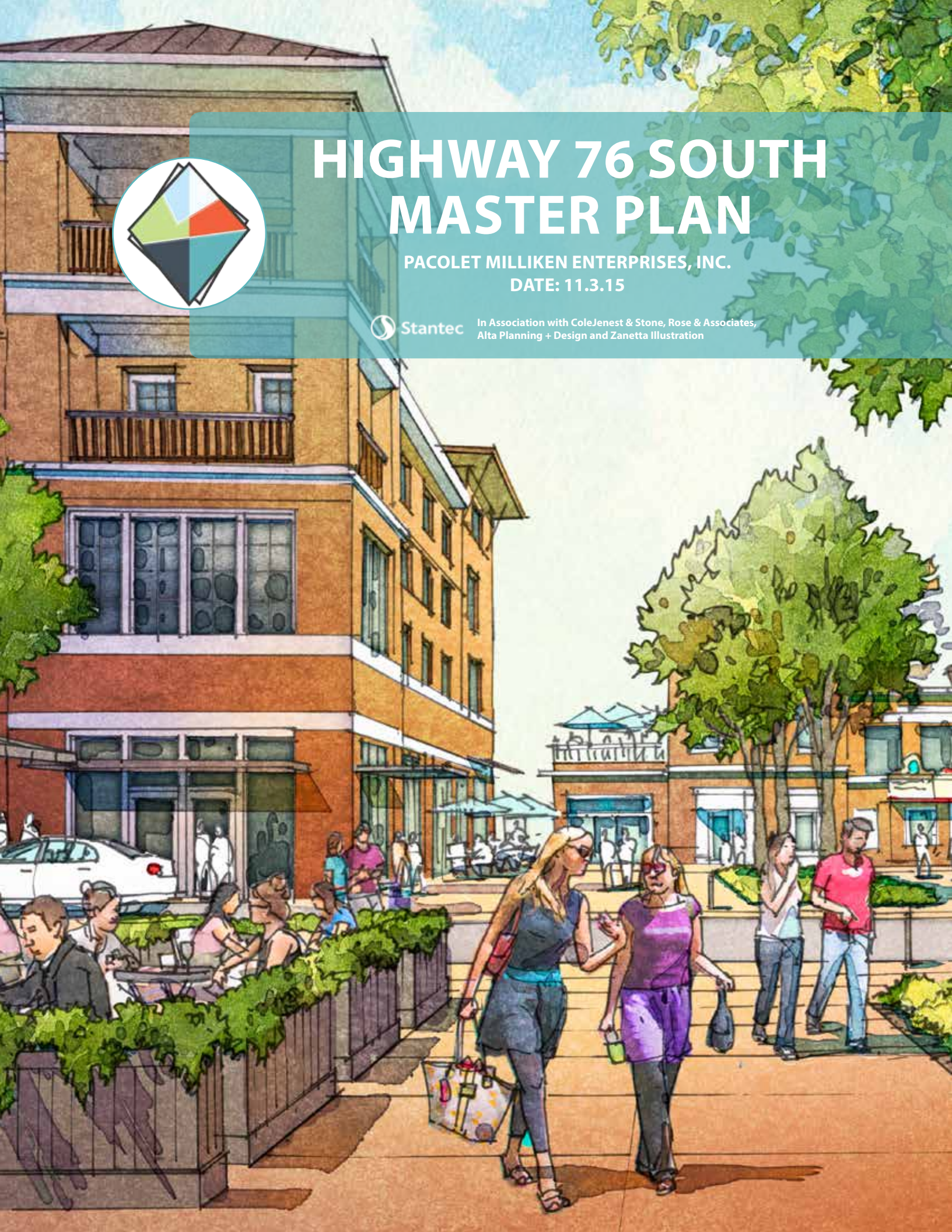
HIGHWAY 76 SOUTH MASTER PLAN

PACOLET MILLIKEN ENTERPRISES, INC.

DATE: 11.3.15

Stantec

In Association with ColeJenest & Stone, Rose & Associates, Alta Planning + Design and Zanetta Illustration



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1: INTRODUCTION & ANALYSIS

1.1 INTRODUCTION

A. Introduction

Pacolet Milliken Enterprises, Inc. and the City of Clemson hired Stantec's Urban Places Group to create a master plan for the Highway 76 South site located equidistant between Downtown Pendleton and Downtown Clemson. It is also in close proximity to Patrick Square, a large mixed-use neighborhood to the northeast. The site, totaling 354 acres, was previously a part of the Milliken Excelsior Plant tract.

Regardless of the jurisdiction, rezoning will have to take place to implement this master plan. This plan was developed from a myriad of factors - an extensive public involvement process that included stakeholder interviews and workshops, a detailed physical assessment of the site, a focused market analysis, a week-long community design charrette, an informal public workshop, and subsequent discussions with the local jurisdictions. This intentionally comprehensive process creates a solution for potential developers and local residents that is sustainable and appropriate to market opportunities and municipal expectations.

B. Site Characteristics

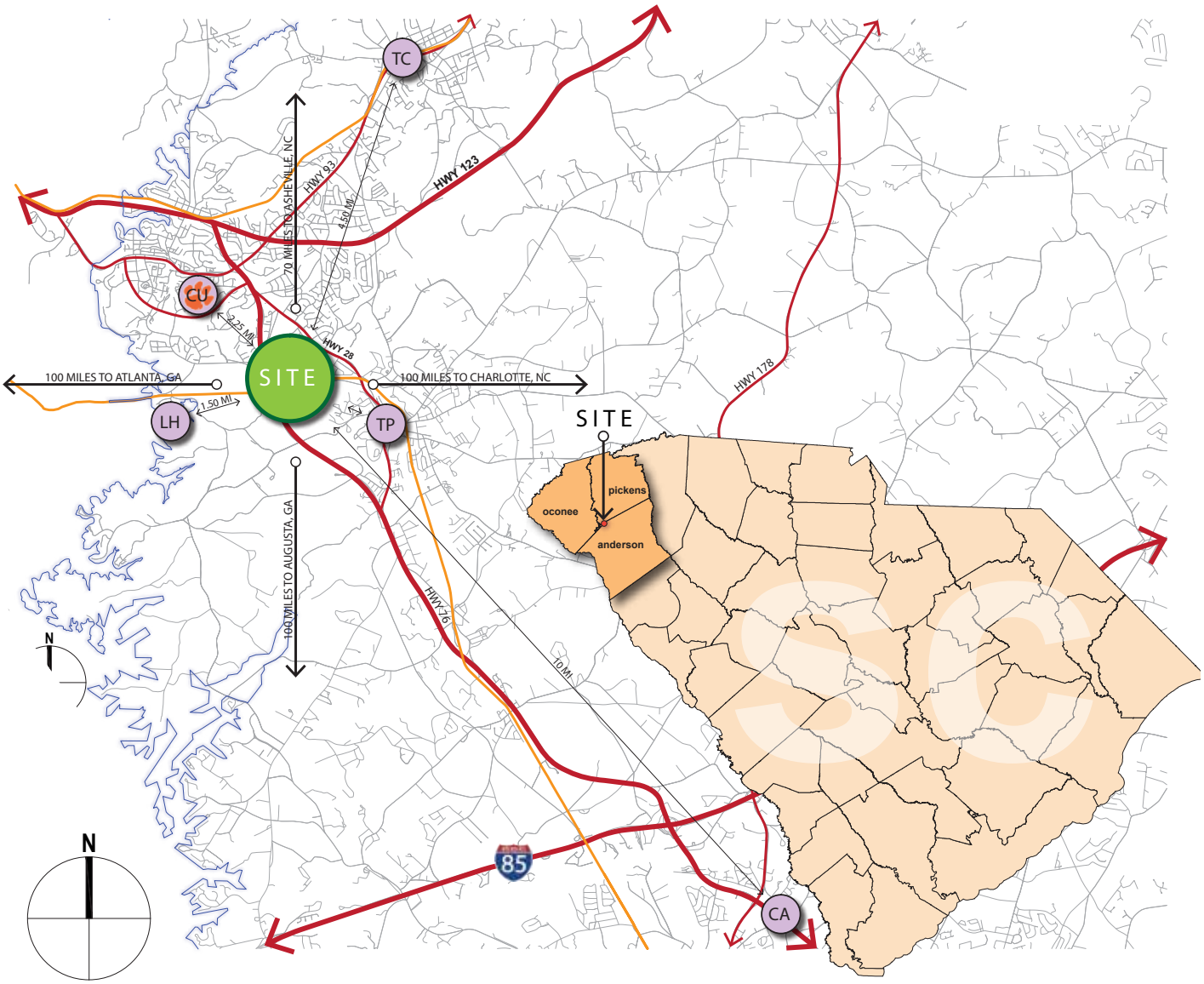
The Highway 76 South site is located along I-85 approximately equidistant between Charlotte, NC and Atlanta, GA and their internationally-important hub airports and economic centers. Additionally, within a 2 1/2 hour drive is Greenville, SC, Augusta, GA, Athens, GA, and Asheville, NC.

- Transportation Infrastructure: I-85, SC Highway 123, SC Highway 93, SC Highway 76, and other major regional thoroughfares provide easy accessibility for residents, employees, clients and commerce.

- Education: Clemson University, Anderson University, Southern Wesleyan University, Tri-County Technical. These and other institutions of higher education provide a strong research atmosphere and young professional employee base.

- Local character: The area is steeped in history, culture, sporting events, and outdoor activities within a bike ride or short drive. Local urban areas and small towns nearby, including Downtown Clemson and Pendleton Town Square, provide authentic character and amenities.

1.2 REGIONAL CONTEXT



TC — TOWN OF CENTRAL

An historic small town centrally located along the rail line connecting Atlanta, Georgia and Charlotte, North Carolina.

CU — CITY OF CLEMSON

Home to one of South Carolina's major public universities offering both undergraduate and graduate programs

LH — LAKE HARTWELL

Located along the Savannah River, Lake Hartwell is one of South Carolina's largest and most popular recreation lakes.

TP — TOWN OF PENDLETON

With businesses and homes situated around a central green, the Town of Pendleton is abundant with local character.

