



# River District

## SMALL AREA PLAN

Town of Knightdale  
Development Services Department

Draft Document



# ACKNOWLEDGEMENTS

Preparation of The River District Small Area Plan was a collaborative process involving numerous stakeholders, including the Town Council, Land Use Review Board, and Town Staff. Additionally, the Plan could not have been completed without the active involvement of the residents of Knightdale. Thank you to all who participated and committed their time, energy, and resources to help shape this Plan.

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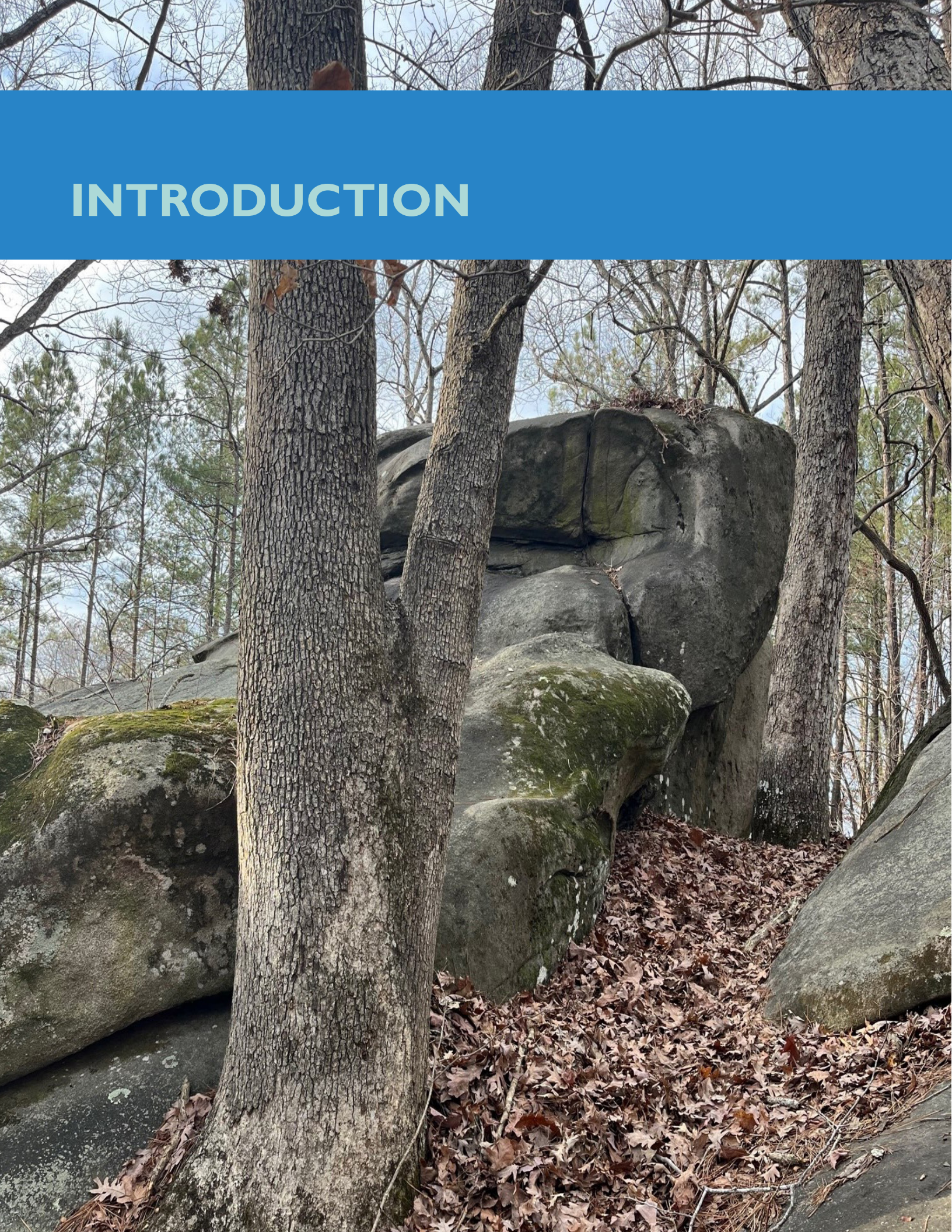
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Once adopted, this document will be added as an Appendix to the KnightdaleNext 2035 Comprehensive Plan (adopted in 2018).







# INTRODUCTION

## Overview

After several months of engaging residents and stakeholders, we are pleased to present The River District Small Area Plan – a plan and vision for future growth on the western side of Knightdale, along the Neuse River corridor. Guiding future growth in a thoughtful and environmentally and socially responsible way is essential to ensuring that our neighborhoods and our diverse community continue to thrive.

During the planning process, Town staff engaged the local community through a visual preference survey and a neighborhood open house; sought input from several stakeholder groups; analyzed various existing Town plans, and researched best practices of environmentally friendly development. The following plan presents existing conditions in the Study Area, provides clear recommendations across several disciplines, and proposes specific implementation actions.

The purpose of the plan is to establish a vision and provide guidance for future zoning, development, and capital projects that will enhance the character of the corridor and enhance its identity as a center of outdoor recreation and natural beauty.

The River District covers approximately 2,600 acres (four square miles) along the western jurisdictional boundary of Knightdale. The existing use of the majority of the study area is residential, with some limited commercial and

industrial uses scattered throughout. A few large wooded, undeveloped parcels exist within the District’s boundaries. The Plan will target these parcels for either future mixed-use development or public park/recreation uses.

Most importantly, The River District contains a significant natural resource – the Neuse River. The river provides substantial opportunities for outdoor recreation. Several sections of the East Neuse Greenway System either exist today or are in the process of being constructed. Destinations along the greenway in The River District should emphasize interactions between water and land, including nature viewing areas, kayak launches, and fishing spots.

As of the time of this study, a number of tracts have received zoning approval and are in the process of developing. These upcoming developments include residential and multi-family housing, a hotel, and an office and retail center.



## What is a Small Area Plan?

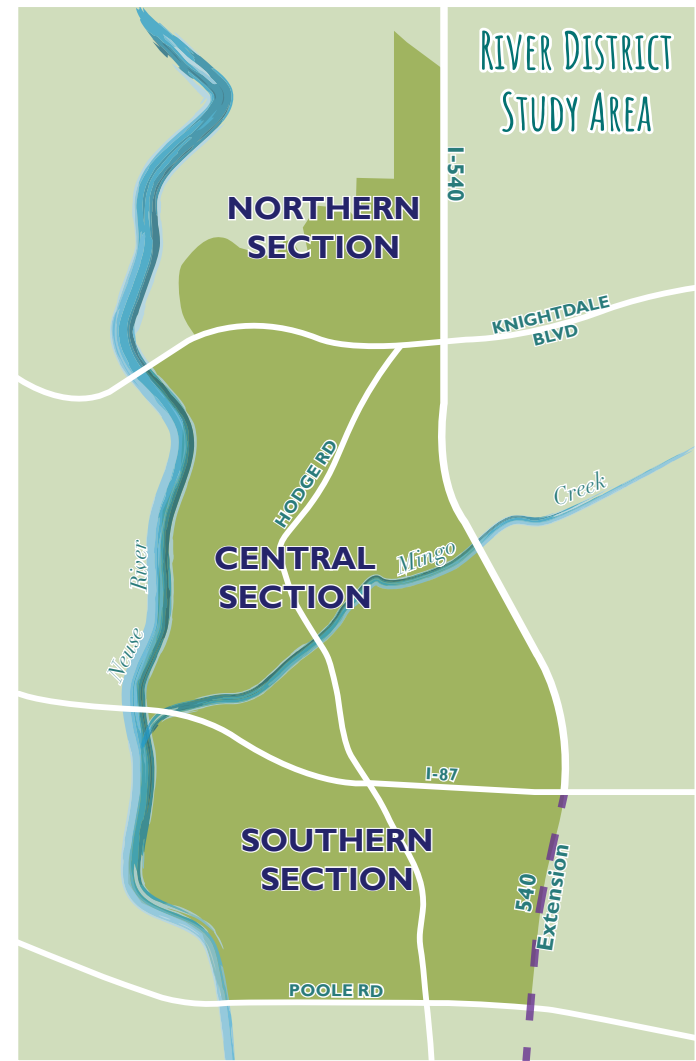
Small Area Plans are a way to take a closer look at areas of particular importance to the Town. Small Area Plans examine existing conditions, Town trends, and best practices to arrive at a specific vision with detailed goals, policies, and guidelines for the area under study. Small Area Plans are intended to provide more detail than the Town’s Comprehensive Plan, KnightdaleNext, and they address an area’s unique needs and opportunities. This Plan will help to guide future land use decisions.



# Overview

## Summary Of Existing Conditions

- There are several established residential developments. Single family detached homes make up the majority of the residential properties found within The River District.
- Some parcels are already zoned Open Space Preserve including Panther Rock Park, NCDOT Mitigation Land, Knightdale Swim Club and Mingo Creek Trail.
- Commercial businesses include Poole's Garage (auto repair); Paul's Grill and Grocery (convenience store & gas station); Eastgate 540 (industrial park); Myrick's Cabinet Shop; Fire Station #4 (under construction); self-storage; Green Pines Baptist Church; Duke Energy Substation; Hodge Road Elementary school; and various medical and professional offices.

