

Innovative Design Overlay District

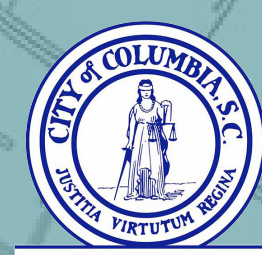
Columbia

# CAPITAL CITY MILL DISTRICT AREA AND CORRIDOR PLAN

Imagine the Future of the Capital City Mill District

**Whaley**      **Olympia**      **Granby**

*Imagine Mill District*



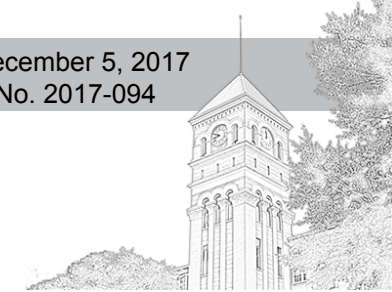
We Are Columbia





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Listening to those who live and work in the Capital City Mill District, getting to know this very special place, and subsequently creating a roadmap for the Mill District's future have been an honor for our team. There is a shared, deep-held belief in the history of the Mill District and its potential. There is a spirit of collaboration within the Mill District that served as a strong foundation to this planning process. The City of Columbia and Richland County brought this same spirit of collaboration to the process, agreeing to envision and work together for the good of this community. This collaborative spirit will be critical to the success of the plan's implementation.

The Capital City Mill District Area and Corridor Plan process has prospered from the partnership between Richland County and City of Columbia staff. They have been committed stewards of the needs, resources and ideas of their respective jurisdictions, yet have managed this process as one entity: the Capital City Mill District Area. Members of the Planning Advisory Committee have been passionate advocates for the needs and visions of residents and property and business owners. This is their home, and they have represented their community beautifully while providing very thorough counsel to our team.

The Imagine Mill District Planning Team applauds Richland County Council and Columbia City Council for supporting and committing resources to this collaborative planning process. This establishes a new precedent for multi-jurisdictional planning within the State of South Carolina. The County and City Planning Commissions provided feedback and support and will be essential to the Plan's implementation.

The Imagine Mill District Planning Team especially thanks Richard Burts and Tom Chinn for their support and generosity in the use of the 701 Whaley for Imagine Mill District meetings and workshops. 701 was the ideal place to gather as it is a testament to community will and vision and to the value of investing in and preserving historic places.

Shepherding the Capital City Mill District Area and Corridor Plan has been a privilege.

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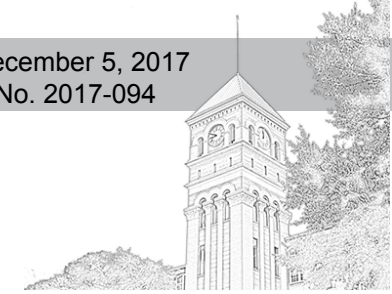
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Nowhere in the Midlands is the spirit of community, conservation, preservation and neighborliness as alive as it is the Capital City Mill District (the Mill District). The Mill District is a rich tapestry of memories and the buildings and landscapes that shaped those memories. It is and has been a mill village, a crossroads of rail lines and commerce, a home to “lint heads” and new generations, and a focal point for growth and development. The Mill District is thriving, as evident in the success of 701 Whaley, the new student housing, and the potential redevelopment of the former Capital City Ballpark redevelopment site. However, the Mill District continues to struggle with the pressures from increased traffic, working around the trains, the impacts of increasing numbers of students living within the fabric, and the challenges of cross-jurisdictional governance between City of Columbia and Richland County.

There has never been a more exciting time for the Mill District due to the unprecedented and committed collaboration between the City, County, and commitment of the Mill District stakeholders. *The Capital City Mill District Area and Corridor Plan* is a product of broad community input and research. The planning team listened to the community in order to capture the imaginations of those who live, work, and play in the Mill District.

The following principles support the *Capital City Mill District Area and Corridor Plan* and should serve as a shared statement of the community values in order to guide the plan implementation process. These principles should encourage decision-makers, developers, designers, business owners, and residents to consider how each project, policy, business, new building or park supports the long-term implementation of the plan and, therefore, reflects the vision of the Mill District.

This is an implementation plan: one with short, medium, and long-term strategies to implement once the Plan is adopted. These strategies are grouped under four big ideas. The hope is that this plan will support past efforts by leveraging resources and shared strategies, making implementation practical upon adoption.

This plan should be reviewed regularly and updated as needed. Periodic updates will further advance the Big Ideas due to improved transportation, higher rates of owner occupied housing, new retail, commerce, cultural development, and new public and private investments. Priorities can and will change due to successes and available resources. Updating the Plan will ensure that the Plan remains relevant and continues to support the vision.

## VISION

The Capital City Mill District is a thriving community celebrated for the preservation of its history and its embrace of the creative and innovative classes, dynamic new investments, diverse housing opportunities, and a comprehensive multimodal network. The Capital City Mill District is a beautiful community defined by unique neighborhoods, sustainable development, the conservation of trees, riparian areas, and the Rocky Branch, and well-connected parks and greenways that exemplify environmental stewardship and a spirit of collaboration. The Capital City Mill District will continue to be an attractive destination due to its accessibility to authentic cultural offerings, local shopping and dining, and its proximity to the Congaree River, downtown Columbia, and USC. The Capital City Mill District embodies community spirit and hope in the future.

## GUIDING PRINCIPLES

The Capital City Mill District is a strong, unified community of unique historic neighborhoods; therefore we commit to the following principles:

- We will preserve the architectural character of the Mill District through the rehabilitation of existing structures and through infill and new development that respects the scale and design attributes of the mill village vernacular and reflects aesthetic excellence and authenticity.
- We will be committed stewards of the Rocky Branch watershed, the Congaree River and the Mill District parks and natural resources in order to preserve their beauty, accessibility, purpose, and health.
- We will create and foster partnerships and collaborations across agencies and community organizations.
- We will strive to provide opportunities to celebrate and to promote the Mill District’s culture, history, the arts, natural resources, and industry.
- We will be engaged in and contribute to public efforts that will impact the quality of life within the Mill District and the safety and prosperity of the community.
- We will strive to foster a spirit of innovation and creativity as we work to revitalize our neighborhoods and advance economic opportunities, particularly for local businesses.
- We will promote a safe, multi-modal, well-connected transportation network that works in concert with the Mill District fabric, the historic context and natural resources.
- We will strive to preserve and encourage housing choices appropriate in scale and character.

## GOALS

The goals of the Capital City Mill District are to provide a collaborative and equitable community framework in order to:

- Protect, preserve, elevate and celebrate the authentic history, architecture and fabric of the neighborhoods
- Revitalize and complete corridors and greenways that will safely and beautifully connect people to the Mill District’s unique places and resources
- Encourage increased homeownership, community investment, and stewardship
- Manage the Rocky Branch, parks and natural environments for increased enjoyment and stewardship
- Balance conservation and development
- Create and support opportunities for residents to engage and to prosper

**BIG IDEA 1:**  
Implement placemaking policies and projects

**BIG IDEA 2:**  
Manage trains, transportation & traffic

**BIG IDEA 3:**  
Unify and connect the district to the greater community

**BIG IDEA 4:**  
Improve environmental stewardship





## PROCESS

### INTRODUCTION

As stated by one resident during the April public meetings, the Mill District is a tapestry of rails, streets, people, and greenways. The analogy of a tapestry is appropriate in a couple of ways. First, the obvious connection is the Mill District’s genesis and reason for being: textiles. The sounds of the looms, the machines, and the whistle at the end of the day still echo among the houses and trees and the landscape. In creating a strong tapestry, the weaver creatively weaves, warps, and wefts threads of different colors, weights, and materials. These tapestries may serve utilitarian purposes or could serve as icons, or memorials. They may be used to strictly bring joy and wonder, while also serving as unique works of art.

In the warp and weft of a tapestry, very interesting things happen – beautiful knots or patterns give character to the piece based on the weaver’s vision. However, if the weaver loses focus on the vision, the tapestry could unravel, creating holes that weaken the fabric.

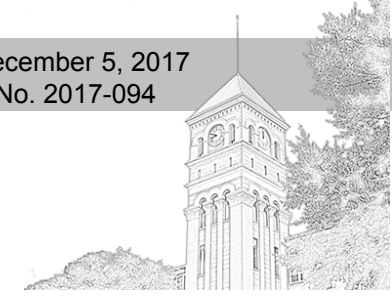
Weaving together a community is very similar. A community is a creative blend of diverse people, buildings, economies, colors, dreams, landscapes, and opportunities. Just as a tapestry is richer, stronger and more authentic through the creative use of materials, so, too, is a community richer, stronger, more authentic, and more purposeful through the creative and intentional use of a warp and weft of resources.

The recommendations presented in this report are authentic to the needs, vision, and purposes of the Mill District. They are a weaving of policies and ideas for transportation, building economies of place, watershed protection, architectural heritage, livability, and community building. The Mill District is a tapestry-not just a singular thread or color, but a rich fabric of multiple threads.

### TIMELINE

- ◆ **March 23, 2016**  
Project team meeting to prepare for public/stakeholder workshops in April
- ◆ **April 15, 2016**  
Olympia Fest: Hosted a booth and conducted surveys (108 respondents)
- ◆ **April 26, 2016**  
Meeting with Rocky Branch Watershed Assessment consultants
- ◆ **April 27-28, 2016**  
Public meetings, stakeholder workshops, PAC tour of district
- ◆ **May 17, 2016**  
Meeting with the River Alliance
- ◆ **May 26, 2016**  
Capital Mill District Planning team work session
- ◆ **June 6, 2016**  
Railroad coordination teleconference with CSX
- ◆ **June 9, 2016**  
SCDOT Rail Office and Preconstruction office meeting
- ◆ **June 20, 2016**  
Railroad work session  
Pre-PAC work session and PAC work session
- ◆ **June 29, 2016**  
Team work session and public meeting
- ◆ **June 30, 2016**  
SCDOT/NS/CSX coordination meeting  
PAC work session on potential rail and transportation alternatives
- ◆ **July 11, 2016**  
Joint City/County Planning Commissions meeting
- ◆ **July 27, 2016**  
City/County railroad coordination meeting
- ◆ **August 23, 2016**  
Meeting with Mill District developers and commercial property owners
- ◆ **September 27, 2016**  
Meeting with Vulcan leadership
- ◆ **September 28, 2016**  
Work session with City and County staff
- ◆ **October 3, 2016**  
Meeting with City and County leadership to discuss rail consolidation alternatives
- ◆ **October 5, 2016**  
PAC meeting and Public Workshop including presentation of preliminary recommendations
- ◆ **October 18, 2016**  
Meeting with USC Campus Architect
- ◆ **November 2, 2016**  
Meeting with USC Foundation
- ◆ **November 30, 2016**  
Public Workshop and presentation of preliminary recommendations
- ◆ **December 8, 2016**  
Meeting with USC Facilities and Transportation
- ◆ **December 20, 2016**  
Staff provided updates to City and County Council
- ◆ **January 6, 2017**  
PAC Workshop
- ◆ **January 11, 2017**  
Whaley Neighborhood Presentation
- ◆ **February 1, 2017**  
PAC Workshop  
March 6, 2017  
Update to County Planning Commission
- ◆ **March 20, 2017**  
Update to City Planning Commission
- ◆ **June 21, 2017**  
PAC meeting to review draft Plan
- ◆ **August 17, 2017**  
Public meeting to review draft plan
- ◆ **September 21, 2017**  
City/County Planning Commission Joint Work Session
- ◆ **October 2, 2017**  
Recommendations by City and County Planning Commissions
- ◆ **October 24, 2017**  
County Council Presentation
- ◆ **November 14, 2017**  
Richland County Adoption
- ◆ **November 21, 2017**  
City Council Presentation
- ◆ **December 5, 2017**  
City of Columbia Adoption





The Mill District is defined by the original mill neighborhoods of Granby, Whaley and Olympia. The District contains five (5) of the original six (6) mills developed in Columbia around the turn of the Twentieth Century and consists of Granby, Olympia, Capital City, Palmetto, and Richland Mills. The study area consists of approximately 838 acres - 330 acres within the City of Columbia and 508 acres within unincorporated Richland County.

The purpose of the *Capital City Mill District Area and Corridor Plan* is to create a plan that will establish a community vision for the future development of the study area. The Plan will provide recommendations and implementation strategies to achieve that vision.

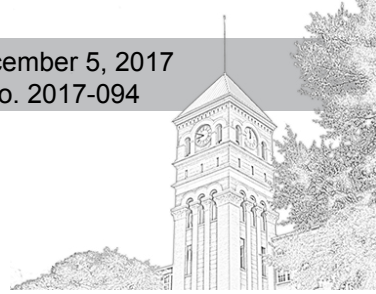
The Mill District is experiencing significant change and development pressures from a resurgent urban center and a growing university. It is located between an industrial area to the south, and the central business district to the north. To the west are a stone quarry and the Congaree River, and to the east is the University of South Carolina. The area contains a diversity of uses from historic neighborhoods (Granby, Olympia, and Whaley), to student-oriented housing and a variety of lower density commercial and light industrial businesses. A proposal to purchase and redevelop the Capital City Ballpark site underscored the need for a plan for the South Assembly Street corridor, given its strategic importance as a major gateway into Columbia. Concurrently, the adjacent neighborhoods have been struggling with issues of transportation, parking, traffic, land-use incompatibility, water quality and flooding. The boundaries of the study, shown in **Figure 1**, includes land within the City of Columbia and unincorporated Richland County, and the jurisdictions have resolved to work together to facilitate a plan to address the issues of the community, which includes the corridor and adjacent neighborhoods.



Figure 1: Mill District Study Area

City of Columbia Municipal Limits  
Unincorporated area of Richland County





## PREVIOUS PLANS OVERVIEW

Since 1978, several plans have been developed for the Mill District area and neighborhoods. A general overview of the following plans revealed a history of common ideas for addressing challenges and improving the Mill District. A few of the common threads include: managing traffic and trains; preservation of the mill vernacular architecture; improving stormwater management; improving housing opportunities; connectivity; and developing more retail, service and business amenities. The *Capital City Mill District Area and Corridor Plan* strives to build on these previous plans while becoming a plan of action for bringing this vision to life.

*Plan Together, Putting the Pieces in Place* was a first-time, coordinated planning process for both Richland County and the City of Columbia. The City updated the Land Use Element of its Comprehensive Plan, and the County updated its entire Comprehensive Plan, which resulted in shared strategies and a coordinated Future Land Use map. This coordination has continued through the *Capital City Mill District Area and Corridor Plan*.

### 1983 OLYMPIA NEIGHBORHOOD DEVELOPMENT PLAN

#### GOALS

- ◆ Housing: Improve the quality and variety of housing.
- ◆ Land Use and Zoning: Organize the relationship between land uses logically and efficiently to form a well-planned neighborhood.
- ◆ Transportation: Provide for a system of adequate street coordinated with the pattern of existing and proposed land uses and activities to achieve the safe, efficient movement of people.
- ◆ Public Safety: Provide a system in which lives and property of individuals living in the neighborhood are protected.
- ◆ Community Facilities: Provide for a full range of public open space and recreation areas.
- ◆ Storm drainage and Erosion Control: Correct major storm drainage problems.
- ◆ Sewer Facilities: Provide sewer service to all homes in the area.
- ◆ Economic Development: Improve the economic standards and conditions for residents.

### GRANBY WHALEY OLYMPIA PLAN (1999)

#### DESIRES

- ◆ A Quarry Access Road
- ◆ "Milltown Commons" area, public "control" and park
- ◆ Village Traffic Calming: Whaley Street and Olympia Avenue
- ◆ Mill Village Development / Housing Development Corporation with revolving fund
- ◆ Village Railroad Quiet Zone
- ◆ Community Accessible Renovated Olympia School

- ◆ Neighborhood Public Health and Safety Study
- ◆ Neighborhood Transportation Study: Road and Railroad
- ◆ Rocky Branch Restoration
- ◆ Three Rivers Greenway Mill Villages Riverlink

### RICHLAND COUNTY COMPREHENSIVE PLAN (2015)

#### GUIDING PRINCIPLES

In the future, as it assesses new opportunities and coordinates with local and regional partners, Richland County will...

- ◆ Balance land planning and development goals with private property rights
- ◆ Support the Midlands regional vision for growth within Richland County
- ◆ Promote investment in existing communities and support redevelopment opportunities
- ◆ Coordinate land planning and infrastructure planning to efficiently provide public services and to support a preferred growth pattern
- ◆ Coordinate land planning with Columbia and other jurisdictions, with a focus on areas of common interest
- ◆ Support the continued viability of agricultural, horticultural and forestry operations
- ◆ Support military installations and their operations through land planning
- ◆ Support economic development by investing in targeted areas
- ◆ Improve quality of life by fostering development of livable communities

### PLAN COLUMBIA LAND USE PLAN (2014)

#### VISION STATEMENT

The City of Columbia will embrace the opportunities afforded by the coming decades of growth to become a destination for people and businesses. We will focus our efforts on reinvesting in our existing neighborhoods and business districts and growing where there is opportunity to increase housing choices. Our southern spirit will be embodied in a built environment that embraces sustainable and unique design while providing a rich and dynamic environment for our people and businesses to thrive.

#### GUIDING PRINCIPLES

We believe in...

- ◆ High quality design of the built environment—public and private architecture, streetscape, corridors, gateways and edges—that distinguishes the City.
- ◆ Strong neighborhoods with distinct identities and amenities within walkable distances.
- ◆ A connected greenway system that links waterways and environmental corridors as well as reaches into neighborhoods.
- ◆ A range of housing choices—type, price, and location—that serves a diverse population.
- ◆ A strong city center with increased intensity, mix of use, and vibrant and active public realm.
- ◆ Better utilization of vacant structures and land— through infill and redevelopment—that is well-served by infrastructure and adjacent to developed land.
- ◆ Greater intensity of development at strategic locations that creates a mix of uses and a critical mass required for a vibrant community.

- ◆ A connected community with ease of mobility that better balances the needs of pedestrians, automobiles, bicyclists, and transit users.

### WALK BIKE COLUMBIA: PEDESTRIAN & BICYCLE MASTER PLAN (2015)

#### VISION STATEMENT

Walk Bike Columbia envisions an expanded and ADA-accessible network of transit, sidewalks, greenways, trails, and on-street bicycle connections linking people to jobs, schools, destinations, adjacent communities, and one another. The network serves residents, commuters, students, and visitors alike. Walking, biking and transit are an integral part of City projects, policies, and programs and are perceived as routine, efficient, safe, and comfortable options for both transportation and recreation. People of all ages and abilities enjoy walking and biking and benefit from enhanced quality of life, public health, and economic opportunity.

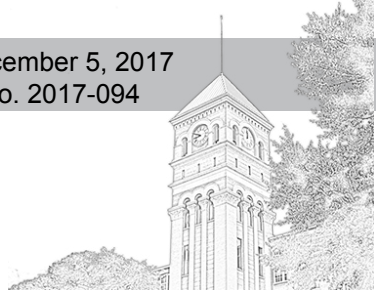
#### GOALS

- ◆ Choice - Provide a range of transportation options to advance Columbia's multimodal linkages and transportation culture.
- ◆ Awareness - Increase education, encouragement, and enforcement related to biking and walking to build confidence for residents.
- ◆ Safety and Comfort – Improve safety while designing attractive and comfortable streets, trails, and greenways for all users.
- ◆ Accessibility – Institutionalize universal design principals to meet the needs of all modes and all users.
- ◆ Connectivity and Convenience – Biking, walking, and using transit for transportation will be easy, efficient, and routine activities.
- ◆ Evaluation – The City will measure progress towards advancing the vision and goals of Walk Bike Columbia.
- ◆ Usage – The transit-, walking-, and biking-environment will help inspire movement in everyday life.
- ◆ Implementation – Local leadership, coordination, and funding will allow the continued growth of the network.

### ROCKY BRANCH WATERSHED ASSESSMENT REPORT (2016)

#### SUMMARY

The Rocky Branch Watershed Assessment report of May 20, 2016 prepared by McCormick Taylor set forth many recommendations subwatershed by subwatershed. Of particular note to the Mill District planning process were the Capital Improvement Projects and other Low Impact Development solutions that were outlined for those subwatersheds within the Capital City Mill District: Mill Villages A & B, Fairgrounds, Rosewood, USC and Outlet. The Assessment indicated that relieving the existing choke points along the Rocky Branch will help with flood volumes, while stream restoration and the infiltration that can be built within the Mill District itself will improve water quality.



On April 27-28, 2016, the City, County, and planning team hosted a series of public meetings and focus groups to gather initial input from Mill District stakeholders. Over the two days at 701 Whaley, numerous residents, business owners, developers, community advocates, and elected leaders shared their concerns, hopes, and ideas for the future of the community. The focus groups addressed issues such as conservation, cultural facilities and programming, parking, school facilities, greenways, transportation, neighborhood preservation and economic development. The input gathered formed the foundation of the *Capital City Mill District Area and Corridor Plan's* framework and recommendations and was built upon throughout the planning process. Following is a summary of input from the April meetings.

### WHAT IS MOST SACRED IN THE MILL DISTRICT?

- Olympia Avenue ♦ The Mills ♦ 701 Whaley: catalyst, gathering point ♦ Residential Neighborhoods ♦ Olympia Park ♦ Pacific Park ♦ Olympia School ♦ Churches ♦ Congaree River ♦ Vulcan Quarry ♦ Mill Housing Architecture ♦ Mill History ♦ Mill Town Commons ♦ Rocky Branch ♦ Whaley Street ♦ Intersection of Whaley/Olympia ♦ Olympia Cemetery ♦ Granby Mills ♦ The Doughboy Statue (in current location) ♦ Three Rivers Greenway and Riverlink ♦ Active, engaged community members ♦ Character of the three different neighborhoods

### THE MILL DISTRICT WOULD BE PERFECT IF...

#### MULTI-MODAL, SAFE AND EFFICIENT TRANSPORTATION

Eliminate trains through the neighborhoods ♦ Manage truck and game day traffic ♦ Manage traffic and well-maintained infrastructure ♦ Complete streets: Pedestrian and Bike Infrastructure/Connectivity

#### MORE FAMILIES AND HOMEOWNERS LIVING IN THE MILL DISTRICT

Owner occupied homes and families moving back into neighborhood ♦ Neighborhood schools ♦ Street lighting and increased safety ♦ Safe and accessible sidewalks ♦ More transportation links to downtown, the Vista, USC, Cayce and others parts of the City and County (coordination with COMET and the USC transit)

#### VIBRANT ECONOMY OF PLACE

Neighborhood retail that is authentic and unique ♦ Diversity in services, restaurants and events ♦ More local businesses to serve residents ♦ Commitment to preservation of Mill history and architecture ♦ No longer a pass through, but a place where people choose to be ♦ Places where people meet, participate in and engage with the community ♦ "Thriving without Gentrifying"

#### EQUITABLE MULTI-JURISDICTIONAL REGULATORY FRAMEWORK

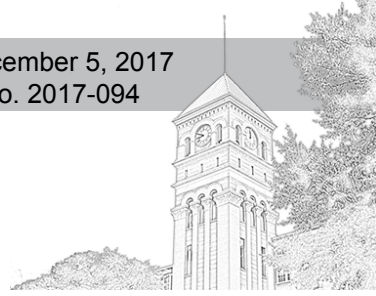
Equitable regulatory framework of City and County ordinances ♦ Political will, incentives and funding ♦ Managed rentals that support and enhance the standard of living for all

#### ACCESS TO RECREATION AND GREEN SPACE

Rocky Branch revitalized ♦ Railroad embankment incorporated in the greenway and Olympia park ♦ More community green space (active and passive) throughout the Mill District, particularly in the Olympia neighborhood ♦ Integrated connection strategy to the River







### BIGGEST CHALLENGES

- \_\_\_\_\_ Traffic: management, volumes, event parking
- \_\_\_\_\_ Trains: noise, schedules, safety, traffic disruptor, number of lines
- \_\_\_\_\_ Absentee landlords
- \_\_\_\_\_ Percentage of new housing dedicated to students
- \_\_\_\_\_ The existence of multiple jurisdictions
- \_\_\_\_\_ Negative stigma and perception
- \_\_\_\_\_ Lack of balance between commercial and residential development
- \_\_\_\_\_ Lack of available land
- \_\_\_\_\_ The proposed flyover and SC DOT strategies: lack of understanding, changed dynamics since originally planned
- \_\_\_\_\_ Lack of systemic approach to Huger Street and Whaley Street, which are the same
- \_\_\_\_\_ Lack of safe pedestrian and bike connectivity within the Mill District and to the greater community
- \_\_\_\_\_ Blighted properties
- \_\_\_\_\_ Lack of clearly identified and constructed crosswalks
- \_\_\_\_\_ Maintaining village atmosphere with the traffic and thoroughways
- \_\_\_\_\_ Keeping up with projected development density
- \_\_\_\_\_ Stormwater management and flooding
- \_\_\_\_\_ Lack of parking for business patrons
- \_\_\_\_\_ Funding all of the above

### THE BIGGEST OPPORTUNITIES

- \_\_\_\_\_ Richland County School District One warehouse and maintenance facility
- \_\_\_\_\_ Dreyfus Street
- \_\_\_\_\_ Ferguson Street
- \_\_\_\_\_ Olympia/Bluff
- \_\_\_\_\_ Capital City Stadium
- \_\_\_\_\_ Access to the Congaree River
- \_\_\_\_\_ Catawba Street: careful coordination with USC as IT corridor
- \_\_\_\_\_ The historic mill buildings along Assembly Street
- \_\_\_\_\_ Arts spaces
- \_\_\_\_\_ Jaco's Corner as Mill District gateway
- \_\_\_\_\_ Rehabilitation of historic mill homes
- \_\_\_\_\_ Use of vacant lots
- \_\_\_\_\_ Williams Street - Blossom Street - Gervais Street connection
- \_\_\_\_\_ Continued community engagement in decision-making process
- \_\_\_\_\_ Ensure affordable and variety of housing opportunities
- \_\_\_\_\_ Coordination with development along the District boundaries: impacts, infrastructure, and integration
- \_\_\_\_\_ Coordination with Vulcan Quarry
- \_\_\_\_\_ SCANA property on Assembly Street
- \_\_\_\_\_ Assembly Street Corridor, particularly with rail line consolidation
- \_\_\_\_\_ Multi-jurisdictional collaboration and planning
- \_\_\_\_\_ Tax credits, grants, incentives
- \_\_\_\_\_ Celebrating and preserving the sense of place and authentic mill character

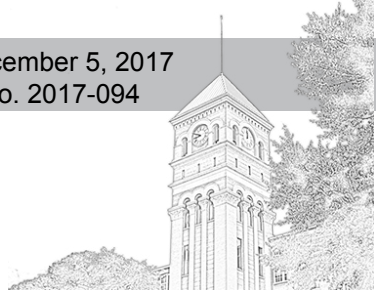
### WHAT DO YOU NOT WANT TO SEE IN THE MILL DISTRICT?

- \_\_\_\_\_ Big box stores (If allowed, ensure they adhere to design and development standards that reflect the community character)
- \_\_\_\_\_ Additional student housing
- \_\_\_\_\_ More big industrial businesses
- \_\_\_\_\_ Trailers, mobile homes
- \_\_\_\_\_ More unmanaged traffic

### WHAT ONE WORD BEST DESCRIBES THE MILL DISTRICT?







As specified in the original RFP, the purpose of the *Capital City Mill District Area and Corridor Plan* was “to create a plan that will establish a community vision for the future development of the study area and to create a plan that will provide recommendations and implementation strategies to achieve that vision.”

A robust public input process confirmed what the community wanted for the Mill District. The value of public input is that those who live, work and invest in the community are able to share their concerns and ideas and give form to the vision and strategies. The community shaped the following vision, goals and guiding principles and identified, early in the process, priorities to address throughout the plan.

The following priorities were identified early in the planning process:

- ◆ Community Identity, Placemaking and Community Vision
- ◆ Trains, Trucks and Traffic Management
- ◆ Rocky Branch and Stormwater Management
- ◆ Greenways, Bikeways and Sidewalks
- ◆ The development of an equitable regulatory framework across jurisdictional boundaries
- ◆ Vibrant, Authentic and Prosperous Economic Development that celebrates the Mill District character and history, encourages and supports homegrown businesses, provides neighborhood services amenities, attracts new home owners

These priorities were the foundation for establishing the four Big Ideas of the Plan’s recommendations.

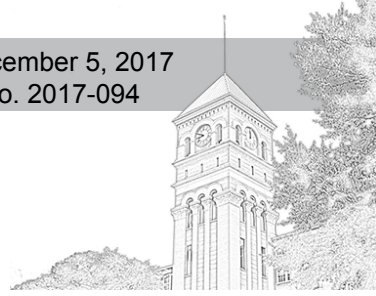
Throughout the public meetings and focus groups, participants shared what they would like to see and what they would like to be able to do in the Mill District in the future. The following vision scenarios reflect the possibilities from their ideas and imaginations.

We imagine a Capital City Mill District where...

- ◆ Young families, young professionals, empty nesters and former lint heads live in mill houses they have been renovated or built in the mill vernacular. They live here because of the authentic sense of place and the vibrant spirit of community. They know their neighbors because they pass on the greenway and sidewalks, meet in the parks and community gardens, in the local shops and restaurants, at church and community events.
- ◆ Rocky Branch Greenway has become not only a well-traveled path to work, school and to events throughout Columbia, and to the Three Rivers Greenway system, but it is a destination for the Midlands due to its beauty, safety, places to sit, the historic and environmental markers along the path, and the opportunities to observe native flora and fauna.
- ◆ The consolidated rail line along Assembly Street has created an integrated and safe pedestrian and bike network within the Mill District and to USC as well as improved traffic management and efficiencies. The abandoned right-of-way is now a thriving multi-use path lined with mixed-use developments that have made the Mill District an exemplary case study for public private partnerships focused on the creative and innovation economies.
- ◆ Olympia Avenue is a vibrant, beautiful boulevard that connects well-maintained neighborhoods to local businesses, a museum and galleries. Olympia Avenue exemplifies neighborhood revitalization and corridor redevelopment while reflecting the Mill Village history.
- ◆ Continued collaboration between the City of Columbia and Richland County ensure equitable management of zoning regulations, public services and public safety, thereby making the Mill District one of the most desirable places to live, work and visit in the Midlands.
- ◆ Artists, entrepreneurs, service professionals and non-profits thrive because of the availability of affordable space in the center of activity, incentives to invest, the marketing and recognition of the Capital City Mill District, the multi-modes of connectivity, and the support of the community residents and leaders.







By identifying what they felt was sacred, community members helped to identify the good and meaningful things that exist in the Mill District. This, along with the site research by the planning team, was the first step in Asset Mapping. Asset Mapping is a tool that identifies what is best in the community and should be advanced and leveraged in order to improve all aspects of a community. **Figure 2** diagrams the following quality of life indicators by noting the existing assets, as well as missing assets (areas for development and improvement).

- ◆ Housing
- ◆ Historic resources
- ◆ Recreation
- ◆ Retail
- ◆ Business
- ◆ Civic
- ◆ Natural environment
- ◆ Cultural resources and the arts
- ◆ Infrastructure, inclusive of transportation and utilities

In general, there are numerous assets in each quality of life indicator; however, the health of each is in need of a boost in order to consistently and comprehensively elevate the quality of life desired by residents. For instance, housing is the most prevalent resource, yet many houses are in poor condition, and numerous historic, single family homes have been turned into multi-family housing. There is concern about balancing new student housing complexes with the need for more affordable housing for young families, young professionals and retirees that reflects the mill vernacular through infill and renovations.

**Figure 3** on the following page maps the location of the asset clusters within the Mill District. Retail and businesses are clustered along Assembly Street, Rosewood Drive and the intersection of Whaley Street and Olympia Avenue, with scattered businesses along Olympia Avenue and Catawba Street. 701 Whaley has been one of the most impactful investments in the Mill District, attracting developers to invest in the area, thereby also attracting small businesses.

701 Whaley also has nurtured the rebirth of the arts, culture and the community spirit while bringing in hundreds of visitors each month for

### QUALITY OF LIFE INDICATORS

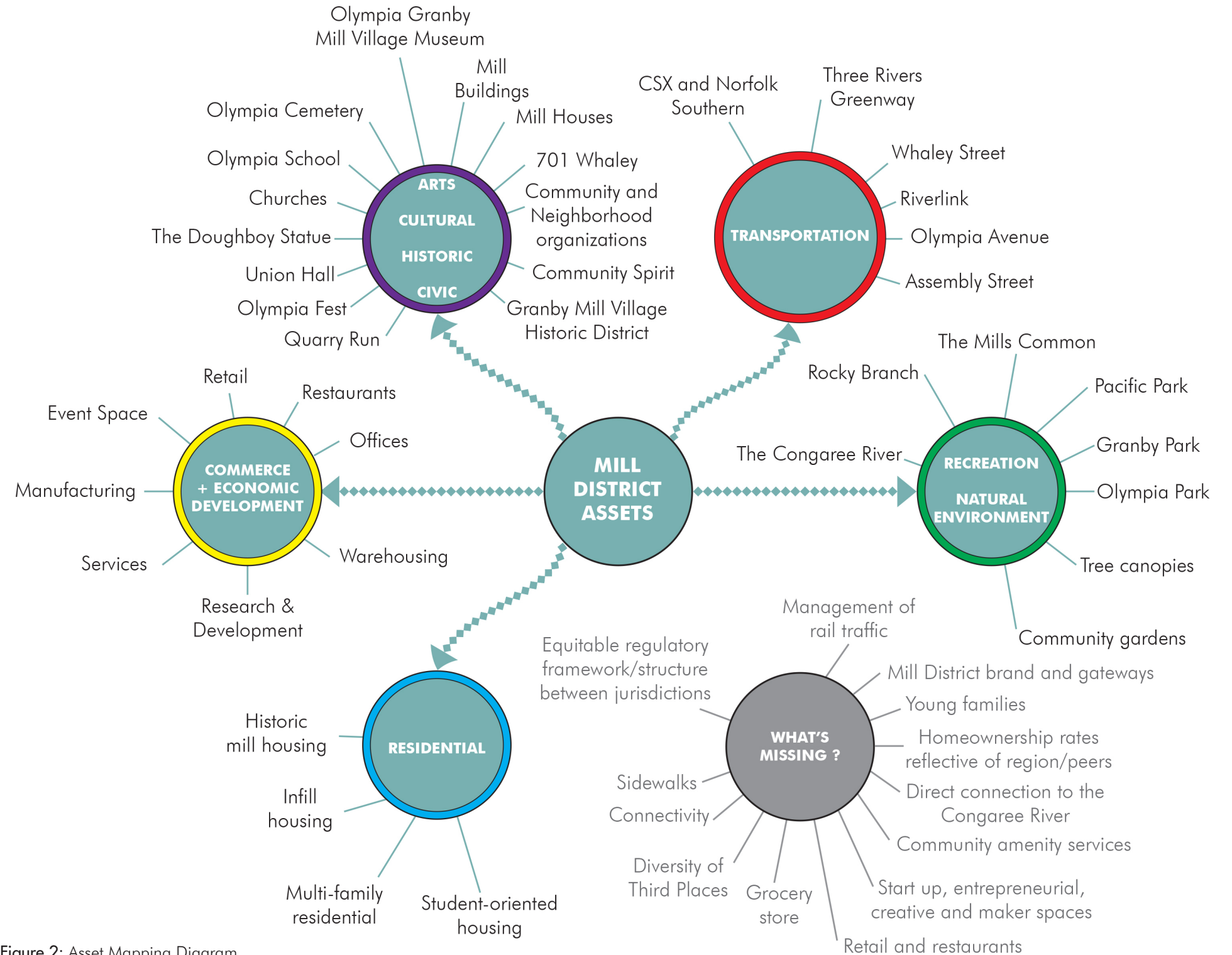
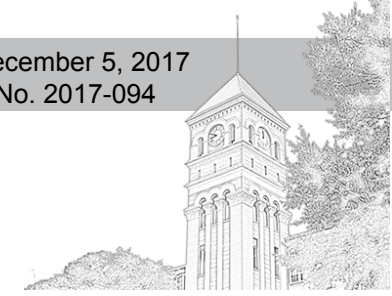


Figure 2: Asset Mapping Diagram





events. The history of the Mill District is being promoted and celebrated more through the very engaged civic organizations, the planned Olympia Granby Mill Village Museum, Olympia Fest, the Quarry Crusher Run, and public art.

A complex transportation network runs through and around the Mill District, but it is viewed as the tail wagging the dog since trains, trucks and traffic control or impact access into and throughout the area. Dominance by trains and vehicles does not create a healthy or safe quality of life.

Water, sewer and utilities are in good shape, although this plan did not specifically address infrastructure beyond multi-modal transportation and stormwater. An analysis of both multi-modal transportation and stormwater management and recommendations are provided in the Big Ideas. However, civic and governance infrastructure within the Mill District require attention; improvements to both can build upon the collaboration that guided this planning process. The City of Columbia and Richland County can formalize a collaborative framework in the future in order to unify decision making in the study area. In addition, there are multiple civic organizations, all of which serve valuable roles. Just as there needs to be a unified and equitable regulatory framework, the Mill District needs a unified civic framework to shepherd revitalization and placemaking.

The Mill District is rich in natural resources with access to the Congaree River and Rocky Branch. The Three Rivers Greenway and existing parks provide wonderful recreation opportunities and access to the natural resources. Encouragingly, there are opportunities to expand the greenways and parks.

Perhaps one of the biggest missing pieces is connectivity. Sidewalks, greenways, and bike paths as well as managing the trains, trucks, and traffic can become the most impactful ways to improve the health of all quality of life indicators. Creating an accessible and safe network for pedestrians and cyclists that works in concert with motorized transportation will connect the Mill District's assets and begin to transform the market demand for new businesses, new homes and places to come together as a community. Connecting the community to the Congaree River and to the greater Midlands through existing and proposed greenway systems can help brand and promote the Mill District as one of the most desirable places to live and invest. Providing multi-modal connections to these assets will improve the quality of life.

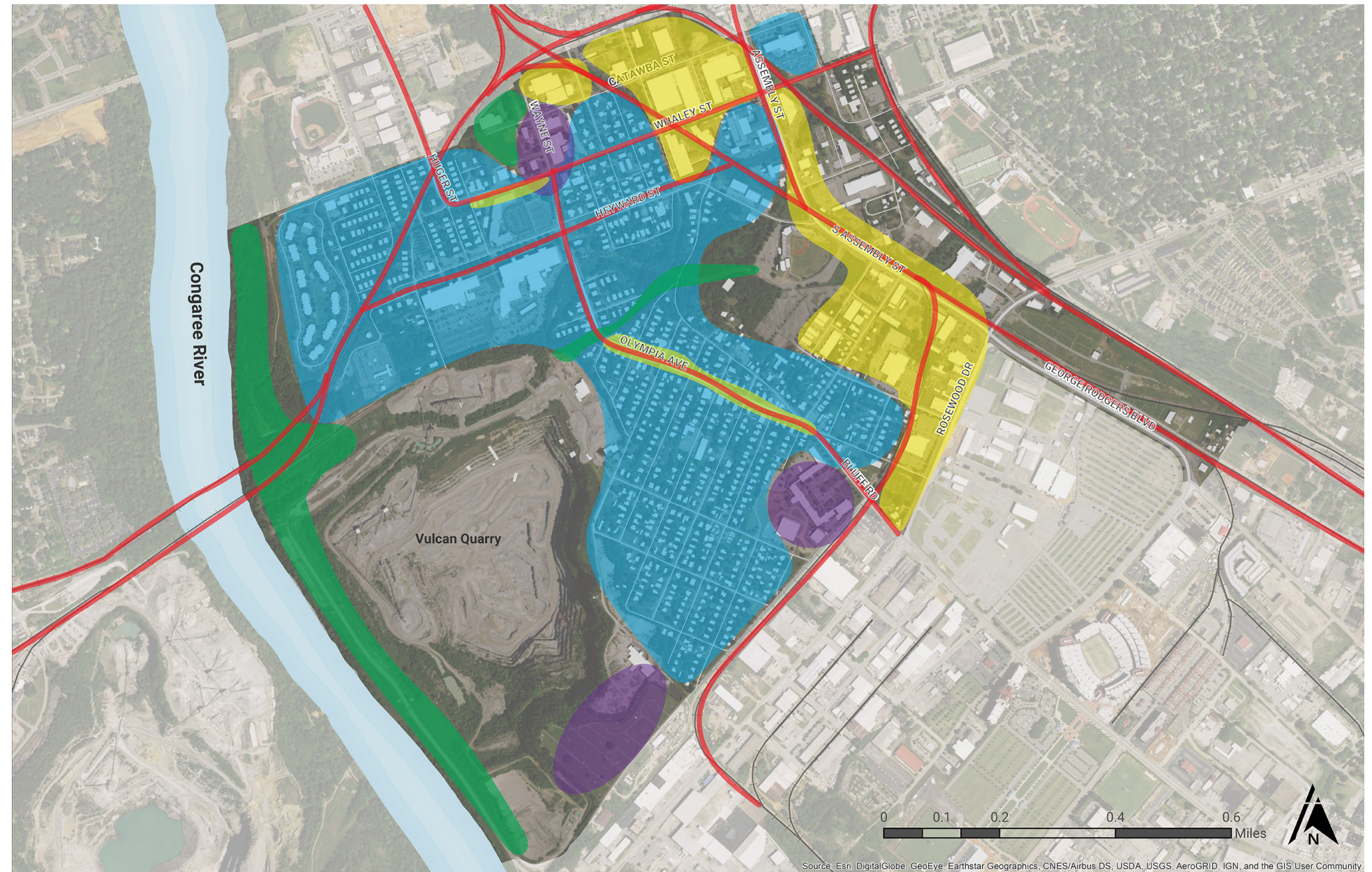


Figure 3: Asset Mapping Spatial Analysis

- Recreation / Natural Environment
- Transportation
- Residential
- Commerce + economic development
- Arts / Cultural / Historic / Civic





## VISION, GUIDING PRINCIPLES, GOALS & BIG IDEAS

A vision for the Capital City Mill District was developed as a result of public input, asset mapping, and analysis by the project team. Guiding principles support the vision and further elucidate community values. In turn, the vision and guiding principles inspired goals for the Mill District. Action items, which provide the nuts and bolts to implement the vision, are grouped under the four big ideas.

### VISION

The Capital City Mill District is a thriving community celebrated for the preservation of its history and its embrace of the creative and innovative classes, dynamic new investments, diverse housing opportunities, and a comprehensive multimodal network. The Capital City Mill District is a beautiful community defined by unique neighborhoods, sustainable development, the conservation of trees, riparian areas, and the Rocky Branch, and well-connected parks and greenways that exemplify environmental stewardship and a spirit of collaboration. The Capital City Mill District will continue to be an attractive destination due to its accessibility to authentic cultural offerings, local shopping and dining, and its proximity to the Congaree River, downtown Columbia, and USC. The Capital City Mill District embodies community spirit and hope in the future.

### GUIDING PRINCIPLES

The Capital City Mill District is a strong, unified community of unique historic neighborhoods; therefore we commit to the following principles:

- We will preserve the architectural character of the Mill District through the rehabilitation of existing structures and through infill and new development that respects the scale and design attributes of the mill village vernacular and reflects aesthetic excellence and authenticity.
- We will be committed stewards of the Rocky Branch watershed, the Congaree River and the Mill District parks and natural resources in order to preserve their beauty, accessibility, purpose, and health.
- We will create and foster partnerships and collaborations across agencies and community organizations.
- We will strive to provide opportunities to celebrate and to promote the Mill District's culture, history, the arts, natural resources, and industry.
- We will be engaged in and contribute to public efforts that will impact the quality of life within the Mill District and the safety and prosperity of the community.
- We will strive to foster a spirit of innovation and creativity as we work to revitalize our neighborhoods and advance economic opportunities, particularly for local businesses.
- We will promote a safe, multi-modal, well-connected transportation network that works in concert with the Mill District fabric, the historic context and natural resources.
- We will strive to preserve and encourage housing choices appropriate in scale and character.

### GOALS

The goals of the Capital City Mill District are to provide a collaborative and equitable community framework in order to:

- Protect, preserve, elevate and celebrate the authentic history, architecture and fabric of the neighborhoods
- Encourage increased homeownership, community investment, and stewardship
- Balance conservation and development
- Revitalize and complete corridors and greenways that will safely and beautifully connect people to the Mill District's unique places and resources
- Manage the Rocky Branch, parks and natural environments for increased enjoyment and stewardship
- Create and support opportunities for residents to engage and to prosper

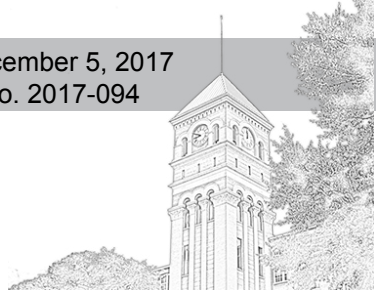
**BIG IDEA 1:**  
Implement placemaking policies and projects

**BIG IDEA 2:**  
Manage trains, transportation & traffic

**BIG IDEA 3:**  
Unify and connect the district to the greater community

**BIG IDEA 4:**  
Improve environmental stewardship





Within the Mill District there are three neighborhoods and one corridor along a major vehicular thoroughfare, depicted in **Figure 4**. The Whaley neighborhood, Olympia neighborhood, and the Granby neighborhood together comprise the Mill District, are similar in many ways, and have unique features which contribute to the overall character of the district. The Assembly Street corridor serves as the commercial boundary of the Mill District.

- ◆ The Whaley neighborhood sub area is generally defined by the 701 Whaley building which is on the edge of the sub area boundary and by the historic Whaley neighborhood and residential area to the East of Wayne Street/Olympia Avenue.
- ◆ The Olympia Neighborhood sub area is generally defined by the Olympia Mill and those residential areas surrounding Olympia Avenue
- ◆ The Granby Neighborhood sub area is generally defined by the Granby Mill and the residential areas between Wayne and Huger Streets and the Congaree River.
- ◆ The Assembly Street Corridor sub area is generally defined by the commercial business, rail lines and parcels of land along Assembly Street and Rosewood Avenue

Each of the different neighborhood sub areas in the Mill District play such an important role in the whole of the District and often times the lines are blurred between neighborhoods beyond their historic district boundaries where neighborhood identities bleed into one another. Without each of these parts, the Mill District would not be what it is today. These sub areas are not just the historic neighborhoods, nor are they just the historic districts; however, the sub areas outlined in the plan are defined and used for planning purposes.

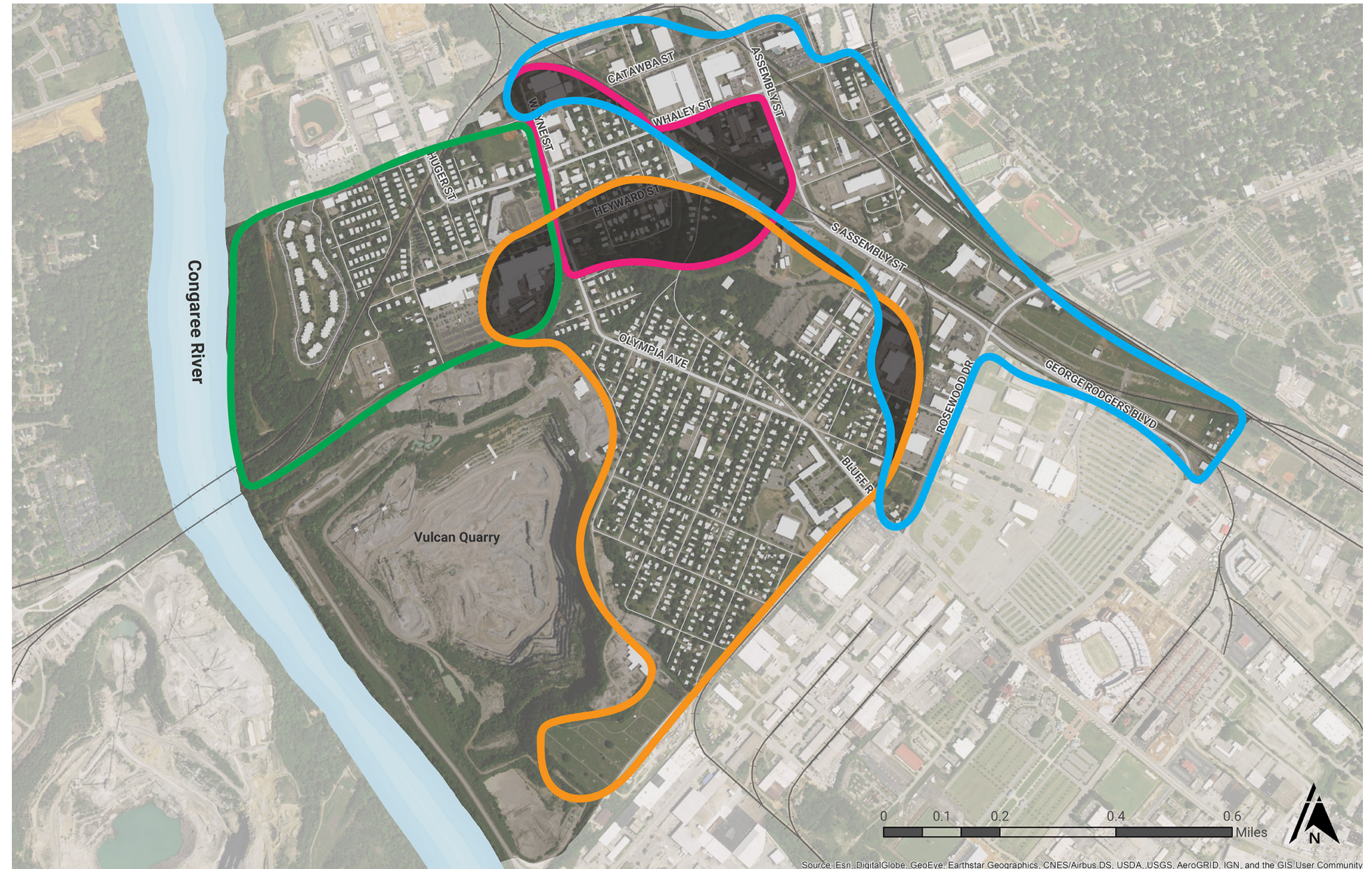







Figure 4: Capital City Mill District Sub Areas

 Overlaps	 Whaley neighborhood sub area	 Granby neighborhood sub area
	 Olympia neighborhood sub area	 Assembly Street Corridor sub area



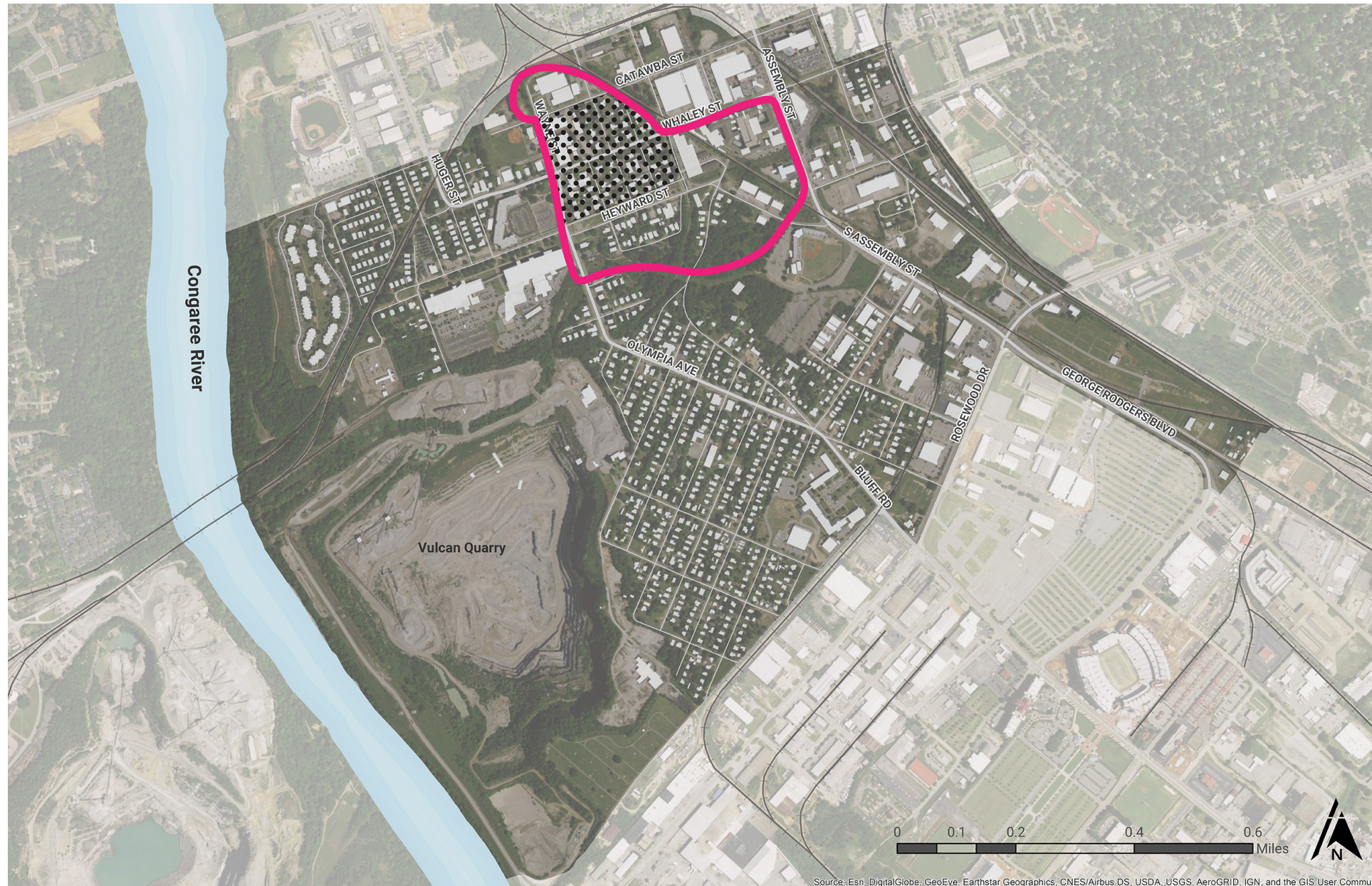
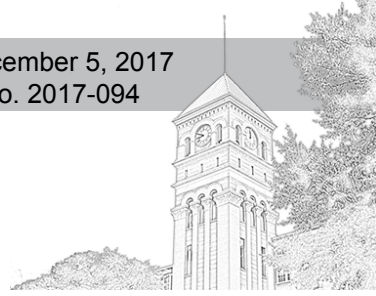


Figure 5: Boundaries of Whaley neighborhood sub area



### BOUNDARIES

For the purposes of the Plan, the Whaley neighborhood sub area generally runs along the south side of Catawba Street, moves south down Lincoln Street on the east, along Heyward Street on the South and north up Wayne Street.

### CONSIDERATIONS

A portion of the Whaley neighborhood is governed by the Whaley Street Protection Area District, which is a mapped design/preservation zoning overlay district within which historic district guidelines apply (**Figure 5**). These guidelines are administered by the City of Columbia, and they are utilized when determining the suitability of proposed work within the Whaley Street Protection Area District.

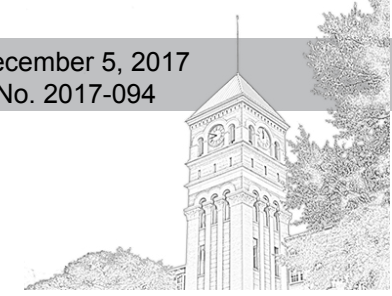
Principles and goals of the Whaley Street Protection Area District include:

- ◆ Maintain residential character
- ◆ Encourage new residential design that is compatible with historic patterns
- ◆ Preserve historic structures that tell the story of the community
- ◆ Encourage orderly development along adjoining corridors that will enhance the residential core

### NOTABLE PLACES

- ◆ 701 Whaley
- ◆ Churches
- ◆ Doughboy Statue
- ◆ Pacific Park
- ◆ 612 Whaley at The Mills
- ◆ Residential along Whaley Street and Heyward Street





## NEIGHBORHOOD SUB AREAS: WHALEY

### EXISTING ARCHITECTURAL CHARACTER

The bulk of the inventory in the neighborhood dates from the 1910s to the 1920s and was constructed by the Pacific Mills Company to serve as housing for the supervisors in the surrounding mills. Several decades later, infill homes were added and the neighborhood began to take shape as an area with a repetition of historical architectural styles, homes and other structures at the street edge, as well as a multitude of shared garages and driveways. There is a mix of historic commercial buildings with brick masonry and flat roofs in the neighborhood that reflect the presence of the mill industry that was once the defining characteristic of the neighborhood. The redevelopment of blocks closer to the Assembly Street corridor has occurred in recent years, and has generally consisted of multi-family rental housing.

The following elements define much of the mill vernacular architecture in the sub area:

- ◆ Historic porches on almost every residential structure in the historic district within the sub area
- ◆ One to two story residential
- ◆ Historically horizontal wood weatherboard siding on residential
- ◆ Brick masonry commercial and religious buildings



Figure 6: Existing Architectural Inventory - Whaley Neighborhood sub area



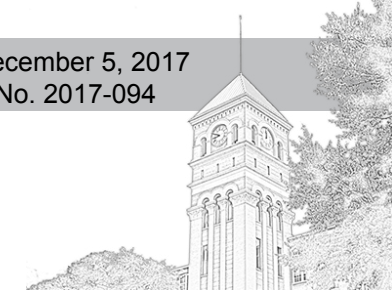


Figure 7: Boundaries of Olympia Neighborhood sub area

 Olympia neighborhood sub area

### BOUNDARIES

The Olympia Neighborhood sub area is generally comprised of the original Olympia Mill property and is bounded by Heyward Street to the north, the Vulcan Quarry to the west, the intersection of Bluff Road and Rosewood Drive to the south, and a portion of Assembly Street to the east.

### CONSIDERATIONS

An architectural survey was completed in 2001 by the Richland County Conservation Commission and the South Carolina State Historic Preservation Office (SCSHPO), with the assistance of Edwards-Pitman Environmental, Inc. While the Olympia neighborhood sub area is not a historic district, this survey recognized several significant and historical buildings.

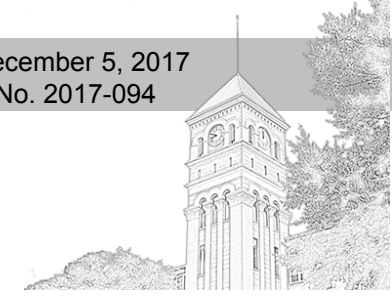
The Olympia neighborhood sub area includes much more than an inventory of mill housing and buildings. This sub area includes swaths of natural landscape and other civic and religious buildings. The majority of the residential area falls within unincorporated Richland County.

### NOTABLE PLACES

- ◆ Olympia Mill
- ◆ Olympia Union Hall
- ◆ Olympia Learning Center
- ◆ Olympia-Granby Mill Village Museum
- ◆ Olympia Park
- ◆ Olympia Cemetery
- ◆ Olympia Avenue
- ◆ Churches
- ◆ Capital City Ballpark
- ◆ Abandoned railroad berm



## NEIGHBORHOOD SUB AREAS: OLYMPIA



### EXISTING ARCHITECTURAL CHARACTER

The Olympia neighborhood sub area began as a mill village surrounding the Olympia Mill, which was constructed in 1899. The mill is a four-story monumental, rectangular brick building situated at the intersection of the Whaley and Granby neighborhoods along Heyward Street. This sub area is laid out in a grid pattern with uniform lots and back alleys and the street names are named for states within the U.S.

The residential properties in the neighborhood are a mix of single-family or duplexes. Residential building types include the following historic building types:

- ◆ Two-story gable with a saltbox shed down the back
- ◆ Two-story house with a hip roof
- ◆ Two-story hip-roof with a one-story side gable unit
- ◆ One-story shotgun
- ◆ One-story L-shape

In the mid-Twentieth century, residents began to make modifications to their homes which included vinyl siding, new windows, bungalow style porch posts on brick piers, partial or entirely enclosed porches, and additions to the side and rear. There are also a number of brick masonry structures including churches and other commercial uses, as well as some infill and multi-family development.



Figure 8: Existing Architectural Inventory - Olympia Neighborhood sub area



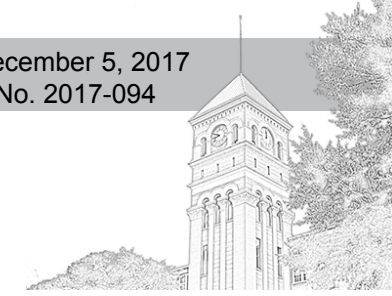


Figure 9: Boundaries of Granby Neighborhood sub area

- Granby neighborhood sub area
- Granby Architectural Conservation District

### BOUNDARIES

The Granby Neighborhood sub area is generally bounded by Catawba Street to the north, Gist Street to the west, Heyward Street to the south, and Wayne Street to the east.

### CONSIDERATIONS

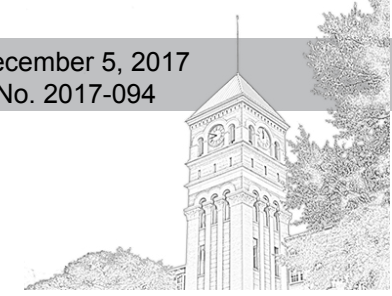
A portion of the Granby Neighborhood sub area is governed by the Granby Architectural Conservation District Guidelines (Granby Historic District Guidelines, 2010), which is a mapped design/preservation zoning overlay district within which historic district guidelines apply. These guidelines are administered by the City of Columbia, and they are utilized when determining the suitability of proposed work within the Granby Architectural Conservation District.

The historic neighborhood is intact as an architectural mill village and is consistent in form, massing, and character.

### NOTABLE PLACES

- ◆ A portion of the Granby Neighborhood sub area is designated as a zoning overlay district (the Granby Architectural Conservation District) (see hatched area on **Figure 9**).
- ◆ A portion of the sub area, which does not exactly match the overlay district, is listed on the National Register of Historic Places as the Granby Mill Village Historic District.
- ◆ Rivers Edge Condominiums
- ◆ Olympia & Granby Mill
- ◆ 612 Whaley at The Mills
- ◆ Whaley Street Methodist Church
- ◆ Pacific Park
- ◆ Granby Park
- ◆ Churches





## NEIGHBORHOOD SUB AREAS: GRANBY

### EXISTING ARCHITECTURAL CHARACTER

The Granby Mill was the second mill constructed in the area and the mill village was laid out in a standard grid pattern. The housing stock includes styles such as:

- ◆ Saltbox duplexes
- ◆ Two-story gable-front
- ◆ One-story side gable

The area along Wayne Street, known as Pacific Park and 701 Whaley, was the center of recreational activity for the Granby and Olympia Mill Villages.

Housing is:

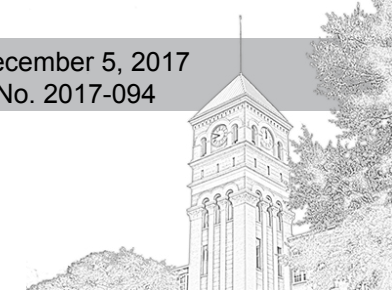
- ◆ Constructed close to the street
- ◆ Fencing is confined to the rear of lots
- ◆ Side yard setbacks are minimal
- ◆ Nearly all housing is two-story
- ◆ Wood siding is common
- ◆ Architectural detailing is simple and minimal

There are brick masonry structures such as churches, commercial uses, and the new addition of 612 Whaley at The Mills; a new mix-used complex which is intended to complement and blend with the existing Olympia and Granby Mill buildings. The sub area also contains other multi-family housing developed in recent years.



Figure 10: Existing Architectural Inventory - Granby Neighborhood sub area





## NEIGHBORHOOD SUB AREAS: ASSEMBLY STREET CORRIDOR



Figure 11: Boundaries of Assembly Street Corridor sub area

 Assembly Street Corridor sub area

### BOUNDARIES

The area defined as the Assembly Street Corridor sub area is generally bounded by the railroad to the north, Assembly and South Assembly Street to the west, Sumter Street and the CSX / Norfolk Southern rail lines to the east, and down to the swath of land between the State Fairgrounds and the rail lines to the south.

The Assembly Street Corridor sub area is made up of both unincorporated and incorporated areas of Richland County.

### CONSIDERATIONS

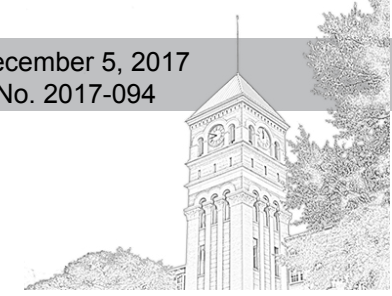
The following factors and adjacent buildings and properties will influence future development along Assembly Street:

- ◆ University of South Carolina's growth and development
- ◆ CSX and Norfolk Southern rail lines
- ◆ Richland County Penny Tax for Transportation projects
- ◆ Capital City Ballpark redevelopment site
- ◆ Improvements to Assembly Street

### NOTABLE PLACES

- ◆ Lofts at USC (formerly Richland Cotton Mill)
- ◆ Capital City Mill
- ◆ Palmetto Cotton Mill
- ◆ Capital City Ballpark





## NEIGHBORHOOD SUB AREAS: ASSEMBLY STREET CORRIDOR

### EXISTING ARCHITECTURAL CHARACTER

The existing architectural character along the Assembly Street corridor sub area contains a variety of architectural types with few remaining intact examples of the late Nineteenth/early Twentieth Century mill vernacular. A majority of the Assembly Street Corridor sub area contains nondescript commercial uses, however, there are three historic mill buildings, one of which is on the National Register of Historic Places. There is quite a bit of undeveloped land prime for redevelopment. Several remnants of industrial uses remain that document the history of the area and the importance this major thoroughfare served for the better part of the Twentieth Century.



Figure 12: Existing Architectural Inventory - Assembly Street Corridor sub area





## MARKET ANALYSIS

### INTRODUCTION

The Mill District is experiencing a number of external pressures related to growth and development which present both opportunities and challenges. The biggest economic driver influencing the area is the University of South Carolina (USC). A combination of infrastructure, land use, and historical conditions—detailed further in this section—are present that complicate future development in the Mill District. Furthermore, the District is divided between City of Columbia and Richland County jurisdictions. Local residents, stakeholders and City and County staff and elected officials have recognized the need for a community plan to guide future growth and land use decisions.