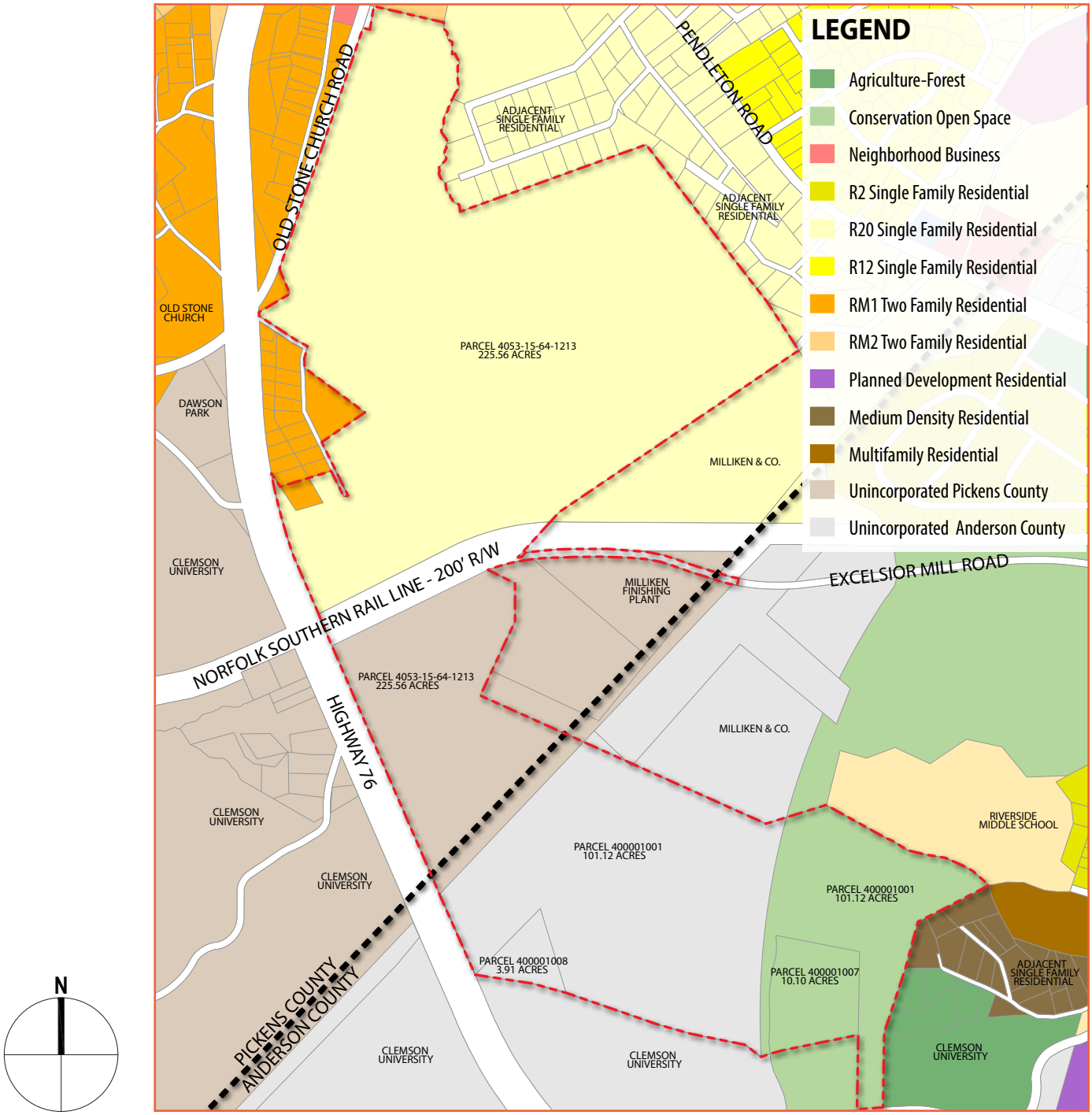
CA — CITY OF ANDERSON

Nicknamed "The Electric City," Anderson is the County Seat of Anderson County and has more than 75,000 residents. Anderson, SC was the first city in America to have a continuous supply of electric power.

1.3 SITE CONDITIONS

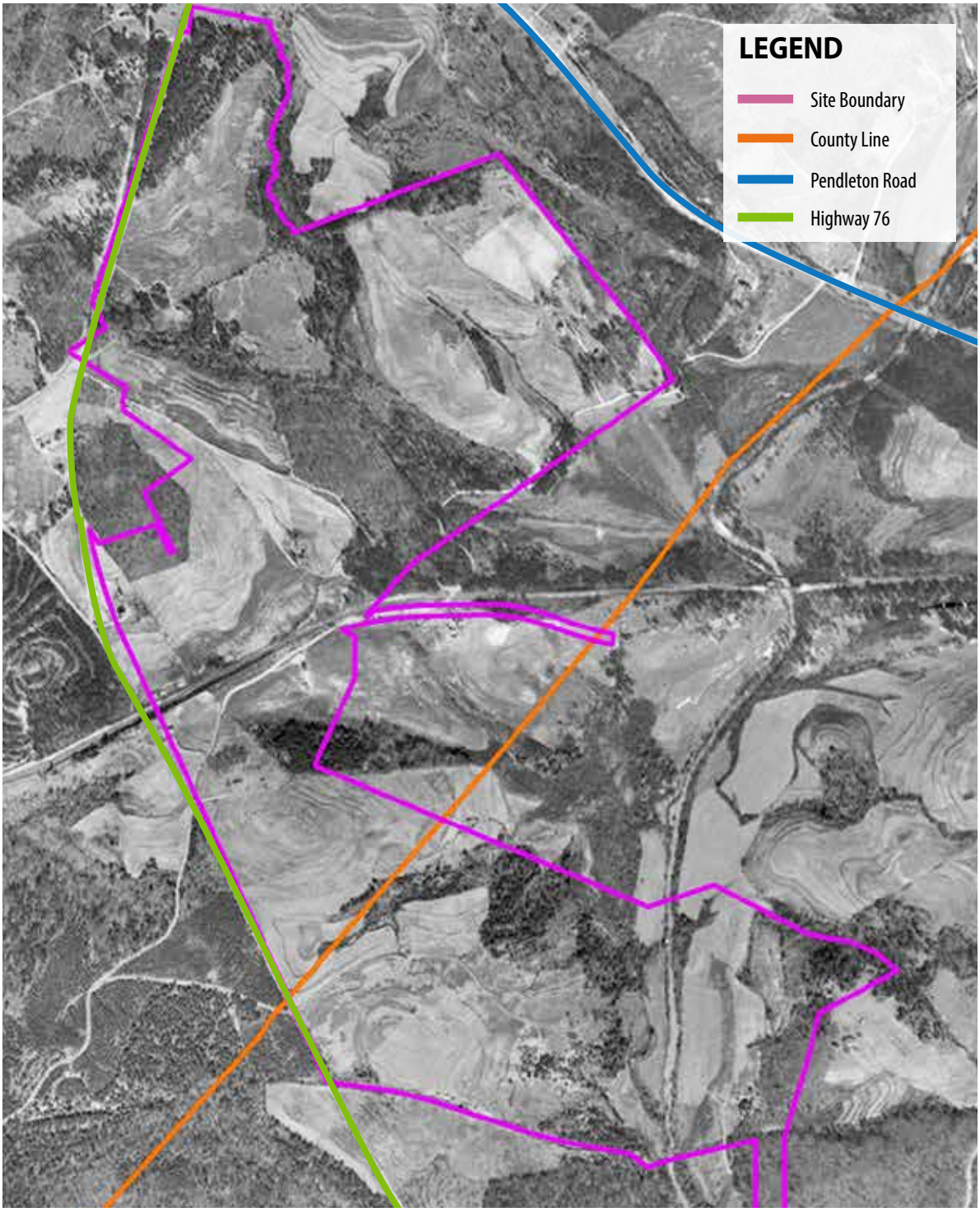
1.3.1 ZONING

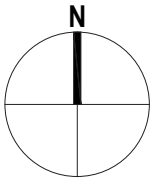
The existing zoning is currently regulated by two different municipalities, the City of Clemson and the Town of Pendleton. Zoning in Clemson's city limits is governed by the 2024 City of Clemson Comprehensive Plan.



1.3.2 1947 SITE AERIAL

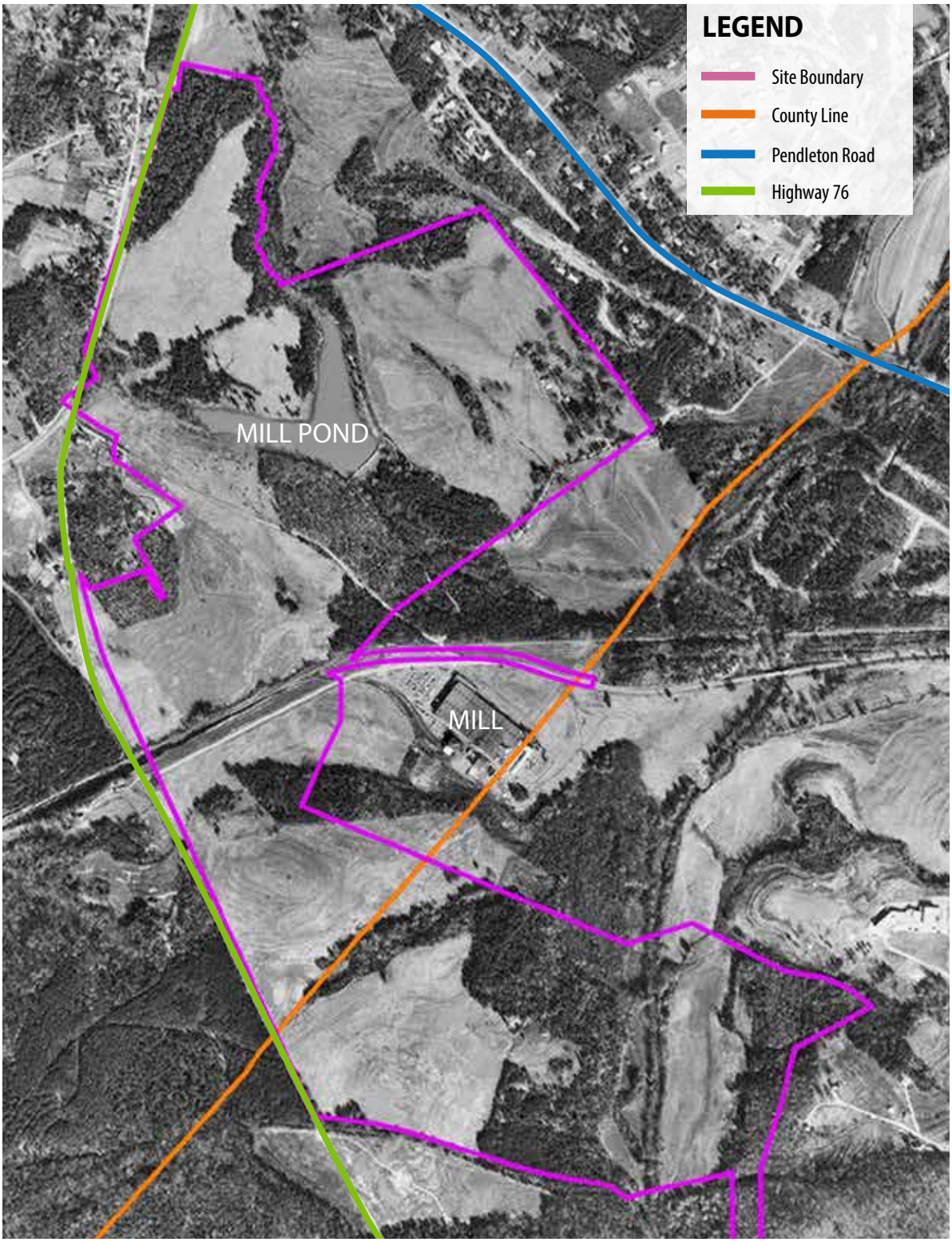
This 1947 aerial image of the site shows the rural and agricultural nature of the property. Very little residential development can be seen, with the exception of a few homes along Pendleton Road to the north and northeast of the site. Some forested areas are evident, but much of the property had been cleared for agriculture or other uses.