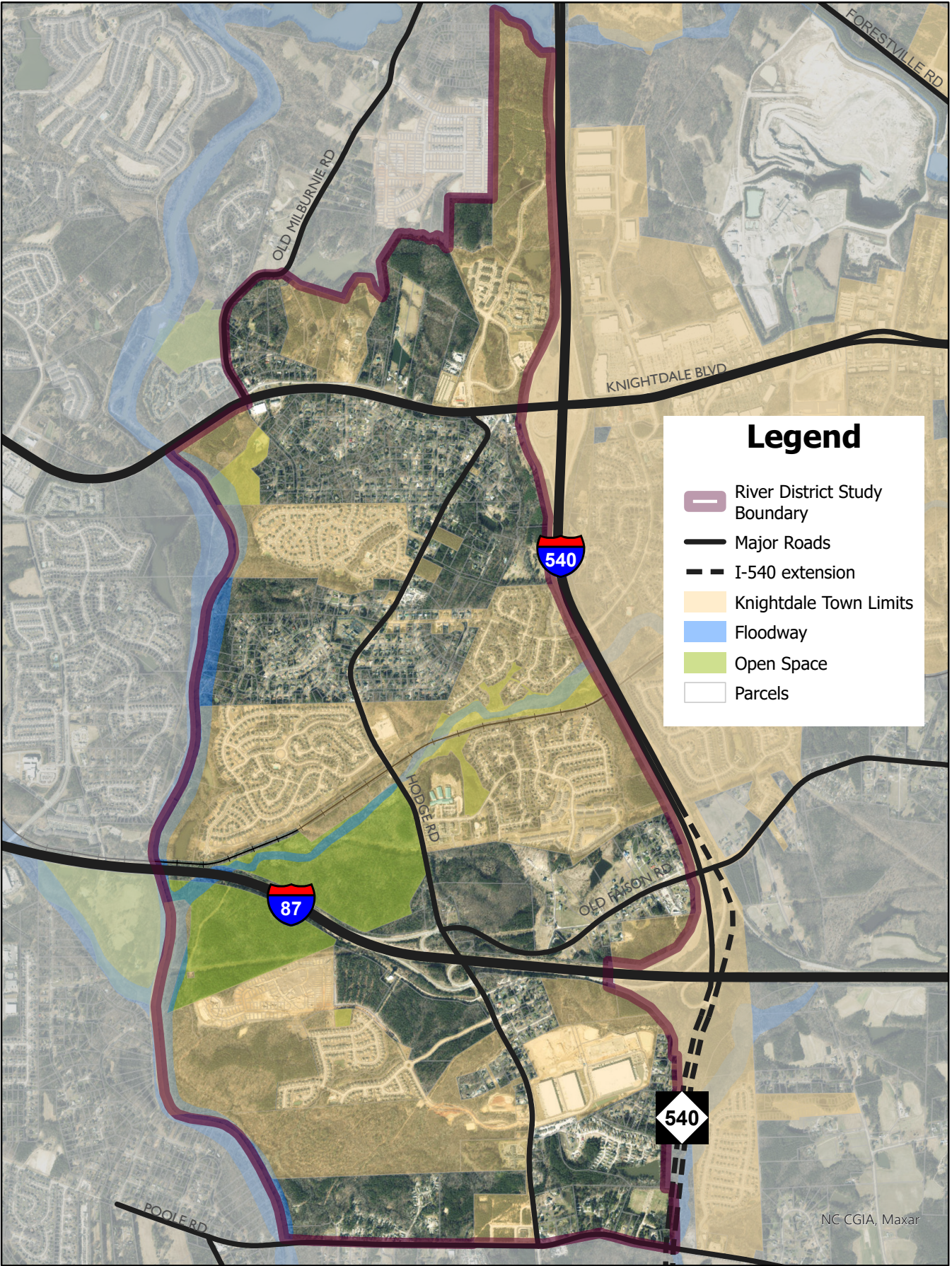


The River District study area is bound by Interstate 540 to the east (running North-South) and the Neuse River to the west, with several major roadways that bisect the area from east to west (Knightdale Boulevard/US 64, Interstate 87, and Poole Road). Based upon the location and intersections of these roadways, the current development pattern can be broken down into sections to clearly describe the locations of current land uses and zoning that will play an important role in the future development and character of The River District. Those sections are:

1. Northern Section (north of Knightdale Blvd)
2. Central Section (between Knightdale Blvd and I-87)
3. Southern Section (south of I-87 to Poole Road)