### HISTORIC MILL TOWN

Historically, the Mill District was a self-sufficient town within a town - an independent mill town located adjacent to the western edge of downtown Columbia and USC. Despite the relatively close proximity to the State House, the Mill District was detached both physically and psychologically. Rail and road infrastructure, the Congaree River, and large industrial facilities created physical barriers between the Mill District and the rest of the urbanized area.

Psychologically, there was an “us vs them” view of the Mill District and the larger City. The economy of the District was created by the textile mill, and life for residents revolved around the rhythm of textile production. The Mill District housing, recreational and commercial areas were built specifically to support the mill operations and its workers. Workers in the mills—referred to as lint heads—lived in mill-built housing and participated in mill-sponsored recreation at 701 Whaley and Pacific Park. While the mills have been closed since 1996 and much has changed since then, some of the psychological separation still exists.

### OUTSIDE GROWTH PRESSURE

Over the past two decades, Columbia has grown, and the downtown and the more urbanized unincorporated areas have seen a significant amount of development. Changes in lifestyle preferences, especially among younger generations, have locally led to large demographic shifts and an influx of residents, including a number of students, to the City center. Nearby areas such as the Vista, have benefitted from strategic revitalization built on collaborative public and private investments. There is a successful track record of the City, the County and other agencies working together to reinvigorate neighborhoods and districts in order to meet this increasing development demand.

The University of South Carolina, located just to the east of the Mill District, has grown from an enrollment of 25,500 students in 1996—the year of the mill closure—to 33,500 students in 2016. The physical growth required to support the enrollment growth has created enormous pressure on the Mill District. Additionally, with the supply of on-campus student housing unable to keep up with the growth of the University, students have found the Mill District to be a convenient location with cheaper prices than downtown. One negative consequence of this growth has been the rental of existing homes by students in unmanaged situations. In some cases, rental homes are carved up into rooms and house anywhere from four to eight students—effectively becoming defacto off-campus group houses.

### THE RESULT

Over the past decade, Mill District residents and stakeholders have noticed the growth pressure emanating from downtown Columbia, and specifically, the University of South Carolina. Some of the results have been quite positive such as the redevelopment of the Granby and Olympia Mill properties and 701 Whaley Street. Other results are more challenging, including the use of Olympia Avenue as a car-dominated short cut, game day traffic and poorly maintained rental housing. All of these changes have occurred since the area was last planned for, therefore the development of a plan which could both respond to existing concerns and anticipate new changes was necessary.

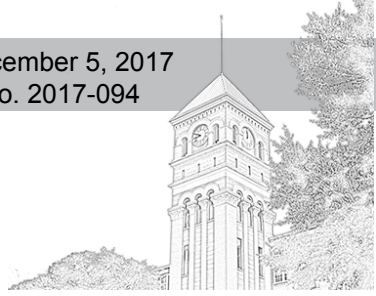
### GOALS FOR ECONOMIC DEVELOPMENT WITHIN THE MILL DISTRICT

As described earlier, residents and stakeholders participated in a variety of meetings, focus groups, and interviews to communicate and shape their goals and desires for Mill District. Out of this, a series of goals emerged:

- ◆ Increase homeownership rates within the Mill District
- ◆ Encourage neighborhood scale retail businesses and amenities
- ◆ Protect existing residential areas from over-development and inappropriate forms of development that affect residential stability
- ◆ Encourage jobs and mixed-use development in areas that are appropriately suited
- ◆ Create a level playing field of standards and expectations for development across City and County jurisdictional boundaries

In summary, the sentiment was not anti-growth. Rather, it was to promote the right kind of growth in the right place by harnessing the power of the surrounding economic drivers while improving quality of life and livability and protecting the history and character of the neighborhoods.





## MARKET ANALYSIS

### MARKET FORCES AND COMMUNITY INPUT

Early in the research phase of the planning process, an initial economic development plan began to take shape after touring the community and meeting with stakeholders, focus groups, and input received from City and County staff. **Figure 13** shows the preliminary development concept plan. The concept laid out some broad-brushed ideas for guiding growth and informing future land use decisions. The concept takes into account the assets and challenges that are described in further detail later in this section.

The concept also illustrates two major areas that have their own unique character and personalities. The green area identified as “Mill Neighborhood District” is a predominantly residential area. The core neighborhood area is surrounded by a ring of current and former industrial areas. The future of this “ring” or “band” will greatly influence the future of the neighborhood. While this band is currently underutilized, the economic forces of USC, downtown Columbia and the Innovista are pushing into that area. We believe a “band of development” can be planned and implemented to generate job growth and include a mix of uses that benefits the entire Mill District, while providing a transitional development zone between the neighborhood and the higher intensity land uses associated with downtown and USC.

The conceptual development map has identified several areas that are outside of the Mill District plan area. For example, to the south, the existing industrial area between Mill District and the Williams Brice Stadium might have potential to support an increasing variety of high-value, small-scale makers and producers (creative and technology). While this area is outside of the plan boundaries, this is a notable adjacent area that will influence the health and success of the Mill District. In turn, this area may be of interest for future, expanded study.

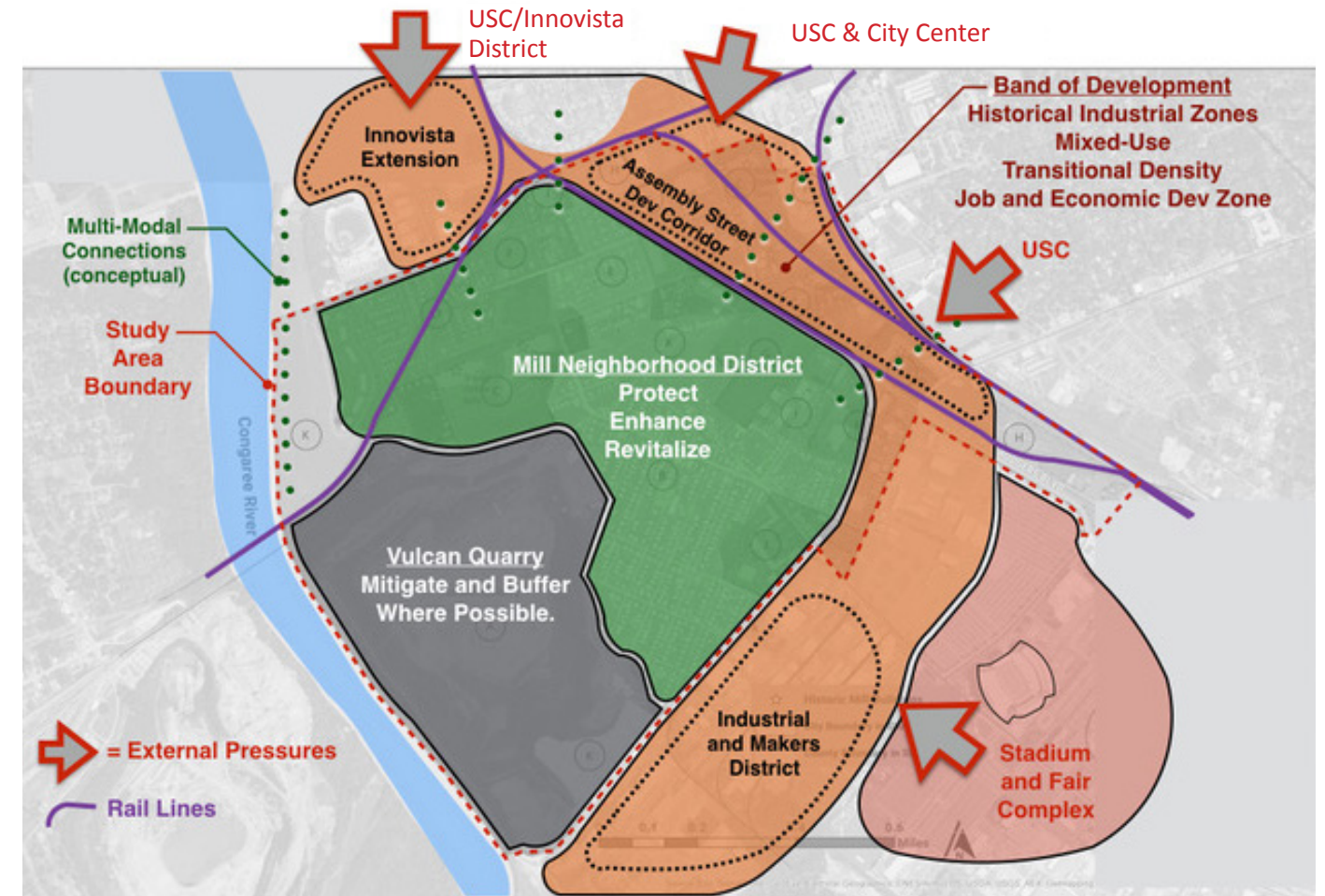


Figure 13: Conceptual Development and Market Forces Diagram

#### BROAD BRUSHED IDEAS FOR MOVING FORWARD

- ◆ Protect, enhance and revitalize the existing neighborhoods
- ◆ Harness the energy of the Innovista, USC, and City Center to create a high quality, more densely developed band between neighborhoods and surrounding areas.
- ◆ Continue to mitigate the effects of the Vulcan quarry where possible. The quarry will continue to be in operation for the foreseeable future, so focusing on re-use potential is not productive at this time.
- ◆ Introduce the idea of an innovation district.
- ◆ Overcome physical obstacles to create better multi-modal connectivity between the Mill District to the rest of the City.
- ◆ Take advantage of the Congaree River and create new amenities to attract new homeowners and improve quality of life for existing residents





## MARKET ANALYSIS

### COMMUNITY ASSETS AND CHALLENGES

As described in the previous section, there are two basic zones within the study area that can be described generally as a neighborhood zone and corridor zone (**Figure 14**). This distinction is overly simplified and those familiar with the study area can find examples of exception to this classification. However, this is a useful starting point to understanding the assets and challenges within the Mill District. From here, the planning team crafted a strategy for proposed land uses based on more detailed on-the-ground situations.

#### NEIGHBORHOOD ZONE

The Mill District neighborhood zone represents the core of the Mill District study area and is composed of the Olympia and Granby Mills and the supporting residential neighborhoods of Granby, Olympia and Whaley.

##### Assets

- ◆ Community and neighborhood feel
- ◆ Underlying neighborhood pride
- ◆ History, historic buildings and unique character
- ◆ Amenities such as the Congaree River and Founders Park (USC Baseball Park)
- ◆ Convenient, central location
- ◆ Successful previous investments including Granby Mill, Olympia Mill and 701 Whaley

##### Challenges

- ◆ Lack of Connectivity
  - ◆ Physical: Rail, roads and river
  - ◆ Psychological: Mill Village vs. City
- ◆ Despite neighborhood scale, lack of walkability and bike friendliness
- ◆ Perception of neighborhood as only suitable for student housing
- ◆ The existence of multiple jurisdictions and corresponding regulations can create confusion

- ◆ Low median income, and relatively low buying power within the neighborhood
- ◆ Low percentage of owner occupied housing
- ◆ Industrial adjacencies: chemical plant, quarry and rail lines

#### ASSEMBLY STREET CORRIDOR ZONE

The Assembly Street Corridor is positioned to accommodate additional growth and building density. If guided properly, this area can become a catalyst for job growth.

##### Assets

- ◆ Assembly Street is a major thoroughfare with excess capacity
- ◆ Relatively large parcels are available for development
- ◆ Existing stock of historic and non-historic industrial buildings
- ◆ Adjacent to USC campus
- ◆ Demand pressure building from USC

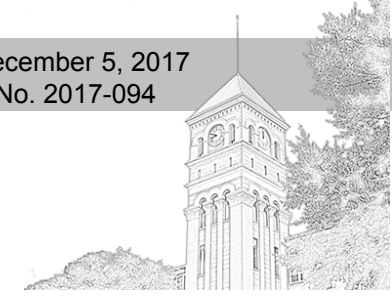
##### Challenges

- ◆ No sense of place or identity
- ◆ Poor pedestrian and biking environment
- ◆ Infrastructure and amenities lacking to support development
- ◆ The existence of multiple jurisdictions and corresponding regulations can create confusion



Figure 14: District Zones: Neighborhood and Corridor





### DEMOGRAPHIC DATA

According to 2015 data from the US Census Bureau, the total population of the Mill District is 6,785, living in just over 2,000 total housing units, including both single family and multi-family residences. **Figure 15** shows general information and the location of the reporting block groups from which information was collected. Block Group A approximates the Granby Neighborhood sub-area, Block Group B is roughly the Olympia neighborhood sub-area and Block Group C is the Whaley neighborhood sub-area. The population is overwhelmingly young, with approximately 71% of the residents between the ages of 18-24. A more detailed breakdown of the gender, race, and age within each Census Block Group can be seen in **Figure 16 & 17**. However, when the estimated population of the larger, managed apartment complexes are removed, the single family neighborhoods are less concentrated with the younger age groups (**Figures 18 & 19**).

### HOMEOWNERSHIP BACKGROUND

One of the major goals of the residents and stakeholders is to increase homeownership (also referred to as “owner occupied homes”). Demographic research confirmed the perception that homeownership rates are extremely low within the Mill District. Higher homeownership rates tend to be important to neighborhood stability, since homeowners tend to be more involved and interested in their community’s development, the protection of their home value, and the quality of life in their neighborhood. Data from the 2014 American Community Survey by the US Census Bureau shows a total owner occupied rate of 16.9%, with the “Granby” block group at 7.2%, “Olympia” block group at 29.7% and “Whaley” block group at 24.6% (**Figure 18**).

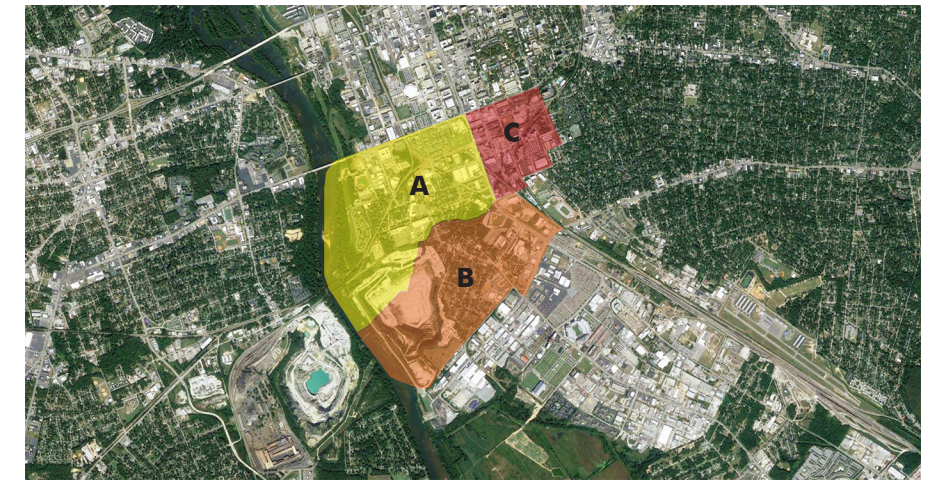
Since Census Bureau data includes all types of residential units, including managed apartments, the data is somewhat misleading, especially for the “Granby” block group. This block includes the Olympia and Granby mills (345 units), Rivers Edge at Carolina Stadium (240 units) and 612 Whaley at The Mills (186 units) which represent 771 units of managed multi-family rental housing. When those three apartment complexes are removed (using 717 units by assuming a 7% vacancy factor), the Granby neighborhood would adjust to 147 units of occupied housing with 62 being owner occupied. Once adjusted to take into account the managed multi-family rental housing, the Granby Block Group owner occupied housing percentage increases to 42.2% and the overall Mill District average rate increases to 30.3% as outlined in **Figure 19** on the following page.

The “Olympia” block group is most representative of the home ownership number since there are not any major managed rental apartments. Even at 30% owner occupied, the Mill District’s rate of homeownership would be significantly lower than the City, County and state-wide average.

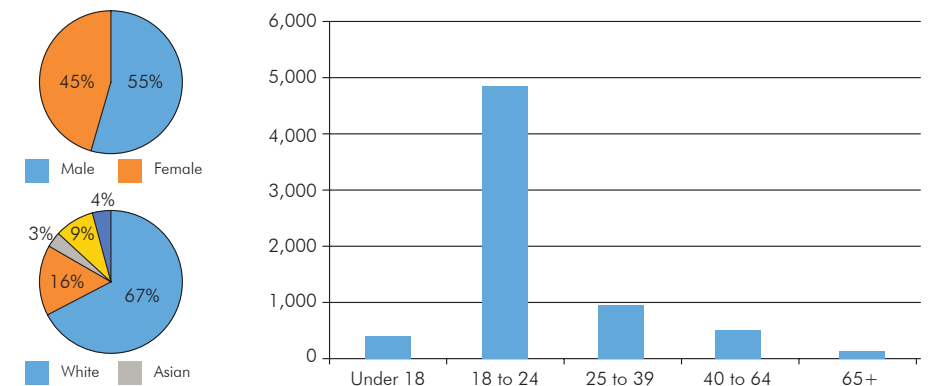
A separate study of homeownership using GIS data (Richland County Tax Assessor’s Office, 2017) provided another analysis, indicating properties that Richland County taxes at a rate of 4%, which is the rate for owner occupied homes. The resulting map on the following page illustrates owner occupied homes versus non-owner occupied (**Figure 20**). In general, the owner occupied units are relatively dispersed throughout the neighborhoods with no patterns that stand out. In all the GIS data revealed 207 of the 605 homes are owner occupied. This breaks down to a 34% homeownership rate, which is fairly consistent with the Census data (American Community Survey, US Census Bureau). This number is approximate since some assumptions had to be made for duplexes, triplexes and mobile homes.

The benefits of homeownership are summarized in a research report by the National Association of Realtors published in April 2012, titled Social Benefits of Homeownership and Stable Housing (Benefits of Homeownership, 2012). Homeowners have higher participation rates in local elections, spend more hours volunteering, are more likely to meet and interact with their neighbors, and invest more in home maintenance and repairs.

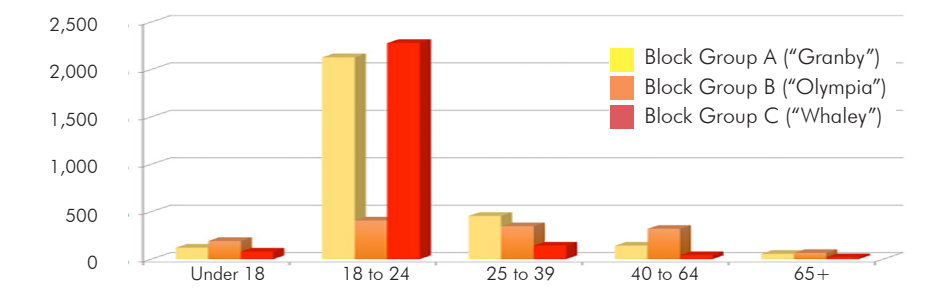
It’s important to note that viewing the homeownership rate on its own is not necessarily an indicator of health for a neighborhood. Other factors may contribute to neighborhood health, such as the average length of tenancy and underlying socio-economic factors. There is no one-size-fits all homeownership number that has been researched or published. However, as noted above, the Mill District homeownership is heavily tilted towards rentals to students who are short-term renters. Based on the observations of stakeholders, which were shared during the research phase of our process, the lower homeownership rate appears to have a negative effect on the neighborhood. Therefore, we recommend a goal of moving towards an adjusted rate of 50% homeownership within the next 10 years. The 50% goal is based on achieving a rate that is more in line with the City and State homeownership levels which are 45.9% and 59.8% respectively.



**Figure 15:** US Census Bureau Block Group Map  
 Block Group A (“Granby”): 15000US450790028001  
 Block Group B (“Olympia”): 15000US450790028002  
 Block Group C (“Whaley”): 15000US450790028003

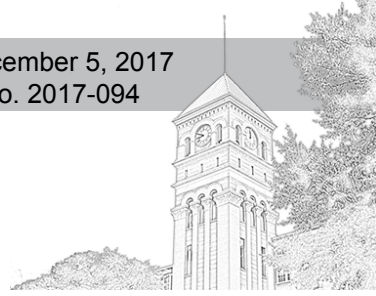


**Figure 16:** Mill District residential snapshot by gender, race & age (total for all three block groups) (American Community Survey, US Census Bureau)



**Figure 17:** Detailed Age Breakdown by Block Group (American Community Survey, US Census Bureau)





	TOTAL UNITS	TOTAL OCCUPIED UNITS	% OCCUPIED	OWNER OCCUPIED	RENTER OCCUPIED	% OWNER OCCUPIED
BLOCK GROUP A "GRANBY"	1,162	864	74.4%	62	802	7.2%
BLOCK GROUP B "OLYMPIA"	558	495	88.7%	147	348	29.7%
BLOCK GROUP C "WHALEY"	310	260	83.9%	64	196	24.6%
<b>TOTAL</b>	<b>2,030</b>	<b>1,619</b>	<b>79.8%</b>	<b>273</b>	<b>1,346</b>	<b>16.9%</b>
CITY OF COLUMBIA	52,539	44,992	85.6%	20,643	24,349	45.9%
RICHLAND COUNTY	164,247	144,647	88.1%	86,537	58,110	59.8%
STATE OF SC	2,160,383	1,795,715	83.1%	1,232,154	563,561	68.6%
BLOCK GROUP A = 15000US450790028001		BLOCK GROUP B = 15000US450790028002				
BLOCK GROUP C = 15000US450790028003						

Figure 18: Homeownership Data (American Community Survey, US Census Bureau, 2014)

	TOTAL UNITS	TOTAL OCCUPIED UNITS	% OCCUPIED	OWNER OCCUPIED	RENTER OCCUPIED	% OWNER OCCUPIED
BLOCK GROUP A "GRANBY"	1,162	147	12.7%	62	802	42.2%
BLOCK GROUP B "OLYMPIA"	558	495	88.7%	147	348	29.7%
BLOCK GROUP C "WHALEY"	310	260	83.9%	64	196	24.6%
<b>TOTAL</b>	<b>2,030</b>	<b>902</b>	<b>44.4%</b>	<b>273</b>	<b>1,346</b>	<b>30.3%</b>
*THIS DATA IN THIS CHART HAS BEEN MODIFIED TO REFLECT AN ADJUSTMENT FOR THE LARGER APARTMENT COMPLEXES IN THE MILL DISTRICT.						

Figure 19: Adjusted Homeownership Data

OCCUPIED UNIT ADJUSTMENT		UNIT CALCULATION	
864	Total Occupied from 2014 Census Data	345	Olympia and Granby Mills
		186	612 Whaley
		240	Rivers Edge
(717)	Less Large Managed Apartment Complexes	771	Total of Large Complexes
		(54)	Less 7% vacancy assumption
147	Total Adjusted	717	Units to be Adjusted

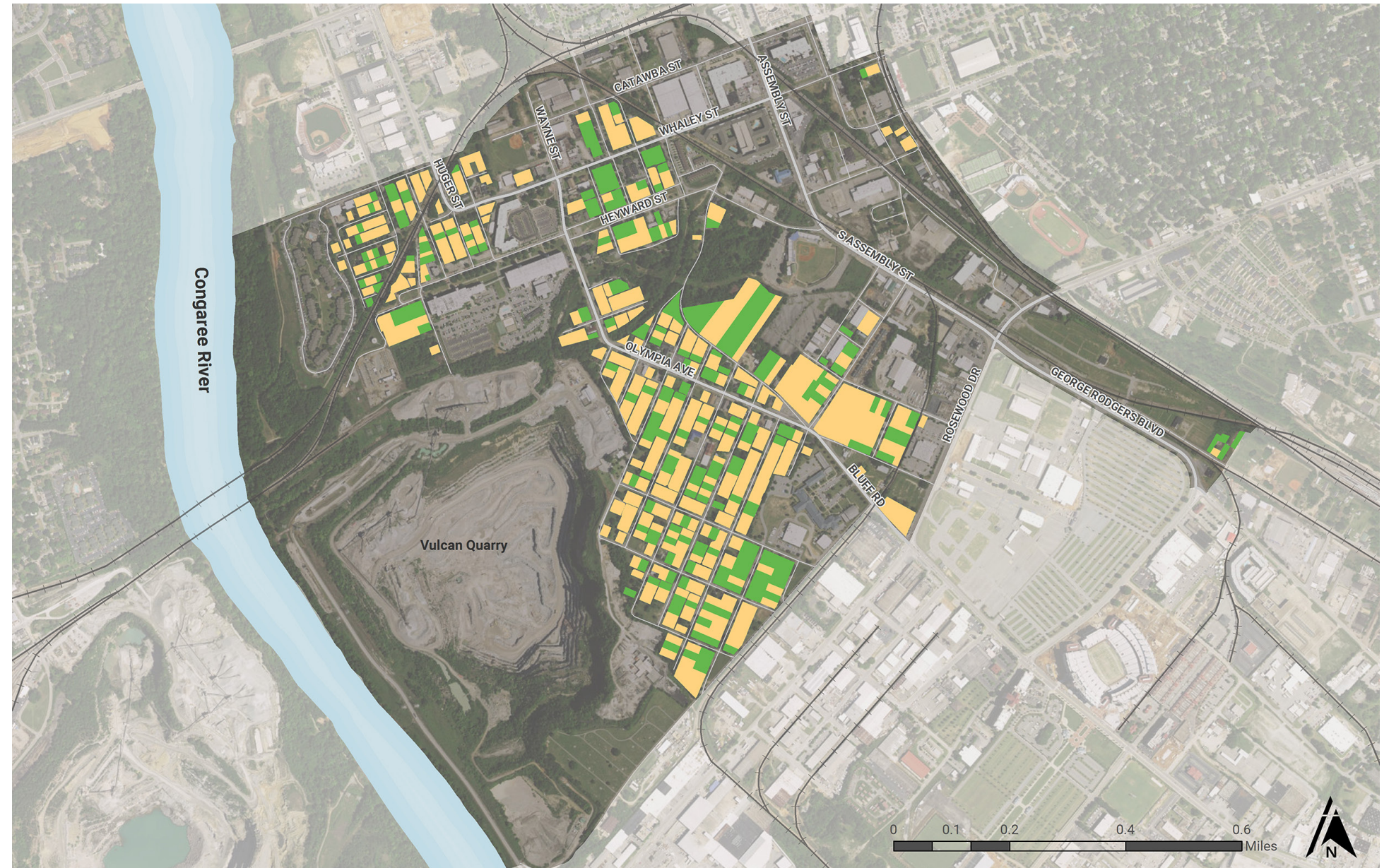


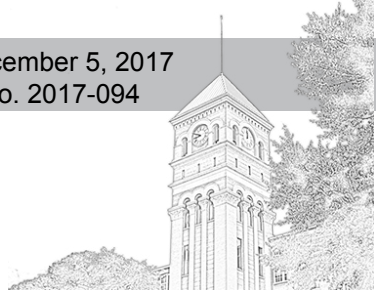
Figure 20: Homeownership Map

■ Owner occupied housing     
 ■ Non-owner occupied housing

### HOMEOWNERSHIP RATE RECOMMENDATIONS

Current adjusted homeownership rates are approximately **30%** for the Mill District. It is recommended that adjusted homeownership rates increase to **35% in three to six years** and increase to **45-50% in six or more years**.





### COMMERICAL MARKET ANALYSIS

General demographic trends surrounding the leading quality of life indicators such as walkable, active, live-work neighborhoods continue to support growth in the central business district (CBD) of Columbia. Companies in many sectors are choosing to move from suburban locations to downtown areas. Employers are increasingly focused on placing their operations in desirable locations that are convenient and attractive to their workforce. Several factors are driving growth and demand into Columbia's CBD immediate surrounding areas: the centralized location of the CBD in relation to the most desirable residential markets; the attraction of redeveloping areas such as the Vista and Main Street that provide a live-work-play environment; the aging inventory of commercial property in the suburbs; and the preferences of millennials to be in energetic, urban environments.

Given the Mill District's central location, improving the accessibility and connectivity of the area to downtown Columbia, the University, and the Vista will increase the attractiveness of the area to potential home buyers, retailers and other businesses.

Recent data on the downtown Columbia office market reflects nationwide trends showing increased demand in amenity-rich, walkable, urban central business districts. In the first quarter of 2017 the downtown vacancy rate for office space dropped to a record low of 9.4% (442,700 vacant SF of 4,733,400 total SF) in the downtown submarket compared with 15.6% (1,503,500 vacant SF of 9,644,600 total SF) in the total Columbia office market (Colliers, 2017). Even with the low vacancy rate in the downtown market, very few new office and retail projects are currently planned as the going rental rate does not support the cost of new development of this type. The lack of space is leading many tenants to find alternative, unconventional options and driving the increase in redevelopment of existing buildings.

Given these factors, the Assembly Street corridor can be poised to capture this portion of the market, generating job growth and a mix of uses that should increase demand for the nearby residential neighborhoods. Each use type becomes a builder and multiplier for the other: office and commercial development drives the need for housing that is proximate and meets the key quality of life factors desired; and more full-time residents then drive the need for more retail and service related spaces such as neighborhood retail, coffee shops, gyms, restaurants and small entertainment spaces.

The opportunity for adding quality commercial space along the Assembly Street corridor is key to revitalizing the Mill District and should continue to be focused on and supported by all stakeholders. Neighborhood-scale retail opportunities along Olympia Avenue and Whaley Street will increase quality of life factors by providing walkable, neighborhood amenities and services desired by today's urban resident.

### MARKET DEMAND, CONNECTIVITY AND PERCEPTION

Properties within the Mill District should be in relatively strong demand due to their proximity to downtown, USC, and Innovista. There are tremendous opportunities for first-time home buyers or University staff and professors to purchase homes in the Mill District. Improving connectivity will be a major contributing factor in appealing to this market demographic. An entire section of the Plan is focused on increasing connectivity and multi-modal options.

More important than connectivity is the perception of the Mill District, or lack of a perception. For many, the area may have a negative stigma. For others, it may be out of sight and out of mind. Either way, these perceptions are equally unproductive. Changing the perception of the area into a vibrant place to live due to the strong quality of life is the most important way to build long term value.

#### MILL NEIGHBORHOOD DISTRICT

- GOALS** neighborhood stabilization ♦ raise homeownership rate ♦ preserve historic character ♦ provide opportunities for retail and business ♦ ensure architectural compatibility ♦ reuse existing buildings and infill

#### ASSEMBLY STREET CORRIDOR

- GOALS** urban framework to support mixed-use ♦ reinforce development along existing vehicular corridors ♦ improve public realm to attract high quality development

#### INDUSTRIAL AND MAKERS DISTRICT

- GOALS** urban framework to support diverse innovation economy ♦ job growth ♦ building density ♦ improve public realm to attract high quality development

### ATTRACTING A TARGET MARKET

The neighborhood zone and the Assembly Street corridor zone are identified as areas with relatively distinct character and future potential. Each area has its own assets and challenges; therefore, future development should respond accordingly for each area. Taking into account the market forces and specific end-users and target markets, the plan proposes development that supports the Mill District's vision and goals.

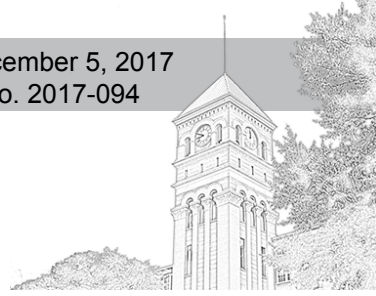
#### NEIGHBORHOOD ZONE

With a few exceptions, the neighborhood zone is primarily a fine-grained residential neighborhood with some small-scale supporting commercial buildings. Stakeholders expressed a clear desire for additional neighborhood amenity retail. The neighborhood recently attracted White Duck Taco, a fast casual dining establishment that has a regional footprint across North Carolina, South Carolina, and Tennessee. This indicates confidence in the buying power of the immediate population base, particularly USC students. Also, White Duck is most certainly attracting patrons from outside of the Mill District.

According to the 2014 American Community Survey by the US Census Bureau, the median income within the Mill District is \$23,418 which is significantly lower than the City, County, and State median incomes of \$41,454, \$48,674 and \$45,033 respectively. Much of this can be attributed to the high proportion of students. Due to the diversity of residents (long-time, young professionals, faculty and students) and proximity to USC and established cultural and retail centers (the Koger Center, the Colonial Life Arena, the Vista, Main Street, etc.), the Mill District is poised to attract unique, entrepreneurial businesses. Having a plan and community vision increases the attraction for those looking for viable and sustainable places in which to invest. The Noisette Case Study, which is highlighted later in this section, illustrates how offering unique, local amenities for a diverse demographic within an historic framework can significantly revitalize a community's economy.

Immediate opportunities exist for small, unique, hyper-local businesses to set up shop in existing small-scale buildings along Olympia Avenue and Whaley Street. Businesses that can draw customers from both the large, immediate student population along with the non-student population and customers from outside of the Mill District will be well-positioned to





succeed. To draw from outside of the Mill District, there must be a certain degree of destination-based attraction. For example, the retailer or business offers something unique enough to attract a customer specifically to that location, such as an outdoor outfitter that draws on the Congaree River and Three Rivers Greenway access. Another example is an art store with affordable studio space that leverages the vibrant arts community at 701 Whaley. Once established, these businesses provide a sense of pride and a local gathering place for residents. Another benefit is that the businesses can attract customers from outside of the area who are introduced to the neighborhood and, as a result, can be subsequently attracted to invest or buy a home in the Mill District.

Examples of neighborhood-based businesses that could prosper and are desired, according to public input are as follows:

- ◆ Coffee shop
- ◆ Bakery with retail component that also may distribute to restaurants throughout the downtown area
- ◆ Boutique clothing store or curated vintage clothing shop
- ◆ Unique consignment shop, costume shop or thrift store
- ◆ Casual sandwich shop
- ◆ Establishment with informal outdoor seating that offers unique international food and locally-sourced food and beverages
- ◆ Outdoor outfitter
- ◆ Yoga or fitness studio
- ◆ Grocery store
- ◆ Hair salon
- ◆ Professional offices (architecture and design, health, financial, legal)
- ◆ Gift shops
- ◆ Retail shops offering hand-made and local products

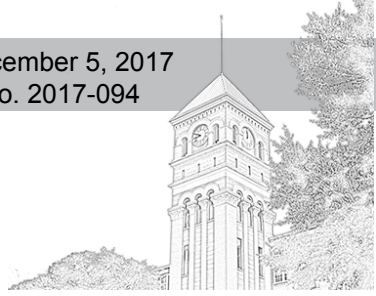
These businesses may offer workshops or meeting spaces, and many of these businesses could be co-located in buildings.

#### ASSEMBLY STREET CORRIDOR ZONE

As mentioned in the commercial market analysis, the Assembly Street corridor is well-positioned to accommodate growth associated with the expansion of the downtown CBD and USC. The larger parcels provide opportunities for larger projects. To reach its full potential, the corridor would benefit from a mix of uses, well-balanced between office/commercial and residential. As progress and decisions are made regarding the major infrastructure recommendations, a more detailed market study may be helpful to fine tune the product mix for the corridor.

Demand pressure along the Assembly Street corridor will continue to grow. USC is projected to see continued increases in enrollment, and downtown Columbia, the Vista, and Innovista continue to evolve, redevelop and attract residents and office users. While the demand pressure will encourage development, the long term potential of the Assembly Street corridor will depend on how public investments are made to enhance the public realm. The Vista is a good example of how strategic public investments can set the stage for future private development.





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### **BIG IDEA 1:**

## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

The Mill District is a microcosm of the City and County. It is a place where people live, work, play, visit grandparents, and attend wedding receptions and art exhibits; where they play kickball, run the Quarry Crusher, where people pass through and park for football and baseball games or the South Carolina State Fair. The Mill District is beautiful, historic, redeveloping, gritty, affordable, artsy, eclectic, and the last place adjacent to the City where a bit of rural spirit still remains. The Mill District has been experiencing a rebirth since the renovation and reuse of 701 Whaley and the Olympia and Granby Mills. While revitalization is encouraged and welcomed with open arms, the residents and stakeholders are committed to preserving the Mill District's character and those parts that are sacred such as Olympia Avenue, the diverse mill houses, Whaley Street, the Olympia Learning Center, Olympia Cemetery, and the Rocky Branch Watershed.

The Mill District has tremendous potential to remain authentic while also continuing to develop and prosper. Placemaking policies and projects are addressed through recommendations for land use classifications, zoning, architectural character, economic development, and branding. These elements are the foundation of placemaking and provide the structure for elevating livability in the Mill District.





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

Big Idea 1, Implement Placemaking Policies & Projects, is directly related to Big Idea 3, Unify and Connect the District. The plan recommends that a Complete Streets strategy is implemented throughout the Mill District. This is extremely important to unifying and connecting the Mill District in safe, functional, efficient, and beautiful ways for pedestrians and all modes of travel. However, the Mill District needs to be more than Complete Streets; it needs and deserves to be a Complete Community. While Complete Streets policies address the connectedness of horizontal infrastructure, the creation of a Complete Community is a broader concept, which incorporates housing, jobs, commerce, education, recreation, culture, and community building.

According to Imagine Austin, a Complete Community is “a great place that meets your daily needs within a short trip of where you live or work. A community is complete when it provides access by foot, bike, transit and car to jobs, shopping, learning, open space, recreation, and other amenities and services.” (What is a Complete Community, 2013)

Further stated, a Complete Community has the nearby amenities to help in the pursuit of a desired quality of life. Simultaneously, Complete Communities preserve identity, culture, and sense of place.

Placemaking policies and projects focus on the structure of the neighborhoods and land use, as well the market and economic influences and opportunities. By building a strong, unified governance structure for land-use development and homeowner/business recruitment, the Mill District can ensure that the community’s vision and priorities drive development and that the unique authentic character of the Mill District remains intact.

The Capital City Mill District Area and Corridor Plan recommendations strive to pave the way for the Mill District to become a Complete Community; the Plan provides the foundation upon which vibrant future generations can build.

Residents called for more places to be neighbors, places to meet friends and share a meal, a drink, look at art, and have great conversations in a variety of indoor and outdoor gathering places. These types of places are referred to as “third places.”

Ray Oldenburg, in his seminal book *The Great Good Place* (1989), presented third places as being important for civil society, democracy, civic engagement, and establishing feelings of a sense of place.

Oldenburg calls one’s “first place” the home where one lives. The “second place” is the workplace — where people may actually spend most of their time. Third places are the “anchors” of community life and facilitate and foster broader, more creative interaction. Today, people intentionally seek out these informal meeting places (Oldenburg, 1989).

Third places are critical components to building community.

### THE POTENTIAL

A couple of years from now...

The Mill District is a vibrant historic neighborhood where the history is wonderfully told through the architecture, the landscapes, the museums and churches and through the people who gather at the numerous **Third Places** throughout the District.

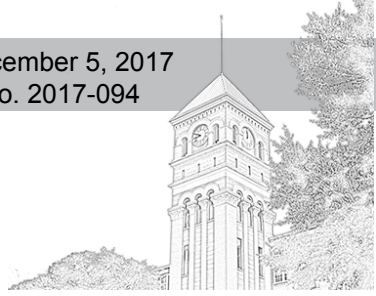
The Mill District is a place where children thrive because they walk safely to school, to parks, to playing fields, to get an ice cream cone and to walk their dogs. It is a community that celebrates with the Gamecocks during home football and baseball games because of policies and agreements that created amicable and profitable game day travel strategies. It is one that marks the time of day with the passing trains north of Assembly rather than the passing of time waiting on trains. It is one where generations live together in attainable, well-managed housing.

The Mill District is a unique, thriving **place**; it is no longer a pass through for commuters, trucks, game day fans. Most people who live in the Mill District can walk, bike or ride transit to work, to a symphony at the Koger Center, to classes at USC or meetings in the Innovista Campus. They can walk to buy groceries, to meet friends for coffee, lunch, or a cool drink, to the river to watch the sunset, to go to church or a gallery opening at 701 Whaley.

The public investments in the Mill District have prompted the opening of professional offices, more artists’ studios and galleries, brew pubs, boutiques, a quirky diner where breakfast is served 18 hours a day, a Makers’ Warehouse that has turned out a few entrepreneurs who are top hits on the international TED Talk circuit and created some life-saving technologies, and the rehabilitation of dozens of mill houses. USC students and faculty enjoy serendipitous meetings in the coffee shops and restaurants and delight in the tales of the lint heads who sit with them. Generations meet on the Rocky Branch Greenway, passing and waving and welcoming residents from adjacent neighborhoods and points beyond to the banks of the Congaree.

The Mill District is a symphonic convergence, a rich tapestry of generations, history, handmade and high tech, nature, and opportunity. The Mill District is a **Complete Community**.





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### EXISTING FUTURE LAND USE CLASSIFICATIONS

Land use has traditionally been categorized into seven classifications: single-family residential, multi-family residential, commercial, office/institutional, industrial, park/open space, and vacant. Over time as land use classifications have been refined, these traditional classifications have included more factors such as ownership, site development, building types, functions and activities. The map to the right illustrates the existing future land use classifications.

The Capital City Mill District Area and Corridor Plan recommends updating the existing land use classifications and future land use map (**Figure 21**) in the Mill District by complementing what exists, introducing a new classification, and redefining the boundaries of existing land use classifications. An updated land use policy will allow the City of Columbia and Richland County to have a more equitable jurisdictional framework to serve the Mill District.

Creating more uniform land use classifications through the adoption of a revised land use map for the study area will provide policy guidance to the City and County as they work to develop a joint policy framework. Such a resulting joint policy framework could alleviate regulatory and enforcement conflicts between the two jurisdictions while improving service, development opportunities, and the general quality of life throughout the Mill District.

In short, an updated land use map can reflect the future vision of the Mill District and the mix of activities that will support a vibrant live, work, play community.

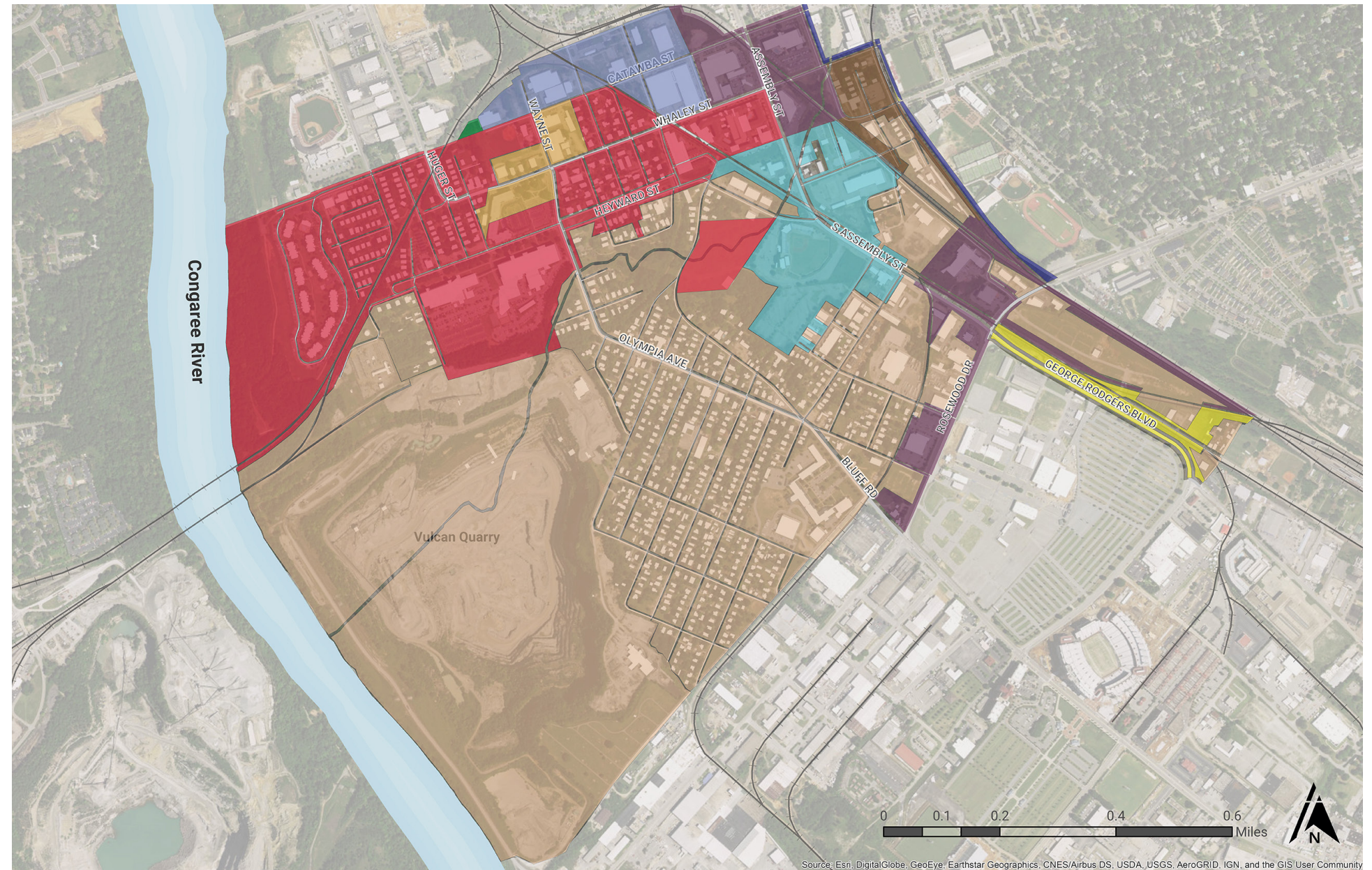
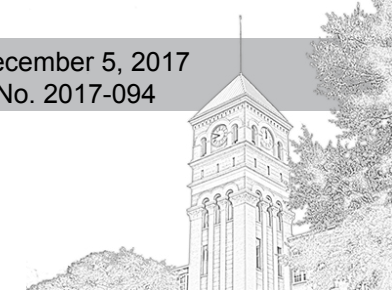


Figure 21: Existing Future Land Use Map

- |  |  |
|--|--|
| <span style="display:inline-block; width:15px; height:15px; background-color:darkred; border:1px solid black;"></span> Urban Core Mixed Residential - 1 (UCMR-1)       | <span style="display:inline-block; width:15px; height:15px; background-color:purple; border:1px solid black;"></span> Community Activity Corridor (AC-2)                                   |
| <span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span> Urban Core Mixed Residential - 2 (UCMR-2)           | <span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black;"></span> Employment Campus (EC)   |
| <span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span> Urban Core Neighborhood Activity Center (UCAC-1) | <span style="display:inline-block; width:15px; height:15px; background-color:yellow; border:1px solid black;"></span> Sports/Amusement District (SD-1)                                     |
| <span style="display:inline-block; width:15px; height:15px; background-color:cyan; border:1px solid black;"></span> Urban Core Community Activity Center (UCAC-2)      | <span style="display:inline-block; width:15px; height:15px; background-color:darkblue; border:1px solid black;"></span> Universities/Colleges (SD-5)                                       |
| <span style="display:inline-block; width:15px; height:15px; background-color:green; border:1px solid black;"></span> Urban Core Regional Activity Center (UCAC-3)      | <span style="display:inline-block; width:15px; height:15px; background-color:lightorange; border:1px solid black;"></span> Mixed Residential High Density - Unincorporated Richland County |





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### RECOMMENDED LAND USE CLASSIFICATIONS

Three of the following recommended land use classifications are derived from the categories adopted in *Plan Columbia: Land Use Plan (2015)* and one new recommended land use category is introduced. Both Richland County and the City of Columbia have recently updated their respective Comprehensive Plan Land Use Elements as part of the *Plan Together: Putting the Pieces in Place* planning process. The following recommended land use classifications and future land use map (**Figure 22**) are derived from consensus by the City and County. It is recommended that both jurisdictions update their land use classifications and future land use maps to reflect the recommendations in this plan.

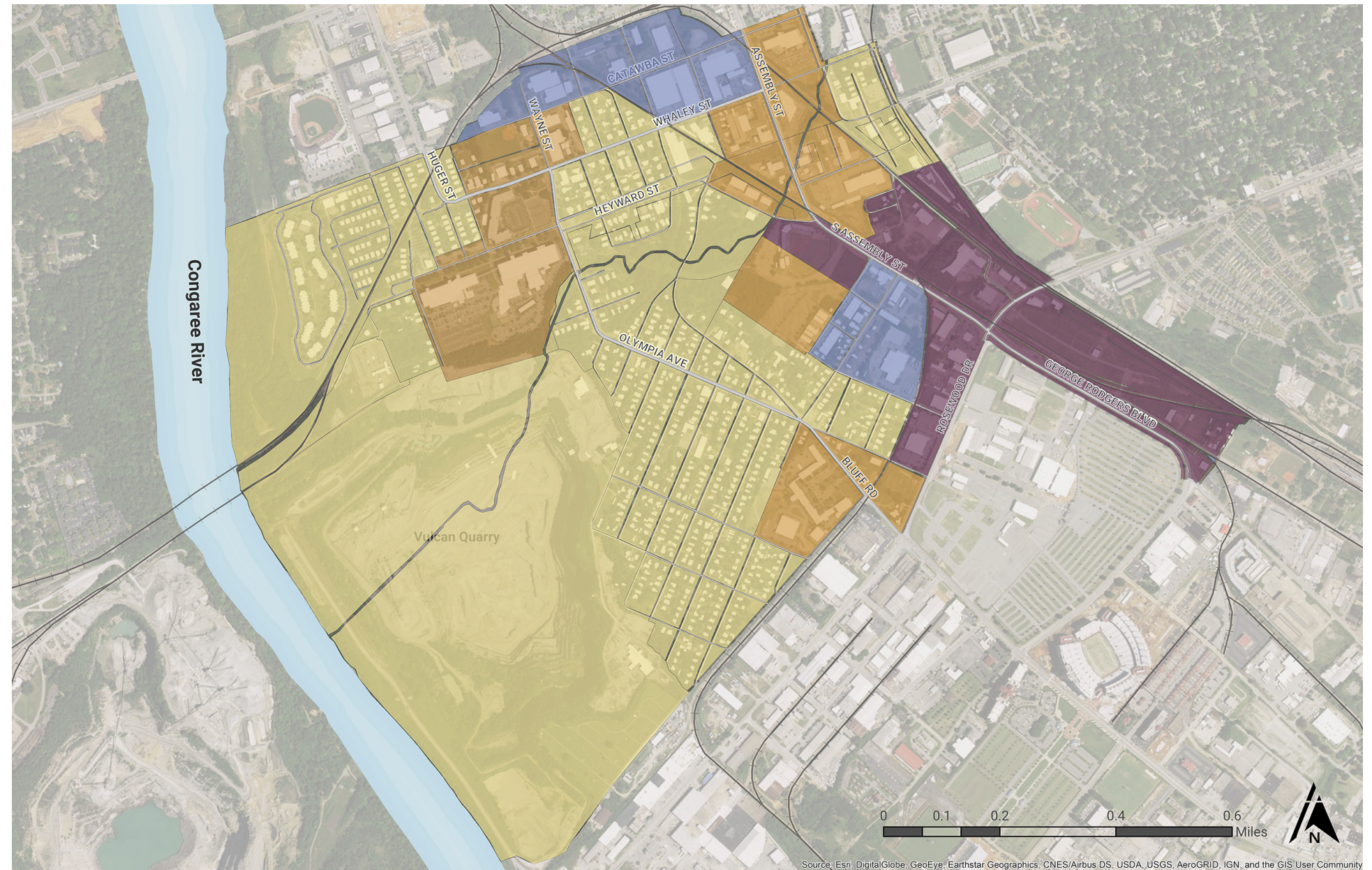
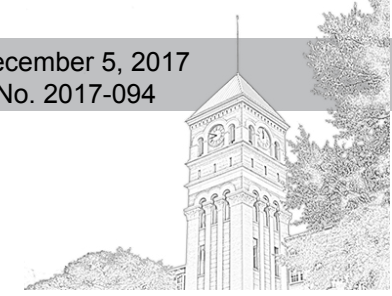


Figure 22: Proposed Future Land Use Map

- Urban Core Mixed Residential (UCMR-3) - NEW
- Urban Core Neighborhood Activity Center (UCAC-1)
- Community Activity Corridor (AC-2)
- Employment Campus (EC)





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### RECOMMENDED LAND USE CLASSIFICATIONS

#### URBAN CORE MIXED RESIDENTIAL (UCMR-3)

This future land use classification is a new classification proposed for adoption by the City of Columbia and Richland County. This will include single-family, two-family, multi-family, and commercial/civic uses where appropriate. To best preserve the quality of the housing in the Mill District, this plan recommends the addition of this new land-use classification.

Urban Core Mixed Residential neighborhoods are appropriate in the central city, inner ring areas, and a couple blocks off major corridors throughout Columbia and the more urban areas of unincorporated Richland County. This development type may represent existing and historic neighborhoods and a development form appropriate for small to medium scale redevelopment or infill sites. Traditional and contemporary architectural styles have a place in Urban Core Mixed Residential neighborhoods but scale is always important. Urban Core Mixed Residential neighborhoods have smaller-scale residential buildings, with single-family homes being a dominant use, as well as appropriately scaled mixed-use and neighborhood service amenities. The development of appropriately scaled commercial uses should be limited to neighborhood corridors. Urban Core Mixed Residential neighborhoods usually decrease in intensity as development moves further from main arterials and activity centers.

A development types/building types matrix can be found in the appendix.

#### USES

- PRIMARY** single family detached, single family attached, two-family
- SECONDARY** three-family, multi-family small
- TERTIARY** multi-family medium, small format business/employment, small format civic/institutional, small format commercial

#### MILL DISTRICT CHARACTERISTICS

mill vernacular architecture ♦ predominantly single-family ♦ tertiary commercial uses should be limited to corridors with appropriate scale (Olympia Avenue + Whaley Street)

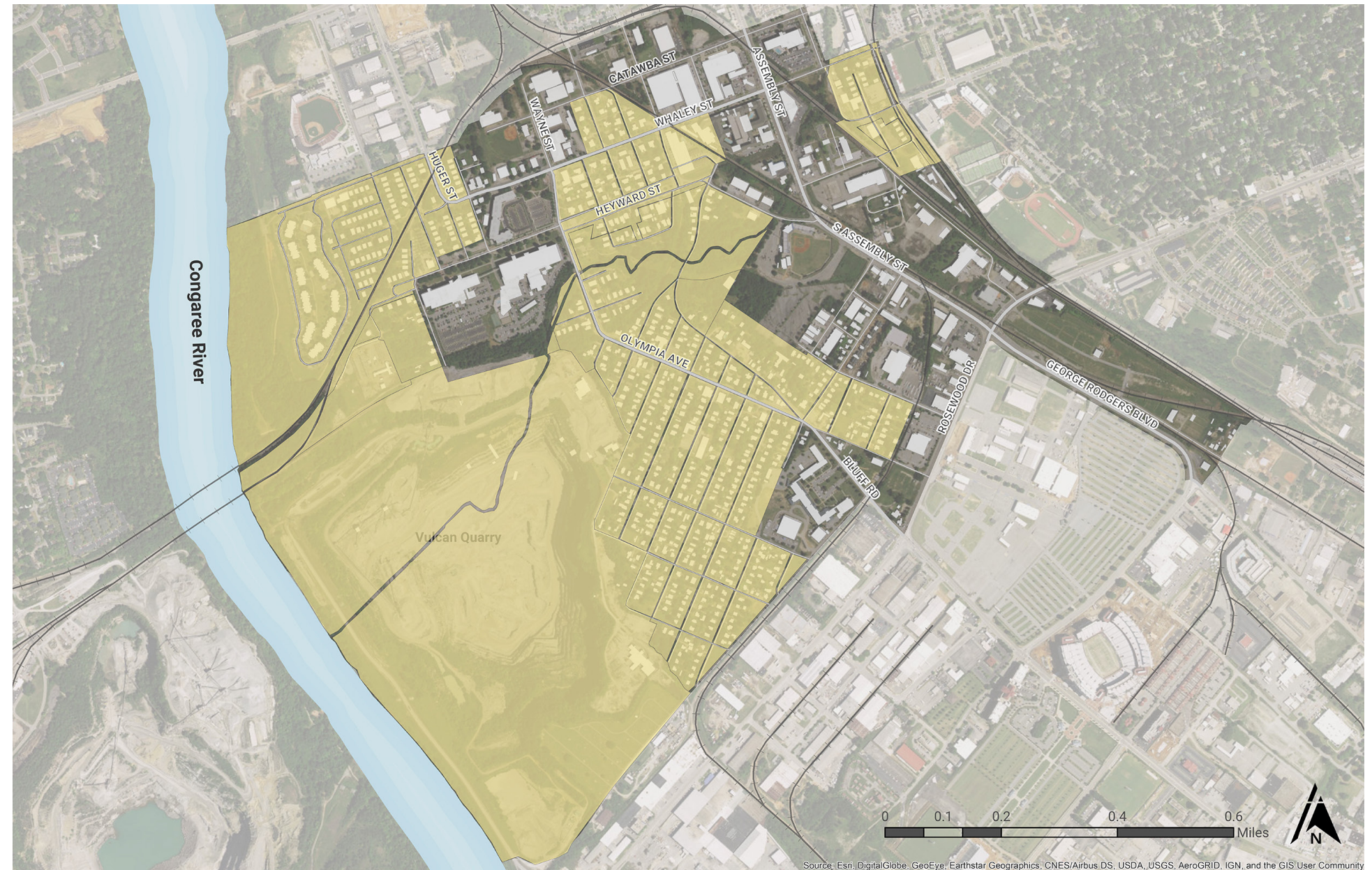


Figure 23: Proposed Future Land Use Map - Urban Core Mixed Residential (UCMR-3)

Urban Core Mixed Residential (UCMR-3)





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### RECOMMENDED LAND USE CLASSIFICATIONS

#### URBAN CORE NEIGHBORHOOD ACTIVITY CENTER (UCAC-1)

Urban Core Neighborhood Activity Centers are small collections of primarily business uses, developed within the urban grid of Columbia's neighborhoods. These centers occur along major roadways through neighborhoods and provide services and retail to a market within the immediate neighborhood, or within a 1/3-mile to 1-mile radius, but may capture traffic moving through the neighborhood on their way to other destinations. These centers typically occupy only parts of a city block and consist of just a few storefronts, 2-3 story mixed-use buildings, and have limited on-site parking. Their scale and architecture are similar to the surrounding neighborhood. These may be found as nodes in Urban Core Mixed Residential neighborhoods, or in lower intensity within Urban Core Residential neighborhoods. They do not display a significantly different subdivision pattern from the surrounding neighborhood (*Plan Columbia, 2015, pg.30*).

#### USES

- PRIMARY** small format business/employment (excl. flex), multi-family small mixed-use
- SECONDARY** civic/institutional, multi-family (small or med.), single family attached
- TERTIARY** cemeteries + mausoleums, parking structures and lots

#### MILL DISTRICT CHARACTERISTICS

mill vernacular architecture ♦ small to medium scale ♦ reflects patterns of adjacent neighborhoods

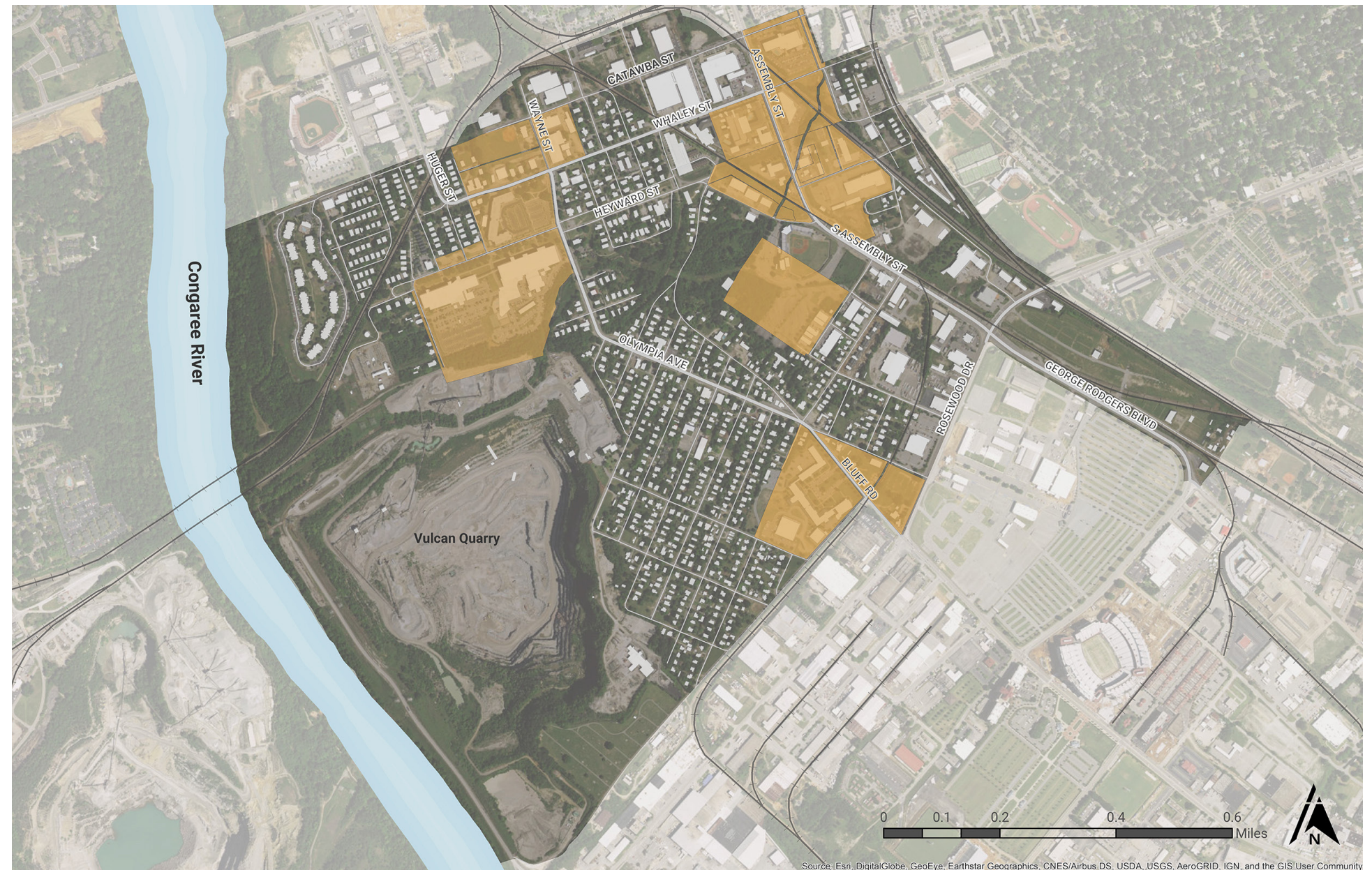
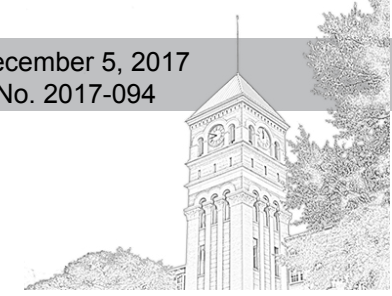


Figure 24: Proposed Future Land Use Map - Urban Core Neighborhood Activity Center (UCAC-1)

Urban Core Neighborhood Activity Center (UCAC-1)





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### RECOMMENDED LAND USE CLASSIFICATIONS

#### COMMUNITY ACTIVITY CORRIDOR (AC-2)

Community Activity Corridors are a linear extension of a Community Activity Center. They contain nearly identical building types and uses to a Community Activity Center; the primary difference is the configuration of the lots and the lack of an internal subdivision or street network. Uses are built on frontage lots along principal and minor arterial roadways. They serve surrounding neighborhoods within a 3-5 mile drive and typically consist of a variety of commercial and service uses (*Plan Columbia, 2015, pg.36*).