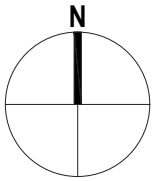




1.3.3 1959 SITE AERIAL

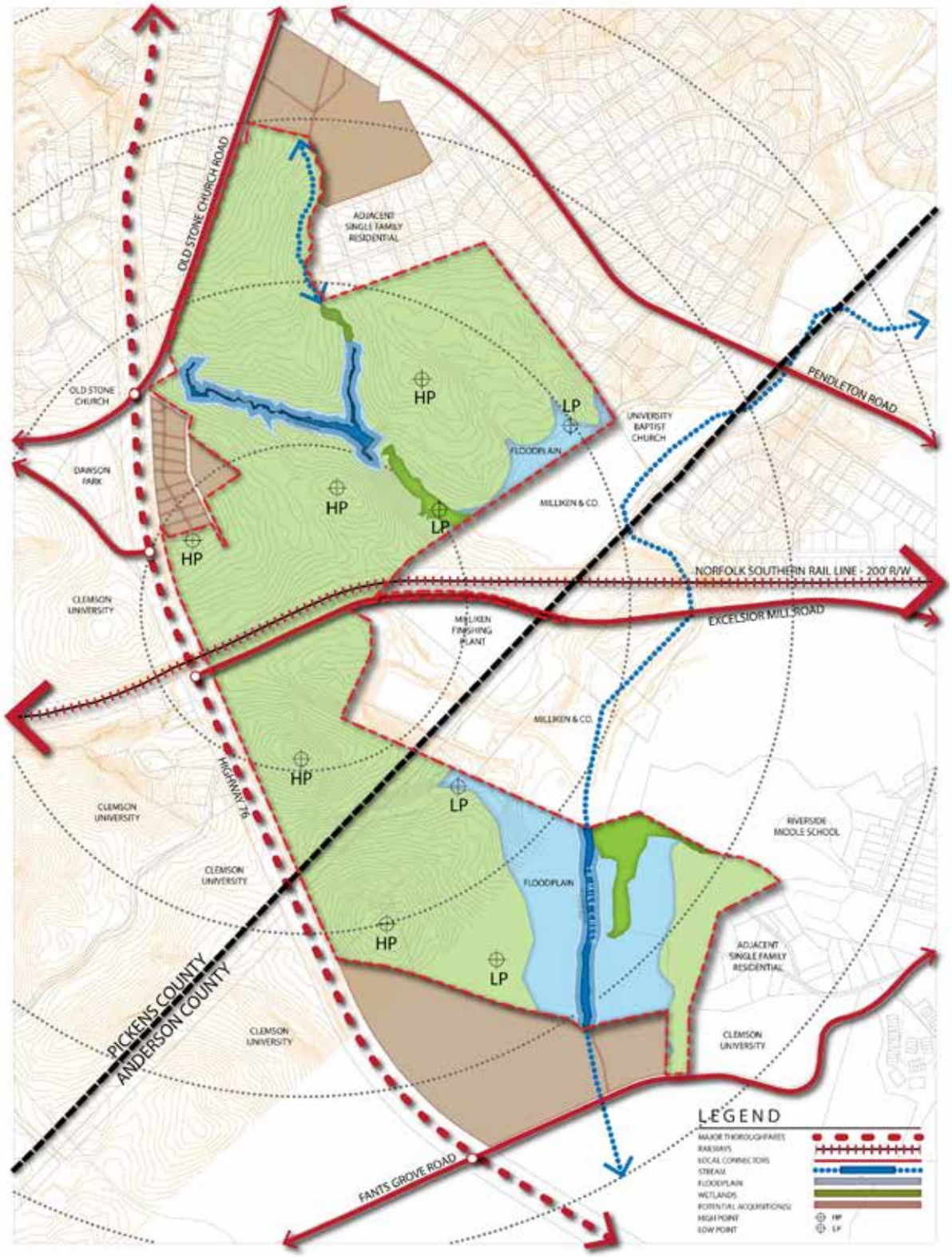
When compared to the 1947 aerial twelve years earlier, this 1959 image of the site shows new suburban residential development to the northeast of the site, a recently completed textile mill along the railway, and a new pond created to provide a reliable water supply for the mill. The remainder of the site consisted of open meadows with some hardwood stands along the edges and in the stream corridors.





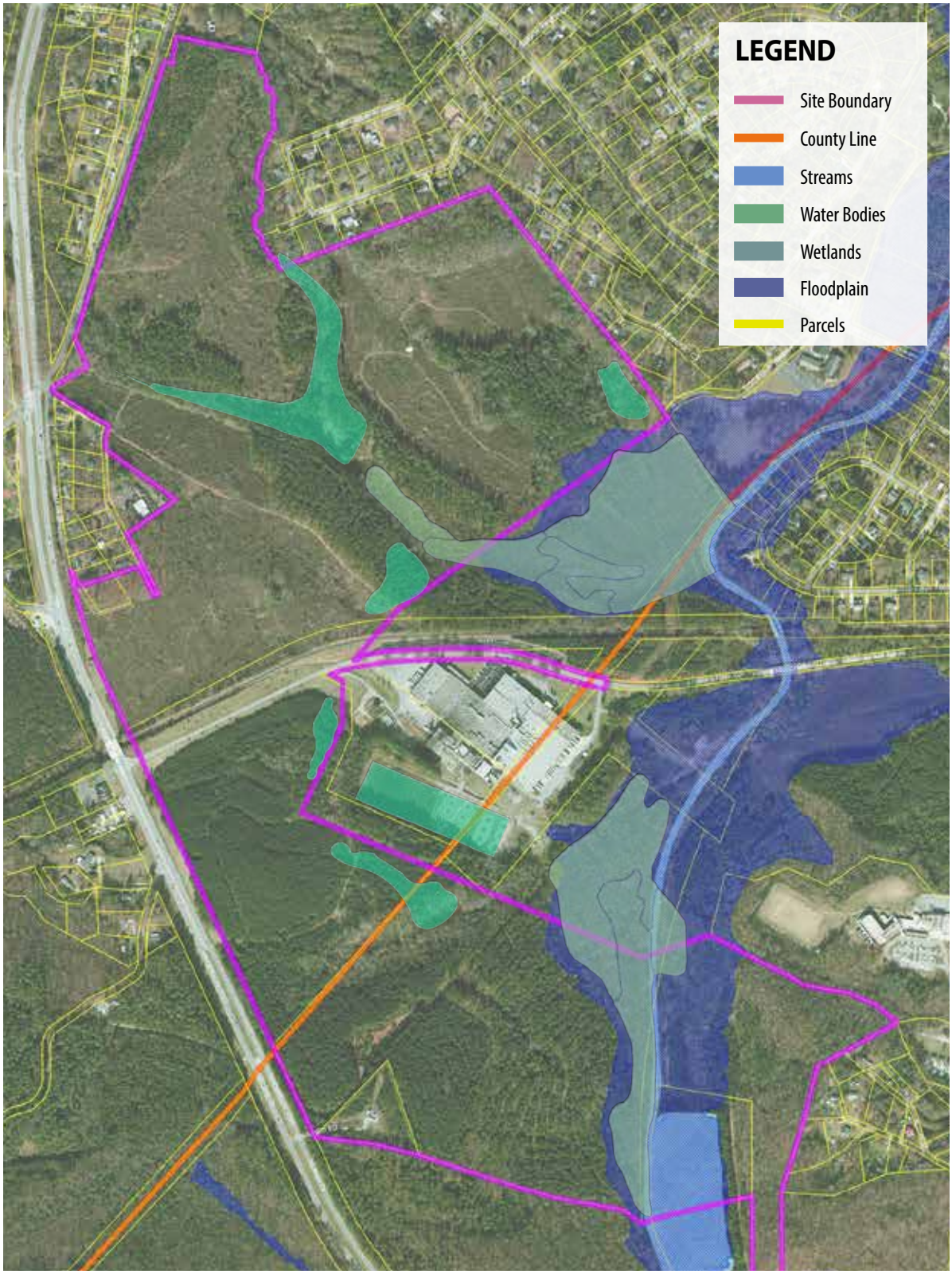
1.3.4 SITE CONSTRAINTS

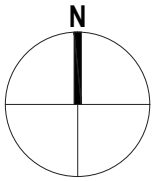
The gently rolling site along the eastern edge of Highway 76 is bisected by the Norfolk Southern Rail Line and Excelsior Mill Road. It is bounded to the east by Eighteen Mile Creek which also bisects the southern tract and has two stream corridors and their related riparian areas in the northern half of the tract.



1.3.5 2014 SITE AERIAL

The existing aerial shows the site as it is now, surrounded by neighborhoods, natural areas, and the Milliken Excelsior Mill. Factoring in existing topographic changes (e.g., wetlands, streams, and poor soils), approximately 80% of the site remains suitable for development.





1.3.6 THREE-DIMENSIONAL SITE IMAGERY

These three-dimensional views of the site show its varying topography, tree cover and relationship to nearby amenities. While the northern part is more flat, the southern portion that straddles Eighteen Mile Creek has more hills and valleys.

▲ **THREE DIMENSIONAL AERIAL IMAGES OF THE PROJECT SITE**

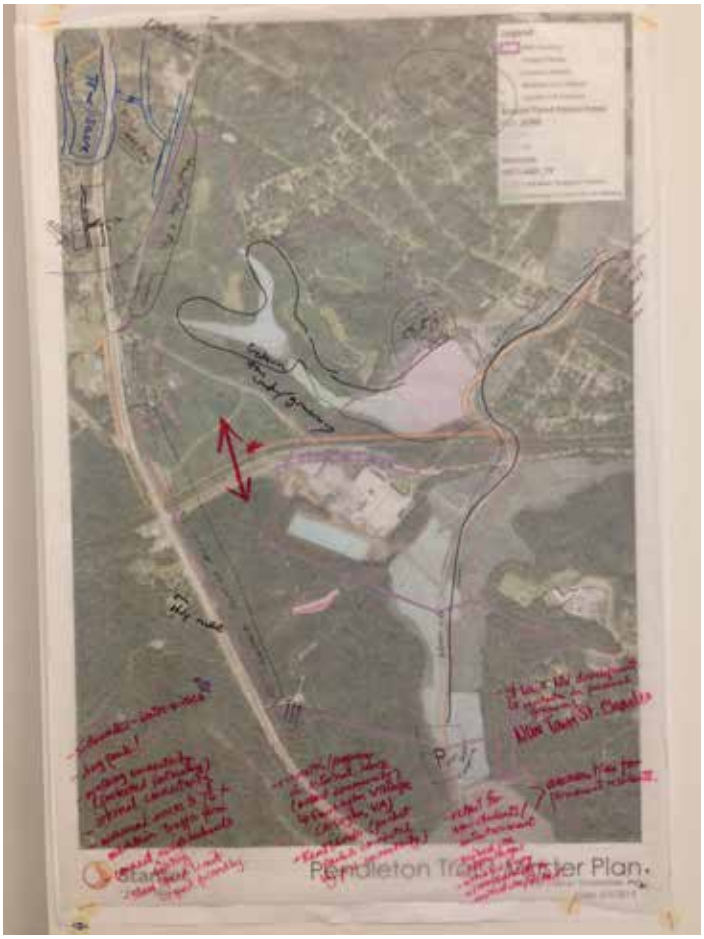
Top: View of site looking south toward Pendleton; Bottom: View of site looking north toward Clemson

2: PUBLIC ENGAGEMENT

2.1 STAKEHOLDER INTERVIEWS

The project team conducted 13 interviews with stakeholders from the Pendleton and Clemson community. These meetings touched on a range of topics including housing design and affordability, healthy living, environmental and natural resources, retail and shopping, and jobs and economic development. These meetings included representation from:

- City of Clemson
- Town of Pendleton
- Local Utility Providers
- Local Builders/Developers
- SCDOT
- Greenville MPO
- Clemson University
- Clemson Experimental Forest
- Pickens Economic Alliance
- Clemson Chamber of Commerce
- Anderson County Economic Development
- South Carolina Botanical Forest
- Friends of the Crescent Green



▲ VISIONING MAP EXERCISE

From these meetings, key themes were identified that were strongly considered during the design process including:

- There is a strong need for diversity of housing to accommodate young families, active adults, and students.
- Eighteen Mile Creek is a crucial environmental backbone for the region and will hopefully soon be a greenway.
- Healthy and active living is becoming a larger part of the community discussion (farmer's market, backyard Clemson, etc.)
- Need to connect this site to the University, Clemson's downtown, and to Pendleton's Town Square
- Walking, biking, and transit are important
- There is a need for more quality shopping areas in Clemson
- Economic development means connecting new high quality jobs to the University

2.2 MAJOR THEMES

The public was asked to give one word responses to the fill in the blank phrases below. The word clouds show the feedback: the larger the word, the more common the response.

