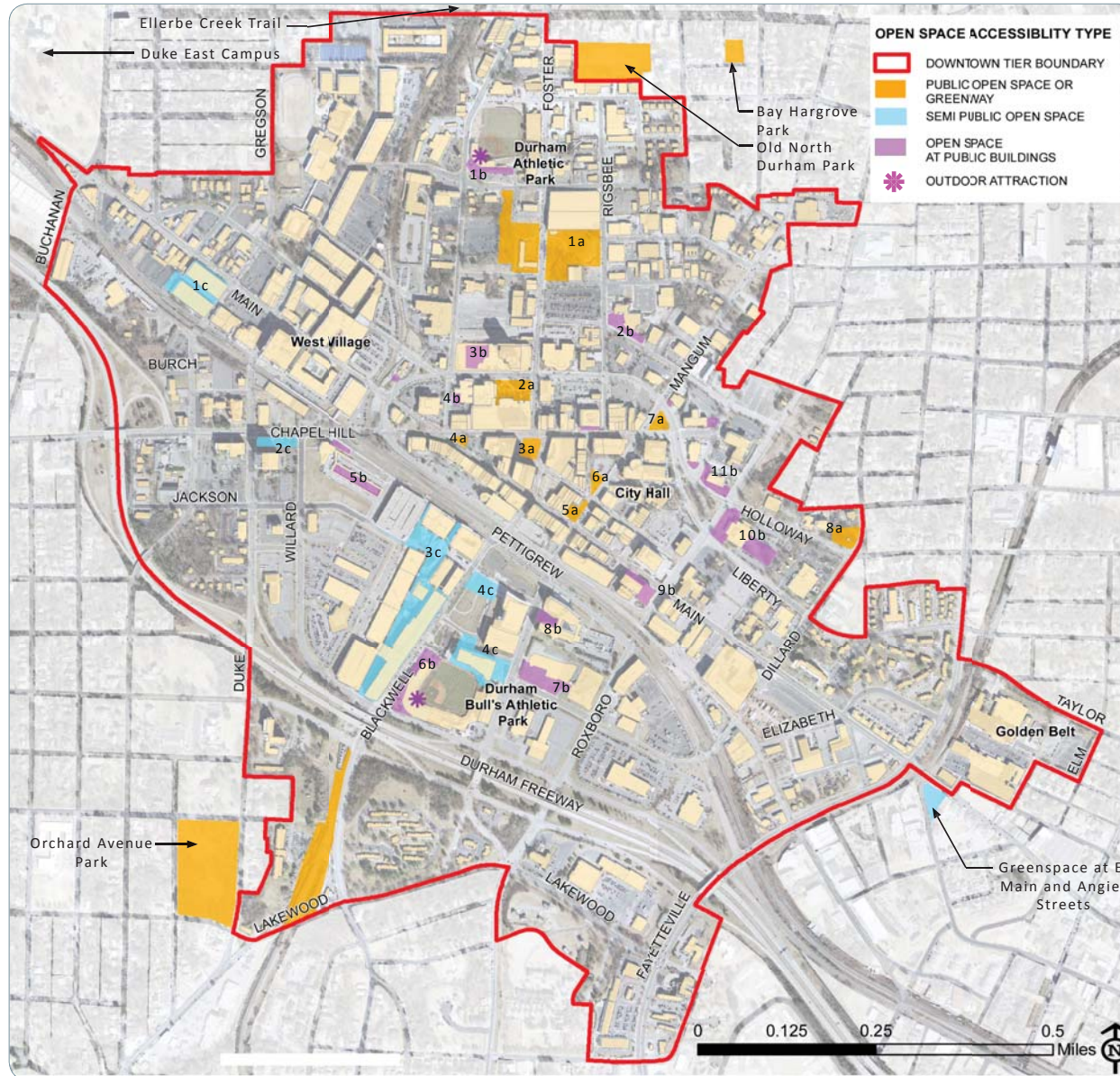


Figure 3. Accessibility of Open Spaces. This map shows where the public has access to open space in Downtown.

Open Spaces

Public Open Space

- 1a. Central Park
- 2a. Civic Center Plaza
- 3a. CBC Plaza
- 4a. Main and West Chapel Hill Street Plaza
- 5a. 102 Main Street
- 6a. 201 North Mangum Street
- 7a. Rotary Park
- 8a. Oakwood Park
- 9a. American Tobacco Trail

Open Space at Public Buildings

- 1b. Durham Athletic Park
- 2b. Durham Center for Senior Life
- 3b. Durham Centre
- 4b. Durham Arts Council
- 5b. Durham Station
- 6b. Durham Bulls' Athletic Park
- 7b. Durham Justice Center
- 8b. Durham County Jail
- 9b. Durham County Human Services
- 10b. Downtown Library
- 11b. Durham Parks and Recreation

Semipublic Open Space

- 1c. Brightleaf Square
- 2c. NC Mutual Life
- 3c. American Tobacco Campus
- 4c. Diamond View

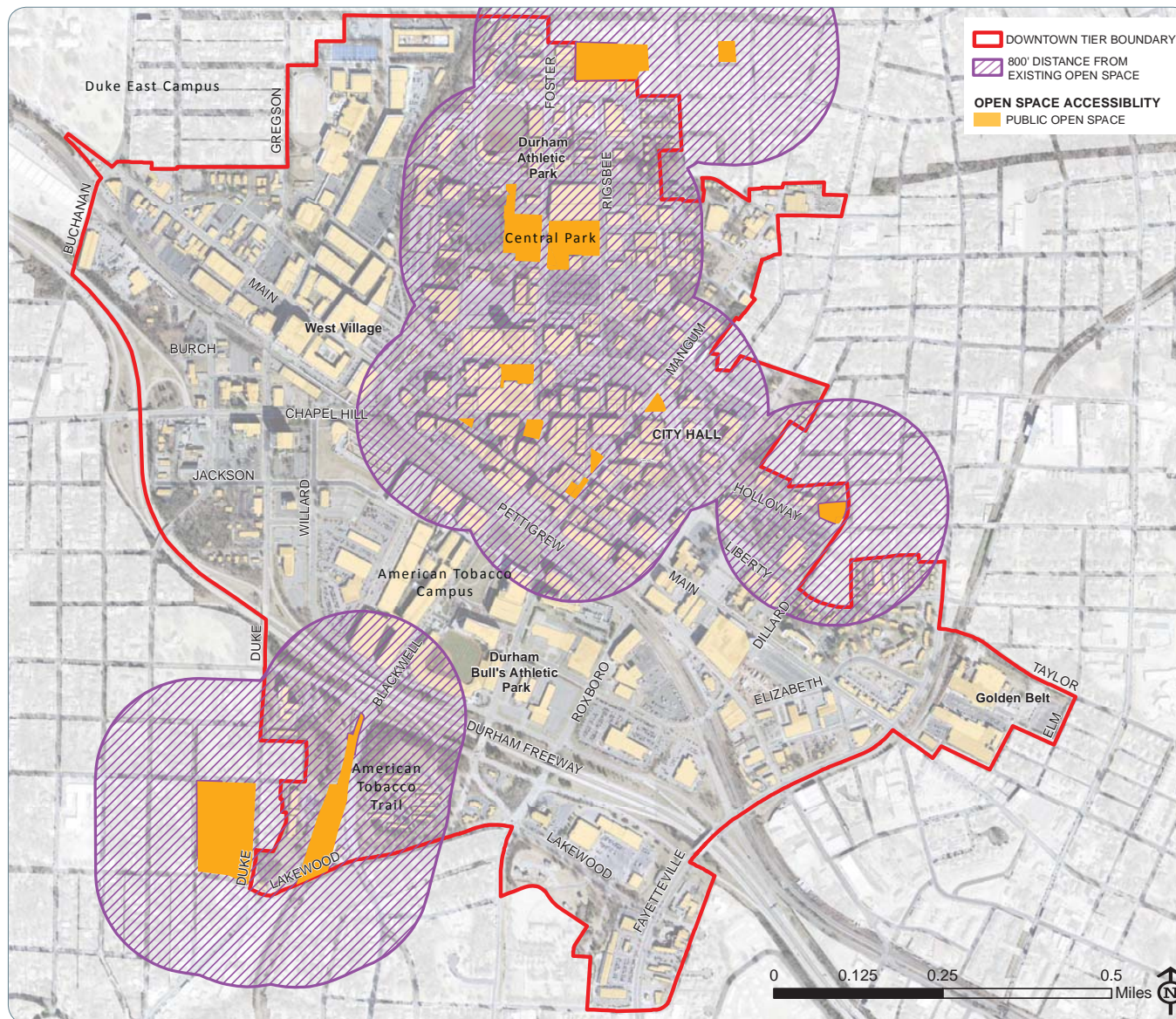


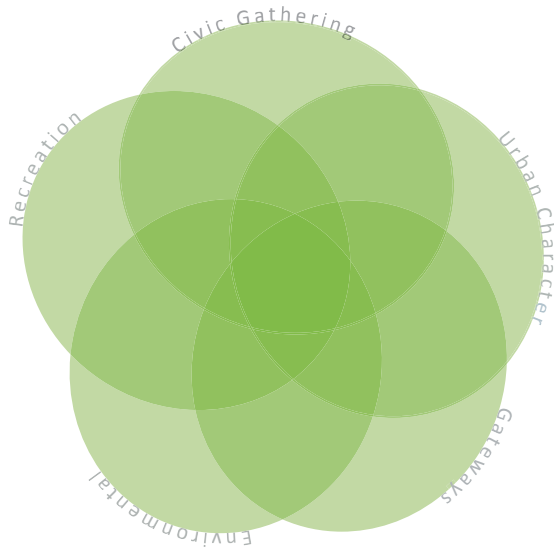
Figure 4. Distance to Open Space. This map shows locations in Downtown within 800 feet of an existing, publicly accessible open space.

Open spaces should be distributed throughout the downtown. A public open space can serve as a landmark and help to provide visual relief and a sense of identity for a downtown district. Areas shown hatched in orange fall within 800 feet of a publicly accessible open space. This 800 foot radius would cover several blocks and represent a reasonable walking area within a downtown district. From this map, we can begin to draw conclusions about distribution of public open space in the Downtown and where it might be lacking. Figure 4 highlights the following:

- ▷ A cluster of public open spaces lies within the Downtown core but few outside the core, especially in the western and southern ends of Downtown.
- ▷ Areas on the northern side of Downtown largely fall within 800 feet of Durham Central Park.
- ▷ Eastern portions of Downtown are primarily residential and institutional. This area contains open spaces associated with residential development that are not open to the public at large.
- ▷ Western portions of Downtown include very few public open spaces, although many private developments have incorporated them. Nearby Duke University's East Campus is an example of a semipublic open space that is heavily used and which is adjacent to downtown.
- ▷ Areas south of the Downtown core are characterized by large auto dealerships and commercial spaces lacking in public open space, apart from the American Tobacco Trail. The American Tobacco Campus provides a semipublic open space.
- ▷ Some open spaces outside of the Downtown core tend to be privately owned and may include back yards and athletic fields that are inaccessible to the general public.

2. Five Functions of Open Space

Open spaces often serve varying and overlapping functions. The National Mall in Washington DC, for example, is known as one of the largest civic gathering areas in the country, but it also acts as a space for recreational sports, serves the environmental function of absorbing rainwater, and enhances the visual impact of the surrounding buildings. Recognizing how open spaces are used, along with primary function, can help to establish the strengths and weaknesses of the open space network. This assessment focuses on five primary functions of open space: civic gathering, transportation, urban form, environmental impact mitigation, and recreation.



a. Civic Gathering

As the focal point of a community, a downtown should provide opportunities for large, small, organized or impromptu gatherings. Spaces for any event, whether a large festival or a small picnic, are important to serving downtown residents, workers, visitors, and the community as a whole.

1. Inventory

Spaces Accommodating Large or Formal Events



Farmers Market and Central Park

Capable of hosting large events, like food truck rodeos, festivals, and, of course, the Farmers' Market; however, this space could be utilized for more activities than it currently handles.



CCB Plaza

Home of Major, the Bull, this space is designed as a central location for civic events such as the "Find Your Cool" summer concert series. Stakeholders note design concerns and a lack of engaging land uses as contributing to the underutilization of this plaza.

Spaces Accommodating Large and Small, Formal and Informal Events



American Tobacco Campus

At the center of offices, condos, and entertainment, the courtyard of the American Tobacco Campus is most frequently used for outdoor dining, strolling, work space, and a variety of small gatherings, but it easily adapts to host large events such as outdoor concerts and movies.



Convention Center Plaza

Adjacent to the Carolina Theater and the Durham Convention Center, this space is often used for formal events, but people are also attracted to its shade and water features.

Spaces Accommodating Small/Informal Events



Five Points

Picnic tables, benches, and shade attract small groups to hang out at this corner. Outdoor dining and pedestrian traffic add interest and a sense of safety.



Durham County Justice Center Streetscape

The widened sidewalks and streetscaping provide space for hot dog vendors. People hang out in the plaza to eat, converse, and await the bus in this area.

2. Analysis

- ▷ Spaces designed for a singular use are often left empty.
- ▷ Most successful spaces are those that can adapt to both formal and informal, a large and small gatherings,
- ▷ For informal gatherings, people are attracted to spaces with multiple activities happening nearby

(e.g., dining, music, shopping), which contribute to a sense of safety as a result of "eyes on the street."

- ▷ Design features such as fountains, benches, and shade are important for attracting people to use a space.
- ▷ The success of spaces for hosting large events correlates with the proximity of available parking.

b. Open Space Character

1. Character Inventory

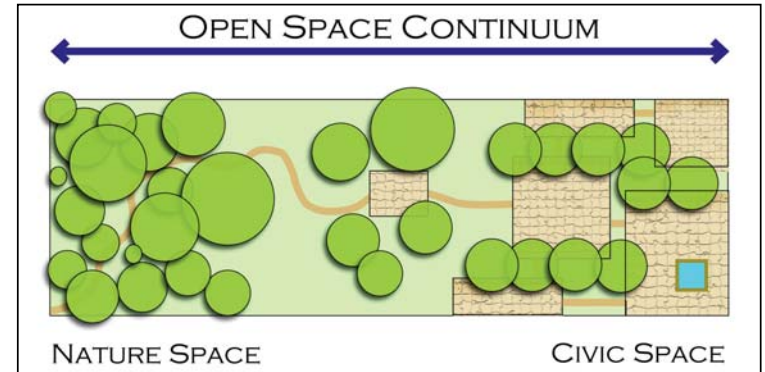
In a downtown setting, the character of open spaces can vary from natural greenscapes to programmed hardscapes. Greenscapes can consist of grass lawns and trees or of planted areas that allow water to infiltrate. Hardscapes often consist of plazas, squares, and streetscapes paved to accommodate heavy foot traffic and access as required by the Americans with Disabilities Act. An open space's form contributes to its functioning and programming of activities, but form is not the sole determinant of function. Hardscape designs are more appropriate for civic gatherings, for example, while greenscape designs are better equipped to serve environmental functions; Figure 5 illustrates this concept. Creating a system of open spaces that occupy

various positions along the continuum can help to ensure that the entire system accommodates the many different needs for open space in Downtown.

2. Character Analysis

While some existing spaces in Downtown occupy the "civic space" end of the continuum, a majority fall in the middle, incorporating a mixture of hardscape and greenscape design elements; examples include Durham Central Park and Five Points. Many cities contain existing natural features, such as riverfronts. Downtown Durham possesses few existing natural features that would provide for the "nature space" end of the continuum. The Downtown Open Space Plan is an opportunity to create those special features.

Figure 5. Open Space Continuum. This graphic was used at public meetings to illustrate how character and design can respond to the many environmental and social needs of urban settings.



A vine-covered bridge over Third Fork Creek on the American Tobacco Trail



Art at the 102 West Main Street park



Five Points Plaza



Durham Skate Park

NATURE SPACE

CIVIC SPACE



Central Park garden



American Tobacco Campus



Durham County Justice Center



CCB Plaza

3. Open Space Character and Gateways

Gateways mark boundaries between one part of a city and another, often conveying an identity and a sense of arrival. Some are carefully designed while others are inadvertent, perhaps created by a railroad bridge or a change in topography. Because of the role landscape plays in creating and enhancing gateways, this study identifies various gateway arrival points to Downtown. These gateways were recognized in the public process of this plan as “important entry points to downtown.”

Downtown Tier Gateways

These gateways mark the entrances to the Downtown Tier from surrounding urban neighborhoods:

- ▷ Golden Belt and the hosiery mill greenspace form an entrance to the east, “at the eastern edge of the Downtown Tier”;
- ▷ Streetscape enhancements at Mangum and Corporation Streets (Little Five Points) have improved the intersection as a gateway from the north;
- ▷ To the west, at Main Street and Buchanan Boulevard, the character of development shifts from Duke’s East Campus to Brightleaf Square; and
- ▷ From the south, the American Tobacco Trail acts as a bicycle/pedestrian entrance to Downtown.

Durham Freeway Gateways

Gateways from the Durham Freeway are especially important in creating a first impression of Downtown for the many visitors of regional attractions such as the Durham Performing Arts Center and the Durham Bulls Athletic Park. The Central Durham Gateways Plan, adopted in 2009, provides a framework for improving the appearance of major entryways, with a particular emphasis on Roxboro, Mangum, and Chapel Hill Streets. Recommendations address landscaping, stormwater, signage, public art, preservation of views of landmarks, and maintenance. While concepts recommended in the Plan are still relevant, funding for improvements has been limited.