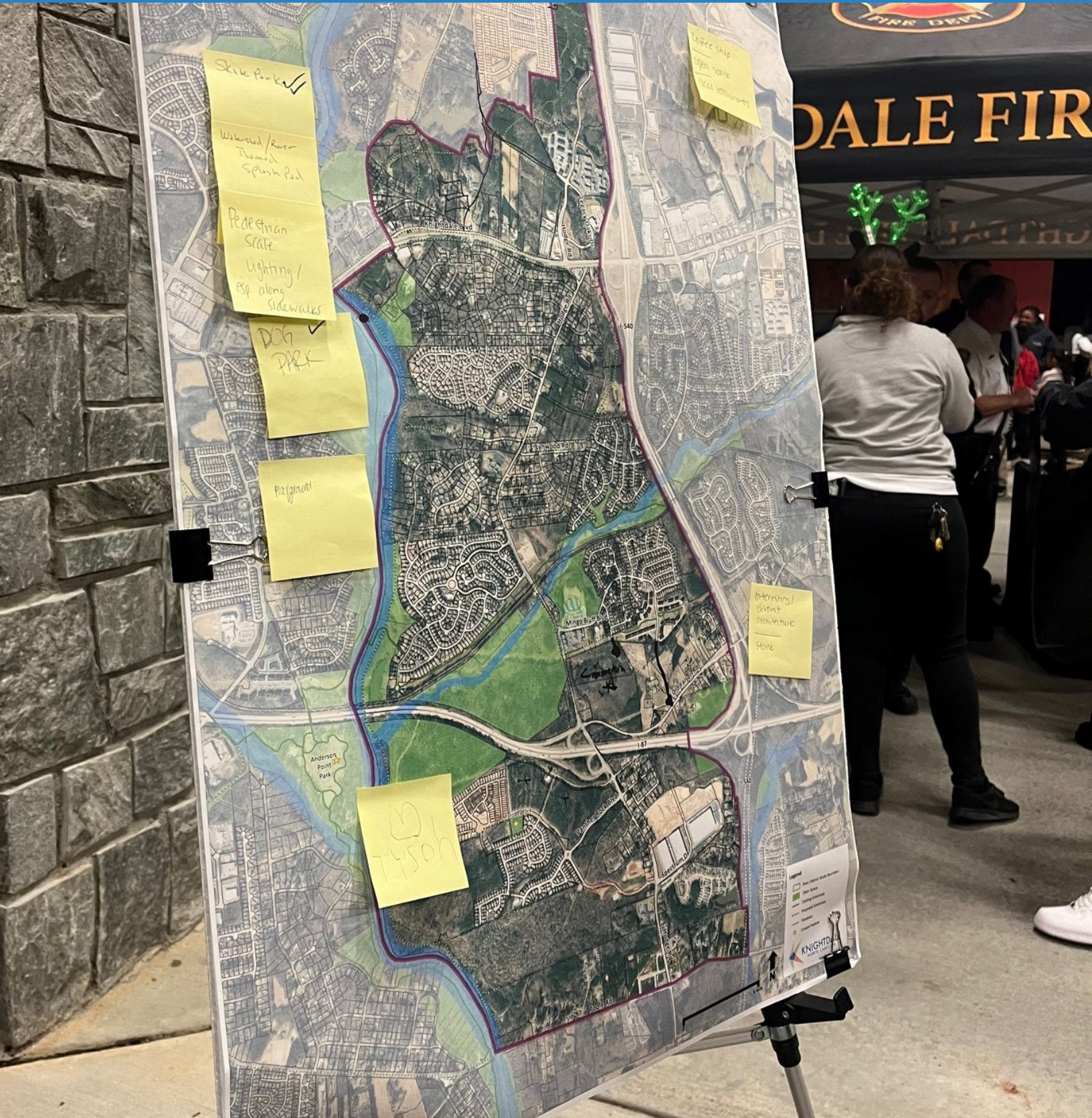


# Study Area Map



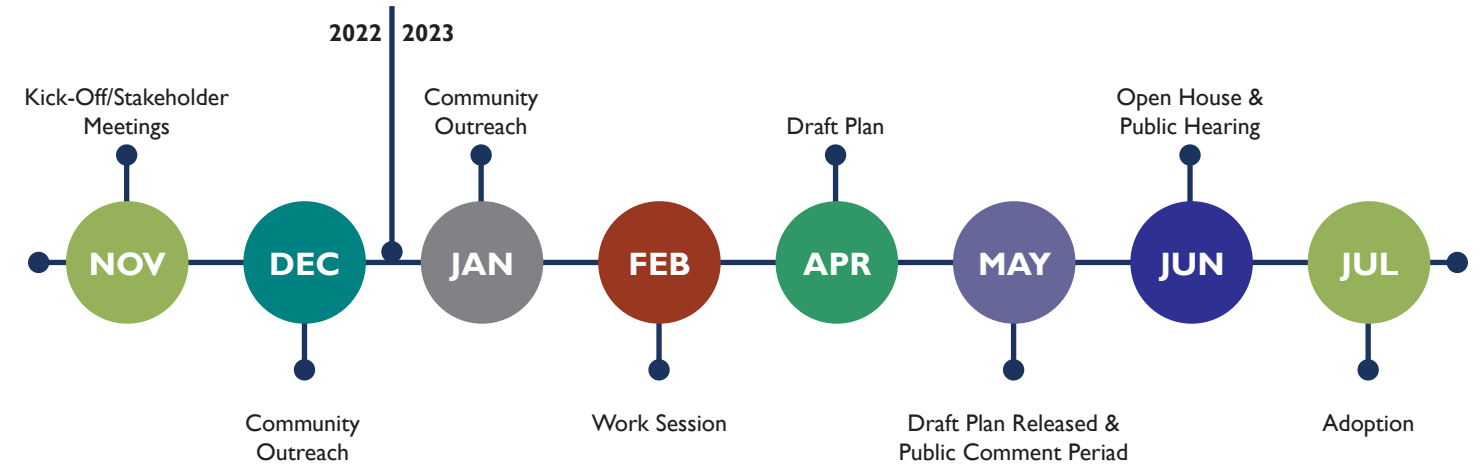


# PLANNING PROCESS



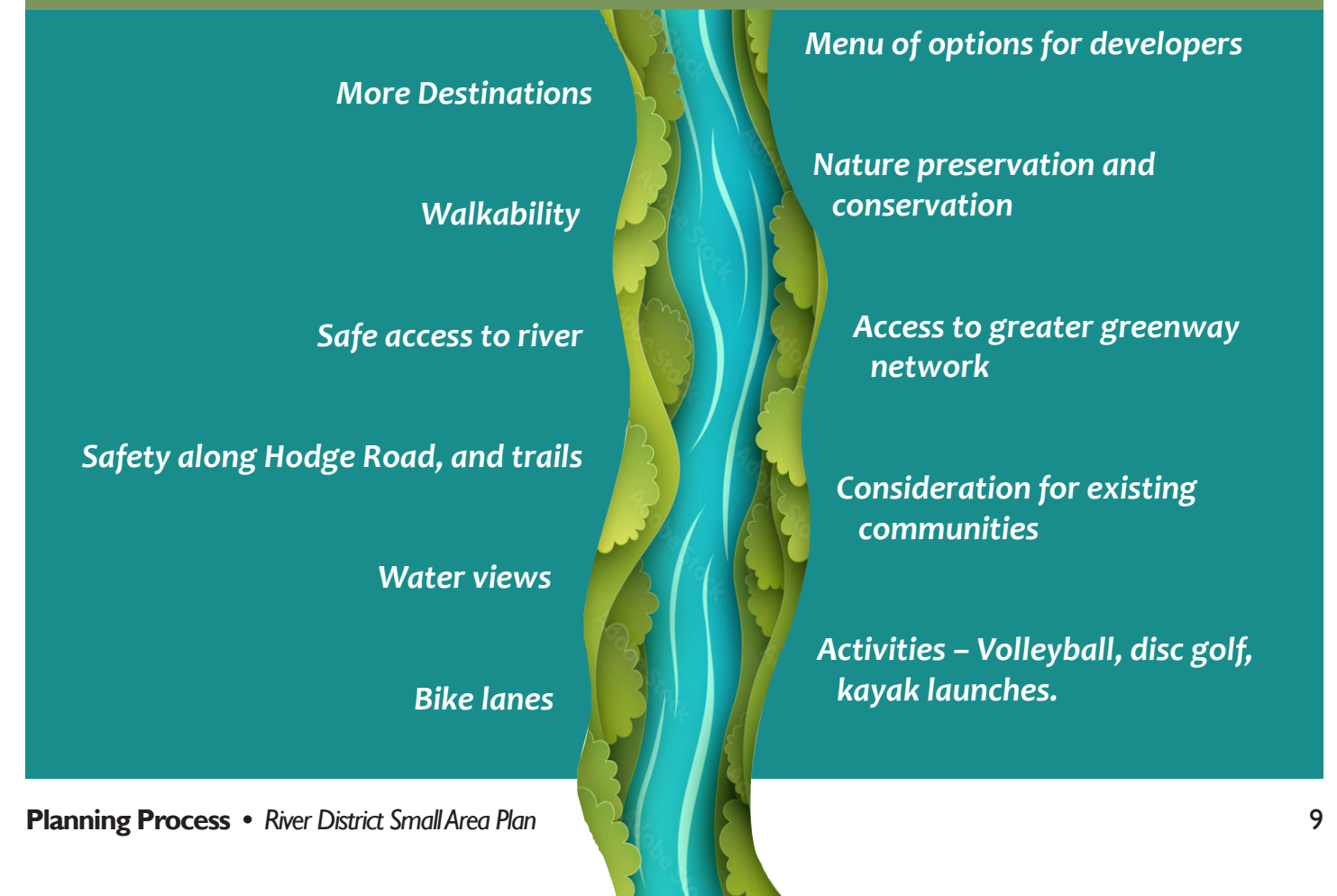
## The Timeline

In an effort to complete the plan in a timely manner, the Town charted an ambitious timeline. The process began in November 2022 with an nine-month goal for completion. The first several months were dedicated to public outreach and stakeholder interviews.



## We Heard You!

These are some of the many common responses that our residents were passionate about:





# Community Outreach



## TREE LIGHTING:

The first public outreach event was the Knightdale Christmas Tree Lighting on December 2, 2022 at Knightdale Station Park. Visitors to the team’s booth could learn more about The River District, including its purpose, goals, and progress to date, leave comments on a map of Knightdale for specific concerns or areas of interest, or rank their top three priorities.



## STAKEHOLDER INTERVIEWS:

During December 2022 and January 2023, Development Services staff met with 34 stakeholders, representing residents, business owners, developers, environmental organizations, transportation experts, and neighboring municipalities.

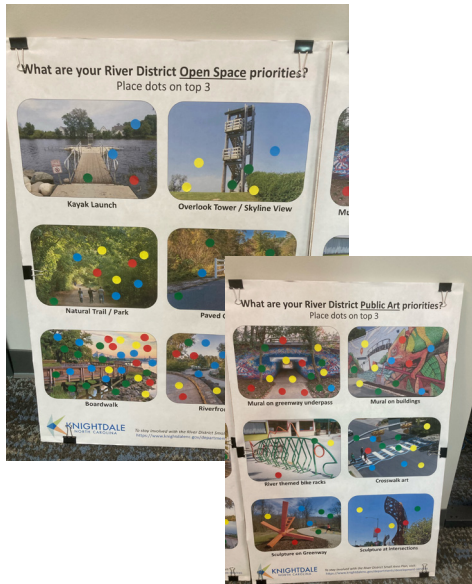
Agencies represented include:

1. NCDOT
2. CAMPO
3. City of Raleigh
4. Wake County Parks & Recreation
5. Parks and Recreation Advisory Board



## KNIGHTDALE HIGH SCHOOL CAREER DAY:

Development Services staff attended the Knightdale High School Career Day on February 9, 2023. Students circulated the gymnasium and had the opportunity to ask general questions about development taking place in the Town, as well as learn more about what The River District was, how staff has gathered applicable information to the area, and why the district is being studied. The students were then asked to choose their three top passive recreation priorities and their three top active recreation priorities from a poster board with images of these components. The Career Day input provided the opportunity to gather valuable input from the young generations of the Town and learn what they would like to see The River District become and what built environment components piqued their interests the most.

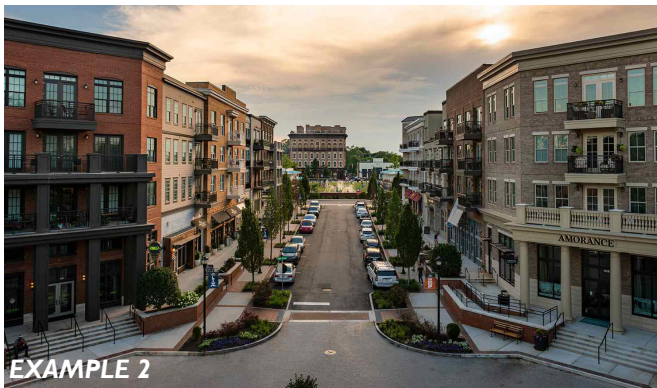


## Preferences for Mixed Use Development Design:

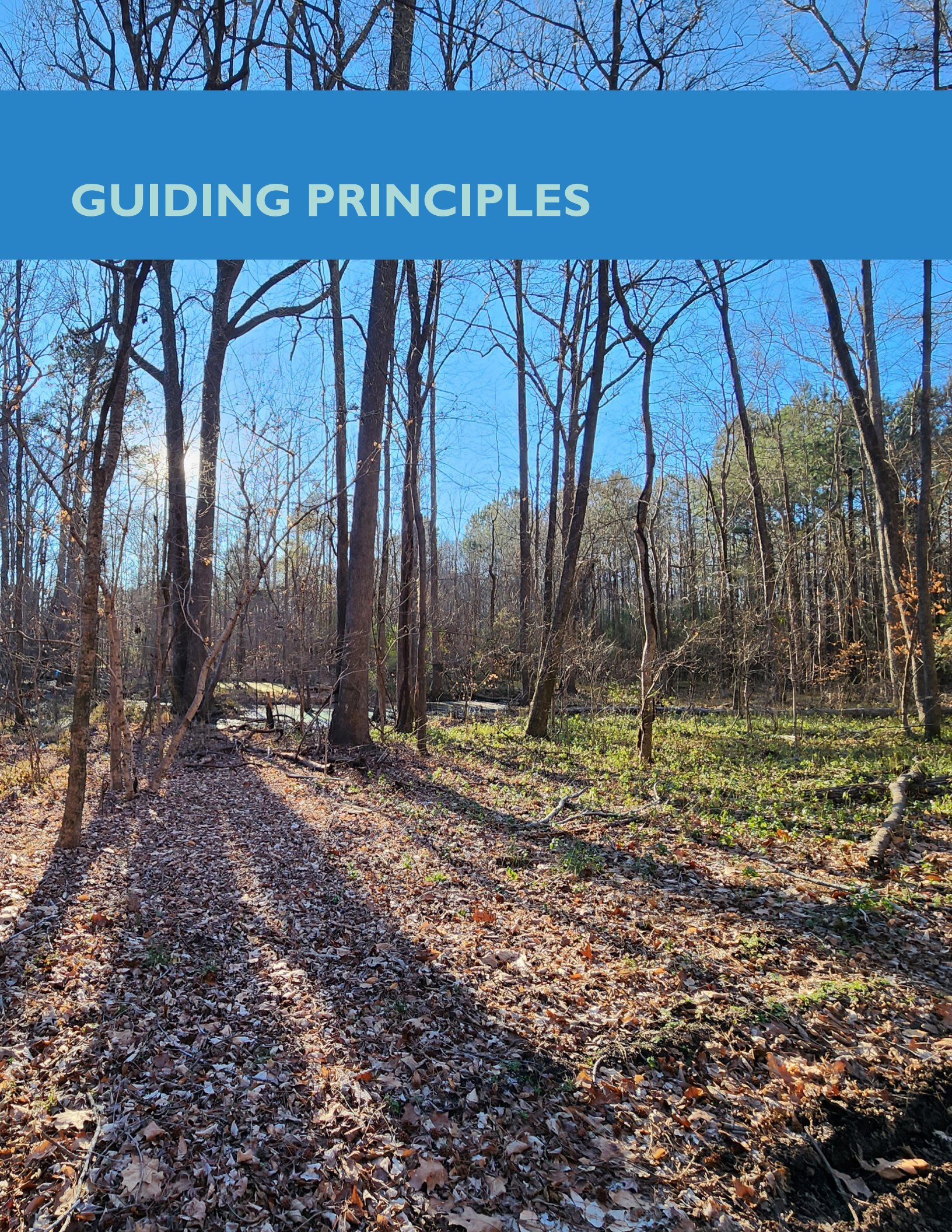


## VISUAL PREFERENCE SURVEY:

The Town launched a Visual Preference Survey in January 2023 and received 181 responses. The survey helped to inform the Plan by identifying the community’s preferred development types, design principles, mobility facilities, and open space options. Participants were also allowed to provide open-ended feedback and comments at the end of the survey.







# GUIDING PRINCIPLES

## Guiding Principles

The KnightdaleNext 2035 Comprehensive Plan identifies ten guiding principles critical to Knightdale’s current and future quality-of-life and economic prosperity. The guiding principles are core to the Town’s vision for the future and are contemplated during land use decisions. Much like the town-wide plan, The River District Small Area Plan identifies four guiding principles that are critical to the Town realizing the community’s vision for this area.

The four River District guiding principles do not supersede those found in the Comprehensive Plan but are intended to complement and build on them. They celebrate the uniqueness of The River District and should be used in making land use, private investment, or public investment decisions. The Guiding Principles will help to deliver the vision and celebrate the unique characteristics of The River District.

### WATER QUALITY



The Neuse River is a key asset to The River District and protecting its water quality is of the upmost importance. The river and the surrounding area provide scenic beauty, wildlife habitat, and recreational opportunities that can only be preserved through protecting the water. This should be realized through increased stormwater and erosion control, and limited land disturbance. The protection of the river should extend to the countless tributaries, creeks, and wetlands that feed it.

### ACTIVE OUTDOOR LIFESTYLE



The River District provides an opportunity to promote an active, outdoor lifestyle unique to Knightdale. Development within The River District should include investment in parks, greenways, and open spaces as well as infrastructure improvements to provide increased access to these investments for bicyclists and pedestrians. Public Art and other site amenities should promote the active, outdoor lifestyle and encourage recreational opportunities for residents and visitors.