#### USES

- PRIMARY** small and medium business/employment (excl. flex), multi-family small and medium mixed-use
- SECONDARY** multi-family (small + medium)
- TERTIARY** civic/institutional, large format business/employment, single family attached, cemeteries + mausoleums, parking structures and lots

#### MILL DISTRICT CHARACTERISTICS

- reuse and infill development ♦ urban corridor scale ♦
- predominantly business ♦ density that defines the street edge

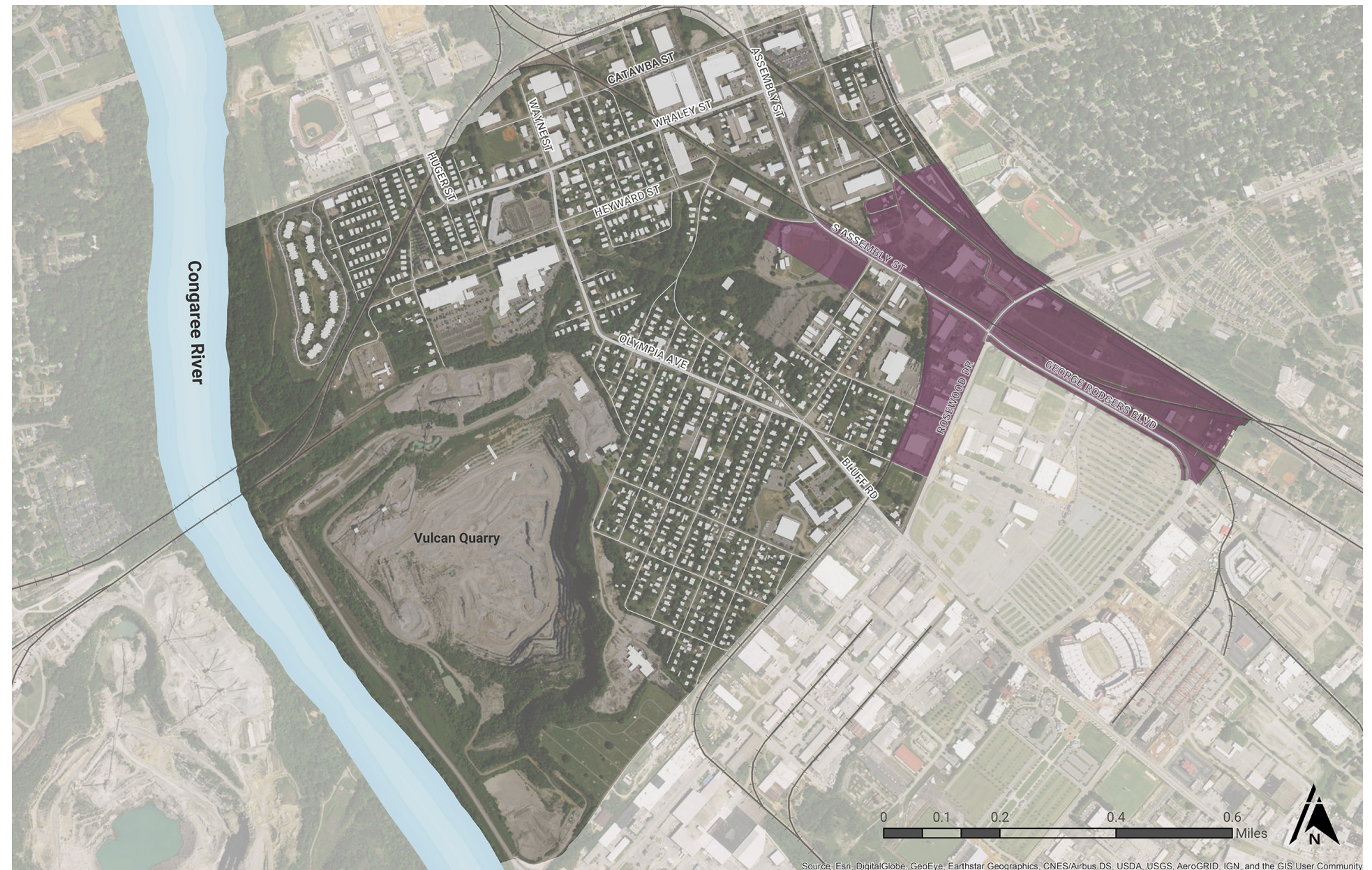


Figure 25: Proposed Future Land Use Map - Community Activity Corridor (AC-2)

Community Activity Corridor (AC-2)





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### RECOMMENDED LAND USE CLASSIFICATIONS

#### EMPLOYMENT CAMPUS (EC)

Areas dedicated to concentrations of employment uses ranging from professional services, research and development and light production facilities. They are often designed in parks with internal street networks, extensive green spaces and large format buildings. These districts are most often found at the urban edge and require large tracts of land. These campuses are comprised primarily of office buildings including corporate offices, medical or professional offices, medical research facilities, office suites, non-polluting manufacturing, and research and development uses. Redevelopment and infill in these districts with more supporting uses like multi-family residential and other retail/entertainment uses is encouraged with access to multi-modal transit stops in and near the employment campus (*Plan Columbia, 2015, pg.38*).

#### USES

- PRIMARY** medium to high-rise office/services, medium to extra large format flex
- SECONDARY** multi-family medium to high-rise mixed use, parking structures
- TERTIARY** small to large commercial, single family attached, small to high rise multi-family, parking lots

#### MILL DISTRICT CHARACTERISTICS

active green spaces ♦ flexible innovative buildings ♦ transitional scale ♦ reuse and infill development

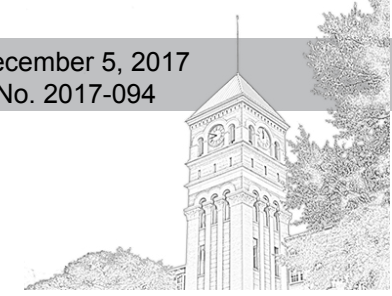
Due to the unique, innovative character of the Mill District neighborhoods and the historic nature of the mill villages, scale in this district should be modified to remain consistent with present development patterns and with buildings maintaining a scale that is appropriate as a transition between residential uses and more intense districts.



Figure 26: Proposed Future Land Use Map - Employment Campus (EC)

■ Employment Campus (EC)





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

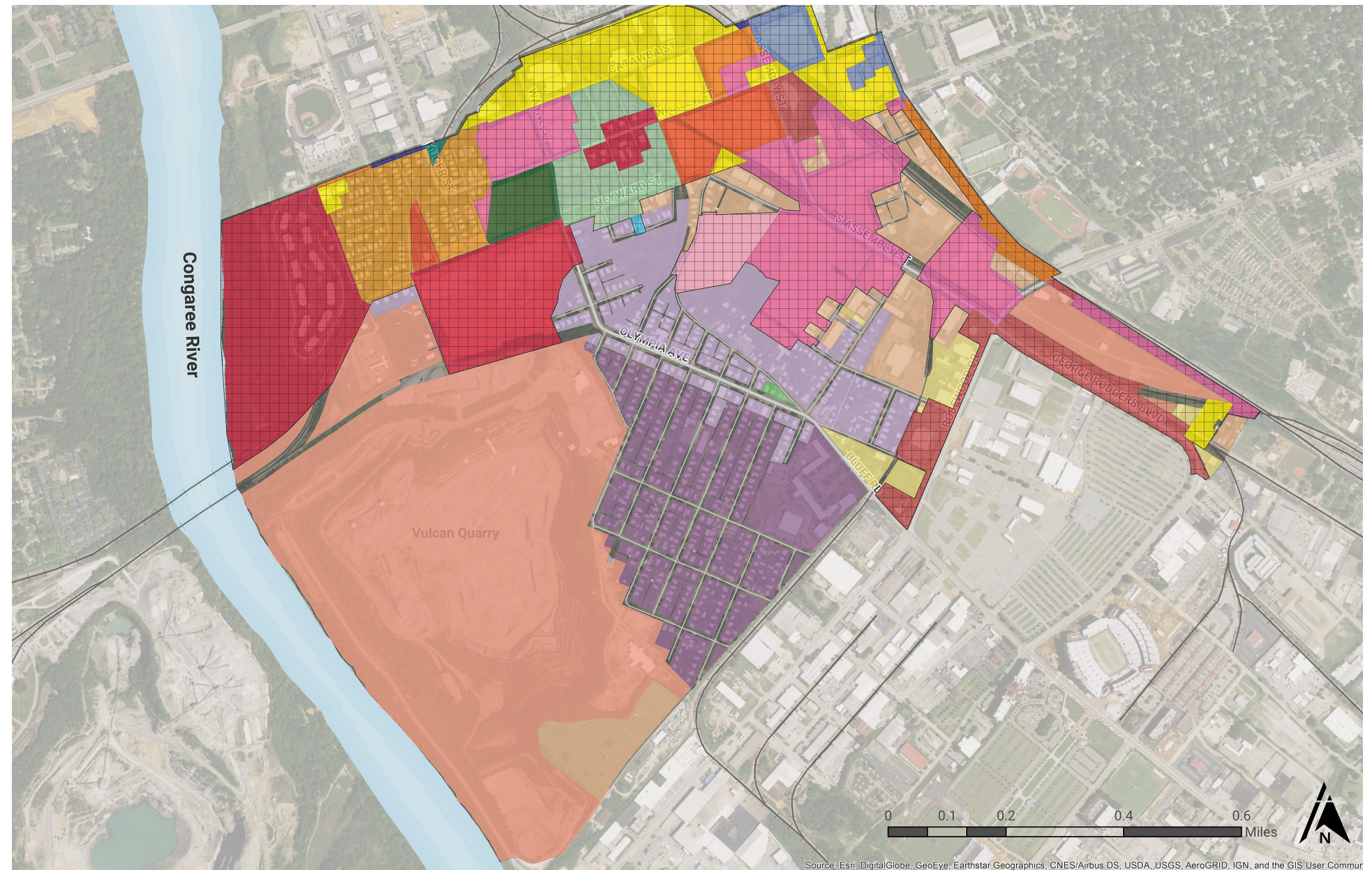
### ZONING RECOMMENDATIONS

Zoning is often confused with land use. Zoning legally divides a community into separate districts by allowed land use activity and intensity of uses such as residential, industrial, recreational or commercial. While this plan does not address the existing zoning ordinances and maps, it is important for the City and County to consider the development of zoning regulations that will align both jurisdictions and reflect the goals of the recommended land use classifications, particularly the new Urban Core Mixed Residential-Type 3 (UCMR-3). The existing zoning map for the Mill District is illustrated in **Figure 27** to the right.

The City and the County should review their respective zoning maps when they revise their codes. While each code will be specific to its jurisdiction, the updated zoning will achieve the same result of supporting the future land use classifications. A few broad recommendations to consider when updating zoning may include the following:

- ◆ Protection of neighborhoods that consist of single/two family structures from multi-family or commercial encroachment
- ◆ Protection of the scale, set-backs and landscaping along corridors of small-scale commercial and residential structures
- ◆ Allowing limited commercial development within existing structures or as infill structures that complement the form and character along Olympia Avenue and Whaley Street
- ◆ Examine the adoption of rental housing standards within unincorporated Richland County to be enforced in concert with the City's standards
- ◆ Ensuring that future development reflects the goals to preserve the historic architectural character and the natural resources of the Mill District
- ◆ Provision for appropriate massing, scale, placement, and site design, though the assignment of zoning districts based upon the recommendations made herein for future land use classifications

Updating zoning ordinances and maps will reflect the future land use classifications and the values set forth by this plan.



**Figure 27:** Existing Mill District Zoning Map (Base Zoning Districts Only)

<u>Richland County</u>			<u>City of Columbia</u>					
HI	GC		C-1	D-1	MX-1	PUD-R	RG-2	
M-1	RM-HD		C-2	M-1	MX-2	RD-2	RS-3	
NC	RS-HD		C-3	M-2	PUD-C	RG-1		
City of Columbia Municipal Limits								





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### RECOMMENDED ARCHITECTURAL REDEVELOPMENT CHARACTER

The following images portray potential rehabilitation and infill development character within the historic neighborhoods, as well as appropriately-scaled neighborhood commercial development. These images are from similar historic communities, some of them mill villages. While this plan is not providing design guidelines, future development should be encouraged and guided to reflect the vision, goals and guiding principles to preserve the character and scale of the Mill District. Updated land use classifications will create an equal field for development; therefore, a unified approach to guiding the architectural style and scale should be considered after the new land use classifications and map are adopted by the City and County.

The images shown in **Figures 28, 29 & 30**, provide possible examples of appropriately scaled redevelopment and infill development for the historic core and along corridors. Within the historic core, the goal is to preserve the fabric, character, scale, massing and density

Outside of the historic core – Assembly Street, Rosewood Drive, and parts of Huger Street, Catawba Street and Whaley Street – more diversity in architecture and more density are welcome. The architecture and density should also reflect the vision of the mill, and the industrial history of the Mill District.

A unified framework for shepherding and guiding design and development in the Mill District will provide an equitable approach to development and further support the vision of this plan.



Figure 28: Recommended redevelopment character- residential



Figure 29: Recommended redevelopment character - small commercial/mixed-use



# 3. THE IMAGINE MILL DISTRICT RECOMMENDATIONS

Adopted December 5, 2017  
Ordinance No. 2017-094

## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### RECOMMENDED ARCHITECTURAL REDEVELOPMENT CHARACTER

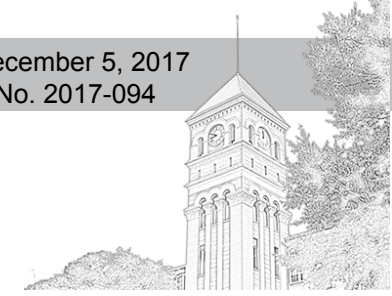


Figure 30: Recommended redevelopment character - large mixed-use/industrial/makers





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### MARKET RECOMMENDATIONS

#### CHANGING THE PERCEPTION

##### FINALIZING THE PLAN

The process of preparing a community plan, such as this one, is the first step in changing perceptions of an area. The Plan will provide a blueprint for moving forward and aligning stakeholder interest on big issues. Creating alignment and agreement between stakeholders will provide a platform for spreading the word about the changes coming to the Mill District. Further, the Plan gives confidence to those considering a move to the area, especially at the grassroots level. For example, a small proprietor interested in opening a small coffee or retail shop or a potential homeowner interested in purchasing their first house will be more inclined to consider the Mill District because of the community's vision and plan.

##### PROMOTING THE PLAN

A key benefit of the Plan is a future vision of the Capital City Mill District that was shaped by its residents and stakeholders. An effective way to achieve the Plan's vision and goals is to promote the Mill District at the grassroots and City-wide and regional level, to brand the Mill District, and then to market the Mill District to attract homeowners and businesses:

- ◆ Widely distribute the Plan.
- ◆ Involved stakeholders should continue to promote the ideas within the Plan and continue to stay engaged.
- ◆ Stakeholders advocate for the improvements planned for the Mill District through engaging with local government, word-of-mouth, advertising, and press with a goal of implementation and creating buzz which can reach future homeowners and investors.
- ◆ Promote tax credits, grants and incentives that specifically attract new homeowners and businesses and preserve the character of the Mill District.
- ◆ Partner with the Columbia Development Corporation to promote the master plan, new investments and future projects.
- ◆ Ensure that new projects and studies reference and leverage the Plan, such as the upcoming NEPA review of rail consolidation options, improvements to Rocky Branch, and development of the Rocky Branch Greenway.

- ◆ Create an identity for the area that brands the name - Capital City Mill District. While the name is abbreviated to the Mill District for the purposes of this document, ownership and branding should be of the full name.
- ◆ Create signage and gateways that can be incorporated at key entry points into the Mill District.
  - ◆ Gateways will be the key to developing an identity for the Mill District. Several design sketches were developed for gateway signage options and are illustrated in **Figure 31**. During the second phase of the public input session, the community voted on which concepts to develop further. Two concepts were chosen: Concept A, shown in **Figure 32**, used brick and stone materials found throughout the Mill District. Concept B, shown in **Figure 33**, was a more industrial design using steel or metal products for the frame. These concepts will need to be further developed and should be implemented in gateway areas as streetscapes are developed.
- ◆ Create a Capital City Mill District history trail that can be accessed by walking, biking or driving and through technology.
- ◆ Create an ongoing organization or entity that keeps the vision and implementation of the Plan at the forefront.
  - ◆ Create and institute a formal representative organization to advocate on the behalf of the Mill District, to engage Mill District stakeholders and to ensure all efforts support the vision of this plan. This organization will shepherd collaborative efforts within the Mill District, such as broad public participation in the NEPA process, and serve as stewards of the Mill District community spirit, history and culture.
  - ◆ This organization should include representatives of Mill District property, business and home owners; at least one representative of each neighborhood (Whaley, Granby, Olympia and the Assembly Street Corridor); representatives from the City, County, Richland County School District One, USC, the Columbia Development Corporation, Central Midlands COG; and other stakeholders invested in the Mill District.

- ◆ Consider the formation of a Merchant's Association or Business Improvement District to provide a platform to cross market the area and promote local businesses.
- ◆ Use existing historic assets such as 701 Whaley, historic markers, public art, and the Olympia-Granby Mill Village Museum to teach the history and importance of the area to visitors, newcomers and even long term residents.

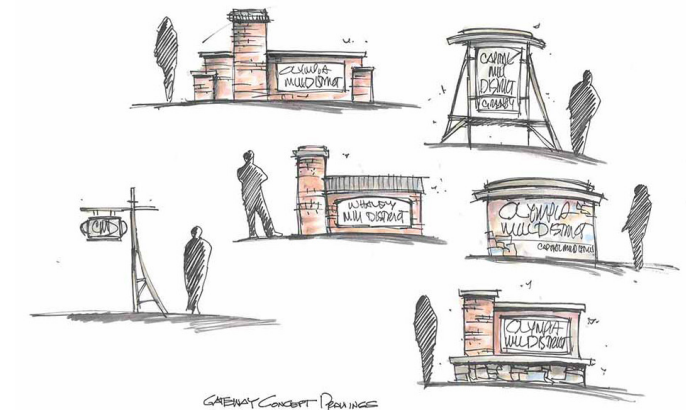


Figure 31: Gateway design sketches

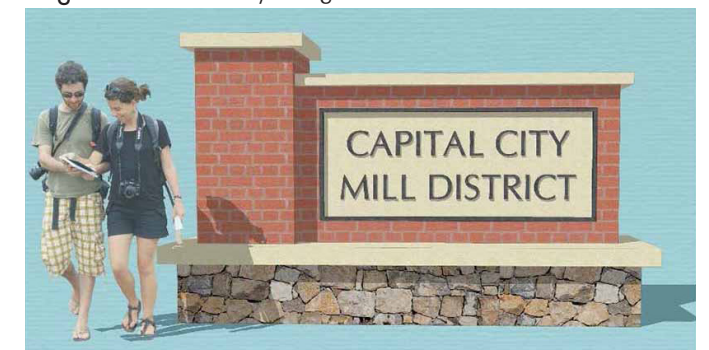


Figure 32: Gateway signage Concept A

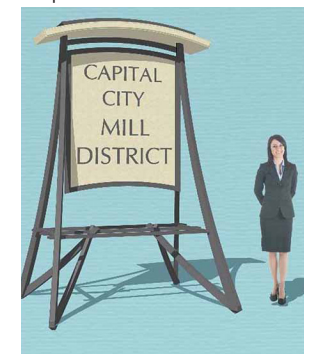
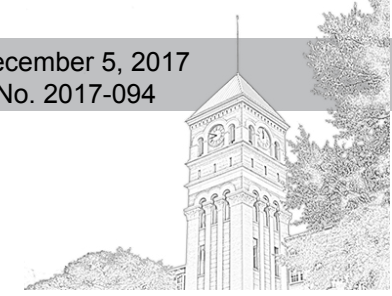


Figure 33: Gateway signage Concept B





## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### MARKET RECOMMENDATIONS

#### HARNESS THE INNOVATION ECONOMY

The Assembly Street corridor is currently an underutilized, piecemeal area that separates the University of South Carolina from the Mill District neighborhoods. A series of railroad and transportation corridors reinforce the division. Herein lies the biggest challenge for the City and County: finding a way to stitch these areas together. Creating an innovation district is one way to create a new urban form that builds a cohesive neighborhood. A new area of research has begun to further categorize and study this new urban form; which has taken root in similar areas throughout cities worldwide.

The Brookings Institute has published documents on innovation districts including *The Rise of Innovation Districts: A New Geography of Innovation in America* (Katz & Wagner, 2016). After studying a number of different emerging innovation areas, The Brookings Institute has defined them as follows:

*“Innovation Districts: geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators, and accelerators. They are also physically compact, transit-accessible, and technically-wired and offer mixed-use housing, office and retail”* (Katz & Wagner, 2016, pg.1).

The Assembly Street corridor has potential to house such an area since it shares several ingredients required:

- ◆ Runs through USC and downtown
- ◆ Home to underutilized former industrial area with potential to be reshaped
- ◆ Adjacency to historic buildings and neighborhoods

The Assembly Street Corridor is appropriate for an Innovation District and has the potential to become a high value area. While not included in our study area, the light industrial zone immediately to the south of the Mill District is more conducive to a creative artisans and makers’ area. The size and location of the properties to the south could retain the affordability needed for artisans and makers. This category is defined by Brookings as “highly specialized, small-batch manufacturing such as advanced textile production and small artisan-oriented manufacturing” (Katz & Wagner, 2016, pg.1).



Figure 34: Examples of Innovation Districts

Innovation districts are more research/science/technology based. A makers’ district is slightly different, but related in many ways. Some innovation districts cater to both makers/artisans and higher tech users. For example, a brewery mixed in with a high-tech medical device company would fit into an innovation district. In general, these districts reflect the changing preferences of our society and the way innovation happens today versus 1850 (Manufacturing/Industrial Zones) or 1950 (Suburban Science Research Park). Innovation is now clustered in dense, complex, urban ecosystems that are rich in amenities.

The qualities of an innovation district reflect the uses and characteristics of the Employment Campus land use classification. Specifically, the innovation district should reflect the key strengths and research areas within USC and the unique character of Columbia and Richland County. Also, this district will support the USC/Columbia Technology Incubator building which is already proposed within the Mill District.

Despite whether or not a true innovation district is created and thrives, the physical ecosystem that innovation districts embody is a worthy planning goal. The physical attributes that drive an innovation district are just as applicable to general office and mixed-use urban areas. These areas are compact, complex, diverse, mixed-use areas with connectivity, amenities and entertainment.

An excerpt from the Brookings report sums up the challenge ahead for the Assembly Street corridor. Specifically from the section “Re-imagine Your Physical Landscape”:

“Successful practitioners routinely spoke of the need to transform the physical landscape of their districts to create the favored attributes of complexity, density, and mixed uses and activities. This has been particularly challenging in places that bear the indelible markings of 20th century development. Heavy infrastructure—highways and exposed rail tracks—often divide natural districts. Euclidean zoning, originally intended to protect health and safety, segregated uses and isolated housing, office, commercial and manufacturing activities from each other. A number of innovation districts have therefore required variances from antiquated land use and zoning ordinances and, in some cases, radical changes to existing infrastructure.” (Katz & Wagner, 2016, pg.16-17)

Two case studies are presented on the following pages that demonstrate successful efforts to plan and prioritize investments by setting a vision for revitalization. These are the revitalization of Downtown Durham, North Carolina and the Noisette Community Master Plan in North Charleston, SC. Both of these plans share similar characteristics that provide additional relevancy: city and district sizes and the challenge of dealing with changing economic engines (tobacco and Navy base). From these case studies, important ideas, inspiration and lessons can be obtained and applied to the Mill District.



## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### CASE STUDIES

*Downtown Durham, North Carolina serves as a revitalization case study that demonstrates how to transform a former industrial area into a thriving innovation district that supports not only new jobs and residential development but also a vibrant cultural economy.*

#### INNOVATION CASE STUDY ◆ DURHAM, NORTH CAROLINA

The redevelopment of Durham, NC into a center for innovation is a relevant case study for the Capital City Mill District and the greater downtown Columbia area. Durham, like Columbia, is home to a major research institution. Durham, like Columbia and Richland County, was trying to overcome decades of shifting economies (Columbia formerly cotton, Durham formerly tobacco) and disinvestments in and around the downtown area. The Durham case study (Lowe, 2014) is important since it demonstrates the ingredients for success:

- Leadership at the public, private and neighborhood level
- Alignment of resources and cooperation between the City's major research institution and the City
- Common vision for the future
- Leveraging of existing physical assets

In the 1980s and early 90s, downtown Durham was suffering from disinvestment and blight. Most of the buildings were vacant or underutilized, and locals commented that the area was too distressed to pay for demolishing the structures, a result of which was the preservation of classic historic and mid-century modern buildings. However, this lack of demolition did preserve the classic historic and mid-century modern buildings. The City and a local downtown development corporation created a strategic master plan to revitalize the downtown. The downtown revitalization was led by the City of Durham, Duke University, and private partners such as Capital Broadcasting.

Prior to the 1990s, Duke was contained within its own campus, outside of the central business district. While Duke did not have a downtown presence, they recognized that they needed a healthy, vibrant urban center to remain competitive among top tier institutions located in vibrant downtowns such as Austin and Portland. Competition to attract top talent—both faculty and students—required mixed-use development, walkability, and stimulating physical environments.

Duke leveraged its AA credit rating as a tenant to assist private developers in seeking capital to acquire and rehabilitate historic buildings into Class A, modern workplaces. Over 15 years, Duke increased its commitments from 74,000 square feet to 1.1 million square feet (ULI Carolinas, 2015). Duke understood that they would be paying property taxes through its building expense pass-throughs which further supported the economic picture for downtown and the City of Durham. The first step for Duke was to relocate administrative offices downtown, which was followed by the relocation of core research and development functions.

One of the first catalyst projects was the decision by City leaders to retain the Durham Bulls minor league team within the downtown area. The team had considered moving to the suburbs, but a new baseball park site was identified and funding was committed for the facility. Next door, the American Tobacco Factory was purchased by Capital Broadcasting. The former, and vacant, 1.1 million SF tobacco factory was transformed into a knowledge-based hub of activity with a mix of entrepreneur spaces, and tech startups. On the first level, American Underground developed a 30,000 square foot co-working space; today they have increased their footprint to occupy 110,000 square feet (ULI Carolinas, 2015).

Today, the downtown area has over three million square feet of Class A office space and is 97% leased, and five hotels have been constructed and several high profile historic buildings have been renovated, including the boutique 21C Hotel. A new building for the Durham Performing Arts Center was built near the ballpark and is the busiest facility of its kind in the nation. The increased cultural amenities and job opportunities have induced demand for downtown residential, thereby creating a vibrant mixed-use environment (ULI Carolinas, 2015).

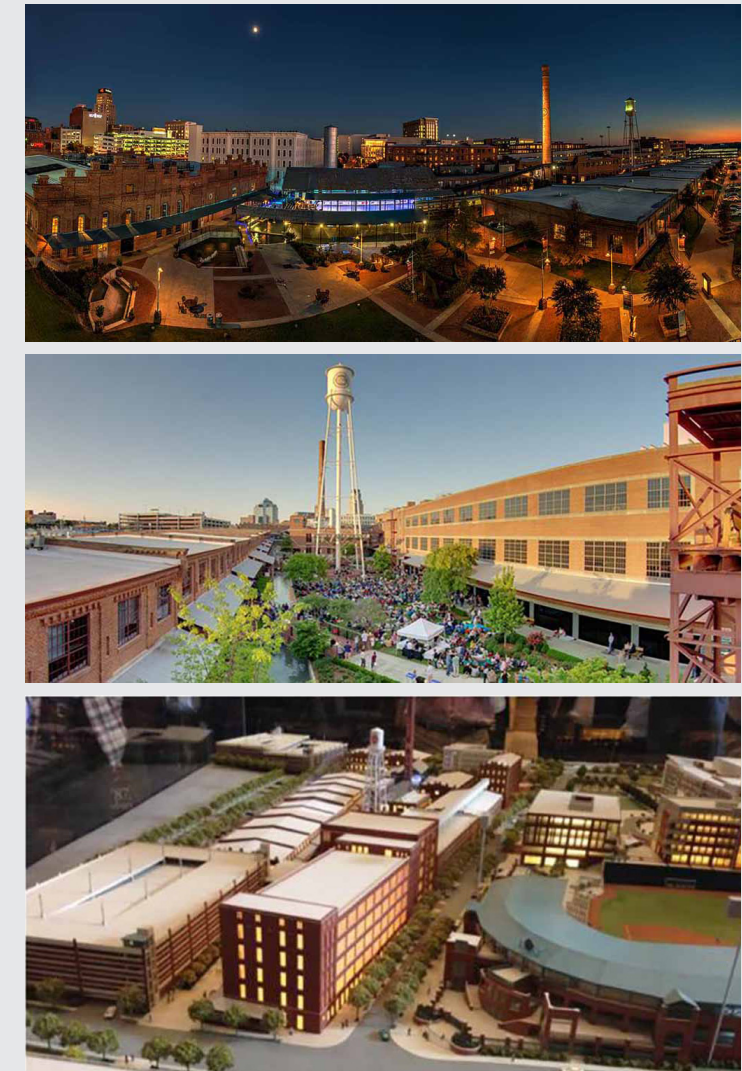


Figure 35: Innovation District Case Study in Durham, North Carolina



## IMPLEMENT PLACEMAKING POLICIES & PROJECTS

### CASE STUDIES

*The Noisette Project serves as a revitalization case study for the Mill District. Many of the aforementioned incentives and financing tools such as New Market Tax Credits, Historic Tax Credits, Abandoned Building Revitalization Credit and the SC Mill Revitalization served as a catalyst for future development in the Noisette Project and can be mirrored in the Mill District.*

#### MILL DISTRICT REVITALIZATION CASE STUDY ♦ THE NOISETTE PROJECT

The Noisette project (The Noisette Company, 2003), in the City of North Charleston, represents a relevant case study for mill neighborhood revitalization. The Noisette area includes around 3,000 acres which represent the historical core of the City of North Charleston. The area was built around two major economic anchors in the early twentieth century: The Charleston Navy Base and the GARCO Mill. The Mill closed in the late 1980s and the Navy Base was shuttered in 1996 - sending shockwaves through the region. The closure had a particularly devastating economic impact on the surrounding neighborhoods which built up around the facility.

After several years of discussions, the City of North Charleston, grassroots neighborhood groups and the private sector undertook a major planning effort to outline a vision for sustainable revitalization. A community master planning process began in 2001 and was completed in 2003. Since that time, over \$750M in documented investments have been made within the boundaries of the master plan area.

The Mill District and the Noisette area are very similar in that they both have roots as industry-specific, insular communities that were somewhat self-contained. Both communities sprung from industrial roots and still share major industrial adjacencies, river edges and crisscrossing rail networks. Both communities contain a strong residential fabric and passionate stakeholders who value the historic identity of their neighborhoods. In each case, there were (are) struggles with low median income and demographic extremes. In the case of Noisette, the population was aging and crime was a key concern. For the Mill District, there is a very high concentration of 18-24 year olds and renters. Both Noisette and the Mill District are located in areas that are geographically central. The Mill District is close to Columbia's CBD and the University of South Carolina, whereas Noisette is in the center of the Charleston/North Charleston MSA, but not near the historic center. The Noisette area is larger than the Mill District.

In addition to the issues confronting the Noisette area above, there were depressed property values and the area was demanding more City resources than property taxes were bringing in. Further, the historic main street, East Montague Avenue, was nearly vacant and the school district was preparing for major disinvestment in the area.

The Noisette community master planning process began in 2001 and was completed in 2003. Over the past 13 years, the following changes have taken place:

- 8,000 jobs on the former base;
- GARCO mill property has been cleaned up, 271 new apartments built and a rehabilitation of the historic mill building is set to begin;
- Mainstream acceptance of the neighborhood although crime is still an occasional issue;
- Young people and young families are moving to the neighborhood;
- Property values have seen significant increases in the 5 to 10 times multiple range;
- Homeownership is increasing; and
- Vibrant main street has evolved on East Montague Avenue.

The Noisette Plan (The Noisette Company, 2003) was most successful by creating an alignment and focus of resources. There was buzz created by the project and an effort was made to highlight the positive attributes of the community. Also, with a completed master plan and a common vision for the future, residents were able to sell their own neighborhood to friends and family. The changes did not come quickly, but evolved over the course of a decade and are still ongoing today.

The Noisette community redevelopment effort provides several take-aways that can be applied to the Mill District:

- Leadership from the public sector, private sector and grassroots community level is crucial;
- Completing the *Capital City Mill District Area and Corridor Plan* is an important first step. The Plan can become the central guiding document to align stakeholders;
- Branding and word of mouth advertising is an important component for a project like this;
- Relatively small initial projects lead to big changes over time;
- Early work is difficult and results aren't always visually apparent, but it is crucial to building the proper foundation for redevelopment and investment; and
- Changes and revitalization tend to be incremental and small-scale until they take hold. This is why the Plan's policy recommendations must be implemented.



Figure 36: Innovation District Case Study in Charleston, South Carolina - The Noisette Project





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### BIG IDEA 2:

## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

The transportation network is a critical element in the development of the Plan and any recommendations must incorporate an integrated approach with the community resources, character, land use, and development patterns. The Mill District experiences a wide range of transportation-related issues, including the heavy railroad traffic, trucks, special event impacts and pass through traffic; each of which has significant impacts on the quality of life for residents.

In particular, the rail traffic and the number of at-grade crossings that are located within and adjacent to the Mill District are an issue for the neighborhood. The Huger Street crossing is often blocked for significant amounts of time due to the presence of the CSX rail yard, located just west of the Congaree River in Cayce, and the associated operations and staging. In addition to the Huger Street crossing, the rail crossings on Assembly Street can often be blocked which leads to large amounts of “cut-through” traffic in the neighborhood by drivers avoiding the blockages on Assembly Street. The associated rail noise and warning horns also have impacts on the neighborhood and its residents.

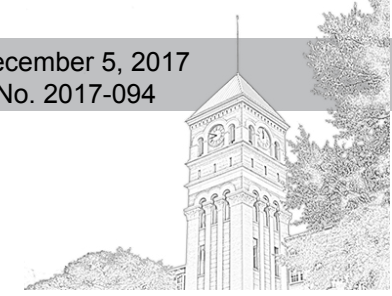
Through the development of the Plan and its extensive stakeholder and public outreach, the transportation issues were prioritized and

recommendations to mitigate the adverse impacts on the Mill District were identified. The planning process for the transportation analysis and development of recommendations is described on the following pages.



Figure 37: CSX railyard relationship to Mill District





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### PREVIOUS AND ONGOING EFFORTS



Figure 38: Proposed Huger Street-Olympia Avenue Connector

 Huger Street/Olympia Avenue Connector (Flyover)

Outside of the development of the plan, there have been several previous transportation initiatives undertaken over the years that have attempted to address some of the traffic and train-associated impacts. In order to fully understand the historical context for transportation in the Mill District, each of these efforts was reviewed.

In the late 1980s, a proposal for a Huger Street crossing flyover was identified. This Huger-Olympia Connector, shown in **Figure 38**, provided a grade-separated rail crossing that aligned directly with Wayne Street and connecting on the east to Bluff Road via Olympia Avenue. This project moved into right of way acquisition, with the South Carolina Department of Transportation (SCDOT) purchasing the needed property for the connection. However, due to opposition from the community, combined with lack of funding for construction, the project was put on hold, although SCDOT retained the ownership of the acquired right of way. In 2015, SCDOT, while retaining ownership rights, leased the right of way to the University of South Carolina for their use as a parking facility for a new building.

In 2003, the City of Columbia undertook a Quiet Zone study, which identified the steps needed to install quiet zones. According to Norfolk Southern, the installation of a quiet zone can cost local governments approximately \$200,000 to \$400,000 per crossing for basic gate systems and up to \$500,000 for more sophisticated equipment. Additionally, the local government is responsible for the ongoing maintenance costs, which, according to Norfolk Southern, can range up to \$10,000 per gate system annually.





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### PREVIOUS AND ONGOING EFFORTS

In 2009, the Assembly Street Railroad Corridor Consolidation Project was completed for SCDOT (Assembly Street Railroad Corridor Consolidation Project, 2009). This effort was a continuation of projects identified in the 1970s to address the rail impacts on the downtown Columbia area. There were four phases of projects, which included Phase 1-A (Assembly Street), Phase 1-B (Elmwood Loop), Phase 1-C (the Ditch), and Phase II (Fairwold Connection). Phases 1-B and 1-C have been completed and the 2009 effort focused on Phase 1-A (Assembly Street Railroad Corridor Consolidation Project, 2009).

The 2009 study examined the impacts from both the CSX and Norfolk Southern rail lines and the at-grade crossings along Assembly Street. These active rail lines have slow speed trains that often block the at-grade crossings for significant amounts of time. The result of this study identified alternatives for addressing the at-grade crossings through proposed grade-separation and closures in the study area, which included portions of the Mill District study area. The Huger-Olympia Connector was included as part of the study.

As with the Huger-Olympia Connector, the lack of funding for projects resulted in the project being shelved. In 2014, a consortium of agencies and local governments in the Midlands submitted an unsuccessful application to the SC Transportation Infrastructure Bank for a grant to complete the United Midlands Multimodal Corridor Improvement Project (United Midlands Multimodal, 2014). Included in the project list were multimodal improvements along Assembly and Huger Street corridors, as well as addressing the numerous at-grade rail crossings.

In 2016, SCDOT identified enough funding to begin the assessment of the alternatives identified in the 2009 rail consolidation study along Assembly Street in compliance with the National Environmental Policy Act (NEPA). The NEPA process also includes any additional alternatives identified due to changing conditions. In addition to the Assembly Street alternatives, the Huger-Olympia Connector is also included in the evaluation process.

The NEPA process sets the framework for protection of the environment and is required when any federal action may impact the human and natural environment.

There are two primary objectives in the process:

- ◆ To ensure the impacts of every element of a proposed project are considered
- ◆ To inform and involve the community members and the public of the alternatives and their impacts on the human and physical environment

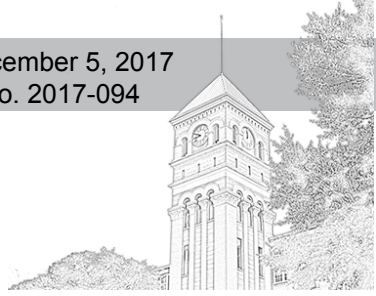
Included in the human environment are social and cultural elements such as historic and cultural resources, archaeological resources, and socio-cultural attributes. The physical environment includes elements such as noise, air quality, floodplain and water resources, visual impacts and impacts to protected lands. Public involvement is a critical part of the process.

The results of the NEPA process is to identify a preferred alternative among those identified. A “no-build” alternative is always considered as part of the process, and the analysis can result in the “no build” alternative as the preferred alternative.

Currently, there are no funds to move beyond the development of the environmental document.

Per the project team’s discussion with SCDOT, it is our understanding that all alternatives developed in the Capital City Mill District Area and Corridor Plan will be included in the NEPA process and will each be given equal weight when evaluated. Each alternative will be studied in order to determine what effects it will have on the City and the Mill District.





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### EXISTING CONDITIONS

#### RAIL

A network of rail lines, both Norfolk Southern and CSX, cross through and around the edges of the study area. These trains are major lines, moving coal and other commodities, and often have major impacts on traffic flow. Often, when trains block Assembly Street, the traffic avoids them by moving through the study area, creating additional issues and impacts within the area. The majority of the crossings are at-grade, which is a significant safety hazard, both for motorists, as well as pedestrians crossing the tracks, many of whom are students. The main Norfolk Southern and CSX lines emanating from Columbia are:

#### NORFOLK SOUTHERN

- ◆ West toward Augusta
- ◆ Northwest to Spartanburg
- ◆ North to Charlotte
- ◆ Southeast to Charleston

#### CSX

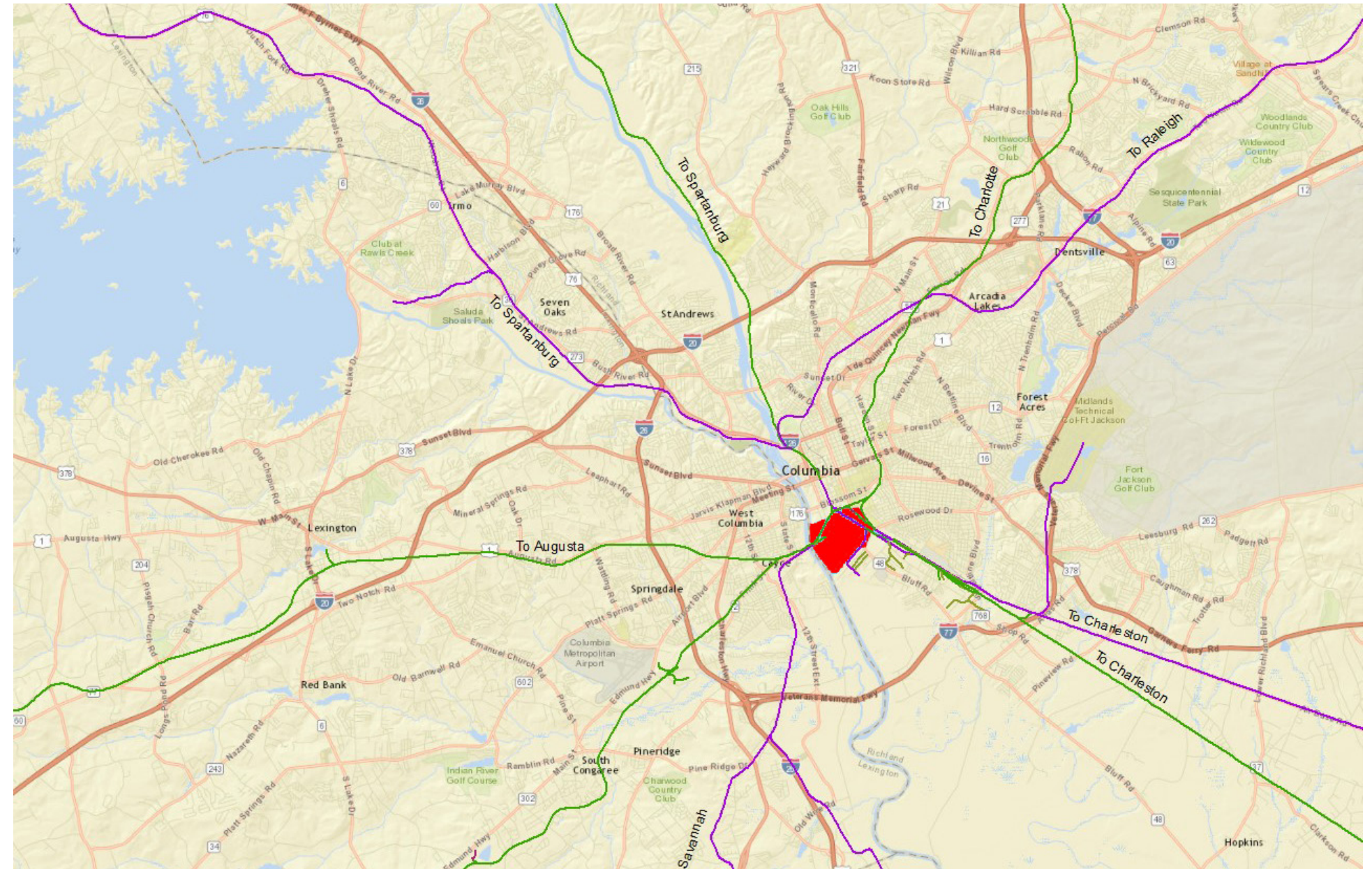
- ◆ Northwest to Spartanburg
- ◆ South to Savannah
- ◆ Northeast to Raleigh
- ◆ Southeast to Charleston

Essentially, all of the movements among these lines run through the Mill District.

Several data sources were used in the assessment of railroad crossings. The Federal Railroad Administration (FRA) provides data about railroad crossings in a variety of forms, including an online mapping tool and downloadable GIS files. A FRA crossings database can be queried to list all crossings in Columbia, South Carolina (Federal Railroad Administration, 2017). In addition, the FRA National Rail Network is viewable in GIS. GIS files of statewide railroads are available from SCDOT. SCDOT also lists all public at grade railroad crossings (South Carolina Department of Transportation, 2017).

The collection of the above data sources was used to identify the U.S. DOT Crossing Inventory Number of each at-grade railroad crossing. The U.S. DOT Crossing Inventory Form contains numerous attributes, including whether the crossing is at-grade and has signals. The number of trains per day was calculated as the sum of the total day thru trains (6AM to 6PM), total night thru trains (6PM to 6AM), total switching trains, and total transit trains (Federal Railroad Administration, 2017).

All major CSX and Norfolk Southern lines serving Columbia traverse the Mill District, as shown in **Figure 39**. Crossing the Congaree River to



**Figure 39:** Rail Lines in Columbia

the west are the Norfolk Southern line to Augusta and the CSX line to Savannah (including Amtrak). Entering the study area from the northeast is the Norfolk Southern line from Charlotte. To the northwest are Norfolk Southern and CSX lines to Spartanburg as well as the CSX line to Raleigh.

To the southeast are Norfolk Southern and CSX lines to Charleston. Of these four major access and egress directions (west, northeast, northwest, and southeast), three are shared between CSX and Norfolk Southern (the exception being Norfolk Southern alone directed to the northeast serving Charlotte). Two parallel lines head toward Charleston to the southeast, paralleling lower Assembly Street in the study area.





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### EXISTING CONDITIONS

Figure 40 shows the number of trains per day traversing various at-grade crossings in and around the study area. The volumes indicate heavy freight traffic on the Norfolk Southern lines to the northeast toward Charlotte, with about 16 trains per day on both the tracks between the Charleston line (evidenced by the crossing at Whaley Street/Sumter Street) and line connecting to the west and northwest (across Gadsden, Lincoln, and Assembly Streets). The other dominant movement is along the shared line from the west that crosses Huger Street and Tryon Street, carrying about 18 trains per day on CSX and eight trains per day on Norfolk Southern.

To the southeast, traffic is lighter and split between the two lines. CSX has a spur serving an area south of the study area with two trains per day. A Norfolk Southern spur to the east also serves two trains per day. CSX carries about nine trains per day on this line paralleling Assembly Street through the core of the study area (crossing Lincoln Street, Whaley Street, and Catawba Street/Mulberry Lane. The parallel Norfolk Southern Line is substantially lighter with two trains per day at Flora Street. The bulk of the Norfolk Southern volume split to the northeast in this vicinity.

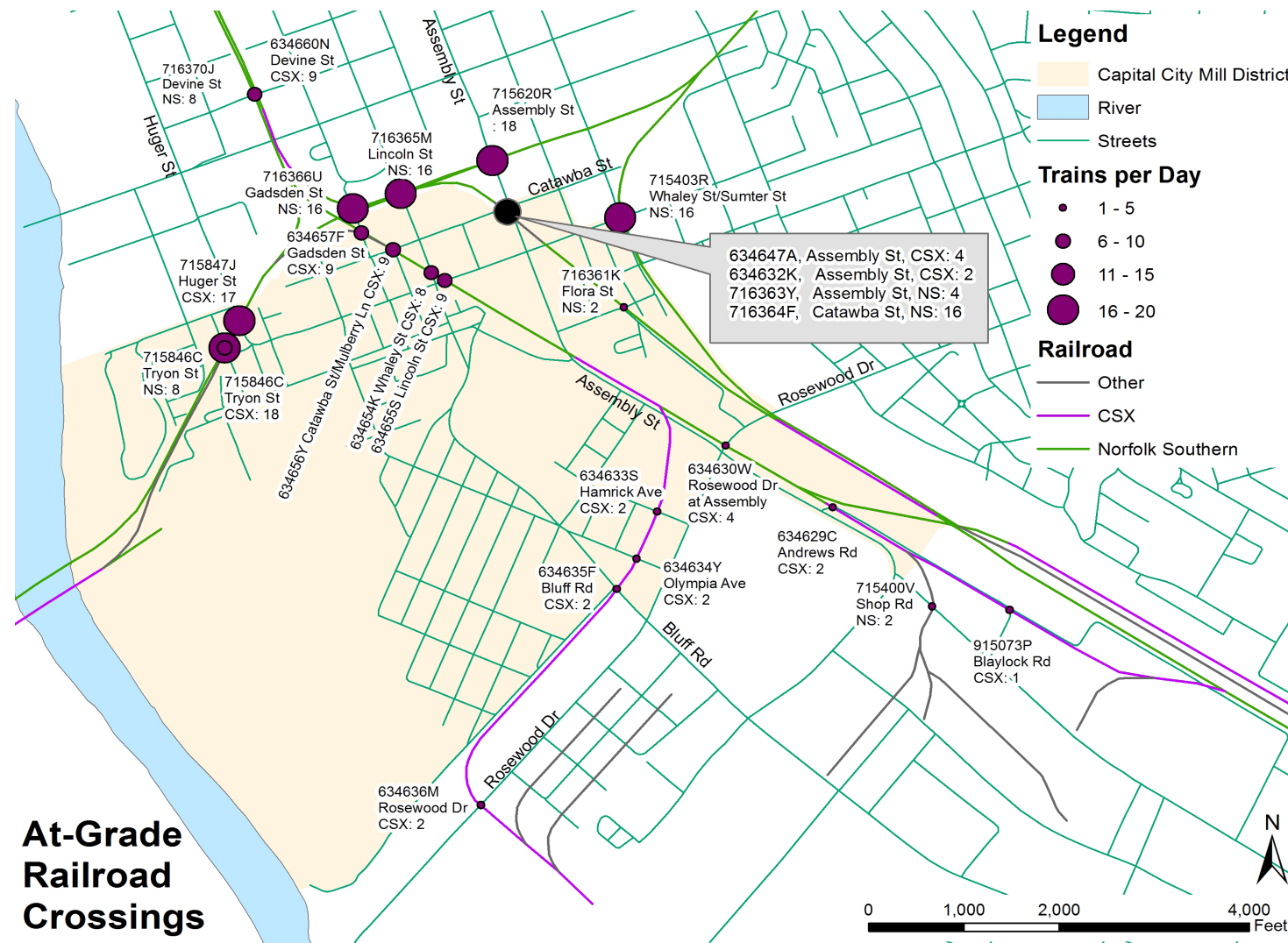
### ROADWAY

The major corridors within the study area carry a significant amount of traffic on a daily basis. The 2016 average annual daily traffic (AADT) on these major corridors is shown below:

CORRIDOR	LOCATION	2016 - AADT
Huger Street	Between Blossom and Whaley	18,500
Whaley Street	East of Huger Street	17,900
Whaley Street	West of Assembly Street	11,100
Olympia Avenue	West of Bluff Road	14,700

These traffic volumes dramatically increase during special events and as motorists on Assembly Street try to avoid train blockages by moving through the neighborhood. With the increased growth pressures, the traffic issues will only worsen in the future. There is a lack of multimodal facilities for pedestrians and bicyclists on many of the roads within the District. This lack of pedestrian and bicycle amenities is a safety concern, including at the at-grade rail crossings, as well as along the more heavily traveled corridors (SCDOT, 2016).

In addition, there are significant numbers of trucks moving within and through the study area. The quarry is located in the southwestern portion of the study area; there are also light industrial uses adjacent to the study area that generate freight/truck movement.



**At-Grade Railroad Crossings**

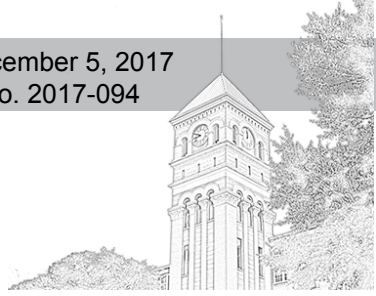
Figure 40: At-grade Railroad Crossings



Figure 41: Before and after bike/pedestrian railroad crossing

Photo Credits: Miami-Dade MPO





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### COORDINATION

#### AGENCIES

Coordination with involved agencies is always an important element of any study. However, with the significant impacts on the Mill District by the railroads and the NEPA effort undertaken by SCDOT on the Assembly Street rail consolidation and Huger-Olympia Connector, coordination throughout the project with these transportation agencies became critical.

Over the course of the planning process, the team met with representatives from SCDOT Rail Office and Preconstruction Office four times. These meetings were held to discuss the project background and history, ongoing and future efforts affecting the District, and to provide information and obtain feedback on the progress of the plan development. In addition, the team also met with representatives of the railroads four times, with one of the meetings including both SCDOT and rail representatives. Numerous telephone and email exchanges were also held with both the railroads and SCDOT to ensure transparency and coordination in the development of recommendations.

The feedback provided by the railroads was disseminated to the members of the public and stakeholders to help provide insight and understanding regarding the rail companies. The railroads are private corporations that are federally regulated by the Federal Rail Administration. As private entities, changes to the railroad lines and/or operations need to be targeted for increased efficiency and economic benefit.

From the rail perspective, safety is of utmost importance and includes the priority of at-grade crossing elimination. With regard to bicycles and pedestrians, improved amenities may be incorporated into at-grade crossings, but safety measures must be in place specifically for the users and any non-standard materials must be funded through sources outside of the railroad. With regard to quiet zones, those may be implemented but require a process that begins with the Federal Rail Administration. Crossings targeted as part of a quiet zone typically require major upgrades, and as with the bicycle and pedestrian amenities, funding is from sources other than the railroad.

Specifically relevant to the Mill District, there is little to no coordination between CSX and Norfolk Southern, even though the two companies operate on parallel lines and share lines within the District.

This lack of coordination is a contributing factor to some of the traffic back-ups associated with blocked crossings. The companies are open to consolidation of operations and do share operating agreements on portions of the rails within or near the District; the process is lengthy and costly, yet worthwhile and necessary.

#### STAKEHOLDERS AND THE PUBLIC

In addition to agency coordination, the ongoing involvement of residents and others vested in the Mill District was a crucial element in the successful development of recommendations. The Planning Advisory Committee (PAC) comprised of residents, investors, the University of South Carolina, environmental and historic groups and the Central Midlands Council of Governments was closely involved throughout the planning process. Members of the PAC and other residents had a longstanding history of active participation with issues affecting the Mill District, and had invested hundreds of hours to ensure proposed solutions, such as the Huger-Olympia Connector, would not have adverse community impacts. This community investment by the PAC was particularly focused on rail and transportation solutions, which can have dramatic community impacts, both adverse as well as positive and crafting the appropriate recommendations was a high priority. Members of the PAC worked closely with the project team in the development of general and specific transportation recommendations.

In addition to the PAC coordination, members of the public were active in providing their feedback throughout the process. Public meetings, workshops, and open houses were held to allow for the full dissemination of project information and to obtain specific feedback regarding every element of the plan, including trains and transportation.

#### RECOMMENDATIONS

Through the planning analysis and coordination, potential alternatives for addressing trains and transportation were developed and presented to the City of Columbia, Richland County, and the PAC. With the complexity of the Plan development and the need for intensive coordination, it was decided to have focused PAC workshops on the specific plan elements. The train and transportation workshop to determine the final alternatives and recommendations was held on January 6, 2017.

The project team developed five alternatives for addressing the rail issue. Each of the alternatives includes the consolidation of CSX and Norfolk Southern rail operations along Assembly Street onto the northernmost rail line and removing the rail line closest to Assembly Street. Corresponding with the Plan's Big Ideas, recommended alternatives are detailed in the following pages.





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### RECOMMENDATIONS

#### ALTERNATIVE A: RECONFIGURED BLOSSOM/HUGER INTERSECTION

This alternative, shown in **Figure 42**, includes the following elements:

- Consolidation of the rail lines along Assembly Street
- Dual left turn lanes from southbound Huger Street onto eastbound Blossom Street, routing traffic along Blossom to Assembly
- Implementation of a Huger Street road diet with a median and bicycle and pedestrian facilities to visually communicate Huger Street as a local road south of Blossom Street
- Huger Street at-grade crossing remains in place
- Coordination with the railroads on operational improvements within the Cayce rail yard to ease back-ups at the Huger Street rail crossing
- Implementation of quiet zones
- Neighborhood connection to Assembly Street from Whaley Street along the former rail right-of-way

#### ADVANTAGES

The advantages of Alternative A include:

- Minimal neighborhood impacts
- Routing of traffic around the Mill District on Blossom and Assembly Streets
- Provision of enhanced multimodal facilities along Huger Street
- Mitigation of train blockages and noise
- Implementation of the majority of the alternative can occur without rail consolidation

#### DISADVANTAGES

The disadvantages of Alternative A include:

- At-grade crossing at Huger Street remains with no alternative grade separation
- Intense coordination with the railroad yard operations is the key element

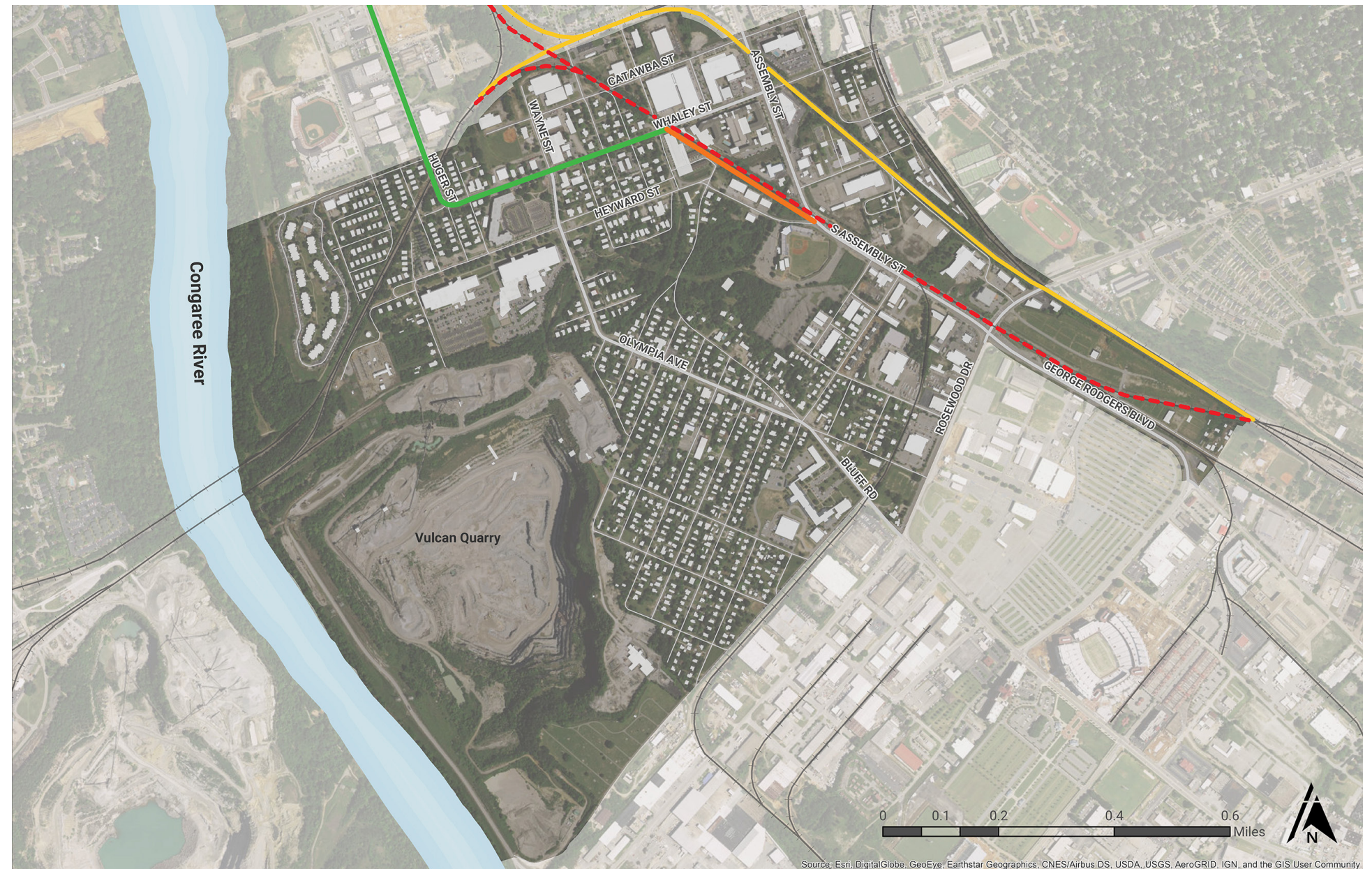
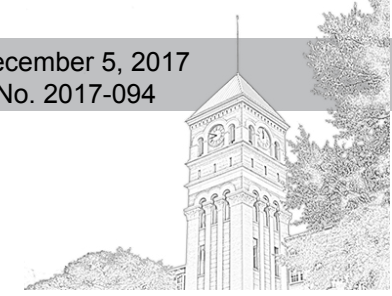


Figure 42: Alternative A - Reconfigured Blossom Street/Huger Street Intersection

- Rail Removal
- New Roadway Connection to Assembly Street on rail ROW
- Road Diet / Bike and Pedestrian Improvements
- Rail Consolidation





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### RECOMMENDATIONS

#### ALTERNATIVE B: HUGER STREET FLYOVER TO CATAWBA STREET

This alternative, shown in **Figure 43** includes the following elements:

- Consolidation of the rail lines along Assembly Street
- Dual left turn lanes from southbound Huger Street onto eastbound Blossom Street, routing traffic along Blossom to Assembly
- Implementation of a Huger Street road diet with a median and bicycle and pedestrian facilities to visually communicate Huger Street as a local road south of Blossom Street
- Coordination with the railroads on operational improvements within the Cayce rail yard to ease back-ups at the Huger Street rail crossing
- Implementation of quiet zones
- Neighborhood connection to Assembly Street from Whaley Street along the former rail right-of-way
- Flyover on the existing SCDOT right of way with touchdown on Catawba Street
- Implementation of access management on Catawba Street to manage traffic flow through the neighborhood

#### ADVANTAGES

The advantages of Alternative B include:

- Routing of traffic around the Mill District on Blossom and Assembly Streets
- Provision of enhanced multimodal facilities along Huger Street
- Mitigation of train blockages and noise
- Provides grade-separated alternative to the Huger Street at-grade crossing
- Direct connection to Assembly Street via Catawba Street
- Keeps traffic on the periphery of the Mill District

#### DISADVANTAGES

The disadvantages of Alternative B include:

- At-grade crossing at Huger Street likely removed
- Increased traffic along Catawba Street
- Intense coordination with the railroad yard operations is a key element
- Visual and residential scale impacts from flyover
- Grade separation requires rail consolidation

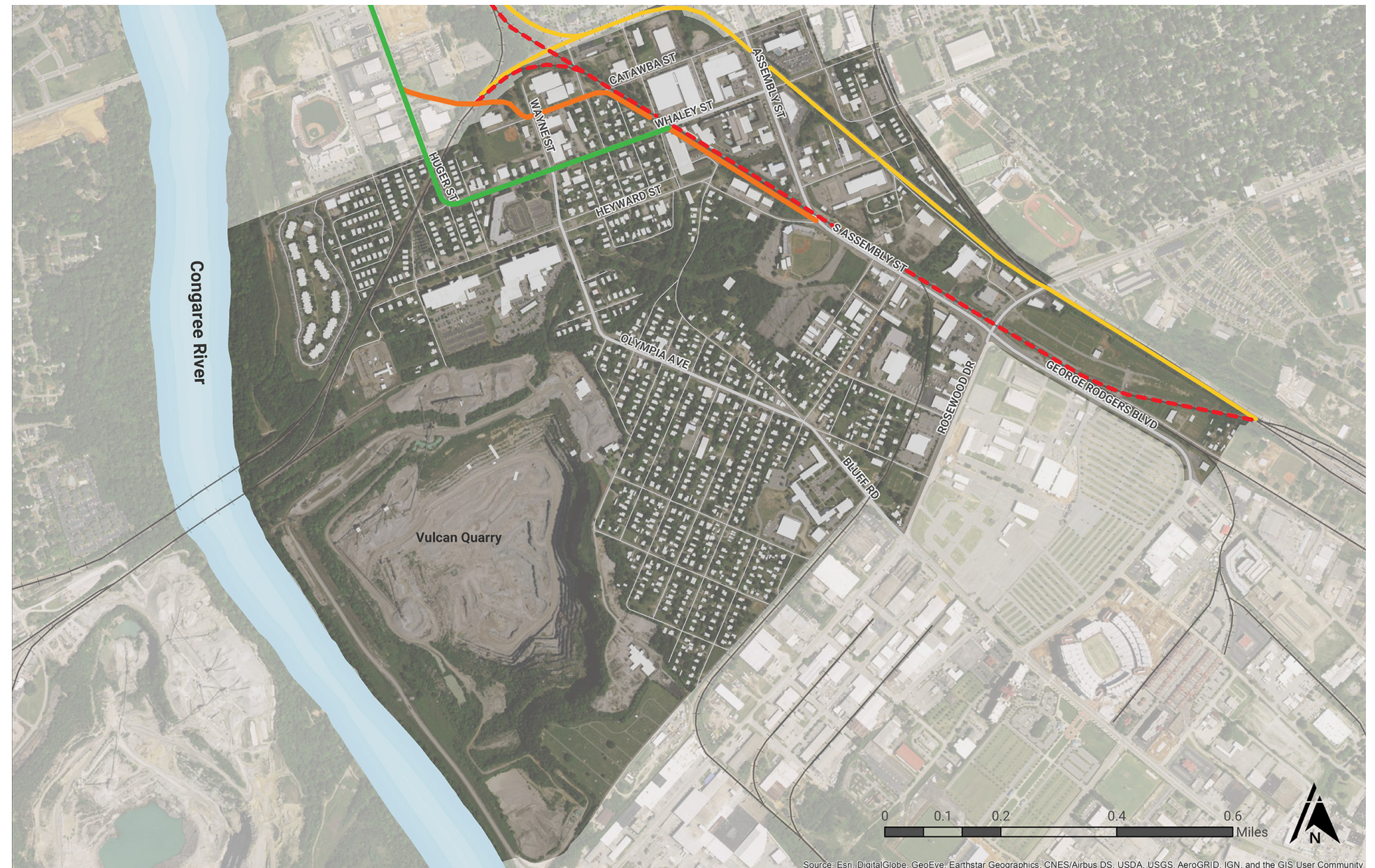


Figure 43: Alternative B - Huger Street Flyover to Catawba Street

- Rail Removal
- New Roadway Connection to Assembly Street on rail ROW
- Road Diet / Bike and Pedestrian Improvements
- Rail Consolidation





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### RECOMMENDATIONS

#### ALTERNATIVE C: NORTHERN LOOP FLYOVER TO CATAWBA STREET

This alternative, shown in **Figure 44**, includes the following elements:

- Consolidation of rail lines along Assembly Street
- Dual left turn lanes from southbound Huger Street onto eastbound Blossom Street, routing traffic along Blossom Street to Assembly Street
- Implementation of a Huger Street road diet with a median and bicycle and pedestrian facilities to visually communicate Huger Street as a local road south of Blossom Street
- Coordination with the railroads on operational improvements within the Cayce rail yard to ease back-ups at the Huger Street rail crossing
- Implementation of quiet zones
- Neighborhood connection to Assembly Street from Whaley Street along the former rail right-of-way
- Construction of flyover to Assembly Street on existing SCDOT right-of-way and the former northernmost railroad right-of-way

#### ADVANTAGES

The advantages of Alternative C include:

- Routing of traffic around the Mill District on Blossom and Assembly Streets
- Provision of enhanced multimodal facilities along Huger Street
- Mitigation of train blockages and noise
- Provides grade-separated alternative to the Huger Street at-grade crossing
- Direct connection to Assembly Street via Catawba Street
- Keeps traffic on the periphery of the Mill District

#### DISADVANTAGES

The disadvantages of Alternative C include:

- At-grade crossing at Huger Street likely removed
- Increased traffic along Catawba Street
- Intense coordination with the railroad yard operations is a key element
- Visual and residential scale impacts from flyover
- Grade separation requires rail consolidation
- Coordination of the construction of the flyover partially within the existing rail right of way and the need for temporary tracks