Downtown Core Gateways

The core of Downtown is defined by the “Loop,” a three- to four-lane, one-way road often cited as a barrier to pedestrian movement through Downtown. From the south, gateways form at West Chapel Hill, Blackwell, Corcoran, and North Roxboro Streets by passing under or over railroad bridges. From the north, major gateways lie at Mangum and Foster Streets, where public open spaces already exist (at Rotary Park and Civic Center Plaza, respectively).

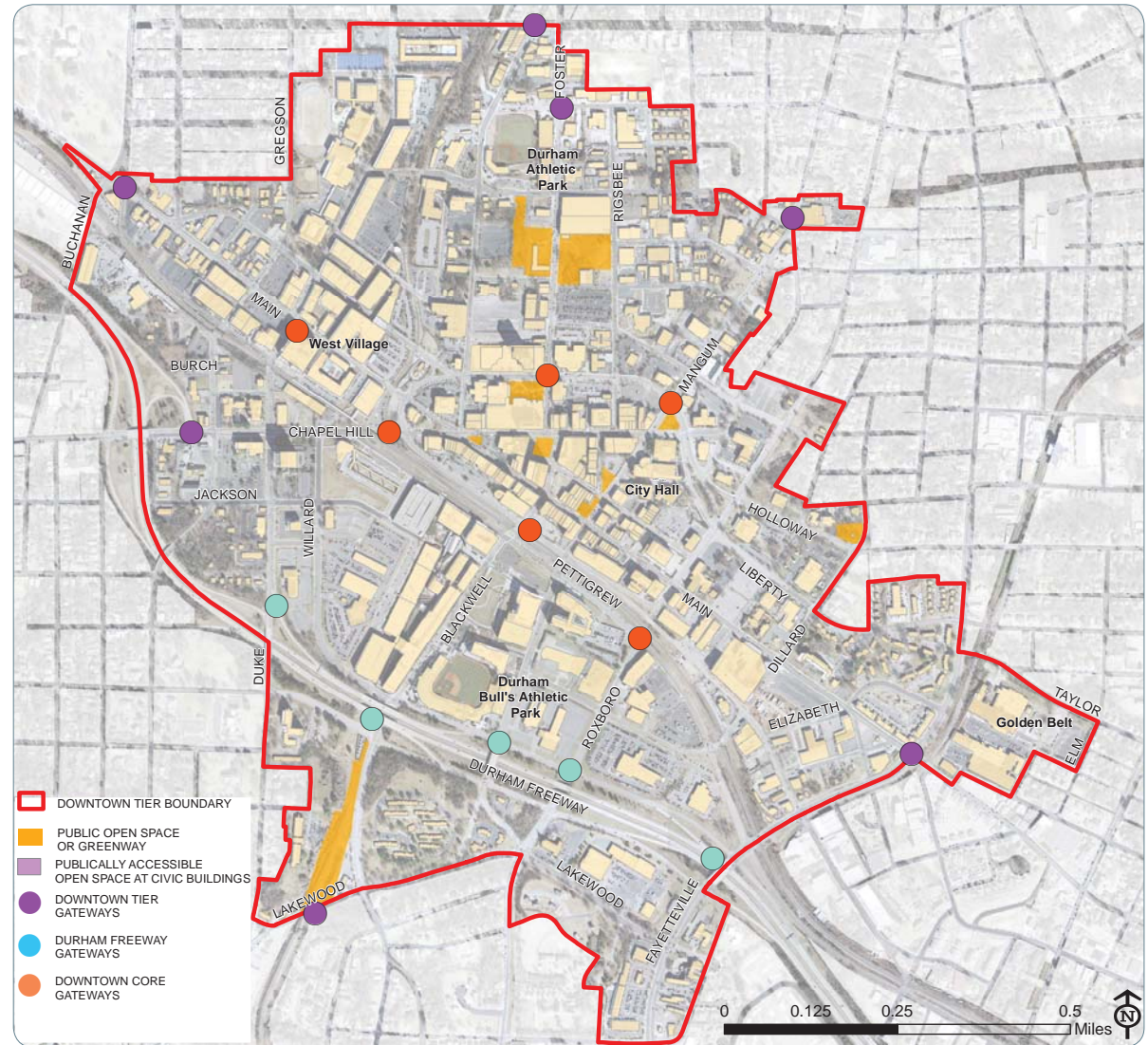


Figure 6. Gateways to Downtown.



Oakwood Park



Skate Park at Durham Central Park



Trailhead of the American Tobacco Trail

c. Recreational Facilities

1. Inventory

A few playgrounds, trails, publicly accessible athletic venues, and playing fields currently serve downtown residents and visitors.

Oakwood Park. A traditional neighborhood park at the edge of Downtown, Oakwood Park features play equipment and a gazebo.

Durham Central Park and Skate Park. The skate park, located at the eastern end of Durham Central Park, offers a unique opportunity for recreation and is one of the most frequently used open spaces in Downtown. Play sculptures attractin h small children and an innovative playground will be built.

American Tobacco Trail. A rails-to-trails project, the first phase of the American Tobacco Trail was completed in 2003. The trail serves both recreational and transportation functions by connecting Downtown to neighborhoods south. The connection will improve with the completion of the bridge over I-40.

2. Analysis

- ▷ Recreational opportunities are limited for some small segments of the population (few options are available to young children or less active adults).
- ▷ Few programmed spaces are available downtown.
- ▷ The only flexible space available for “pick-up” games of soccer or ultimate flying disc is Central Park.

Urban Heat Island Effect

The urban heat island effect explains why metropolitan areas are often significantly warmer than surrounding rural areas. As urban areas develop, buildings, roads, and other infrastructure replace open land and vegetation. These impermeable materials absorb and trap heat, causing ambient temperatures to rise. At night the trapped heat is radiated back into the atmosphere, further increasing the ambient temperatures. Heat islands can affect communities by raising summertime energy demand, air conditioning costs, air pollution, greenhouse gas emissions, and incidence of heat-related illness or mortality.

d. Environmental Benefit

1. Inventory

Downtowns are often overlooked as places that can serve environmental functions. Downtowns are comprised largely of hard, paved surfaces, such as building foundations, roadways, and parking lots, which contribute to stormwater runoff and the urban heat island effect. To improve environmental quality and livability, many city business owners, developers, and designers are adopting best management practices for mitigating the environmental impacts of urban living.

Increase Tree Canopy. In addition to providing shade, trees absorb carbon dioxide and reduce the urban heat island effect. The tree canopy in the Downtown Tier covers approximately 45 acres, 6.5% of the total surface area.

Decrease Impervious Surface and Increase Porous and Cool Pavements. Impervious surfaces cause rapid runoff of rainwater and other substances into storm sewers, streams, and creeks. Hard, impervious surfaces often absorb heat and contribute to the urban heat island effect. Geographic information system analysis indicates that approximately 540 acres (or 74%), of Downtown is made up of impervious surfaces such as roadways, buildings, and parking lots. Raingardens, bioswales, and rainwater collection should be used to slow runoff and reuse water.

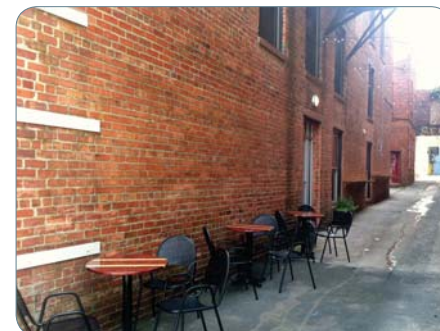
Increase Use of Green Roofs. Green roofs have been incorporated into two recent building projects: the Durham County Justice Center and the retrofit of the Durham Centre Plaza, above a municipal parking garage. Both work to slow down stormwater runoff, cool the buildings, and reduce the heat island effect. The Durham Centre Plaza acts as a public open space that can be programmed for events while the Justice Center roof is inaccessible.

2. Analysis

As the most compact and urbanized part of a city, it is not unusual for statistics to confirm high amounts of impervious surface area and relatively low levels of tree canopy in a downtown. Smart Growth principles dictate that concentrating activity in a compact pattern reduces the pressure to expand urban growth into greenfields outside of a city. Still, the use of pervious surfaces and trees should be emphasized in Downtown, to improve the health of the community and the environment.



Mature trees along Downtown streets reduce the urban heat island effect.



Impervious surfaces, like roads and roofs, can increase stormwater runoff.



Green roofs such as those at Durham Centre Plaza can reduce heat and runoff.

3. Transportation and Connectivity

In a downtown setting, public open spaces are closely related to the nature and form of the transportation network. Transportation planning must not be considered solely for the purpose of efficiently moving people and goods from place to place, or for creating public rights-of-way for rapidly funneling people, in their various modes of travel, throughout the city. Downtown streets should instead be viewed as destinations in their own right.

a. Primary Walking Routes Inventory

Connecting pedestrian-friendly streets with open spaces has been a point of emphasis at a number of community engagement sessions. Completed phases of the Downtown Streetscape Improvement Project have improved the pedestrian experience of walking inside the Downtown Loop by introducing features such as brick pavers, street trees, benches, and lighting on select streets. Outside the Loop, however, deteriorating sidewalks hinder connection to the Downtown core. Primary walking routes include Holloway, Chapel Hill, and Main Streets as well as the Foster-Corcoran-Blackwell Street corridor.

b. Walking Route Analysis

- ▷ Within the Downtown Loop, most sidewalks are wide, shaded, and very walkable. Engaging storefronts, sidewalk dining, pedestrian seating, and interesting architecture enhance the experience.
- ▷ Ramseur and Pettigrew Streets, and the NC Railroad corridor, together form a wide chasm that bisects Downtown. This physical barrier poses a psychological barrier for pedestrians, hindering connectivity between the Downtown core and the American Tobacco Historic District.
- ▷ Many primary streets connecting the Downtown Loop with surrounding areas have deteriorated sidewalks and are often poorly lit and unshaded.

c. Primary Trails and Greenways Inventory

The American Tobacco Trail, the Downtown Trail, and the South Ellerbe Creek Trail form a north-south link through Downtown for both pedestrians and bicyclists. While the American Tobacco and South Ellerbe Creek Trails are dedicated pathways separated from automobile traffic, the Downtown Trail diverts onto city streets.

d. Trails and Greenways Analysis

- ▷ The existing north-south Greenway connects open space but crosses roads and provides little linear greenspace.
- ▷ No trails serve eastern portions of Downtown.
- ▷ An east-west connection through Downtown is lacking.

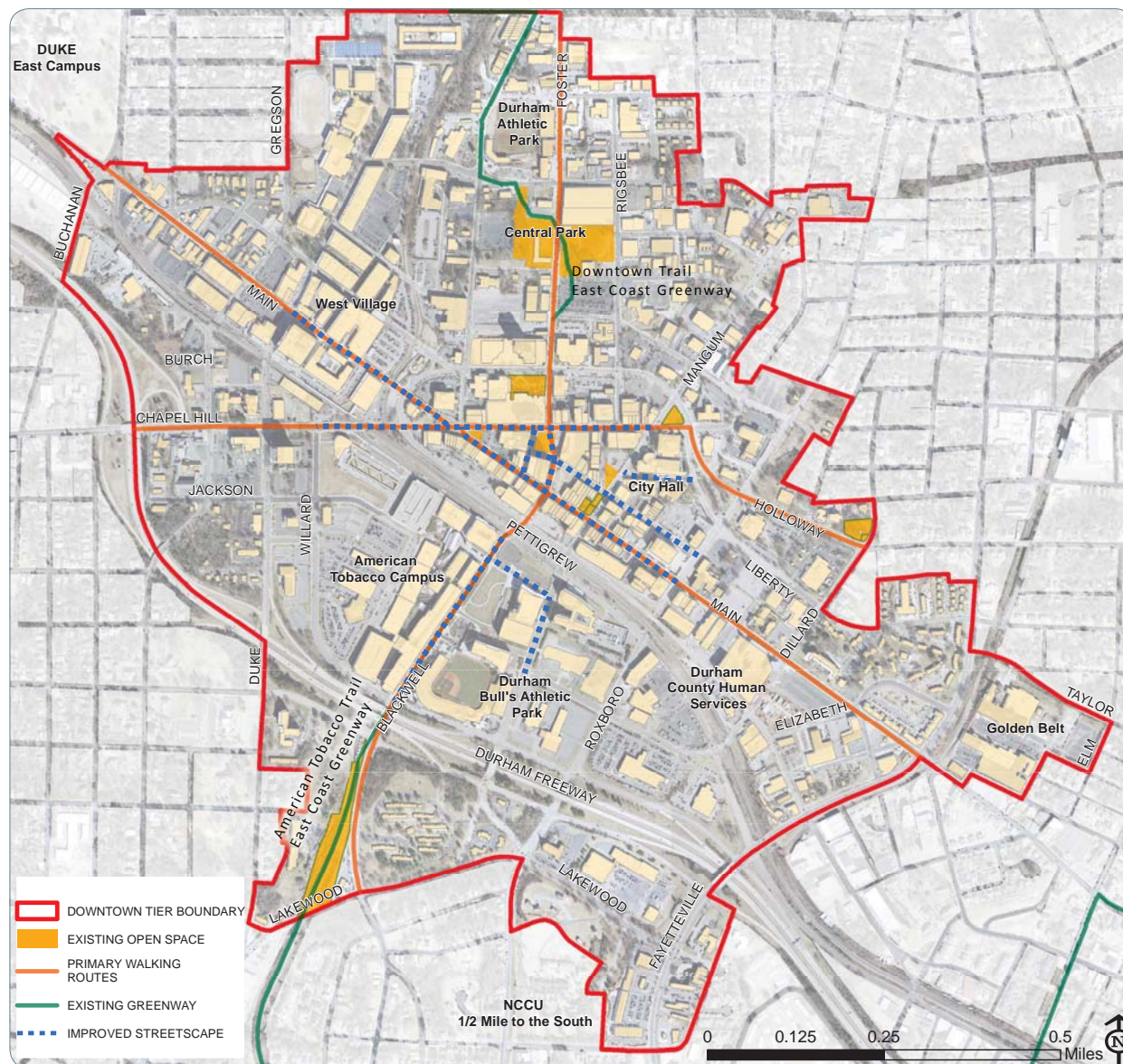


Figure 7. Walking Routes, Trails, and Greenways.



Courtyard at Durham Station



Bus shelters as public art at Oldham Towers

e. Primary Transit Stop Inventory

Buses are a common fixture on Downtown streets, and the Durham Bus Station transfer facility is centrally located. Many of the routes with the highest ridership terminate at this station, including DATA routes 2 and 5. The Bull City Connector, a fare-free transit service connecting Golden Belt to Duke University Medical Center also passes through the heart of Downtown. While the Durham Station site contains the primary public open space related to transit, bus stops also function as small urban open spaces.

f. Transit Stop Analysis

- ▷ Landscaping within the Durham Station courtyard has suffered because of stormwater drainage issues and pedestrian foot traffic.
- ▷ A large canopy provides adequate sun protection at Durham Station; however, it does not block angled rain.
- ▷ Many of the most frequently used bus stops are outfitted with features such as bus shelters, garbage cans, lighting, and posted bus schedules. Improvements such as benches, shelters, and lighting would be desirable at the following highly used stops:
 - Main Street at Golden Belt
 - Main Street at Queen Street

Proposed Regional Rail Services

Triangle Transit has worked to develop a detailed, 25-year plan for new bus and rail investments. The plan includes two regional rail lines that would serve Downtown Durham. Three stations will serve Downtown. Durham Station, located near the intersection of West Chapel Hill Street and Main Street will act as a multi-modal transfer hub. The other two form bookends of Downtown, one located between Dillard and Fayetteville Streets on the eastern end of Downtown; and the other at Main Street and Buchanan Boulevard on the western end. The second proposed regional rail line is a commuter system which would connect west Durham to the Research Triangle Park, and beyond into Raleigh and eastern Wake County. Both of these lines are in early phases of planning.