### PLACEMAKING



For The River District to celebrate its unique characteristics, a strong focus on placemaking is necessary. This includes specific architectural character that is distinct from other parts of Knightdale. The River District should honor the natural environment and encourage developments that “design with nature”. The river should be a focal point and be featured in public art and district signage. Streetscape improvements, public facilities, and art should be a strong focus of public and private investment.

### TRAIL AND TRANSIT ORIENTED DEVELOPMENT



The River District should embrace Trail and Transit Oriented Development. Trail Oriented Development includes designing public and private spaces to accommodate trail users and encourages bringing trail connectivity into development. Amenities such as bike parking, outdoor furniture, bike repair stations, public art, and trail improvements are all part of public and private investment in the District. Mixed-use centers in The River District should be Trail Oriented and encourage businesses that serve recreational and commuter trail traffic.

Transit Oriented Development is focused along Knightdale Boulevard and encourages density clustered near transit stops as well as mobility hubs to encourage multi-modal transportation. Mixed-use centers should encourage transit use by clustering residents and employment centers. Businesses should focus on daily needs of nearby residents as well as large employment centers.



# LAND USE

## Existing Conditions

The River District Study Area represents a combination of all different types of land uses (residential, commercial, office & institutional, and industrial), and open spaces (private and public) that have been established over the past several decades. Residential zoning makes up about two-thirds of the zoning within the study area, with General Residential Medium-Density District (GR8) being the predominant classification. The residential zoning categories include allowable densities ranging from extremely low to high densities (from one to eight or more dwelling units per acre), which has led to a development pattern consisting of a variety of housing types, including detached single-family houses, duplexes, townhouses, and multi-family apartments.



Although mixed-used zoning districts are found within the study area, neighborhoods with homes and businesses integrated throughout the overall design of the development are limited, resulting in an area-wide residential make-up closer to 75%.

Single-family homes, mostly located within the Rural Transition (RT), General Residential Low Density (GR3), and General Residential Medium Density (GR8) zoning districts, are the prevalent housing type with the largest concentration within the central section. Although single-family homes are also found in higher density and mixed-use zoning districts, duplexes, townhomes, and multi-family apartments are added to the housing options throughout the higher density zoning categories, Urban Residential (UR12), Neighborhood Mixed-Use (NMX), and Residential Mixed-Use (RMX) that are found in the central and southern sections of the study area.

Today, residential development is less prevalent in the northern section compared to the others and is primarily concentrated in the Legacy Oaks development as a multi-family community. Additional residential and non-

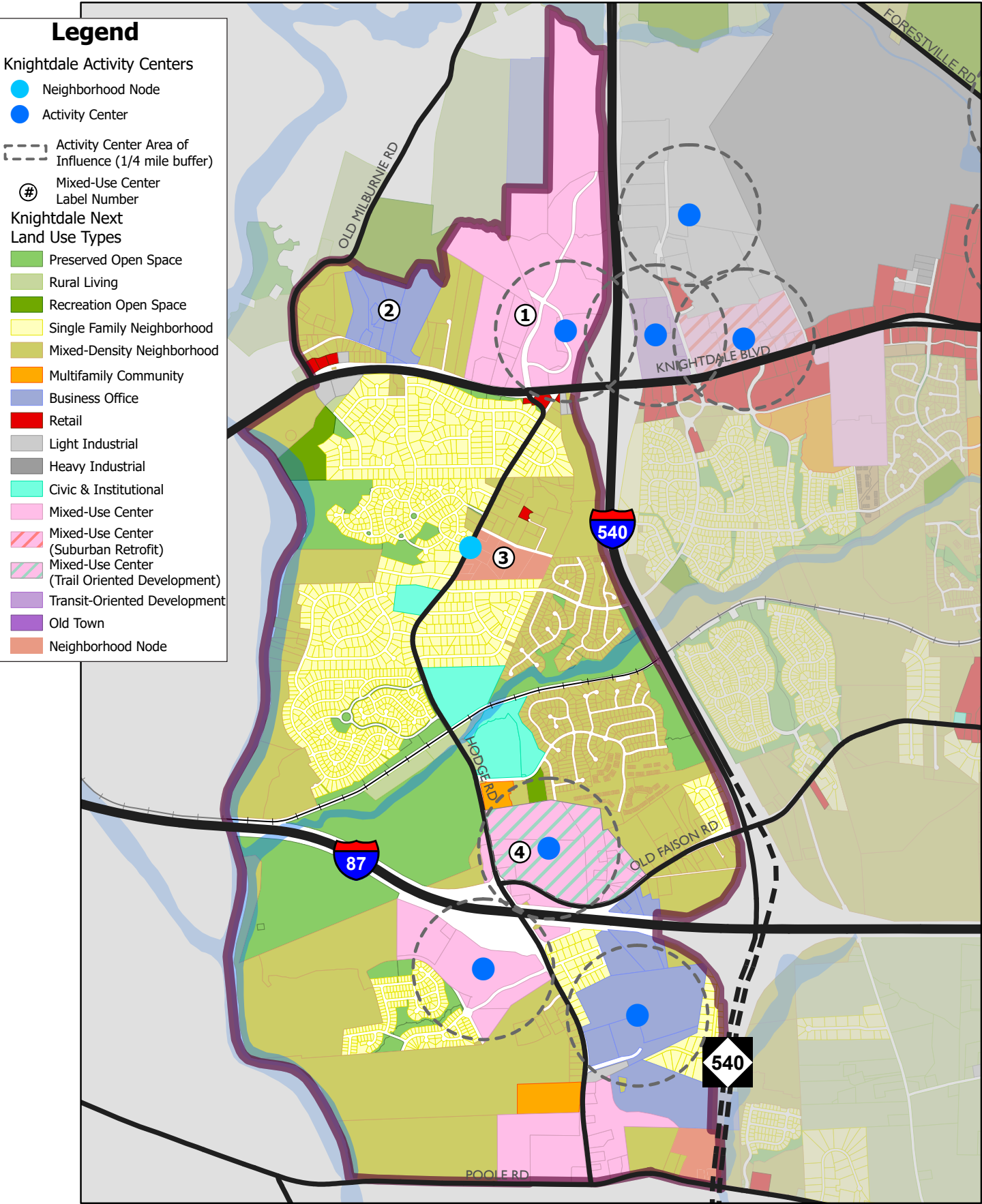
residential components of Legacy Oaks are currently in the Town's development review process. Additionally, a mixed housing type neighborhood composed of detached single-family homes and townhomes, and a townhome-only neighborhood, are under review along the western and northern sides of Legacy Oaks. Manufactured homes and parks can be found throughout the study area but are primarily in the RT zoning district in the southern section.

Open space in the form of dedicated, private neighborhood amenities such as parks, gathering spaces, pools and clubhouses, walking trails, landscape buffers, etc. is found throughout the study area as part of residential neighborhoods developed over the past several decades. The Town of Knightdale and the North Carolina Department of Transportation are the largest landowners of Open Space Preservation zoned property in the central and southern sections of the study area, with contiguous land concentrated on the northern and southern sides of Mingo Creek and surrounding the Interstate 540/87 interchange. Additional details on the intended use of these properties can be found in the Open Space Chapter of this Plan. The Town also owns and operates the Knightdale Community Pool, which is located east of the Neuse River in the central section.

In terms of non-residential development, almost 15% of The River District is made up of retail, services, office and institutional, and industrial uses. Such uses include offices for medical and professional services; automotive shops for repair, maintenance, and service; gas stations with convenience stores and car washes; civic and institutional uses such as Fire Station #4 currently under construction; a religious institution; an educational facility; industrial uses including warehouse storage, wholesaling and distribution, and manufacturing; and a power generation facility.

These land uses are generally concentrated in nodes near the Knightdale Boulevard and Interstate 540 interchange in the northern section; along Hodge Road and the northern side of its interchange with Interstate 87 in the central section; and along Hodge Road and its intersection with Poole Road.





Mixed-Use Center North

Expanding the existing Mixed-Use Center in the northwest quadrant of Knightdale Boulevard/Interstate 540 will create a unique activity center with a concentration of mixed housing types and non-residential uses within close proximity to each other. This will provide citizens with additional options to live, work, shop, and participate in civic life. This will also support the goals of the KnightdaleNext 2035 Comprehensive Plan by facilitating transit-oriented development and access to pedestrian level mobility that connects Knightdale's citizens and visitors to local and regional destinations, while assisting with the development of a distinct sense of place and identity that is unique to The River District.

Knightdale Gateway Site

A shift in Place Type from Light Industrial to Business Office will provide opportunities to concentrate employment in the Town on normal workdays and should include both large-scale buildings and areas with one or more buildings for multiple businesses that support and serve one another. This area is an ideal location to designate as a Business Office Place Type due to its nearby access to major transportation corridors and close proximity to a mixed-use center that is anticipated to expand. A business office, coupled with the overarching goals of the Town to improve mobility and provide multi-modal options can facilitate a strong economy and a greater quality of life through increasing access to jobs, community services, commercial destinations, and natural resources. To assist with the development of a distinct sense of place and identity that is unique to The River District, development within this area should incorporate design features that create a vibrant, sustainable, and safe community design in which people not only desire to visit, but to also live, work, and play.

Neighborhood Node at Needwill Court

Neighborhood nodes are identified throughout the Town to highlight opportunities to provide goods and services to surrounding neighborhoods. These neighborhood nodes should be developed with a focus on commercial services and operations that are low-intensity, unobtrusive, and at a scale and design compatible with the existing and future nearby residential developments. Since neighborhood nodes are intended to fit into the neighborhood fabric and co-exist, access to and throughout the node should be limited to pedestrian facilities that focus on creating safe spaces away from automobile traffic. It should incorporate trail-oriented design to help pedestrians and bicyclists arrive at shopping, parks, and service destinations.

Trail Oriented Development at Mixed-Use Center Central

The KnightdaleNext 2035 Comprehensive Plan identifies a Mixed-Use Center in the northeast quadrant of the Hodge Road and Old Faison Road intersection. Designating this center as a Trail Oriented Development will orient the mixed-use development to the sidepath along the east side of Hodge Road as well as the greenway traveling between Hodge Road and Old Faison Road. The Trail Oriented Development should include design features that activate trails through the orientation of building footprints, building features and outdoor amenities. Trail Oriented Development design principles include: orienting patios and balconies to face the trail; limiting roadway crossings of trails; orienting building entrances to trails; locating outdoor seating and amenities between buildings and trails; connecting internal sidewalks to trails; prohibiting parking, roadways and stormwater ponds between buildings and trails; locating bicycle racks and storage facilities convenient to trails; including retail on the ground level of mixed-use buildings; and providing pedestrian scale lighting and a landscaped buffer (~15-30 ft.) between outdoor amenities and trails.