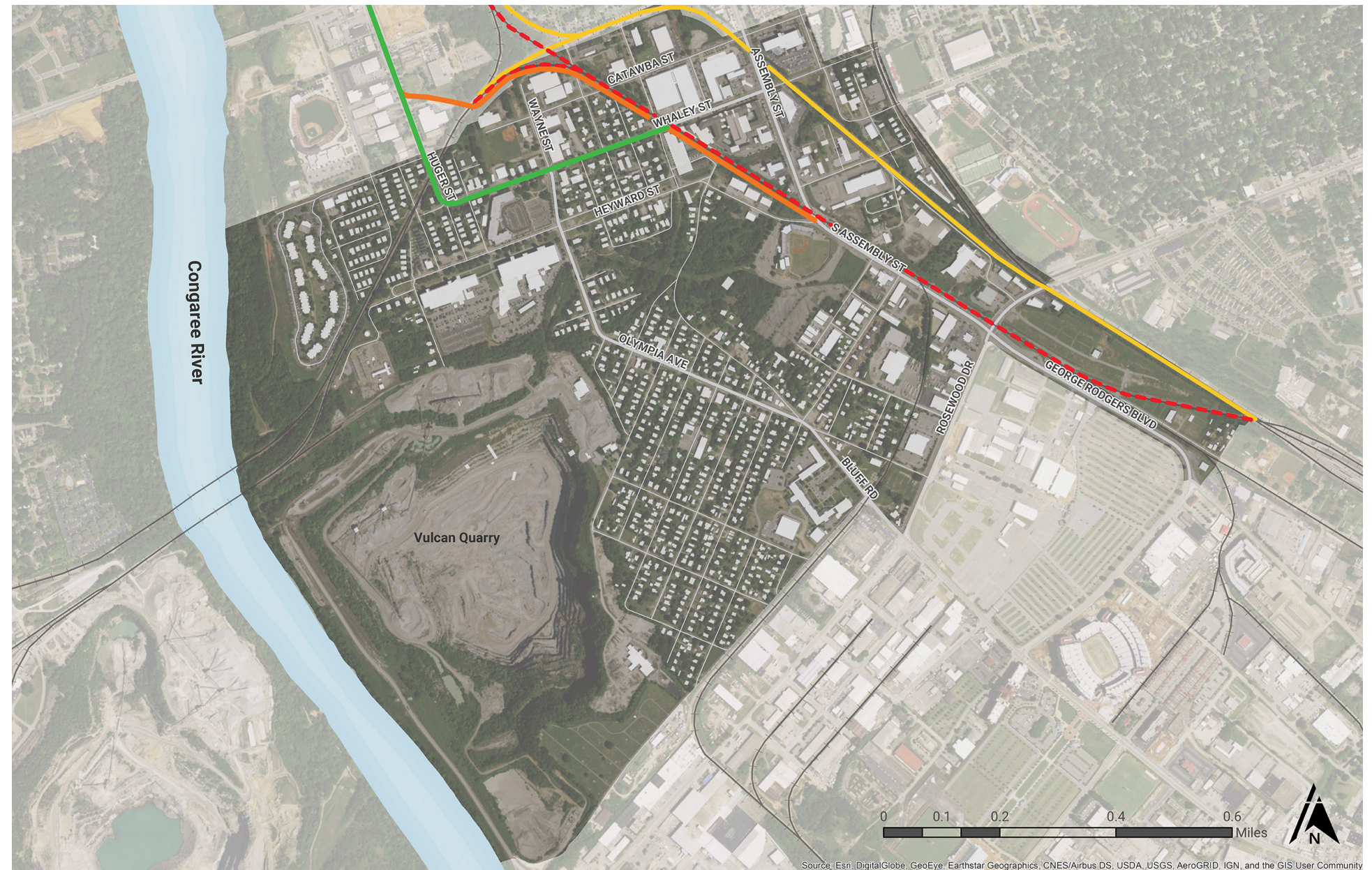
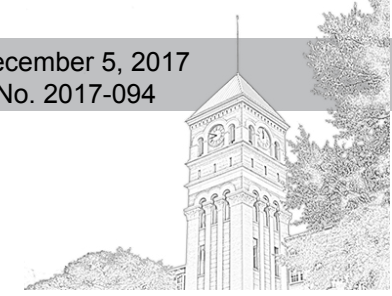


Figure 44: Alternative C - Northern Loop Flyover to Catawba Street

- Rail Removal
- New Roadway Connection to Assembly Street on rail ROW
- Road Diet / Bike and Pedestrian Improvements
- Rail Consolidation





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### RECOMMENDATIONS

#### ALTERNATIVE D: GRADE SEPARATION / UNDERPASS AT HUGER STREET

The fourth alternative, shown in **Figure 45**, includes the following elements:

- Consolidation of rail lines along Assembly Street
- Dual left turn lanes from southbound Huger Street onto eastbound Blossom Street, routing traffic along Blossom Street to Assembly Street
- Implementation of a Huger Street road diet with a median and bicycle and pedestrian facilities to visually communicate Huger Street as a local road south of Blossom Street
- Coordination with the railroads on operational improvements within the Cayce rail yard to ease back-ups at the Huger Street rail crossing
- Implementation of quiet zones
- Neighborhood connection to Assembly Street from Whaley Street along the former rail right-of-way
- Construction of an underpass for a grade separated crossing at Huger Street

#### ADVANTAGES

The advantages of Alternative D include:

- Provision of enhanced multimodal facilities along Huger Street
- Mitigation of train blockages and noise
- Implementation of the majority of the alternative can occur without rail consolidation
- Direct connection to Assembly Street via Catawba Street
- Addresses the at-grade crossing at Huger Street while retaining the Huger/Whaley connection

#### DISADVANTAGES

The disadvantages of Alternative D include:

- At-grade crossing at Huger Street removed
- Intense coordination with the railroad yard operations is a key element
- Visual and residential scale impacts from underpass
- Requires construction of temporary tracks to continue rail operations during construction
- Underpass/retaining walls likely required
- Anticipated length of ramping will likely impact Whaley Street
- Difficulty of inclusion of bike/pedestrian infrastructure in an underpass

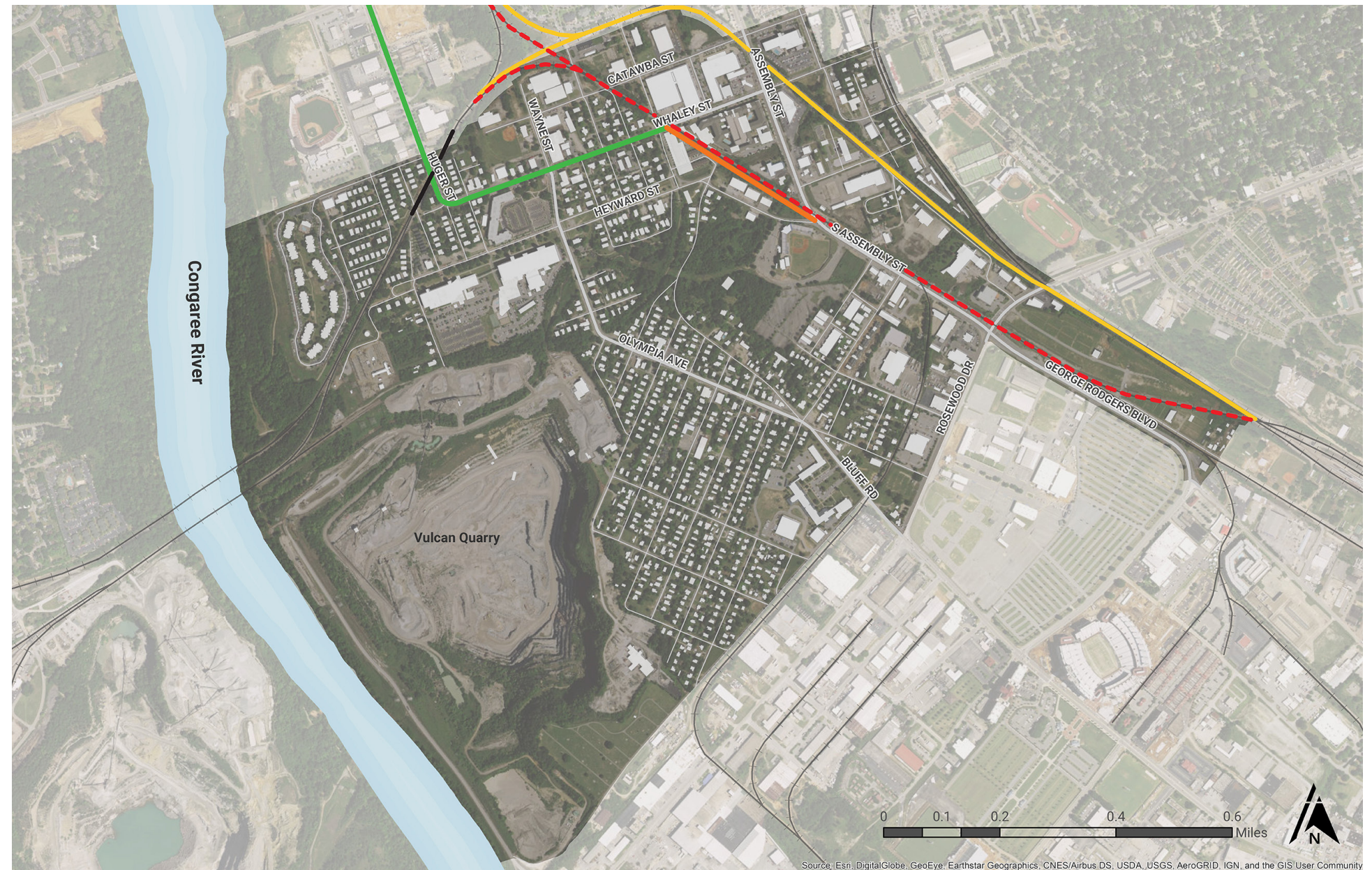


Figure 45: Alternative D - Grade Separation/Underpass at Huger Street

- Rail Removal
- New Roadway Connection to Assembly Street on rail ROW
- Road Diet / Bike and Pedestrian Improvements
- Rail Consolidation
- Huger Street Underpass





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### RECOMMENDATIONS

#### ALTERNATIVE E: GRADE SEPARATION / UNDERPASS ON RAIL RIGHT-OF-WAY

The fifth alternative, shown in **Figure 46**, was proposed by the members of the PAC and includes the following elements:

- Consolidation of rail lines along Assembly Street
- Dual left turn lanes from southbound Huger Street onto eastbound Blossom Street, routing traffic along Blossom Street to Assembly Street
- Implementation of a Huger Street road diet with a median and bicycle and pedestrian facilities to visually communicate Huger Street as a local road south of Blossom Street
- Coordination with the railroads on operational improvements within the Cayce rail yard to ease back-ups at the Huger Street rail crossing
- Implementation of quiet zones
- Construction of roadway on existing SCDOT right-of-way and on underpass at the former northernmost railroad
- Direct connection to Assembly Street from the former rail right-of-way
- This alternative is the most costly due to the construction of multiple infrastructure elements, including temporary tracks

#### ADVANTAGES

The advantages of Alternative E include:

- Routing of traffic around the Mill District on Blossom and Assembly Streets
- Provision of enhanced multimodal facilities on Huger Street
- Mitigation of train blockages and noise
- Direct connection to Assembly Street via Catawba Street
- Provides grade-separated alternative to the Huger Street at-grade crossing

#### DISADVANTAGES

The disadvantages of Alternative E include:

- At-grade crossing at Huger Street likely removed
- Intense coordination with the railroad yard operations is a key element
- Visual and residential scale impacts from flyover
- Grade separation requires rail consolidation
- Requires construction of temporary tracks to continue rail operations during construction
- Significantly longer construction time and higher costs due to additional elements

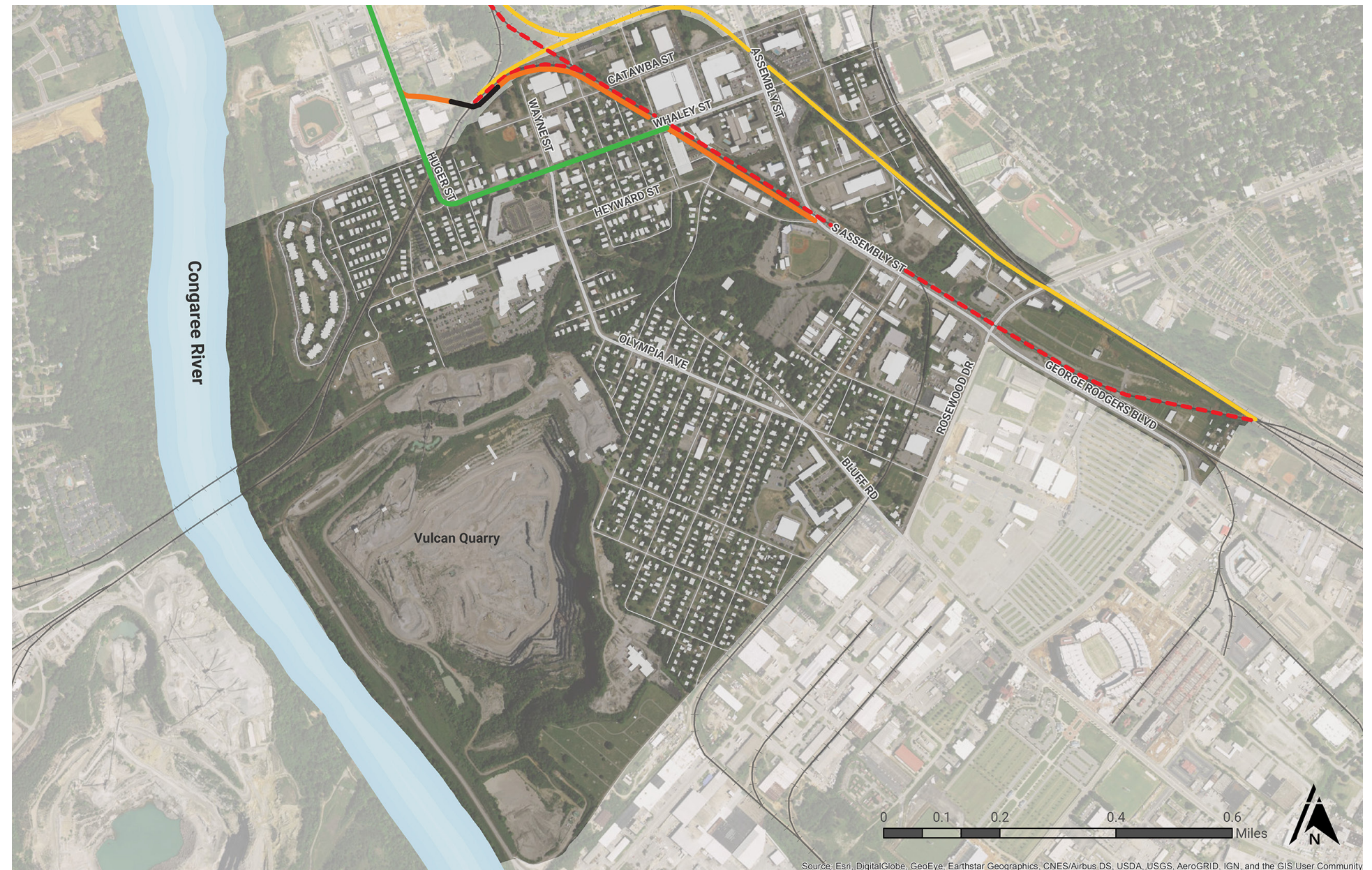
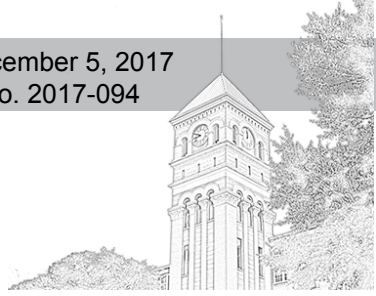


Figure 46: Alternative E - Grade Separation/Underpass on Rail Right of Way

- Rail Removal
- New Roadway Connection to Assembly Street on rail ROW
- Road Diet / Bike and Pedestrian Improvements
- Rail Consolidation
- Huger Street Underpass





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### RECOMMENDATIONS

#### IMPLEMENTATION PRIORITIES

The first recommendation for the rail/transportation element of the plan is the completion of a comprehensive area traffic study.

A traffic study of the area will be required before any road diets and/or other traffic improvements can be finalized. This traffic study should incorporate a wider study area than the Mill District to ensure a complete understanding of potential impacts within and adjacent to the Mill District. This traffic study should include the impacts of pedestrians, bicylists, trains, and personal and commercial transit. The study should incorporate the Mill District, the University of South Carolina, and the Blossom Street area west of Assembly Street to the Congaree River.

This traffic study should fully analyze the existing and future traffic conditions, truck traffic, and network connectivity. The study should be included in the short-term action plan. The following recommendations have been identified in conjunction with the traffic study:

- ◆ Reconfiguration of the Blossom Street/Huger Street intersection with southbound dual turn lanes from Huger Street onto Blossom Street
- ◆ Align Heyward Street on both sides of Olympia Avenue
- ◆ Transform Heyward Street on the east side of Olympia Avenue in a pair of one-way streets to Lincoln Street
- ◆ Complete the Heyward Street Extension to Assembly Street
- ◆ Use landscape areas along streets as opportunities for stormwater management
- ◆ Reduce Assembly Street to a 5-lane cross section and implement bike and pedestrian facilities
- ◆ Huger Street road diet with median, bicycle and pedestrian accommodations
- ◆ Improved at-grade rail crossing at Huger Street, with bicycle and pedestrian accommodations. Any preferred alternative needs to indicate that the Huger Street at-grade crossing remains.

- ◆ Improvements to existing signalized intersections
- ◆ Additional intersections signalization (particularly on Olympia Avenue/Wayne Street/Whaley Street, Heyward Extension, and Wheat Street/Huger Street)

Additional priorities include:

- ◆ Consolidation of Assembly Street rail lines
- ◆ Railroad Coordination and Management, including:
  - ◆ Implementation of quiet zones
  - ◆ Coordination with Cayce Yard operations to minimize/mitigate road blockages
  - ◆ Exploration of parallel rail line at the Huger Street crossing to minimize/mitigate road blockages from shared use of the single track by CSX and Norfolk Southern
- ◆ Implementation of Complete Streets throughout the Mill District
- ◆ Feasibility assessment of expanded and/or consolidated transit systems with COMET and the University of South Carolina system
- ◆ Retention of Huger Street connectivity for neighborhood users

With the understanding of the NEPA process moving forward in the near-term, the project team recognized the need to identify alternatives preferred by the Mill District for inclusion into the process. Through the extensive coordination with SCDOT during the planning process, it is our understanding that the identified alternatives will be incorporated in the NEPA assessment.

Additionally, with any grade separation alternative, the existing at-grade crossing should remain open, and the Huger Street road diet should continue to Assembly.

#### PLACEMAKING THROUGH RAIL CONSOLIDATION

Placemaking along Assembly Street will transform this corridor into a beautiful and functional avenue and gateway into the City of Columbia and USC. Assembly Street is the urban edge of the Mill District and has the potential to become the home to vibrant businesses, mixed-use developments and Town and Gown collaborative efforts with higher density and more urban scale architecture. Assembly Street will remain a major vehicular arterial; however, it also can and should become a major walk/bike corridor, which will encourage significant investments.

The rail line consolidation along Assembly Street is a key element to creating this vibrant avenue/corridor. Therefore, participation in the NEPA process and the completion of a comprehensive traffic study is necessary to plan and implement placemaking projects. If, through NEPA and the traffic study, rail consolidation is deemed viable and committed to by CSX, Norfolk Southern, SCDOT, the City of Columbia and Richland County, this plan should be updated with a focus on implementing placemaking, connectivity and greenway connections along Assembly Street. Current investors and property owners along Assembly Street agree that rail consolidation will open up tremendous opportunities for new development, bridging important communities: the Mill District and USC and surrounding neighborhoods.





## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

### RECOMMENDATIONS

#### RAIL ALTERNATIVE COMPARISON TABLE

The following table provides a summary and comparison of each of the identified alternatives, their advantages and disadvantages. The cost range identified is intended to show a comparative magnitude between the alternatives; more detailed concept and design information will be needed to develop more precise cost estimates.

ALTERNATIVE	ELEMENTS	ADVANTAGES	DISADVANTAGES	ANTICIPATED COST
Alternative A	<ul style="list-style-type: none"> <li>Consolidation of rail lines along Assembly Street</li> <li>Dual left turn lanes from southbound Huger Street onto eastbound Blossom Street, routing traffic along Blossom Street to Assembly Street</li> <li>Implementation of a Huger Street road diet with a median and bicycle and pedestrian facilities to visually communicate Huger Street as a local road south of Blossom Street</li> <li>Huger Street at-grade rail crossing remains in place</li> <li>Coordination with the railroads on operational improvements within the Cayce rail yard to ease back-ups at the Huger Street rail crossing</li> <li>Implementation of quiet zones</li> <li>Neighborhood connection to Assembly Street from Whaley Street along the former rail right-of-way</li> </ul>	<ul style="list-style-type: none"> <li>Minimal neighborhood impacts</li> <li>Routing of traffic around the Mill District on Blossom and Assembly Streets</li> <li>Provision of enhanced multimodal facilities along Huger Street</li> <li>Mitigation of train blockages and noise</li> <li>Implementation of the majority of the alternative can occur without rail consolidation</li> </ul>	<ul style="list-style-type: none"> <li>At-grade crossing at Huger Street remains with no alternative grade separation</li> <li>Intense coordination with the railroad yard operations is the key element</li> </ul>	\$
Alternative B	<ul style="list-style-type: none"> <li>Consolidation of rail lines along Assembly Street</li> <li>Dual left turn lanes from southbound Huger Street onto eastbound Blossom Street, routing traffic along Blossom Street to Assembly Street</li> <li>Implementation of a Huger Street road diet with a median and bicycle and pedestrian facilities to visually communicate Huger Street as a local road south of Blossom Street</li> <li>Coordination with the railroads on operational improvements within the Cayce rail yard to ease back-ups at the Huger Street rail crossing</li> <li>Implementation of quiet zones</li> <li>Neighborhood connection to Assembly Street from Whaley Street along the former rail right-of-way</li> <li>Flyover on the existing SCDOT right of way with touchdown on Catawba Street</li> <li>Implementation of access management on Catawba Street to manage traffic flow through the neighborhood</li> </ul>	<ul style="list-style-type: none"> <li>Routing of traffic around the Mill District on Blossom and Assembly Streets</li> <li>Provision of enhanced multimodal facilities along Huger Street</li> <li>Mitigation of train blockages and noise</li> <li>Provides grade-separated alternative to the Huger Street at-grade crossing</li> <li>Direct connection to Assembly Street via Catawba Street</li> <li>Keeps traffic on the periphery of the Mill District</li> </ul>	<ul style="list-style-type: none"> <li>At-grade crossing at Huger Street likely removed</li> <li>Increased traffic along Catawba Street</li> <li>Intense coordination with the railroad yard operations is a key element</li> <li>Visual and residential scale impacts from flyover</li> <li>Grade separation requires rail consolidation</li> </ul>	\$\$

\$ = \$4-\$6 million

\$\$ = \$25-35 million

\$\$\$ = \$35 - \$45 million

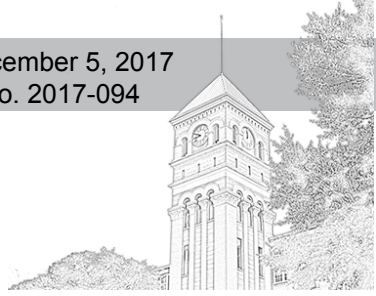
\$\$\$\$ = \$45 - 55 million

\$\$\$\$\$ = \$60-70 million



# 3. THE IMAGINE MILL DISTRICT RECOMMENDATIONS

Adopted December 5, 2017  
Ordinance No. 2017-094



## MANAGE TRAINS, TRANSPORTATION & TRAFFIC

ALTERNATIVE	ELEMENTS	ADVANTAGES	DISADVANTAGES	ANTICIPATED COST
Alternative C	<ul style="list-style-type: none"> <li>Consolidation of rail lines along Assembly Street</li> <li>Dual left turn lanes from southbound Huger Street onto eastbound Blossom Street, routing traffic along Blossom Street to Assembly Street</li> <li>Implementation of a Huger Street road diet with a median and bicycle and pedestrian facilities to visually communicate Huger Street as a local road south of Blossom Street</li> <li>Coordination with the railroads on operational improvements within the Cayce rail yard to ease back-ups at the Huger Street rail crossing</li> <li>Implementation of quiet zones</li> <li>Neighborhood connection to Assembly Street from Whaley Street along the former rail right-of-way</li> <li>Construction of flyover to Assembly Street on existing SCDOT right-of-way and the former northernmost railroad right-of-way</li> </ul>	<ul style="list-style-type: none"> <li>Routing of traffic around the Mill District on Blossom and Assembly Streets</li> <li>Provision of enhanced multimodal facilities along Huger Street</li> <li>Mitigation of train blockages and noise</li> <li>Provides grade-separated alternative to the Huger Street at-grade crossing</li> <li>Direct connection to Assembly Street via Catawba Street</li> <li>Keeps traffic on the periphery of the Mill District</li> </ul>	<ul style="list-style-type: none"> <li>At-grade crossing at Huger Street likely removed</li> <li>Increased traffic along Catawba Street</li> <li>Intense coordination with the railroad yard operations is a key element</li> <li>Visual and residential scale impacts from flyover</li> <li>Grade separation requires rail consolidation</li> <li>Coordination of the construction of the flyover partially within the existing rail right of way and the need for temporary tracks</li> </ul>	\$\$\$
Alternative D	<ul style="list-style-type: none"> <li>Consolidation of rail lines along Assembly Street</li> <li>Dual left turn lanes from southbound Huger Street onto eastbound Blossom Street, routing traffic along Blossom Street to Assembly Street</li> <li>Implementation of a Huger Street road diet with a median and bicycle and pedestrian facilities to visually communicate Huger Street as a local road south of Blossom Street</li> <li>Coordination with the railroads on operational improvements within the Cayce rail yard to ease back-ups at the Huger Street rail crossing</li> <li>Implementation of quiet zones</li> <li>Neighborhood connection to Assembly Street from Whaley Street along the former rail right-of-way</li> <li>Construction of an underpass for a grade separated crossing at Huger Street</li> </ul>	<ul style="list-style-type: none"> <li>Provision of enhanced multimodal facilities along Huger Street</li> <li>Mitigation of train blockages and noise</li> <li>Implementation of the majority of the alternative can occur without rail consolidation</li> <li>Direct connection to Assembly Street via Catawba Street</li> <li>Addresses the at-grade crossing at Huger Street while retaining the Huger/Whaley connection</li> </ul>	<ul style="list-style-type: none"> <li>At-grade crossing at Huger Street removed</li> <li>Intense coordination with the railroad yard operations is a key element</li> <li>Visual and residential scale impacts from underpass</li> <li>Requires construction of temporary tracks to continue rail operations during construction</li> <li>Underpass/retaining walls likely required</li> <li>Anticipated length of ramping will likely impact Whaley Street</li> <li>Difficulty of inclusion of bike/pedestrian infrastructure in an underpass</li> </ul>	\$\$\$\$\$
Alternative E	<ul style="list-style-type: none"> <li>Consolidation of rail lines along Assembly Street</li> <li>Dual left turn lanes from southbound Huger Street onto eastbound Blossom Street, routing traffic along Blossom Street to Assembly Street</li> <li>Implementation of a Huger Street road diet with a median and bicycle and pedestrian facilities to visually communicate Huger Street as a local road south of Blossom Street</li> <li>Coordination with the railroads on operational improvements within the Cayce rail yard to ease back-ups at the Huger Street rail crossing</li> <li>Implementation of quiet zones</li> <li>Construction of roadway on existing SCDOT right-of-way and on underpass at the former northernmost railroad</li> <li>Direct connection to Assembly Street from the former rail right-of-way</li> <li>This alternative is the most costly due to the construction of multiple infrastructure elements, including temporary tracks</li> </ul>	<ul style="list-style-type: none"> <li>Routing of traffic around the Mill District on Blossom and Assembly Streets</li> <li>Provision of enhanced multimodal facilities on Huger Street</li> <li>Mitigation of train blockages and noise</li> <li>Direct connection to Assembly Street via Catawba Street</li> <li>Provides grade-separated alternative to the Huger Street at-grade crossing</li> </ul>	<ul style="list-style-type: none"> <li>At-grade crossing at Huger Street likely removed</li> <li>Intense coordination with the railroad yard operations is a key element</li> <li>Visual and residential scale impacts from flyover</li> <li>Grade separation requires rail consolidation</li> <li>Requires construction of temporary tracks to continue rail operations during construction</li> <li>Significantly longer construction time and higher costs due to additional elements</li> </ul>	\$\$\$\$\$

\$ = \$4-\$6 million      \$\$\$\$ = \$45 – 55 million  
 \$\$ = \$25-35 million      \$\$\$\$\$ = \$60-70 million  
 \$\$\$ = \$35 - \$45 million



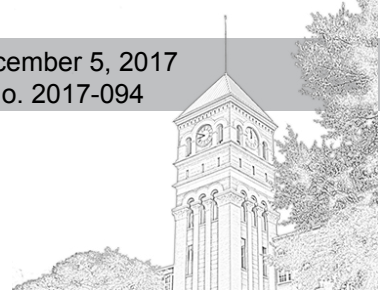


## MANAGE TRAINS, TRANSPORTATION & TRAFFIC



Figure 47: Examples of flyovers and underpasses





## **BIG IDEA 3:**

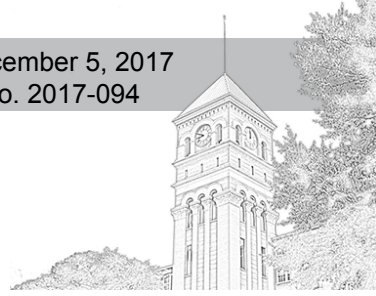
### UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

The Mill District's location along the Congaree River, combined with the existing railroads that weave through the neighborhoods, present a number of transportation challenges for residents and business owners. Drivers routinely use the Mill District's interior streets as cut-through routes to avoid traffic on Blossom, Whaley, and Assembly Streets, which increases congestion within the neighborhoods. Although the transportation challenges are complex and require additional study of intersections and roadway connections inside and outside the Mill District study area, there are a number of opportunities to enhance existing roadways to accommodate all modes of transportation within the existing right-of-ways. Creating a truly multimodal environment within the Mill District will reinforce that these neighborhoods are a destination and not just a pass-through. The following describes the analysis and the recommendations for transportation improvements within the Mill District, along with a few improvements outside of the study area that align with the vision and goals of the Plan.



## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### TRANSPORTATION AND INFRASTRUCTURE ANALYSIS



A variety of street characteristics currently exist within the Mill District, from low speed residential streets like Heyward Street to high volume arterial streets such as Olympia Avenue and Assembly Street. Existing conditions were examined to understand the current state of transportation within the study area. These existing conditions were used as a baseline for analysis along with the development of recommendations. The infrastructure was assessed to determine how to improve mobility for all modes of transportation, including walking, biking, driving, and transit.

#### TRAFFIC VOLUMES

An understanding of present-day traffic volumes and historical trends in volumes, in and around the Mill District, identifies key corridors for further analysis. **Figure 48** illustrates the Annual Average Daily Traffic (AADT) volumes for 2015 along with the growth rate for AADT from 2010 to 2015 on major roadways. All traffic count data was collected by the South Carolina Department of Transportation (SCDOT) and is available for review on the SCDOT website (Average Annual Daily Traffic, 2017).

Based on the growth rates for the given period, it is apparent that traffic has grown along Huger Street and Olympia Avenue within the Mill District at a greater rate than most streets in the study area. Improvements for these roadways are described in the recommendations section that may be necessary to transform these streets into multimodal connections that reflect the desired character of the neighborhoods within the study area.

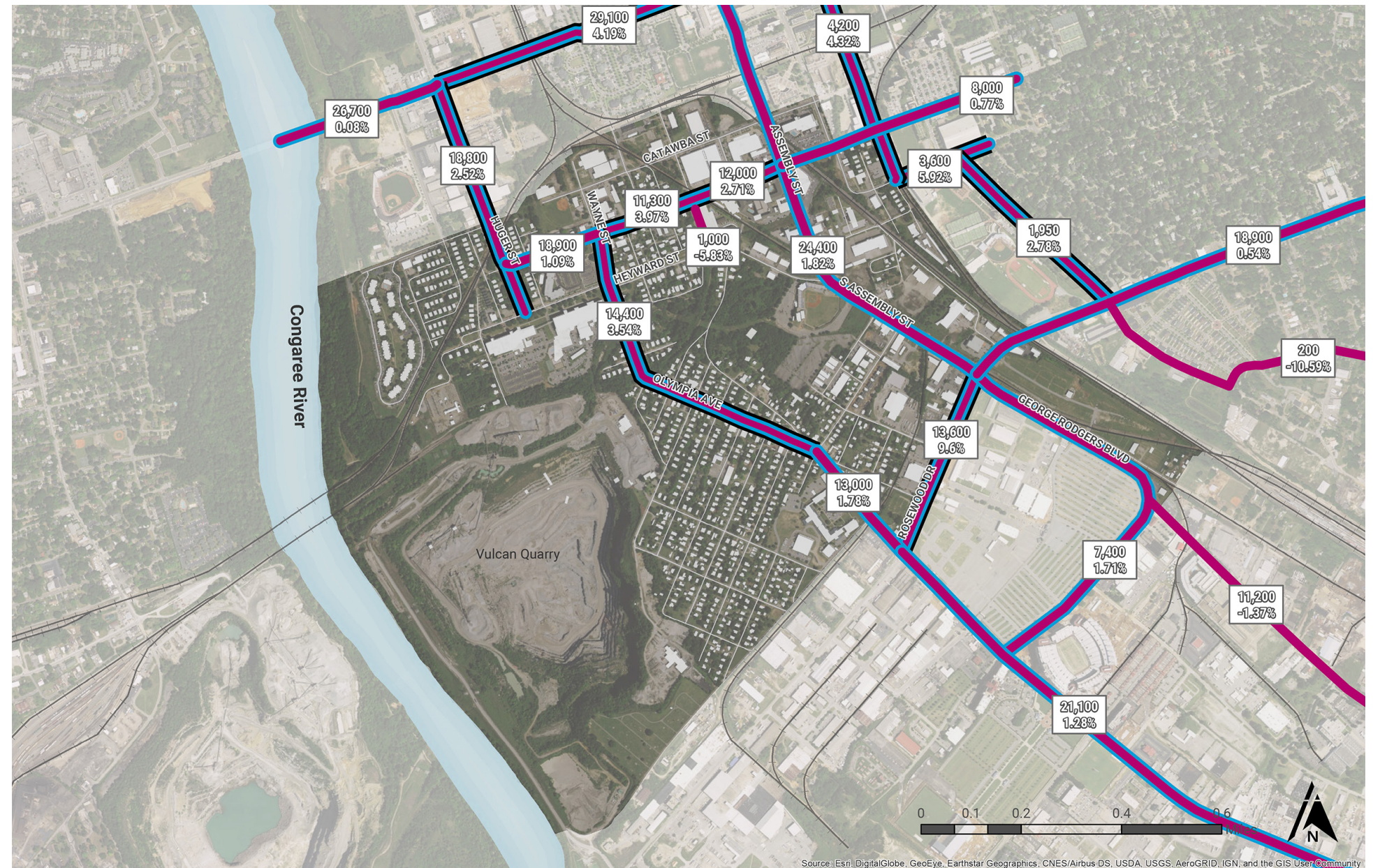
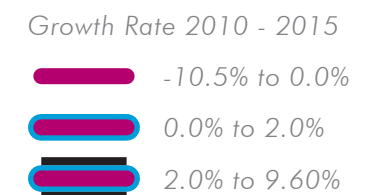
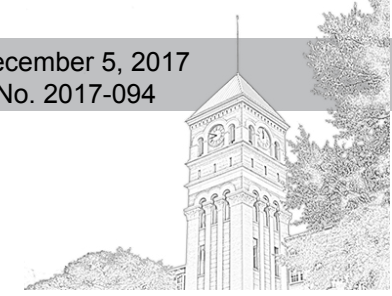


Figure 48: Annual Average Daily Traffic (AADT) Analysis







## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### TRANSPORTATIONS RECOMMENDATIONS

Using the transportation analysis, along with input from several public open houses and stakeholder meetings and a review of the Walk Bike Columbia Pedestrian and Bicycle Master Plan (WBC), recommendations were developed to improve the multimodal network within the Mill District. Recommended improvements are targeted along priority corridors and have been developed to achieve the goal of the Mill District becoming a destination rather than a pass-through. Furthermore, the barriers in and around the study area, specifically the River to the west and the railroad tracks, present an opportunity to create a special district within the City of Columbia and Richland County that embraces walking and biking as an alternative mode of transportation. This will improve connectivity and livability within the Mill District and to the greater community.

Each recommendation has been developed to enhance the transportation network for all users in the Mill District. Several concepts have been created to illustrate proposed improvements. Infrastructure recommendations were prepared to benefit the Mill District in spite of any changes that occur to existing railroad alignments. Recommendations within this plan require additional analysis prior to implementation to ensure that the proposed infrastructure enhancements are suitable based upon current conditions at that time. Concepts illustrate specific types of bike and pedestrian facilities that increase safety and comfort for users; however, due to unforeseen challenges or barriers, including but not limited to new development, right-of-way constraints, or utility easements, the proposed type of bike or pedestrian facility may change. Additionally, the environmental review process for these or related projects may influence final design solutions.

#### VISUAL PREFERENCE SURVEY

During a public open house on June 29, 2016, participants were asked to provide feedback on a series of images in a visual preference survey exercise (**Figure 49**). Individuals simply indicated whether they liked or didn't like the image presented. Results were totaled and reviewed to identify street facilities and characteristics that were supported by the participants. **Figure 50** identifies the three images that were liked by 100% of participants during the open house. Each image includes a feature that participants felt would be beneficial and/or desirable in the Mill District. All of the features that are identified below were analyzed when developing recommendations for transportation improvements. Several of the features already exist within the Mill District and can be expanded or enhanced to improve connectivity and safety.

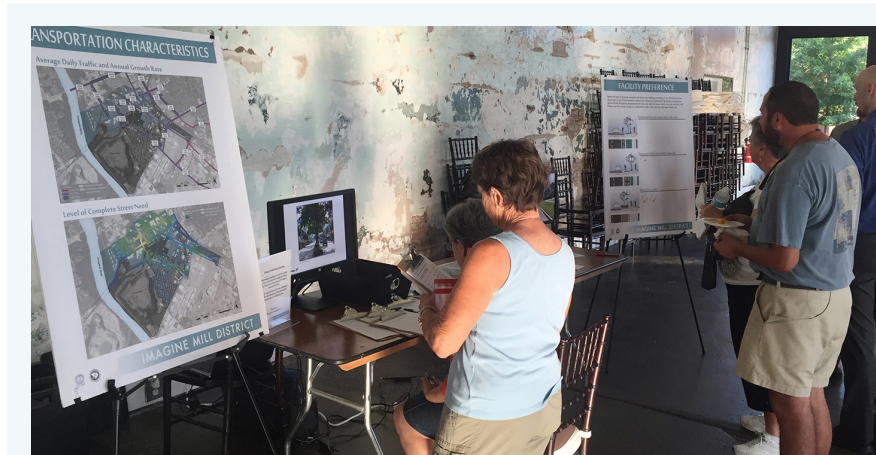


Figure 49: Public Open House - June 29, 2016



Multiuse Path



Landscaped Median



Multimodal Environments

Figure 50: Examples of multi-modal transportation





## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### TRANSPORTATIONS RECOMMENDATIONS

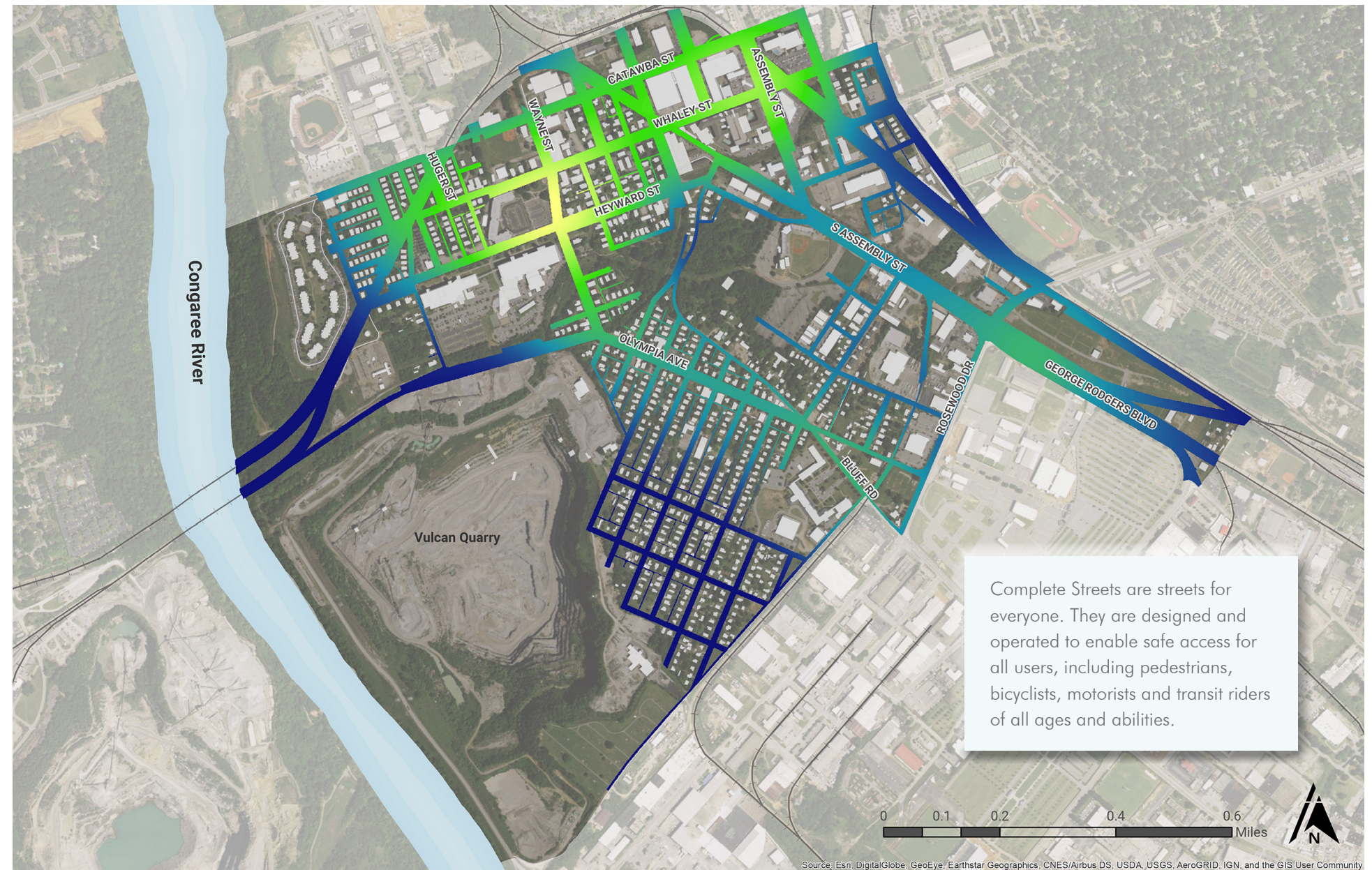
#### COMPLETE STREET ASSESSMENT

Analysis for infrastructure improvements targeted key connections within the Mill District. There are several local residential streets that have low speeds and low traffic volumes that do not currently need improvements. In order to identify a key network, a data driven approach was developed using existing street characteristics and prioritized streets that currently have multimodal features. This analysis provides locations that are ripe for complete street improvements.

Smart Growth America defines a complete street as "...streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work (National Complete Streets Coalition, n.d)." The table below identifies the factors that were considered for the analysis, the weight given to each factor, and the rationale for using the factor and the weight it was given.

COMPLETE STREETS FACTOR	WEIGHT	RATIONALE
Bus Stop	20	Increases the opportunity to move more people along streets
Sidewalks	20	Improves the pedestrian environment and increases ADA compliance
Attractors/Generators Inside District	20	Locations within the Mill District that may attract or generate traffic from all transportation modes (e.g. multi-family housing, restaurants, grocery stores, etc.)
Attractors/Generators Outside District	15	Locations surrounding the Mill District that may attract or generate traffic from all transportation modes (e.g. USC sports facilities, Greek Village, SC State Fairgrounds, etc.)
Existing Shoulder*	12	Highlights the potential for retrofitting the street to accommodate a variety of transportation modes
Speed Limit 35 MPH or less	8	Lower speeds reduce the level of stress for non-motorized users and increase safety for street crossings by improving visibility
Existing Crosswalk	5	Benefits all modes of transportation by increasing the predictability of pedestrian crossing locations

\*The criteria to include a shoulder as a weighted factor was approximately 3-feet or more in shoulder width. For those streets without striped shoulders, a lane width of approximately 14-feet or wider was also included.



Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

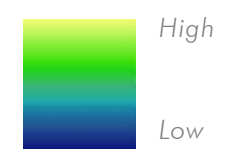
Figure 51: Complete Streets Analysis

The result of this analysis is illustrated in **Figure 51** as a spatial representation of the sum of all of the factors; the areas that appear the brightest or with the highest total have characteristics that would be enhanced through a complete streets approach to design. Based on this analysis, several corridors were prioritized for enhancements that would benefit all transportation modes.

Priority streets include:

- ◆ Assembly Street
- ◆ Huger Street
- ◆ Whaley Street
- ◆ Olympia Avenue
- ◆ Heyward Street
- ◆ Lincoln Street

Complete Streets Attributes







## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### TRANSPORTATION RECOMMENDATIONS

#### BIKE AND PEDESTRIAN NETWORK

The existing network of streets within the Mill District is an opportunity to provide a safe and comfortable walking and biking network. There are several neighborhood streets within the study area that do not necessitate physical infrastructure improvements to accommodate bikes or pedestrians. These streets are characterized by slow speeds and low traffic volumes and may require targeted traffic calming in specific locations on a case-by-case basis.

Using the prioritized streets within the Mill District for bike and pedestrian enhancements will increase connectivity inside and outside of the study area. All proposed facility types and locations were developed based upon safety for users and existing conditions. Recommendations from WBC were considered during analysis, as well as the Richland County penny projects.

Any deviation from the recommendations in WBC is based upon analysis of existing traffic conditions and available right-of-way. Recommended WBC improvements such as signalized intersections, mid-block crossings, and bicycle/pedestrian cut-throughs are incorporated by reference into this plan although they are not displayed. **Figure 52** shows the proposed bike and pedestrian network based upon facility location inside or outside of the roadway.

Recommendations were developed using the vision, goals, and recommendations in WBC; however, recommendations for the Mill District may deviate from some recommendations in the WBC based upon physical constraints, analysis of existing conditions, and public input.

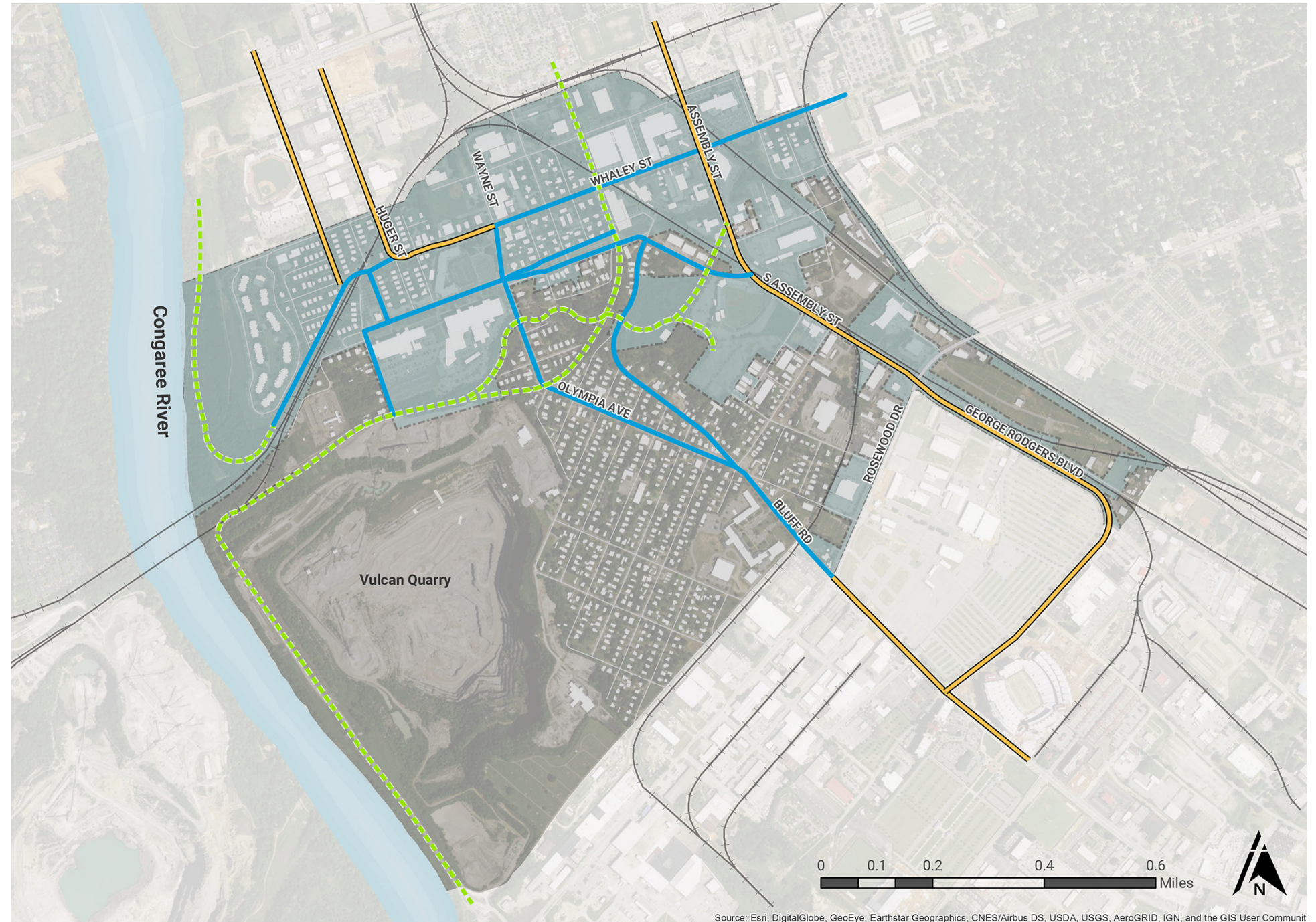


Figure 52: Bike and Pedestrian Network Map (By Facility)

The following categories are recommended:

**Off-Street:** A facility such as a greenway or multi-use path that is not located within the roadway and does not always follow the street alignment. This category would include the Rocky Branch Greenway.

**On-Street:** A facility that is located within the roadway and is not separated by a vertical element from vehicle travel lanes. This category includes traditional bike lanes and buffered bike lanes that only use paint for buffering.

**Separated Bike Lane:** A facility that is within the roadway and is separated from a vehicular travel lane by a vertical element.

**Separated Facility:** A facility that is inside or outside of the roadway but is separated from an adjacent vehicle travel lane by a vertical element.

#### Facility Location

-  Separated Facility
-  On-Street
-  Off-Street



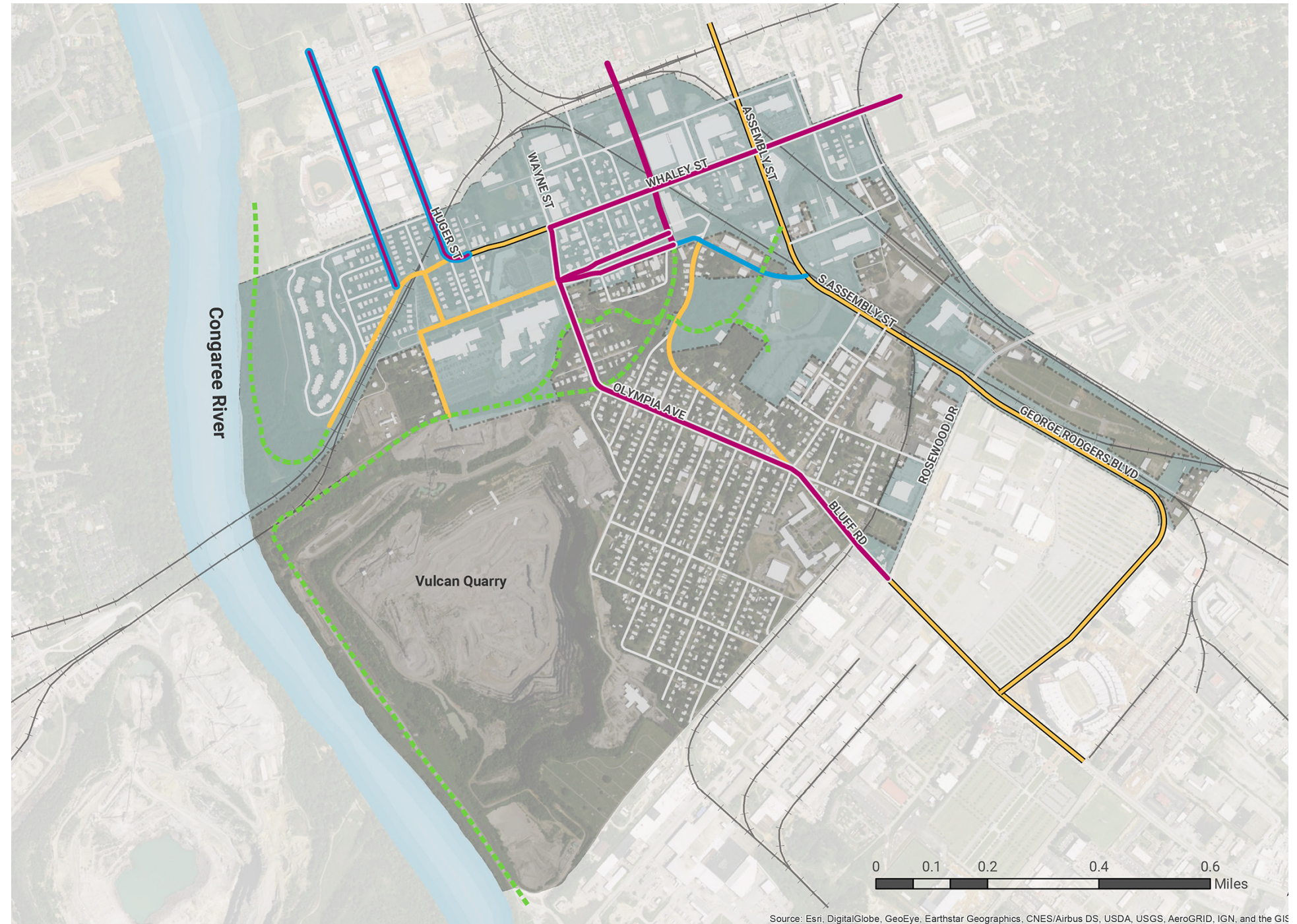


## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### TRANSPORTATION RECOMMENDATIONS

Along with the facility location on or off of the roadway, specific facility types were developed for the priority network of streets. **Figure 53** shows a variety of facility types that could be implemented within the Mill District to improve connectivity. Each facility type along the priority network streets provides designated space for bikes and/or pedestrians. All design/construction of any sidewalks or proposed bike facilities should comply with nationally accepted standards, including the Federal Highway Administration (FHWA) and National Association of City Transportation Officials (NACTO), as well as City of Columbia and Richland County engineering standards. Residential streets that have not been included in the priority network of streets also are displayed and represent opportunities for shared roadways that do not require new infrastructure to accommodate bikes or pedestrians.

Recommendations were developed using the vision, goals, and recommendations in WBC; however, recommendations for the Mill District may deviate from some recommendations in WBC based upon physical constraints, analysis of existing conditions, and public input.











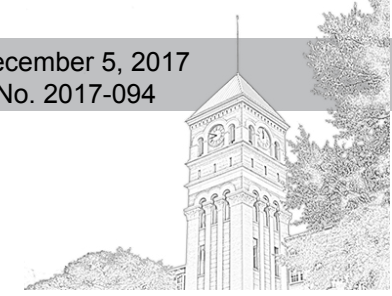
- Facility Type
-  Separated Bike Lane or Side Path
  -  Bike Lane
  -  Buffered Bike Lane
  -  Greenway
  -  Multi-Use Path
  -  Separated Bike Lane
  -  Shared Lane
  -  Local Shared Roadway

Figure 53: Bike and Pedestrian Network Map (By Type)





## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### INFRASTRUCTURE RECOMMENDATIONS

Recommendations were developed based upon the analysis of existing conditions and the priority street network that is identified for the study area. An existing and proposed cross section graphic was created for each of the priority streets, along with concept graphics that illustrate intersection improvements and proposed facilities. **Figure 54** identifies the priority streets and the intersection improvements that are included within the recommendations below.

Based on existing right-of-way width, the proposed cross section graphics illustrate how available right-of-way can be transformed into multimodal streets. Each street is unique and there are some streets that require only a few low-cost improvements to provide a more accessible and safe environment for all users. Some proposed cross sections illustrate reduced width of travel lanes; however, the existing travel lanes are oversized for the desired speed. All proposed travel lane widths meet or exceed the minimum required for vehicle travel. The following recommendations illustrate each priority street along with applicable intersection concepts, a brief explanation of the recommended improvements, and alternative facility types that also may be appropriate. As bike and pedestrian infrastructure is implemented, specific care should be given to intersection treatments, including but not limited to striped crosswalks, pedestrian countdown signals, corner refuge islands, and striped bike crossings.

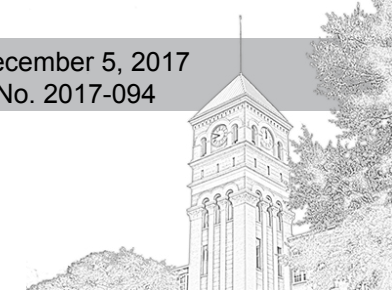


Figure 54: Intersection Concepts and Priority Street Network

Intersection Concepts and Priority Street Network

- A** Heyward Street & Olympia Avenue
- B** Huger Street & Whaley Turn
- C** Huger Street & Blossom Intersection
- D** Whaley Street & Assembly Street Intersection
- E** Assembly Street Concept





## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### INFRASTRUCTURE RECOMMENDATIONS

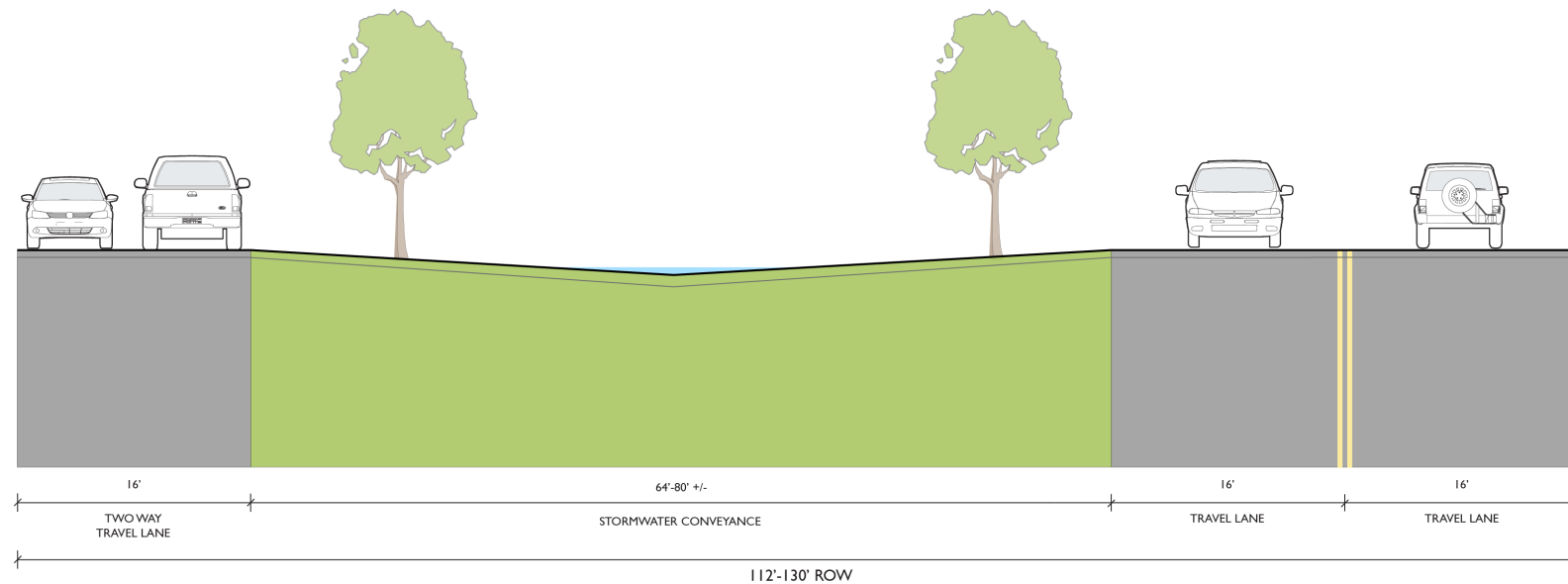


Figure 55: Heyward Street Existing Cross Section

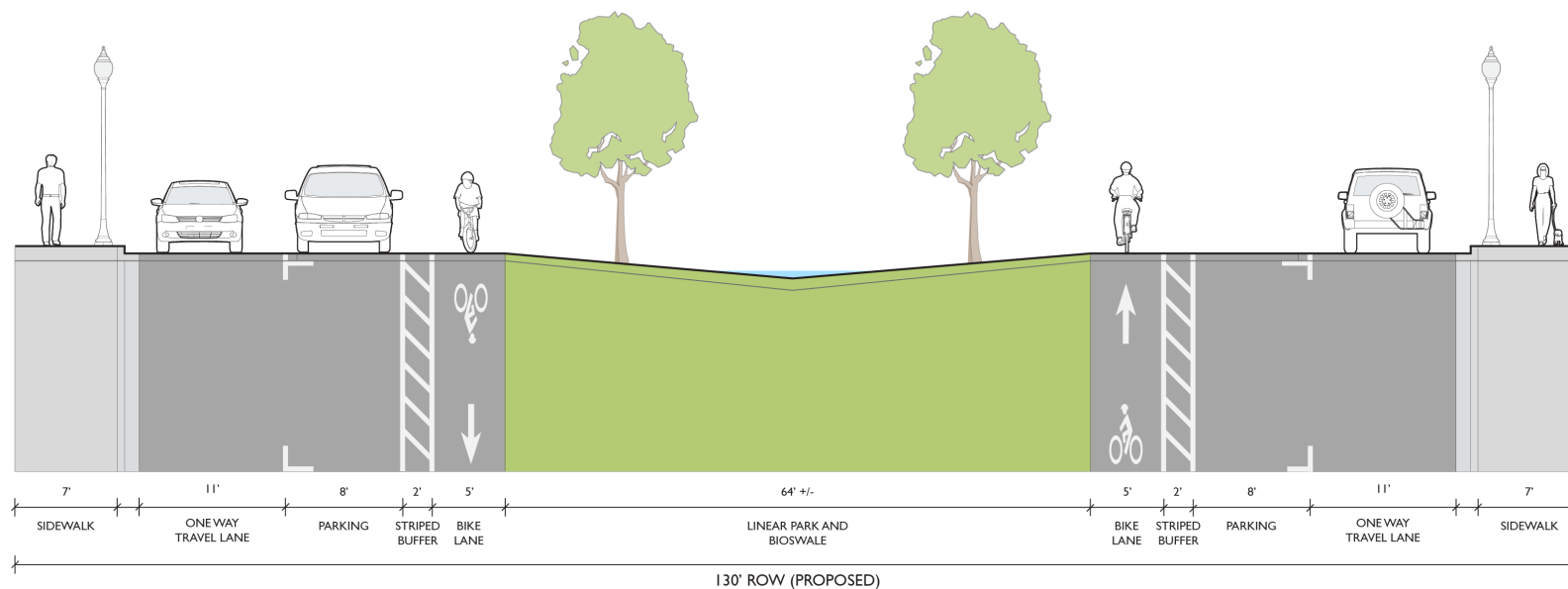


Figure 56: Heyward Street Proposed Cross Section

### HEYWARD STREET

Existing conditions along Heyward Street east of Olympia Avenue (**Figure 55**) provide for two-way streets on either side of an open ditch that is used as a stormwater conveyance. The roadway width on the north side of the conveyance is approximately 16 feet, which is insufficient for two vehicles traveling in opposite directions. The south side of the conveyance area provides lanes that are approximately 16 feet in width and two-way travel. Additionally, the intersections of these streets with Olympia Avenue create a number of potential conflicts due to the intersections not aligning with Heyward Street to the west of Olympia Avenue.

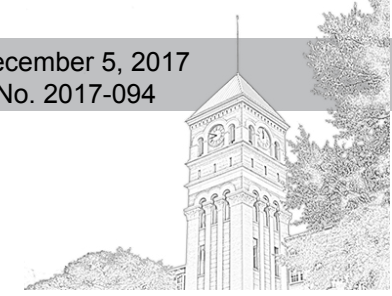
The recommended cross section (**Figure 56**) is designed in conjunction with the recommendation to create a traditional aligned intersection for Heyward Street and Olympia Avenue. The recommended cross section illustrates Heyward Street as a pair of one-way streets with on-street parking, sidewalks, and left-side buffered bike lanes. Proposed on-street parking would accommodate vehicles that are currently using the median for parking purposes to access surrounding destinations. In addition to street improvements to accommodate bicycles and pedestrians, redesigning the existing stormwater conveyance to capture and purify stormwater runoff is proposed. This space could also be designed to include active and/or passive recreation space for residents and visitors within the Mill District.

Realigning the Heyward Street and Olympia Avenue intersection will reduce the number of conflict points created by turning vehicles. Additional study should be conducted to determine if this intersection warrants a signal. The existing streets that cut across the stormwater conveyance area are included in the recommended improvements to ensure that property owners along Heyward Street have the ability to travel in both directions on the newly created one-way streets.