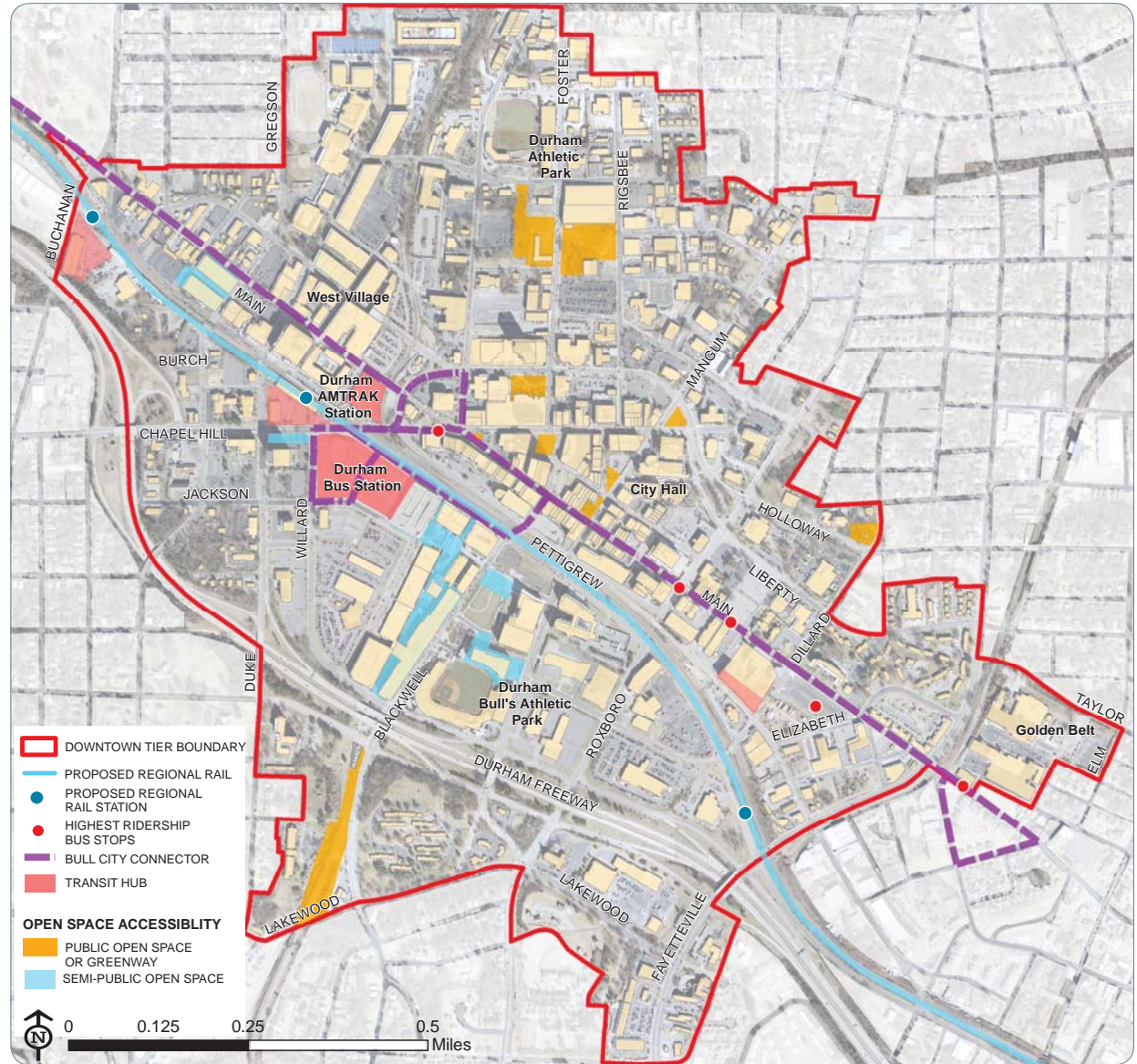


Figure 8. Existing and Planned Transit Stops.

RECOMMENDATIONS & IMPLEMENTATION

After conducting the inventory, analysis, and public meetings described in the previous chapters, staff have developed the following Downtown Open Space Master Plan. In addition to describing the inventory and analyzing the various benefits and challenges related to developing open space in Downtown Durham, this Master Plan also includes recommendation for general and site-specific improvements, including policy and program changes needed to facilitate implementation. General recommendations can be applied across all Downtown open spaces and range from broad policy statements to additional recommendations regarding design and function. Site-specific recommendations will address particular needs in certain locations throughout Downtown for both existing open spaces and planned new spaces. To aid in implementing these recommendations, policy and program strategies are also provided. In addition, some amendments to the Unified Development Ordinance and the City Code are proposed.

A. The Downtown Durham Open Space Master Plan

To help guide the acquisition and improvement of open space in the Downtown, planning staff have developed a master plan. The Downtown Open Master Plan includes a map of Downtown Durham, showing the locations of existing and proposed open spaces and important greenway connections.

The Downtown Open Space Master Plan complements the 2008 Downtown Durham Master Plan, as both strive to achieve dense development and the use of open space to complement the built environment. The Downtown Open Space Master Plan balances building development, parking, transportation, and open space.

The Downtown Open Space Master Plan incorporates existing and proposed parks and plazas, connecting them through greenways and enhanced streetscapes. The open spaces in the Plan are selected based on their ability to provide views that highlight Durham's most notable landmarks and buildings. Spaces are chosen to preserve and enhance both environmental features and perceptual and physical gateways to Downtown.

Throughout the three years of the Open Space Planning process concept drawings and illustrations have been used to engage the public and communicate the importance of downtown open space. The purpose of the conceptual drawings and graphics are severalfold: a. they articulate the vision of the participants and staff in the open space planning process; b. they illustrate the challenges and opportunities of a complex downtown environment; c. they allow for early discussion of issues of elements like hardscape, green space, parking and building areas; and d. they provide general guidance, in the form of a site study, some measure of public voice, and a "first pass," to future designers who will be developing these spaces into a landscape that fits Durham.

The Downtown Open Space Plan advocates for publicly accessible nature space and civic space within the city. These concepts should present the public, designers, and developers with a good starting point for helping the community to realize Durham's public open space potential. However, change is inevitable. While the Downtown Open Space Plan serves as a solid guide, unforeseen issues or dynamic opportunities may at some point in the future necessitate re-examining some element of this Plan.

Conceptual open spaces in the Plan are designed to maximize the five general functions of open space. The combination of the existing and proposed open spaces will provide environmental benefits to Downtown by incorporating stormwater design into landscapes, reducing paved surfaces, and adding more trees. Proposed open spaces will provide areas for recreation and play as well as a greater variety of gathering spaces, which will attract more diverse people and events to downtown. Open spaces in the Plan will help to shape the character of urban districts and serve as entries into these districts. Connectivity to mass transit and city districts will be enhanced through greenways and overpasses. All of these spaces are designed to enhance the image of Downtown Durham as an ideal place to live, work, and play.

The
Downtown
Open Space
Master Plan

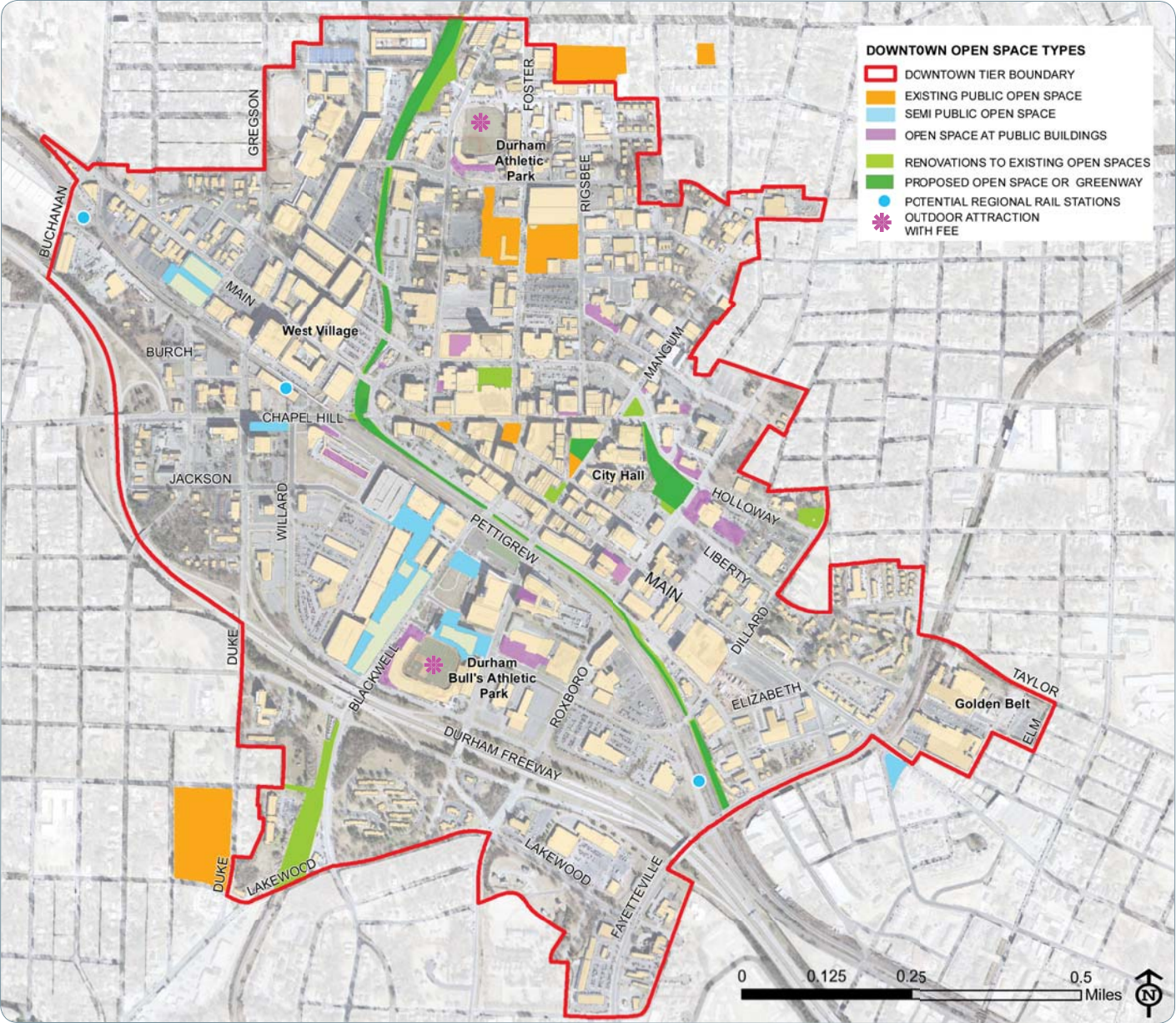


Figure 9. Downtown Durham Open Space Master Plan.



Tree canopy at the Five Points plaza creates a shady lunch spot.



A blossom-covered seatwall made from recycled granite curb stones on Orange Street



A stormwater retention feature and lawn in West Village

B. Policy Recommendations

1. Sustainable Practices

a. Tree Canopy

Besides providing an opportunity for relaxation and passive recreation, a significant tree canopy is crucial to the environmental well-being of any downtown. Shade trees provide a respite from sun and heat for residents and visitors, and studies have shown that greater tree coverage can lessen the urban heat island effect that makes urban areas warmer than rural areas. Trees can also aid in stormwater infiltration and absorption as well as capture carbon released from the burning of fossil fuels and other energy sources.

The following recommendations are made regarding tree canopy in the Downtown Tier:

- ▷ Include language regarding the need for increased tree coverage in the Downtown Tier in Durham's Comprehensive Plan policy on tree canopy;
- ▷ Continue implementing current street-tree standards as required by the Unified Development Ordinance;
- ▷ Increase tree coverage in the Downtown Tier from the current 6% to 10% by developing new open spaces, improving existing open spaces, and planting new street trees as part of streetscape improvement and streetscape realignment projects; and
- ▷ Continue to support the City's Strategic Plan goals addressing the environment.

b. Green Roofs

Green roofs can bring significant environmental benefits to any heavily urbanized area. They can lower runoff and improve stormwater discharge rates and quality, reduce heat island effects, and provide aesthetic benefits to residents and workers.

The following recommendations are made regarding green roofs in the Downtown Tier:

- ▷ Identify and remove regulatory barriers or disincentives to the construction of green roofs on private property in the Downtown Tier;
- ▷ Continue allowing green roofs as an amenity eligible for additional height in downtown under the Unified Development Ordinance;
- ▷ Support City and County initiatives to plan new facilities that incorporate energy-saving design elements such as green roofs; and
- ▷ Explore options for incentives and grants for green roofs and other climate control initiatives.

c. Recycled Materials

Use of recycled materials provides both economic and environmental benefits by reducing the need to produce new materials; recycling lowers the costs associated with open space improvement by incorporating old materials, such as granite curbs, that the City already owns.

The following recommendation is made regarding use of recycled materials in the Downtown Tier.

- ▷ Whenever possible, recycled materials should be used in the installation of new and improved open spaces; and
- ▷ Whenever demolition occurs in the Downtown, the site is actively evaluated to determine whether any materials (e.g., building materials, plants) can be recycled or reused on-site.

d. Stormwater

The treatment and discharge of stormwater is a major issue for heavily urbanized areas. There is a tradeoff between ensuring that stormwater is not released at a speed and quality detrimental to downstream communities and providing on-site treatment of stormwater that is extremely expensive in heavily built environments. Creating numerous stormwater facilities throughout the Downtown would be detrimental to the urban fabric.

The following recommendations are made regarding stormwater management in the Downtown Tier:

- ▷ Where feasible and beneficial, incorporate stormwater retention and filtration features into open space designs. These features can also be incorporated into parking lots, planted islands, on-street parking rows, and bus stops. Cisterns should be encouraged for storing runoff from buildings, to water plantings or be slowly released;
- ▷ Site-specific proposals should include stormwater mitigation features, including the American Tobacco Trail Gateway, the proposed Durham Performing Arts Center Green, and the open space proposed across the street from City Hall; and
- ▷ Additional sites may be identified as needed. A focus of this section of the Plan is to facilitate mobility between housing, jobs, activity centers, and major open spaces within Downtown. To properly function, a downtown must be linked through safe and inviting pedestrian corridors. These corridors do not have to be green open spaces in and of themselves, but should be easily recognizable and navigable, and could serve as green linear connections.

2. Connectivity

In Downtown Durham, the sidewalk system is the primary mode of connectivity, a prime example of which is the Downtown Trail. Unlike a traditional park trail, the Downtown Trail acts as an enhanced sidewalk that connects the American Tobacco Trail at the south end of Downtown to the South Ellerbe Creek Trail on the north end. Not only does this enhanced sidewalk connect these offroad trails, but it also connects important open spaces, such as the American Tobacco Campus lawn, CCB Plaza, Durham Central Park, and other landmarks, such as the Durham Bulls Athletic Park, the Hill Building, and the Durham Farmers' Market.

As the Downtown continues to evolve and open space is developed or enhanced, connections within Downtown, or links to open spaces outside of Downtown, should be incorporated into each project. This can be done by providing appropriate sidewalk connections or trails, such as the proposed Duke Beltline. Textured crosswalks make it easier for pedestrians to find these open spaces and alert motor vehicles to the presence of pedestrians. In addition, well-designed open spaces can themselves provide connectivity between important Downtown places by incorporating pathways, highlighting views, and incorporating wayfinding into their designs.

The following recommendations are made to promote connectivity in the Downtown Tier:

- ▷ Develop an East–West Greenway through the center of Downtown to link open spaces, transit stations, and city districts;
- ▷ Develop a North–South Greenway to enhance connectivity to the regional trail network and to other open spaces. This greenway should complement the existing urban North–South Greenway and take advantage of forested railroad embankments. This greenway should also use existing railroad bridges to avoid conflicts with cars; and
- ▷ Utilize the greenways to develop small-scale open spaces, showcase views of the city and public art, enhance gateways, and increase plantings in the Downtown.

3. Streetscapes

An important part of making these connections is an attractive and functional streetscape. Pedestrians are more willing to walk in areas that feel safe and inviting, and properly designed streetscapes can help to bring satisfaction and a sense of security. The City undertook a major streetscape improvement project in 2007. Main and Chapel Hill Streets were converted from one-way to two-way thoroughfares; sidewalks were enhanced; street trees were planted; and pedestrian amenities such as street lights, trash receptacles, and seating, were installed. Subsequent streetscape improvements have followed in recent years.

West Main Street in the West Village area experienced improvements in 2010. Utility lines were placed underground, onstreet parking and street trees were installed, and sidewalks were widened to create a more inviting atmosphere and better connections to the Downtown Loop and Brightleaf Square.

In 2011 City Hall Plaza was refurbished with new paving, sidewalks, seating, and street trees in Filterra boxes to help filter stormwater runoff.

The streetscape improvement having the greatest impact on the future of streetscapes is the planned deconstruction of the Downtown Loop. Portions of the Downtown Loop should include bicycle and pedestrian paths within the right-of-way (see site-specific recommendations). The entire Loop should be more pedestrian-friendly, with sidewalk enhancements and street trees.

The following recommendations are made to enhance streetscapes in the Downtown Tier:

- ▷ Utilize streetscaping to enhance the pedestrian experience in Downtown through inclusion of art, tree plantings, and amenities such as benches and lighting;
- ▷ Develop small-scale open spaces and pocket parks within the streetscape to accommodate small gatherings and permitted vendors;
- ▷ Utilize high-quality streetscaping to connect open space; and
- ▷ Provide adequate signage for pedestrians that directs toward open spaces and trails.

4. Public Art

Public art is an important amenity for Durham's open spaces, reflecting the City's cultural heritage, and contributing to its identity and sense of place. Beyond these more subjective measures, public art in other cities has served both as wayfinding signage and as focal points for gathering. Some public art already exists in Downtown. The following tasks for public art are recommended:

- ▷ Prioritize the installation of public art onto pedestals located in CCB Plaza and Five Points Plaza;
- ▷ Encourage the use of public art to enhance and instill a sense of place;
- ▷ Encourage partnerships with arts organizations to promote curation of rotating and temporary installations both on pedestals and in public space in general.
- ▷ Continue allowing public art as an amenity eligible for additional height allowance in Downtown under the Unified Development Ordinance; and
- ▷ Ensure that new public art meets the standards set forth in the *Durham Design Manual*, including:

Art should be permanent and maintained properly;

The scale and character of the art should be in harmony with its surroundings;

Art should function as a cultural expression and not as an advertisement or sign; and

Durham's culture and heritage should be reflected in the choice of artist, material, topic, and design.