Mixed-Use Center South

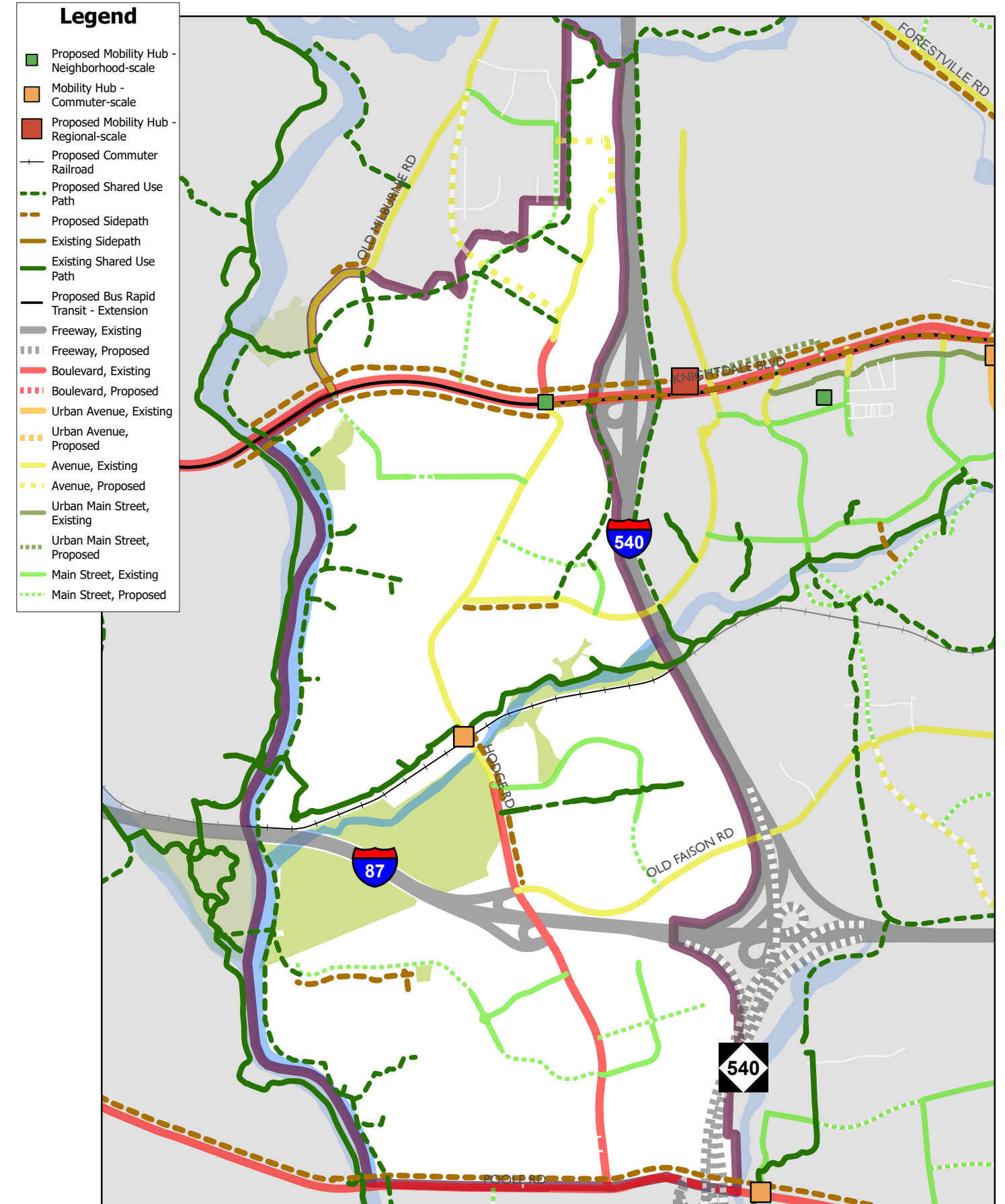
Similar to the Mixed-Use Center North, the KnightdaleNext 2035 Comprehensive Plan already identifies a Mixed-Use Center on the west side of Hodge Road at Poole Road. As the southern section of the study area continues to grow with a mix of housing types and ownership options, it is essential to provide residents with opportunities that increase access to nearby goods and services. The expansion of a Mixed-Use Center in this area will not only spur development with an emphasis on compact and walkable environments but support multi-modal transportation and pedestrian friendly options that allow residents to engage in active living as they navigate to community services, commercial destinations, and natural resources. To avoid overburdening major transportation corridors, the Town should focus on public and private investments that couple a mix of uses. The local transportation network should emphasize local trips and non-motorized travel to create a unique destination.



# TRANSPORTATION



## Transportation Map





# Existing Conditions

## GoRaleigh Route 33

GoRaleigh operates a fixed-route bus service connecting downtown Knightdale to a transfer center in east Raleigh on New Hope Road. The service operates hourly on weekdays between 6AM and 9PM. Within The River District, the route operates along Knightdale Boulevard with a bus stop along both sides of Knightdale Boulevard at Hodge Road.



## Bicycle & Pedestrian Facilities

**Mingo Creek Greenway:** The bicycle and pedestrian infrastructure in The River District primarily consists of the Mingo Creek Greenway and sidewalks that were installed as infrastructure improvements during previous development. The Mingo Creek Greenway runs 3.5 miles from the Neuse River Greenway in Raleigh to Mingo Creek Park in Knightdale. The Mingo Creek Greenway extension project is currently under construction and expected to open in the first half of 2025. The 1.2 mile project will extend the greenway from Mingo Creek Park to downtown Knightdale.



**Sidewalks:** Sidewalks are primarily concentrated inside residential subdivisions. There are several locations where sidewalks have been installed along major roads such as Hodge Road, Poole Road, and Knightdale Boulevard. However, these sidewalks

are typically built to meet infrastructure requirements for new developments, and terminate at the edge of the development property.

## Roadways

**Roadways:** The River District's roadway network includes a series of roads and bridges that connect the area to Raleigh and the rest of Knightdale. Major east-west roadways include Poole Road, I-87, and Knightdale Boulevard. Major north-south roadways include I-540, Old Milburnie Road, and Hodge Road. Old Faison Road and Lynnwood Road are also key connector roads in The River District. Most of the major roadways are two lanes except for Knightdale Boulevard (4-6 lanes), I-87 (6 lanes), and Hodge Road at Legacy Oaks Drive (4 lanes).

**Neuse River Bridges:** The River District contains several bridges over the Neuse River, with ages from 18 to 97 years. The bridges over the Neuse River include New Bern Avenue/Knightdale Boulevard (eastbound built in 1964 and westbound built in 1925), I-87 (built in 2005), and Poole Road (built in 1959).



# Recommendations

## Transit

### Transit Access Improvements

The Town should partner with GoRaleigh and the City of Raleigh to install crosswalks and bus stops on Knightdale Boulevard at Old Milburnie Road. The Knightdale Comprehensive Transportation Plan (CTP) recommendation to add sidepaths along Knightdale Boulevard will also improve access to transit.



### Preparing for Bus Rapid Transit

These transit access improvements will help support the long term plan for Bus Rapid Transit (BRT) along Knightdale Boulevard. The Capitol Area Metropolitan Planning Organization's (CAMPO) Metropolitan Transportation Plan calls for GoRaleigh to extend the New Bern Avenue BRT to downtown Knightdale in the 2040-2050 timeframe. The Town should continue to advocate for increased transit service levels for Route 33 to gradually facilitate the implementation of BRT service. The Wake County Bus Plan currently calls for weekend service to be added in FY 28. The next service enhancement should be increasing service from hourly to every 30 minutes in the 2030-2035 time period.

## Bicycle & Pedestrian Facilities

Bicycle and pedestrian project recommendations include greenways, sidepaths, crosswalks and Complete Street corridor retrofits.

### Greenways & Sidepaths

Sidepath and greenway projects will form the core of the bicycle and pedestrian network in The River District. The CTP calls for multiple greenways and sidepaths in The River District, including:

- East Neuse River Greenway connecting Knightdale Boulevard to Poole Road along the eastern banks of the Neuse River. The greenway should connect into adjacent neighborhoods where possible.
- Dianne Street Greenway connecting East Neuse River Greenway to Knightdale Boulevard at Hodge Road
- Milburnie Dam Greenway connecting the Legacy Oaks Greenway to the Milburnie Park in Raleigh
- Legacy Oaks Greenway connecting the Legacy Oaks development to the Beaver Dam Creek Greenway
- Poole Road sidepath along the northern side of Poole Road from the Neuse River to the I-540 extension
- Knightdale Boulevard sidepath along the southern side of Knightdale Boulevard between the Neuse River and I-540
- Legacy Oaks – Midway Plantation Connector. The Town should explore the feasibility of a greenway bridge over I-540 connecting Legacy Oaks to Midway Plantation Shopping Center just north of Kohls.



### Sidewalks

Sidewalks and crosswalks are recommended along all high-volume, high-speed corridors. While sidewalks are recommended along the entirety of Hodge Road and Old Milburnie Road, priorities include:

- Lynnwood Road, given the amount of cut-thru traffic and the area's planned neighborhood node.
- Hodge Road between the Mingo Creek Greenway and Hodge Road Elementary School, including the railroad crossing.
- Hodge Road between Dianne Street and Lynnwood Road, giving Lynnwood Road residents the ability to walk to the proposed Dianne Street park and East Neuse River Greenway.



# Recommendations

## Crosswalks

Priority crosswalk locations were identified where either collector roads intersect and/or where pedestrian activity is expected based on surrounding land uses. Priority crosswalk locations include:

- Hodge Road at Knightdale Boulevard (under construction FY 24)
- Mingo Bluff Boulevard at Hodge Road / Hodge Road Elementary School
- Coffey Street at Old Milburnie Road
- Old Milburnie Road at Knightdale Boulevard
- Dianne Street at Hodge Road
- Lynnwood Road at Hodge Road
- Hodge Road at Satterwhite Drive, Whitfield Street, Redwood Valley Lane, and Lynnwood Estates Drive, as part of a Complete Streets project.
- Poole Road at Hodge Road



## Interstate Interchange Improvements

Further study is needed for developing recommendations for sidewalk and crosswalk locations at interstate interchanges (I-87 and Hodge Road and I-540 and Knightdale Boulevard). Any recommended improvements at I-87 and Hodge Road should be incorporated into the future Hodge Road overpass capacity improvements in the CTP.

## Complete Streets

Complete Streets projects develop a comprehensive corridor design that integrate roadway design, streetscape amenities, sidewalks, and bicycle facilities into a single corridor.

- Hodge Road between Knightdale Boulevard and Mingo Bluff Boulevard: This approach will help develop a design that balances corridor priorities such as slowing speeds, minimizing private property impacts, and providing bicycle and pedestrian facilities in a built-out corridor.
- Lynnwood Road: The Town should also develop a Complete Streets design for Lynnwood Road that focuses on adding sidewalks between Hodge Road and Lynnwood Road and resurfacing the roadway to stripe for bicycle facilities.