# 3. THE IMAGINE MILL DISTRICT RECOMMENDATIONS

Adopted December 5, 2017  
Ordinance No. 2017-094



## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### INFRASTRUCTURE RECOMMENDATIONS

Existing



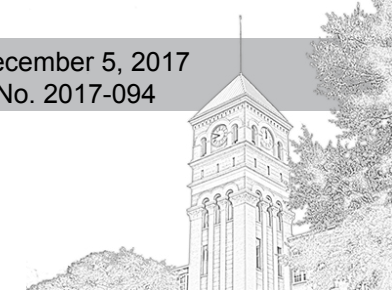
Proposed



Improvements along Heyward Street continue to the east of the Olympia Street intersection. **Figure 57** shows a roundabout intersection concept at Heyward Street, Bluff Road, and Dreyfus Road. Roundabouts can be used to efficiently, and safely move vehicles, bikes, and pedestrians within a variety of contexts. This intersection specifically has been identified as a candidate for a roundabout due to the skewed nature of the intersecting streets. **Figure 57** illustrates a new access point to Assembly Street. Currently, access to Assembly Street does not exist, but this proposed connection may improve connectivity for the Mill District as a whole and should be explored as a long-term transportation alternative.

Figure 57: Heyward Street Road Diet





## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### INFRASTRUCTURE RECOMMENDATIONS

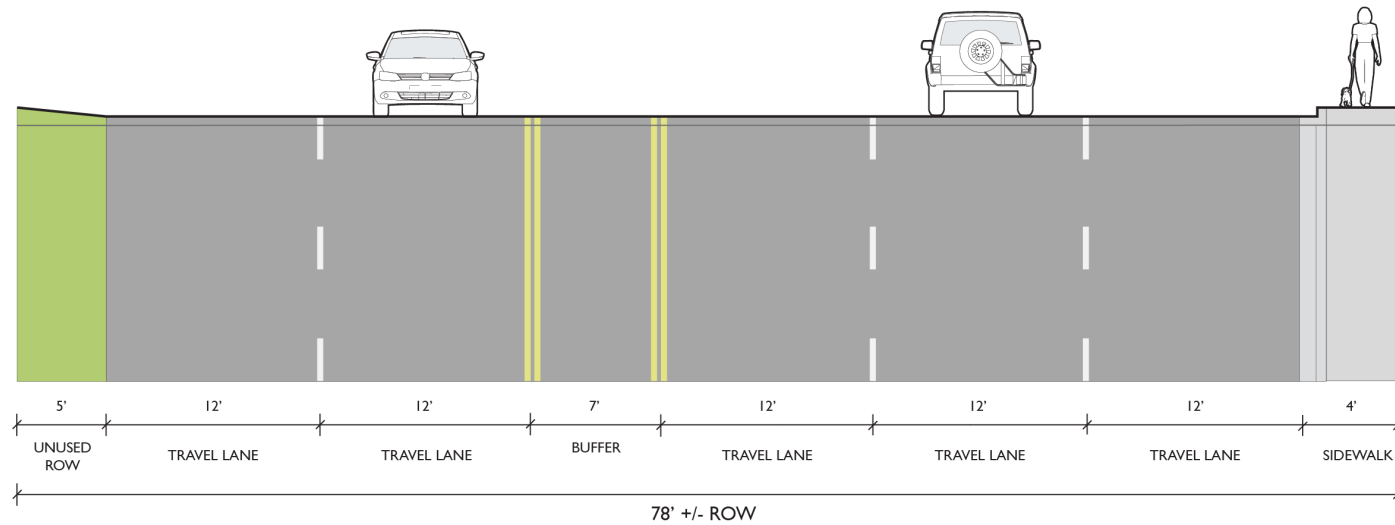


Figure 58: Huger Street Existing Cross Section

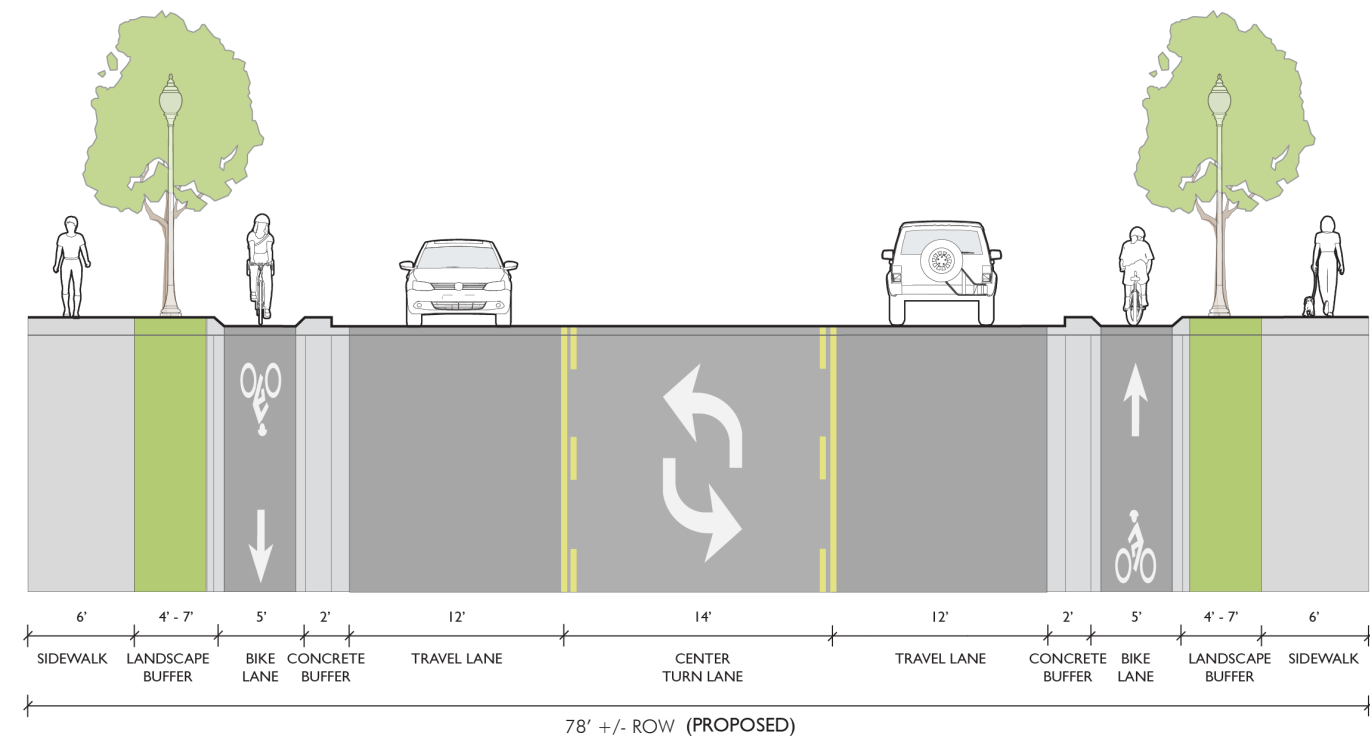


Figure 59: Huger Street Proposed Cross Section

### HUGER STREET

Huger Street is a primary access corridor into the Mill District for residents and business owners; however, the increase in traffic from 2010 to 2015 indicates a growing number of vehicles using Huger Street, potentially as a cut-through to/from Blossom Street. Existing conditions along Huger Street (**Figure 58**) do not provide a multimodal gateway into the Mill District neighborhood. In order to provide new bike and pedestrian facilities within the existing right-of-way, a road diet is recommended for Huger Street south of the Blossom Street intersection. A road diet reduces the number of vehicular travel lanes on a street and then redistributes excess space for other infrastructure which can include new bicycle and pedestrian facilities. As part of the Huger Street road diet, recommended facilities include sidewalks on both sides of the street to provide adequate space for walking, a landscape buffer to increase separation from travel lanes, and separated bike lanes to enhance the safety and comfort for cyclists. The cross section in **Figure 59** is a concept that provides dedicated and separated space for those who walk, ride a bike, or drive a vehicle. These new bike facilities focus on the safety of the users and would provide a key link to the existing bike lanes along Blossom Street that cross the Congaree River.

Transforming Huger Street from a five-lane cross section to a three-lane cross section begins at the intersection of Blossom Street. There are currently two through lanes and a single left-turn lane on the north side of Blossom Street. These conditions encourage additional traffic into the Mill District rather than channeling traffic toward Blossom Street, which is a principal arterial within Columbia. A conceptual design has been developed to illustrate the Huger Street and Blossom Street intersection with the road diet to the south side of Blossom Street and a change to double left-turn lanes on the north side of Blossom Street (**Figure 60**).

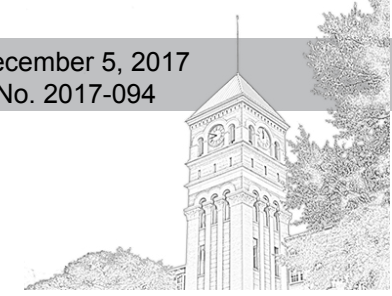
This design concept will be vetted through the recommended comprehensive traffic study. The capacity of each roadway and intersection and the impact of this proposed improvement to the broader area needs to be studied.

\*Note: Where the proposed right-of-way is smaller than the existing right-of-way, the landscaped buffer should be increased accordingly to ensure that the entire right-of-way is utilized.



# 3. THE IMAGINE MILL DISTRICT RECOMMENDATIONS

Adopted December 5, 2017  
Ordinance No. 2017-094



## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### INFRASTRUCTURE RECOMMENDATIONS

Additional features included in the intersection concept are corner refuge islands that reduce modal conflicts between bike and right-turning vehicles on the southwest corner of the intersection and new landscaping that will add to the visual appeal of the Mill District gateway corridor and may reduce the speed of vehicles. The intersection concept (**Figure 60**) illustrates the reduction of travel lanes to the south of Blossom Street and will require further study to determine the exact configuration; however, reducing the number of travel lanes and implementing enhanced bike and pedestrian facilities align with the goals of the Mill District to become a destination and will be inviting to people walking, biking, or driving.

As Huger Street enters the Mill District, the existing at-grade railroad crossing presents a challenge for access to the neighborhoods. Continuing the proposed road diet cross section through into the Mill District does not eliminate the at-grade crossing; however, it does provide a key network connection from Blossom Street and emphasizes the bikeable and walkable nature of the Mill District. The concept illustrated in **Figure 61** was developed to show improvements that can benefit the Capital City Mill District while retaining the at-grade crossing at Huger Street, which would both stand alone and align with most of the proposed rail consolidation alternatives discussed in the earlier section. The concept shows the curve from Huger Street into the study area on Whaley Street. It is recommended to close the access streets off Whaley Street and Huger Street that are located on the south and west side of the curve to improve safety for all modes and reduce conflicts created by entering and exiting vehicles. To ensure adequate property access and to improve connectivity, Tryon Street would be accessed from Catawba Street and Heyward Street would be accessed from Church Street.

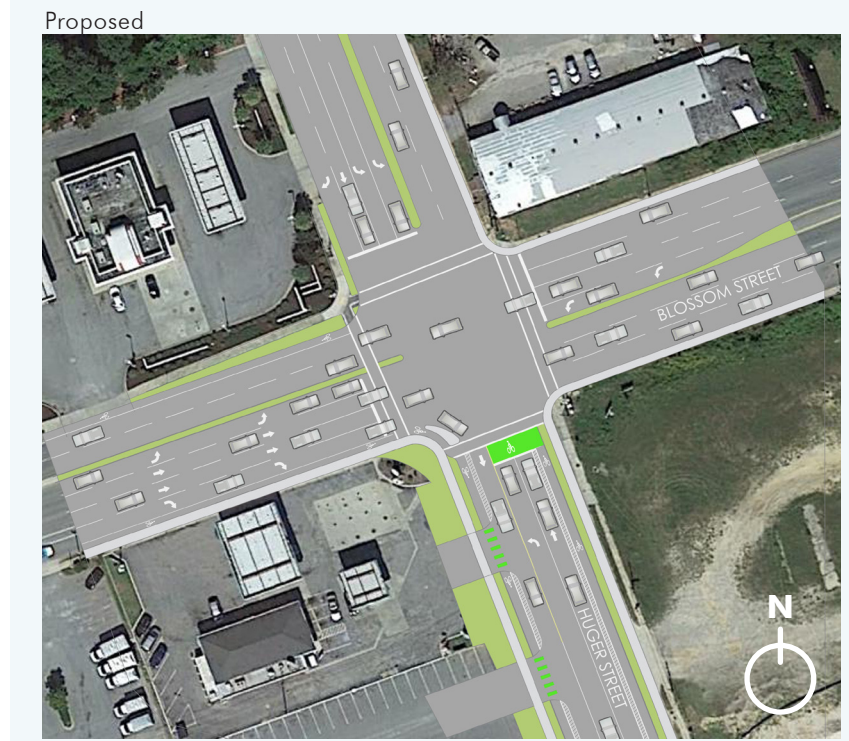
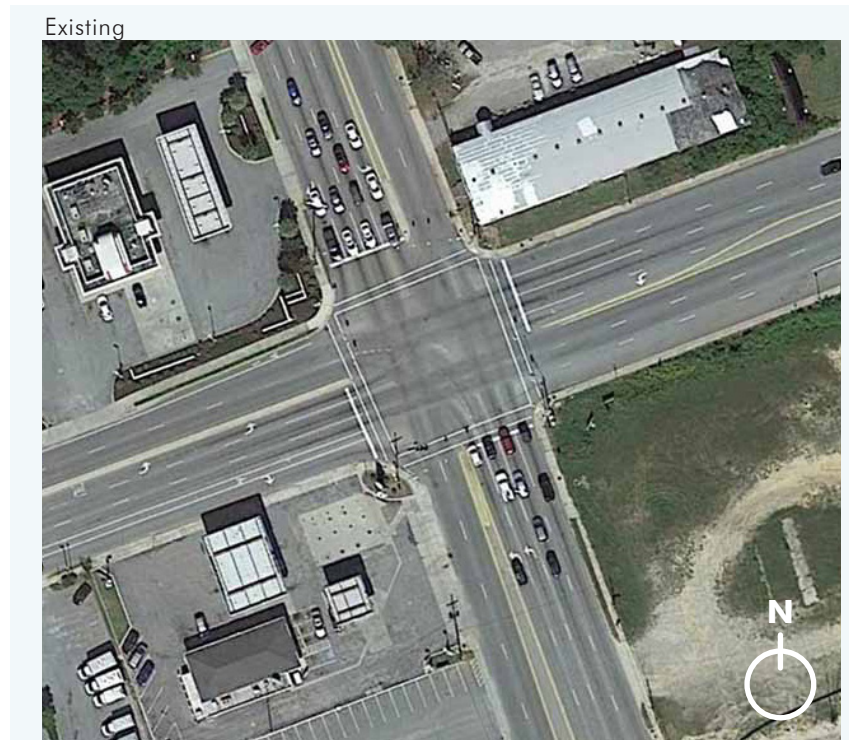


Figure 60: Huger Street / Blossom Street Intersection and Road Diet

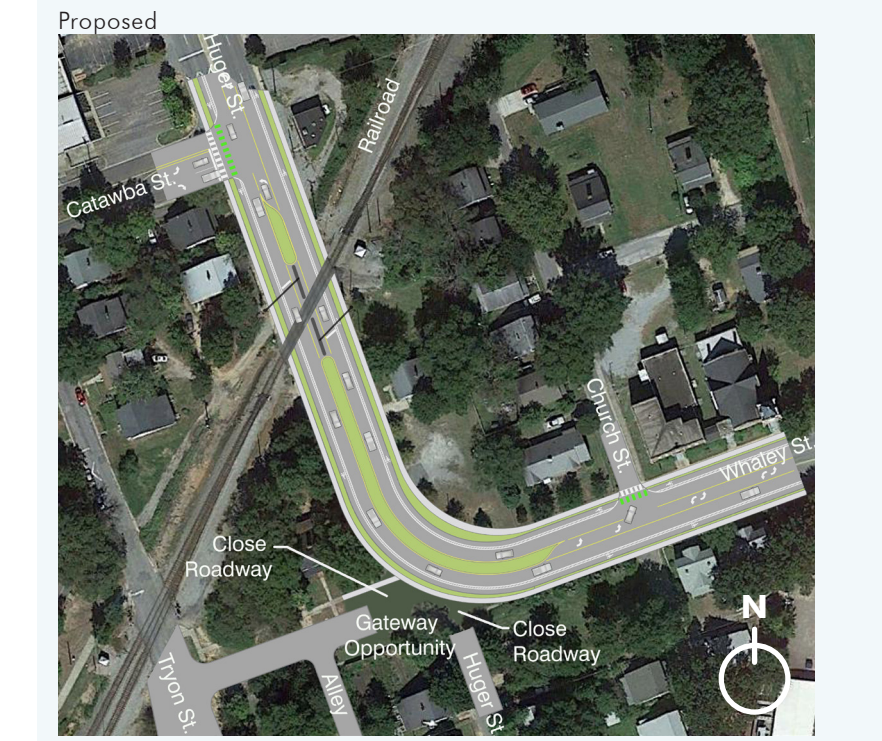
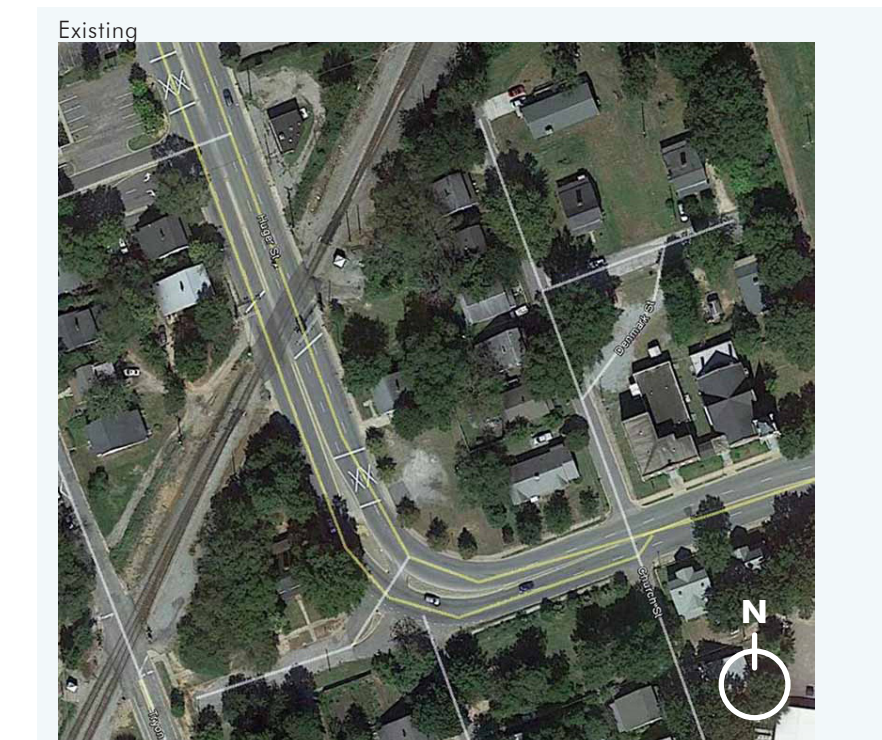
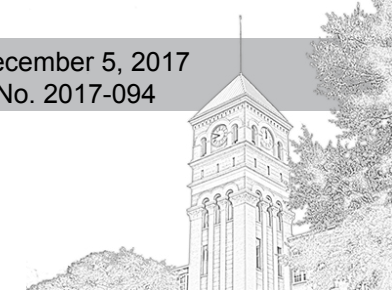


Figure 61: Huger Street Road Diet





## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### INFRASTRUCTURE RECOMMENDATIONS

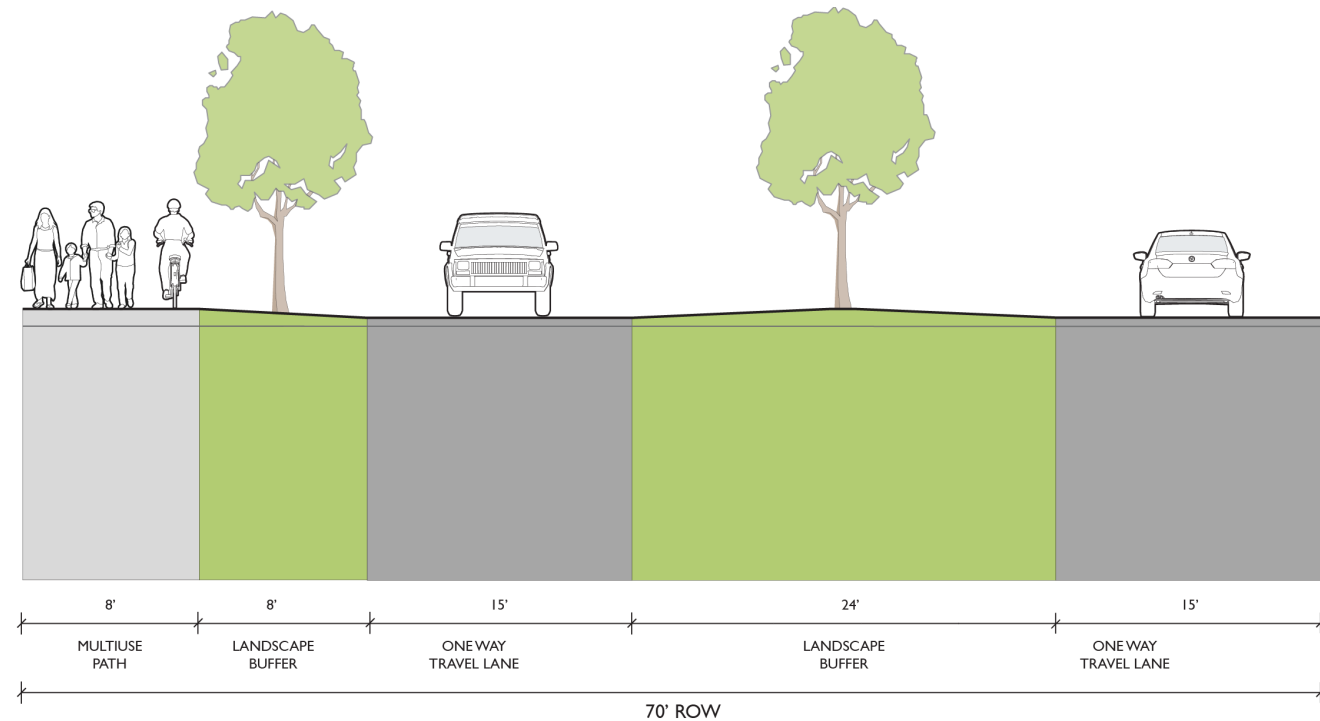


Figure 62: Lincoln Street Existing Cross Section

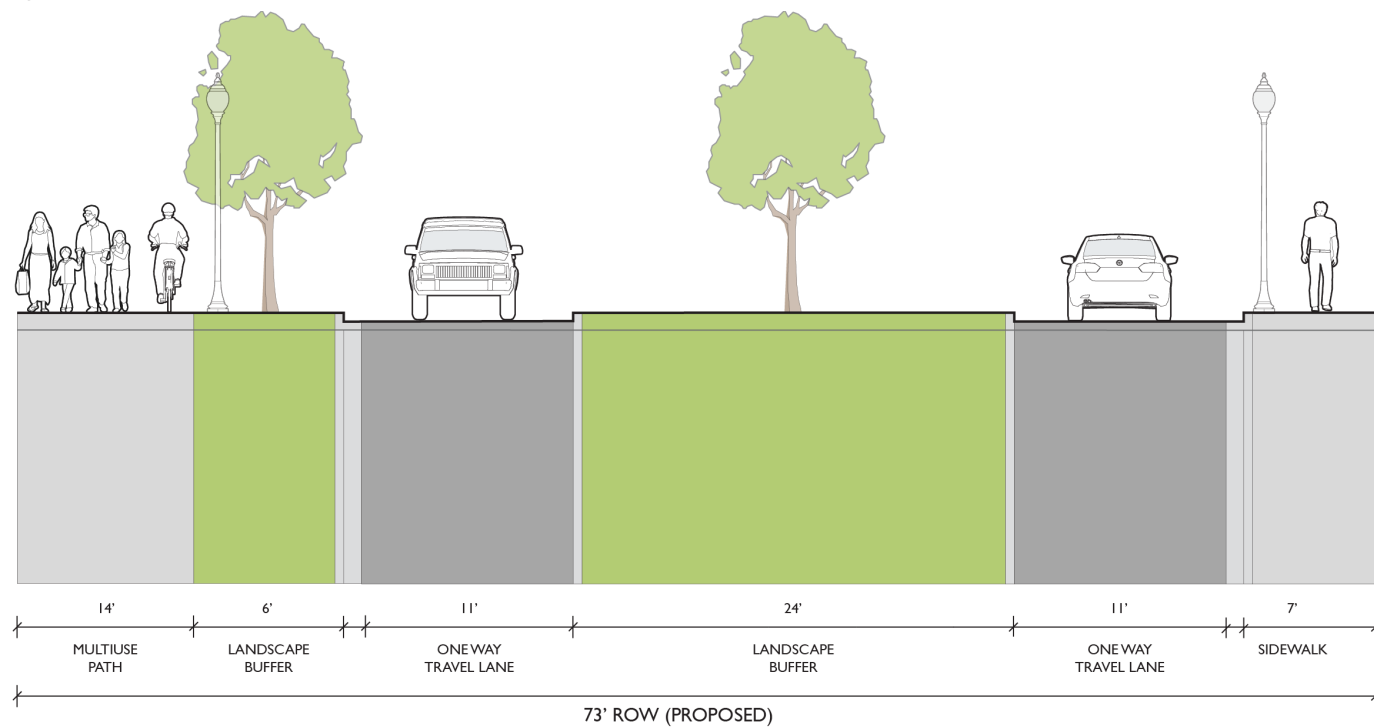
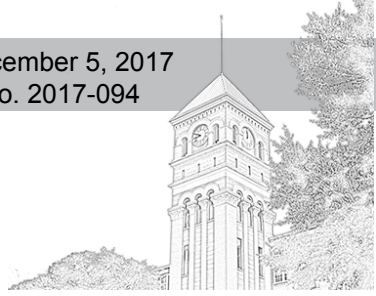


Figure 63: Lincoln Street Proposed Cross Section

### LINCOLN STREET

Existing conditions along Lincoln Street provide for a comfortable pedestrian environment due to the multi-use path along the west side of the street (Figure 62). Lincoln Street is a key connection into the Mill District from the Greek Village for the University of South Carolina (USC). With the redevelopment of the mills as apartments inside the District, the connection between the Greek Village and the mills along Heyward Street and Lincoln Avenue could experience more student bike and pedestrian activity, if appropriate facilities are implemented. Recommended improvements depicted in Figure 63 show the use of curb and gutter to more clearly define the street and assist in stormwater management and erosion control. Additionally, widening the existing multi-use path will provide more space for bicyclists and pedestrians to share this designated space. Lastly, a sidewalk is proposed along the east side of Lincoln Street to increase walkable access to the residences along the street.





## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### INFRASTRUCTURE RECOMMENDATIONS

#### OLYMPIA AVENUE

While there are several priority streets within the Mill District, Olympia Avenue is not only a key corridor but is also part of the identity of the Mill District. Although there are wide striped shoulders on Olympia Avenue, the street is not currently welcoming to bicyclists and pedestrians (**Figure 64**). The large landscaped median serves an important purpose by narrowing the visual perception of the road and, therefore, potentially reducing speeds. Recommendations for Olympia Avenue create a street that moves people safely and efficiently as seen in **Figures 65 & 66**. Buffered bike lanes and sidewalks are recommended and will serve the residents and businesses along the street as well as those that are in close proximity. Bike and pedestrian facilities proposed are illustrated to align with NACTO, City and County standards. The landscaped median could be repurposed to serve the community as part of a larger stormwater management system. Improvements to the median should be focused on retaining the aesthetic appeal while providing additional water quality functions.

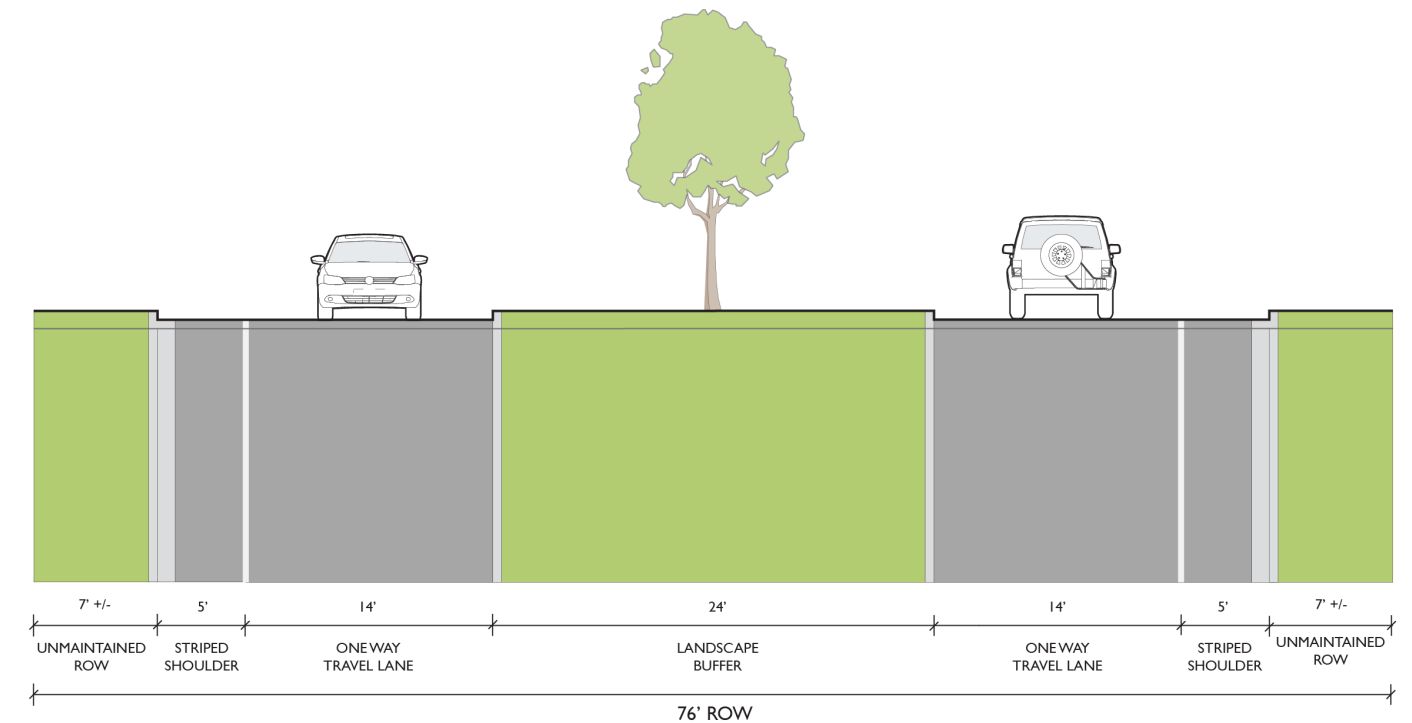


Figure 64: Olympia Avenue Existing Cross Section

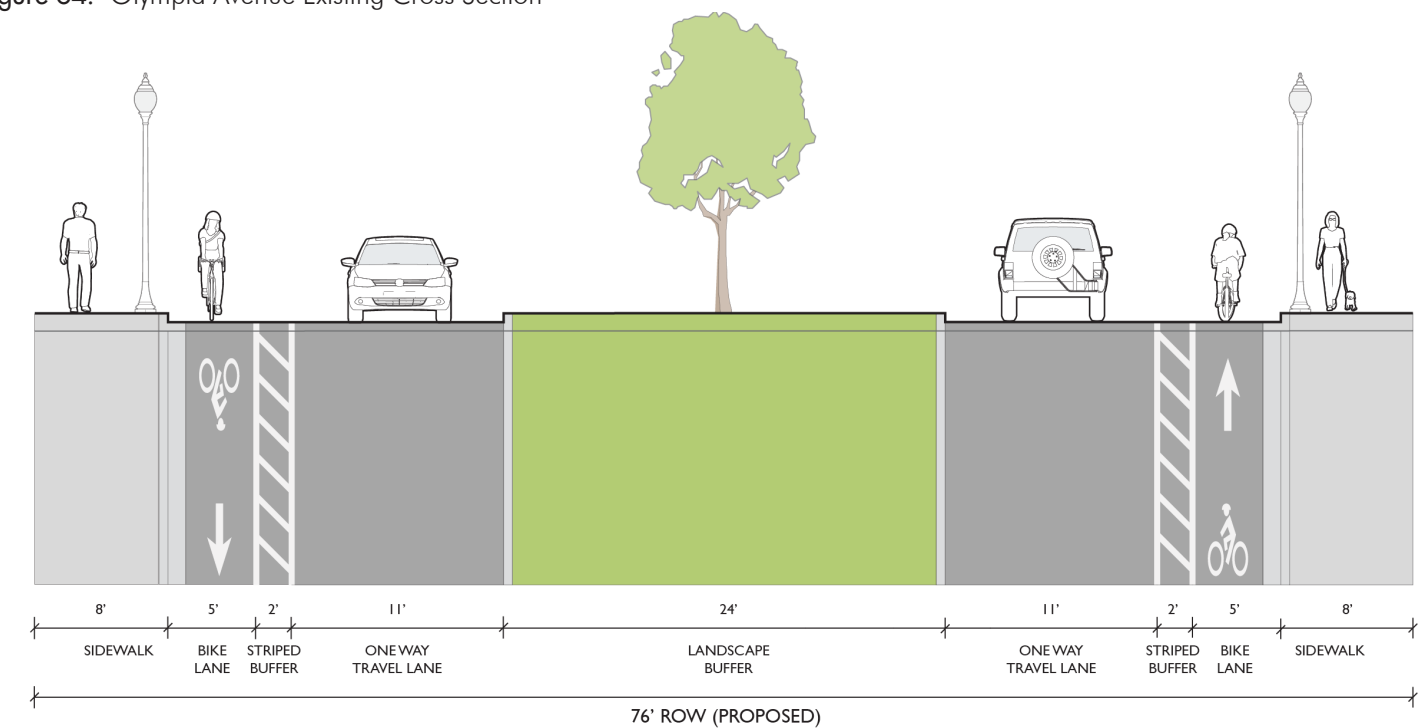


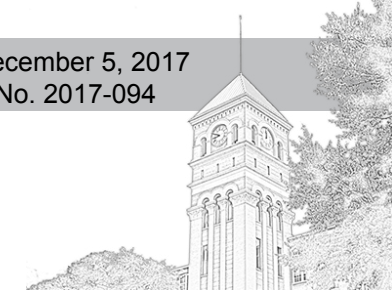
Figure 65: Olympia Avenue Proposed Cross Section



# 3. THE IMAGINE MILL DISTRICT RECOMMENDATIONS

## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

Adopted December 5, 2017  
Ordinance No. 2017-094



Existing



Proposed

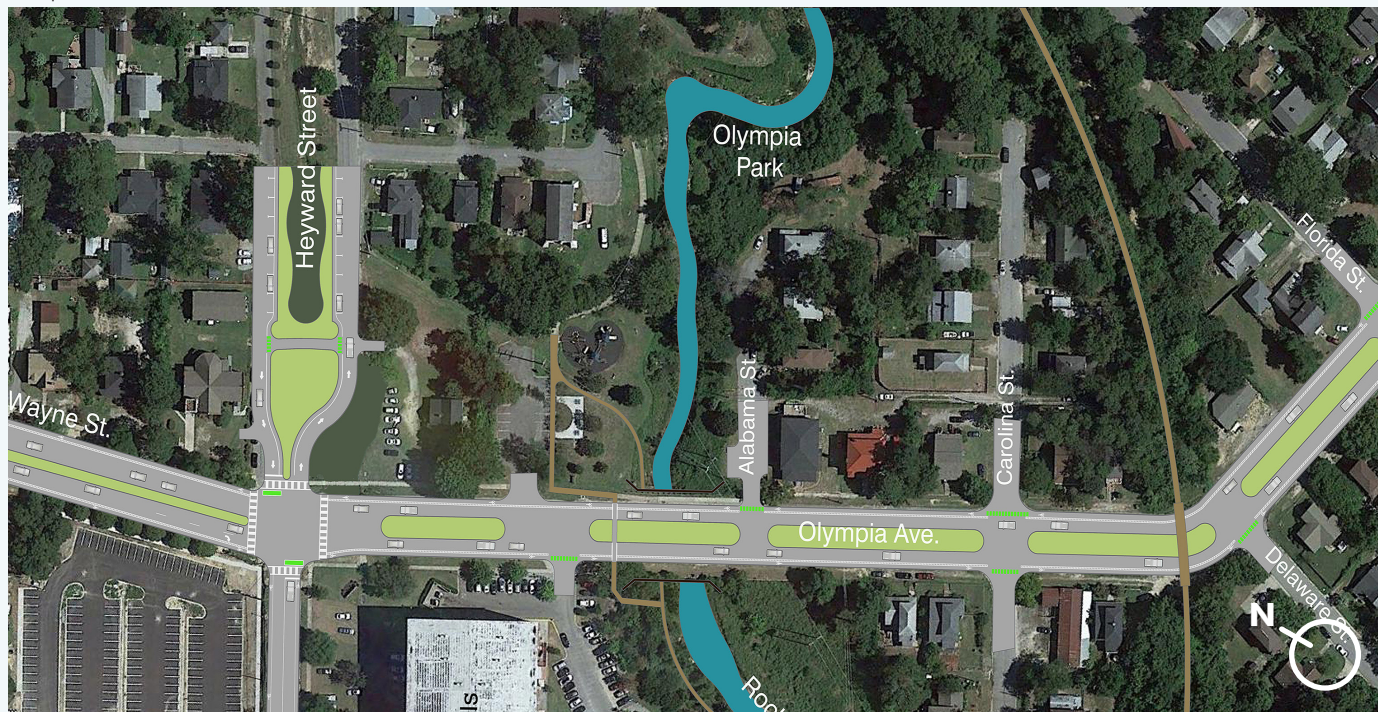
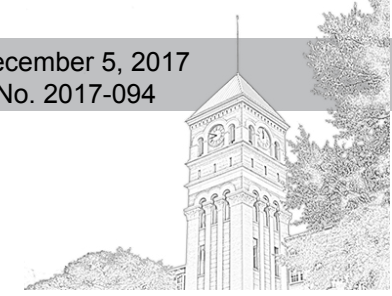


Figure 66: Olympia Avenue Road Diet

**Figure 66** to the left shows the proposed connection between Heyward Street and Olympia Avenue. Pedestrian pathways / greenways / rail lines are shown in brown.

*\*Continued from previous page*





## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### INFRASTRUCTURE RECOMMENDATIONS

#### WHALEY STREET

A cross section similar to the one recommended for Huger Street is recommended for the section of Whaley Street that is west of the Olympia intersection. Sidewalks are currently located along both sides of Whaley Street, as shown in the existing cross section in **Figure 67**. Additionally, the travel lanes along Whaley Street are approximately 18 feet wide. A multi-modal cross section can be achieved through implementing bike facilities along this street. Buffered bike lanes are recommended (**Figure 68**) for Whaley Street, which would have a relatively low implementation cost and could be done in the near-term. Whaley Street was identified as a priority in the complete streets analysis due in part to its slow posted speed limits and existing sidewalks. The existing width of the roadway provides sufficient space to dedicate exclusive space for bikes along with a buffer to increase comfort for bicyclists as the more vulnerable users.

\*Note: The proposed cross section of Whaley Street between Huger Street and Olympia Avenue is categorized as a separated facility. A separated facility is also proposed from Huger Street east to Wayne Street.

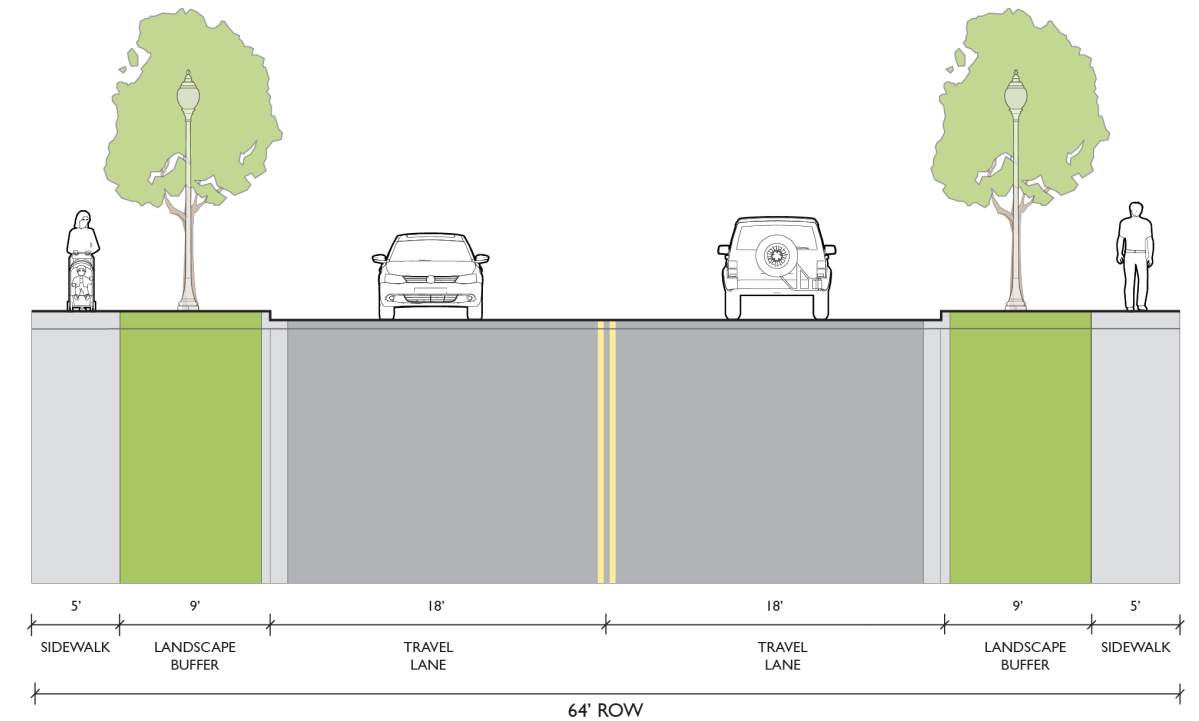


Figure 67: Whaley Street Existing Cross Section

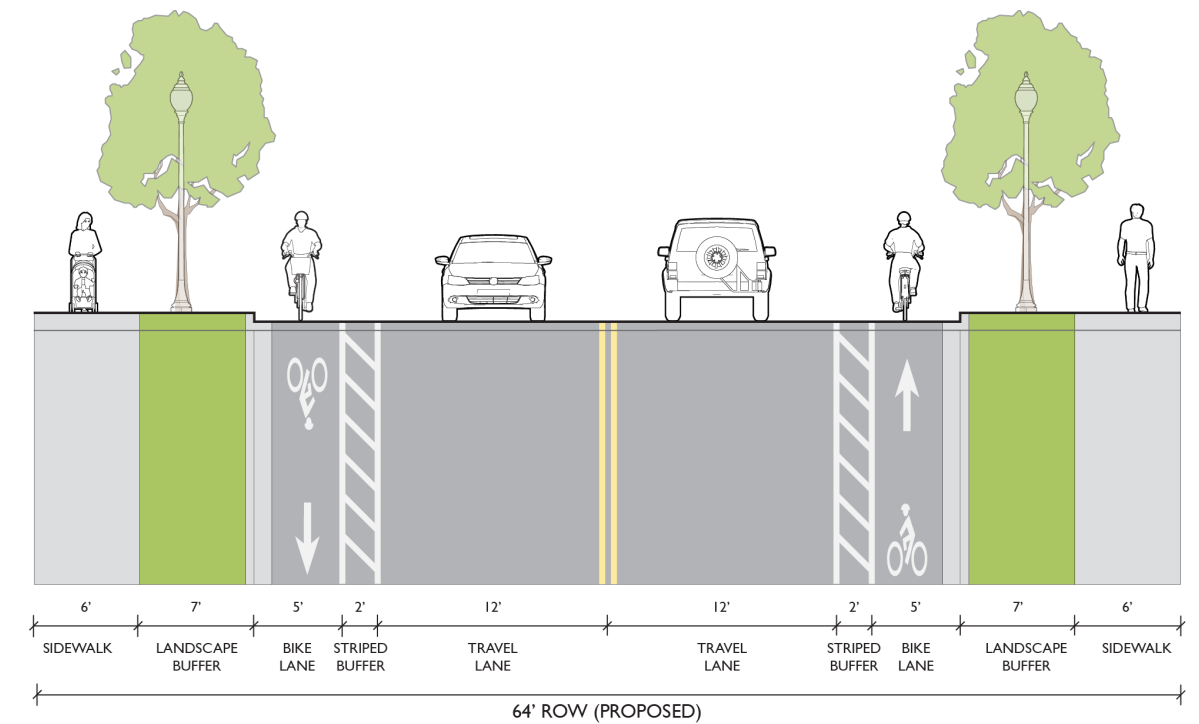


Figure 68: Whaley Street Proposed Cross Section





## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### INFRASTRUCTURE RECOMMENDATIONS

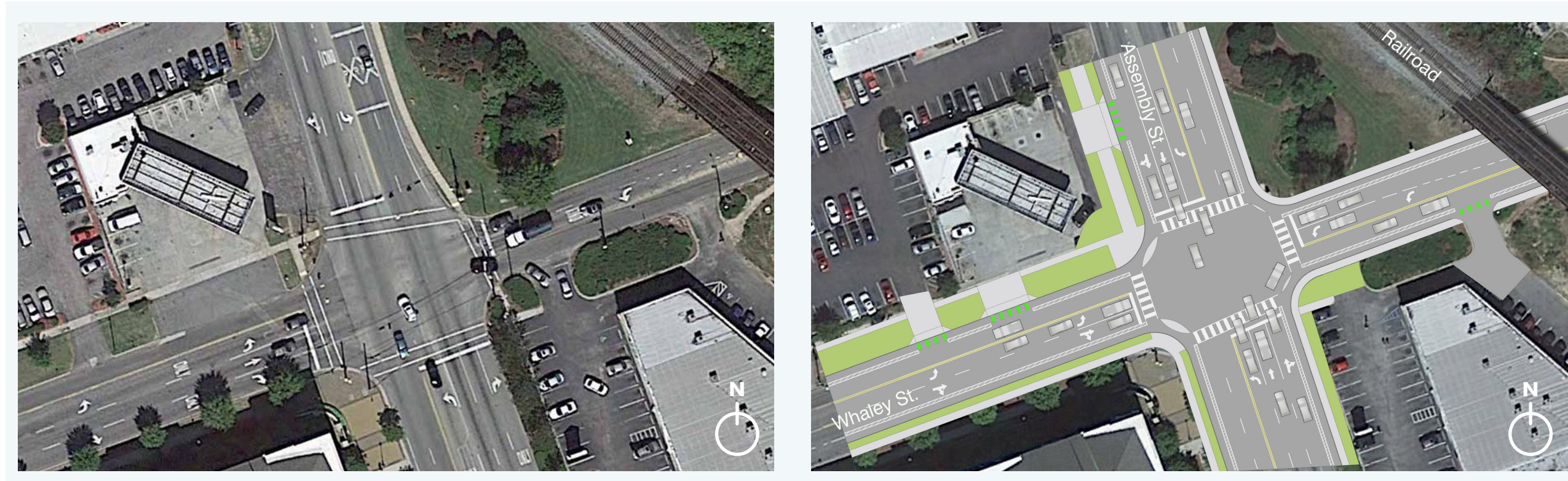
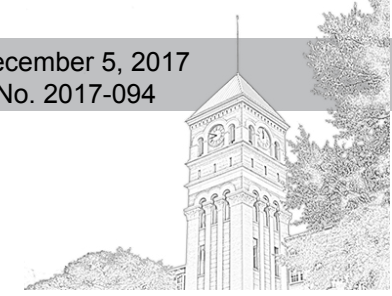


Figure 69: Whaley Street / Assembly Street Intersection and Road Diet

#### ASSEMBLY STREET

New bike facilities along Whaley Street will increase the safety for cycling while also providing a direct link between Olympia Avenue and Assembly Street. **Figure 69** shows an intersection concept at Whaley Street and Assembly Street. This concept illustrates the recommendations for the new buffered bike lane along Whaley Street and continues these improvements through the intersection to the east of Assembly Street. Currently, the width of the opening for Whaley Street under the railroad bridge would not allow for these improvements, but accommodating all modes of transportation should be considered if/when the railroad bridge is removed or replaced. Enhanced bike and pedestrian facilities are also shown along Assembly Street and will be discussed in further detail in the following section.





## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### INFRASTRUCTURE RECOMMENDATIONS

#### ASSEMBLY STREET

Major streets such as Assembly Street have the capacity to carry high traffic volumes and connect travelers into the heart of downtown Columbia. Assembly Street also provides connections to USC, sports venues, and the SC State Fairgrounds. This corridor is a major artery within the City and County but it does not safely accommodate bicyclists and pedestrians. There are barriers to travel such as an at-grade railroad crossing north of the Whaley Street intersection and also north of the Dreyfus Road intersection. Parallel railroad alignment for a portion of Assembly Street between Dreyfus Road and Rosewood Drive is another challenge and limits the potential for new development along the corridor. In spite of these challenges, there is an opportunity to implement bike and pedestrian infrastructure that would help to alleviate traffic congestion during major events and provide a healthy transportation alternative for those traveling between the Mill District and downtown Columbia along Assembly Street.

The existing cross section for Assembly Street (**Figure 70**) was presented during the public open house meetings in order to discuss multimodal possibilities for the corridor. Public input confirmed that implementing bike and pedestrian facilities along Assembly Street would be an important step in creating a connected, active transportation and recreation network. Based upon input from participants at the public meetings, two types of bike and pedestrian facilities were preferred; both options include facilities that are physically separated from travel lanes. In addition to bike and pedestrian infrastructure, the recommended cross sections show a five-lane cross section for Assembly Street.

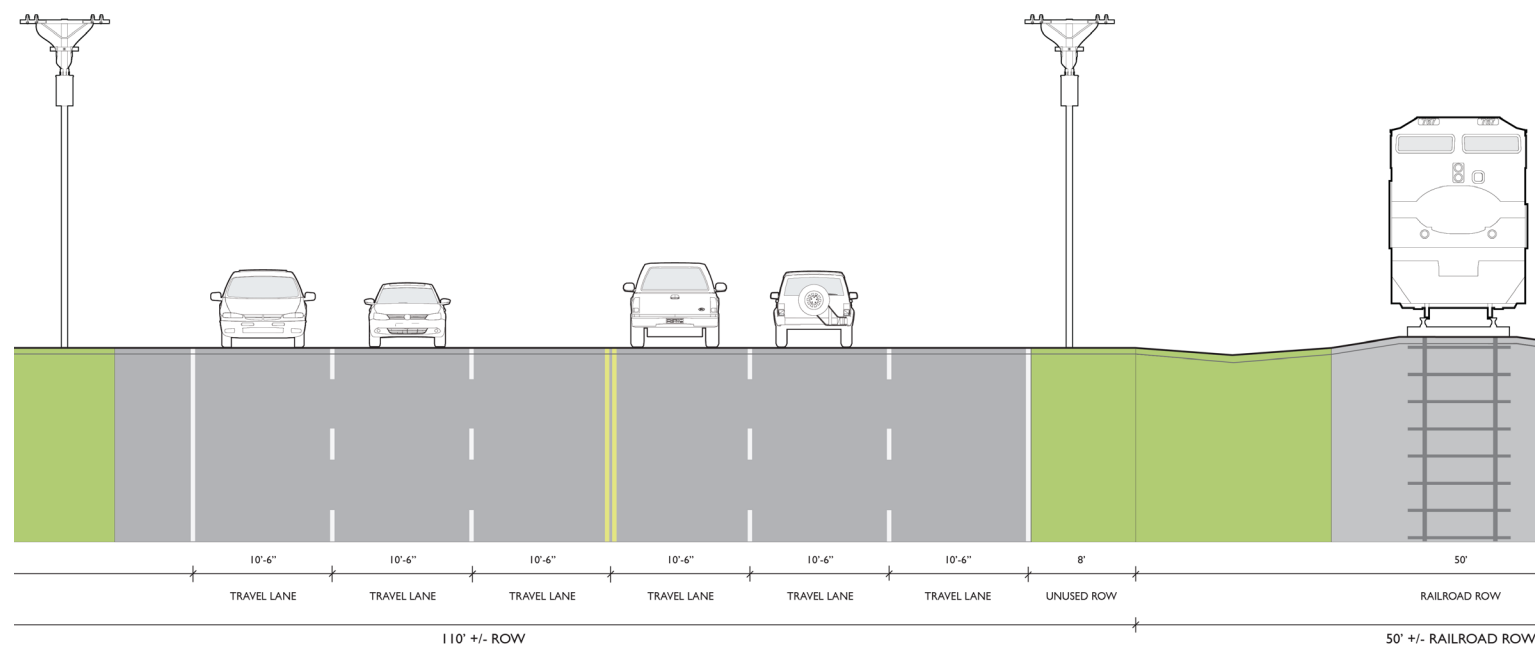


Figure 70: Assembly Street (Existing)

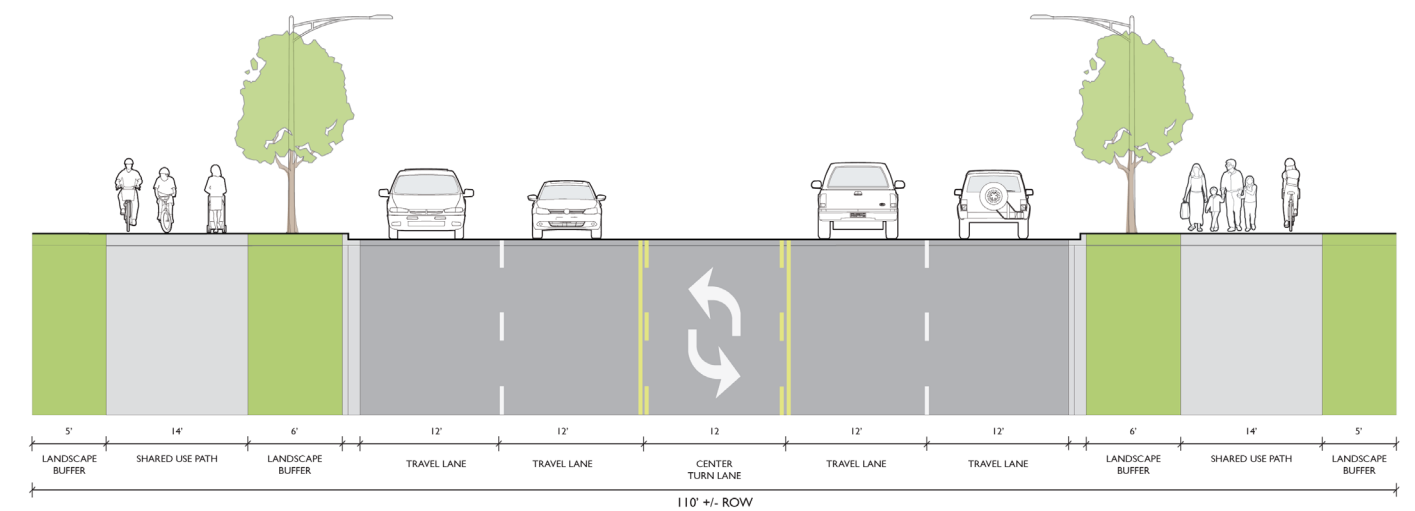


Figure 71: Assembly Street Option A

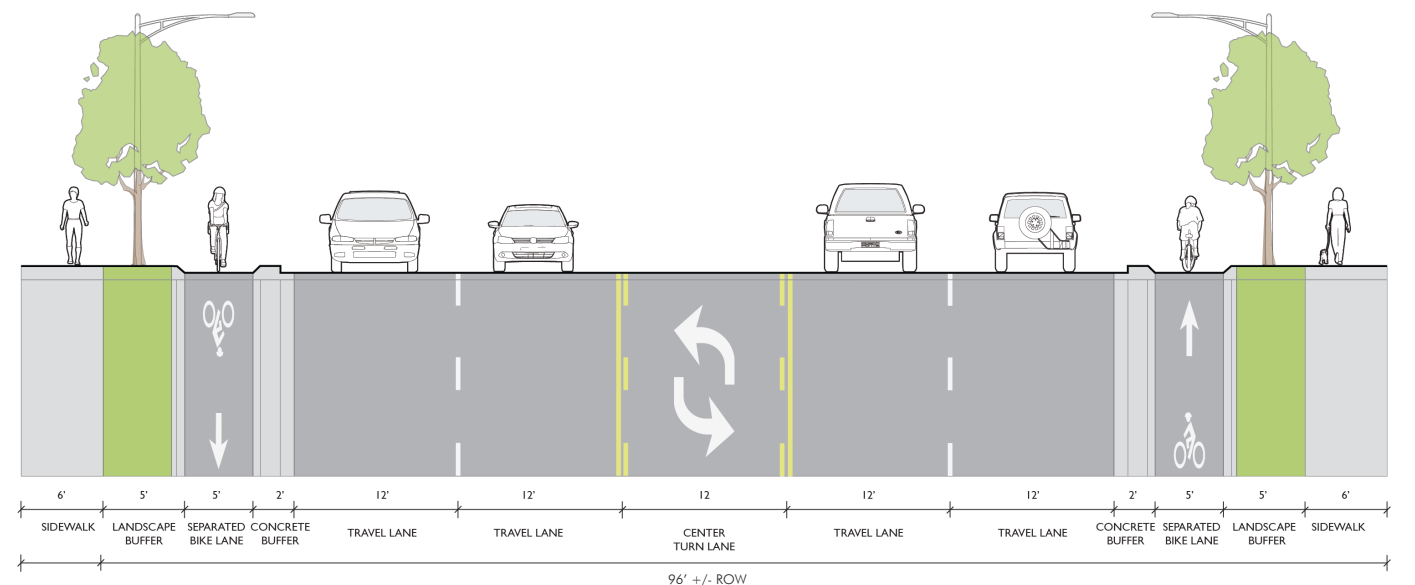


Figure 72: Assembly Street Option B

\*Note: Where the proposed right-of-way is smaller than the existing right-of-way, additional right of way should be allocated to pedestrian, bike, and streetscape improvements to ensure that the entire right-of-way is utilized.





## UNIFY & CONNECT THE DISTRICT TO THE GREATER COMMUNITY

### INFRASTRUCTURE RECOMMENDATIONS

This recommendation is based upon a five-lane cross section's ability to handle current traffic volumes and future volumes projected using the historical growth rate since 2010. Although Assembly Street is over capacity during major events such as home football games for USC or the State Fair, the street has capacity for daily traffic and has the right-of-way width to accommodate all modes of transportation. Rather than designing Assembly Street for high-demand days that only happen several times a year, it is recommended that Assembly Street be designed as a street that meets the community's needs 350+ days of the year. While outside of the scope of this study, it is further recommended that SCDOT explore the possibility of reversible lanes along Assembly Street for those rare but important high-demand days.

**Figure 71** presents the preferred cross section with multi-use paths on each side of Assembly Street. A multi-use path accommodates both bicyclists and pedestrians in a facility that is separated from travel lanes by a minimum of a 6-foot landscaped buffer. **Figure 72** illustrates bike and pedestrian facilities independent of each other through separated bike lanes and traditional sidewalks. A key improvement in each of the recommended cross sections is the addition of a center turn lane along Assembly Street to allow left-turning vehicles to move into a designated lane for turning movements. This will reduce the potential for congestion and crashes along the corridor. Recommendations for Assembly Street benefit the bike and pedestrian network of the Mill District, as well as the surrounding City and County neighborhoods and commercial districts. Prior to improvements, a comprehensive traffic study should be conducted to identify current issues and provide more detail for analysis of recommendations.

Multi-use paths for bike and pedestrian facilities are included in **Figure 73** along with a concept that illustrates development along Assembly Street if the railroad corridors are consolidated. Transforming Assembly Street into a multi-modal corridor, along with providing a center turn lane are key improvements that will benefit future development along the corridor. These concepts illustrate the recommendations for the Mill District Area Plan and have been developed to improve the multi-modal network in and around the District. The future of the railroad alignments and any improvements to Assembly Street will directly impact the Mill District. Any improvements should consider infrastructure changes that enhance the bike and pedestrian environment and increase connectivity along with safety for all users.

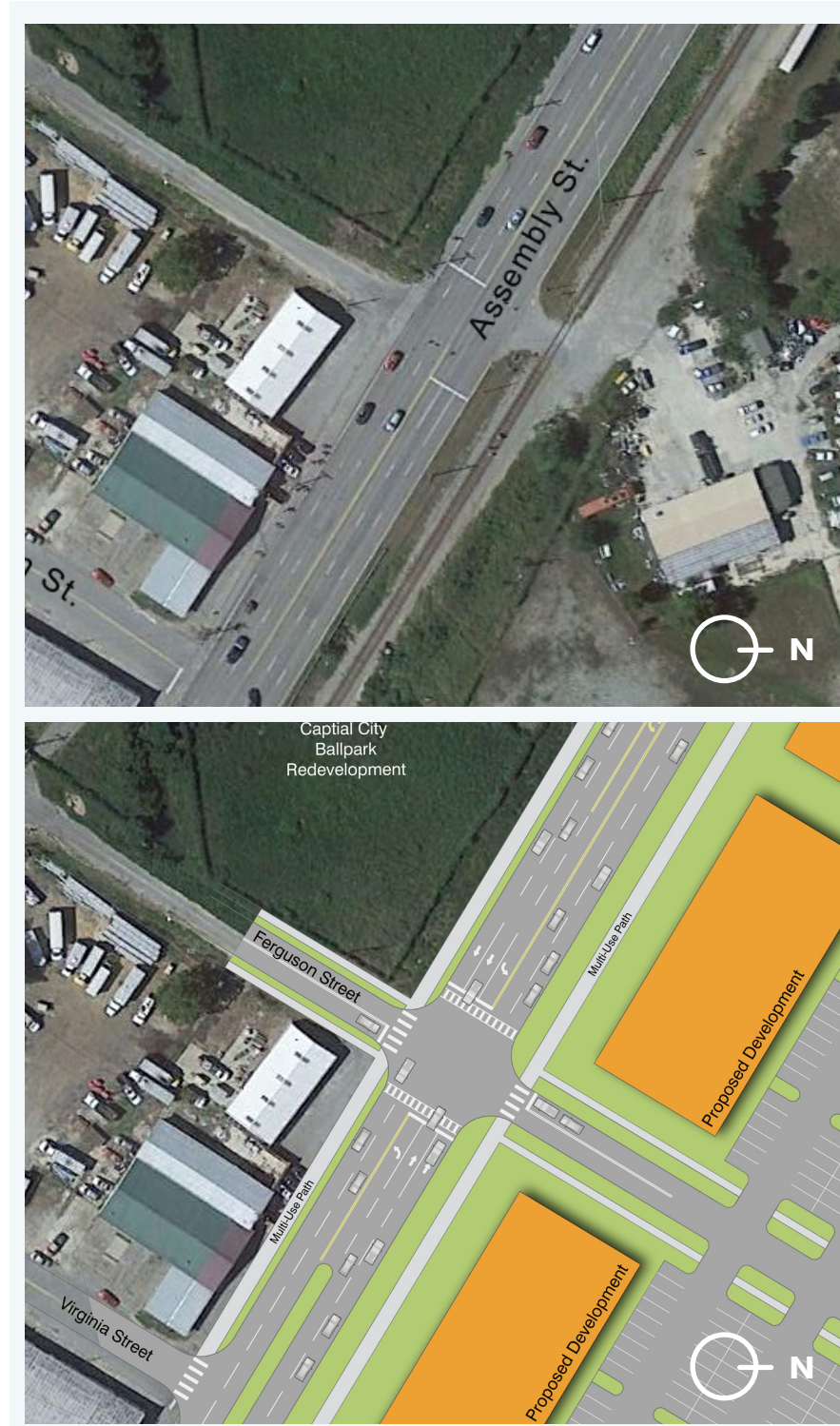
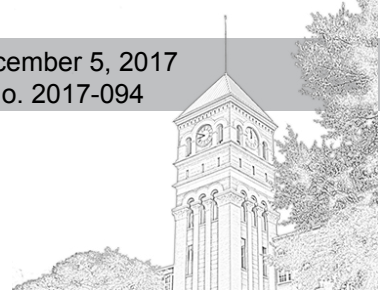


Figure 73: Assembly Street Concepts (Existing and Proposed)



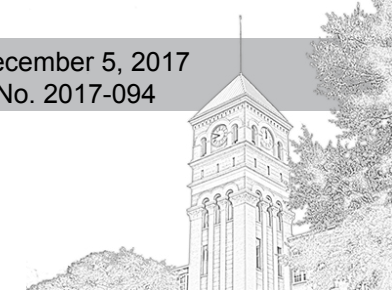


## **BIG IDEA 4:**

### IMPROVE ENVIRONMENTAL STEWARDSHIP

The Mill District is surrounded by and home to some of the region's most unique natural resources. From the Rocky Branch Watershed, the Congaree River, numerous mature trees, the quarry, and open space and parks, the Mill District has many assets worthy of protection and improvements in order to sustain and enhance the quality of life. The Mill District's proximity to downtown and USC make the area a desirable place to invest and develop; therefore, environmental stewardship is an important and necessary Big Idea for many implementation strategies. The Big Idea 4 recommendations address greenways, open space and parks, and improving the water quality and stormwater management through green infrastructure, low impact development, rainwater harvesting, stream restoration and infrastructure improvements. These recommendations strive to balance the health of the natural environment with development while providing a place where people want to live, work and play due to the beauty and access to nature.





## IMPROVE ENVIRONMENTAL STEWARDSHIP

### GREENWAYS, OPEN SPACE, AND RECREATION

A greenspace and mobility analysis was completed at the beginning of the project. This mapping shown in **Figure 74** took inventory of all of the park and open space throughout the project area. The team looked at existing and planned greenway projects as well as existing sidewalks. We created ¼ mile walking circles (ped sheds) from all of the existing parks within the Mill District. This study showed a lack of park and open space to the south and southwest of the project area. The mapping also showed potential greenway and multi-use path connections that should be addressed as part of the bike and pedestrian network.