Pedestrians walk on CCB Plaza.



Parrish Street Marker



Turtle sculpture and play structure at Durham Central Park

5. Dedicated Impact Fee Funds for Downtown

With continuous new residential and commercial development, Durham's Downtown population is growing. Policies governing distribution of impact fees for recreation have focused on meeting the needs of suburban growth. This Plan represents a policy shift, bringing focus to the recreational and open space needs of urban areas such as Downtown.

Objective: Amend Chapter 30, Article IV of the City Code and relevant portions of the Unified Development Ordinance, dedicating a percentage of the Downtown's recreation and open space impact fee funding from all three zones to be used for open space and recreation development.

The current structure of recreation and open space impact fees requires that residential developments dedicate the following for each dwelling unit constructed:

- ▷ 575 square feet of land for active recreation; and
- ▷ 575 square feet of land for passive recreation; or
- ▷ Payment of an impact fee in lieu of land dedication.

Durham Parks and Recreation has established recreation service districts through its Parks and Recreation Master Plan to which these impact fees are distributed. Impact fees received from each Parks and Recreation district must be spent within that district and can be used for passive and active recreation land and associated facilities.

The majority of funds raised in each district is earmarked for primarily residential areas with new growth. Since the Downtown area is currently split among three different recreation service districts, there is less opportunity for cohesive open space and recreational opportunities. The growth of residential, office, and retail development in the Downtown over the last ten years has increased the demand for open space.

Durham's Downtown is recognized as a unique urban form, a place where members of the community can come together from all parts of the City and County. Because of the compact urban fabric of Downtown and its pedestrian mobility and accessibility, it should not be necessary for each individual development to provide its own open space. Instead, as new development is constructed, contributions to the overall provisions of open space will benefit all downtown users. Therefore, dedicated open space and funding from all three impact fee zones for recreation for the Downtown Tier is warranted. It is recommended that the current City policy for a recreation impact fee structure be amended to:

- ▷ Allow the use of recreation and open space impact fees from all three zones for utilization in the Downtown Tier.

These funds could be utilized for the following:

- ▷ Improving and/or expand existing publicly owned open spaces. A number of current publicly owned spaces are detailed in this Plan, such as Durham Central Park, Rotary Park, Oakwood Park, and Civic Center Plaza¹; and
- ▷ Acquiring sites for proposed new public open spaces. To support development of a linked system of Downtown open spaces, funds from the recreation and open space impact fee could also be used to remedy gaps in the existing system. As described earlier, connections such as the Duke Beltway section of the Downtown Greenway will enhance accessibility and utility of the entire Downtown open space system.

6. On-Site Open Space Requirement

Objective: Amend the Unified Development Ordinance to require open space dedication for developments within the Downtown Tier based on development size. Require private development of more than 80,000 square feet of building area on 4.0 acres or more in the Downtown Tier to provide at least 2% of the site as open space, or provide payment in lieu.

Downtown development tends to be of smaller acreage than suburban development. Prior to the Downtown Zoning Update of 2009, each new development project greater than 20,000 square feet in area was required to dedicate 1% of its site to open space, creating many small pieces of disconnected open space. The Downtown Zoning Update removed the requirement for on-site open space with the understanding that, through a Downtown Open Space Plan, a comprehensive system of public open space would be developed.

The recreation and open space dedication proposed above will facilitate the creation of Downtown open space and recreational facilities because dedication on smaller sites will be insufficient for a functional Downtown open space network. Certain development and redevelopment sites within the Downtown, however, are of sufficient acreage to integrate a functional open space component as part of future land development. The size of the open space

should be related to both the scale of the building and the size of the development. The materials and program of the open space should relate to the materials in the surrounding architecture and use of adjacent buildings. Recent examples include the American Tobacco Campus, West Village, and the Durham County Justice Center. These developments have incorporated open space successfully into their designs to serve residents, employees, and visitors.

The on-site open space requirement can be accommodated by the building and frontage types permitted in the Downtown Design zoning district. Examples of such building and frontage types include:

- ▷ The Courtyard frontage type, which allows open spaces to become semipublic, meeting the open space requirement;
- ▷ The Monumental building type, which requires deep street yards for civic open space, accommodating public gatherings, artistic performances, and active recreation. Such uses within the street yard would qualify for the on-site open space requirement;
- ▷ The Forecourt frontage type, which can be designed to allow the forecourt itself to become private open space for the use of residents;
- ▷ The Arcade frontage type, which can be designed as semipublic open space to satisfy the on-site open space requirement; and
- ▷ The Storefront frontage type, which allows flexibility in the front, side, and rear yards to accommodate any open space requirement.

Additional consideration in the UDO text amendment should be given to developments for which the ground floor is primarily residential. In such cases, open space access could be limited to residents and guests. This consideration defers to the privacy needs of primarily residential communities.

Although on-site open space on large tracts is desirable, developers should be given the option for payment in-lieu in consideration of developments and constraints. Such funds could be used in a manner similar to the impact fees, with the added note that they may be used to fund downtown streetscape improvements as part of this plan's recommendations for increased connectivity.

C. Site-Specific Recommendations

1. Support and Ongoing Coordination

Objective: Support ongoing plans and improvements coordinated by City and County departments and nonprofits.

Durham Parks and Recreation Master Plan, 2012–2013. With an increasing population, additional areas annexed, and changing trends in recreation, Durham Parks and Recreation has revised its master plan to reflect Durham residents' desires for new facilities and programming over the next decade.

Durham County Main Library. Durham County's Capital Improvement Plan includes the expansion and renovation of the Main Library, including added space, equipment upgrades, and updates to the plaza and lawn.

Durham Central Park. Durham Central Park is developed through a public-private partnership between Durham Parks and Recreation and the nonprofit Durham Central Park, Inc. Proposed greenways and streetscapes should improve pedestrian access to the park.

2. Conceptual Designs for Existing Open Spaces

Objective: Enhance and maintain existing open space

This Plan includes recommendations to update and improve under-utilized spaces in need of renovation (see Figure 10), such as Civic Center Plaza, Rotary Park, 102 West Main Street, and Oakwood Park.

a. Oakwood Park

Preserve and improve Oakwood Park as a neighborhood recreational asset.

Assets. Oakwood Park serves as a play area for the eastern portion of Downtown and the nearby Cleveland-Holloway neighborhood. It is a shady park with mature trees. It is the only public park in Downtown with play equipment. Holloway Street has an unusually large planting strip, which makes the street more pleasant for pedestrians.

Challenges. The site slopes away from the street, making visibility from the street somewhat difficult having implications on security. Because some adults will sleep in the park, parents with children may view it as unsafe.

Vision. Durham Parks and Recreation has collaborated with the neighborhood to improve the park's play structures and features. Neighborhood volunteers have constructed art features and tables to increase the sense of community investment in the park.

Recommended Concepts

- Continue to work with the neighborhood on security and maintenance issues;



Oakwood Park



Rotary Park



102 West Main Street



Civic Center Plaza

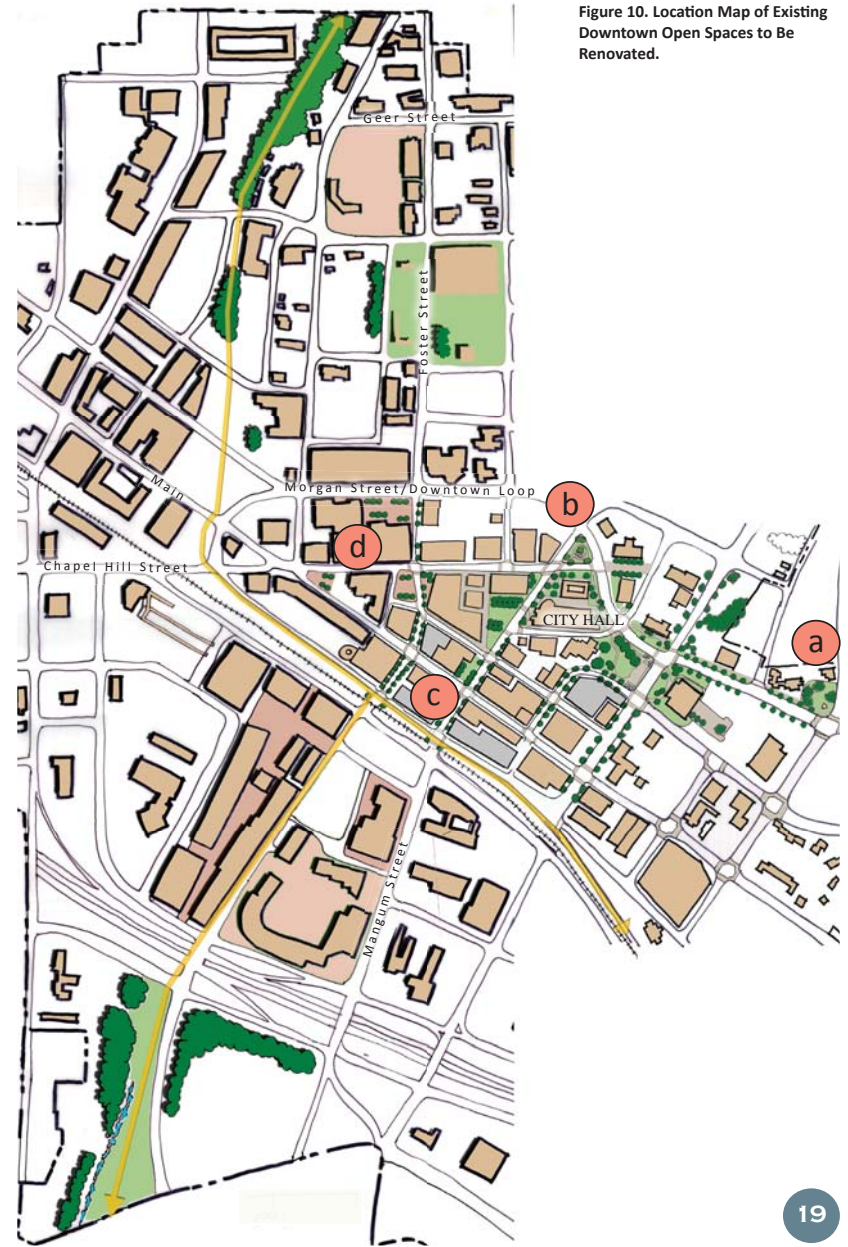


Figure 10. Location Map of Existing Downtown Open Spaces to Be Renovated.

b . Rotary Park and Chapel Hill Street

Redesign Rotary Park to be more accessible as a highly visible gateway into the core of Downtown.

Assets. Rotary Park has an ideal location as a gateway into Downtown. It is a publicly owned park near City Hall and businesses along Mangum and East Chapel Hill Streets. First Baptist Church forms a visual terminus to Chapel Hill Street.

Challenges. Access is a major issue for Rotary Park, which is isolated from other public open spaces. It is also very difficult to see from the outside because of its topography and landscaping. Its sense of isolation is possibly why it is rarely used. The foreground of First Baptist Church is a parking lot.

Vision. The schematic redesign calls for a sign wall facing the intersection of Mangum and Morgan Streets, which will be more inviting to pedestrians and call

attention to the existence of the park. Low shrubs and grasses and shade-tree plantings will support a balance between privacy and security. Shade-tree plantings will improve the visibility of the park and allow it to become a gateway into Downtown. This is a good location for a monumental sculpture that would also enhance the park's visibility. The walls and plantings should be redeveloped to maintain the rotary geometry, but open up the space to be friendlier to pedestrians. The planting beds could remain, but the plantings could be redone to be more seasonally appropriate. Rotary Park is also near the historic First Baptist Church. This viewshed could be enhanced to highlight an important building.

Recommended Concepts

- ▷ Renovate the plantings to enhance sight lines;
- ▷ Add interest with a monumental sculpture;
- ▷ Improve pedestrian circulation by making the openings more obvious and inviting;
- ▷ Enhance the streetscape and parking lot across Morgan Street from Rotary Park to frame views of the historic First Baptist Church; and
- ▷ Promote traffic calming to make the site more accessible.



Rotary Park



Rotary Park



Re-envisioning a city parking lot to provide a better viewshed to Historic First Baptist Church

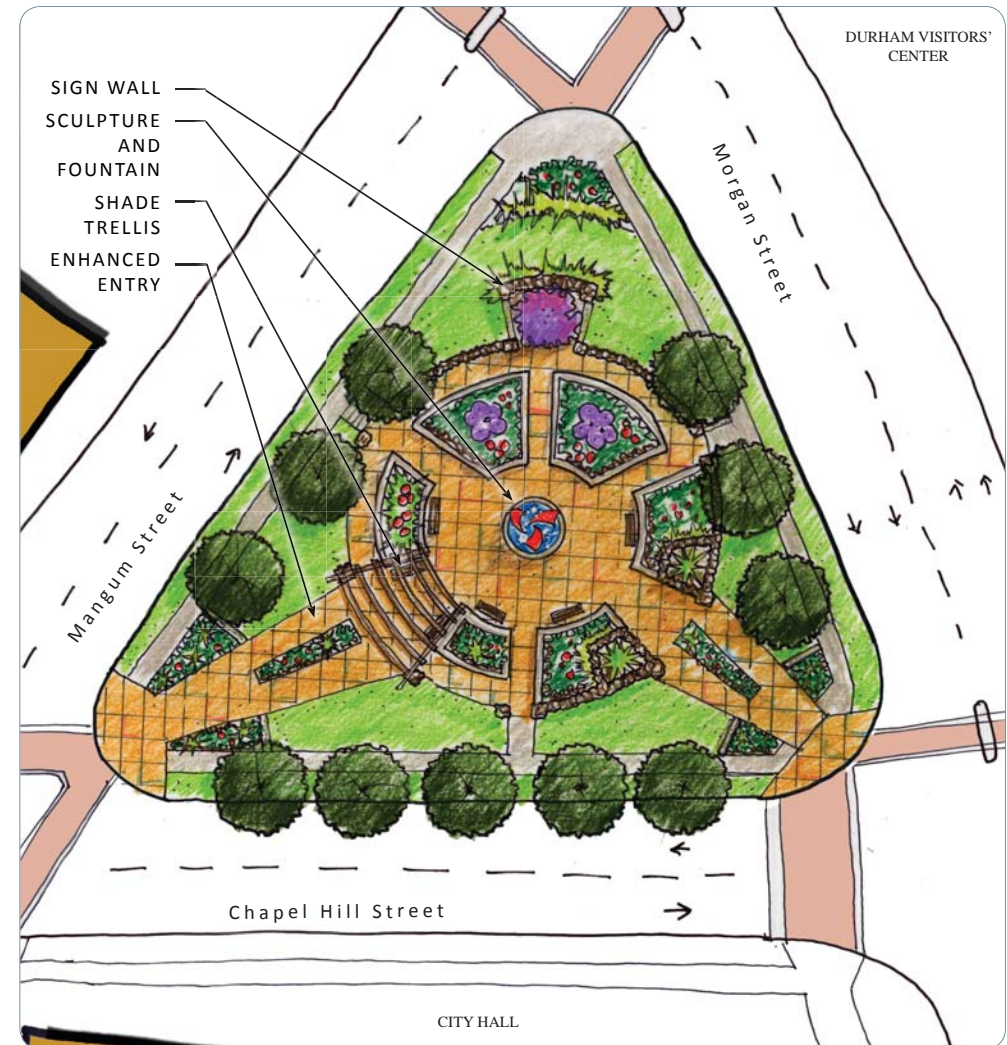


Figure 11. Conceptual Redesign of Rotary Park.

c. 102 West Main Street

Develop this site as the southern node of an enhanced linear park connecting City Hall to Main Street.

Assets. The park along Mangum Street, framed by Main and Parrish streets, serves as a greenspace connection between the City Hall area, the Kress Building, and other redevelopment sites along Main Street. It also serves as an extension of recent improvements along Parrish Street, most notably the pergolas installed on both sides of Parrish Street and the intersection of Mangum Street. Although this park is identified in the Downtown Master Plan as a future development site, it has served as a public open space for well over two decades, and many users now consider it a public open space for small performances and gatherings.

Challenges. The park is not a particularly large space, so its design will be vital to its functionality as an open space. A portion of the site is already used for housing Duke Energy's utility equipment.

Vision. The park should be redesigned and dedicated as a permanent fixture, and should continue to be used as a small gathering space, helping to form a ring of public open spaces around City Hall. A stacked granite curb seat wall along the edge could provide a sense of enclosure and safety from traffic. Granite curbs could serve as a design motif for the space and visually connect it to other public spaces to the north. The utility boxes should be artfully screened. This site could also feature a small fountain and innovative stormwater devices.

Recommended Concepts

- ▷ Provide a sense of enclosure to the space by better delineating the edges;
- ▷ Install seat walls to shape spaces for smaller gatherings;
- ▷ Install a water feature as a central focal point and method of masking traffic noise; and
- ▷ Improve the landscaping to create more interest and potentially include stormwater features and devices.