Things we don't need...

housing
Affordable
Clemson
Police
museum
homes
Public
Center
Housing
Green
living
level
middle
systems
space
like
along
area
local
trails
facilities
Large
just
green
sports
Madren
Shelters
Discovery
Friends
increase
power
model
Hotels
courts
Events
bright
Walk/park
shopping
stormwater
hotels/stores
class/seniors
meeting
venue
pedestrian-bike
Consideration
Pay
bikes
sustainable
done
Balance
Field
outside
etc
sidewalks
plantation
school
look
force
Bowman
Graduate/post
primary
residents
cars
pleasant
Garrison
walking
Multiple
gardens/greenhouse
park
solar
areas
Classy
lot
History
bike/running
condominiums
insects
basketball
structures
Activities
yoga
harsh
Secours
surface
Indoor
years
Mile
seniors
lights
family
young
Retail professionals-not
recreation
summer/winter
studio
bikeable
needs community
restaurants
designed
graduate
old
art
Appeal
including
mosquitos
Arena-draw
attention
doctors
Single
Pointe
University
gas
stations
Magnets
history
bike
lighting-not
buildings
Wedding
convention
alternative
college
region
Link
200-350K
Creek
sensitive
development
breathing
Long
construction
i.e
Medical
traditional
stores
Keeping
infrastructure
Graduate/post
Consideration
sustainable
Garrison
Multiple
Classy
History
bike/running
Appeal
including
mosquitos
Arena-draw
attention
doctors
Single
Wedding
convention
alternative
college
region
Link
200-350K
Creek
sensitive
development
breathing
Long
construction
buildings
lighting-not
Retail professionals-not
recreation
summer/winter
studio
bikeable
family
lights
seniors
stations
Indoor
years
Mile
history
bike
surface
Secours
harsh
yoga
Activities
structures
insects
basketball
condominiums
gardens/greenhouse
park
solar
areas
pleasant
cars
residents
Pay
Police
museum
done
sustainable
Consideration
bikes
graduate
old
Classy
lot
History
bike/running
Appeal
including
mosquitos
Arena-draw
attention
doctors
Single
Pointe
University
gas
stations
Magnets
Indoor
years
Mile
seniors
lights
family
young
Retail professionals-not
recreation
summer/winter
studio
bikeable
needs community
restaurants
designed
graduate
old
art

2.3 PUBLIC DESIGN CHARRETTE

On May 11-15, 2015, the project team held a week-long design charrette at the University Baptist Church on Pendleton Road. Over these five days the project team studied the site, met with the public, and created more than eight alternative master plans for the site.

On the opening night of the public design charrette was a kick-off workshop. This began with an introduction to the project team, the Pacolet Milliken Enterprises company, the market study and conditions of the site, and the overall goals for the project. The public then broke into small groups where they participated in map and visioning exercises. Each team was asked to identify the negatives, positives, and opportunities for the conditions surrounding the site, and what they'd like to see in their community. This feedback was instrumental in the project team's approach to designing the site.

At the end of the day on Tuesday, Wednesday, and Thursday, the project team presented their work in sessions open to the public and received comment that ultimately led to the development of two achievable master plans.

▲ PICTURES FROM THE KICKOFF WORKSHOP AND THE PLANNING AND DESIGN CHARRETTE

▲ PICTURES FROM THE KICKOFF WORKSHOP AND THE PLANNING AND DESIGN CHARRETTE

◀ VISION DRIVEN CHARRETTE PROCESS

Charrette is "little cart" in French. In 19th century Paris, design professors circulated carts to collect final drawings from students. Students jumped on the carts to finish their work as they were pulled through the streets in public view. The term charrette has evolved to mean an open public design process where the public and the client are directly engaged with the designers to develop a preferred plan within an intense timeframe.

2.4 PUBLIC PRESENTATION

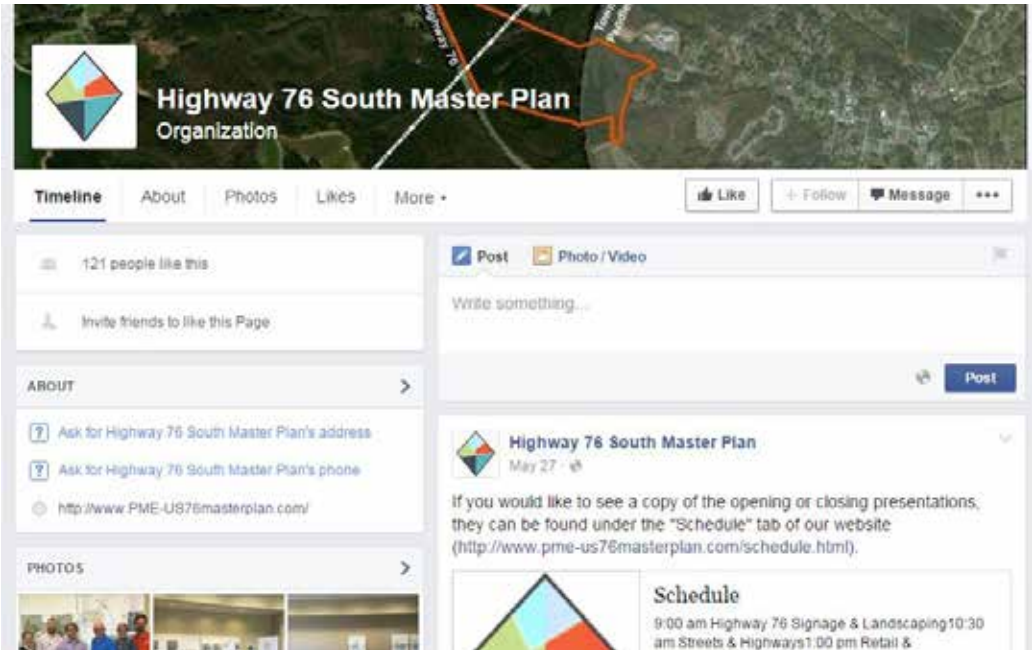
On May 21, 2015, the project team presented the two master plan options to the Clemson and Pendleton communities. The presentation explained the design concepts, important decisions made during the charrette, and how the public input was incorporated. Following the hour long presentation, members of the project team were present to document the public feedback on the two options for incorporation into the final design for the site.

▲ PICTURES FROM THE PUBLIC PRESENTATION

2.5 WEBSITE

A website was developed to provide information regarding the opportunities for public input as well as to preliminary site concepts. The site included information on public outreach activities, contact information for project leadership, and a copy of the various conceptual plans and illustrations that were created during the process. The project also has a Facebook page which documented the project in real time, focusing on the week-long design charrette.

◀ SCREEN SHOT OF THE PROJECT WEBSITE

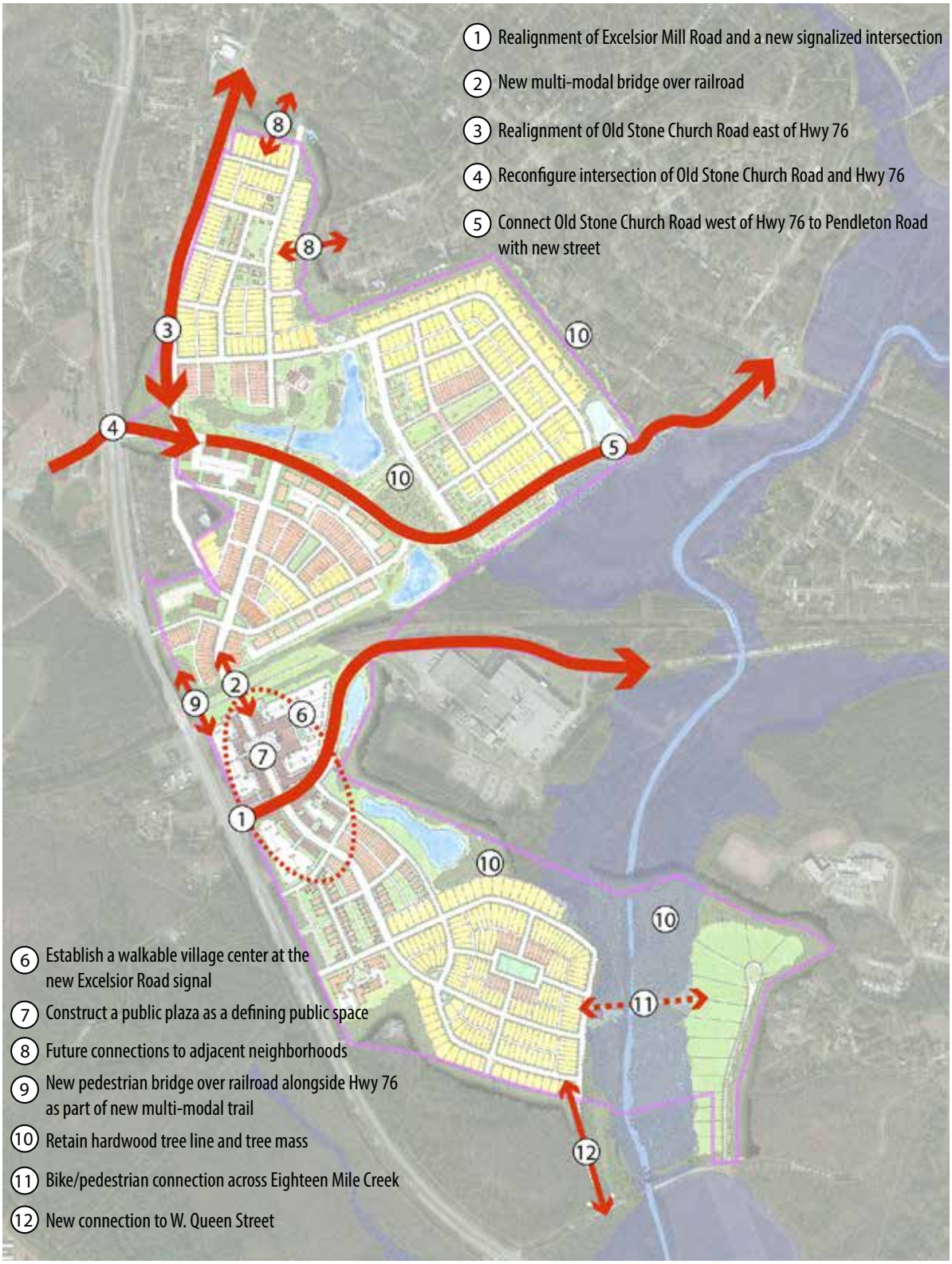


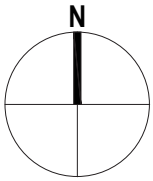
◀ SCREEN SHOT OF THE PROJECT'S FACEBOOK PAGE