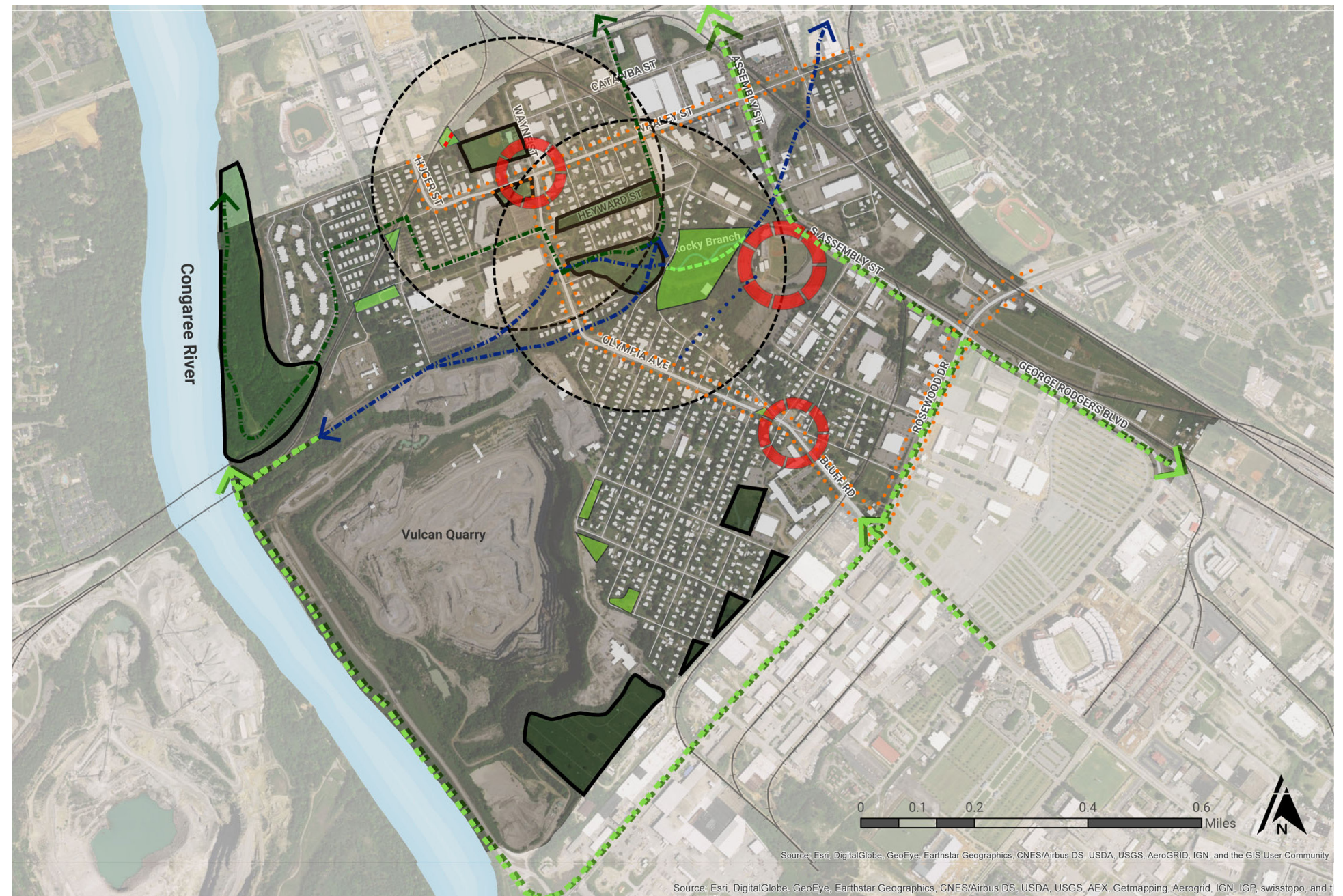
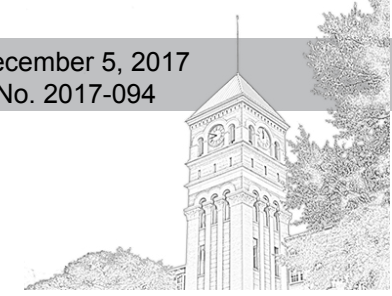


Figure 74: Greenspace/Pedestrian Mobility Map

- |                                |                            |  |
|--------------------------------|----------------------------|--|
| ●●●● Major Pedestrian Path     | ▬▬▬ Mill Village Riverlink | ▬▬▬ Greenspace Opportunities                     |
| ●●●● Possible Pedestrian Links | ▬▬▬ Existing Parks         | ○ Neighborhood Nodes                             |
| ▬▬▬ Future Multi-Use Path      | ▬▬▬ Greenspace             | ▬▬▬ Potential Greenway/Multi-Use Path Connection |





## IMPROVE ENVIRONMENTAL STEWARDSHIP

### GREENWAYS, OPEN SPACE, AND RECREATION

#### OPEN SPACES

As a part of the proposed area plan improvements the team looked at existing vacant properties illustrated in **Figure 75** throughout the Olympia neighborhood where parks and open space were lacking. This design board was used to gather feedback from the community about which types of activities they would like to see in these vacant spaces. Vulcan Materials owns and maintains the majority of these vacant parcels. Quarry management is not opposed to the development of these parcels as passive and active open space, but such development will require a thorough review and approval process. Although the quarry did not commit to these proposed improvements, the Mill District organization should explore a partnership with Vulcan Materials to utilize the proposed privately held lots as additional green space where appropriate. The public was encouraged that these spaces, well maintained by the quarry, could develop into recreational spaces.



Figure 76: Examples of proposed open space opportunities

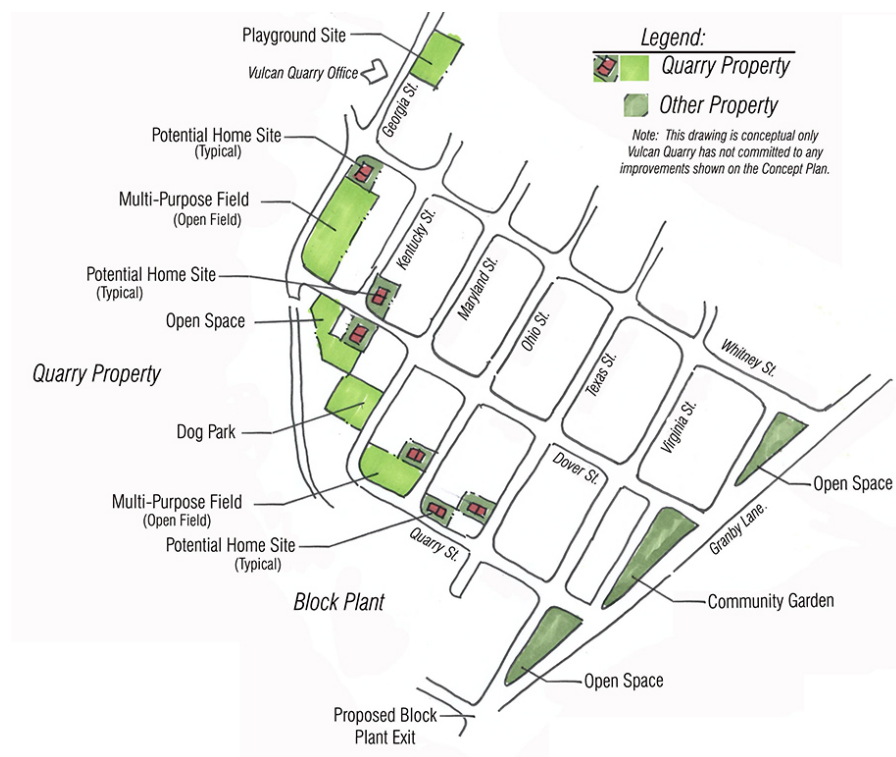


Figure 75: Open Space Opportunities Diagram





## IMPROVE ENVIRONMENTAL STEWARDSHIP

### GREENWAYS, OPEN SPACE, AND RECREATION

#### PROPOSED GREENWAY

The study area has existing greenway components however, the analysis showed there was a lack of connectivity. Our project team studied the recently finished Rocky Branch Greenway Master Plan (Hutchinson, Olsen, Petty, & Witherspoon, 2013), the current planning work as part of the proposed Capital City Ballpark redevelopment site, and proposed Richland County Penny Projects (Transportation Penny Project, 2012). These studies were instrumental in developing the proposed greenway which will eventually connect Five Points (USC) and the Congaree River (Richland Co. Penny Program). The proposed greenway path shown in **Figure 77** starts along Assembly Street and connects through the Olympia Park, quarry property, and along the river to the Jordan Memorial Boat Ramp. The project has been broken into three segments.

The linking of the Rocky Branch Greenway to the existing Three Rivers Greenway system will enable the Mill District neighborhoods to connect to 9 ½ miles of existing riverfront pathways. The original connection (Mill Village Riverlink) was completed in early 2004. This greenway utilized existing roadways for the majority of the path; however, new development and lack of maintenance have removed most of the signage and street markings that directed travelers. The proposed Rocky Branch Greenway will be a safer and more beautiful experience. The Three Rivers Greenway is a growing, linear park that is located in Columbia, West Columbia and Cayce. This proposed connection will link to Granby Park, the first section of the Three Rivers Greenway completed in 1998. Currently, the City of Columbia has master planned this connection all the way to the Columbia Canal and Riverside Park. This vision builds on the Three Rivers Greenway planned linkages to Columbia Canal and Riverside Park by continuing the greenway south to the boat landing and future USC intramural facility.



Figure 77: Proposed greenway path at Rocky Branch



# 3. RECOMMENDATIONS

## IMPROVE ENVIRONMENTAL STEWARDSHIP

### GREENWAYS, OPEN SPACE, AND RECREATION

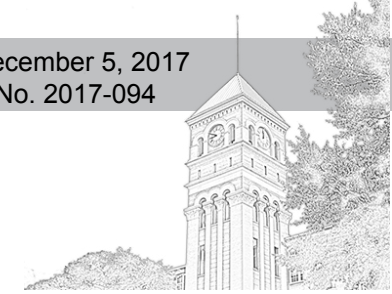


Figure 78: Rocky Branch - Assembly Street to Olympia Avenue

The proposed greenway path shown in **Figure 78** starts along Assembly Street and follows the Rocky Branch to the Congaree River as it travels through the Mill District. Along this course, it will pass through City-owned property located between Bluff and Dreyfus Road, before encountering an abandoned railroad berm that is privately held and previously connected to the old CSX railroad bridge which was demolished in the early 1980s. In order to provide a connection along the Rocky Branch and between the City property and Olympia Park, a pedestrian connection, which has been discussed by various stakeholders, is shown through the berm, connecting the greenway to Olympia Park and a continuation of the trail system. This access will increase connectivity between the existing neighborhoods and between the neighborhoods and downtown Columbia.



Figure 79: Rocky Branch - Olympia Avenue to Congaree River

The greenway will continue through Olympia Park to Olympia Avenue. There are two proposed connections across and under Olympia Avenue **Figure 79**. The current redevelopment plan for the Capital City Ballpark site calls for improvements throughout the Rocky Branch Greenway system, one of which is a new bottomless culvert at Rocky Branch and Olympia Avenue. This culvert will have an 8' wide pedestrian path on the east side of the road under Olympia Avenue. Additionally, we recommend an additional path for bicycles to cross Olympia Avenue above grade because the path under the culvert will not have sufficient head room for cyclists. The greenway will continue to follow Rocky Branch on the north side along an existing City of Columbia sewer easement until it reaches the old railroad right-of-way. At this location, the Branch enters the quarry property and is located within active quarry operations. The greenway will need to follow the old railroad right-of-way and tie to the existing end of Granby Park, which is a component of the Three Rivers Greenway. Some parts of the greenway that follow the old railroad right-of-way will need to be on quarry property. Meetings with Vulcan Materials were positive about continued conversations regarding access onto their property. Easements and the relocation of some existing fencing will be required and final alignments will need to be determined.



# 3. RECOMMENDATIONS

## IMPROVE ENVIRONMENTAL STEWARDSHIP

### GREENWAYS, OPEN SPACE, AND RECREATION

The proposed greenway will continue south along the Congaree River as shown in **Figure 80** and tie to the existing Jordan Memorial Boat ramp. This will allow for future connections to the Old State Farmers' Market property and the USC property recently purchased for golf and intramural fields. This ultimately will allow the main campus of USC to tie to the new intramural field property and Williams Brice Football stadium through a bike and pedestrian friendly path.

To the north of the railroad right-of-way, the greenway would continue under two active railroad bridges and tie to the existing Granby Park trail system. We recommend that the City and County continue to work with the property owners to connect the north end of Granby Park to Blossom Street in order to maximize connectivity to other parts of town such as the USC baseball stadium and the student housing throughout this area.

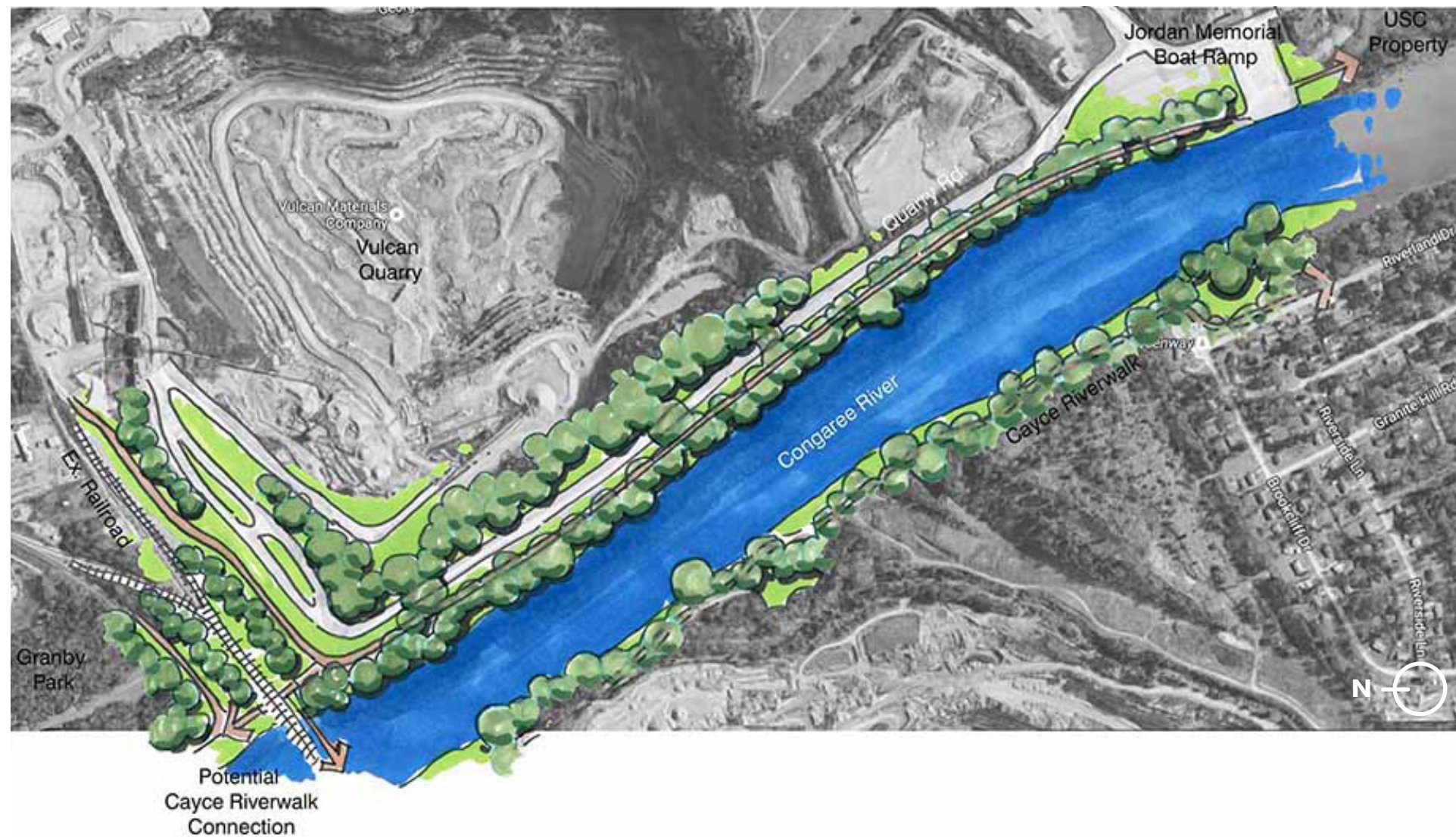


Figure 80: Rocky Branch - Along Congaree River

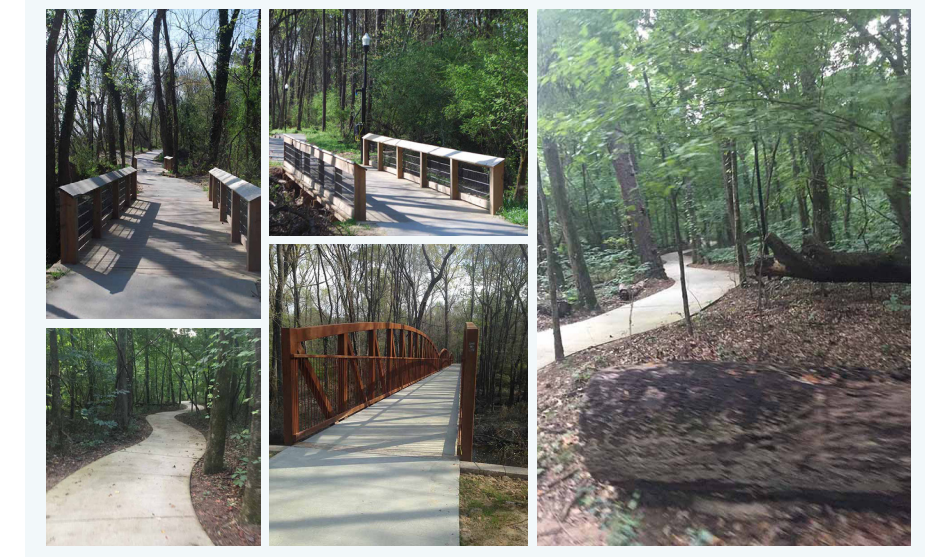
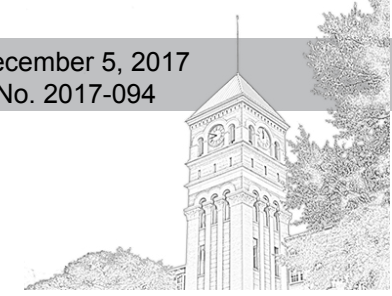


Figure 81: Examples of greenways





## IMPROVE ENVIRONMENTAL STEWARDSHIP

### WATER QUALITY

Water quality and flooding issues are important to the Mill District since it is in the lower part of the Rocky Branch Watershed. Since the Mill District is the recipient of the stormwater runoff from all the subwatersheds which lie upstream, addressing these concerns are critical to making the area livable. Relieving existing choke points will help avoid the resulting property damage from flooding, while improving water quality will be of benefit to all biological inhabitants.

The project team has reviewed the existing conditions of the Mill District, as well as the Rocky Branch Watershed Assessment of May 20, 2016 prepared by McCormick Taylor. The team listened to the stormwater and flooding concerns voiced by PAC members and the stakeholders at public

meetings during the master planning process. The recommendations set forth by the Assessment are prioritized below, and other possible solutions are also provided.

Many of soils in the Mill District are excellent for infiltration of stormwater to improve drainage and flooding in the project area. However, implementing low impact development and green infrastructure opportunities alone in this area cannot solve the overall flooding issues in the Rocky Branch Watershed.

The Assessment indicated that relieving the existing choke points along Rocky Branch will help with flood volumes, while stream restoration and the infiltration that can be built within the Mill District will improve water quality.

As the Assessment pointed out, there are many upstream opportunities in the Martin Luther King Jr., Devine/Blossom and Rosewood sub-watersheds to help alleviate the current flooding conditions. Once the runoff is conveyed to and concentrated in Five Points, it is more difficult to handle those volumes with additional green infrastructure.

Building infiltration into the residential neighborhoods of Melrose Heights, Old Shandon, Shandon and Hollywood-Rose Hill (where the soils are sandy at the top of the watershed—see B soils on **Figure 82**) is key to reducing the volume of water discharging to the creek, and therefore helping to slowly solve this issue. It will take many years, but just as impervious area increased incrementally, the situation must be addressed in the same fashion.

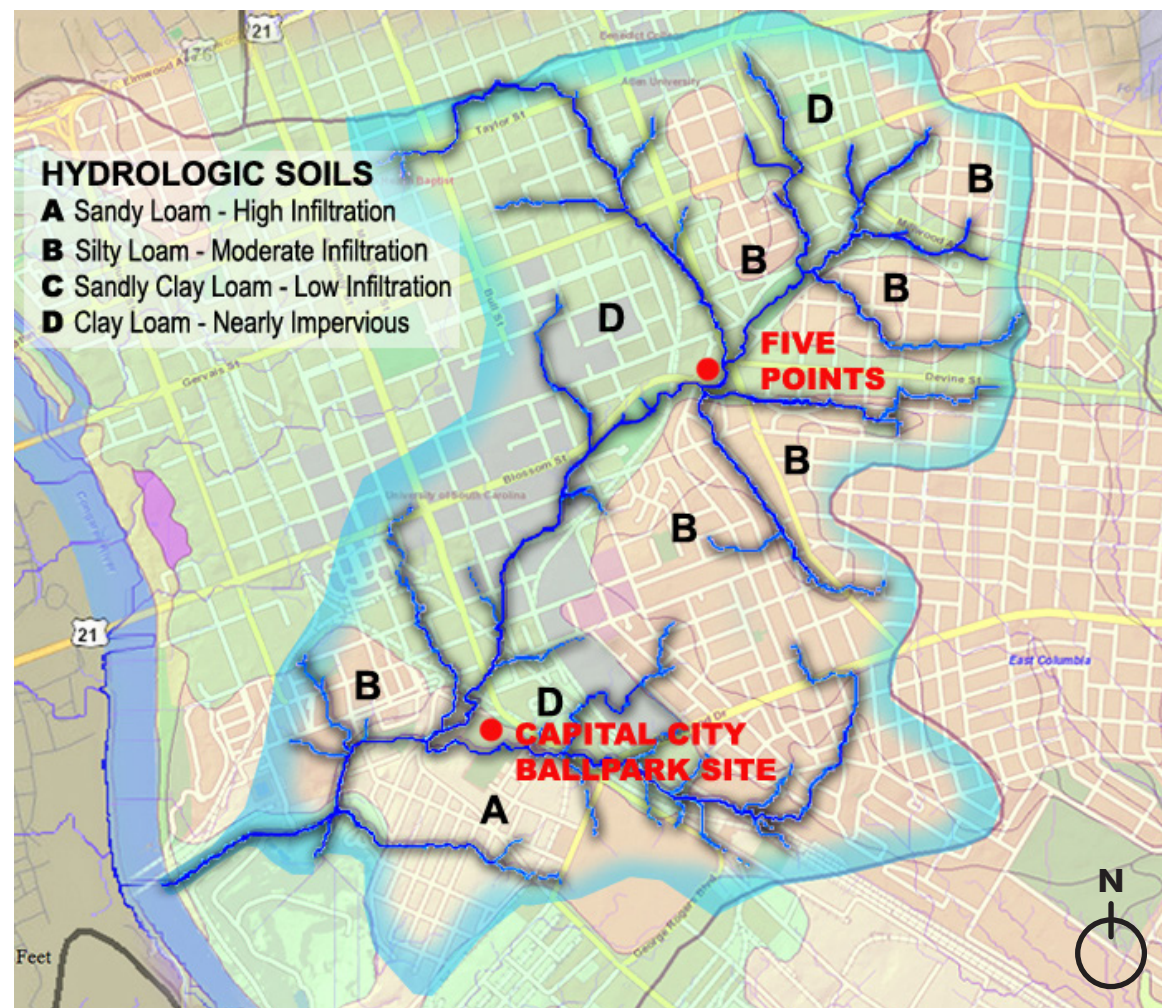


Figure 82: Rocky Branch Watershed Soils Map



Figure 83: Bioswale Diagram and Examples



## IMPROVE ENVIRONMENTAL STEWARDSHIP

### WATER QUALITY

#### GREEN INFRASTRUCTURE

It is important to begin green infrastructure efforts where the hydrologic soils are most favorable and thus cost effective. All areas with Soil Groups A & B should be targeted for most impact. As seen in **Figure 82** on the previous page, these soil groups are prevalent in Olympia, Whaley and Granby neighborhoods. The low number of existing underground utilities and drainage system in Olympia makes it one of the easiest areas to implement. The sandy soil and gentle topography here also lends itself well to rain gardens and infiltration systems. The beauty of small infiltration systems is that they can be built in phases as funds allow. Instead of large piped systems which depend on larger and larger pipes as they go downstream, these basins and filters act independently. Each bioswale built would keep more runoff out of the pipe system. Green infrastructure is excellent for a municipality since it can be done incrementally as funding permits.

The first step is that soils need to be tested to make sure that infiltration is a viable solution. No one street stands out as more necessary than any other, though the flatter the street, the easier it is to complete the transformation. Steeper streets make runoff more difficult to pond and gather for infiltration. Providing a dedicated funding source through the budget process for these projects could eventually keep most of the stormwater generated during typical summer storms from downstream impacts.

Bioswales and rain gardens can be added to many of the existing boulevards in the Mill District. Both Olympia Avenue and Heyward Street have large islands that could be utilized for stormwater infiltration (**Figures 84 & 85**). These can double as recreational greenspace for the neighborhood to enjoy within wide rights-of-way such as on Heyward. Plantings and trees within these areas not only serve to provide filtration and transpiration of water, they also provide shading, cooling and improved aesthetics to the streetscape. In the future, Catawba and Whaley Streets potentially could be changed to boulevards in order to allow the islands to serve as green infrastructure to improve stormwater management.

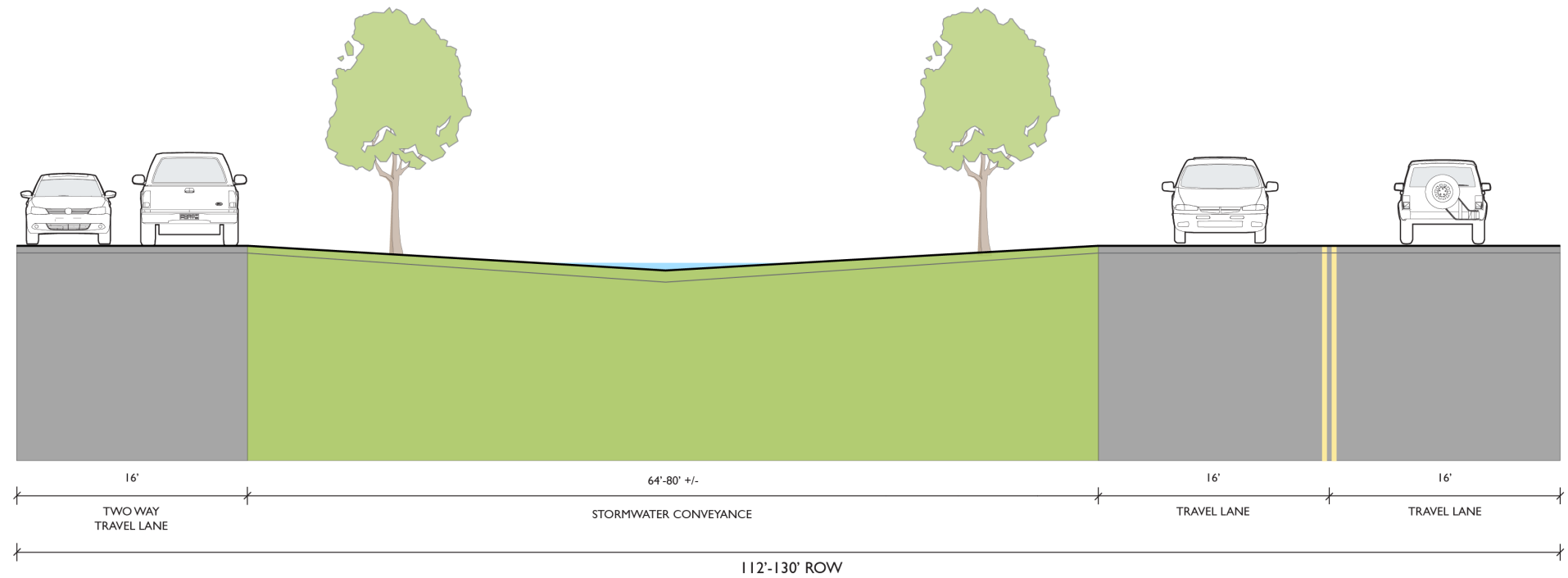


Figure 84: Heyward Street Existing Cross Section

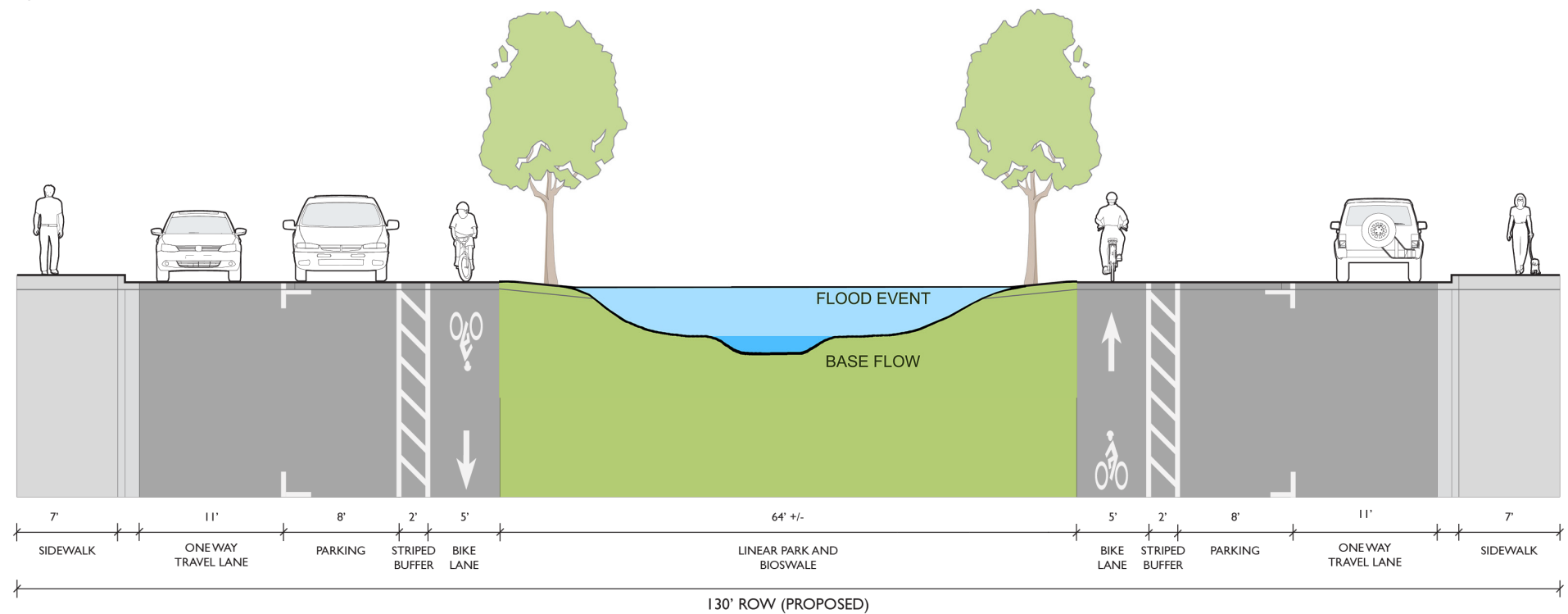
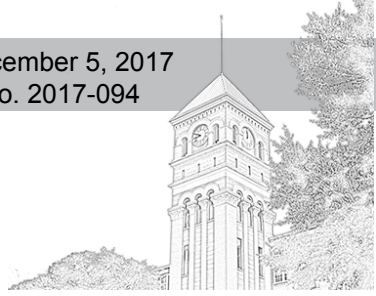


Figure 85: Heyward Street Proposed Cross Section





## IMPROVE ENVIRONMENTAL STEWARDSHIP

### WATER QUALITY

#### LOW IMPACT DEVELOPMENT (LID)

Low Impact Development (LID) recommendations of either bioretention basins or sand filters also were included in the Assessment. Aside from those listed above, these include many sites within the Mill District. Olympia Park, Wayne Street, Lincoln Street, the overflow parking for the fairgrounds along George Rogers Boulevard, the apartments at The Mills, and Olympia Learning Center were all identified.

The Assessment also outlines the implementation of a green street template on the Olympia and Granby neighborhoods which have soils that are very conducive for infiltration. This is another solution to incrementally help address drainage issues since the existing stormwater infrastructure in these older neighborhoods is either fragmented or non-existent.

Both tree protection and planting programs are important to any new project undertaken in the area. Trees slow runoff, reduce erosion, absorb nutrients, provide habitat, improve air quality, and can reduce cooling costs when planted beside buildings. It is critical that riparian buffers be maintained and trees preserved, however actually adding to the urban forest is critical to not only the Mill District but to any long range plan for the region. The large volume of people entering the area from the southeast along Assembly Street and Bluff Road could be greeted with welcoming streetscapes full of shade trees, which are meanwhile transpiring large volumes of groundwater.

#### RAINWATER HARVESTING

Rainwater harvesting is also a potential way to handle significant volumes of runoff. Cisterns and rain barrels can collect roof water from municipal, commercial, and residential buildings, as long as they are sized and managed appropriately. This water can then be used for irrigation of ornamental landscapes in drier conditions, while reducing pollutant loads from our waterways during storm events.

The City of Columbia and Richland County both have existing programs which incentivize the use of rain barrels by residents through the subsidization of rain barrel cost. This type of program should be expanded each year, and encouraged in lower income neighborhoods that may not already have irrigation systems, where rainwater harvesting would be most appreciated. The Rocky Branch Watershed Alliance could also encourage the use of rain barrels by continuing their outreach programs. While five or six rain barrels per household (say one at each downspout) may make an impact, it is critical that these barrels be emptied prior to each storm for them to have an effect. This requires an active commitment on the homeowner's part and is not likely to be carried out by rental occupants.

The greatest impact as far as rainwater harvesting would be new development where cisterns can be sized to significantly reduce runoff and supplement irrigation needs. These also would be more likely to be utilized given automated sprinkler systems. Providing incentives through new regulations would encourage this practice. Downspout disconnection from the municipal drainage system is an important concept to incorporate into new development as well as retrofitting existing structures, both commercial and residential.



Figure 86: Cistern and/or rain barrel for rainwater harvesting



## IMPROVE ENVIRONMENTAL STEWARDSHIP

### WATER QUALITY

#### STREAM RESTORATION

Stream restoration projects are also part of the Assessment (**Figure 87**). Bank stabilization is recommended along and adjacent to the railroad embankment behind the Church of Jesus Christ (550 LF), along Rocky Branch from Dreyfus Road north to the Railroad (250 LF), and along the edge of the shopping center parking lot west of the railroad and east of Assembly Street (600 LF). There is a small tributary between Catawba Street and the railroad by the Richland Industrial building which is a severely impacted area requiring restoration and which may have on-site wetlands.

The potential stream restoration tied to the Capital City Ballpark redevelopment site mitigation project would include channel geometry modification, debris removal, and greenway construction. Unfortunately, depth to bedrock and extensive clearing operations within Olympia Park are both critical concerns which need to be addressed. Loss to the forest canopy will have impacts on the stream channel such as decreased shading and increased potential for erosion. The final plans should be coordinated with the community's concerns for this well-used park area.

Finally, the future mine closure (beyond the time frame of this plan) of Vulcan Materials will create opportunity for extensive stream restoration of the lowest area of the Rocky Branch before it joins with the Congaree. The entire length from Olympia Avenue down to the river could be opened up for greenway access, bank stabilization, and habitat restoration with removal of culverts and overhead conveyors. Proper design will create a corridor by combining flood storage and conveyance with the greenway. Benching one side of the Branch could serve as both recreational access and floodplain storage. It also would give additional conveyance volume. However, given the backwater effects from the Congaree, any work in this area would have little impact on upstream flooding in the watershed, but should have other benefits to the overall drainage of the river basin. While this was not the original Branch channel, the Branch diversion (built for the mine operation) could finally be naturalized and enjoyed as part of the larger regional greenway system.

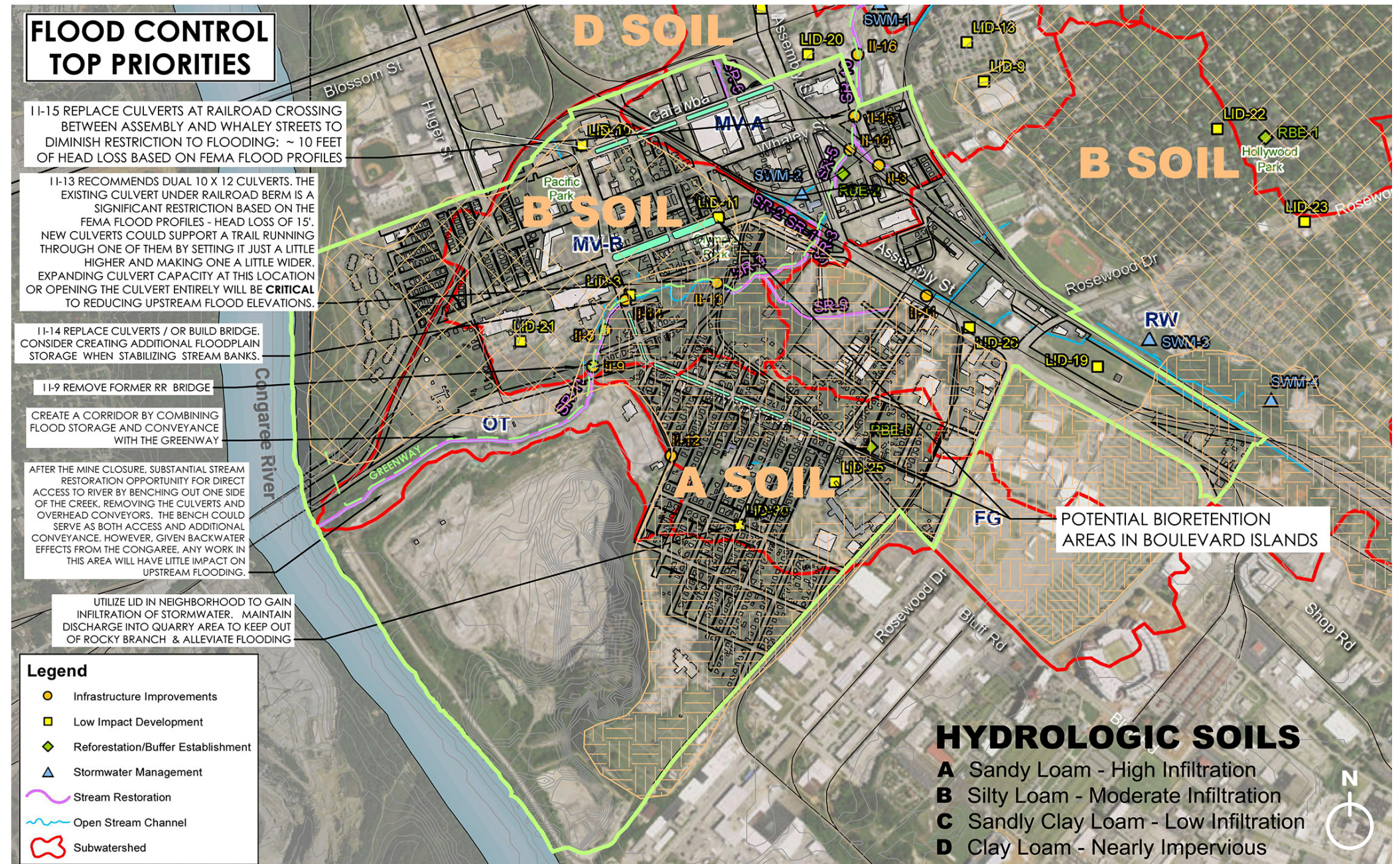
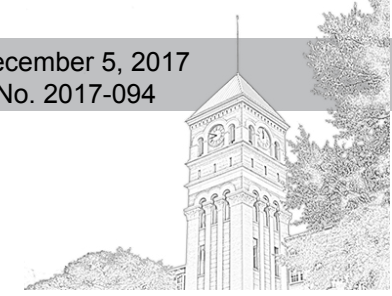


Figure 87: Stormwater Solutions





## IMPROVE ENVIRONMENTAL STEWARDSHIP

### WATER QUALITY

#### INFRASTRUCTURE IMPROVEMENTS

Infrastructure improvements must be the highest priority to alleviate flooding issues in the Mill District. These choke points or degraded channel conditions must be addressed before any significant improvement is possible. The projects outlined in **Figure 88** are all projects that can make an immediate impact in the Mill District and are infrastructure improvements from the Watershed Assessment (McCormick Taylor, 2016). It is important to note that these nine projects as well as others on the following page are directly from the Watershed Assessment. In the following section of this report, a series of implementation projects are presented and categorized by short, medium and long term, however the projects within the Watershed Assessment cannot be categorized in such a manner and should be treated differently. Implementing infrastructure projects in the watershed cannot be categorized by time frame, rather they should be sequentially ordered from projects lower in the watershed and working upstream. Infrastructure improvements (II), particularly II-13, II-14, and II-15, could make the most impact within the Mill District, however they are the most costly. The other infrastructure improvements (II) in **Figure 88** include several projects that are low-hanging fruit, especially those with lower costs which should be implemented as funding allows, but only by starting lower in the watershed first then moving upstream. Annual funding should be allocated by the City of Columbia and Richland County to complete the infrastructure improvements in Figure 87 as well as other stormwater and water quality improvements on the following page in **Figure 89**.

The team recommends II-13 as the most critical project because of the immediate impact it can have. This is at the old railroad berm just downstream of the Capital City Ballpark redevelopment site, which is part of their proposed mitigation project. While the Assessment recommends dual 10' x 12' culverts, the new culverts could support a greenway trail running through one of them by setting it higher and making the other lower and wider: one acts as a people passage while the other is running as the stream. Other proposals discussed included the provision of a box culvert at a much higher elevation through the berm (perpendicular to the creek flow) to handle the greenway. Whichever way is chosen for the trail, expanding the culvert capacity at this location will be vital to reducing upstream flood elevations.

The culvert replacements at the railroad crossing just south of the Whaley overpass and the Whaley Street/Main Street intersection (II-10 & II-15) also would alleviate substantial upstream flooding. The outfall enhancement of an energy dissipator at the channel between the railroad and the Main Street/Heyward Street intersection (II-3) could be done at the same time and help to clean up the drainage situation in this small area. Considering the volume of traffic that moves through this 'escape route' from on-grade railroad crossing disruptions to the area, the volume of flooding potential that could be eliminated is crucial to both traffic and stormwater management.

The proposed culvert replacement or bridge construction at Olympia Avenue (II-14) would not only help alleviate flooding, but also provide a safe pedestrian crossing under this busy street solving a conflict with vehicles, humans and wildlife. Stream corridors are important wildlife connections, especially this close to a major river. Again, two 10' x 10' culverts are

recommended in the Assessment at a minimum, but this project could go far beyond mere requirements to creating additional floodplain storage and truly be an asset to the park, district, and entire greenway system.

Smaller projects would be simpler to achieve. The removal of the former railroad bridge downstream of Olympia Avenue (II-9) and replacement of a damaged sanitary sewer line west of Olympia Avenue (II-5) could both be accomplished quickly. The culvert replacement beneath the railroad at South Assembly Street west of Rosewood and near Virginia Street (II-11) would include the repairs to the eroded embankment.

While the culvert replacement at Catawba Street between Main and Sumter Streets (II-16) is just outside the Mill District's study area, it too would reduce flooding considerably. The Assessment states that the replacement will need two 20' x 6' culverts, unless USC removes the existing structures and road crossing completely.

ID	Type	Location	Proposed Action	Est. Cost	Additional Notes
II-3	Outfall Enhancement	Channel between Railroad and Main Street/Heyward Street intersection	Stabilize Outfall and install energy dissipater	\$55,000	
II-5	Sanitary Line Repair	West of Olympia Ave	Replace sanitary line	\$100,000	Metal and plastic repairs evident, supports damaged
II-9	Infrastructure Removal	Downstream Olympia Ave	Remove former railroad bridge	\$300,000	
II-10	Culvert Replacement	Railroad Crossing at Whaley St	Replace Culvert with adequately sized structure	\$1,000,000	
II-11	Culvert Replacement	Assembly Street west of Rosewood St	Replace Culvert with adequately sized structure	\$1,500,000	Repair bank erosion as well
II-13	Culvert Replacement	Old Railroad Berm	Dual 10' x 12' culverts recommended	\$1,500,000	crossing through old railroad berm desirable location for greenway
II-14	Culvert Replacement	Olympia Ave	Dual 10' x 10' culverts recommended	\$1,500,000	This area is potential greenway crossing for Olympia to Congaree. May be desire by locals for trail under Olympia Ave
II-15	Culvert Replacement	Whaley St and Main St	Dual 25' x 6' culverts recommended	\$3,000,000	This is location of USGS gauge
II-16	Culvert Replacement	Catawba St and Main St	Dual 20' x 6' culverts recommended	\$3,000,000	

Figure 88: Rocky Branch Watershed Projects

Source: Watershed Assessment (McCormick Taylor, 2016, pg.129-132)





## IMPROVE ENVIRONMENTAL STEWARDSHIP

**Figure 89** represents the additional projects within the Mill District recommended by the Watershed Assessment which include various stormwater improvements, bank stabilization, culvert replacements, green streets, and tree plantings. Infrastructure improvements will make the most immediate impact to reduce flooding in the Mill District, however each project listed in **Figure 89** will benefit the overall watershed, and in turn, the Mill District. Low Impact Development and stream restoration projects will do the most to improve water quality, but in order to also reduce flows such projects would be most useful and cost effective higher in the overall watershed.

ID	Type	Location	Proposed Action	Est. Cost	Additional Notes
SWM-2	Pond Retrofit	Assembly Street and Heyward Street	Expand footprint and convert to shallow marsh or infiltration basin	\$100,000	
SR-1	Bank Stabilization	Railroad Embankment Behind Church of Jesus Christ	Bank Stabilization (200 LF)	\$150,000	This would be a CSX project
SR-2	Bank Stabilization	Adjacent to Railroad Behind Church of Jesus Christ	Bank Stabilization (250 LF)	\$150,000	Should be done in conjunction with BMP for parking lot
SR-3	Bank Stabilization	Rocky Branch Mainstem extending from Dreyfuss Road north to Railroad	Bank Stabilization (250 LF)	\$150,000	
SR-5	Bank Stabilization	Edge of Shopping Center Parking Lot East of Railroad and West of Assembly Street	Bank Stabilization (600 LF)	\$300,000	
SR-6	Stream Restoration	Tributary Between Catawba Street and Railroad by Richland Industrial	Severely impacted areas requiring restoration	\$350,000	Potential onsite wetlands
SR-9	Stream Restoration	Bluff Road to Dreyfuss Road	Debris removal and natural stabilization, channel geometry modification	\$500,000	FG channel work (Kroger mitigation) should be included in this project. SR limits extend within MV-B (Rocky Mainstem) and RW (tributary)
SR-10	Stream Restoration	Mainstem of Rocky Branch from Sumter Street to Whaley Street	Channel daylighting through USC campus	\$1,500,000	This potential project was identified by USC as potential mitigation for the Kroger development. Also provides greenway connection opportunities
SR-11	Stream Restoration	Rocky Branch Mainstem from Olympia Avenue to the Congaree River	Channel section inside Vulcan Materials active mine. Mine closure anticipated 2030 and reach should be restored for entire length	\$4,000,000	Extends within OT and MV-B subwatersheds. Would occur following mine closure
LID-3	BMP Install	Assembly Street at Entrance to California Dreaming	Bioswale or Bioretention	\$50,000	
LID-10	BMP Install	Catawba Street and Wayne Street	Bioretention or Sand Filter	\$100,000	
LID-11	BMP Install	Median Area of Heyward Street and Lincoln Street	Bioretention or Sand Filter	\$125,000	Area contains an intermittent stream
LID-19	BMP Install	Overflow parking for USC stadium complex	Bioretention or Sand Filter	\$300,000	
LID-21	BMP Install	Granby Mills Student Housing	Bioretention or Sand Filter	\$350,000	
LID-25	BMP Install	Olympia Learning Center	Bioretention or Sand Filter	\$450,000	
LID-26	Boulevard Approach	Assembly Street - Whaley Street to Rosewood Drive	Tree Boxes with underground detention cells	\$500,000	\$7,500 Per Box, spaced every 30 LF along 2,000 LF of City block
LID-30	Green Streets	Olympia-Granby	Apply green streets template to reduce runoff from neighborhood	\$680,000	capture 1" of runoff, \$190/LF of managed roadway, assumed 3,590 LF
RBE-2	Tree Planting	Assembly Street at Railroad, Mainstem of Rocky Branch	Recommend tree plantings where feasible	\$10,000	Publicly owned
RBE-5	Tree Planting	East of Hasting Alley, North of Olympia	Recommend tree plantings where feasible	\$40,000	Public parcel

Figure 89: Rocky Branch Watershed Projects

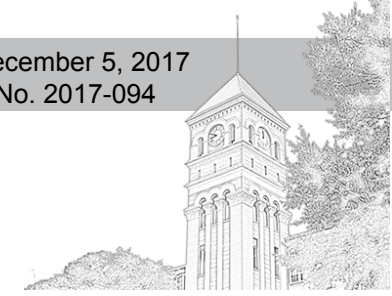
Source: Watershed Assessment (McCormick Taylor, 2016, pg.129-132)



# 3. RECOMMENDATIONS

## IMPROVE ENVIRONMENTAL STEWARDSHIP

### WATER QUALITY



#### ADDITIONAL PROJECTS

The proposed Heyward Street improvements (**Figure 90**) show additional projects that will not only alleviate flooding by improving stormwater management but also clean up traffic patterns at the intersections of Heyward and Olympia, Heyward and Lincoln, and Heyward and Assembly Streets. A multi-level bioswale could handle both base flows and a flood event volume in this area, while leaving the majority of the greenspace available as a linear park. This proposal has been welcomed whole-heartedly by the neighborhood since it achieves many goals at once.

As mentioned above, Olympia Avenue, Whaley Street and Catawba Street have all been identified by the team as potential boulevard roadways. In a similar fashion to Heyward, these wide rights-of-way could incorporate drainage and greenspace into their cross sections to be both aesthetic and functional improvements.



Figure 90: Heyward Street Improvements at Olympia Avenue



Figure 91: Heyward Street Improvements at Lincoln Street

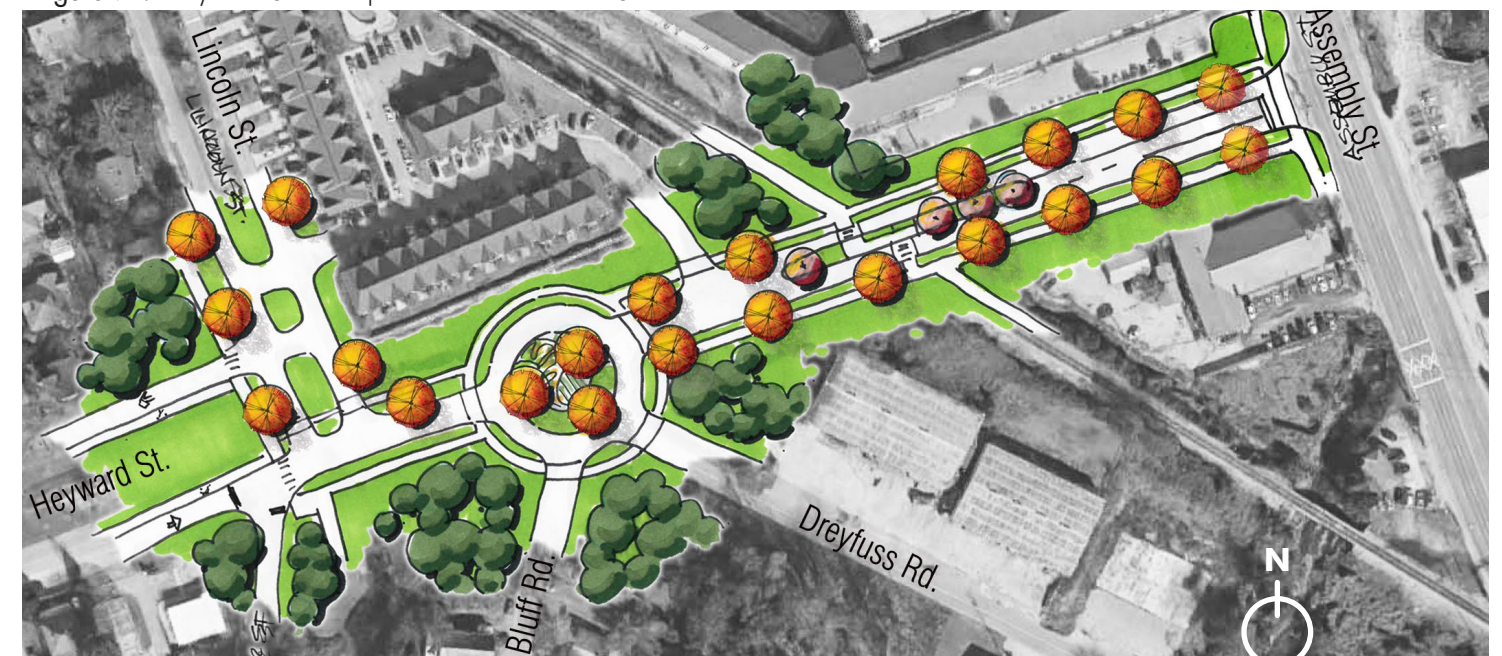


Figure 92: Heyward Street Improvements - Assembly Street Connection

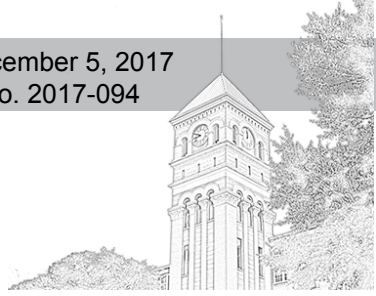




## IMPLEMENTATION



# 3. RECOMMENDATIONS



## IMPLEMENTATION STRATEGIES SUMMARY

\$ = \$0 - \$100,000      \$\$\$\$ = \$1 - 5 Million  
 \$\$ = \$100,000 - \$500,000      \$\$\$\$\$ = \$5 Million +  
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TAP - Transportation Alternatives Program  
 CMCOG - Central Midlands Council of Governments  
 SCPRT - South Carolina Department of Parks, Recreation & Tourism  
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### SHORT TERM (1 TO 3 YEARS) PROJECTS + POLICIES IMPLEMENTATION SCHEDULE

BIG IDEA	PROJECTS AND POLICIES	TIME FRAME	RESPONSIBLE PARTY	ESTIMATED COST	POSSIBLE FUNDING SOURCES
1	Create and institute a formal representative organization to advocate on the behalf of the Mill District and the implementation of the vision.	Complete within 6 months of Plan adoption	PAC, Community members, City of Columbia, and Richland County Planning staff	Staff Time & Volunteer Time	N/A
1	Develop and adopt a formal agreement for an equitable regulatory framework and collaborative decision making between the City and the County.	Complete within 12 months of Plan adoption	City of Columbia and Richland County	Staff Time	N/A
2	Begin the management of trains, transportation, and traffic by participating in the Assembly Street rail consolidation NEPA process.	Upon start of the NEPA process to potentially begin in Fall 2017	Mill District organization (lead), Community members, City of Columbia and Richland County Planning staff	Staff Time	N/A
1,3 + 4	Partner with Vulcan Materials to create community green spaces on existing lots owned by Vulcan.	Begin immediately upon Plan adoption	Mill District organization and Vulcan Materials	\$	Grants & private partners
1	Partner with the Columbia Development Corporation to develop strategies to promote the Plan, new investments and future projects.	Begin immediately upon Plan adoption	Mill District Organization, Columbia Development Corporation	Staff Time & Volunteer Time	N/A
1	Develop and adopt a unified policy/regulatory framework to preserve the architectural character of the Mill District through new development, reuse and rehabilitation, public space, the landscape and the protection of the tree canopy.	Begin immediately upon adoption by examining incorporation into code rewrite processes and discussions	City of Columbia and Richland County Planning staff	Staff Time	N/A
2	Begin coordination with rail operations to mitigate back-ups and blockages (Cayce railyard).	Begin immediately upon Plan adoption	City of Columbia, Richland County, and CSX	Staff Time	N/A
4	Develop a joint stormwater management plan for the Mill District as a whole, and model policies accordingly to be administered by each jurisdiction.	Begin upon completion of City/County formal agreement and complete with 12 months	City of Columbia and Richland County Stormwater Management	Staff Time	N/A
1	Amend Comprehensive Plans to adopt future land use classifications and subsequently amend future land use maps to reflect the recommendations herein.	Begin immediately upon Plan adoption	City of Columbia and Richland County Planning staff	Staff Time	N/A
1	Develop a Mill District brand identity that reflects the community spirit and vision to be incorporated on gateways, signage and promotional collateral, recruitment, economic development efforts and social media.	Complete within 9 months of Plan adoption	Mill District organization (lead), City of Columbia and Richland County Planning staff	\$	Grants & private partners
1	Create, promote and implement incentives for homeownership, small business startups and recruitment, and redevelopment of existing and historic properties within the Mill District; coordinate with existing programs in the City and County.	Ongoing	City and County Planning and Community Development staff, City of Columbia Office of Business Opportunities, Richland County Conservation Commission, and Columbia Development Corporation	Staff Time & Volunteer Time	N/A
3	Coordinate stormwater management of Rocky Branch projects with all responsible agencies.	Begin immediately upon Plan adoption	City of Columbia and Richland County Stormwater Management and Rocky Branch Watershed Alliance	Staff Time & Volunteer Time	N/A
4	Encourage installation of green infrastructure downstream along the Rocky Branch.	Begin immediately upon Plan adoption	City of Columbia and Richland County Stormwater Management and Rocky Branch Watershed Alliance	\$	Grants
4	Begin removal of choke points on Rocky Branch to reduce localized and overall risk of flooding, prioritizing downstream improvements moving upstream where feasible.	Begin immediately upon Plan adoption	City of Columbia and Richland County Stormwater Management and Rocky Branch Watershed Alliance	\$\$\$\$	City of Columbia, Richland County, and grant funding



# 3. RECOMMENDATIONS

Adopted December 5, 2017  
Ordinance No. 2017-094



## IMPLEMENTATION STRATEGIES SUMMARY

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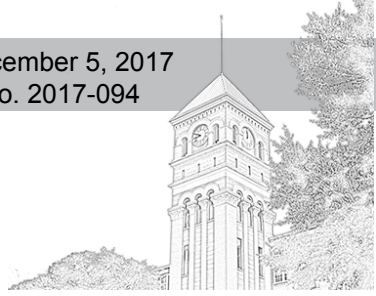
### SHORT TERM (1 TO 3 YEARS) PROJECTS + POLICIES IMPLEMENTATION SCHEDULE

BIG IDEA	PROJECTS AND POLICIES	TIME FRAME	RESPONSIBLE PARTY	ESTIMATED COST	POSSIBLE FUNDING SOURCES
3	Implement gateway signage (design and installation) as roadway projects are implemented, such as Bluff Road at Olympia Avenue, Whaley Street at Assembly Street, and Huger Street at Whaley Street.	Upon completion of branding strategy	Mill District organization (lead), with technical assistance from City of Columbia and Richland County Planning and Development staff and SCDOT	\$	TAP Grant, CMCOG grant funding
4	Begin incorporation of bioswales into existing boulevard islands such as Heyward Street, taking into account future planned streetscape improvements.	Begin immediately upon Plan adoption	City of Columbia and Richland County Stormwater Management, City of Columbia Public Works, SCDOT	\$\$\$ - \$\$\$\$\$	City of Columbia, Richland County, and grant funding
4	Require tree protection, planting programs and low impact development measures for projects above a certain scale (assess existing ordinances and policies for needed changes; develop and adopt revisions as necessary).	Begin immediately upon Plan adoption or incorporate within the code rewrite process(es) where applicable	City of Columbia and Richland County Planning and Stormwater Management staff, City of Columbia Forestry Division	Staff time	N/A
4	Encourage rainwater harvesting through existing City of Columbia and Richland County rain barrel programs.	Begin immediately upon Plan adoption	City of Columbia and Richland County Stormwater Management	\$	City of Columbia, Richland County, and grant funding
3	Implement Rocky Branch greenway improvements with Richland County Penny Program funding.	Ongoing (anticipated 2018-2020)	Richland County Transportation Penny Program	\$\$\$\$	Richland Co. Penny, SCPRT, TAP
3	Obtain necessary ROWs and easements, and continue trail and greenway connections between Olympia Park, Granby Park, and Pacific Park, south to the Jordan Memorial Boat Ramp and north to Blossom Street.	Begin immediately upon Plan adoption or concurrent with Rocky Branch Greenway planning where necessary	City of Columbia Parks and Recreation, Richland County Recreation Commission, Richland County Transportation Penny Program, and USC	\$ - \$\$\$\$\$ Varies (depends on size of project)	Richland County, City of Columbia, USC, SCPRT, TAP
1 + 4	Improve and promote Pacific Park as a well-connected, maintained, safe and beautiful Mill District amenity.	Complete by Spring 2019	City of Columbia Parks and Recreation	\$\$\$	City of Columbia/ SCPRT
2 + 3	Perform a comprehensive traffic study to evaluate and confirm the validity, feasibility and timing of the recommended strategies for improving traffic conditions.	Establish funding within 12 months of plan adoption; complete within 12-18 months of funding approval	City of Columbia and Richland County Planning staff, City of Columbia Public Works (Traffic Engineering and Streets Divisions), City of Columbia Utilities & Engineering, and Richland County Engineering	\$\$	City/County, COATS, CMCOG grant funding
3	Fund, design, and install Whaley Street buffered bike lanes.	Establish funding within 12 months of plan adoption; begin design and construction immediately upon funding availability	SCDOT, City of Columbia and Richland County Planning staff, City of Columbia Utilities & Engineering, City of Columbia Public Works, Richland County Transportation Penny Program	\$	Richland Co. Penny, Surface Transp. Block Grant Set-aside Program, TAP
1	Create a Capital Mill District history trail that can be accessed by walking, biking or driving or through technology.	By Spring 2019	Mill District organization, Olympia-Granby Mill Village Museum, and Historic Columbia Foundation	\$	Grant funding, Richland Co. Conservation Commission, Richland Co. Neighborhood Improvement Program
1 + 4	Improve and promote Olympia Park and connect with the proposed greenway and adjacent development.	Concurrent with greenway design and construction	Richland County Recreation Commission and Richland County Transportation Penny Program	\$\$\$\$	Richland Co. Recreation Commission, Richland Co. Transportation Penny Program, SCPRT
1	Provide adequate public safety facilities (including fire safety facilities) and resources to accommodate current and future growth.	2-3 years (continue collaborative efforts)	City of Columbia, Richland County, and USC emergency management agencies	\$\$\$\$	City of Columbia, Richland County, USC
4	Complete stream restoration as part of the Capital City Ballpark redevelopment.	Concurrent with property development	City of Columbia / Property Developer(s)	\$\$\$\$	Property developer, public/private partnerships, grant funding, City of Columbia



# 3. RECOMMENDATIONS

Adopted December 5, 2017  
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## IMPLEMENTATION STRATEGIES SUMMARY

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### MEDIUM TERM (3 TO 6 YEARS) PROJECTS + POLICIES IMPLEMENTATION SCHEDULE

BIG IDEA	PROJECTS AND POLICIES	TIME FRAME	RESPONSIBLE PARTY	ESTIMATED COST	POSSIBLE FUNDING SOURCES
1	Target the Mill District with programs and advertise existing programs in order to increase homeownership rates to 35% (exclusive of multi-family housing).	3 to 6 years	City of Columbia and Richland County Planning and Community Development staff, Mill District Organization	\$\$ - \$\$\$	Richland County and City of Columbia Community Development
2	Continue planning for the Assembly Street rail consolidation.	3 to 6 years	SCDOT, City of Columbia and Richland County	\$\$\$\$\$	SCDOT, FRA, City of Columbia, Richland County, TIF, grants
2	Study a COMET/USC transit partnership and possibly consolidate services in order to maximize ridership.	3 to 6 years	Comet and USC	\$\$	COMET, COATS, City of Columbia, Richland County, USC
4	Establish a green streets template to be applied throughout all Mill District neighborhoods.	3 to 6 years	City of Columbia and Richland County Planning, Engineering, and Public Works staff, SCDOT	Staff time	N/A
4	Adopt standards to require stormwater infiltration and rainwater harvesting in any new commercial, multi-family, or mixed-use project.	3 to 6 years	City of Columbia and Richland County Stormwater Management	Staff time	N/A
3	Begin Complete Streets Implementation at Olympia Avenue: start bike/ped network and connectivity improvements and street improvements.	3 to 6 years (upon completion of traffic study)	SCDOT, City of Columbia and Richland County Planning staff	\$\$\$\$	Surface Transportation Block Grant Set-aside Program, CMAQ, SCDOT
3	Implement sidewalk improvements along prioritized streets to improve walkability and connectivity.	3 to 6 years (upon completion of traffic study)	City of Columbia and Richland County Planning and Public Works staff; Richland County Transportation Penny Program and/or SCDOT where applicable	\$\$\$\$	Richland Co. Penny, Surface Transp. Block Grant Set-aside Program, City of Columbia, SCDOT, TAP, Richland County
3	Design and planning of Lincoln Street sidewalks and multi-use path.	3 to 6 years; Begin funding allocation, design, and implementation process within 9 months of traffic study completion	City of Columbia Planning, Public Works, and Engineering staff, Richland County Transportation Penny Program	\$\$	City of Columbia & Richland County
3	Build a new City park in coordination with the development of the Rocky Branch Greenway across from Dreyfus Road.	3 to 6 years	City of Columbia Parks and Recreation and Richland County Transportation Penny Program	\$\$ - \$\$\$	City of Columbia, SCPRT, grants
4	Continue incorporation of bioswales into existing boulevard islands such as Heyward Street, taking into account future planned streetscape improvements.	3 to 6 years (with streetscape improvements)	City of Columbia and Richland County Stormwater Management, City of Columbia Public Works, SCDOT	\$\$\$ - \$\$\$\$\$	City of Columbia, Richland County, and grant funding
2	Seek funding for Huger Street road diet and associated improvements.	3 to 6 years	City of Columbia and SCDOT	Staff time, \$\$\$\$\$ - \$\$\$\$\$\$	TAP, TIGER
3	Implement Assembly Street bike and pedestrian improvements.	3 to 6 years	Richland County Transportation Penny Program (lead), SCDOT, City of Columbia Planning, Engineering, and Public Works	\$\$\$\$\$	Richland Co. Penny, Surface Transp. Block Grant Set-aside Program, CMAQ
3	Heyward Street conversion and realignment to include bike, pedestrian, and on-street parking improvements.	3 to 6 years	SCDOT, City of Columbia Planning and Public Works, Richland County Transportation Penny Program	\$\$\$\$	City of Columbia & Richland County



# 3. RECOMMENDATIONS



## IMPLEMENTATION STRATEGIES SUMMARY

\$ = \$0 - \$100,000  
 \$\$ = \$100,000 - \$500,000  
 \$\$\$ = \$500,000 - \$1,000,000  
 \$\$\$\$ = \$1 - 5 Million  
 \$\$\$\$\$ = \$5 Million +

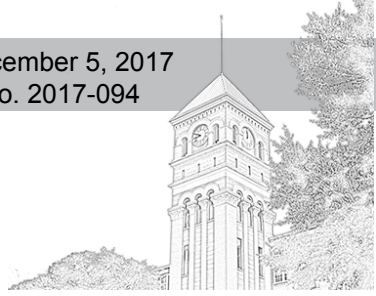
TAP - Transportation Alternatives Program  
 CMCOG - Central Midlands Council of Governments  
 SCPRT - South Carolina Department of Parks, Recreation & Tourism  
 SCDOT - South Carolina Department of Transportation  
 FRA - Federal Railroad Administration  
 CMAQ - Congestion Mitigation and Air Quality Improvement  
 COATS - Columbia Area Transportation Study  
 COMET - Central Midlands Transit  
 TIGER - Transportation Investment Generating Economic Recovery  
 TIF - Tax Increment Financing

### LONG TERM (6 OR MORE YEARS) PROJECTS + POLICIES IMPLEMENTATION SCHEDULE

BIG IDEA	PROJECTS AND POLICIES	TIME FRAME	RESPONSIBLE PARTY	ESTIMATED COST	POSSIBLE FUNDING SOURCES
4	Continue incorporation of bioswales into existing boulevard islands such as Heyward Street, taking into account future planned streetscape improvements.	6+ years, with streetscape improvements	City of Columbia and Richland County Stormwater Management, City of Columbia Public Works, SCDOT	\$\$\$ - \$\$\$\$\$	City of Columbia, Richland County, and grant funding
1	Continue to target the Mill District with programs and advertise existing programs and incentives in order to increase homeownership rates to 45-50% (exclusive of multi-family housing).	6+ years	City of Columbia and Richland County Planning and Community Development staff, Mill District organization	\$\$ - \$\$\$	City of Columbia and Richland County Community Development
2	Begin implementation of quiet zones based on NEPA process outcomes and the Assembly Street rail consolidation planning.	6+ years	SCDOT, City of Columbia and Richland County	\$\$\$\$ - \$\$\$\$\$	City of Columbia, Richland County, COATS, SCDOT, Railroad Safety Infrastructure Improvement Grant Program, Operation Lifesaver
2	Implement additional road/rail intersection signalization.	6+ years	SCDOT, City of Columbia and Richland County	\$\$	City of Columbia, Richland County, COATS, SCDOT, FRA
3	Continue Complete Streets implementation throughout the Mill District.	6+ years	City of Columbia and Richland County Planning, Engineering, and Public Works staff, SCDOT and/or Richland County Transportation Penny Program where applicable	\$\$\$\$	Richland Co. Penny, Surface Transp. Block Grant Set-aside Program, CMAQ
2	Huger Street improvements:	6+ years	SCDOT, City of Columbia and Richland County	\$\$\$\$\$	Surface Transp. Block Grant Set-aside Program, SCDOT, Richland County, City of Columbia, grant funding
	<ul style="list-style-type: none"> <li>Implementation of preferred Huger Street crossing alternative (flyover alternative or underpass).</li> <li>Reconfiguration of Huger Street and Blossom Street intersection.</li> <li>Based on the traffic study findings, implement the Huger Street road diet and at-grade rail crossing improvements (safety).</li> </ul>				
3	Build a new City park at Tryon Street and Whaley Street.	6+ years, concurrent with Huger Street improvements	City of Columbia Parks and Recreation	\$\$ - \$\$\$	City of Columbia, SCPRT, grant funding
4	Complete stream restoration along entire length of Rocky Branch down to Congaree River.	10+ years	City of Columbia and Richland County Stormwater Management and Rocky Branch Watershed Alliance	\$\$\$\$\$	City of Columbia, Richland County, grant funding
2	Complete the Assembly Street rail consolidation.	10+ years	SCDOT, City of Columbia and Richland County Planning staff, CSX and Norfolk Southern	\$\$\$\$\$	City of Columbia, Richland County, COATS, SCDOT, SC Transportation Infrastructure Bank
3	Plan for and encourage private redevelopment of the abandoned rail lines through public investments as the Assembly Street rail consolidation is completed.	10+ years; Concurrent with and upon completion of rail consolidation	City of Columbia and Richland County, Columbia Development Corporation, Mill District organization	\$\$ - \$\$\$	City of Columbia, Richland County, grant funding, public/private partnerships, Columbia Development Corporation and Mill District organization



# 3. RECOMMENDATIONS



## IMPLEMENTATION

### CATALYST PROJECTS

\$ = \$0 - \$100,000  
 \$\$ = \$100,000 - \$500,000  
 \$\$\$ = \$500,000 - \$1,000,000

\$\$\$\$ = \$1 - 5 Million  
 \$\$\$\$ = \$5 Million +

TAP - Transportation Alternatives Program  
 CMCOG - Central Midlands Council of Governments  
 SCPRT - South Carolina Department of Parks, Recreation & Tourism  
 SCDOT - South Carolina Department of Transportation  
 FRA - Federal Railroad Administration

CMAQ - Congestion Mitigation and Air Quality Improvement  
 COATS - Columbia Area Transportation Study  
 COMET - Central Midlands Transit  
 TIGER - Transportation Investment Generating Economic Recovery  
 TIF - Tax Increment Financing

The *Capital City Mill District Area and Corridor Plan* is a roadmap for the implementation of policies and projects that will preserve the Mill District and re-establish it as a vibrant place to live and as a prosperous contributor to the local economy. Upon adoption of this plan by the City of Columbia and Richland County, there are nine recommended catalyst projects and policies that will provide the structure for long-term success of the Plan implementation and establish the necessary foundation for future projects and capital investments by the City and County.