Art in front of the park, looking from Parrish Street



Recently added wooden gazebo and paving

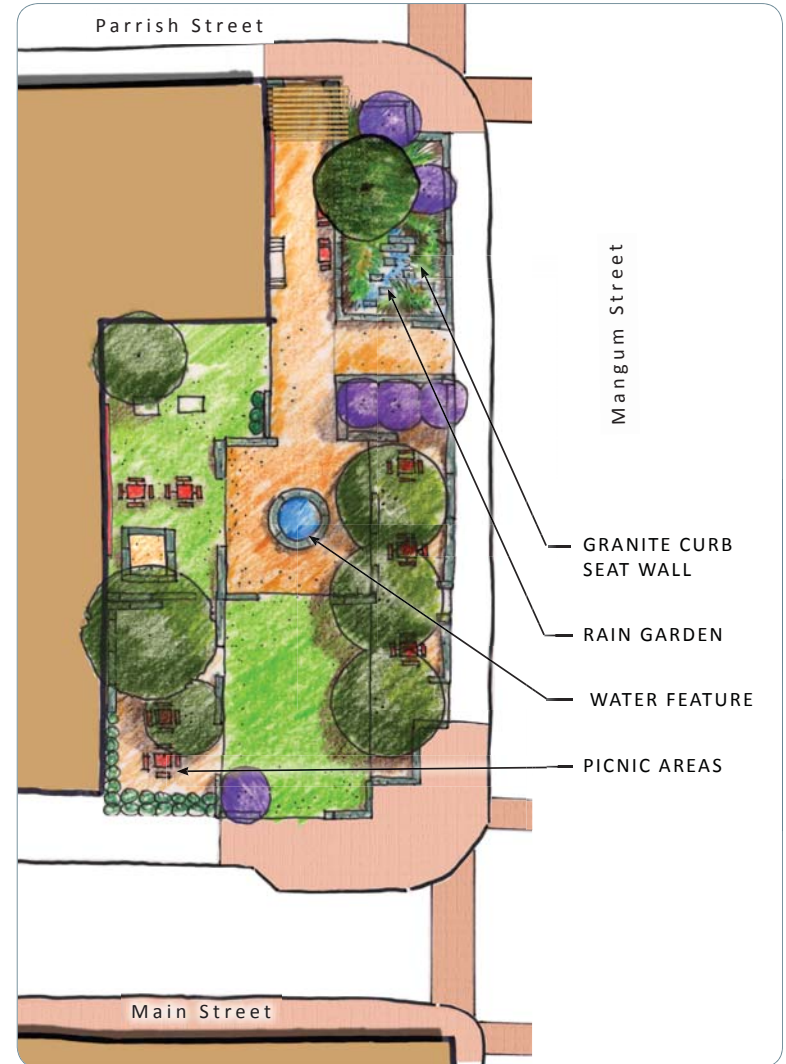


Figure 12. Conceptual Redesign of Park at 102 West Main Street.

d. Convention Center Plaza

Re-envision the Convention Center Plaza to declutter the space, make it more functional, and provide a better visual connection to the surrounding buildings.

Assets. The Convention Center Plaza enjoys a central location between the historic Carolina Theatre, the Marriott Hotel, the Durham Convention Center, and the Durham Armory. It is also located across the street from a City owned parking deck, making it easily accessible to visitors. The mixture of hardscape and landscape provides both an area for gathering and an enjoyable natural environment.

Challenges. While the mix of hardscape and landscape is an asset, the design of the plaza does not integrate them well. Rather than framing views, plantings obscure key architectural features, such as the historic theater. The terraces accommodate the grade changes across the plaza built on a fairly steep site. Since then, it has been retrofitted with a profusion of handrails, which, while mandated by the building code, clutter the space and block a clear path to the theater. The angular retaining walls and fountain chop up the spaces and make the plaza inhospitable. The fountain was likely designed to provide a visual focus, white noise, and a cool water spray. However, when it is not operating, the fountain is dark and unattractive. The amphitheater is seldom used for its intended purpose because of uncomfortable seating, and the stage area is oriented away from incoming audience members and pedestrians on the sidewalk.

Vision. The Convention Center Plaza would benefit from a redesign to make it more functional and less cluttered, and to provide a better visual connection to surrounding buildings. The redesign could improve the pedestrian flow through the space, and appropriate landscaping could make it more inviting and enhance adjacent monumental buildings. The Convention Center Plaza is a focal point of Downtown, having a variety of stakeholders, and should be renovated to reflect its importance to the City.

Recommended Concepts

- ▷ Frame and focus views toward important nearby buildings, especially the Carolina Theatre;
- ▷ Reduce visual clutter with new landscaping and regrading, minimizing steps and handrails;
- ▷ Provide an outdoor performance space with seating for various users and oriented to welcome pedestrians from the sidewalks;
- ▷ Provide a drop-off point; and
- ▷ Develop a green-roof building under the plaza with frontage on Morgan Street. Provide a space for the Carolina Theater sign on Morgan Street.

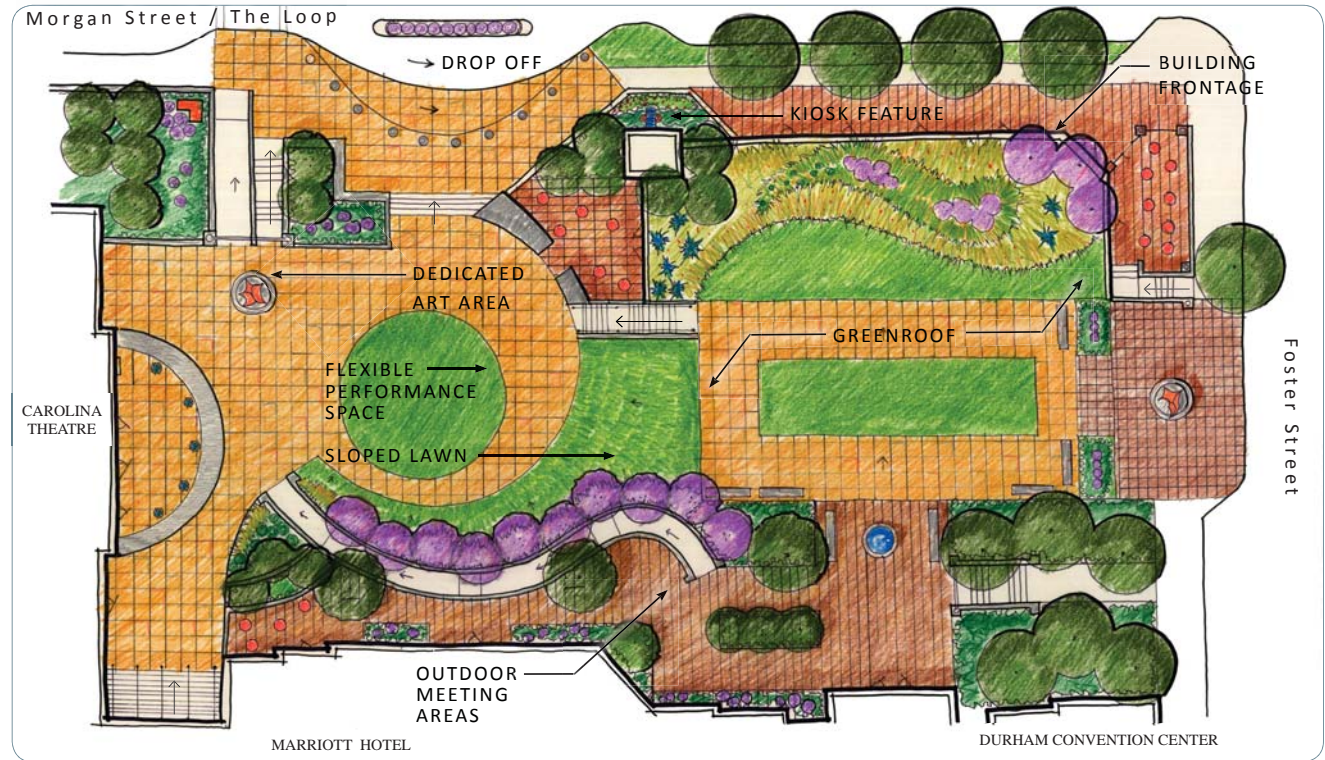


Figure 13. Conceptual Redesign of Convention Center Plaza.



Views of the Carolina Theater are obscured by plantings.



Paths do not connect buildings, the majority of the plaza is obscured.

3. Conceptual Designs for New Public Open Spaces

Objective: To form visual and physical connections to civic buildings by creating and enhancing publicly accessible green spaces.

This Plan reveals gaps in the existing open space system and also highlights the need for new open spaces. To illustrate the potential of open spaces identified in the Downtown Open Space Master Plan, a sampling of proposed spaces has been conceptually designed in this section. The following concepts will serve as guides for open space development by identifying the challenges of historic and potential development, and proposing design solutions unique to each space.



Site for proposed North Mangum Street open space



Site for proposed North Roxboro Street open space



Figure 14. Location Map of Proposed New Public Open Spaces Showing Future Downtown Loop Redesign.

a. 1. Alternative I Mangum Street Open Space

Develop this site as the northern node of an enhanced linear park connecting City Hall to Main Street.

Assets. The existing surface parking lot on North Mangum Street, across from City Hall, receives a proportionally comfortable architectural enclosure provided by the surrounding parking garage and historic buildings along Orange Street. The adjacent pedestrian mall is used frequently and features several stores and cafes. This space would extend the open space directly to the south at 102 West Main Street and would provide a connection to Parrish Street. Its proximity to City Hall makes this location ideal for additional open space for visitors and employees. During the public planning process, participants clearly indicated that the City Hall was not inviting and needed to incorporate a large civic gathering space as part of its design.

Challenges. As the Downtown develops, parking is becoming more scarce; therefore, any plan to remove public parking may be met with skepticism. Development of this location as open space should be undertaken in conjunction with improvements to, or redevelopment of, the Chapel Hill Street parking garage to the north. Crossing the four lanes of North Mangum Street is a challenge because any solution must follow NC Department of Transportation standards and approvals.

Vision. The central themes of the proposed design are to connect the pedestrian-scaled Orange Street with City Hall Plaza and to make safer and easier the crossing at North Mangum Street. The conceptual design for this space calls for a large, green central lawn with hardscaped sides. The large, open lawn would allow for a range of activities, such as hosting food truck rodeos or small concerts. Because the existing lot is below-grade of the surrounding streets, the site creates an opportunity to incorporate stormwater infiltration devices. Trees would shade the hardscape and seating areas while obscuring the view of the parking garage. The existing granite wall would remain and could be made into a seat wall. While the proposed design eliminates existing parking, it also removes the heat trapping and impermeability of the existing surface parking lot, thereby creating a green gathering space, shade, and an improved connection between Orange Street and City Hall Plaza.

Recommended Concepts

- ▷ Create connections between the open spaces at 102 West Main and Mangum Street across from City Hall;
- ▷ Construct a central lawn that can be used for passive and active recreation;
- ▷ Improve the safety of pedestrians crossing North Mangum Street to City Hall;
- ▷ Install trees to screen the parking deck and provide shade; and
- ▷ Take advantage of the site's lower elevations as compared to surrounding parcels to include a stormwater control device to control runoff from those parcels.



Pergola on the North side of Parrish Street



View of potential plaza site



Figure 15. Conceptual Design of North Mangum Street Open Space, Alternative I.

a. 2. Alternative II Mangum Street Open Space

Redevelop the site to combine high density development, a public open space, and a pedestrian alley.

Assets. This site occupies a pivotal corner of Downtown and is ripe for development. The current function of the location is a parking garage and surface-level parking. The site could be a good location for multifunctional, residential commercial space with structured parking and a smaller open space.

Challenges. Although aging, the parking structure is undergoing renovation. This Plan alternatively proposes the elimination of the existing building and a complete reworking of the site.

Vision. This concept calls for two new buildings to integrate a pedestrian alley connecting Orange Street to City Hall. New buildings help to develop a street wall on Orange Street and frame views of the historic Post Office. This design strengthens connections between the 102 Parrish Street open space, City Hall Plaza, and the proposed park on Church and Roxboro Streets.

Recommended Concepts

- ▷ Create connections between the open spaces at 102 West Main and Mangum Street, across from City Hall;
- ▷ Create a network of public open space compatible with the new building designs, City Hall, and street patterns;
- ▷ Improve the safety of pedestrians crossing North Mangum Street from Orange Street to City Hall; and
- ▷ Develop and maintain safe pedestrian links between a pedestrian link to Orange and Mangum Street. Increase safety in the proposed alley by including prime building entrances and windows. The proposed building should not block views to the historic Post Office.



Figure 16. Conceptual Design of a North Mangum Street Open Space, Alternative II.

b. Church Street/ North Roxboro Street Park

Create a new, centrally located park in conjunction with the redesign of the Downtown Loop.

Assets. The recommended reconfiguring at the intersection of Morgan Street (Downtown Loop) and Roxboro Road will drastically change the available land in the area, opening land that is currently right-of-way into open space. This particular location is the centerpoint of several iconic downtown institutions: Trinity Methodist Church, City Hall, and the Durham County Main Library. Additionally, it lies in close proximity to Durham Parks and Recreation and Fire Station Number One.

Challenges. Reconstructing the Downtown Loop may reveal engineering and other challenges not yet fully understood.

Vision. Converting the former street pavement and traffic island to public open space can unite major public buildings in this area of downtown, such as City Hall, Fire Station Number One, the Downtown library, Trinity United Methodist Church, and Durham Parks and Recreation. These buildings should then reorient their entrances, if feasible, toward the proposed central open space. Additionally, this open space would provide an opportunity to connect Downtown to East Durham, and is an ideal location for structured play, which is currently lacking in Downtown. Holloway Street, which would connect to the park, has a 15 foot - wide tree planting strip separating the sidewalk from the road. Holloway Street passes by the Downtown Library and several day cares, and connects to Oakwood Park.

The proposed concept for the open space envisions two half-court basketball facilities flanking a small plaza, with a sculpture pedestal that can be used for observing games, two playgrounds for children, an exercise trail, a Bocci court and a garden. This space should be inclusive of active play for all ages.



Figure 17. Conceptual Design of Church Street/North Roxboro Street.

Recommended Concepts:

- ▷ Develop open space connections between public buildings and public open spaces;
- ▷ Develop a pull-off for visiting school buses or food trucks;
- ▷ Install amenities that will serve residents of all ages;
- ▷ Improve pedestrian connections to major buildings in this portion of Downtown and provide better links from Downtown to East Durham;
- ▷ Utilize the existing trees as part of the landscaping; and
- ▷ Provide structured play opportunities for all ages.

4. Improved Connectivity

Objective: Facilitate safe pedestrian connections downtown. Create small gathering spaces within the greenway network.

Walkability within Downtown was a major and reoccurring theme within the public participation process. The envisioned concept for Downtown is to provide large, medium, and small gathering spaces and also connect them through pedestrian-safe networks. Enhanced streetscapes provide important connections downtown; however, greenways offer a unique and safer route. The proposed greenway network of the Downtown Open Space Plan expands the function of the existing popular American Tobacco Trail and utilizes the existing downtown greenway. A proposed

greenway runs along Ramseur Street. A north-south greenway highlights Durham's industrial past and utilizes the forested rail line. The greenway network will offer a safer route for pedestrians to connect to downtown, while enhancing the look and function of the City.

The following improvements are recommended to provide better pedestrian connectivity between various locations in Downtown, and to facilitate access to those areas:

- ▷ Acquire and develop the Duke Beltline Trail;
- ▷ Create the Downtown Greenway/Gateway and Overpass;
- ▷ Develop the Durham Performing Arts Center open space; and
- ▷ Enhance the American Tobacco Trail Gateway.



The proposed Duke Beltline Trail is a rails-to-trails project that loops around Downtown. Norfolk Southern Corporation currently owns the property.



Crossing the railroad through the heart of Downtown can be difficult to navigate. Recent plantings and pedestrian striping have helped.



The trestle over West Chapel Hill Street is overgrown with small trees. The trestle could provide a pedestrian link between West Village, the Durham Station, and the American Tobacco Campus.



The trailhead to the American Tobacco Trail is on the south side of the Durham Freeway (NC 147) from the American Tobacco Campus (ATC). The trailhead could be made into a more prominent gateway to the ATC and to the Downtown Core.