3: THE MASTER PLAN

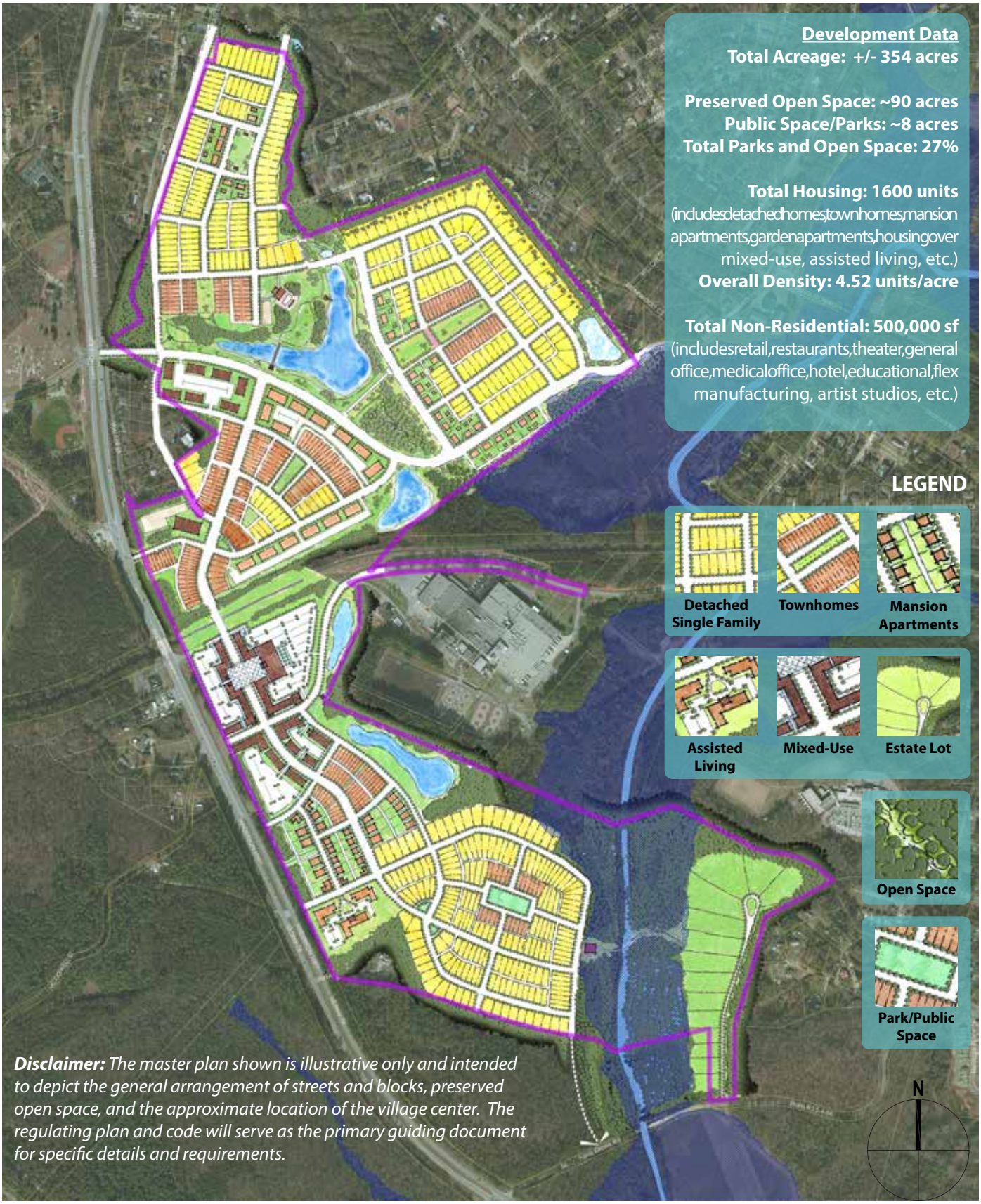
3.1 MAJOR CONCEPTS

The diagram below shows the major concepts that guided the development of the master plan.





3.2 CONCEPTUAL SITE MASTER PLAN



Disclaimer: *The master plan shown is illustrative only and intended to depict the general arrangement of streets and blocks, preserved open space, and the approximate location of the village center. The regulating plan and code will serve as the primary guiding document for specific details and requirements.*

3.3 BLOCKS

The standard block sizes used in the master plan are intended to be flexible enough to accommodate many different types of housing. Below are three diagrams that show how many of the blocks can accommodate front-loaded single family houses, alley-loaded, detached, single-family houses, and townhouses and/or apartments. This flexibility allows the master plan to respond to market conditions while ensuring a beautiful street network and a functional block structure.

▶ BLOCK TYPE SHOWING LOTS WITH ALLEY ACCESS TO THE REAR

▶ BLOCK TYPE SHOWING LOTS WITH DRIVEWAY ACCESS TO THE FRONT

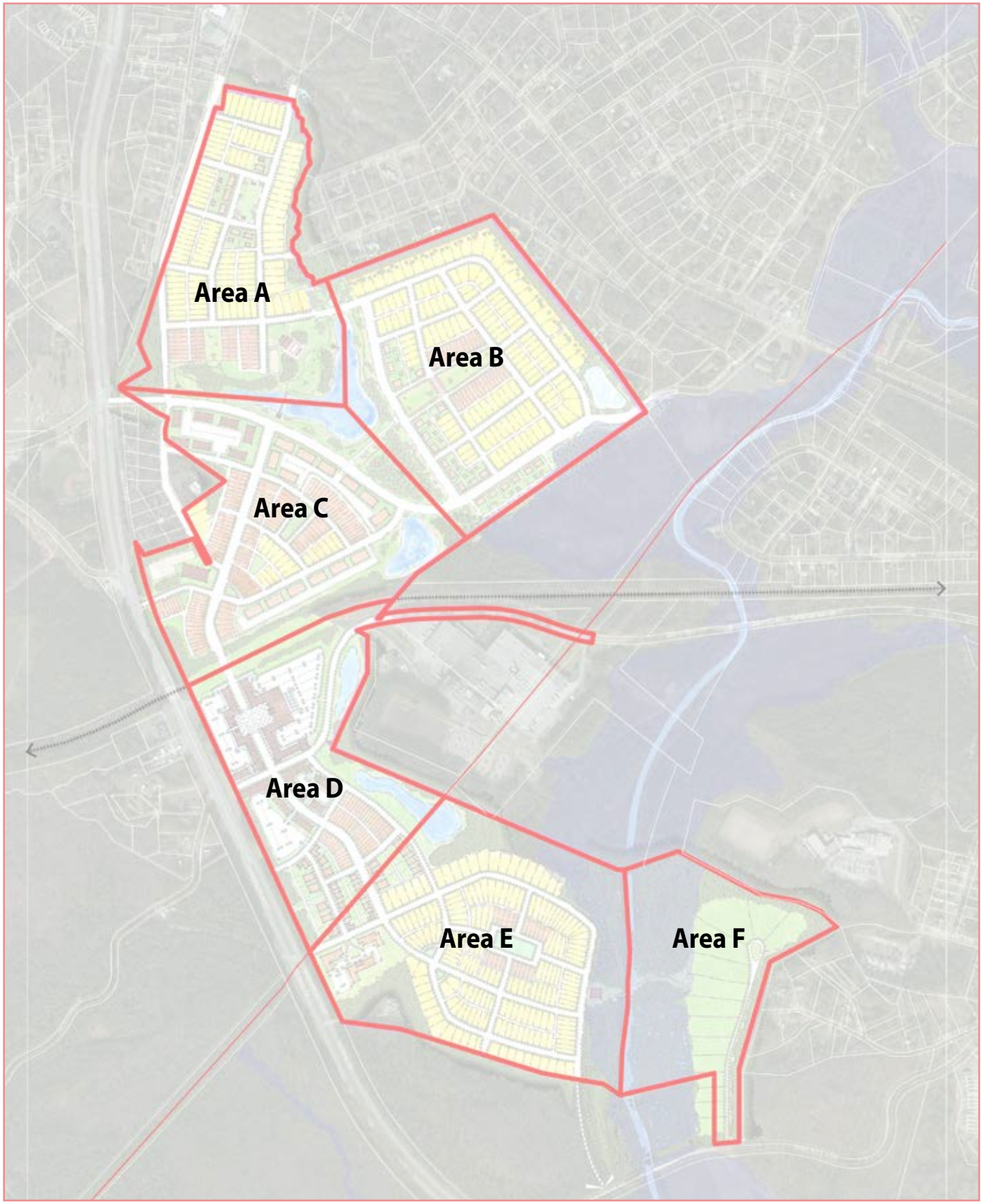
▶ BLOCK TYPE SHOWING MULTI-FAMILY BUILDINGS WITH ALLEY ACCESS TO THE REAR

◀ BLOCK WITH DETACHED HOMES AND ALLEY ACCESS TO THE REAR

◀ BLOCK WITH A MIX OF HOME TYPES, NO ALLEY, AND DRIVEWAYS ACCESSED FROM THE STREET

◀ BLOCK WITH MULTI-FAMILY HOMES AND ALLEY ACCESS TO THE REAR

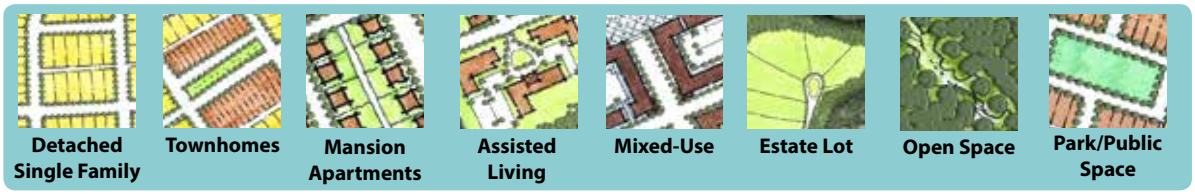
3.4 THE NEIGHBORHOODS



3.4.1 NORTHWEST NEIGHBORHOOD (AREA A | ~50 ACRES)

The Northwest neighborhood is comprised of smaller single-family lots, townhouses, and manor houses (a large house with multiple units) around a neighborhood green. It also contains a club house overlooking the restored lake and preserved landscape. New homes front onto Old Stone Church Road to restore the road as a residential street in character and encourage new housing on the west side of the street. It also includes two potential street connections to the vacant tracts to the north and east.

LEGEND



▲ EXISTING CONDITIONS LOOKING NORTH ALONG OLD STONE CHURCH ROAD

▲ PROPOSED NEW HOMES AND A MORE PEDESTRIAN AND BICYCLIST-FRIENDLY STREET

3.4.2 NORTHEAST NEIGHBORHOOD (AREA B | ~69 ACRES)

The Northeast neighborhood includes larger single family lots along the northern border of the site, smaller single family lots and "manor houses" overlooking the restored lake or an improved riparian stream and forest, and townhouses defining a neighborhood green. It also has a connection to the west to the adjacent neighborhood along an existing right-of-way. The number of units overlooking the water are maximized, while larger lots to the north are consistent with the adjacent existing neighborhood. Existing tree cover is maintained in several areas, particularly along the perimeter of the site. A connection to Pendleton Road is made via the existing Booker Springs Road right-of-way.