Two of the projects, full participation in the NEPA process and the detailed traffic study, will provide the data, detailed analysis and understanding of resources needed to objectively prioritize and fund short and long-term infrastructure projects, such as the Assembly Street rail line consolidation

and the Huger Street road diet. In addition, the traffic study can establish benchmarks for and influence the scope and schedule of future projects. Engagement in the NEPA process should begin immediately.

These are big strategies, however they are necessary to establish the collaborative framework for achieving the vision and will serve as the foundation for transforming the Mill District into the community that residents and stakeholders desire.

*As architect Sambo Mockbee (1944- 2001) frequently challenged his students, "Proceed and be bold."*

This is a time for bold work: consolidate rail lines; harness transportation and development so that it works for the Mill District and becomes a part

of the authentic placemaking; and institute a creative union between the City of Columbia and Richland County that will serve as the shepherd and steward for the spirit and prosperity of this community. When these bold moves are made, the remaining recommendations will fall in line and the Mill District will continue to progress into a most desirable and livable community.

#### UPDATING THE PLAN

The *Capital City Mill District Area and Corridor Plan* should be reviewed regularly and updated as needed.

### CATALYST PROJECTS + POLICIES IMPLEMENTATION SCHEDULE

BIG IDEA	CATALYST PROJECTS AND POLICIES	TIME FRAME	RESPONSIBLE PARTY	COST	POSSIBLE FUNDING SOURCES
1	Develop and adopt a formal agreement for an equitable regulatory framework and collaborative decision making between the City and the County.	Complete within 12 months of Plan adoption	City of Columbia and Richland County	Staff Time	N/A
2	Begin the management of trains, transportation, and traffic by participating in the Assembly Street rail consolidation NEPA process.	Upon start of the NEPA process to potentially begin in Fall 2017	Mill District organization (lead), Community members, City of Columbia and Richland County Planning staff	Staff Time	N/A
1, 3 + 4	Partner with Vulcan Materials to create community green spaces on existing lots owned by Vulcan.	Begin immediately upon Plan adoption	Mill District organization and Vulcan Materials	\$	Grants & private partners
2	Begin coordination with rail operations to mitigate back-ups and blockages (Cayce railyard).	Begin immediately upon Plan adoption	City of Columbia, Richland County, and CSX	Staff Time	N/A
1	Develop a Mill District brand identity that reflects the community spirit and vision to be incorporated on gateways, signage and promotional collateral, recruitment, economic development efforts and social media.	Complete within 9 months of Plan adoption	Mill District organization (lead), City of Columbia and Richland County Planning staff	\$	Grants & private partners
4	Begin removal of choke points on Rocky Branch to reduce localized and overall risk of flooding, prioritizing downstream improvements moving upstream where feasible.	Begin immediately upon Plan adoption	City of Columbia and Richland County Stormwater Management and Rocky Branch Watershed Alliance	\$\$\$\$	City of Columbia, Richland County, and grant funding
3	Obtain necessary ROWs and easements, and continue trail and greenway connections between Olympia Park, Granby Park, and Pacific Park, south to the Jordan Memorial Boat Ramp and north to Blossom Street.	Begin immediately upon Plan adoption or concurrent with Rocky Branch Greenway planning where necessary	City of Columbia Parks and Recreation, Richland County Recreation Commission, Richland County Transportation Penny Program, and USC	\$ - \$\$\$\$-Varies (depends on size of project)	Richland County, City of Columbia, USC, SCPRT, TAP
1 + 4	Improve and promote Pacific Park as a well-connected, maintained, safe and beautiful Mill District amenity.	Complete by Spring 2019	City of Columbia Parks and Recreation	\$\$\$	City of Columbia/ SCPRT
2 + 3	Perform a comprehensive traffic study to evaluate and confirm the validity, feasibility and timing of the recommended strategies for improving traffic conditions.	Establish funding within 12 months of plan adoption; complete within 12-18 months of funding approval	City of Columbia and Richland County Planning staff, City of Columbia Public Works (Traffic Engineering and Streets Divisions), City of Columbia Utilities & Engineering, and Richland County Engineering	\$\$	City/County, COATS, CMCOG grant funding
1	Provide adequate public safety facilities (including fire safety facilities) and resources to accommodate current and future growth.	2-3 years (continue collaborative efforts)	City of Columbia, Richland County, and USC emergency management agencies	\$\$\$\$	City of Columbia, Richland County, USC
3	Begin Complete Streets Implementation at Olympia Avenue: start bike/ped network and connectivity improvements and street improvements.	3 to 6 years (upon completion of traffic study)	SCDOT, City of Columbia and Richland County Planning staff	\$\$\$\$	Surface Transportation Block Grant Set-aside Program, CMAQ, SCDOT





## IMPLEMENTATION

### POTENTIAL INCENTIVES AND FINANCING TOOLS

There are a handful of tax credits, grants and incentives that are managed at the local, state and federal level that may be applied to the Capital City Mill District. The following section includes an overview of the programs and additional recommendations on their applicability within the Mill District.

- ◆ Commercial Revolving Loan Refund (RLF)
- ◆ Façade Improvement Program
- ◆ Tax Increment Financing
- ◆ New Market Tax Credits
- ◆ Historic Tax Credits
  - ◆ 20% Federal Credit
  - ◆ 10% Federal Credit
  - ◆ 25% State Homeowners Credit
- ◆ South Carolina Abandoned Buildings Revitalization Tax Credit
- ◆ South Carolina Textile Communities Revitalization Act
- ◆ The Bailey Bill
- ◆ Richland County Homeownership Assistance Program
- ◆ Richland County Historic Preservation Grants
- ◆ Richland County Community Conservation Grants
- ◆ Richland County Homeownership Rehabilitation Program
- ◆ Richland County Neighborhood Matching Grant
- ◆ City of Columbia Housing Loan Programs

#### COMMERCIAL REVOLVING LOAN FUND (RLF)

During the public meetings and stakeholder engagement process, members of the public expressed desire for more neighborhood amenities and retailers, specifically for locally owned businesses that create fun destinations for grabbing a coffee or lunch, and provide vital neighborhood resources.

The City of Columbia currently has an Office of Business Opportunities (OBO) that offers a Commercial Loan Program directed at small businesses such as the ones desired by the neighborhood. The funding program is able to lend up to \$200,000 for building construction or rehabilitation, business conversion or expansion, purchase of real estate, machinery, equipment, supplies or materials, and working capital. Typically, these City loans are used as a second position behind traditional bank financing.

The plan recommends engaging the OBO and local elected leadership to propose that the loan program set aside a certain amount of funds, or prioritize funds, for uses in the Capital City Mill District that promote the startup of businesses desired by the neighborhood.

#### FAÇADE IMPROVEMENT PROGRAM (AS FUNDS ARE AVAILABLE)

The Façade Improvement Program is only available to targeted corridors within the City limits of Columbia. These corridors are determined annually based upon Neighborhood Redevelopment Service Areas assigned by the City's Department of Community Development. This highly successful OBO program offers commercial property and/or business owner (tenants) forgivable, matching loans, amortized over a set number of years, as long as the property remains in compliance with the program agreement for maintenance and ownership. Loans are an 80/20 match, with the City paying 80% and the applicant paying 20%, of the total project cost. The maximum loan funding structure is set each program year based on the priority needs of each commercial district. Historically, the program has provided maximum awards of up to \$20,000/per property for façade improvements. Also, the program has typically offered grants to property owners in target areas when project costs are less than \$2,000, and monitored for a period of one year.

Eligible exterior facade improvements are generally, replacement/repair/ or new windows, doors, paint, lighting, signage, fencing, masonry, carpentry, awnings, tree plantings, security camera installation, and iron bar or redundant metal pole removal and disposal.

#### TAX INCREMENT FINANCING

Tax Increment Financing, or TIF, is a tool commonly used by municipalities to finance public infrastructure and catalyze development in urban redevelopment zones. In generalized terms, a TIF utilizes increased tax base resulting from growing property values and investments to pay for infrastructure that benefits the public. A municipality will issue bonds to pay for the public infrastructure and the increased taxes - or "increment" - is used to pay the debt service of the bonds. TIFs are permissible under South Carolina State Law and carried out at the local level. Local governments set the TIF district boundaries and offer a description of the general infrastructure items that may be funded.

#### TIF History in Columbia

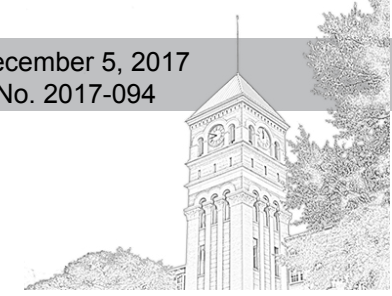
Since local taxes are used to fund the school districts and other public agencies, all such stakeholders must be willing to defer receiving the tax increment over the term of the bond repayment. Therefore, TIFs must now clear several layers of public authorization and approval processes, which require a strong and targeted development plan that can garner broad support. The most recent attempts at creating TIF districts in the City have been for limited and specifically identified projects.

#### TIF in the Mill District

The utilization of a limited and targeted TIF may be most useful along the Assembly Street corridor. However, USC owns a good portion of property along the corridor and is tax exempt. This may impact the level of increased taxes. These projects need upgraded infrastructure and streetscape improvements to create the urban realm (Assembly Street Railroad Corridor Consolidation Project, 2009).

Further, a TIF could specifically be utilized to help fund the relocation and consolidation of the Assembly Street rail lines (Assembly Street Railroad Corridor Consolidation Project, 2009). The rail consolidation would result in increased property values and possibly could move properties that are not currently on the tax roll into revenue generating properties.





## IMPLEMENTATION

### POTENTIAL INCENTIVES AND FINANCING TOOLS

#### NEW MARKET TAX CREDITS

New Market Tax Credits (NMTC) are a competitive and complicated incentive program that may be available to larger developments with sophisticated developers and owners. Generally, a project may compete nationally for a finite pool of NMTCs if the project is mainly commercial in nature and can demonstrably show that it will generate jobs or services in a distressed census tract. NMTC projects tend to be at least \$6M in total project size due to the complexity of the financing. If successful, a NMTC structure can provide 18% - 22% of the total project cost in the form of a loan that is forgivable after seven years.

#### APPLICATION TO CAPITAL CITY MILL DISTRICT

NMTCs may be a potential financing tool for larger commercial and mixed-used projects. The Mill District is in a qualifying NMTC census tract as shown in **Figure 93** based on the 2010 Census. Employment Campus and Community Activity Corridor are better suited for NMTC program. The program is especially focused on job creation, job training and community benefit, so it would be ideal for a catalyst project that promotes the innovation economy.

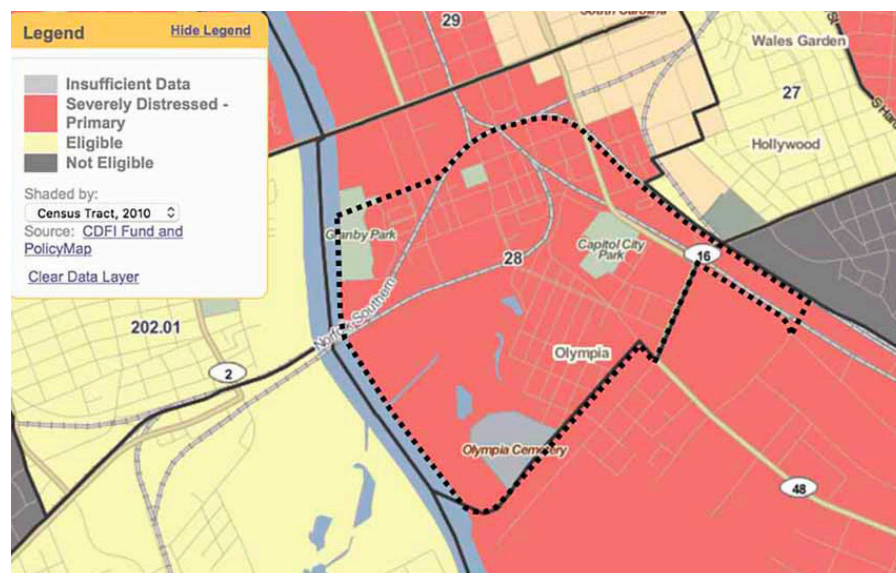


Figure 93: New Market Tax Credits Program Eligibility and Severely Distressed Status for CY 2015 (Novogradic, 2017)

#### HISTORIC TAX CREDITS: 20% FEDERAL CREDIT AND 10% STATE CREDIT FOR INCOME PRODUCING PROPERTIES

Historic tax credits provide a powerful incentive for the rehabilitation of historic buildings. In South Carolina, in addition to the 20% federal credit, there is a 10% state tax credit. These credits are calculated based on the value of qualified rehabilitation expenses (QRE) of a project. QREs do not include the property acquisition cost. In order to qualify for historic tax credits, a property must be listed on the National Register of Historic Places. This program is geared specifically towards income-producing, or commercial, projects. For residential homeowners, a separate 25% state credit program is available (see subsequent section in this document).

#### APPLICATION TO CAPITAL CITY MILL DISTRICT

Historic tax credits are available for qualifying buildings within the Mill District. The developers of the Granby and Olympia Mills and 701 Whaley utilized tax credits to offset costs associated with their historic rehabilitations. The use of Federal Historic Tax Credits will be most applicable to the remaining historic commercial buildings (Palmetto Cotton Mill, Capital City Mill, Olympia Union Hall) since they are the only ones available for commercial projects. Olympia Union Hall was recently listed on the National Register of Historic Places.

#### 25% STATE HISTORIC HOMEOWNERS CREDIT

This tax credit is available to homeowners who rehabilitate a home listed on the National Register or determined by the State Historic Preservation Office (SHPO) to be eligible for listing. To qualify for the credit, the homeowner must own and live in a portion of the building being rehabilitated. Further, the homeowner must seek approval from SHPO that the work will follow the Secretary of the Interior's Standards for Rehabilitation.

#### APPLICATION TO CAPITAL CITY MILL DISTRICT

The 25% state tax credit for owners of historic homes is an ideal tool for preserving historic homes in the Mill District and promoting homeownership, a key goal for stakeholders. The Granby neighborhood is listed on the National Register of Historic Places, which potentially makes contributing structures within the National Register District eligible for the credit.

#### 10% FEDERAL CREDIT

There is a lesser known Federal credit for older buildings that are not listed on the National Register of Historic Places. This credit is available for buildings built before 1936. There is no formal review process, but owners must preserve 50% of the building's external walls as existing walls. At least 75% of the external walls must be preserved as either internal or external walls and at least 75% of the internal structure must be preserved to qualify. The owner may take 10% of the total qualifying rehabilitation costs as a tax credit. In order to be eligible for this credit, the building must be rehabilitated for commercial use.

#### APPLICATION TO CAPITAL CITY MILL DISTRICT

This credit may be particularly applicable to small rehabilitation projects for neighborhood retail and office spaces. The credit is relatively easy to plan for and use making it an attractive incentive for a small business owner.

#### SOUTH CAROLINA ABANDONED BUILDINGS REVITALIZATION TAX ACT

The Abandoned Building Revitalization Act, which sunsets in 2019, is geared towards incentivizing the reuse and rehabilitation of existing, commercial vacant buildings. Qualifying buildings do not have to be historically significant, but must be at least 66% vacant for the previous 5 year period. The incentive benefits owners by providing a tax credit equal to 25% of the total amount invested.

This program is relatively easy to use and is applicable to any commercial project that involves the reuse of a vacant building. It allows for a tax credit which may be used to benefit a small business owner or developer reusing a vacant commercial building, inclusive of the large historic mill buildings remaining in the Mill District.





## IMPLEMENTATION

### POTENTIAL INCENTIVES AND FINANCING TOOLS

#### SOUTH CAROLINA TEXTILE COMMUNITIES REVITALIZATION ACT (MILL CREDIT)

The mill credit provides a tax credit in the amount of 25% of the total qualifying rehabilitation expenses for the redevelopment of former textile mills. This is a powerful tool for redevelopment and was successfully used to help finance the Granby and Olympia Mill buildings. Mill buildings do not have to be historically designated to qualify for the Mill Credit. However, for qualifying buildings, historic tax credits can be used in conjunction with the mill credits.

##### APPLICATION TO CAPITAL CITY MILL DISTRICT

The mill credit is a very specific credit that would have a limited ability for implementation in the CCMD. Also, the specific uses within the mill must meet the requirements set forth in the statute. The Palmetto Cotton Mill and the Capital City Mill—both in the Assembly Street corridor—are the only mills that appear not to have been renovated. Due to the complexity of reusing a former mill building, there are a limited number of developers and owners who are involved in this type of work.

#### THE BAILEY BILL

The Bailey Bill is a state law passed by the SC legislature in 1992 that allows local governments to grant special tax assessments to rehabilitated historic properties. The Bailey Bill allows the local tax authority to assess property on the pre-rehabilitation fair market value for twenty years. This means the owner of a historic structure continues to pay property tax based on the pre-rehabilitation value of the property, but does not pay tax for 20 years on any increase in value due to renovations. The City of Columbia and Richland County have both adopted ordinances to administer the Bailey Bill locally that allow historic buildings to be assessed at their pre-rehabilitation values for 20 years, granted at least 20% of the building's value is expended on eligible renovations. Depending on where the property is located, interested property owners should contact the City of Columbia's Planning Division or the Richland County Conservation Office prior to beginning work in order to learn whether they may benefit from this abatement program.

#### RICHLAND COUNTY HOMEOWNERSHIP ASSISTANCE PROGRAM

The goal of the Richland County Homeownership Assistance Program (RCHAP) is to provide down payment and closing cost assistance to make homeownership possible in unincorporated Richland County. To receive an application of assistance, an individual or family must attend an orientation.

##### APPLICATION TO CAPITAL CITY MILL DISTRICT

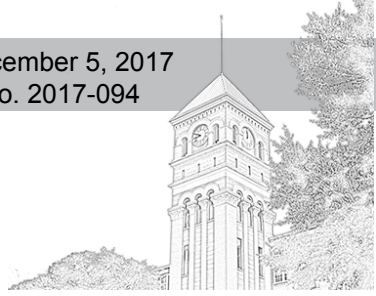
Richland County Community Development, RCHAP program's priority is to make homeownership opportunities available to low-to moderate income households. The assistance is given in the form of forgivable loans of up to \$10,000 to be applied to down-payment and/or closing costs for the purchase of single-family dwelling. In order to qualify applicants must meet the following criteria:

- Must be a resident of South Carolina
- Must be qualified as a household of low to moderate income (per HUD income limits)
- Cannot have a contract on a house until after completing program requirements

Eligible properties must be a single-family detached dwelling located in the unincorporated area of Richland County, must be built after 1978, and each property must be able to pass a rigorous inspection that will guarantee the home is livable, safe and does not require immediate repair.

\*Continued on following page





## RICHLAND COUNTY HISTORIC PRESERVATION GRANTS

The Richland County Conservation Commission Historic Preservation Grant Program helps non-profit organizations, governmental agencies, institutions, and commercial entities preserve and protect historic buildings in Richland County. Historic Preservation Grants are available up to \$50,000 and may be used for preservation/restoration costs, consultant fees, or educational programs. A match of 20% is required. All projects must demonstrate a clear public benefit.

To be eligible to receive Historic Preservation Grant funding, a building or site must first be determined to be historically significant. The application must be submitted to, and approved by, the Richland County Conservation Commission before a grant application can be considered.

## RICHLAND COUNTY COMMUNITY CONSERVATION GRANTS

The Richland County Conservation Commission provides a Community Conservation grant program for neighborhood groups, organizations, and agencies to protect natural resources, improve water quality, and enhance active living through trails. Innovative solutions such as low impact development or green infrastructure activities are eligible as are educational programs that promote conservation and environmental awareness in Richland County.

Grants are available up to \$20,000 and require a 20% in-kind and cash match. All projects must demonstrate a clear public benefit. Funding is determined through an application and selection process.

## RICHLAND COUNTY HOMEOWNERSHIP REHABILITATION PROGRAM

Richland County Community Development assists lower income homeowners through the rehabilitation of their existing homes for the purpose of meeting County code and addressing current and potential health and safety items.

Participants must be qualified as a household of low to moderate income (Richland County must use HUD's income limits which defines low to moderate income as 80% of the area median income with adjustments for household size). Annual income is subject to verification using the Part 5 Annual Income definition. The home must be their primary place of residence for at least one year. Property must be located in an unincorporated area of Richland County. Funding is determined by applicant's eligibility and program requirements.

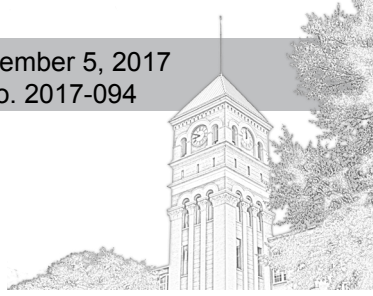
## RICHLAND COUNTY NEIGHBORHOOD MATCHING GRANT

The Neighborhood Improvement Program annually awards grant funding to neighborhood-based organizations for projects that physically improve or organizationally strengthen their community. Public safety, education, and recreational initiatives are eligible grant projects that are typically arranged as neighborhood entrance signs, community flyers and community festivals. Any neighborhood-based organization located in Richland County may apply if they meet eligibility guidelines. Awarded grant funds must be matched with contributions of volunteer time, cash, or in-kind donations of professional services that are at least equal to the total amount of funds requested. Funding is determined through an application and selection process.

## CITY OF COLUMBIA HOUSING LOAN PROGRAMS

To further encourage homeownership, the City's Housing Department restructured existing programs and created new ones resulting in six categories of housing options for purchase, purchase/rehabilitation, new construction, and home improvements within the municipal limits. Programs can be used to provide downpayment assistance for eligible buyers through low-interest loans. Loans are available for targeted areas as well as for targeted income brackets. In targeted areas, funds for rehabilitation may be available. Interested parties should contact the City of Columbia Community Development Department for information about current and ongoing programs.





## APPENDICES

### PUBLIC INPUT SUMMARY

APRIL 15, 2017 | OLYMPIA FEST SURVEY

APRIL 26-28, 2017 | CAPITAL CITY MILL DISTRICT PLANNING KICK-OFF

JUNE 29, 2016 | VISUAL PREFERENCE SURVEY

OCTOBER 5, 2016 | PUBLIC MEETING

NOVEMBER 30, 2016 | PUBLIC MEETING

JANUARY 11, 2017 | WHALEY NEIGHBORHOOD MEETING

SPRING 2017 | PAC MEETINGS

AUGUST 17, 2017 | PUBLIC PRESENTATION

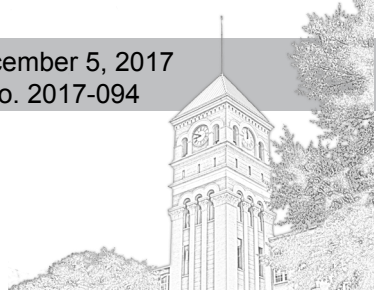
DEVELOPMENT TYPES / BUILDING TYPES MATRIX FOR UCMR-3

GLOSSARY OF TERMS

TABLE OF FIGURES

REFERENCES





## PUBLIC INPUT SUMMARY

### APRIL 15, 2016 | OLYMPIA FEST SURVEY

Members of the planning team hosted a tent during Olympia Fest in order to introduce the project to the community and to conduct a brief survey of those attending the festival. The passion for the community was evident, and those visiting for the first time were very intrigued about the Mill District's history. There was wide-spread excitement for future possibilities.

Surveys taken at Olympia Fest asked **102 respondents** a series of questions on the following pages. For the purposes of this data summary, respondents were broken into three categories based upon their answer to the first question, which stipulated their relationship to the Mill District. Respondents were categorized by whether they were **first time visitors, frequent visitors or residents**. Each group received the same survey and same set of questions.

Responses from **27 First Time Visitors** are as follows:

#### HOW FREQUENTLY DO YOU VISIT THE CAPITAL MILL DISTRICT?

	RESPONSE
27	Once a year for the festival
0	A few times a year
0	A few times a month
0	A few times a week
0	I live there

#### GREATEST ASSET IN THE MILL DISTRICT?

	RESPONSE
2	The historic aspect
1	Reconstruction simply beautiful
1	Mill building
1	Store
3	Park
1	701 Whaley
2	Quarry Crusher Run
1	Festivals
1	Quaint atmosphere
1	Traffic bypass from Assembly Street
1	Rock Quarry
1	Art gallery

#### WHERE IS THE CENTER OF THE MILL DISTRICT?

	RESPONSE
1	Park
3	Mills Apartments
2	701 Whaley
1	Where the USC apartments are
1	Beginning of quarry
2	Mills
1	Granby Mills

#### GREATEST CHALLENGE TO LIVING, WORKING OR VISITING THE MILL DISTRICT?

	RESPONSE
8	Traffic
3	Parking
3	Trains/Railroads
1	Old historic sites
1	Parking for guests
1	Location, no focus/attractions

#### ARE THERE ANY ROADWAYS YOU TRY TO AVOID DUE TO TRAFFIC OR CONGESTION?

	RESPONSE
3	Olympia Avenue/Wayne Street
8	Assembly Street
2	Whaley Street
2	Bluff Road
7	Huger Street
1	Rosewood Avenue
2	Heyward Street
9	Railroad tracks
0	Shop Road
0	None

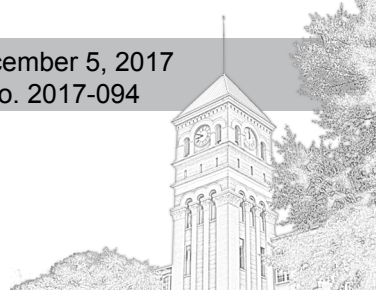
#### WHAT DO YOU WANT TO DO IN THE MILL DISTRICT?

	RESPONSE
1	More parking
1	More concerts
2	Restaurants
1	Outdoor dining
1	Grocery store
1	More bars
1	Music venues
1	More venues like 701
1	More parks
1	Alternative route to make game day more successful
1	Better parking
1	More accommodating to guests
1	More festivals
1	Be an arts district on a select day each week

#### OTHER COMMENTS:

	RESPONSE
1	Just moved to Columbia, enjoyed the festival





## PUBLIC INPUT SUMMARY

### APRIL 15, 2016 | OLYMPIA FEST SURVEY

Responses from **38 Frequent Visitors** are as follows:

#### HOW FREQUENTLY DO YOU VISIT THE CAPITAL MILL DISTRICT?

	RESPONSE
24	Once a year for the festival
10	A few times a year
4	A few times a month
0	A few times a week
0	I live there

#### WHERE IS THE CENTER OF THE MILL DISTRICT?

	RESPONSE
1	Wayne Street
7	Olympia Mill
2	Jaco's Corner
8	Whaley Street
5	The mill
1	701
1	Granby Mill
1	Kentucky Street
1	Tailgating

#### GREATEST CHALLENGE TO LIVING, WORKING OR VISITING THE MILL DISTRICT?

	RESPONSE
10	Traffic
5	Parking
1	Mixture of college students with residents
1	Dog ownership
5	Trains
1	No grocery store
1	No turn on red lights
1	Pedestrian safety
1	Quarry

#### GREATEST ASSET IN THE MILL DISTRICT?

	RESPONSE
1	My Church
3	Vulcan Quarry
1	The Quarry Run
1	Schools
1	Olympia Park
2	The community
1	Williams Brice
1	History alive
6	701 Whaley
1	It's local
1	The people
1	White Duck taco
1	Community tries their best to involve all aspects of community
6	Old buildings, history
1	Cool vibe
1	Pod
2	Diversity
1	Baseball Stadium
1	Olympia Pool
2	Mills
1	Museum
1	Affordable Housing
1	Southside Baptist
1	Location
2	Walkability
1	Near stadium
1	Restaurants

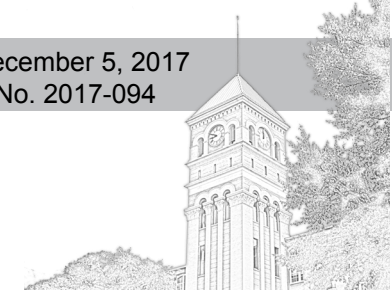
#### ARE THERE ANY ROADWAYS YOU TRY TO AVOID DUE TO TRAFFIC OR CONGESTION?

	RESPONSE
8	Olympia Avenue/Wayne Street
8	Assembly Street
7	Whaley Street
1	Bluff Road
5	Huger Street
1	Rosewood Avenue
1	Heyward Street
19	Railroad tracks
0	Shop Road
0	None

#### WHAT DO YOU WANT TO DO IN THE MILL DISTRICT?

	RESPONSE
1	More family events
2	Restaurants
1	Tonight we wish for dessert
1	More dining
1	More homes
1	More unique eateries
1	More art
1	More parking
1	Bars
1	Mixed-use residential (walkable to restaurants)
1	Better guest parking
2	Chick-Fil-A
1	Dave & Busters
1	A way around game day traffic
1	Pedestrian friendly community
1	Old buildings
1	Finish 701
1	A pool and a gym
1	More events
1	Intact neighborhood
1	A grocery store





## PUBLIC INPUT SUMMARY

### APRIL 15, 2016 | OLYMPIA FEST SURVEY

Responses from **37 Residents** are as follows:

#### HOW FREQUENTLY DO YOU VISIT THE CAPITAL MILL DISTRICT?

	RESPONSE
0	Once a year for the festival
0	A few times a year
0	A few times a month
1	A few times a week
36	I live there

#### GREATEST ASSET IN THE MILL DISTRICT?

	RESPONSE
9	Its people
10	Proximity to USC/city
2	History
5	Landscape/character
1	Richard Burts
1	New development
3	Vulcan
1	None
2	the "District" vibe, different

#### WHERE IS THE CENTER OF THE MILL DISTRICT?

	RESPONSE
5	701 Whaley Street
13	Olympia Mills/Mills
1	Heyward & Whaley Street
2	Heyward & Wayne
1	The Shiv Market
1	The Vista
4	Wayne & Whaley
1	Assembly
1	612 Whaley Street

#### GREATEST CHALLENGE TO LIVING, WORKING OR VISITING THE MILL DISTRICT?

	RESPONSE
14	Traffic
2	Transportation, Roads (potholes)
8	Trains
1	Noise, Speeding
1	None
1	Non-resident ownership
6	Football games
1	Lack of pedestrian pathways
2	Frats/Frat "boys" (parties)
2	Jurisdiction/enforcement
1	One way streets
1	No police
3	Limited parking

#### ARE THERE ANY ROADWAYS YOU TRY TO AVOID DUE TO TRAFFIC OR CONGESTION?

	RESPONSE
5	Olympia Avenue/Wayne Street
6	Assembly Street
7	Whaley Street
4	Bluff Road
7	Huger Street
2	Rosewood Avenue
1	Heyward Street
16	Railroad tracks
1	Shop Road
1	None

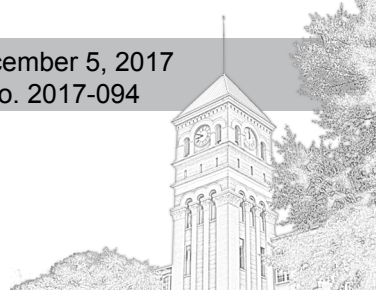
#### WHAT DO YOU WANT TO DO IN THE MILL DISTRICT?

	RESPONSE
2	We need sidewalks along the avenue
1	A better shopping district
7	More restaurants
1	More living places for students
1	Better, more modes of transportation
1	Contemporary infrastructure
1	Preservation of history
6	More home ownership, less rent
4	Clean up properties
5	More, complete development
2	Finish the Olympia park
1	More concerts
1	Parks
2	More parking
1	More enforcement, rules

#### OTHER COMMENTS:

	RESPONSE
	Don't change the look/function of Olympia Avenue
	Too many "slum lords"-USC needs to address
	Game day traffic needs better oversight/planning
	Need a committee to take charge of jurisdiction/home code enforcement
	Needs equal development of working class areas as opposed to the wants of USC and HOA
	Need an established community association
	An alternative route to avoid Assembly Street traffic/trains
	Keep the area beautiful; don't change character
	Need a train trestle over Huger Street
	Need police, other support services
	More benches
	Pedestrian connectivity throughout the district





## PUBLIC INPUT SUMMARY

### APRIL 27-28, 2016 | CAPITAL CITY MILL DISTRICT PLANNING KICK-OFF

The planning process kicked-off on April 26-28, 2016 with a series of public meetings and focus groups with community stakeholders. The ideas, concerns, and discussions from these meetings formed the foundation for the vision and the recommendations of this plan. Each participant brought a unique perspective that was important to understanding the Mill District and to seeing the potential.

#### PAC WORKSHOP | APRIL 26, 2016

Prior to the public meetings and focus groups, the PAC and the planning team toured the entire Mill District by bus and on foot in order to experience the places, challenges and potential through the perspective of those who live and work in the Mill District. Following the tour, the group participated in a workshop to begin to define the challenges and to lay the issues on the table for further exploration. A summary of the key issues from the PAC follows below.

#### HISTORIC RESOURCES

- ◆ Need to understand what resources are available through the Historic Columbia Foundation (HCF) to incorporate cultural and historical, exterior wayside signage into the District. This will add “soul” to the community.
- ◆ The HCF is developing a historic walking tour for Columbia, but Olympia, Whaley and Granby are not included. They potentially could be added. HCF can be a resource for the Mill Museum.
- ◆ The Olympia inventory of historic structures has remained mostly stable with more change in certain areas than in others. This makes it hard to comply with requirements to make this a contributing community. Perhaps there are certain structures that could meet the requirements, such as Shotgun, L shape and two-up two-down styles.

#### DEVELOPMENT

- ◆ Going forward all commercial or multi-family development should be mixed use.
- ◆ Currently the unincorporated area of Richland County is assigned a future land use of high-density residential. This needs to be re-visited going forward for better planning, design and enforcement on whether development is multi-family or low-density. The Mill District cannot continue to lose single-family homes to commercial development and or student housing.
- ◆ Need more owner occupied homes. There are various block grants or other programs that could spark interest (i.e. tax incentives for rehabilitation, preservation etc.).
- ◆ WHAT IS MISSING? Variety of dining options, coffee shops, laundromat, movie theatre; pedestrian walkways and greenways; setback enforcement

#### THE FLYOVER

- ◆ The most destructive thing that could happen to the area is a high-way (flyover) that divides the community.
- ◆ What are the options of flyover directing traffic over to Catawba?

#### TRAFFIC CHALLENGES

- ◆ A lot of the current problems are solvable by alternative transportation modes and routes; signalized intersections, and enforcement.
- ◆ Big concerns regarding EMS reaction time, especially during games. Having shuttles would be a great thing because shutting down the avenues for hours at a time is dangerous and results in access issues.
- ◆ Case studies to look at for good models of University districts are GA and FSU; USC/Comet need much more coordination and work together

#### THE TRAINS

- ◆ Need to avoid barriers of train crossovers to avoid further traffic issues.
- ◆ Could we relocate the railroads and use the existing location as a ROW?
- ◆ There has to be a way to stop the railroad standstill across major arteries. There are just too many unsignalized intersections.
- ◆ Railroads and poorly managed traffic are having a very negative impact and killing the vitality of the neighborhoods. These are major impediments to future growth and improvement.

#### ALTERNATIVE TRANSPORTATION

- ◆ Vision: Connectivity – the Mill District should be the most walkable and connected community, which will be possible through greenways. Non-vehicular connectivity is needed where it is sensible and connects assets.
- ◆ It will be very important to look at all the various ways to move traffic: re-routing, railroad consolidation, traffic signal timing, etc.

- ◆ Are we on the cusp of a major culture shift away from cars? Do we being to require permits for a single car or space or single lot in order to entice people to use public and University alternative modes of transportation?
- ◆ Huger Street needs sidewalks.

#### MILL DISTRICT GOVERNANCE

- ◆ Tree preservation and a tree inventory are critical to the creation and maintenance of greenspaces and the watershed.
- ◆ There needs to be much more enforcement of codes and regulations that address property maintenance and behavior, particularly on game days with massive amounts of people who descend on the Mill District; however, there is a lack of County personnel to enforce. Is annexation the answer? Property owners need to be held liable for infractions.
- ◆ The Mill District is an urbanized area with a split jurisdiction between the City of Columbia and Richland County. Clear, uniform district guidelines and a clear understanding of zoning impacts is needed in order to understand what is happening around the district.

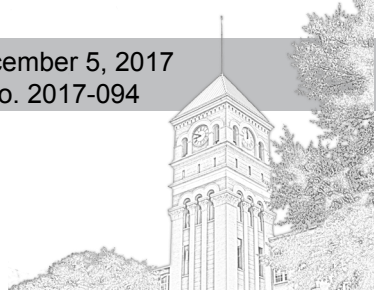
#### VULCAN QUARRY

- ◆ There were many questions and thoughts about the future of Vulcan Quarry in the Mill District. Vulcan is an engaged corporate partner in the community and has no plans to cease its operations within the next 20-25 years. There were many ideas for the potential of the property and questions of when is the right time to plan for the future potential. Because Vulcan will remain a long-term industry in the Mill District, this plan does not address future use of the property. Instead, the Mill District leadership should continue to engage Vulcan in the implementation of the Mill District Plan.

#### PUBLIC MEETINGS | APRIL 27-28, 2016

The input from the two public meetings has been captured on pages 6-10 in the Introduction section. This initial input became the foundation for establishing the vision, priorities, guiding principles and goals for the Plan.





## PUBLIC INPUT SUMMARY

### APRIL 27-28, 2016 | CAPITAL CITY MILL DISTRICT PLANNING KICK-OFF

#### SUMMARY OF STAKEHOLDER FOCUS GROUP MEETINGS | APRIL 27-28, 2016

Key stakeholders were invited to participate in focus groups in order to provide important information on specific topics, which are listed below. The comments from each focus group were instrumental to understanding the current environment and to imagining the possibilities. A common thread through all of the focus groups was a desire to preserve the character of the Mill District and to tap into its potential. All consider the Mill District an invaluable asset to the Midlands. The focus group findings are summarized on the following pages.

- ◆ Conservation, Greenways and Parks;
- ◆ Cultural Community;
- ◆ Transportation;
- ◆ USC and Parking;
- ◆ Neighborhood Residents;
- ◆ Property and Business Owners;
- ◆ Richland County School District One; and
- ◆ City and County Departments

#### CONSERVATION, GREENWAYS AND PARKS

The Rocky Branch Watershed Assessment is evaluating flood-prone areas and researching opportunities for improving water quality and the watershed as well as the development of greenways from the former Bombers ballpark to Olympia Park.

- ◆ Greenways, such as the Rocky Branch Greenway, are highly desired for connectivity and for repairing and improving water quality.
- ◆ Sidewalks and greenways are needed to connect residents and visitors to commerce, parks, homes, the Congaree River, cultural assets within the Mill District and to the larger community. Sidewalks will help activate spaces, creating more vibrant and safer places.

- ◆ There are numerous vacant or abandoned lots that would be ideal for playgrounds, community gardens and other parks to elevate the quality of life. Small, pocket parks would be great as density grows and can provide respite from heat and places for the community to gather. The City and County should explore acquisition of these lots for the community benefit. Owens Field is a successful example of City/County coordination and the park structure desired.
- ◆ The former Capital City stadium site and the quarry are integral to future development. Both sites provide opportunities for creating new greenways that link the entire district (from the city to the river), for improving watershed issues and for attracting development that will elevate economic development and enhance the mill village character.
- ◆ New development should propel the vision of the Mill District: connectivity (required sidewalks, bike infrastructure, connection to greenways and parks, etc.), low impact on watershed, preservation of trees and neighborhood character. New development should positively impact established neighborhoods.
- ◆ Restoration or redevelopment of the berm is very important to the health and function of the watershed and flood management as well as for providing pedestrian connectivity from the neighborhoods to businesses along the Assembly Street Corridor. Benches along the berm can make it more of a destination and provide nice seating areas along the path.
- ◆ Assembly Street needs a comprehensive, linear plan that illustrates development opportunities, creates a gateway into the City and manages long-term traffic needs.
- ◆ Create an urban forest in the Mill District.
- ◆ Encourage multi-use developments that provide live, work, play opportunities.
- ◆ The Jordan Memorial Boat Ramp, Olympia Park, Three Rivers Greenway, Olympia School baseball field, Pacific Park, and Granby Park are wonderful assets that can be improved and connected in order to provide more access to nature and recreation.

#### CULTURAL COMMUNITY

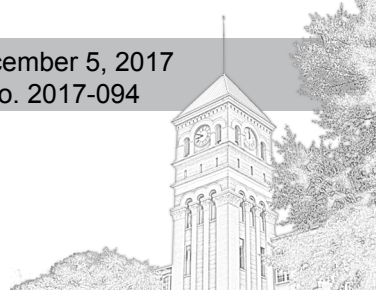
##### History

- ◆ What is so unique is that people from here hang onto their deep roots and find their identity in this district. Historically, those from the mill village had an 'outsiders' stigma and were known as "lint heads." However, people are looking for inclusivity now and want to capture, know and share the rich history of the village. Change is happening all around, so the stories need to be captured.
- ◆ The Olympia-Granby Mill Village Museum has been created to capture and share the history and is supported by many people with deep roots.
- ◆ There are opportunities with Historic Columbia Foundation (HCF) to provide resources for education, advocacy, and advising on exhibit development, virtual advertising and tours online.

##### The Arts

- ◆ 701 Center for Contemporary Art has propelled the Mill District to one of the premiere arts destinations in the Midlands, perhaps the state, and has broadened the definition of the arts. The Mill District has been home to a group of artists over the decades due to low rents and acceptance of an arts culture. Residents would like to see the arts community grow (more galleries and affordable studios for artists), building on the success of 701 CCA and engaging more children and visitors. In addition to 701 CCA, Grow Café is currently an art studio.





## PUBLIC INPUT SUMMARY

### APRIL 27-28, 2016 | CAPITAL CITY MILL DISTRICT PLANNING KICK-OFF

#### Neighborhood Culture

The Mill District is home to numerous and very active community organizations. The organizations include the following.

- ◆ Olympia Granby Historical Foundation
- ◆ Olympia Cemetery Association
- ◆ Olympia School Reunion (holds a reunion every 3 years; 1926 first graduating class; 1970 last class before turned into a Middle School)
- ◆ We Are Olympia
- ◆ The Whaley Street Neighborhood Organization
- ◆ The Olympia Residents Council
- ◆ Columbia Council of Neighborhoods
- ◆ Olympia Community Education Foundation
- ◆ The churches
- ◆ 701 Center for Contemporary Art
- ◆ Sustainable Midlands
- ◆ This is a blue collar area. How can this culture be embraced, captured, maintained and branded in order to celebrate the history while envisioning the future? Who represents the future of the area: young families, retirees, young professionals, artists, students, and faculty? These all represent the future and have different needs but are all looking for the same quality of life.
- ◆ Currently, the Mill District is perceived as a low income, student infiltrated area with a lot of old school people who are entrenched in how things used to be. The community is held 'hostage' during game days and has a reputation of ill-behaved student parties with little enforcement. The reality can be a vibrant district with unique, affordable housing that is highly accessible to USC and downtown Columbia that offers fresh live, work, play opportunities. The Mill District can become a great example of well-managed, equitable governance and the beneficial transitioning and mixing of generations (such as Earlewood).
- ◆ There are many dedicated and engaged resident leaders who carry the torch for the Mill District. One concern is who will pick up this torch when these current leaders leave or step aside. Attracting young families into the Mill District will help engage a new generation.

#### TRANSPORTATION

##### Major Transportation Challenges

- ◆ Traffic
- ◆ Lack of alternatives to auto travel
- ◆ Railroad traffic

##### Projects Underway in/near the area

- ◆ Bluff Road from Rosewood to South Beltline – currently in design
  - ◆ Adjacent to the Fairgrounds
    - ◆ 5 lane cross section (center turn lane)
    - ◆ Underground utilities
    - ◆ 8' sidewalk against the curb and 10' multiuse path with a 3' buffer
  - ◆ No planned improvements by the stadium
  - ◆ Past the stadium to South Beltline
    - ◆ 5 lane cross section (center turn lane)
    - ◆ 8' multiuse path on both sides with 3-5' buffer
- ◆ Shop Road from George Rogers to South Beltline
  - ◆ 5 lane cross section (center turn lane)
  - ◆ Curb and gutter and sidewalks
  - ◆ Intersection improvement at George Rogers and Assembly
- ◆ Assembly Street sidewalk and bicycle/pedestrian improvements
  - ◆ Project just underway with public involvement
  - ◆ Coordinating with the developer of the Capital City Ballpark redevelopment site. Timing of the development and the project scope are a key element.
- ◆ Rocky Branch Greenway is on the list but not yet started

#### General Discussion

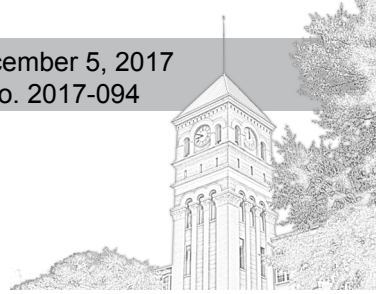
- ◆ Development has impacts on mobility and the need for alternative transportation options.
- ◆ Alternative transportation options need to be considered as part of the development process as activity centers and destinations are implemented.
- ◆ The Walk Bike Columbia Plan was adopted in 2015 and has a list of projects, which includes the Rocky Branch Greenway.
- ◆ The Metropolitan Planning Organization (MPO) uses the Transportation Alternatives Program for funding bicycle/pedestrian projects. These projects are identified by a local sponsor and application for funding is submitted.
- ◆ The train schedules seem to be uncoordinated and are not published; however, the trips to the inland port in Greer from Charleston may provide some indication of schedules, particularly in increased number of trips.
- ◆ A major need for the area is the connectivity to other areas of the City and downtown with bicycle and pedestrian facilities.
- ◆ Without these mobility options, the Capital City Mill District will continue to be an isolated district.

#### USC AND PARKING

The Capital City Mill District is a tremendous resource for USC, yet perceptions, the physical environment, and a lack of coordination seem to prevent a robust and mutually beneficial relationship that could foster a connected community and leverage resources. USC's student enrollment growth has spawned a new paradigm in student housing, parking, and student services. USC prefers students live on campus or within walking distance and would like to have an inventory of affordable housing near campus for faculty that meets their needs. USC parking plans and policies focus intentionally on providing parking on the periphery of campus in order to make campus more pedestrian.

Students and faculty prefer to live close to campus in affordable, quality housing that is within walking distance of classes, places to eat, shop, meet friends and to enjoy the outdoors.





## PUBLIC INPUT SUMMARY

### APRIL 27-28, 2016 | CAPITAL CITY MILL DISTRICT PLANNING KICK-OFF

Being on the periphery of campus, the Mill District is experiencing increasing pressure from USC growth with more and more students moving into its neighborhoods. This presents several challenges.

- ◆ Mill District residents are concerned about unmanaged student behavior, particularly on football game weekends and in rental houses that become de facto party houses.
- ◆ The perception of the Mill District as a cheap place to live for students impacts the quality of life for home owners and families.
- ◆ The number of train tracks is a deterrent to vibrant and desirable development and creates daily safety challenges for students, particularly walking from the Greek Village to campus and crossing Assembly Street.

However, now is the time for USC and the Mill District to create new partnerships that will improve perceptions, property values, connectivity, quality of life, and housing and economic development. A few ideas follow.

- ◆ Improve the collaboration (planning and services) between USC, the COMET and neighborhoods.
- ◆ Improve safe pedestrian access (sidewalks) from the Athletics Village to the stadium.
- ◆ Work collaboratively to implement changes to the rail lines through the Mill District (rail consolidation) in order to improve pedestrian safety, improve traffic flows, improve connectivity, elevate the opportunities for appropriate corridor development (land availability, desirable location, mixed-use to support academic, entrepreneurial, tech, maker and creative jobs).
- ◆ Improve coordination, reinforcement and enforcement between USC Student Affairs and Campus Safety and the City and County in order to manage student behavior.
- ◆ Educate the public on City and County regulations and standards.
- ◆ Harness and elevate the economic potential of 150+ employees at the USC Incubator and hundreds of USC faculty working within walking distance of the Mill District by providing attractive homes for entrepreneurs and faculty, places to eat, get coffee, ways to connect with nature and friends, participate in cultural events.

#### NEIGHBORHOOD RESIDENTS

Mill District residents, whether long-time or new, care deeply about improving three major elements: 1) livability, 2) connectivity and transportation; and 3) governance and infrastructure. Each element impacts the quality of living in the Mill District and the ability of the Mill District to attract new residents, businesses and cultural offerings.

#### Livability

Existing challenges to livability include:

- ◆ management of student behavior
- ◆ completing the Three Rivers and Rocky Branch greenways with a network of connections (paths, greenspace, parks) within the Mill District
- ◆ employment opportunities, service and retail providers, and mixed-use development for live, work, play in the Mill District
- ◆ striking a balance between development density and appropriate planning for infrastructure
- ◆ lack of a neighborhood elementary school, which will encourage home ownership
- ◆ lack of home and tree inventories, which can positively influence development

There is, however, a strong commitment to preserving and building on the foundations of the Mill District's history and culture as well as strong civic engagement and support for revitalization among residents.

#### Connectivity and Transportation

The Mill District is plagued by poorly managed traffic – general traffic, game day, industrial and rail. The daily trains create frequent dead ends and unsafe pedestrian crossings. Game day traffic and parking negatively impact life for those who live in the Mill District. A lack of safe and accessible pedestrian, bicycle and public transportation infrastructure diminishes connectivity. Residents are concerned about the proposed flyover from Huger Street and the possible widening of Olympia Avenue needed for the flyover landing and connection to Rosewood Drive.

Residents want a comprehensive strategy and coordinated approach between the City, County, SCDOT, CSX and Norfolk Southern for managing traffic and creating a multi-modal infrastructure framework that will improve connectivity and make the Mill District a place, not a pass-through.

#### Governance and Infrastructure

Many of the challenges within the Mill District can be defined by a lack of uniformity of regulations and standards between the City and County. Issues such as absentee landlords, property maintenance, design and development standards and how these are enforced can change from one block or property to the next. This does not foster commitment to the community good among property owners. Residents would like to have uniform policies and regulations throughout the Mill District. This will elevate property values and attract more families and appropriate businesses. In addition, this can address concerns and ideas for improving the EMS/fire and public safety facilities and services within the Mill District.

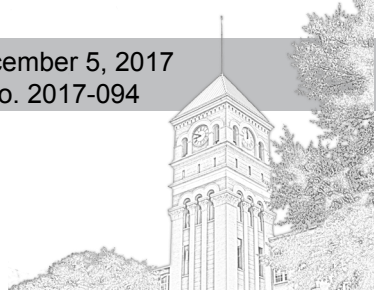
#### Opportunities and Assets

701 Whaley was a rallying point for the Mill District community and has been a catalyst for revitalization, innovation, and creativity ever since it was renovated and reopened for business. 701 Whaley is the community center – literally and figuratively. It has inspired other development and will continue to be a critical asset for new development.

The Mill District is strategically and advantageously located to become one of the most vibrant areas in the Midlands. Positioned between USC and the Congaree River with direct access to the Three Rivers Greenway, downtown Columbia, the Vista, Innovista, and basic municipal services, this should be the “it” neighborhood for young families, young professionals, empty nesters, and others who want an urban yet close to nature life style.

The culture of the community is authentic and unique. With three neighborhoods defined by distinct architectural character and histories, a burgeoning creative community, and continued commitment to preservation due to active and engaged community members, the Capital City Mill District is poised to take advantage of tax credits and grant programs for financing and investment for redevelopment, which will spur infill opportunities. Being a lint head will no longer be a stigma. Being a lint head will be a cool title.





## PUBLIC INPUT SUMMARY

### APRIL 27-28, 2016 | CAPITAL CITY MILL DISTRICT PLANNING KICK-OFF

#### PROPERTY AND BUSINESS OWNERS

Property and business owners have taken risks by investing in the Mill District. Some have been there for generations and run family businesses. Some invested due to the affordability and the off-the-beaten path nature of the area. Some understand the potential and took leaps of faith. There is a growing critical mass of businesses within the Mill District, which is beginning to pay off for these urban pioneers. They shared challenges and ideas for keeping the momentum going and are truly committed to being a part of the Mill District's future.

#### Challenges Facing Property and Business Owners:

- ◆ Transportation, location of rail lines, and funding
- ◆ Traffic control and volumes
- ◆ Blighted properties
- ◆ Process for reclamation: very heavy regulations, which go through SCDHEC. There is a fund in place to assist in the process. There is excitement over the opportunities.
- ◆ More clearly identified and constructed crosswalks
- ◆ Possibility of SCDOT highways being widened and run through the villages
- ◆ Keeping up with projected development density
- ◆ Stormwater collects on sidewalks in areas, detrimental to visitors and pedestrians
- ◆ Lack of parking for non-locals at restaurants and businesses

#### Drivers for Buying, Building and Developing in the Area:

- ◆ Potential for growth; however, the Mill District has not developed as quickly as thought.
- ◆ SCANA ownership of property
- ◆ Land use and zoning opportunities
- ◆ At the time, lack of student housing (since changed significantly)
- ◆ Developer opportunities for underserved area

- ◆ Tax credits and grants
- ◆ Real sense of place and unique character
- ◆ Undisturbed with potential to be modernized

#### Needs to Improve the Business and Development Environment:

- ◆ Consolidation of the rail lines on Assembly Street
- ◆ Connectivity: sidewalks to basic services, particularly across Assembly Street; safe shared paths to the Vista, student housing throughout downtown, Main Street; alternative transportation-friendly routes
- ◆ Coffee shops, grocery store and convenience areas
- ◆ Improvements to public transportation and better education of the transportation resources
- ◆ More public transportation links to downtown, Vista (USC support and coordination with COMET) with exclusive routes for students and student only pick-up locations; safety of the bus system is a huge concern among students
- ◆ More bars, restaurants, galleries and local shops to entice visitors
- ◆ Integrated connection strategy to improved river access and amenities

#### RICHLAND COUNTY SCHOOL DISTRICT ONE

Richland County School District One (RCSD1) owns multiple properties in the Mill District such as the Olympia School, a warehouse/operations facility, a transportation facility, and a maintenance and budget facility. RCSD1 is conducting a long-range facilities and program study that will assess the conditions of existing facilities as well as determine facilities for delivery of future curriculum.

The Olympia school will remain a training location and a possible location to centralize administrative offices. The alternative education school could possibly relocate in order to be more central to the students it serves. They do not provide transportation to Alternative Education school students, and the COMET does not serve the area at night. Most students do not have private transportation; therefore, the COMET would need to extend evening hours to serve the 120 students in the evening program. Safe Routes to School is an important program.

The transportation facility can potentially relocate to a more central location in the school district for servicing the fleet. However, they need to maintain gas operations at the existing transportation facility in order to fuel the fleet in this part of the school district. There are no plans to sell the warehouse/operations facility or maintenance and budget facility. RCSD1 understands the development potential for the property they own.

AC Moore, Rosewood, and Hand are at capacity. A new elementary school is needed for 600-700 students. AC Moore could be promoted more within the Mill District in order to attract more young families. Consider designing and promoting a safe school route from the Mill District to AC Moore.

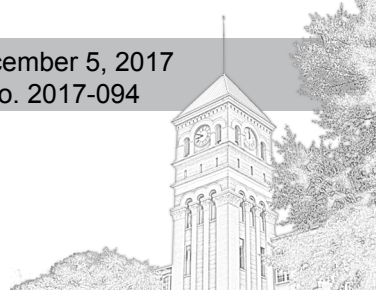
#### CITY AND COUNTY DEPARTMENTS

Representatives from several City and County Departments shared their ideas and responded to questions from the residents. The majority of the discussions focused on four topics: 1) EMS; 2) Trash pick-up; 3) code enforcement; and 4) annexation. A summary of comments follows.

#### Public Safety

- ◆ If any construction projects are proposed, emergency services will need access (at least one way) to the neighborhood.
- ◆ There needs to be an education initiative as to why EMS must use sirens as there are lots of complaints about sirens.
- ◆ The 911 system determines the best route for emergency services so there is not a set route that can be counted on for the vehicles to take.
- ◆ The Fire Department wants to have a new building and, ideally, it would have a police and EMS substation. The best location for a new fire station would be on Assembly Street near the intersection of Assembly and Ferguson.
- ◆ Railroads are an impediment for emergency vehicles getting to the Mill District.
- ◆ The City operates the fire stations for the City and the County.
- ◆ The City has an ISO rating of 1 which puts them in the top 1% in the country. This impacts insurance by a reduction in premiums.





## PUBLIC INPUT SUMMARY

### APRIL 27-28, 2016 | CAPITAL CITY MILL DISTRICT PLANNING KICK-OFF

- ◆ The County has an ISO rating of 2 which puts them in the top 2% in the country. This impacts insurance by a reduction in premiums. The County's ISO rating is slightly lower due to some remote parts of the County that may have longer travel times to get to.
- ◆ During games the Station 2 fire truck is parked at the stadium, to provide immediate assistance to 80,000 people. Residents are concerned that this leaves the Mill District without a fire truck on game days.
- ◆ A fire truck would not be able to respond to a fire in a timely manner in the Mill District on game day due to the traffic.
- ◆ EMS has trucks at the stadium as well, but they have EMS folks on motorcycles that can get through traffic easier and would have a faster response time on game days.
- ◆ The State Fair has never been a problem for emergency services.
- ◆ Access to Mill District neighborhood streets can be a problem for public safety vehicles, especially given current on-street parking practices. During a relatively recent fire in the Mill District the fire truck had to bump a car parked on the street to move it so that they could get through to respond to the fire.

#### Trash Pick-up

- ◆ Cars parked on the street have never been a problem for County trash pick-up.
- ◆ Renters are not always aware of the ordinances for where roll carts are to be placed after pick-up. For the County, roll carts are required to be moved 5' beyond the curb by 7 pm on the day of trash pick-up. The 5' beyond the curb for the County is something solid waste would be open to changing.
- ◆ County Solid Waste often has enforcement folks in Olympia responding to complaints. There is a \$1,092 fine for leaving roll carts on the curb in the County; however, this does not seem to be enforced often.

#### Code Enforcement

- ◆ The County tries to educate residents with handouts, but only where they receive complaints.
- ◆ The regulation allowing only three unrelated individuals in a house is difficult to enforce, which is problematic.
- ◆ Police should be called anytime there is a violation of ordinances (noise, parking, more than three unrelated residents living in the same house, etc.). It would be good to find out how the police rank calls about noise and parties compared to other calls for more life threatening emergencies.
- ◆ Solid Waste, police and planning all have different code enforcement officers, and they rarely talk to one another. They should have a coordinated effort.
- ◆ It is hard to cite code violations on the weekend as there is rarely anyone staffed for weekend duty. The City has a little presence on the weekend, and the County has no presence on the weekend.

#### Annexation

- ◆ The City has a policy that if a resident asks for and obtains the extension of City water or sewer service to their property which is located outside of municipal limits, that property must be offered for annexation if or when their property is contiguous to the current City limits. This policy was established in the 1990s. Olympia likely does not have any such covenants in place for homes that were already using City water before that time. Any new development would have signed the agreement.
- ◆ Annexation is free. Any individual resident can choose to be annexed as long as they are contiguous to the current City limits.
- ◆ If a home or neighborhood is on septic tanks, then annexation gets more complicated. Should the City choose to annex by an approved method, the City would be required to provide public sewer to the residents if they are on septic tanks. If there is not sewer in the area it can be quite expensive to install new sewer lines. If sewer lines are already in the Olympia, annexation could go smoother. This would need to be verified with the City as to where they have sewer in Olympia.