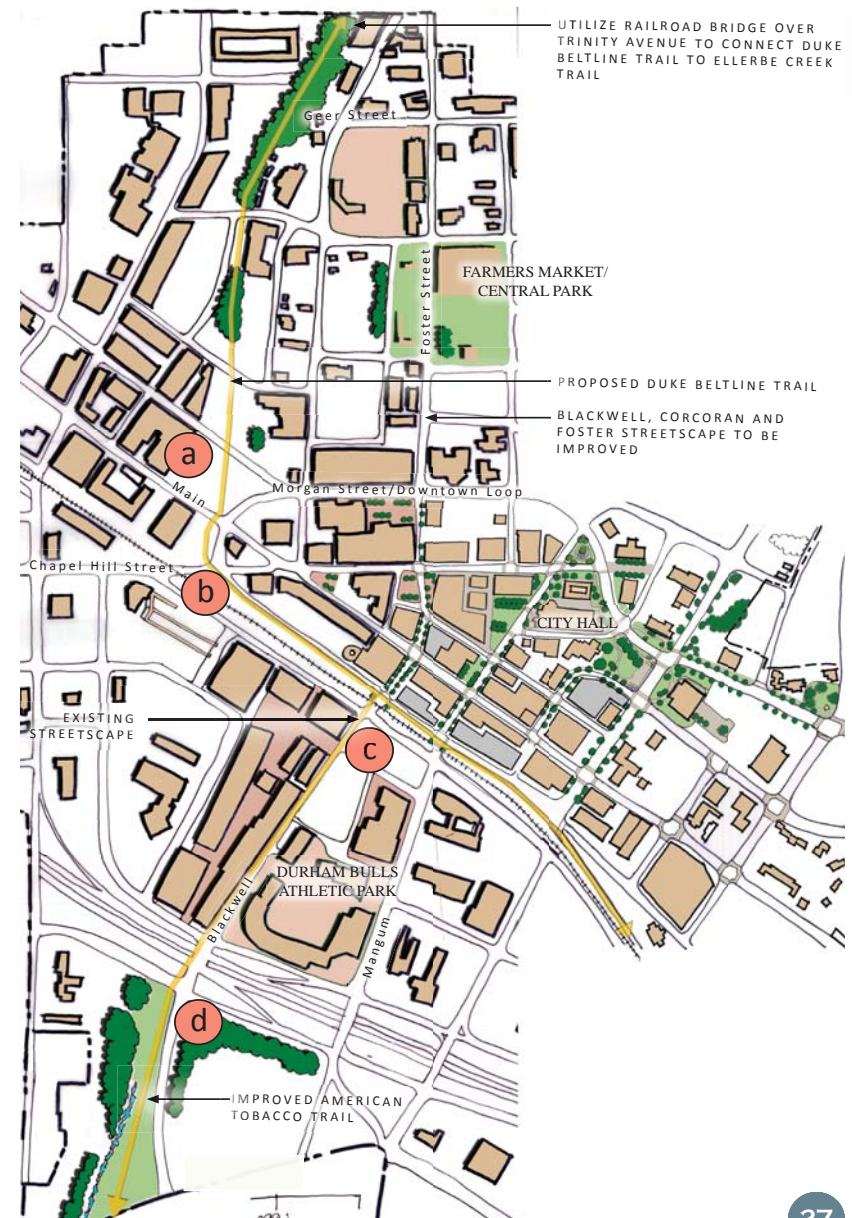


Figure 18. Location Map of Conceptual Designs for Improving Connectivity.

b. Downtown Greenway and Gateway Overpass

Create a greenway with viewpoints parallel to the railroad.

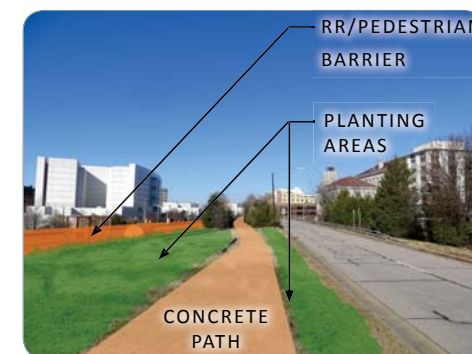


Figure 19. Conceptual Designs for the Downtown Greenway and Overpass



Figure 20. Conceptual Design for the Chapel Hill Street Overpass Looking West from Downtown.

Assets. The Ramseur Street portion of the Downtown Loop is wide enough that some of the pavement could be closed to vehicular traffic without significantly affecting traffic flow. A spur of unused railroad, the Duke Beltline, once connected the main line to locations north of Downtown. As a greenway, this trail has the potential to connect city districts and link the American Tobacco Trail with the Ellerbe Creek Trail. This greenway can also provide a preferable route for the East Coast Greenway because it allows fewer pedestrian-car conflicts and direct access to connector trails such as Ellerbe Creek Trail and to more green space.



Greenway between Ramseur Street and the railroad tracks, near proposed transit station and Fayetteville Road.

Challenges. The width of Ramseur Street and the tracks themselves together pose a significant barrier to pedestrians, and separates the core of Downtown from the American Tobacco district. The approval of both the railroad company and the NCDOT would be necessary to acquire the rail corridor and use the road right-of-way for multimodal transportation. Areas along the corridor do not have good on-street monitoring and could be perceived as dangerous.

Vision. By using the existing right-of-way and re-purposing the abandoned railroad bridge and track, improvements such as those shown would provide multimodal connections for a significant portion of Downtown (see Figure 18). East of Blackwell Street, the greenway would connect a proposed transit station to the Durham County Health and Human Services building. The greenway would connect to Fayetteville Street, providing a better link to NCCU.

Recommended Concepts

- ▷ Construct a security fence and install landscaping between the existing tracks and Ramseur Street to deter illegal crossing of the tracks;
- ▷ Close the southernmost lane of traffic on Ramseur Street and create a pedestrian path. Connect this path to the future Duke Beltline Trail. This will require approval from the North Carolina Railroad Corporation;
- ▷ Convert the abandoned railroad bridge over West Chapel Hill Street, connecting the proposed Duke Beltline Trail from the American Tobacco Trail via the new Ramseur Street Trail;
- ▷ Design spaces for seating, art, and planting within the greenway;
- ▷ Carve out a portion of the existing retaining wall at the intersection of West Chapel Hill and Ramseur Streets to form a small open space with gateway signage; and
- ▷ Increase security on the greenway by providing appropriate plantings, lighting, callboxes, and good visibility from the street.



① Existing: Wide railroad and roadway corridor.



Opportunity: Remove turn lane and replace with greenway, barrier, and walkway.



Proposed: Multiuse pathway along south side of Ramseur Street.



② Existing: Blank retaining wall provides unlawful access to train tracks up slope.



Opportunity: Build decorative retaining wall, utilizing oversized turn lane to create space for pedestrians.



Proposed: A landscaped sign wall and art could act as a gateway for central Downtown.



③ Existing: An unused railroad bridge.



Opportunity: Use the trestle as a pedestrian-safe overpass and attractive gateway to Downtown core.



Proposed: Pedestrian bridge similar to the Highline in New York City.

c. Durham Performing Arts Center Green

Construct new open space and enhanced pedestrian access between the Downtown Loop and the Durham Performing Arts Center (DPAC).

Assets. This space is highly visible, close to the downtown core and sided by some of the most important cultural attractions in Durham. The DPAC provides a backdrop for the space. It is a site of significant size.

Challenges. The land is currently owned by the North Carolina Railroad Corporation, thus approval from the railroad will be necessary for any new design and construction.

Vision. This site provides an opportunity to frame an already great asset of the DPAC, while showcasing Durham's culture and caring for the environment through stormwater design. A pedestrian link can also be created between the DPAC, the rest of the American Tobacco Campus, and the portion of Downtown north of Ramseur Street.



The railroad tracks are flanked on either side by Ramseur and Pettigrew Streets, which makes crossing challenging for pedestrians.



The site is currently a grassy field with perimeter trees.



Figure 21. Conceptual Design for the Durham Performing Art Center Open Space and Transit Corridor

Recommended Concepts:

- ▷ Create landscape features to serve as significant regional attraction enhances view of DPAC; and
- ▷ Provide a pleasant outdoor experience for this major arts attraction; and
- ▷ Highlight Durham's commitment to environmental stewardship through integration of stormwater management features and plantings; and
- ▷ Develop an enhanced pedestrian route across the tracks.

d. American Tobacco Trail Gateway

Provide a welcoming natural gateway to Downtown and a location for stormwater control and absorption.

Assets. The American Tobacco Trail (ATT) is both a regional and a national asset, forming part of the East Coast Greenway, which is planned to pass through the Triangle as it makes its way from Maine to Florida. A significant amount of vacant land lies near the trailhead that could be improved and made more functional.

Challenges. Much of the land is privately owned, and coordination with and approval from these landowners will be necessary prior to making any improvements. Open areas near this portion of the ATT have a large kudzu infestation that will be difficult to remove.

Vision. The conceptual design calls for stream restoration with proposed stream overlooks, taking advantage of one of the few opportunities people have to see natural flowing water in Downtown. The existing depressions on the street side of the trail would be used for large stormwater ponds and wetlands, adding visual interest for pedestrians and a habitat for wildlife. The large, mowed field is planted with native grasses, shade trees, and plants that will also provide a habitat. Closer to the American Tobacco Campus is an opportunity for a playground, creating an additional safe place for children to play in Downtown.

Recommended Concepts

- ▷ Restore the stream along the beginning of the ATT;
- ▷ Provide viewpoints and locations for interacting with the stream, while creating quiet places for neighboring residents to relax;
- ▷ Create a wetland area to serve as an environmental and stormwater asset for Downtown;
- ▷ Enhance the visual aesthetics of the site as a pedestrian gateway to Downtown;
- ▷ Install a recreation or exercise area near the trailhead to be used by nearby residents and visitors alike; and
- ▷ Connect to Orchard Park on West Cobb Street via the existing bridge over the creek.



Kudzu patch next to the American Tobacco Trail

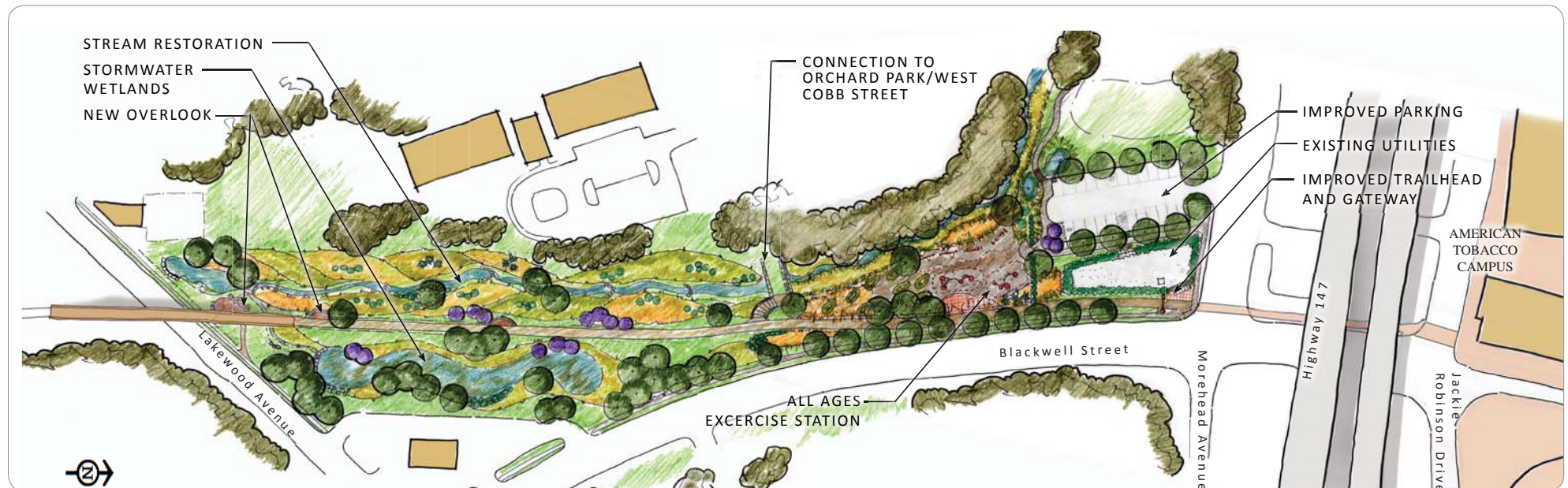


Figure 22. Conceptual Design for American Tobacco Trailhead.

D. Summary of Downtown Open Space

Site-Specific Recommendations	Cost	Timing	Acquisition Needed?	Priority	Notes
Existing Open Space Renovations					
a. Oakwood Park, page 19				na	
Recently renovated	Low		No		Recently Completed
b. Rotary Park, page 20				3	
Improve lighting and security	Low	Short Term	No		Work with Rotary Club; coordinate with Downtown Loop
Renovate the plantings to enhance sight lines					
Add interest with a monumental sculpture					
Improve site conditions					
Enhance adjacent streetscape and parking lot					
c. 102 West Main Street Park, page 21				2	
Improve lighting and security	Low	Short Term	No		Work with Downtown residents and businesses; coordinate with NCDOT
Provide a sense of enclosure in the space					
Install seat walls to shape space and provide locations for gatherings					
Install a fountain as a central focal point					
Improve the landscape plantings					
Include innovative stormwater devices to slow runoff					
Maintain and enhance a visual connection with pedestrian-oriented improvements on the north side of West Parrish Street					
d. Convention Center Plaza, page 22				1	
Improve lighting and security	Low	Short Term	No		Coordinate with Marriott and Carolina Theatre
Frame and focus views of important nearby buildings					
Reduce visual clutter with new landscaping and re-grading					
Provide redesigned performance space for small gatherings					
Provide walls to shape spaces and provide seating during performances in the space					
Improve pedestrian circulation by eliminating multiple steps and the existing fountain					

Table A. Site-specific Recommendations.

1. Summary of Proposed Physical Improvements

This is a chart summarizing recommended physical improvements to Downtown. The chart indicates whether acquisition of a parcel is necessary, as well as the general cost, timing, and relative prioritization of each project. It is important to note that the downtown is continuously changing and unforeseen opportunities and obstacles will arise. Winning grants or other private funding sources could accelerate projects. Private development of large parcels could incorporate semi-public space into their design or could provide funds to develop public space. Other CIP projects like the Loop renovation could also facilitate the construction of an open space. Stormwater, stream restoration or other related projects could tie into the development of an open space or greenway. City County agencies advisory boards, the City's non-profits; the Parks foundation and Keep Durham Beautiful will continuously look for opportunities to develop the open spaces in downtown Durham.

Site-Specific Recommendations	Cost	Timing	Acquisition Needed?	Priority	Notes
New Open Spaces					
a. North Mangum Street Open Space				3	
1. Alternate I, page 24					
Provide lighting and security	Mid	Mid Term	No		Coordinate with surrounding property owners and with NCDOT
Construct a central lawn and hardscape with innovative, underground stormwater controls to slow runoff from higher, surrounding properties					
Provide two perpendicular, pedestrian crossings of North Mangum Street [with mechanisms to enhance safety]					
Maintain and enhance the physical connections between City Hall Plaza, the east side of North Mangum Street, Orange Street Pedestrian Mall, and West Parrish Street					
Install trees and other landscaping to enhance and soften the space					
Reconstruct access to parking deck (to remain) from Mangum Street					
Provide picnic tables under shade trees					
2. Alternate II, page 25					
Provide lighting and security	Mid	Mid Term	Yes		Coordinate with surrounding property owners and with NCDOT
Create a network of public open spaces that are compatible with the new buildings, City Hall, and street patterns					
Provide a perpendicular, pedestrian crossing of North Mangum Street [with mechanisms to enhance safety]					
Install trees and other landscaping to enhance and soften the space					
Include innovative stormwater control devices to slow runoff from higher, surrounding properties and the new buildings					
b. Church Street/ North Roxboro Street Park, page 26				1	
Provide lighting and security	Mid	Long Term	Yes		Coordinate with Downtown Loop project to develop at the same time; coordinate with NCDOT and purchase former right-of-way
Develop greenway					
Develop pull-offs for buses and for food trucks					
Install amenities and recreational opportunities for all ages					
Improve pedestrian connections to major buildings					
Save existing trees as part of the landscaping where feasible					
Provide recreational opportunities					
c. Durham Performing Arts Center Vicinity Open Space, page 30				2	

Table A. Site-Specific Recommendations (cont.)

Site-Specific Recommendations	Cost	Timing	Acquisition Needed?	Priority	Notes
Improve Connectivity					
a. The Duke Beltline Trail, page 28				1	
Provide lighting and security	High	Mid Term	Yes		Acquire or obtain long-term lease of railroad right-of-way
Construct Downtown greenway					
Develop seating, art, and plantings along the greenway					
Construct a security fence					
b. Downtown Greenway/ Gateway and Overpass, pages 28-29				2	
Provide lighting and security	High	Mid Term	Yes		Acquire or obtain long-term lease of railroad right-of-way; recommend saving railroad trestle
Construct pedestrian connections					
Convert train bridge to a pedestrian bridge					
Develop signage and rebuild retaining walls					
Develop seating, art, and plantings along the greenway					
Develop Durham Station parking lot					
c. The Durham Performing Arts Center Green and Skywalk, page 30				3	
Provide lighting and security	Mid	Mid Term	Yes		Acquire or obtain long-term lease of railroad right-of-way. Coordinate with development.
Create a landscape to enhance views of the DPAC					
Include an innovative water feature that provides stormwater control					
Develop seating, art, and plantings	High	Long Term			Coordinate with Transportation department, NCCR, TTA
Construct a pedestrian crossing the north side of Ramseur Street to the south side of Pettigrew Street, the American Tobacco campus and the DPAC					
d. American Tobacco Trail Gateway, page 31				4	
Provide lighting and security	Mid	Short Term	No		Coordinate with NCDOT Railroad Division and with adjoining properties on the west side of the creek
Restore the existing stream					
Create stormwater control features					
Install all-ages exercise station					
Restore the existing bridge across the stream to connect to Orchard Park and West Cobb Street					
Install overlooks and plantings and eradicate kudzu					

Prioritization of Open Space Development

The Downtown Open Space Plan looks forward to the long term development of the downtown. Some spaces are currently under re-development and some projects, like those which rely on acquiring right of way from North Carolina railroad, could take longer to acquire. To determine priorities, public feedback was solicited through an online survey. The survey helped prioritize and gauge the perceived importance of each category of improvements (as shown in the preceding tables).