LEGEND

▲ EXAMPLE FOR POTENTIAL HOUSES ALONG PARKWAY, LOOKING OUT OVER THE CENTRAL PARK

▲ CONCEPTUAL AERIAL OF A VILLAGE GREEN IN THE NORTHEAST NEIGHBORHOOD

3.4.3 THE NEIGHBORHOOD CORE (AREA C | ~71 ACRES)

Bounded to the north by the new east-west parkway and served through the middle by the boulevard connecting the village center to the central park, the neighborhood core is envisioned to be a very walkable, high-density neighborhood. The blocks are flexible enough to accommodate a variety of housing types including mixed-use buildings with apartments on the upper story, apartments, townhouses, and small lot detached homes. A site has been reserved for a church or other important civic structure as the terminating view looking north from the new bridge over the railroad tracks. Parks and greens are spread throughout adding to the existing amenities of the central park and the village center within walking distance. Some mixed-use development is envisioned near the re-aligned intersection of Old Stone Church Road and Highway 76.

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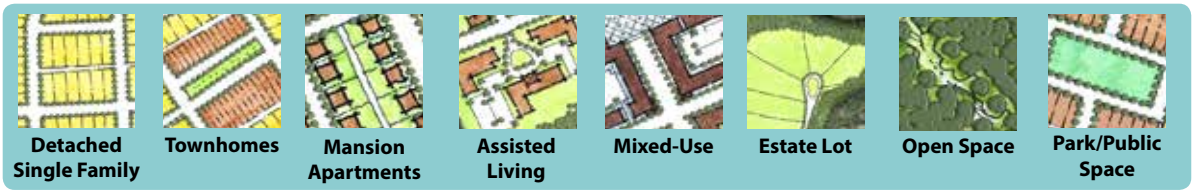

▲ VIEW OF THE VILLAGE CENTER AND THE NEW BRIDGE OVER THE RAILROAD, LOOKING NORTH

▲ VIEW OF THE PLAZA

3.4.4 THE VILLAGE CENTER (AREA D | ~46 ACRES)

The Village Center is the mixed-use hub of the area providing commercial, entertainment, retail, and residential uses. The core of this neighborhood is a vibrant plaza that straddles the main street creating an active public space. Apartments make a "Game Day Village" for retired Clemson University alumni, a movie theater, bowling alley, or similar venue provides entertainment for the surrounding area, and small boutiques and restaurants create a truly unique regional shopping destination.

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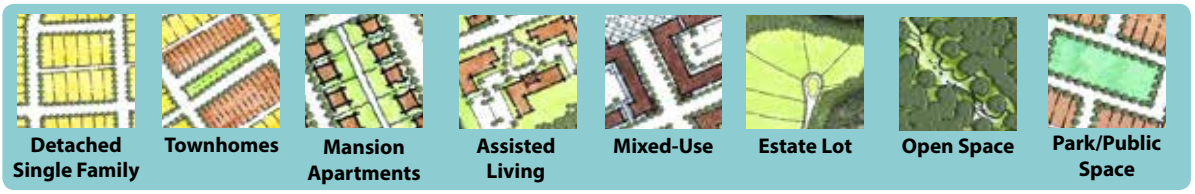

3.4.5 SOUTHEAST NEIGHBORHOOD (AREA E | ~75 ACRES)

The Southeast neighborhood consists predominantly of small single family house lots taking advantage of views of the woods and eighteen-Mile Creek. Townhouses are located on a small neighborhood green. Towards the Village Center, higher density housing options including townhouses, apartments, and "manor houses". Other possible housing options, such as a senior care facility are included because of the site's walkable proximity to the Village Center.

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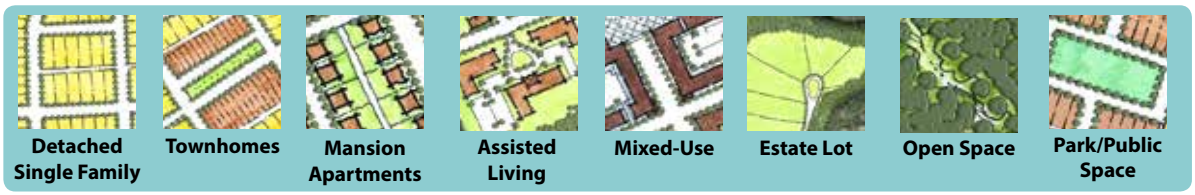
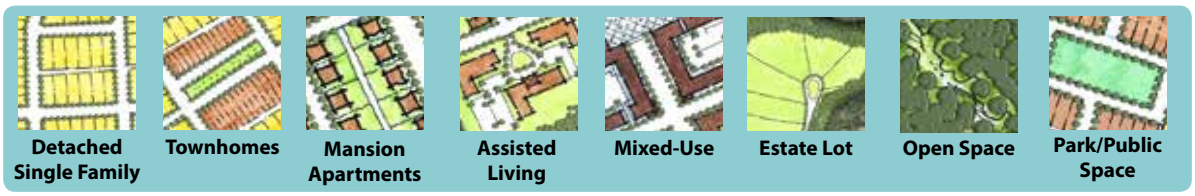


3.4.6 CONSERVATION ESTATE LOTS (AREA F | ~40 ACRES)

Accessed only by West Queen Street to the south, this small neighborhood of 1-2 acre lots allows home sites to be nestled into the hardwood canopy. There is a trail across Eighteen Mile Creek to permit pedestrians and bicyclists to travel to the Village Center without a car. Note: This site is presently inside the Town Limits of Pendleton.

LEGEND

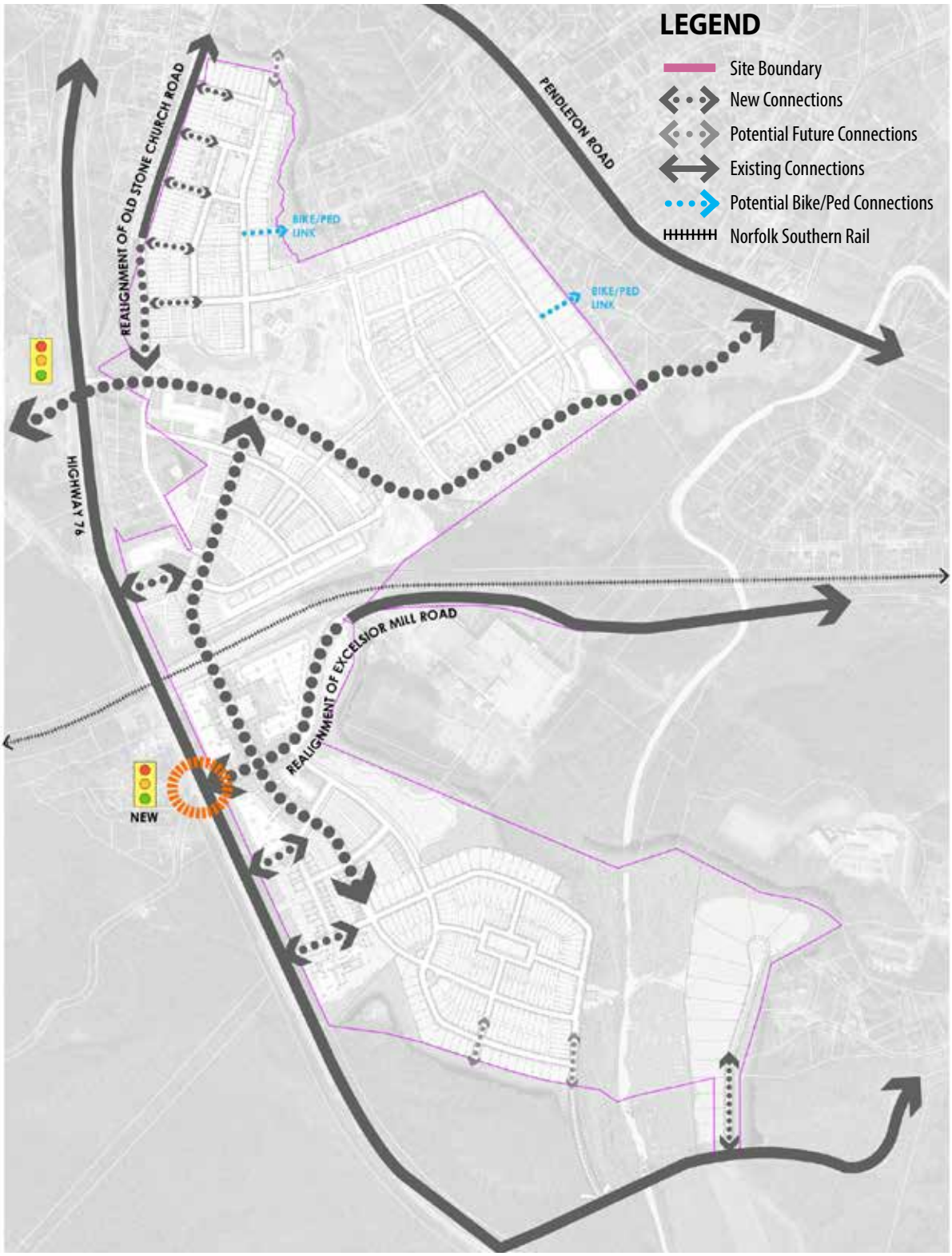


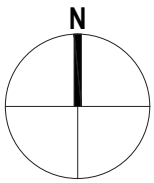
4: MOBILITY

4.1 MOBILITY IMPROVEMENTS

4.1.1 CONNECTIVITY PLAN

The diagram below shows how the master plan connects this area to the surrounding neighborhoods. Well-connected neighborhoods are the foundation for a highly walkable community.





4.1.2 OFF-SITE MOBILITY IMPROVEMENTS

The site is located along Highway 76, a principal arterial connecting I-85 to the south and the City of Clemson. At present, access is The 2014 average daily vehicle counts are as follows:

- South of Excelsior Mill Road: 18,100 vehicles per day
- North of Railroad at New Hope Road: 15,600 vehicles per day

Based on these traffic volumes, there is more than sufficient capacity to accommodate a significant development such as is contemplated in this plan. However, access to Highway 76 from the site will be limited without improved signalized access points and overall mobility is compromised with access using only Highway 76. The site also has access to Old Stone Church Road to the north, Booker Springs Road (to Pendleton Road), and Excelsior Mill Road. Even though there are limited connectivity options, this plan proposes to maximize these opportunities as well as create new connections to improve choices.

Highway 76/Old Stone Church Road Intersection Improvement: Because the intersection follows the old alignment of Old Stone Church Road, the vertical and horizontal geometry will require improvement to accommodate a new street connection to serve this site. It is expected that Old Stone Church Road to the east of Highway 76 will be required to be realigned to "T" into the new entrance parkway shown in the plan approximately 400 feet to the east of its current intersection with Highway 76. Additionally, because of the visual prominence of the site as the primary gateway to Clemson and Clemson University, this plan recommends that the entire intersection be reconstructed to improve east-west connectivity, accommodate pedestrians and bicyclists (connecting to the University's planned bicycle network along Old Stone Church Road/Cherry Road), and install mast arms for the signals.