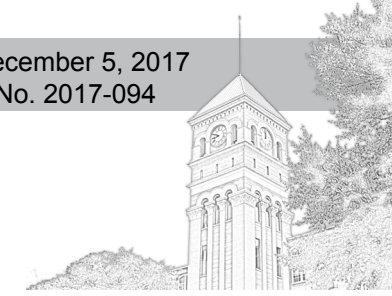


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Figure-2: 85%



Figure-3: 77%



Figure-4: 92%



Figure-5: 38%



Figure-6: 85%

During the June 29, 2016 Public Meeting, the planning team introduced the Priority Elements as determined through public input and research: 1) community identity and placemaking; 2) trains, trucks and traffic; 3) Rocky Branch and stormwater management; 4) greenways, bikeways and sidewalks; and 5) economic development. The team also shared additional research and initial recommendations to address each element. Following the presentation, the planning team hosted centers with illustrations and were available to participants for additional questions. A visual preference survey (VPS) was conducted on design preferences for bike and pedestrian facilities. Approximately **40 people** participated in the VPS. The results are presented on the following pages.



# 4. APPENDICES

## PUBLIC INPUT SUMMARY

JUNE 29, 2016 | VISUAL PREFERENCE SURVEY

Adopted December 5, 2017  
Ordinance No. 2017-094

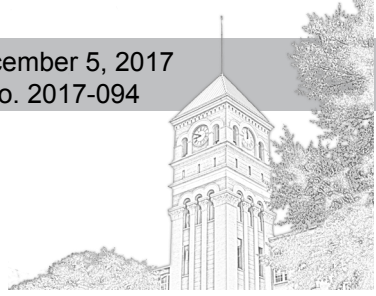


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Figure-8: 46%



Figure-9: 77%



Figure-10: 69%



Figure-11: 38%



Figure-12: 85%



# 4. APPENDICES

## PUBLIC INPUT SUMMARY

JUNE 29, 2016 | VISUAL PREFERENCE SURVEY

Adopted December 5, 2017  
Ordinance No. 2017-094

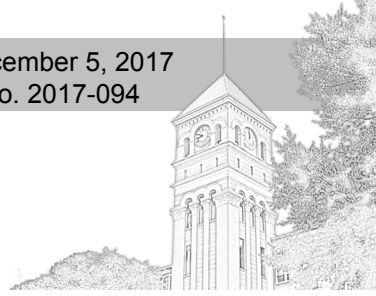


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# 4. APPENDICES

## PUBLIC INPUT SUMMARY

JUNE 29, 2016 | VISUAL PREFERENCE SURVEY

Adopted December 5, 2017  
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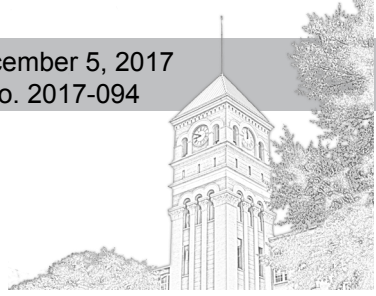


Figure-19: 77%



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Figure-21: 62%



Figure-22: 54%



Figure-23: 46%



Figure-24: 100%



# 4. APPENDICES

## PUBLIC INPUT SUMMARY

JUNE 29, 2016 | VISUAL PREFERENCE SURVEY

Adopted December 5, 2017  
Ordinance No. 2017-094

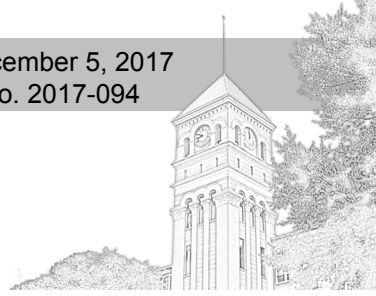


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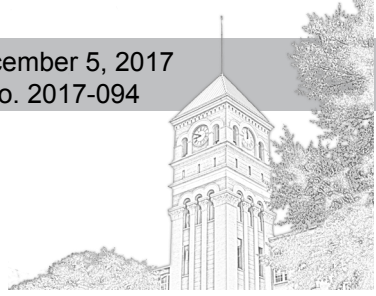
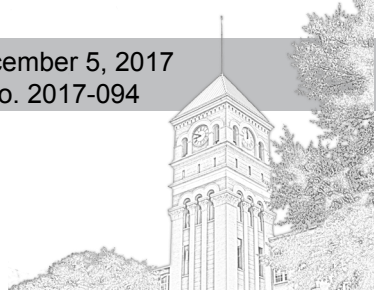


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## PUBLIC INPUT SUMMARY

### OCTOBER 5, 2016 | PUBLIC MEETING

With the threat of Hurricane Matthew approaching, approximately **40 community members** attended the public meeting and provided comments on the proposed recommendations for rail line consolidation and the Huger Street flyover proposals, greenways and stormwater management, road improvements to accommodate bike and pedestrian facilities, and the introduction of proposed unified land use categories for the Mill District.

#### PRIORITIES AS DEVELOPED THROUGH PUBLIC INPUT

- ◆ Community Identity
- ◆ Placemaking
- ◆ Trains, Trucks and Traffic
- ◆ Stormwater Management
- ◆ Greenways and Sidewalks
- ◆ Economic Development
- ◆ Equitable Jurisdictional Enforcement

#### CONCERNS

- ◆ Trees, shrubs on avenue diagrams seem to be a safety issue – blocking views when turning onto streets

#### THE MOST IMPACTFUL THING TO DO NOW IS...

- ◆ Develop an MOU for the City and County coordination of land use, design guidelines, police response, enforcement of community standards and policies
- ◆ Revitalize Pacific Park
- ◆ Implement these suggestions from the PAC
- ◆ Berm greenway culvert at Olympia
- ◆ Truck traffic and traffic flow calming
- ◆ USC Traffic: both lanes of Olympia Avenue and Bluff Road ... cluster mess
- ◆ Need better coordination or no through-traffic during football games
- ◆ Preservation and perpetuation of historic architectural character through new development

#### WHAT KIND OF AN IMPACT WILL A FLYOVER (FOR VEHICULAR TRAFFIC FROM HUGER STREET INTO THE DISTRICT) HAVE?

##### Alternate 1: Flyover

- ◆ There was one vote for support of a flyover as originally presented by SCDOT. Most felt this would be visually and physically disruptive to the Mill District and would require the widening of Olympia Avenue. The group was unanimously against Olympia Avenue being widened.
- ◆ A flyover would create an underside, which most do not want. This will become dead, uninviting space that will not be well-maintained. Although, one person mentioned that the underside could become a place for art and parking.

##### Alternate 2: Huger Street Road Diet with no Flyover

- ◆ There was some support for this alternative and curiosity about the concept. Most felt that narrowing Huger Street will do a good job of keeping traffic out and creating a more neighborhood-scaled street entry into the Mill District.

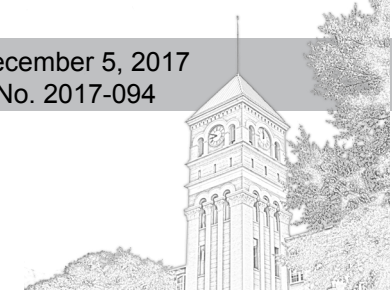
#### QUESTIONS ABOUT THE ALTERNATIVES

- ◆ How would trucks be rerouted and discouraged from cutting through the Mill District if there is no flyover?
- ◆ City needs to require trucks to go around the City on the I-77 bypass and to have a permit in order to enter/exit the Mill District. Can they do this and enforce?
- ◆ What is the impact of the inland port and continued increase in number of trains?

#### WITHIN THREE YEARS, I WANT TO DO, TO SEE, TO...

- ◆ Well-maintained properties due to joint City/County enforcement
- ◆ The donut holes closed (unincorporated areas)
- ◆ Special focus on attracting and retaining first time home buyers in the Mill District
- ◆ The greenway system completed
- ◆ Bridge on Rocky Branch Greenway
- ◆ New bridge on Bluff Road over Rocky Branch with wider areas that are mowed and maintained for pedestrians
- ◆ Kids playing ball in the streets
- ◆ Sidewalks on Olympia Avenue
- ◆ Train relief
- ◆ Neighborhood baseball field for pick-up games
- ◆ Open spaces and greenspaces linked together by a comprehensive trail and with wayfinding signage that incorporates community history (St. Aquinas Trail in Santa Clara)
- ◆ Return the former berm that protected the village along the railroad track – Huger Street ended here.
- ◆ Olympia Avenue and its medians preserved as the historic grand avenue of the Mill village. The medians were home to the streetcar lines.



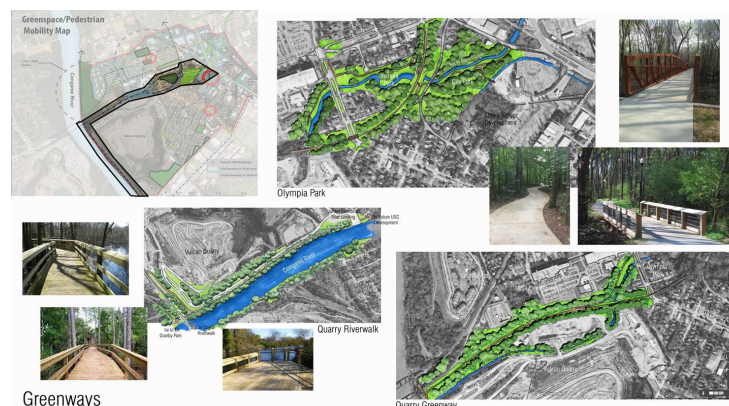


## PUBLIC INPUT SUMMARY

OCTOBER 5, 2016 | PUBLIC MEETING

### GREENWAYS BOARD

- ◆ Most respondents like the trail connection to the river as well as the future trail connection to the Jordan Memorial Boat landing.
- ◆ A member of the PAC commented that the developer for the Capital City Ballpark redevelopment site was planning on doing major grading work within Olympia Park and would share the plans with the team.
- ◆ All were excited about the City parcels and the proposed park next to the City Ballpark redevelopment site.
- ◆ There were many opinions about the Olympia Avenue crossing of the future Rocky Branch Greenway. Some were concerned about the at-grade crossing and would prefer the below grade crossing. There were some discussions about pushing the developer for the City Ballpark redevelopment site to show the below grade sidewalk back in their plans.

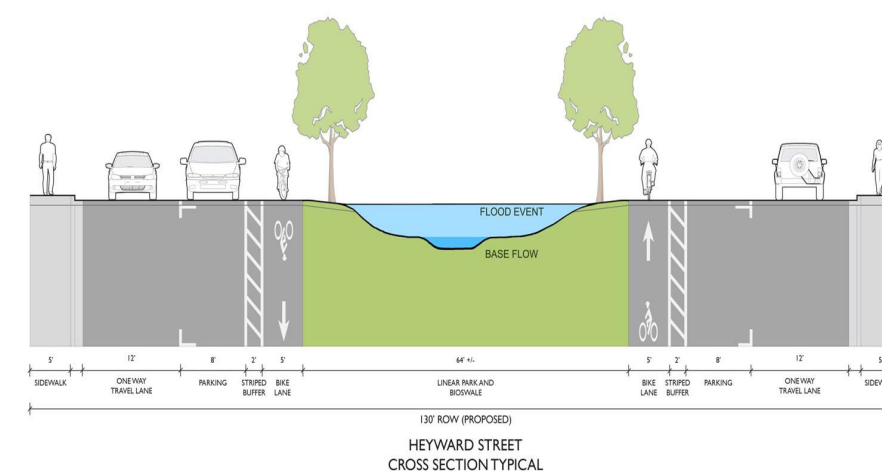
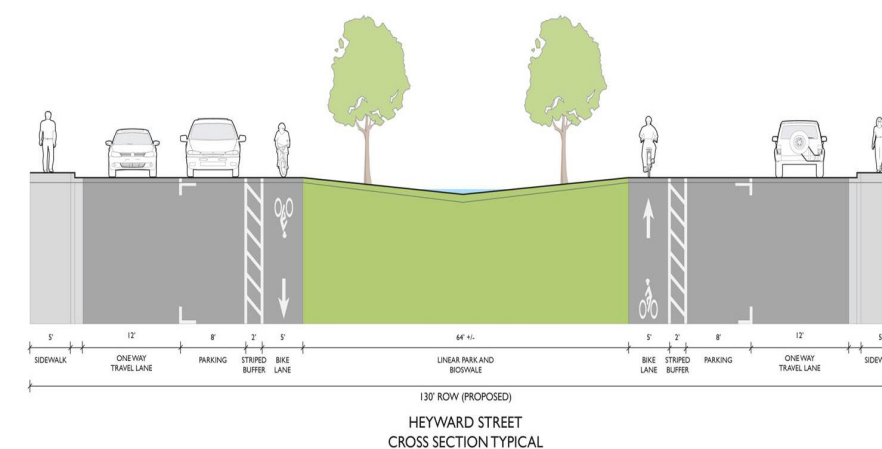
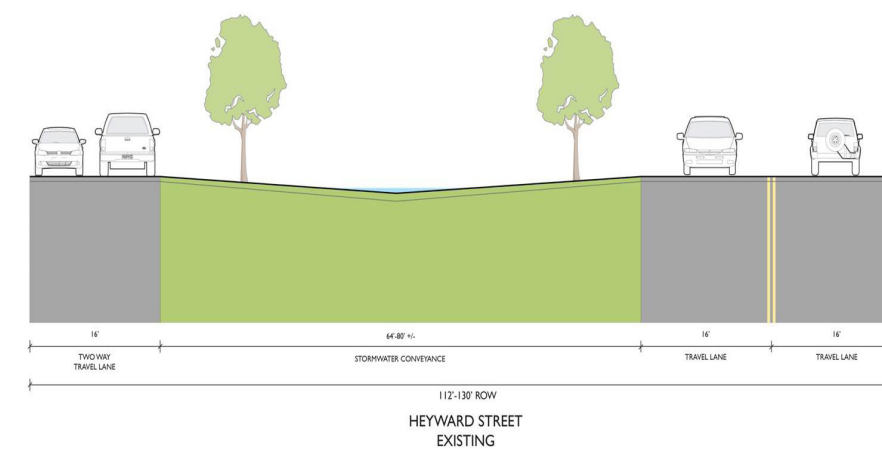


### HEYWARD STREET IMPROVEMENT BOARD

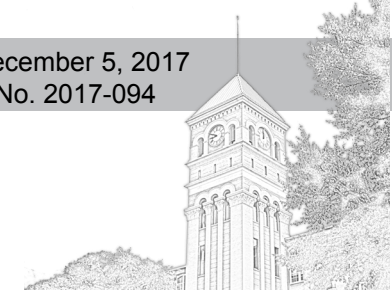
- ◆ Most comments like the opportunity for the Heyward Street greenspace to become a community park and bio-swale area
- ◆ There were positive comments about the traffic circle even if we cannot make the connection to Assembly Street. "Because it is an unsafe intersection and after Kroger it will be worse."
- ◆ There was mostly positive comments regarding the realignment of Heyward Street with some saying "it's been a long time coming" and "it's never been a safe intersection."
- ◆ There were no negative comments regarding the Heyward Street connection to Assembly Street.
- ◆ Members of the community were concerned about removing the church's parking but after the project team demonstrated that the new parallel spaces worked and how the old road right-of-way could be converted they liked the concepts.
- ◆ The property owner of the berm, Mr. Chitwood, shared his development plans for the berm, which included large senior housing buildings with parking underneath as well as mini storage along the berm on the Olympia side of the project. He stated that he was not opposed to having the trail follow the top of the berm as his development will be there. He did state that he was ok with (giving an easement) along the north end to allow the trail to enter into Olympia park, would recommend building a bridge across Rocky Branch and then give another easement for the trail to come up through his proposed parking lot to allow the trail to continue to Old Bluff Road and the future City Ballpark redevelopment site. When asked if he would be opposed to the addition of a trail connection to the end of the berm crossing Olympia Ave and continuing throughout the project as shown on the Greenway plans, Mr. Chitwood did not see a problem with that as long as it did not interfere with his mini storage units.

### OPEN SPACE OPPORTUNITIES BOARD

- ◆ Most people were positive about the reuse of the Quarry property as a whole, and although the concepts shown were not committed to, they liked the ideas of public use of the open space.
- ◆ Most of the positive comments were for the Dog Park and new houses sites.
- ◆ The community garden idea came with a little bit apprehension from some members of the public as it had been tried before and they liked the idea however they said it need a true leader for the project to be successful.
- ◆ There was positive feedback on the proposed City addition of a pocket park at Tryon and Williams Street.





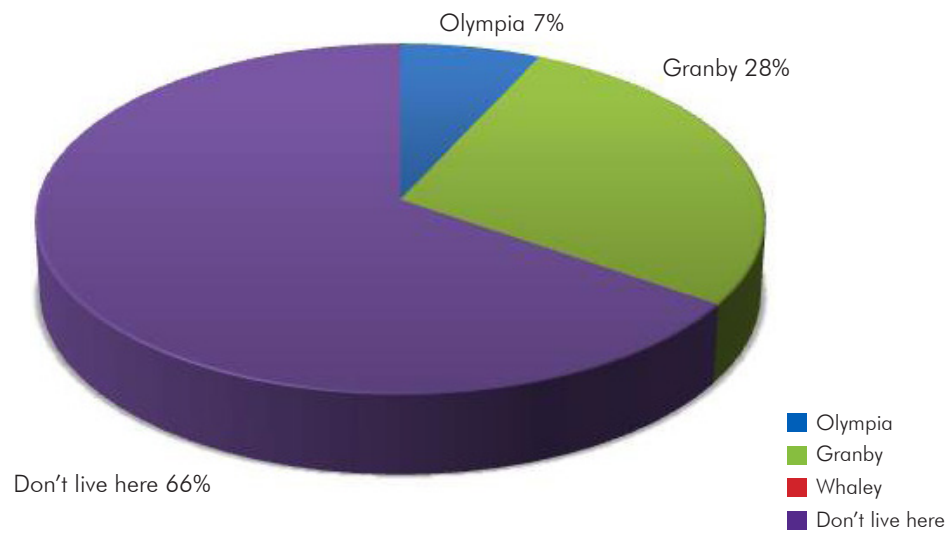


## PUBLIC INPUT SUMMARY

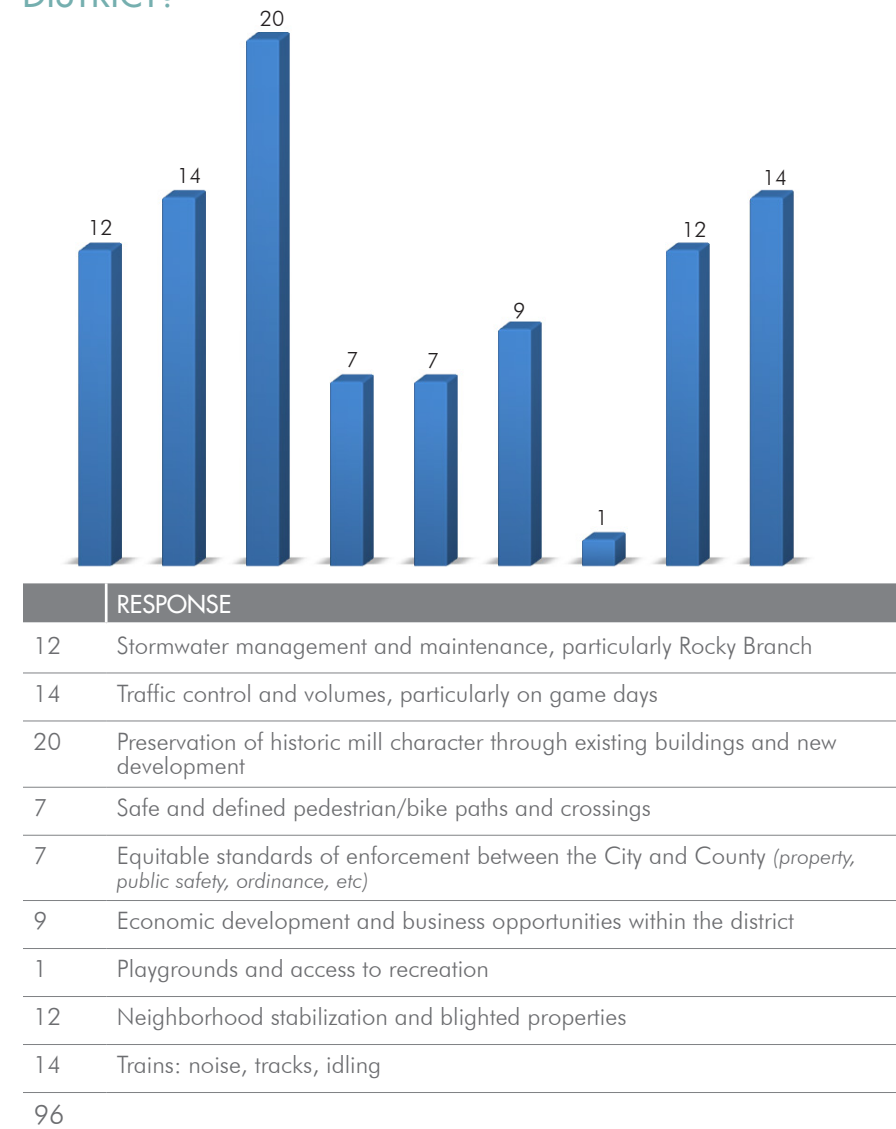
### NOVEMBER 30, 2016 | PUBLIC MEETING

The planning team presented “The Big Ideas” as a framework for key implementation strategies. The Big Ideas as presented were: 1) Establish Unified Land Use Categories; Community and Economic Development; 2) Unify and Connect the District to the Greater Community; 3) Consolidate Rail Lines; and 4) Improve Stormwater Management. Key strategies, focus areas and rail/transportation options were presented and then voted on through electronic key pad polling. The responses from the 103 participants are illustrated on the following pages.

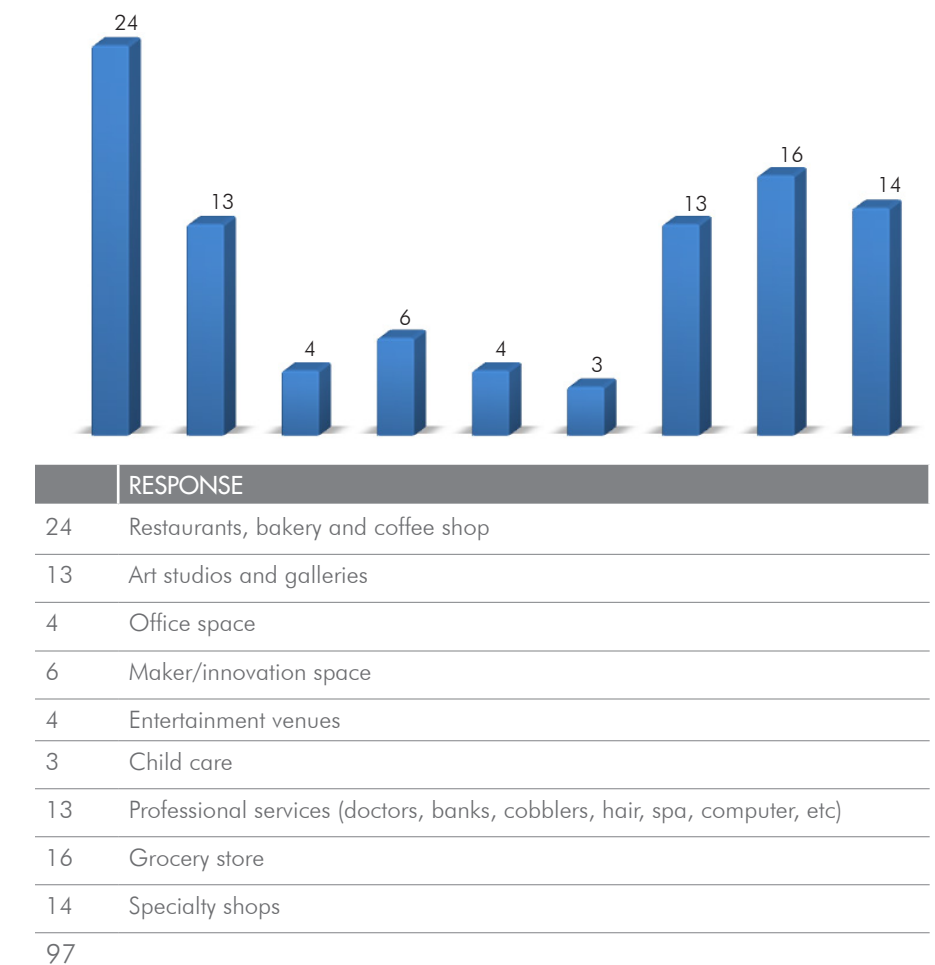
#### QUESTION 1: WHERE DO YOU LIVE IN THE DISTRICT?



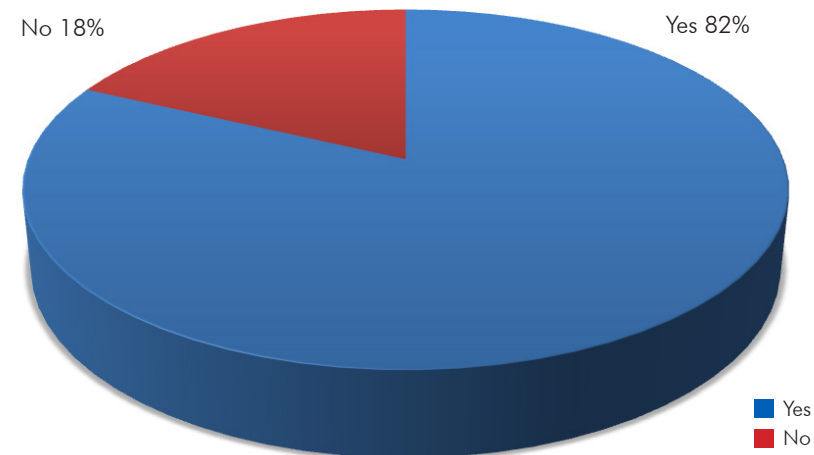
#### QUESTION 3: WHAT ARE THE TOP CHALLENGES IN THE DISTRICT?



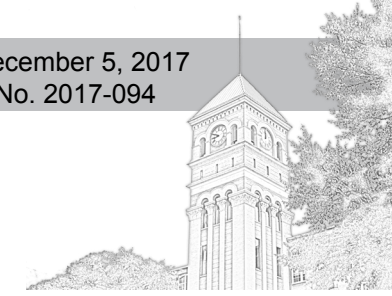
#### QUESTION 4: WHAT ARE THE TOP 3 RETAIL/COMMERCIAL NEEDS IN THE DISTRICT? (CHOOSE 3)



#### QUESTION 2: IS THE CAPITAL CITY MILL DISTRICT THE RIGHT NAME FOR THE COMMUNITY?



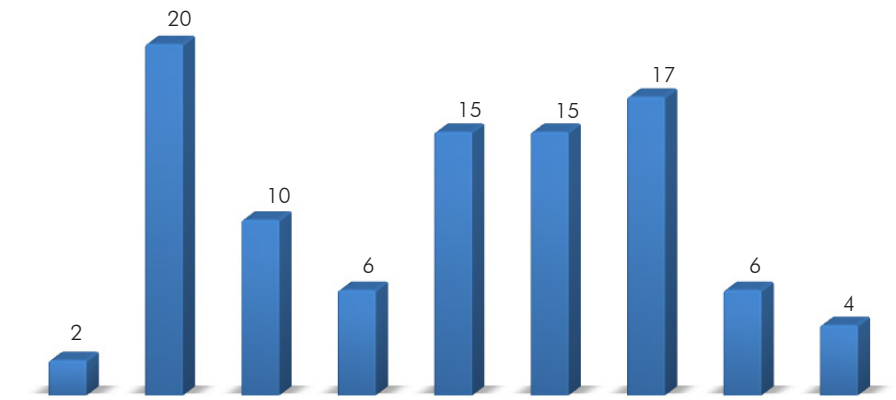




## PUBLIC INPUT SUMMARY

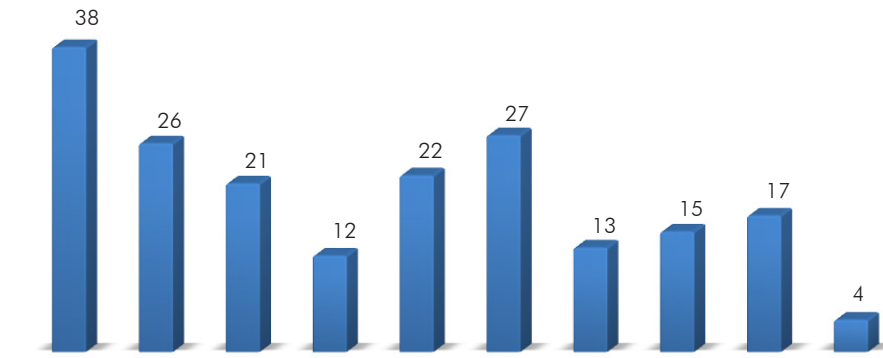
NOVEMBER 30, 2016 | PUBLIC MEETING

QUESTION 5: WHAT ARE THE TOP 3 CULTURAL NEEDS IN THE DISTRICT? (CHOOSE 3)



RESPONSE
2 Churches
20 Art studios and galleries
10 Event space
6 Museum
15 Community gardens
15 Theaters (live and movie)
17 Parks and playgrounds
6 Recreation fields
4 Schools (pre-K through 12)

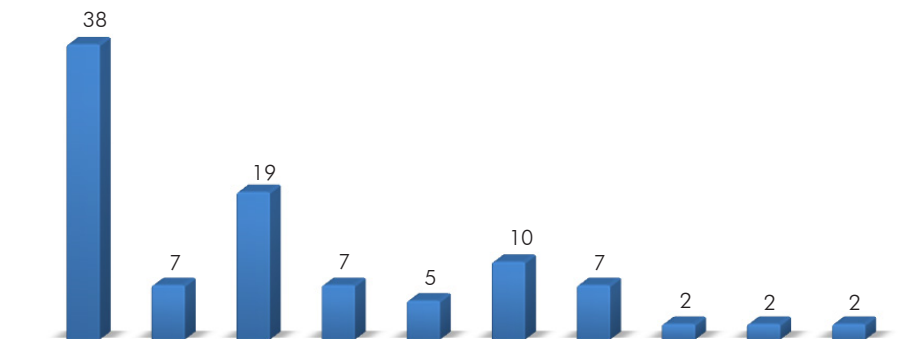
QUESTION 6: WHAT ARE THE TOP 5 PRIORITIES TO ACCOMPLISH WITHIN THE NEXT 3 YEARS? (CHOOSE 5)



RESPONSE
38 Consolidate rail lines along Assembly Street and improve at-grade railroad crossings (safety and quiet zones)
26 Complete the greenway from Assembly Street to the Congaree River with improved pedestrian crossings
21 Joint City/County MOU: land use designations, code/ordinance enforcement, single organization to represent the entire district
12 Develop a district brand and implement through gateways, signage and events
22 Huger Street road diet that directs truck and game day traffic away from the heart of the district
27 Provide incentives for redevelopment: home ownership, buildings, local businesses, entrepreneurial
13 Sidewalks and streetscape improvements along Olympia Avenue
15 Rehabilitate existing neighborhood parks
17 Improve stormwater management
4 Other

195

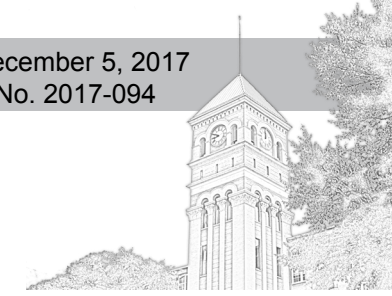
QUESTION 7: WHAT IS THE MOST IMPACTFUL PROJECT/STRATEGY TO ACCOMPLISH IMMEDIATELY? (CHOOSE 1)



RESPONSE
38 Consolidate rail lines along Assembly Street and improve at-grade railroad crossings (safety and quiet zones)
7 Complete the greenway from Assembly Street to the Congaree River with improved pedestrian crossings
19 Joint City/County MOU: land use designations, code/ordinance enforcement, single organization to represent the entire district
7 Develop a district brand and implement through gateways, signage and events
5 Huger Street road diet that directs truck and game day traffic away from the heart of the district
10 Provide incentives for redevelopment: home ownership, buildings, local businesses, entrepreneurial
7 Sidewalks and streetscape improvements along Olympia Avenue
2 Rehabilitate existing neighborhood parks
2 Improve stormwater management
2 Other

99

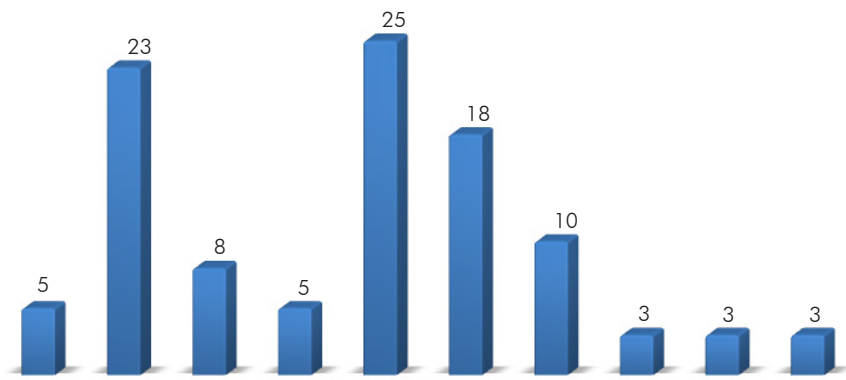




## PUBLIC INPUT SUMMARY

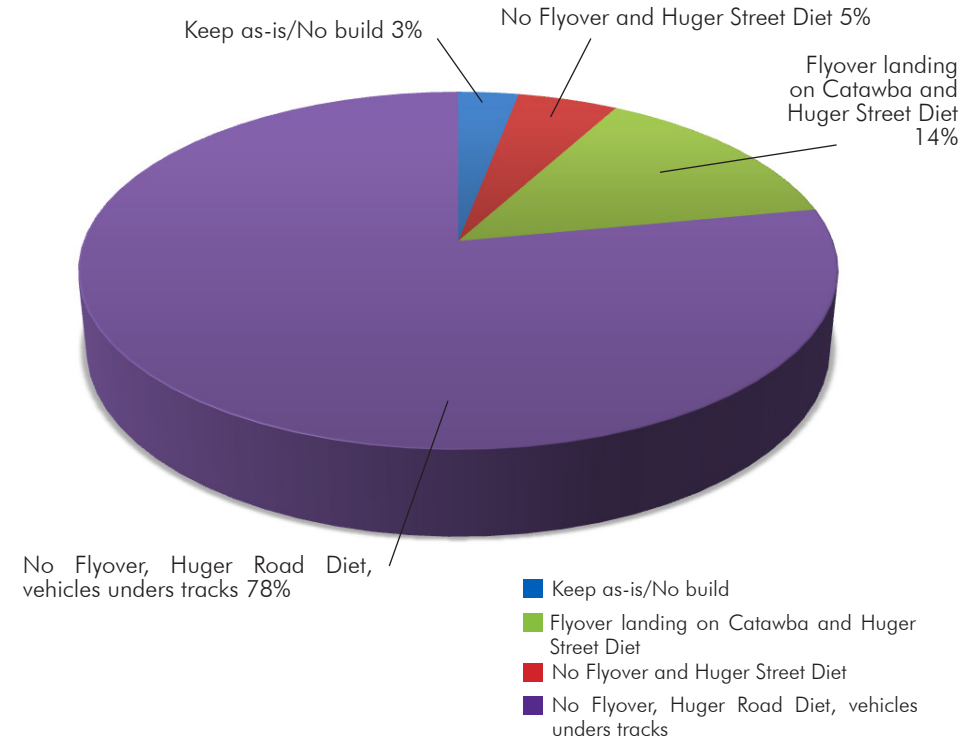
NOVEMBER 30, 2016 | PUBLIC MEETING

### QUESTION 8: WHAT IS THE TOP LONG-TERM PRIORITY, 3-5 YEARS? (CHOOSE 1)

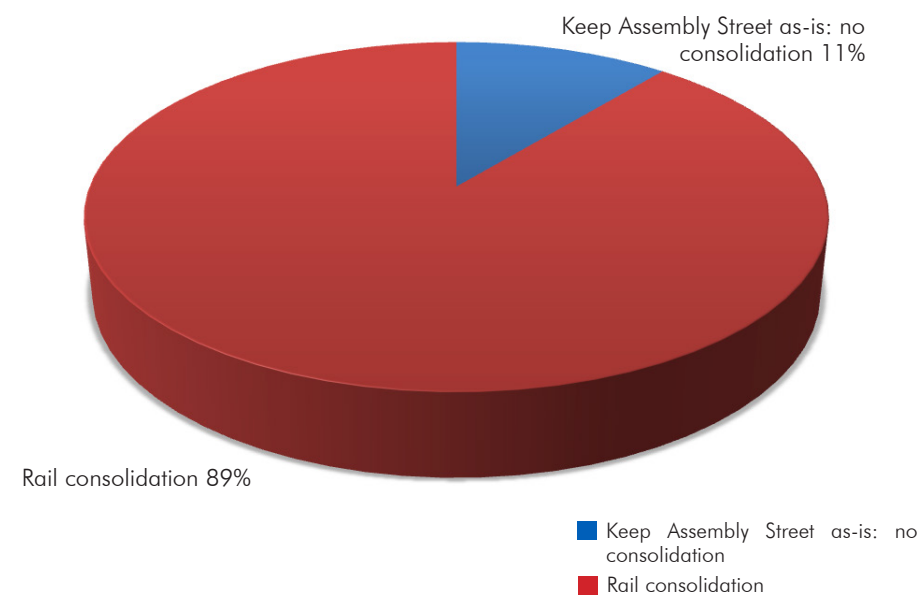


RESPONSE	Count
5 Consolidate rail lines along Assembly Street and improve at-grade railroad crossings (safety and quiet zones)	5
23 Complete the greenway from Assembly Street to the Congaree River with improved pedestrian crossings	23
8 Joint City/County MOU: land use designations, code/ordinance enforcement, single organization to represent the entire district	8
5 Develop a district brand and implement through gateways, signage and events	5
25 Huger Street road diet that directs truck and game day traffic away from the heart of the district	25
18 Provide incentives for redevelopment: home ownership, buildings, local businesses, entrepreneurial	18
10 Sidewalks and streetscape improvements along Olympia Avenue	10
3 Rehabilitate existing neighborhood parks	3
3 Improve stormwater management	3
3 Other	3
<b>103</b>	

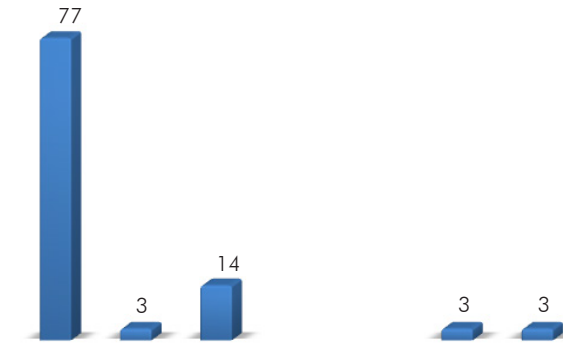
### QUESTION 9: PREFERRED HUGER STREET ALTERNATIVE?



### QUESTION 10: PREFERRED RAIL ALTERNATIVE?

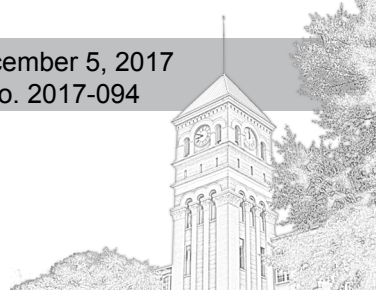


### QUESTION 11: WHERE IS THE CENTER/HEART OF THE DISTRICT?



RESPONSE	Count
Assembly/Whaley intersection	77
Jaco's Corner	3
Olympia and Whaley intersection/701 Whaley/The Doughboy Statue	14
Olympia Park/Rocky Branch	3
The Mills	3
Olympia School	
Pacific Park	
The Churches	
Olympia Avenue	
Other	
<b>100</b>	





## PUBLIC INPUT SUMMARY

**WHALEY NEIGHBORHOOD MEETING |  
JANUARY 11, 2017**

Approximately 12 residents from the Whaley Neighborhood attended this meeting and provided input on the recommendations.

- ◆ One word for the Mill District: Village, Community, Mill Village.
- ◆ Enthusiastic about working with the Cayce rail yard to better manage trains through the neighborhood.
- ◆ Possibility of also working with the Norfolk Southern Yard on Shop Road- prior to rail consolidation (which was noted would make this issue moot).
- ◆ There was a question of ownership of parking area on Heyward. Cornerstone Baptist Church leases the right-of-way from the City of Columbia.
- ◆ Increase City patrols in the area. There are concerns about students walking down Whaley in the dark after class.
- ◆ Consider a traffic signal at the intersection at Williams and Blossom. This may or may not be feasible, given its proximity to the next intersection.
- ◆ Maintain the two parallel tracks (instead of one) at the Huger Street at-grade crossing, if at-grade crossing is kept.
- ◆ Some feel that a Huger Street overpass/flyover would keep trucks out of the neighborhood.
- ◆ Another consideration that most preferred: build a train tracks overpass across Huger Street while deepening Huger Street a bit (underpass), which could be a middle ground of building up and down.
- ◆ There was strong support for installing sidewalks along Olympia Avenue.
- ◆ Assembly Street needs sidewalks along both sides and the entire length.
- ◆ Consider moving the proposed traffic circle to the Heyward/Lincoln intersection in order to better align with Lincoln Street.
- ◆ The residents were very positive about the recommendations and would like to see them implemented.

**PAC MEETINGS | SPRING 2017**

The PAC met three times to fine-tune the Plan. The dates and focus of each meeting are provided below.

- ◆ January 6, 2017: alternatives for improving the railroad crossing at Huger Street, the management of traffic coming into the Mill District, the NEPA process, homeownership rates, land use categories
- ◆ February 1, 2017: placemaking, land use categories, connectivity and Complete Streets, greenways, water quality
- ◆ June 21, 2017: review of the entire draft report and catalyst projects

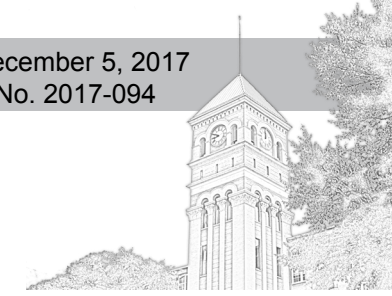
**PUBLIC PRESENTATION | AUGUST 17, 2017**

There was broad support for the direction of the Plan and for the potential improvements that can come from the Plan's implementation. Some residents reiterated that parking and traffic need to be managed in a way that enhances the neighborhoods for those who live there. They look forward to continued and improved collaboration between the City and the County relative to policy, code enforcement and traffic management. Residents are ready to move forward with the implementation.

A couple of property owners shared that they want the proposed land use categories to preserve their options for selling or developing their property in the future.

Vulcan Materials management indicated they are interested in staying engaged with the Mill District Plan implementation.





## DEVELOPMENT TYPES / BUILDING TYPES MATRIX FOR UCMR-3

The below matrix was developed for incorporation within the Plan Columbia: Land Use Plan development types and building matrix, concurrent with the addition of the UCMR-3 future land use classification.

### DEVELOPMENT TYPES / BUILDING TYPES MATRIX

BUILDING TYPE / LAND USE	UCMR-3	BUILDING TYPE / LAND USE	UCMR-3	BUILDING TYPE / LAND USE	UCMR-3
<b>RESIDENTIAL</b>		<b>COMMERCIAL</b>		<b>UTILITY MISCELLANEOUS</b>	
Single-family Detached	P	Large Format Entertainment		Animal Enclosures	
Single-family Attached	P	Medium Format Entertainment		Cemeteries & Mausoleums	T
Two-family (Duplex or Double)	P	Small Format Entertainment	T	Parking Structures	
Three-family	S	Large Format Hospitality		Parking Lots	T
Multi-family Small	S	Medium Format Hospitality		Power Utilities	
Multi-family Medium	T	Small Format Hospitality	T	Water and Wastewater Treatment	
Multi-family Large		Extra Large Format Retail/Service		<b>OPEN SPACE / PARKS / RECREATION</b>	
Multi-family High-rise		Large Format Retail/Service		Nature Preserves	
<b>MIXED-USE</b>		Medium Format Retail/Service		State or Federal Parks/Forests	
Multi-family Small Mixed-use	T	Small Format Retail/Service	T	Regional Parks	
Multi-family Medium Mixed-use		<b>OFFICE / SERVICES</b>		Community Parks	A
Multi-family High-rise Mixed-use		High Rise Office/Services		Private Clubs/Parks/Golf Courses	
<b>CIVIC / INSTITUTIONAL</b>		Large Format Office/Services		Linear Parks	A
Small Format Civic/Institutional	T	Medium Format Office/Services		Neighborhood Parks	A
Medium Format Civic/Institutional	T	Small Format Office/Services	T	Pocket Parks/Greens	A
Large Format Civic/Institutional		<b>FLEX</b>		Squares	A
Multi-family Institutional (Dormitories and Barracks)		Extra Large Format Flex			
		Large Format Flex			
		Medium Format Flex			
		Small Format Flex			

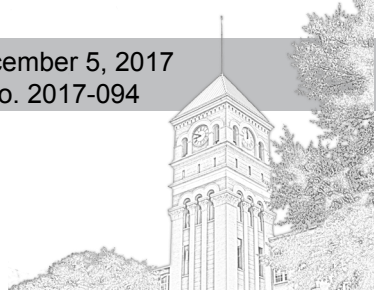
P = Primary Use

S = Secondary Use

T = Tertiary Use

A = Appropriate Use (for open spaces & parks only)





## GLOSSARY OF TERMS

The following definitions were collected from a variety of resources, primarily from professional experience and knowledge. However, several sources were referenced to confirm some of the definitions. These include the following:

**Abatement** - refers to moderation, reduction or lessening particularly of asbestos, a hazardous building material found in many older structures

**Asset Mapping** - participatory tool that identifies what is best in the community and should be advanced and leveraged in order to improve all aspects of a community

**At-Grade Crossing** - an intersection of a railroad track with another transportation facility (another track, road, bicycle/pedestrian facility) at the same level

**Average Annual Daily Traffic (AADT):** - the total volume of traffic on a segment of a facility in both directions for one year divided by the number of days in the year (365)

**Bioswale** - a landscaping feature vegetated with plants that are designed to slow down, collect, infiltrate and filter runoff storm water from impervious surfaces. Bioswales are most often found in areas with large amounts of impervious surfaces such as roadways or parking lots

**Blighted property** - the legal term for land that is in an unsafe or unsightly condition

**Bungalow** - A detached, single-story house on its own plot of land

**Cistern** - a tank for storing rainwater

**Class I railroad** - a railroad that has an annual carrier operation revenue of \$350 million or more

**COMET**- also known as the Central Midlands Regional Transit Authority, the COMET is the operator of mass transportation in Lexington and Richland counties in the Columbia metropolitan area

**Complete Community** - A Complete Community is “a great place that meets your daily needs within a short trip of where you live or work. A community is “complete” when it provides access by foot, bike, transit and car to jobs, shopping, learning, open space, recreation, and other amenities and services.” (What is a Complete Community?, 2013)

**Complete Streets** - an approach or policy to the design of streets which requires streets to be designed, planned, operated and maintained to ensure comfortable, safe and convenient access and travel for all users across different modes of transportation

- + [www.merriam-webster.com/dictionary](http://www.merriam-webster.com/dictionary)
- + [www.savingplaces.org](http://www.savingplaces.org)
- + <https://en.oxforddictionaries.com>

**Conservation** - the process by which individuals or groups attempt to protect valued buildings from unwanted change

**Corridor** - a passage linking two or more spaces

**CSX** - a Class I railroad in the United States that resulted from a merger of the Chessie System and the Seaboard System Railroad

**Culvert**- an embedded structure surrounded by soil which allows water to flow under an obstruction such as a railroad, road or trail

**Density** - the number or ratio of people inhabiting an urbanized area

**Downspout Disconnection** - the process of separating roof downspouts from the sewer system and redirecting roof runoff onto pervious surfaces

**Duplex** - The duplex style house is a popular building type in American history. This housing type is characterized by the separation of a single home into separate units, usually dividing floors and sometimes having additions on parts of the home. In particular, the Mill District has many duplexes most of which are a two-story hipped roof unit with a side-gable attached to the side.

**Embankment** - a wall or bank of earth or stone built to prevent flooding an area

**Encroachment** - the building of structures beyond their property lines which may belong to the government, an individual or an institution

**FHWA** - The Federal Highway Administration is a division of the United States Department of Transportation which specializes in highway transportation. The FHWA oversees federal funds for constructing and maintaining roads, provides highway design and construction services for federal land-management services such as the National Park Service, and also performs and sponsors research in areas of highway materials and construction methods, roadway safety and congestion.

**Floodplain** - a nearly flat plain along a stream or river that is naturally subject to flooding

**Flyover** - A raised structure connecting two points that are separated by an accessible route or structure and is designed to improve traffic flow

**GIS** - a system designed to capture, store, manipulate, analyze, manage and present geographic or spatial data

- + [www.planning.org](http://www.planning.org)
- + [www.nps.gov/tps/standards/rehabilitation/rehab](http://www.nps.gov/tps/standards/rehabilitation/rehab)
- + [www.smartgrowthamerica.org/program-national-complete-streets-coalition](http://www.smartgrowthamerica.org/program-national-complete-streets-coalition)

**Grassroots** - the collective action from the local level which has the power to effect change at a local, regional, national and international level

**Greenway** - a strip of undeveloped land set aside for recreational activities

**Grade Separated Crossing** - a provision for facility continuity over or under a barrier, such as a railroad track

**Hyperlocal** - relating to or focused on a very small geographical community such as a neighborhood.

**Impermeable Pavement** - one that does not allow water through it and creates stormwater runoff

**Infiltration** - the process by which water on the ground surface enters the soil

**Jurisdiction** - the official power to make legal decisions and judgements

**Land Use Plan** - a planning policy that encourages balance among land uses in order to reduce travel distances among residential, employment, shopping and recreational activities, to help create and sustain a sense of place and community and to make the most efficient use of existing infrastructure

**Lint heads** - a nickname for mill workers that came into usage in the early twentieth century. The term refers to the lint and dust from cotton mills that workers would have to clean off their clothes and that may have affected their health

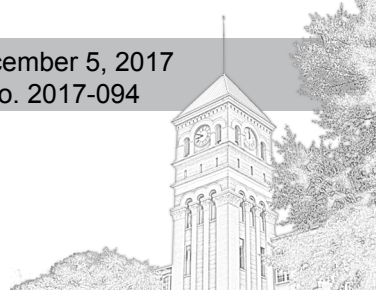
**Livability** - the sum of environmental, economic, and cultural factors that add up to a community’s quality of life

**Mixed Use** - a type of development which brings together commercial, residential, institutional, cultural or industrial uses in a functional and physical way. Mixed-use can be a singular building, a whole city block and even an entire neighborhood

**MOU** - Memorandum of Understanding; a document that expresses mutual agreement between two or more parties

**Multimodal** - accomodation of all users, from cars and trucks to bicyclists, pedestrians, those provided for by the Americans with Disabilities Act, transit users, and sometimes rail transit (passenger and freight)





## GLOSSARY OF TERMS

**NACTO** - National Association of City Transportation Officials; The NACTO's mission is to build cities as places for people, with safe, sustainable, accessible, and equitable transportation choices that support a strong economy and vibrant quality of life.

**NS** - Norfolk Southern rail line, a Class I railroad that is a major transporter of domestic and export coal

**NEPA** - When federal funds are involved in a project, The National Environmental Policy Act (1969) requires the assessment of every significant aspect of a proposed project's environmental impact, as well as fully informing and involving the community and the public of the alternatives and their impacts on the natural, physical and human environments

**PAC** - Planning Advisory Committee; the local committee of residents, property owners and stakeholders who served as advisors to the Mill District Planning Team and as advocate for the Mill District community

**Permeable Pavement** - one that has spaces to allow the passing of rainwater through it into the soil below

**Place Making** - a planning approach that emphasizes a local community's assets, inspiration, and potential, with the intention of creating public spaces that promote people's health, happiness, and well-being

**Post World War II Housing** - Housing in the Mill District, after the mills sold the villages, began to change following World War II. New housing stock began to emerge including brick side-gabled house as well as side-gabled homes with a gabled front section or porch. Also beginning after the war, ranch houses began to emerge.

**Preservation** -the process of maintenance and repair existing historic materials and fabric and retaining a property's form as it has evolved over time

**Programming** - the decision-making process to determine the function of spaces within a building

**Public Safety** - the welfare and protection of the general public

**Quiet Zone** - the mitigation of train horn noise through an area; a zone in which trains do not sound their horns when approaching at-grade crossings. To implement a quiet zone, the local government or agency must implement additional safety precautions to mitigate the lack of warning horns.

**Rail Consolidation** - transfer of rail operations from two (or more) parallel tracks onto one track, allowing for the unused track to be abandoned

**Rehabilitation** - the process of retaining a property's historic character even though alterations or additions may be needed to meet continuing or changing uses

**RFP** - Request for Proposal

**Riparian** - of or relating to or located on the banks of a river or stream

**Riparian Buffer** - a vegetated area near a stream, usually forested, which helps shade and partially protect a stream from the impact of adjacent land uses

**Road Diet** - merging or reducing the number of travel lanes in a road, generally in order to provide traffic calming, reduce speeds, and accommodate non-vehicular users

**ROW** - right-of-way; the legal right of a pedestrian or vehicle to move in a particular situation or place

**Runoff** - the draining away of excess storm water from the surface of an area of land, building or structure.

**Saltbox** - The saltbox house is a two-story side-gable house with an unequal roof pitch on the front and back of the house with it being high in the front and low in the back. There are two stories in the front and one story in the back of the house. The floor plan includes four rooms downstairs and two rooms on the upper floor. Often times the house would be a single-family home or a duplex. This housing type was originally developed to be a more convenient and commodious solution which was and still is a popular housing type in the Mill District. The exterior is clad with wood siding often clapboard.

**SCANA** - an energy-based holding company based in Columbia, South Carolina that brings power and fuel to homes in the Carolinas and Georgia

**SCDOT** - South Carolina Department of Transportation; the goal of the department is to provide adequate, safe, and efficient transportation services for the movement of people and goods

**Setback** - the distance by which a structure is set back from the adjacent road, body of water, or property line.

**Shotgun** - The shotgun style house is characterized by one room connected to the next without hallways and is often suited well for hot climates due to its layout and the inclusion of a porch. Shotgun houses are narrow in width and are able to be built on smaller plots of land.

**Stakeholder** - an individual, group, or organization that may be affected by the decision, activity or outcome of a project

**Stormwater Management** - involves the control of draining excess water from precipitation

**Streetscape** - the visual elements of a street, including the road, adjoining buildings, sidewalks, street furniture, trees, and open spaces that combine to form the street's character

**Third Places** - the social surroundings that are separate from the two usual social environments (the home as "first place," and the office as "second place"); ex: café, library, park

**Thoroughfare** - a major road or highway

**Transpiration** - the process by which moisture is carried through plants from roots to small pores on the underside of leaves, where it changes to vapor and is released to the atmosphere

**Underpass** - a passage running underneath; typically a passage for pedestrians crossing under a road or railroad

**Vernacular** - exemplifying features that are indigenous to a specific region

**Visual Preference Survey** - a way to engage the public in determining their preferences for physical aspects of their communities such as design, architecture, landscape, signage, bike paths

**Watershed** - an area of land that separates the water flowing to different rivers

**Water surcharge** - water ponding behind pipes due to volumes that exceed pipe capacity

**Zoning** - a legal restriction affecting urban design, parts of cities being deemed to be for particular uses – ex: for businesses, housing, etc. – and the heights and volumes of buildings being prescribed



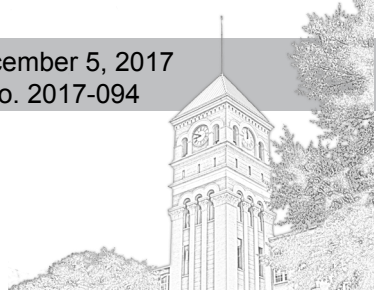


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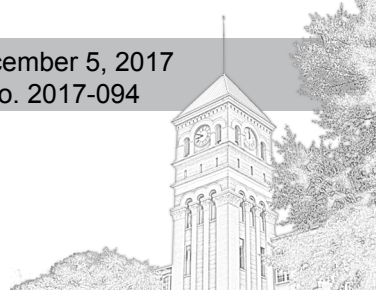
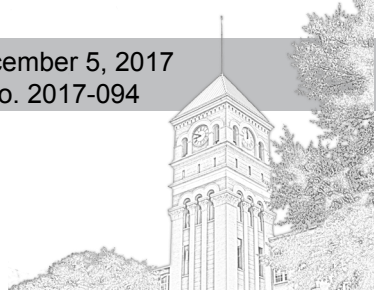


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## REFERENCES

All images and figures within this report without a citation are property of The Boudreaux Group, CityVolve, and LandPlan Group South.

Assembly Street Railroad Corridor Consolidation Project. (2009, March). Retrieved May 31, 2017, from <http://www.columbiasc.net/utilities-engineering/news/#Y2015>

Average Annual Daily Traffic. (2017, May 4). Retrieved May 31, 2017, from <http://www.scdot.org/getting/annualTraffic.aspx>

Benefits of Homeownership and Stable Housing - nar.realtor. (2002, April). Retrieved May 31, 2017, from <https://www.nar.realtor/reports/social-benefits-of-homeownership-and-stable-housing>

Columbia Planning Department. (2008, October). The Columbia Plan . Retrieved May 30, 2017, from [https://www.columbiasc.net/depts/planning-preservation/docs/tcp\\_final\\_edition\\_complete\\_document.pdf](https://www.columbiasc.net/depts/planning-preservation/docs/tcp_final_edition_complete_document.pdf)

Comprehensive Plan | Richland County, South Carolina. (2015, March 17). Retrieved May 31, 2017, from [http://www.rcgov.us/Portals/0/Departments/Planning/ADOPTED\\_RC\\_2015CompPlan.pdf](http://www.rcgov.us/Portals/0/Departments/Planning/ADOPTED_RC_2015CompPlan.pdf)

Edwards-Pitman Environmental, Inc. (2002). Upper Richland County Historical and Architectural Inventory (List of Figures and Plates, pp. 1-58, Rep.). doi: <http://www.rcgov.us/Portals/0/departments/Conservation/Commission/Rural%20Upper%20Richland%20Report/FinalReport.pdf>

Federal Railroad Administration. (2017, May 31). Office of Safety Analysis.

Retrieved May 31, 2017, from <http://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/CrossingXingLocResults.aspx?state=45&countycity=0520%2c&railroad=&reportinglevel=ALL&radionm=City&street=&xingtype=3&xingstatus=1&xingpos=1gLocResults.0%2c&railroad=&reportinglevel=ALL&radionm=City&street=&xingtype=3&xingstatus=1&xingpos=1>

Federal Railroad Administration. (n.d.). Query by Location. Retrieved May 31, 2017, from [8 http://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing.aspx](http://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing.aspx)

Federal User Community. (2011). National Rail Network [Map]. In Map Service.

Federal User Community. (2017). Rail Grade Crossings [Map]. In Map Service.

Granby Historic District Guidelines. (2010). Retrieved May 30, 2017, from <https://www.columbiasc.net/depts/planning-preservation/docs/extprod002485.pdf>

High Occupancy Driving Redevelopment but Not New Development. (n.d.). Q1 2017 Columbia Office Market Report. Retrieved May 31, 2017, from <http://www.colliers.com/en-us/southcarolina/insights/marketreports/office/columbia>

Hutchinson, J., Olsen, J., Petty, G., & Witherspoon, G. (2013, Spring). Rocky Branch Greenway. Retrieved May 31, 2017, from [http://people.cas.sc.edu/ajames/RBWA/Rpts\\_&\\_Docs/549%20Projects%20Spr%202013/3\\_Greenway%20%5Bppt%5D.pdf](http://people.cas.sc.edu/ajames/RBWA/Rpts_&_Docs/549%20Projects%20Spr%202013/3_Greenway%20%5Bppt%5D.pdf)

Katz, B., & Wagner, J. (2016, September 28). The Rise of Innovation Districts | Brookings Institution. Retrieved June 13, 2017, from <https://www.brookings.edu/essay/rise-of-innovation-districts/>

Lowe, N. (2014, August 06). Durham City Case Study. Retrieved May 31, 2017, from <http://www.ncgrowth.unc.edu/index.php/durham-city-case-study/>

Martin, J., Theos, N., & Woodard, S. (2002, June). Olympia Mill and Village. Retrieved May 30, 2017, from <http://nationalregister.sc.gov/SurveyReports/Olympia2002SM-2.pdf>

McCormick Taylor. (2016, May 20). Rocky Branch Watershed Assessment. Retrieved May 30, 2017, from <https://www.columbiasc.net/depts/utilities-engineering/docs/sw/watershedplans/ws-plan-rocky-branch-2016-may20.pdf>

National Complete Streets Coalition. (n.d.). Retrieved May 31, 2017, from <https://smartgrowthamerica.org/program/national-complete-streets-coalition/>

National Register of Historic Places Database and Research Page -- National Register of Historic Places

Official Website--Part of the National Park Service. (n.d.). Retrieved May 31, 2017, from <https://www.nps.gov/nr/research/>

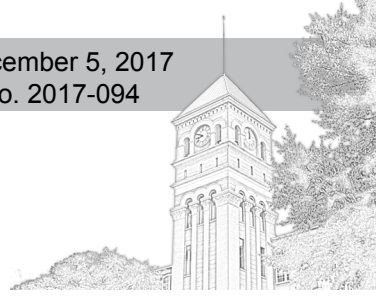
Office of Business Operations. (n.d.). Commercial Loan Program. Retrieved May 31, 2017, from <https://www.columbiasc.gov/depts/obo/docs/extprod004543.pdf>

Oldenburg, R. (1989). The Great Good Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons, And Other Hangouts At The Heart Of A Community. New York: Da Capo Press

Planning and Development Services. (2010, October 6). Whaley Street Protection Area. Retrieved May 30, 2017, from <https://www.columbiasc.net/depts/planning-preservation/docs/extprod002494.pdf>



## REFERENCES



- Planning Commission. (2017, March 30). Capitol City Mill District Area and Corridor Plan Update. Retrieved May 31, 2017, from [http://www.columbiasc.gov/depts/planning-boards-commissions/pc/agendas/20170320/cplan\\_-\\_mill\\_district\\_\\_update\\_\\_pc\\_case\\_summary.pdf](http://www.columbiasc.gov/depts/planning-boards-commissions/pc/agendas/20170320/cplan_-_mill_district__update__pc_case_summary.pdf)
- Richland County. (2007). Richland County Bailey Bill . Retrieved May 31, 2017, from <http://www.rcgov.us/Government/Commissions/ConservationCommission/HistoricPreservation/BaileyBill.aspx>
- Capital\_City\_Mill\_District\_FINAL [GIS shapefile & Olympia Mill Structures.xls]. Columbia, South Carolina: Richland County Tax Assessor's Office, March 13, 2017. Not publicly available.
- Richland County GIS. Maps & Data. Retrieved August 1, 2017, from <http://www.richlandmaps.com/content/maps-data>
- River Alliance. (n.d.). Retrieved May 31, 2017, from <http://www.columbiacvb.com/listings/River-Alliance/15726/>
- Saltbox Houses in the Historic American Buildings Survey. (2014, April 29). Retrieved May 30, 2017, from [https://www.loc.gov/rr/print/list/175\\_sal1.html](https://www.loc.gov/rr/print/list/175_sal1.html)
- South Carolina Department of Transportation. (2017, February 9). Railroad Crossings. Retrieved May 31, 2017, from <http://www.scdot.org/inside/rrcrossings.aspx>
- South Carolina Department of Transportation. (n.d.). SCDOT GIS . In SCDOT.
- The Editors of Encyclopædia Britannica. (2017, March 17). Shotgun house. Retrieved May 30, 2017, from <https://www.britannica.com/technology/shotgun-house>
- The National Environmental Policy Act of 1969. (1969). Retrieved May 31, 2017, from <https://www.fws.gov/r9esnepa/RelatedLegislativeAuthorities/nepa1969.PDF>
- The Noisette Company. (2003, December). Noisette Community Master Plan . Retrieved May 31, 2017, from [http://www.citycraftventures.com/wp-content/uploads/2012/05/Noisette-Master-Plansmallpdf.com\\_.pdf](http://www.citycraftventures.com/wp-content/uploads/2012/05/Noisette-Master-Plansmallpdf.com_.pdf)
- The Saltbox. (n.d.). Retrieved May 30, 2017, from <http://www.cchonline.com/saltbox/>
- Transportation Penny Project. (2012, November 6). Retrieved May 31, 2017, from <http://www.rcgov.us/Portals/0/TransportationPenny/Docs/FactSheet.pdf>
- U.S. Census Bureau (2010). Retrieved from <https://www.census.gov/2010census/>.
- U.S. Census Bureau (2015). Retrieved from <https://www.census.gov/library/publications.2015.html>.
- United Midlands Multimodal Corridor Improvement Project. (2014, May 16). Retrieved May 31, 2017, from [http://www.columbiasc.net/depts/city-council/docs/2014/05\\_20\\_2014/resolution\\_2014\\_043\\_1.pdf](http://www.columbiasc.net/depts/city-council/docs/2014/05_20_2014/resolution_2014_043_1.pdf)
- Urban Land Institute. (2013). Reality Check Midlands. Retrieved May 31, 2017, from <http://southcarolina.uli.org/wp-content/uploads/sites/48/2013/02/Reality-Check-Results-Summary.pdf>
- US Department of Transportation. (n.d.). FRA Safety Map [Map]. In Government Information System. Federal Railroad Administration.
- Walk Bike Columbia: Pedestrian and Bicycle Master Plan. (2015). Retrieved May 31, 2017, from <http://pccsc.net/wp-content/uploads/2013/08/ExecutiveSummary.pdf>
- What is a complete community? (2013, February 25). Retrieved May 30, 2017, from <http://www.austintexas.gov/blog/what-complete-community>