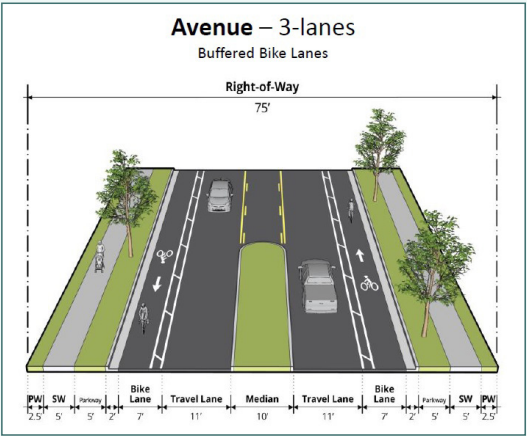
# Recommendations

## Roadways

### Roadway Improvements

The CTP's Appendix A "Roadway Network Plan" identifies the vision for the roadway network in The River District as follows:

- 2 Lane Avenues: Old Milburnie Road, Lynnwood Road, Old Faison Road, and Hodge Road north of Mingo Bluff Boulevard are all identified as two-lane Avenues with sidewalks and bicycle facilities included in their ultimate design.
- 4 Lane Boulevards: The CTP vision includes widening Poole Road to four lanes and widening Hodge Road to four lanes south of Mingo Bluff Boulevard. The Poole Road widening to four lanes will require replacement of the Hodge Road overpass bridge at I-87. Any replacement bridge should include bicycle and pedestrian facilities.
- 6 Lane Boulevard: The CTP calls for Knightdale Boulevard to be widened to six lanes total.



### Widening Implementation

Much of the widening improvements from four to six lane roads will be accomplished through development projects making the improvements. The Town should complete the remaining widening improvements once a critical amount of the development frontage improvements are made. It should be noted that widening is intended to accommodate a BRT lane in the future, not for capacity improvement.

### Traffic Control Improvements

The Town should continue to coordinate with NCDOT to monitor roadway intersections for needed traffic signals or roundabouts. The Town and NCDOT are currently monitoring Westover Drive/Farmwell Road/Knightdale Boulevard as part of a development project on Farmwell Road. Hodge Road at Lynnwood Road has also been identified as a potential future roundabout location.

### Neuse River Bridges

NCDOT owns the Poole Road, I-87 and Knightdale Boulevard bridges over the Neuse River. There are currently no programmed projects to replace the bridges within the next ten years given ongoing maintenance and current bridge sufficiency ratings. Bridge replacement projects for Knightdale Boulevard and Poole Road should include either bicycle and pedestrian facilities in their design or an adjacent greenway bridge.

### Roadway Stubs

Several River District neighborhoods have opportunities for roadway stubs to be connected. These would offer improved vehicle and pedestrian connectivity and could make it easier for cars to access future traffic signals or roundabouts when exiting the neighborhoods onto Hodge Road. The Town should explore making the following roadway connections between neighborhoods:

- Connect Princeton Manor to Barclay Downs at Wellington Drive
- Connect Langston Ridge to Green Pines at Sunny Days Drive/Westover Drive

The Town should also coordinate with the City of Raleigh to fill in the roadway gap connecting Legacy Oaks Drive to the secondary segment of Old Milburnie Road.



# OPEN SPACE

## Existing Conditions

### Greenways:

**Mingo Creek Greenway:** The Mingo Creek Greenway parallels Mingo Creek and travels 3.5 miles from the Neuse River to Mingo Creek Park. A project is currently under construction that will extend the greenway 1.2 miles from Mingo Creek Park to Downtown Knightdale.



### Parks & Recreation:

**Panther Rock:** The Stone River development is constructing a greenway connecting Panther Rock to the future East Neuse River Greenway. Panther Rock is a passive recreation area centered upon a cluster of tall, large rock formations between the Stone River and Cheswick neighborhoods.



**Community Pool:** The Knightdale Community Pool is located in The River District, south of Knightdale Boulevard and east of the Neuse River.

**Anderson Point & Milburnie Park:** Two important City of Raleigh parks directly border The River District with existing and planned greenway connections to Knightdale. Anderson Point Park is an 89-acre park along the Neuse River that can be accessed by the Neuse River Greenway approximately ½ mile from where the Mingo Creek Greenway intersects the Neuse River Greenway. Anderson Point Park offers trails, picnic shelters, restrooms, fields, and a playground. Milburnie Park in Raleigh is also along the Neuse River and the Neuse River Greenway. The Town's CTP calls for a greenway connection to this park in order to capitalize on the park's existing greenway bridge, natural kayak launch, natural beach area, and views of the historic dam structure.

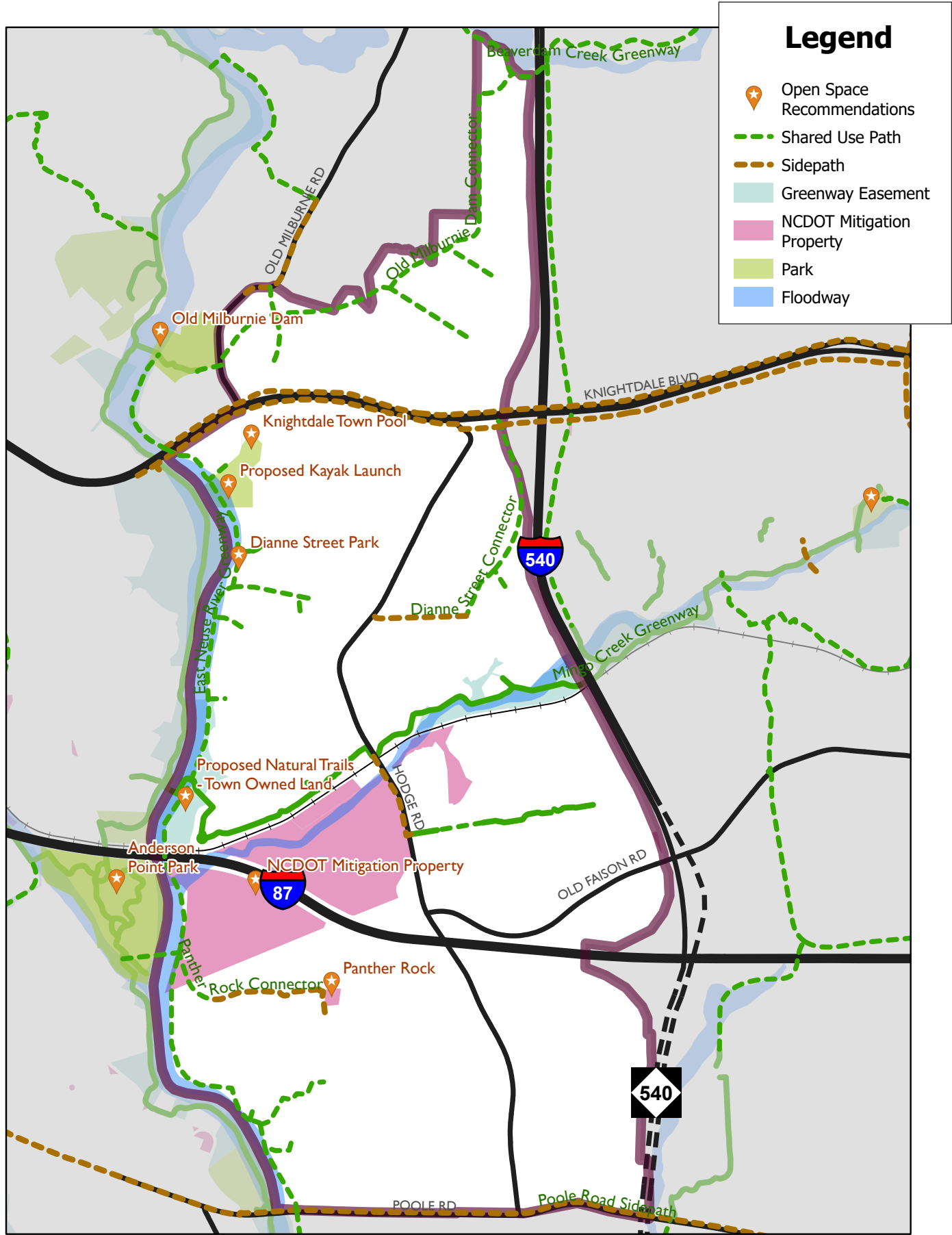


### Natural Areas:

**Buffer Areas:** Mingo Creek and the Neuse River both have buffered natural areas along the waterways. Ownership of these natural areas is typically either held by an adjacent subdivision homeowners association or the Town of Knightdale.

**NCDOT Mitigation Property:** NCDOT owns 191 acres of forestland along the Neuse River. The land was acquired to offset the environmental impacts of I-87, and surrounds the roadway on the north and south.





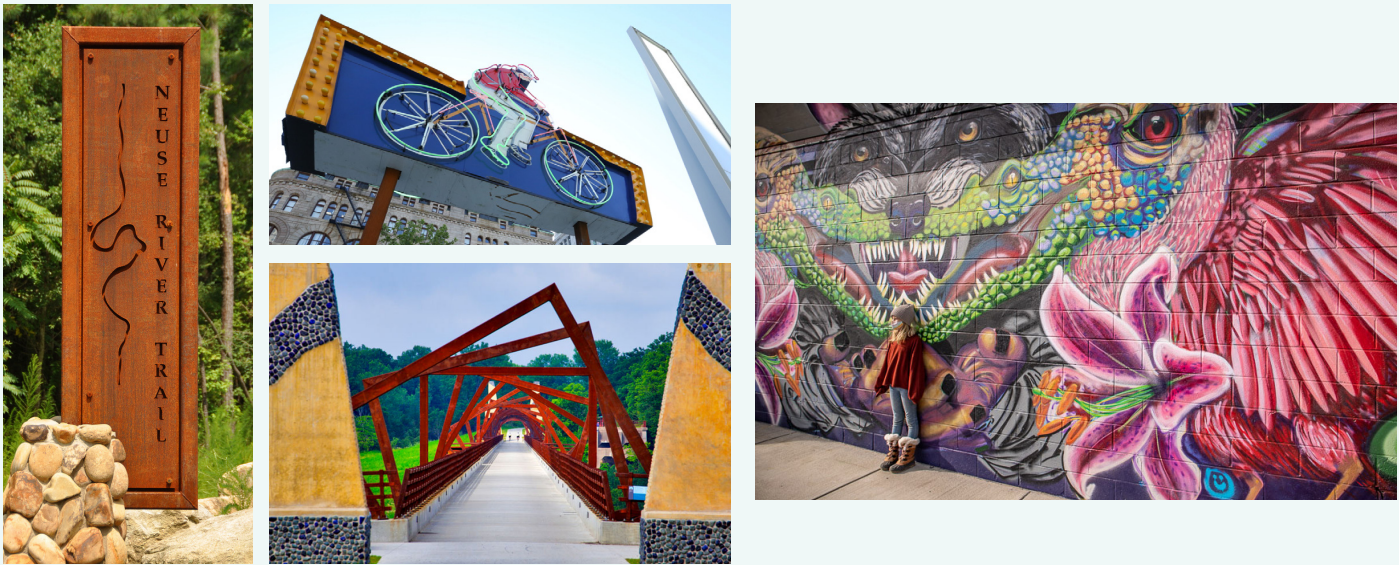
Greenways

Greenways & Sidepaths

The CTP recommends sidepaths along Poole Road and Knightdale Boulevard. The plan also recommends a greenway along the east side of the Neuse River, a greenway connecting the Legacy Oaks development to Milburnie Park, and a greenway traveling from the Neuse River to Knightdale Boulevard using Dianne Street and the undeveloped land immediately east of I-540. Several approved developments will implement portions of these greenway projects. The Town should consider implementing the portion of the East Neuse Greenway between the River’s Edge and River Pointe developments first, to close the gap between the developments.