The survey indicated that were the majority of respondents (54.8%) prioritized the re-development of Civic Center Plaza as the most important existing public open space to renovate. For new public open spaces, the Church Street/ North Roxboro Street Park received the highest priority (43.8%). For the greenway project to best enhance pedestrian connections downtown, respondents chose Duke Beltline Rail Trail (47.5%) as their highest priority.

When all the proposed open space improvements were considered together the Duke Beltline Trail was given the highest priority by respondents (28.6%). The following chart shows the overall prioritization by respondents.

Downtown Open Space Plan Priorities		
Overall, which proposed improvement will have the biggest impact on downtown and should be the highest priority? Please choose one.		
Answer Options Ranked	Response	
Duke Beltline Rail Trail	28.6%	62
West Chapel Hill Street Trestle and Ramseur Church Street/ North Roxboro Street Park	19.4%	42
Civic Center Plaza	11.5%	25
Skywalk Rail Road Corridor Crossing	8.3%	18
Mangum Street at City Hall	7.8%	17
Durham Performing Arts Center Vicinity	7.8%	17
102 West Main Street Park	7.4%	16
American Tobacco Trailhead	6.9%	15
Rotary Park	1.4%	3
	0.9%	2
answered question		217
skipped question		2

a. Comparative City Analysis

The Center for City Park Excellence, an initiative of the Trust for Public Land, conducted an analysis in 2009 that showed the City of Durham ranked comparatively low amongst cities of similar densities in the percentage of park acreage. Only 3.9% of Durham's land area is dedicated to parks, compared to the national average of 9.8%. Of course, downtowns, are and should be, regarded differently from cities as a whole. Where land is limited, one appropriately scaled plaza might better serve the community than numerous or overlage open spaces. Table B-Existing Open Space , shows there are currently only 12.2 acres of public open space located within the 730-acre Downtown Tier. This is only 1.6% of the land area dedicated to public open space. This suggests a deficit in the amount of public open space in Downtown compared to peer cities.

The Center for Park Excellence 2009 study also uses park acres per 1000 residents metric to understand the service level of park land in cities. Durham had a 2,352 acre park area per an estimated population of 223,284. This gives the City of Durham 10.5 acres per residents.

Table B Existing Open Space	Acreage
Central Park	5.6
Convention Center Plaza	3.1
CCB Plaza	0.4
5 Points	0.1
Orange Street Greenspace	0.2
102 West Main Greenspace	0.3
ATT Trailhead Downtown	2.1
Rotary Park	0.3
Total Existing OS	12.2

This amount of open space is on the lower end of the cities studied. Greensboro, NC had 24.7 park acres per resident and Charlotte/ Mecklenburg NC had 21.8 park acres per resident.

Downtown is continuously growing and so is our open space needs. According to Downtown Durham Inc., the current estimate for downtown was 1000+ dwelling units and 1500+ residents. With units currently under construction the total will rise to 2,100 units and with a projected 3,200 resident's downtown. Downtown also currently has 15,500 people working in it. Currently, downtown has 8.1 acres of open space per 1,000 residents, which is lower than the City as a whole. If the population increases without increasing open space, downtown will only have 3.8 acres of open space per 1,000 residents. This clearly underserves the residential population of Durham as well as the people working downtown and visitors.

b. Contributions of Proposed Public Open Space

To address the deficit in public open spaces Downtown, this Plan proposes to create new open spaces by taking advantage of intersection and road reconfigurations. These proposed spaces are shown in Table C and, if built, would nearly double the amount of public open space in Downtown to 23.3 acres, or 3.10% of the total land area in the Downtown Tier. Importantly, these proposed open spaces seek to maximize the use existing public rights-of-way, as opposed to acquiring new properties that might serve economic development purposes.

Table C Proposed Open Space	Acreage
Church and North Roxboro Street	2.3
Mangum Street	0.5
DPAC Frontage	0.6
East West Greenway	3.3
Beltline North South Greenway	4.4
Total Proposed OS	11.1

Downtown's public open space would increase from 12.2 to 23.3 acres or 3.10% of its total acreage. If the proposed open spaces are developed, the city would nearly double the amount of public open space and will gain 1.4 miles of greenway, a healthy increase.

However, if the downtown population grows to predicted 3,200 residents and the amount of open space does not increase, then downtown would drop from 10.5 to 7.2 park acres per 1,000 residents. This would put a greater strain on our existing open space.

Contributions of Open Space at Public Buildings

Previously in this Plan, a distinction is made between the types public open spaces mentioned above and the type of open spaces that are associated with public buildings. As the center of city and county affairs there are an abundance of these types of spaces in Downtown, which are listed in Table D and shown in Figure 23. While specific recommendations for these open spaces are not included in this Plan, they do amount to 6.8 acres and contribute significantly to Downtown's character.

Table D Open Space at Public Buildings		Acreage
Durham Bull's Athletic Park		0.9
Durham Justice Center		0.9
Durham County Jail		0.3
Durham Station		0.6
Durham County		0.2
Durham Main Library		1.3
Durham Fire Station 1		0.06
Durham Parks and Recreation		0.3
Durham Public Schools		0.1
Durham Convention and Visitors		0.03
Downtown Post Office		0.1
Durham Art's Council		0.1
Durham History Hub		0.05
Durham Centre greenroof		0.5
Durham Center for Senior Life		0.5
Durham Athletic Park		0.5
Durham County Human Services		0.2
Total Existing OS		6.8

Contributions of Existing Semi-Public Open Space

The important role of semi-public open spaces has been mentioned throughout this Plan. In fact, these open spaces contribute nearly 5 additional acres to the Downtown total. Despite being privately owned with a degree of exclusivity and restricted access, spaces like the American Tobacco Campus lawn or the promenade at Brightleaf Square benefit the public in a number of ways.

Existing examples (Table E) show that the amount of semi-public open space as a percentage of total site acreage varies. For example, the American Tobacco Campus' central lawn is 23% of the project area, while the NC Mutual Life buildings' property has only 10%. While those are examples of historic precedents, future new development and redevelopment should also be designed to provide open spaces that benefit the public.

Table E Existing Semi-Public Open Space			
Location	Parcel Acre	OS Acre	OS % of Total
American Tobacco Campus	14.6	3.4	23%
Diamond View	3.1	0.6	19%
NC Mutual Life	3.2	0.4	12%
Brightleaf Square	2.4	0.4	16%
Total Acreage	23.3	4.8	20%

The Potential Contributions of Semi-Public Open Space

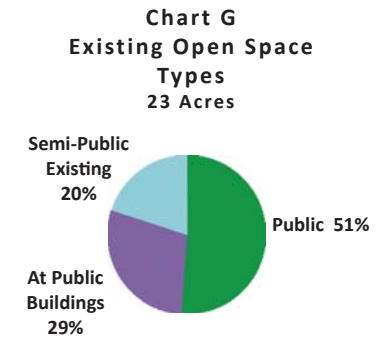
This Plan recommends amendments to the Unified Development Ordinance that would require developments over four acres to either incorporate open space into the site or to contribute a payment-in-lieu to fund proposed open spaces. To estimate the impact of such a regulation, several large properties with potential for redevelopment were identified. Table F shows how much new open space could result if required on-site open space was 2, 5, 10, or 15% of the total acreage. Determining the appropriate percentage will require additional analysis and input from the public and elected officials.

Table F						
Re-development Areas		Semi-public Open Space				
	Parcel	2%	5%	10%	15%	
A. 505 W Chapel Hill Street	4.1	0.08	0.21	0.41	0.61	
B. 601 Willard	13.1	0.26	0.65	1.31	1.96	
C. 905 E Jackie Robinson Drive	6.2	0.12	0.31	0.62	0.93	
D. 409 Roxboro St	10.3	0.21	0.51	1.03	1.51	
E. 800 Taylor Street-Goldenbelt	7.1	0.14	0.35	0.71	1.06	
F. 108 Lakewood-Southside	9.6	0.19	0.48	0.96	1.44	
G. 401 East Lakewood Ave	6.3	0.12	0.31	0.63	0.95	
H. 820 Fayetteville Street	4.1	0.08	0.21	0.41	0.61	
Total Acreage	60.8	1.2	3.03	6.08	9.11	

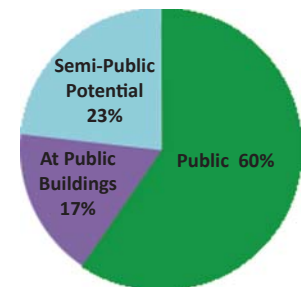
Total Contributions of Open Space Types

Downtown needs a variety of both public open space and semi-public space to encourage a diverse range of uses. Depending on development pattern of semi-public open space the total downtown open space could expand to from a current 23.3 acres to between 34.9 acres and 39.2 acres. Factoring the increase of three types of open space would increase the total open area of open space downtown to between 4.7% to 5.3%. The Center for Park Excellence of park acres per 1000 residents would increase to 10.9 to 13.1 acres. This is still in the middle range of small cities, but us a reasonable improvement.

As Chart G shows, public open space contains the most amount of acreage downtown. Chart H shows the increase in percentage of public open space in proportion to the two types.



**Chart H
Proposed Open Space
Types
36 Acres**



2. Expanding Open Space

Durham needs a planned open space network if it is to realize its potential as a great city. Its open space system should provide a vibrant mixture of spaces. A variety of open spaces should be located within a walkable distance and joined by pedestrian-friendly streetscapes and trails.

Public Open Spaces. Public open spaces and greenways help build community, promote equality, and help preserve our environment. It is absolutely necessary for a city to have spaces for all citizens to gather. Figure 23 shows the expanded coverage of the proposed public and existing open spaces in green hatching. Public open space is planned in the center-east with the goal of uniting public buildings and forming stronger civic connections between the eastern and western parts of the City. The proposed public open space on Ramseur Street at DPAC attempts to connect the north and south. The greenways offer greater east-west and north-south connectivity, and also provide smaller public open spaces within the greenway corridor. The proposal for the American Tobacco Trailhead is to transform the trail from a pass-through into a destination.

Semipublic Open Spaces. The proposed public open space network will not be complete without semipublic spaces. Tracts of land over four acres in size will be encouraged to develop open spaces that both serve development and are inviting to the public. These potential spaces are shown in purple on Figure 23. Semipublic spaces are important because they offer a wider range of programming, tend to use more expensive materials and require higher maintenance budgets, and integrate open space with businesses and restaurants. Durham has great examples of high-quality semipublic open space for development from which to learn.

Other Open Space Opportunities. The Plan actively promotes the value of open space in urban areas, which should have the effect of encouraging high-quality private open space. Greenroofs, which tend to be private spaces, are incentivized in the Plan, but not required. While exclusive in their use, private open spaces contribute to the appearance and environmental function of the City. The proposed light-rail stations should feature open spaces for people awaiting the trains. The two baseball stadiums serve as large civic attractions for the City, hosting not only baseball games but also other events and festivals. Because the stadiums charge entrance fees, they fall within a special category. Other small-scale open space opportunities might be found within the streetscape itself. A small increase in the width of the streetscape can provide a thoughtful seating area or a space for a hotdog cart. The Plan attempts to connect Downtown to open space opportunities just outside of the Downtown within the Urban Tier. These spaces will be covered in more detail in the Urban Open Space Plan.

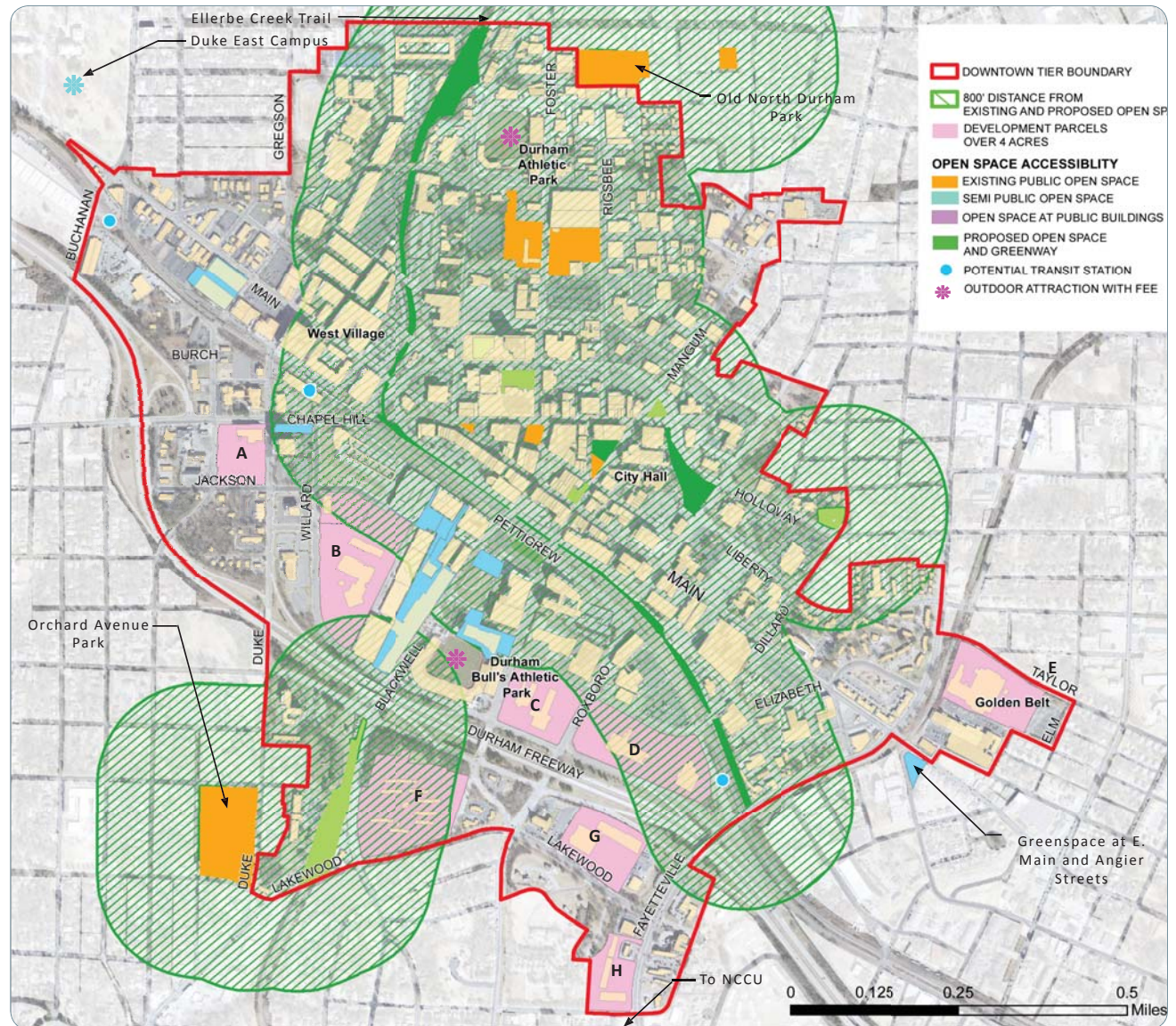


Figure 23. An 800-Foot Range of Existing and Proposed Open Spaces.

E. Implementation

1. Additional Funding Sources

Secure adequate funding for open space development and continued maintenance.

Implementation of this Plan relies upon funding and the ability to secure public and semipublic open space. The key to success for any approach is coordination among the stakeholders.

Although substantial contributors, private developers cannot be relied upon to provide all of the funds necessary for the City to implement this Plan. A significant portion of funding will need to come from City-leveraged sources or from existing funds to be directed toward downtown open space development. Such sources might include:

- ▷ **Public Art Funding.** In 2011, the City adopted the “One Percent for Public Art” program as part of its Capital Improvements Program. Public art requires sufficient open space to be effective, as sculptures and murals need open space around them. Art pieces require pedestals, lighting, paths, and sometimes landscaping. Many of the conceptually designed open spaces in this Plan include sculpture and art spaces in the site design. The concept for the Durham Performing Arts Center Green envisions a functional landscape that becomes a large “land art” installation for the City. There are many crossovers between art and space design, and Durham can use this funding source for its open space development plan.
- ▷ **Grant Funding.** The Plan can be used as a supporting document to obtain grants. The draft of the plan has already been used to seek TIGER grant funding for the Beltline Trail. Grants can come from state, federal, foundation, or private sources. A grant can fund specific aspects of an open space, such as benches on a greenway, or even an entire plaza or park site. The City can look for grant opportunities as they arise and channel funds into the recommended Downtown open spaces. Transportation grants, particularly for bicycle and pedestrian facilities, could be obtained to develop the transportation aspects of the open space system. An additional opportunity is a grant through the Clean Water Management Trust Fund for one or more of the stormwater facilities, pavement reduction, or stream restoration opportunities outlined in this Plan.

- ▷ **General Fund.** The City’s General Fund can provide funds to implement Plan, through annual allocation and the Capital Improvement Program (CIP). Major improvements that require a large amount of financial resources at one time are best programmed through the CIP. The City could allocate funds through the CIP to build a major component of the open space system. Smaller projects for improvements to existing open spaces can be funded by the City Council on a yearly basis.
- ▷ **Business Improvement District Funds.** The Business Improvement District (BID) places a tax on businesses within Downtown. These funds are not currently designated for any physical improvements, but rather focus on maintenance, programming, and public information. As the BID is re-evaluated in the future, it could potentially provide a source of funding for developing future open space and enhancing pedestrian pathways to increase connectivity throughout Downtown.