New Signal at Realigned Excelsior Mill Road: The current intersection of Excelsior Mill Road and Highway 76 is full movement, but unsignalized. At present, traffic on Excelsior Mill Road does not warrant a signal, however, this is expected to change with the construction of new village center. This plan recommends the installation of a new traffic signal to control the realigned Excelsior Mill Road on the east and McDowell Road to the west. This new signal would be located approximately 3000 feet to the south of the Old Stone Church Road intersection in compliance with SCDOT ARMS signal spacing specifications. As the primary connection to the village center, mast arms are recommended for the signals.

Additional Street Connections: The master plan recommends a number of new street connections and street stubs to surrounding undeveloped properties as indicated on the map in Section 4.1.1. The proposed network while limited due to various topographic and ownership issues, proposes seven connections to help disperse traffic and provide the greater amount of mobility choice. These connections include:

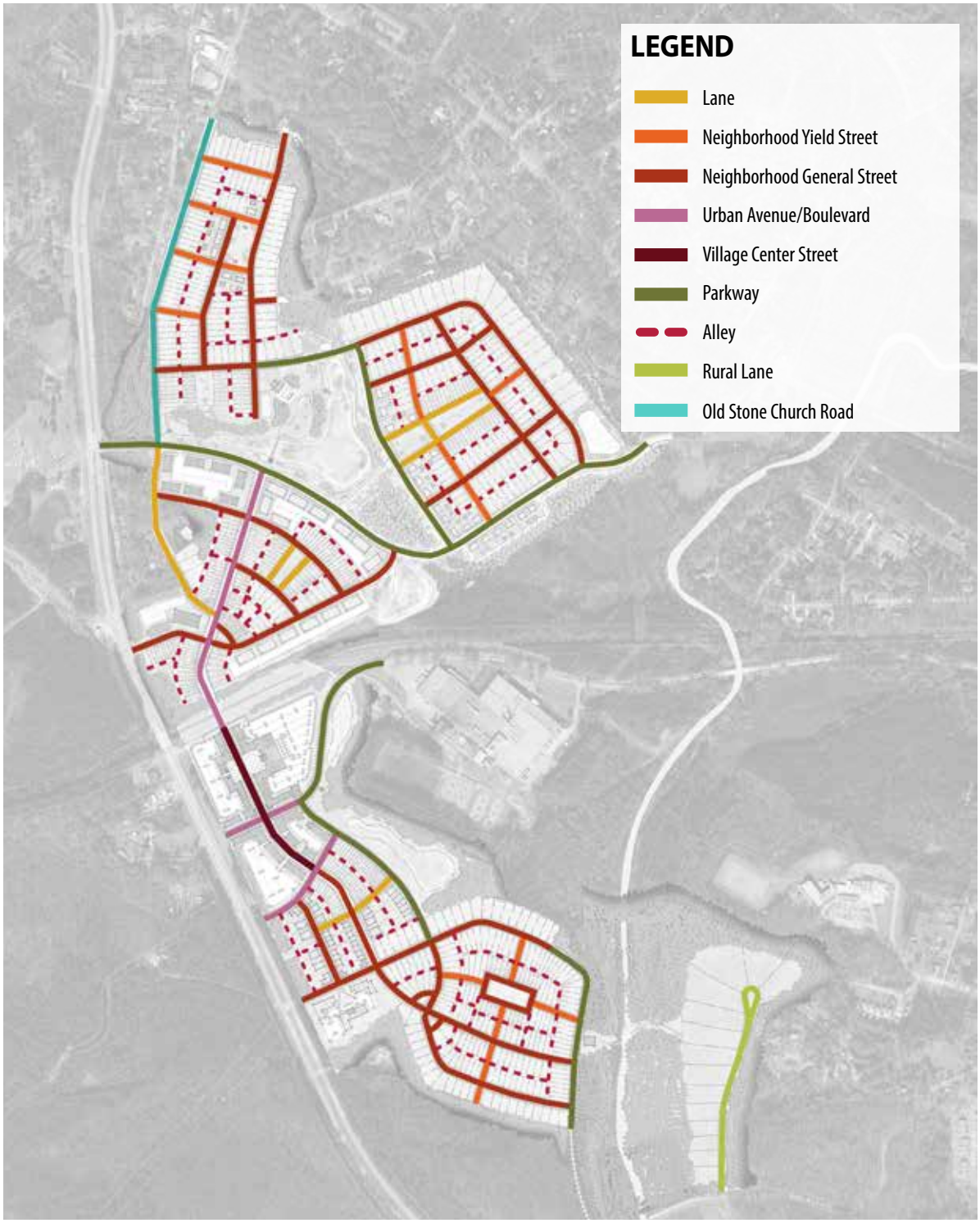
- Old Stone Church Road/Highway 76 Signalized Intersection
- Excelsior Mill Road/Highway 76 Signalized Intersection
- Excelsior Mill Road
- Various connections to Old Stone Church Road
- Street stub to vacant tracts to north
- Connection Pendleton Road via Booker Springs Road
- Street stub to Clemson University-owned tract to south along West Queen Street

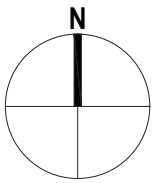
Additional Trail Connections: Along the site's northeast border, in lieu of street connections, two trail connections have been depicted on the plan. These trails will be extended to the property and will be available for future connectivity from Robin Street and Duke Street if deemed practical.

4.2 STREET NETWORK

4.2.1 STREET NETWORK PLAN

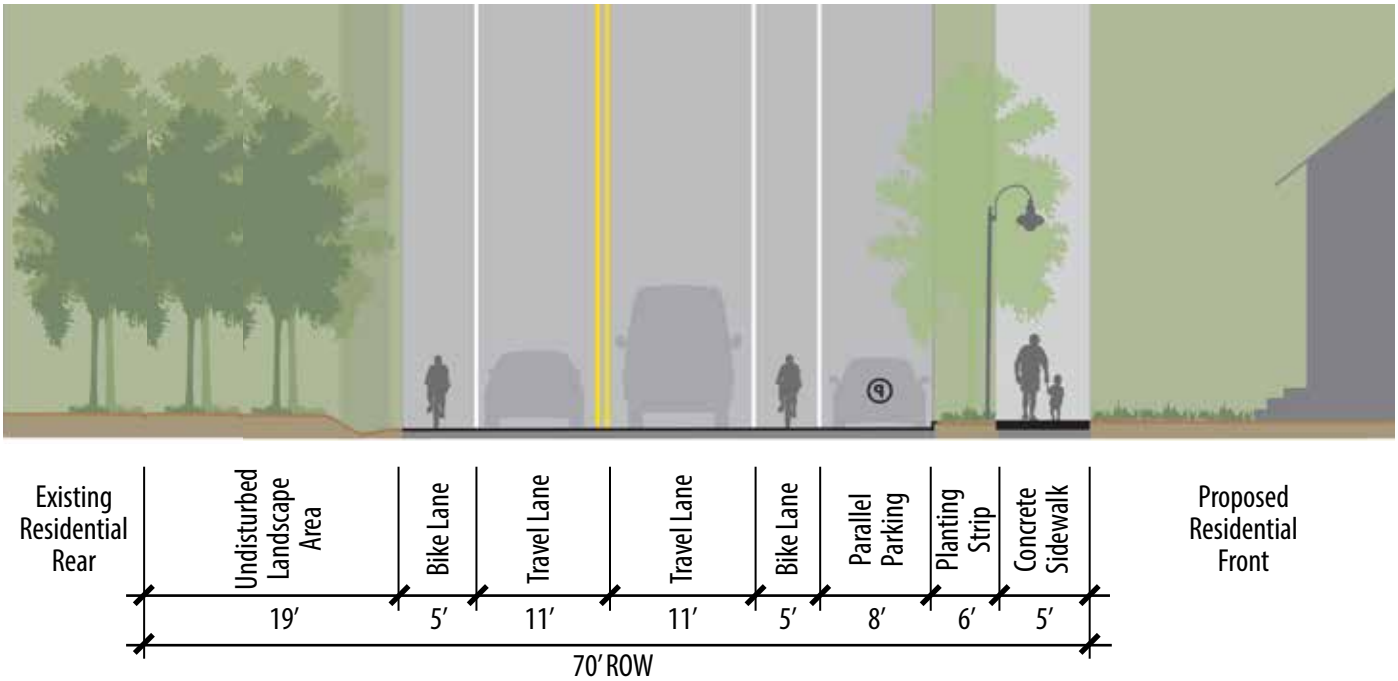
The Street Network Plan diagram illustrates the appropriate types and locations of streets in the Master Plan. The variety and hierarchy of streets throughout the area creates a distinct identity for each part of the development.





4.2.2 OLD STONE CHURCH ROAD

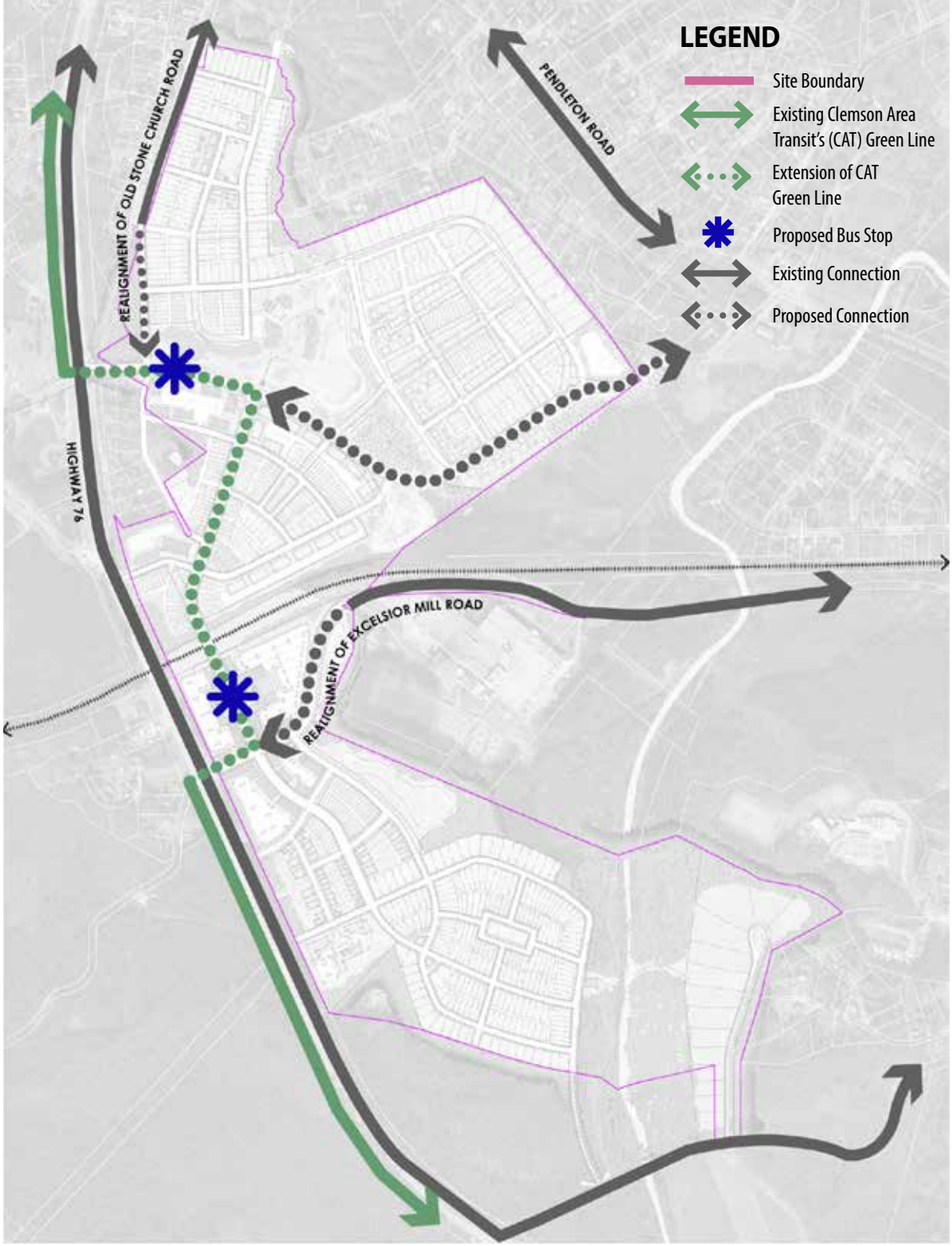
This diagram looking north shows how new residential development would front Old Stone Church Road. A new sidewalk, parallel parking, and bike lanes would create a neighborhood street with slower traffic and safer multi-modal activities.