Signage & Public Art

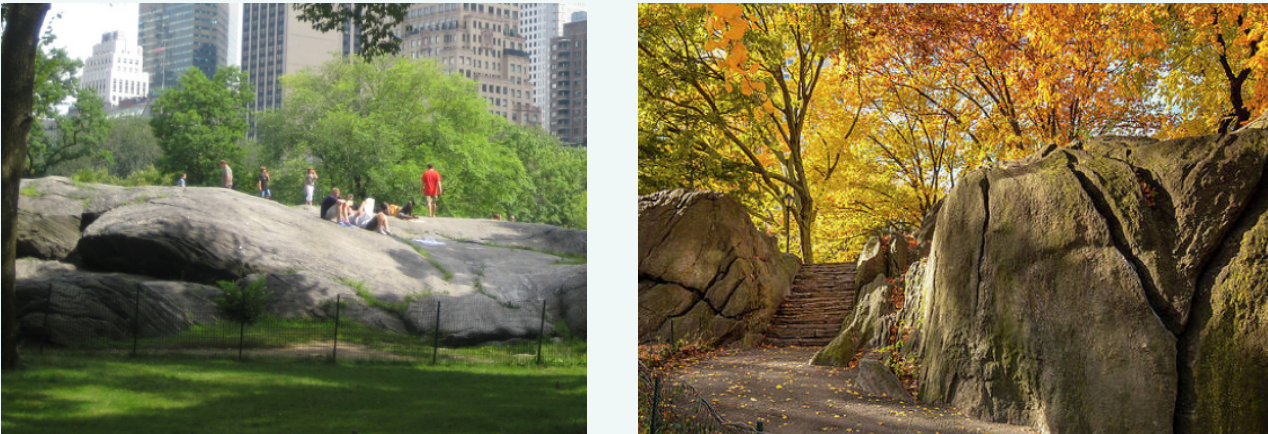
As part of building out the greenway network, the Town should begin naming and adding signage to greenways. Artistic greenway signage and mural underpasses should be implemented where appropriate.



Parks & Recreation

Panther Rock Park

The Town should formalize and program the Panther Rock passive recreation area into a public park with amenities such as benches, informational signage, public art, and natural looking play areas.





# Recommendations

## Community Pool

The Town should explore converting the Knightdale Community Pool to a river-themed splash pad park.



## Riverfront Amenities

Several approved developments propose adding recreation amenities in The River District including a kayak launch, park, and sidepaths. The Visual Preference Survey indicated strong desires for a boardwalk or plaza fronting the Neuse River. The Town should explore whether it might enhance these or other locations to provide these facilities.



## NCDOT Mitigation Property

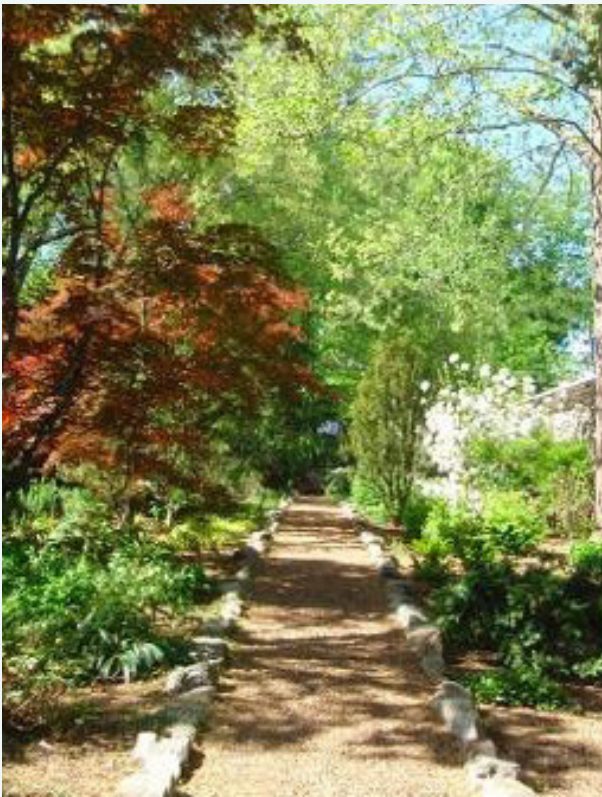
The Town should continue conversations with NCDOT, Wake County and the NC Department of Natural and Cultural Resources on converting the 191-acre NCDOT mitigation property to a regional or state park. The property's location is across from Anderson Point Park which creates the opportunity for a greenway bridge to connect them. The NCDOT property also has several hills that could capitalize on overlook towers to provide enhanced views of the Downtown Raleigh skyline.

# Recommendations



## Natural Areas

The Town should explore creating unpaved walking trails on Town owned property where the Mingo Creek Greenway intersects the Neuse River. Consider locating the trails south of the Mingo Creek Greenway and providing amenities such as benches and public art.





# ENVIRONMENTAL

## Existing Conditions

The River District generally includes yellow pine forest habitat, along with bottomland and hardwood swamp forests, which are important due to their location along stream and river corridors. These areas serve as vital habitat as well as migration corridors for numerous species of wildlife.



Just as important to The River District is maintaining the tree canopy and existing vegetation. The health of the tree canopy is directly related to the health of the river. Leaves and branches capture stormwater; tree roots anchor soil and help decrease erosion of stream banks, and tree canopies shade surface water which moderates water temperatures. Additionally, trees and other vegetation provide places for wildlife to build nests and find food.

Floodplain spans the banks of both the Neuse River and Mingo Creek. It encroaches into several properties adjacent to these waterways, restricting future development and uses in the area. While development is generally highly restricted or prohibited in the floodplain, the areas offer a great opportunity to implement a complete and continuous system of green infrastructure throughout the Town (greenways).

## Recommendations

The Neuse River is a special asset to the surrounding area and at the heart of The River District Small Area Plan. The Plan's goal is to protect both its quality and beauty. The Town understands the importance of the natural environment, not just for the protection of habitat and water supply, but for its significance to Knightdale's sense of place. The Plan recognizes the importance of protecting and restoring wildlife habitat and the vegetation along riverbank buffers. Priorities include:

- Identify opportunities for district-scale stormwater management to help manage inland flooding.
- Future development should implement Low Impact Development practices and green infrastructure standards. These methods mimic natural systems, where stormwater is slowed down, soaked up, and spread out.
  - Constructed wetland – retains and treats stormwater runoff
  - Rain gardens and bioswales – use native plants to help capture, filter, and mitigate stormwater during rain events
  - Permeable pavement or pavers – allows for more natural infiltration
- Requests for mass-grading beyond what the UDO allows should not be considered or should be highly scrutinized and limited.
- Requests for reductions in tree preservation areas should not be considered or should be highly scrutinized and limited.
- Consider requiring additional landscape buffers and tree save areas for developments adjacent to the river and near other sensitive areas. A strong emphasis should be placed on using native plants.
- Consider further restrictions to floodplain development – by not allowing any single-family residential building lot (detached or attached) in a major subdivision to be located within the Special Flood Hazard Area (500 year floodplain); or to not allow any development within the 500 year floodplain.





# PLACEMAKING



## Existing Conditions

Placemaking is an integral component of realizing the Community's vision for The River District. There are several recommendations for placemaking elements to be incorporated into both private developments and public investments. Any investment in The River District should be consistent with the Placemaking Guiding Principle.

Currently, The River District consists of few placemaking elements. Neighborhoods are a mixture of new in-town residential subdivisions and older ETJ subdivisions with no

real sense of architectural pattern. The streets are not lit and the major arterials do not have sidewalks or curb and gutter. Signage is very much subdivision specific and there is no gateway signage or district signage to identify the area. There is a lack of public gathering spaces and public art throughout the area. Some recently approved developments will begin to implement the placemaking elements necessary to identify The River District and should serve as a good starting point for future development and redevelopment.

## Recommendations

### Lighting

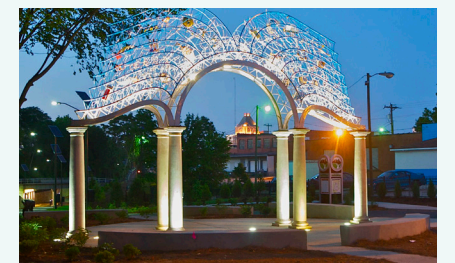
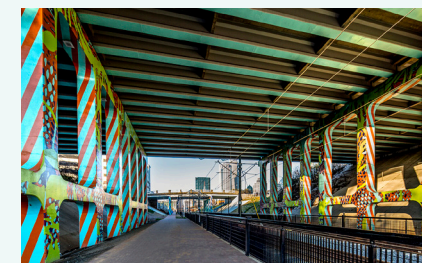
Lighting will provide a sense of safety and security for vehicles, bicycles, and pedestrians. It can also be used to provide additional awareness around crosswalks and major pedestrian corridors.

- Street lights should be provided for all public streets
- Pedestrian scale lighting should be introduced along greenways, crosswalks, and other areas where lighting will keep pedestrians safe

### Public Art

Public Art is an integral part of placemaking in The River District. Public Art will be a defining element of The River District.

- Public Art should embrace The River District themes
- Public Art should be prominently displayed throughout The River District
- Public Art should be placed along the greenway trail as well as along the roadways in The River District
- Building murals should be encouraged, especially those that embrace The River District themes
- Panther Rock should be programmed with a mural on one of the rock faces as an iconic place for photographs
- Private development should incorporate public art elements to program open and green spaces
- Unique art displays that embrace an active outdoor lifestyle should be encouraged





# Recommendations

## Redevelopment

There are several commercial properties in the area which may be prime for redevelopment. Redevelopment presents an opportunity for transitioning automobile dependent uses to walkable mixed-use centers and neighborhood nodes that serve nearby residents.