2. City Property Development

Incorporate open space requirements in requests for proposals for development of City- and County-owned property downtown.

A significant number of parcels selected for the recommended Downtown open space network are already under City and County ownership. Many are currently parking lots adjacent to City-owned parking structures, and could be repurposed. Many City departments have begun to coordinate solutions for the challenges of increased parking demands resulting from current and projected development. Staff recognizes the demand for a coordinated approach that achieves a balance between parking access and quality of open space. The recommendations in this Plan reflect the conversations and conclusions that have taken place across City and County departments to meet those varying needs.

The City and County can also include provisions for open space as part of the requests for proposals to develop publicly owned property. This approach would be most appropriate for larger parcels or land tracks, and in areas of insufficient urban density.

3. Departmental Coordination and Responsibilities

Implementation of the plan will be done in coordination with numerous departments, especially since many of the spaces in the plan will be in conjunction with other projects. As opportunities arise the Plan will provide a document to support and guide planning efforts in relation to open space. All departments will help to bring the vision of the Master Plan to Downtown.

- ▷ The City-County Planning Department will develop and process the recommended text amendments to the Unified Development Ordinance;
- ▷ The Parks and Recreation Department will develop and manage the recommended impact fee program changes;
- ▷ The Parks and Recreation Department will provide maintenance and program spaces;
- ▷ The Transportation and Public Works Departments will coordinate streetscaping and pedestrian crossings;
- ▷ The Real Estate Office the County and of the Real Estate office of the City’s General Services Department will include open space in their request for proposals for development of City property;
- ▷ The Stormwater Services division of the Public Works Department will manage stormwater control devices incorporated into open spaces;
- ▷ As proposed sites, such as the area near City Hall, are developed when the Downtown Loop is reconfigured, consultation with the Transportation and Public Works departments will be necessary; and
- ▷ The General Services Department will provide guidance on tree plantings and the ideal level of increase in tree canopy as well as undertake construction management and property acquisition.

Other City departments and outside agencies will also be consulted as part of Plan implementation. Many of the spaces recommended in this Plan are on land currently owned or controlled by either the North Carolina Department of Transportation, the North Carolina Railroad, or Norfolk Southern. In order for implementation to begin, memorandums of understanding, easements, or lease of ownership will occur.

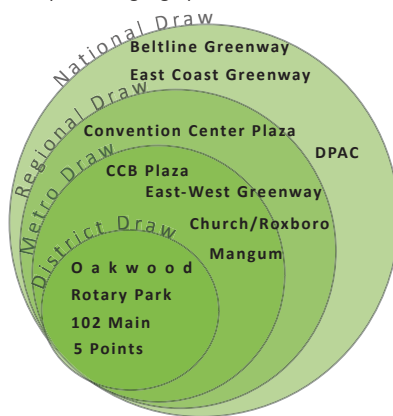


Conclusion

The Draw of Open Spaces

Visitors to downtown have been increasing due to the improving street conditions, the variety of attractions and the many celebrated dining establishments. To accommodate this growth as well as the continuous demand for accommodation from the universities and hospitals, several new hotels are emerging. These visitors will utilize downtown open spaces and greenways and will spread their impressions to the rest of the country. Downtown Durham will be evaluated on both the quantity and quality of its open space and the ease of pedestrian connections in between.

Downtown public open spaces are not just for residents and hotel patronizing visitors, these spaces serve as outdoor gathering centers for all of Durham. In addition to residents, downtown spaces have the potential to draw the region for festivals, races and concerts. Visitors can also be drawn to an event in Durham and then utilize an open space as an extension of the event. The open spaces proposed at the DPAC or at the Convention Center Plaza can also play a role of framing the experience of the main event. These spaces have regional and even national draws. The above diagram examines the potential geographical draw of different sites.



Summary

Recommendations in this Plan strive to address the goal of creating an interconnected network of high-quality open spaces that promote sustainability, placemaking, and livability. It was developed as a collaboration between local stakeholders and staff who have worked to balance the needs of economic development, urban building form, parking, transportation, and environmental concerns with the desire for high-quality open space. In 2020 the plan should be revisited to gauge pace of implementation, service to users and level of maintenance.

At the outset of the project, community stakeholders identified a vision for open space in Downtown that included:

- ▷ A variety of open spaces ranging from nature-focused to civic-focused;
- ▷ Diverse and dynamic opportunities for outdoor social, civic, and recreational activities;
- ▷ Linked corridors and streetscapes that connect urban neighborhoods to Downtown; and
- ▷ Landscape design that promotes safety, serves environmental functions, and complements the urban fabric.

The Plan responds to this vision in a number of ways, through broad policy statements, site-specific recommendations, and steps of implementation.

Nature and Civic. An array of open space concepts are considered in the Plan, ranging from a large stream restoration at the American Tobacco Trailhead to the North Mangum Street open space. Many sites are envisioned to be multifaceted, such as the Church Street/North Roxboro Street park space, which incorporates both hardscapes and greenscapes.

Diverse and Dynamic. Open spaces in Downtown need to serve many functions, from providing opportunities for civic gathering to augmenting the architecture of surrounding buildings. The most successful spaces are those designed to serve and adapt to meet the needs of multiple functions. In this Plan, the re-envisioned Civic Center Plaza both enhances the views of significant buildings and provides a space that can function for large events or small picnics.

Linked Corridors. Mobility within and connectivity to Downtown form a recurring theme throughout the Plan's recommendations. In particular, the conceptual designs for the Downtown Greenway and Gateway Overpass, and the Durham Performing Arts Center Green and Skywalk, are intended to provide solutions for connecting the American Tobacco and Diamond View campuses across the railroad tracks into the Downtown core.

Landscape Design. The concepts in this Plan have been carefully considered to suggest native plantings, public art, recycled materials, and other features, such as playgrounds and basketball courts, benches and tables, unobtrusive stormwater devices, and fountains.

In summary, all of these factors will serve as a guide for future development in the Downtown Tier to facilitate the best possible design for open spaces that thrive, and which connect, sustain, and support a livable built environment.

CHAPTER FOUR

"The art of urban design follows a naturalistic process. The designer does not give form to a preconceived idea, they take the elements and allow them to come together, they find new relationships between things, and only then do they exercise control by making selections. The form evolves as the total process is in progress. The search for form is a search for valid processes."

Lawrence Halprin
Cities

DOWNTOWN OPEN SPACE SURVEY

Highlights from the Open Space Survey conducted in March-May, 2011

Survey

Background on the Survey

In order to capture thoughts about open space downtown, the Durham Open Urban Space Project Team created a detailed Downtown Open Space Survey. The majority of responses came from a public meeting in March. The survey asked people a variety of questions about the great open spaces they've experienced, their visions for open space, walkability, availability, use and ownership. The meeting featured a movie on open space in space conversations between staff and people who attended the meeting. People who couldn't make the meeting could access the survey online from March through April. The survey was promoted via the PAC lists, the DOI list and neighborhood lists. The results of the survey were varied, nuanced and interesting. They showed real care and thought about open spaces and quality of life downtown. Forty people responded to the survey. Few respondents lived downtown. Primarily respondents worked, shopped or recreated downtown.

Where have you experienced great downtown open space? Why did you think it was great?

Frequently mentioned major American cities:

New York	10
Chicago	7
Boston	3
Portland	3
Philadelphia	3
Washington DC	1
Seattle	1

Frequently mentioned major American public spaces:

NYC Central Park	4
Fancy Park	2
Bryant Park	2

Chicago Millennium Park	2
Lake Shore Drive	1

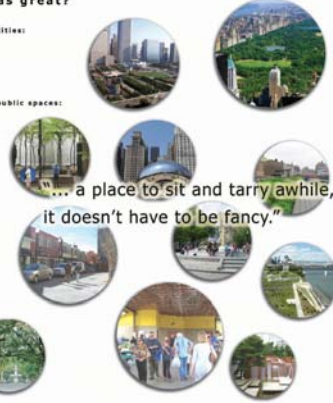
DC Popart Circle	2
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Frequently mentioned regional cities:

Savannah GA	2
Louisville KY	2
Atlanta	2
Asheville	2

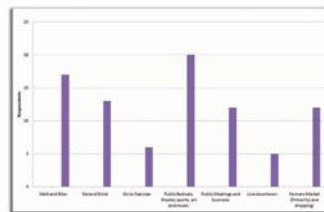
Local Spaces:

Durham Farmer's Market/Central Park	4
Durham ATC	2
Carboro Weaver Street Market	2
Raleigh Capital Square	2

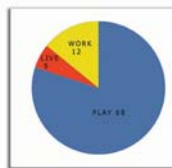


The answers indicated that the respondents are well traveled to major American and European cities and though there was a real diversity of places, some clear patterns did emerge. Italy's piazzas were cited 3 times. Mexico was mentioned twice as having good public spaces.

How do you live work and play in the downtown?



Groupings of respondent's activities categories.



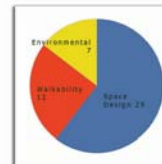
Groupings of respondent's activities into work, live and play.

Respondents wrote short paragraphs describing their activities downtown. Their responses contained several activities. Staff grouped the responses into multiple categories. The bar chart above indicates that downtown is well utilized for a variety of recreation activities. Respondents were less inclined to mention they worked or lived downtown. Staff then re-categorized the responses into three groups: live work and play. The pie chart above illustrates that the predominant view of the downtown by those surveyed was for recreation.

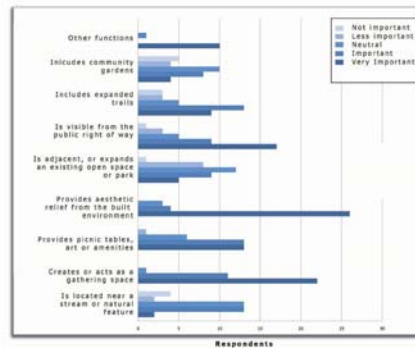
What is your vision for Durham open space?



People responded to this question with diverse ideas. Most ideas were thoughtful and followed good urban planning and design practice. The individual responses added a lot of color and experience that charts can't capture. Generally most of the answers could be sorted to three themes: walkability, environmental mitigation and good space. Generally, people wanted multi-use spaces at different scales and to provide a variety of experiences.

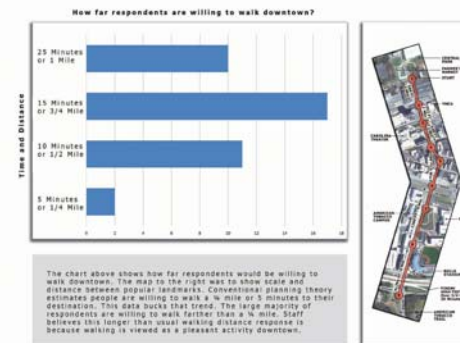


Opinions about open space functions



The majority of respondents placed a higher priority on relief from the built environment. Many were interested in open spaces multi-use features and it's gathering space potential. Many wanted the spaces to be viewed from the public right of way. Some people were passionate about these features and provided extra comments, including plans for gardens as community gathering and teaching tools, like the teaching garden at the Farmer's Market. Walkability was a large concern.

How far are you willing to walk to reach another downtown location?



The chart above shows how far respondents would be willing to walk downtown. The map to the right was to show scale and distance between popular landmarks. Conventional planning theory estimates people are willing to walk a 1/4 mile or 5 minutes to their destination. This data backs that trend. The large majority of respondents are willing to walk farther than a 1/4 mile. Staff believes this longer than usual walking distance response is because walking is viewed as a pleasant activity downtown.

When do you typically visit downtown Durham?



The majority of respondents consider downtown a good place to visit on both weekends and weekdays. They tend to visit downtown in the evenings more often than during the daytime. This would indicate that an open space network downtown would be heavily used at all times, especially if the space were in conjunction with a dining or entertainment area.



APPENDIX B

Master Plan Charrette

For the second public meeting of the Downtown Open Space Plan, participants were presented with the results of the survey. They were then asked to complete an exercise, listing the qualities of good downtown open spaces. Participants were then asked to complete a master plan of potential parks and plaza sites, and of a pedestrian connection system.

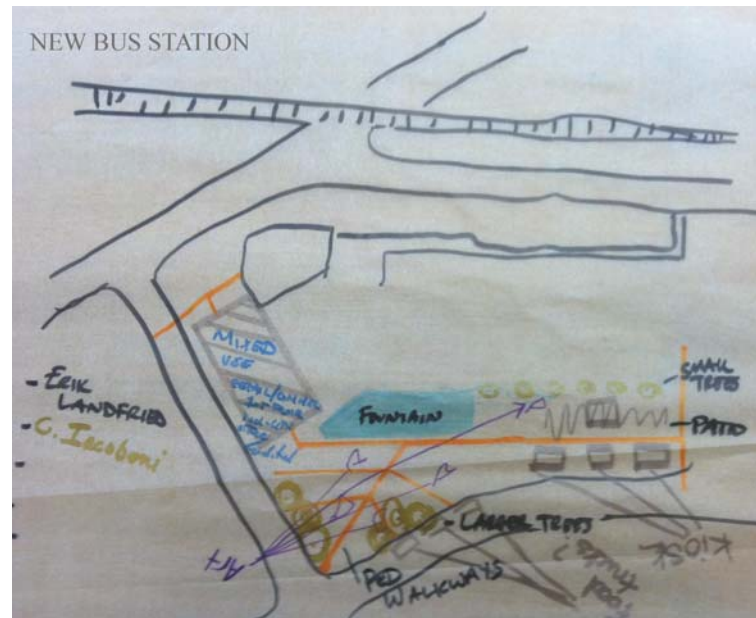
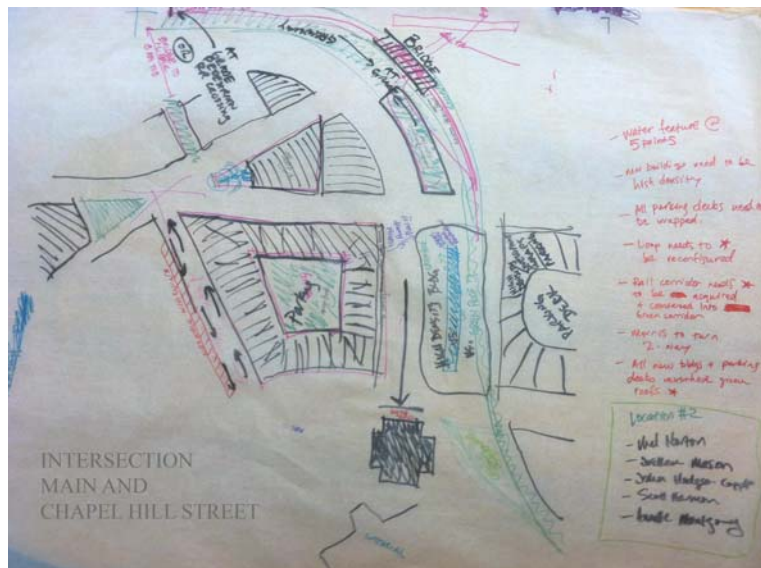
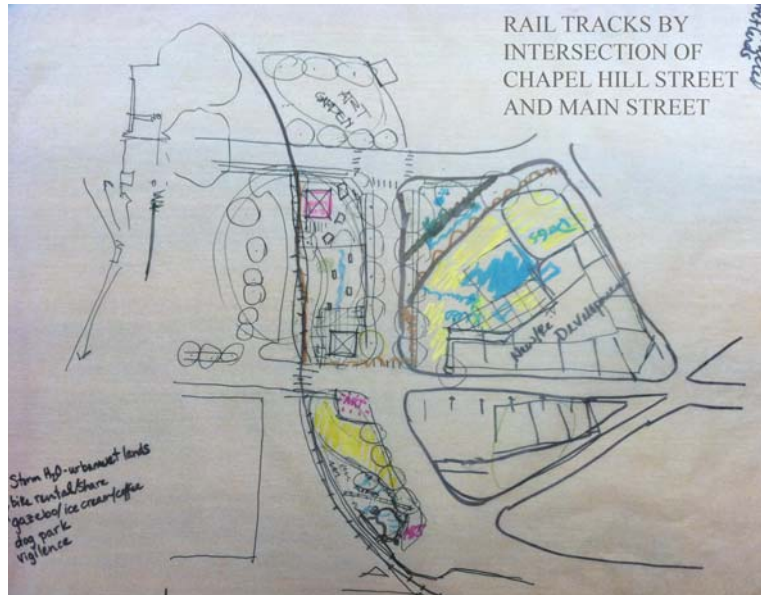
Forty-five participants were split into 6 teams who proposed master plans and then presented their concepts to the larger group.

Staff members scanned and overlaid the drawings in Adobe Photoshop to identify similarities and differences between the participants' plans and the Downtown Open Space Plan. The plans were also color-coded for readability.

Staff analyzed the plans and presented the results of their analyses via an online video and at the next public meeting.



Example of a proposed master plan from the charrette



Site designs from Charrette groups

APPENDIX D

Duke Belt Line Trail

The City of Durham recognizes the potential of the Durham Beltway as important pedestrian connection. The Planning Department was asked to help visualize the spaces and function of the Beltline to assist the Transportation Department with a TIGER grant for master planning the trail. The grant application was successful. The graphics to the left were used to apply for the grant and can be a starting point for the later design. This trail is an important feature of the both the Downtown and the Urban Open Space Plans.