- Redevelopment of existing neighborhoods should be consistent with The River District Guiding Principles.
- Redevelopment of existing non-residential properties should be done in a manner to activate the street front. This includes incorporating wide and inviting front yards that incorpoate street furniture, outdoor dining, street trees, and community gathering areas.
- Non-residential redevelopment should embrace pedestrian scaled development that is at a scale and design compatible with nearby development.
- Redeveloped property should contain uses that promote an active outdoor lifestyle and allow residents to walk or bike to nearby services.



## Signage

**Signage will be important to tie all of The River District neighborhoods and commercial developments together. Gateway signage and district signage should announce arrival into The River District and signage throughout should help visitors navigate around the district.**

- Gateway signage should be located at entrances to The River District
- A branding study should be completed that identifies a brand to be utilized throughout signage, and to ensure signs are scaled appropriately
- Wayfinding signs should highlight major destinations
- Pedestrian wayfinding should help trail users navigate to and from the trail to destinations such as shopping, parks, and services
- Light pole flags should be utilized to highlight The River District brand
- Artistic style greenway signs should be utilized along the greenway corridor

# Recommendations

## Building Materials and Architecture

Architecture in The River District should have a distinct look and feel. This will be important for new development as well as redevelopment in the corridor.

- Architectural materials should include brick, stone, and steel
- Architectural standards should embrace The River District and be compatible with surrounding land uses
- Front porches, stoops, and balconies should be an integral part of any frontage facing a public street.
- Transit/Trail Oriented design should be used in mixed-use centers and neighborhood nodes
- Mixed-use development should include retail on the bottom floor with offices and residential above
- Buildings should be oriented to take advantage of sight lines of the Neuse River and Downtown Raleigh
- Buildings should be of a scale and size to take advantage of sight lines and compatible with surrounding land uses









# IMPLEMENTATION

A Small Area Plan provides policy guidance for future land use and development in an area, beyond what is offered in the Comprehensive Plan. When used together these documents will help to realize the future vision for this area. The recommendations below will be utilized by both the Town and private developers when making investments in The River District. The Town should prioritize these recommendations in seeking grant funds, developing the capital improvement plan, and working with partners on projects.

The Implementation Matrix includes all of the recommendations, policies, and practices proposed in the Plan. Additional information can be found in relevant topic chapters.

## TIMELINE INDICATORS

	<b>SHORT TERM TASK:</b>	This task can be accomplished within 1 to 5 years
	<b>MID TERM TASK:</b>	This task can be accomplished within 5 to 10 years
	<b>LONG TERM TASK:</b>	This task can be accomplished within 10 to 20 years
	<b>ONGOING TASK:</b>	This task is ongoing

## GUIDING PRINCIPLE INDICATORS



### WATER QUALITY

The Neuse River is a key asset to The River District and protecting its water quality is of the utmost importance. The river and the surrounding area provide scenic beauty, wildlife habitat, and recreational opportunities that can only be preserved through protecting the water. Please reference the complete guiding principle on page 13.



### ACTIVE OUTDOOR LIFESTYLE

The River District provides an opportunity to promote an active, outdoor lifestyle unique to Knightdale. Development within The River District should include investment in parks, greenways, and open spaces as well as infrastructure improvements to provide increased access to these investments for bicyclists and pedestrians. Please reference the complete guiding principle on page 13.



### PLACEMAKING

For The River District to celebrate its unique characteristics, a strong focus on placemaking is necessary. This includes specific architectural character that is distinct from other parts of Knightdale. The River District should honor the natural environment and encourage developments that “design with nature”. Please reference the complete guiding principle on page 13.



### TRAIL AND TRANSIT ORIENTED DEVELOPMENT

The River District should embrace Trail and Transit Oriented Development by designing public and private spaces to accommodate trail users and encourages density clustered near transit stops as well as mobility hubs to encourage multi-modal transportation. Please reference the complete guiding principle on page 13.

# Implementation Matrix



















Guiding Principle Supported	Recommendation	Partner	Time Frame
 	Expand the Mixed-Use Center in the northwest quadrant of Knightdale Boulevard and I-540	Town Council, Development Services	
 	Revise the Knightdale Gateway property place type from Light Industrial to Business Office	Town Council, Development Services	
 	Designate a Mixed-Use Center at the northwest quadrant of Poole Road and Hodge Road	Town Council, Development Services	
 	Support rezoning requests that create a Neighborhood Node at Needwill Court	Town Council, Development Services	
	Transit Access Improvements (add side paths, crosswalks and bus stops) at Knightdale Boulevard and Old Milburnie Road	Development Services, City of Raleigh, GoRaleigh, NCDOT, CAMPO, TPAC	
	Prepare for Bus Rapid Transit by continuing to advocate for increased transit service levels on Route 33	Development Services, GoRaleigh	
 	Multiple greenway and sidepath projects (see pages 25-29, Open Space)	Development Services, Public Works, NCDOT, CAMPO	
 	Pedestrian improvements (crosswalks and sidewalks)	Development Services, Public Works, NCDOT, CAMPO	
	Complete Street implementation on Hodge Road between Knightdale Boulevard and Mingo Bluff Boulevard	Development Services, Public Works, NCDOT	
	Complete Street implementation on Lynnwood Road	Development Services, Public Works	
	Roadway improvements to implement the CTP Avenue cross section on Old Milburnie Road, Lynnwood Road, Old Faison Road and Hodge Road north of Mingo Bluff Boulevard	Development Services, Public Works, NCDOT, Private Development	
	Roadway improvements to implement the four lane CTP Boulevard cross section on Poole Road and Hodge Road south of Mingo Bluff Boulevard	Development Services, Public Works, NCDOT, Private Development	
	Roadway improvements to implement the six lane CTP Boulevard cross section on Knightdale Boulevard	Development Services, Public Works, NCDOT, Private Development	



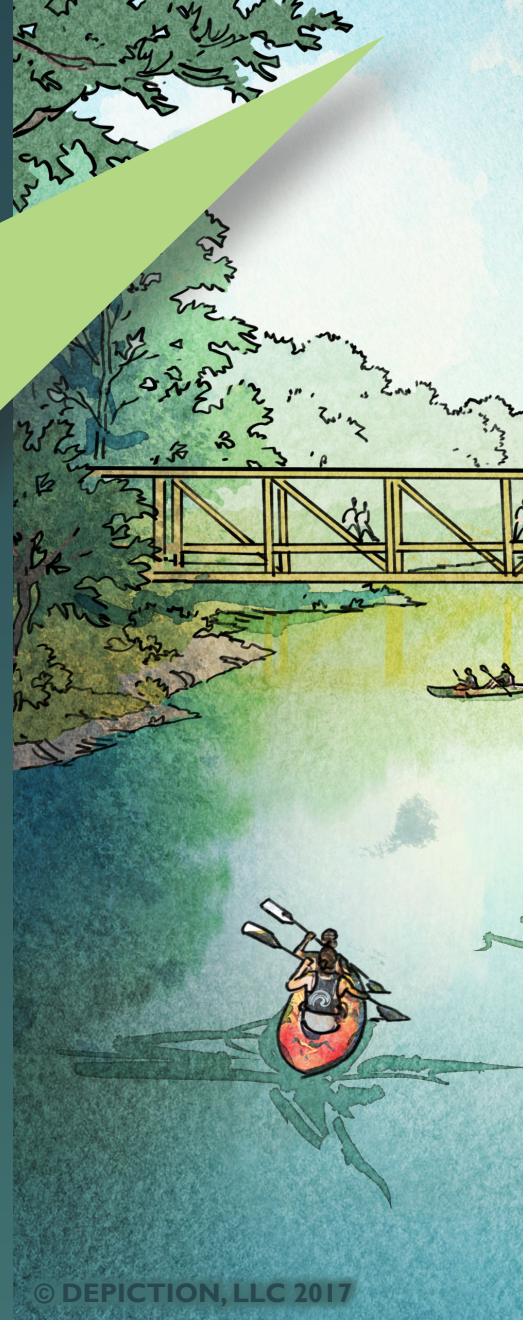
Implementation Matrix

Guiding Principle Supported	Recommendation	Partner	Time Frame
	Traffic signal installation at Westover Drive and Knightdale Boulevard	Development Services, Public Works, NCDOT, Private Development	
	Roundabout at Hodge Road and Lynnwood Road	Development Services, NCDOT	
	Replacement of Neuse River Bridges to include bicycle and pedestrian facilities and/or adjacent greeway bridges	Development Services, NCDOT	
	Capitalize on opportunities to improve inter-neighborhood connectivity by extending existing roadway stubs in Princeton Manor and Langston Ridge	Development Services	
	Install artistic signage on greenways	Development Services, Parks & Recreation	
	Incorporate public art on greenways and nature areas	Development Services, Parks & Recreation	
	Formalize and program Panther Rock Park	Parks & Recreation	
	Create a master plan of the Knightdale Community Pool Park site	Town Council, Development Services, Parks & Recreation	
	Ensure existing and future developments create recreational amenities such as kayak launches, boardwalks, plazas, etc.	Development Services, NC Wildlife Resources Commission, Private Development	
	Convert the 191 acre NCDOT mitigation property to a regional or State Park	NCDOT, Wake County, NCDNCR	
	Explore creating unpaved walking trails on Town owned property where the Mingo Creek Greenway intersects the Neuse River	Development Services, Parks & Recreation	
	Identify opportunities for district-scale stormwater management	Public Works	
	Implement Low Impact Development practices and green infrastructure standards	Town Council, Development Services	

Implementation Matrix

Guiding Principle Supported	Recommendation	Partner	Time Frame
	Limit site development allowances for additional mass grading or reductions in tree preservation areas	Town Council, Development Services	
	Encourage additional landscape buffers and tree save areas for developments adjacent to the river and near other sensitive areas	Town Council, Development Services	
	Severely limit or deny the location of any new single-family residential building lot within the Special Flood Hazard Area (500 year floodplain)	Town Council, Development Services	
	Provide street lights on all public streets	Development Services, Public Works, NCDOT	
	Include or require pedestrian scale lighting along greenways, crosswalks, and other areas where lighting will keep pedestrians safe	Development Services, Public Works	
	Implement architectural standards that embrace The River District and are compatible with surrounding land uses	Town Council, Development Services	
	Identify and encourage redevelopment of existing land uses in a way that is consistent with The River District Guiding Principles	Town Council, Development Services	
	Initiate a branding study that will be utilized throughout the area to ensure that The River District signage for gateways, greenways, wayfinding, etc. has a unified design that accurately represents the aesthetic and themes of The River District	Development Services, Community Relations	
	Public Art should be an integral part of placemaking in The River District and be prominently displayed throughout	Development Services, Private Development	





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