▲ CONCEPTUAL IMPROVEMENTS TO OLD STONE CHURCH ROAD

4.3 TRANSIT IMPROVEMENTS

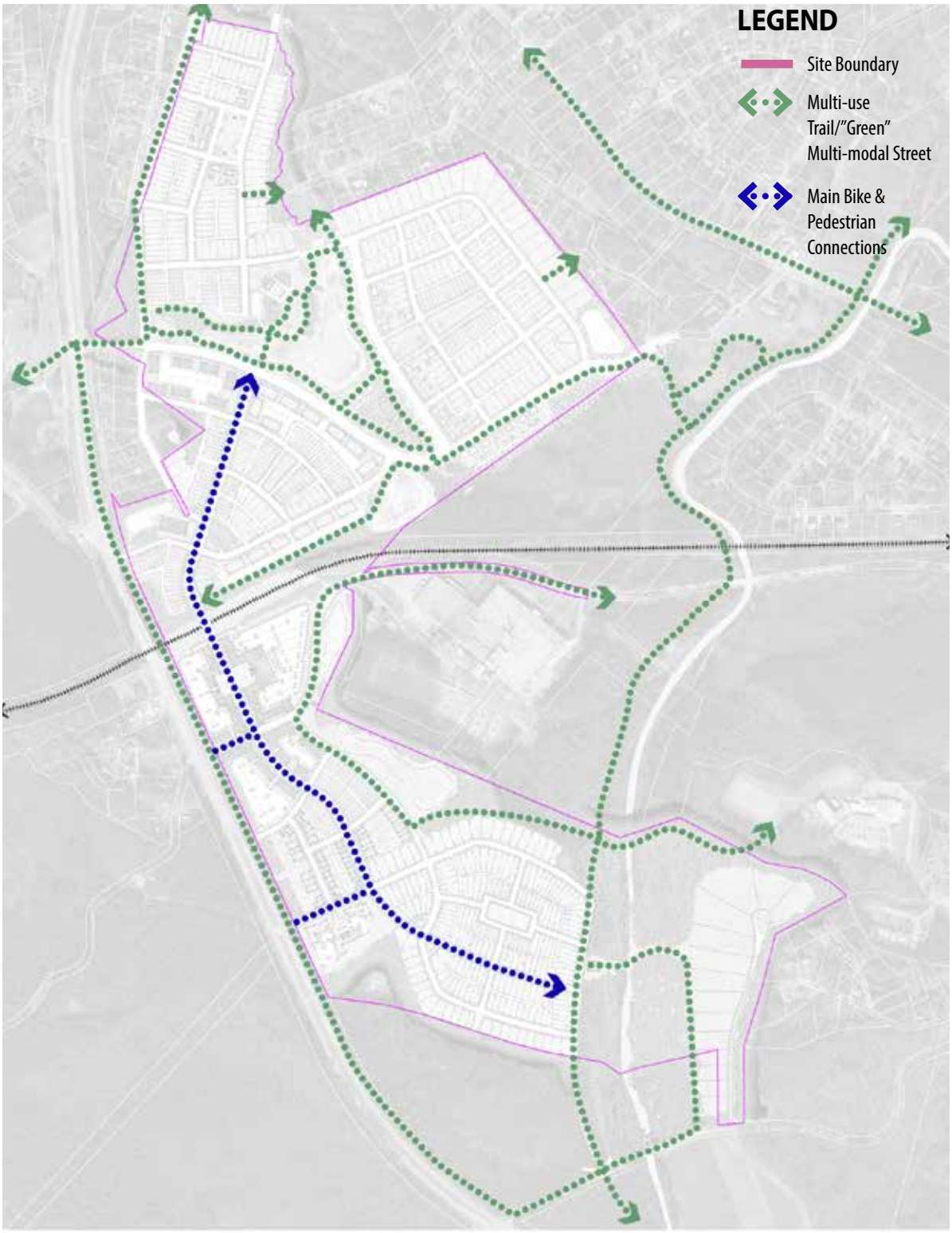
The proposed conceptual transit routing plan indicates how high frequency bus service can be provided to the site along the current Pendleton/Tri-County Technical College Route (Green line) through the village center across the railroad track into northern neighborhoods and reconnecting to Highway 76 at Old Stone Church Road.

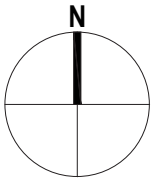


4.4 BICYCLE & PEDESTRIAN NETWORK

4.4.1 BICYCLE & PEDESTRIAN NETWORK DIAGRAM

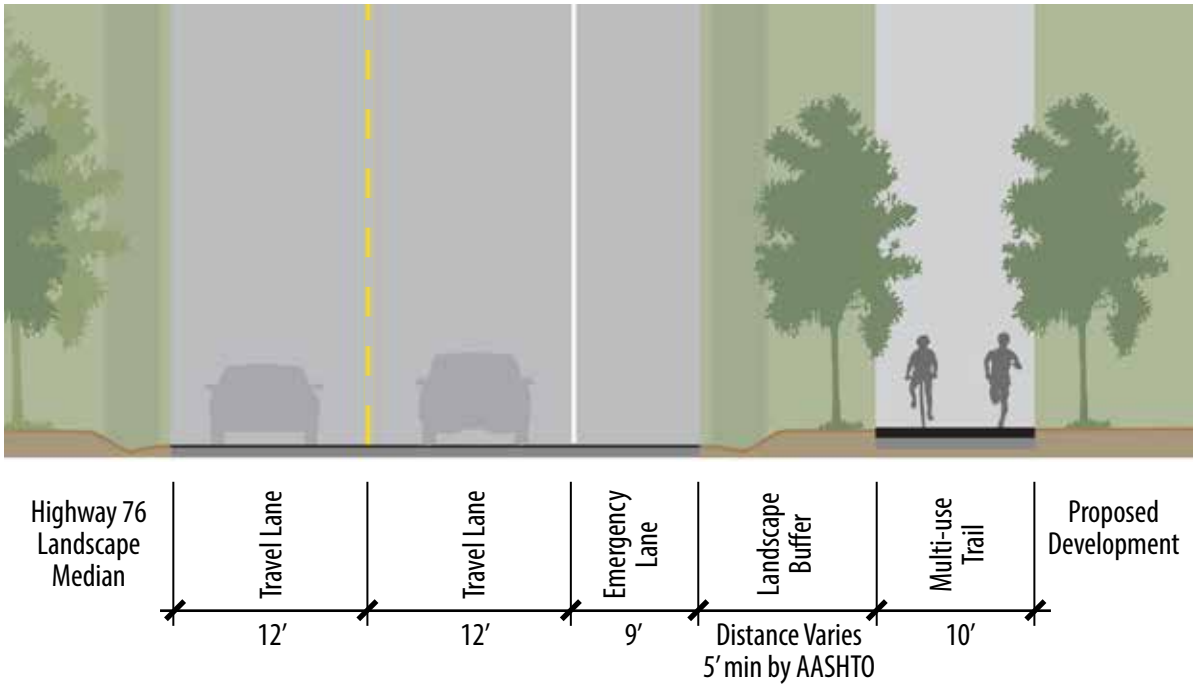
In addition to the highly connected street network, the master plan envisions an additional layer of on-road and off-road trails that provide more than 2 miles of natural experiences for pedestrians and bicyclists that connect to the planned greenway along Eighteen Mile Creek.



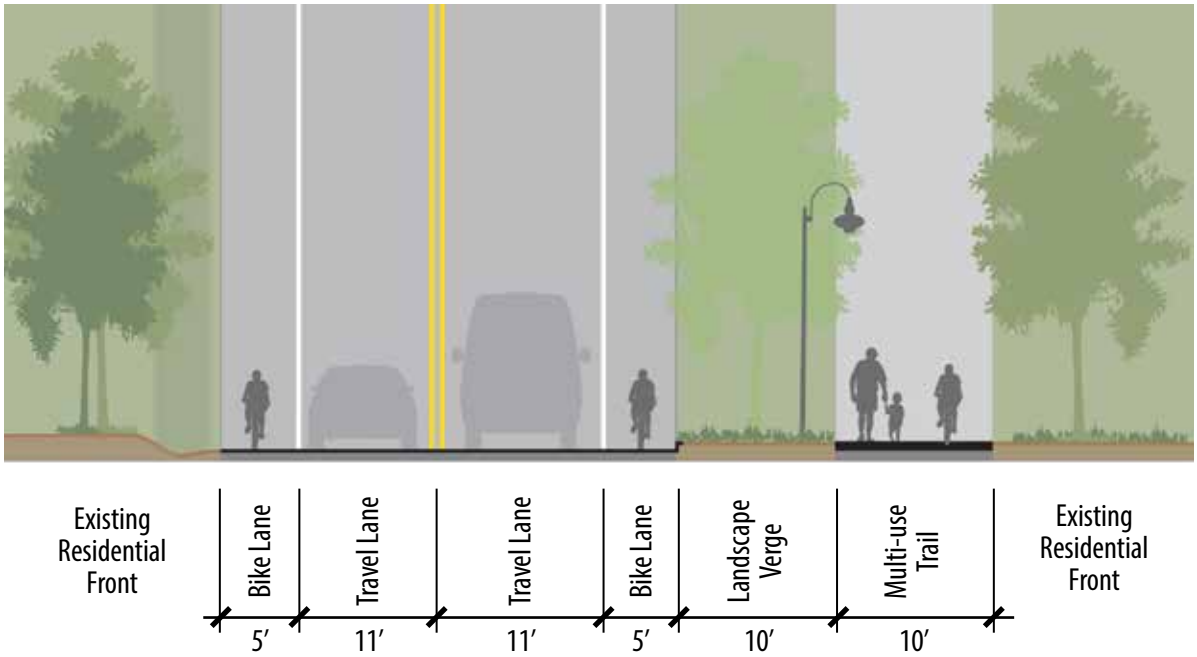


4.4.2 MAJOR TRAIL FACILITIES - HIGHWAY 76 & PENDLETON ROAD

These diagrams looking north show the design of the multi-use trail for pedestrians and cyclists along Highway 76 and Pendleton Road. Creating multi-modal facilities along these major roads will make the development more accessible, but also make these major corridors safer for cyclists and pedestrians.



▲ MULTI-USE TRAIL ALONG HIGHWAY 76 WITH ALLÉE OF "NOBLE TREES"

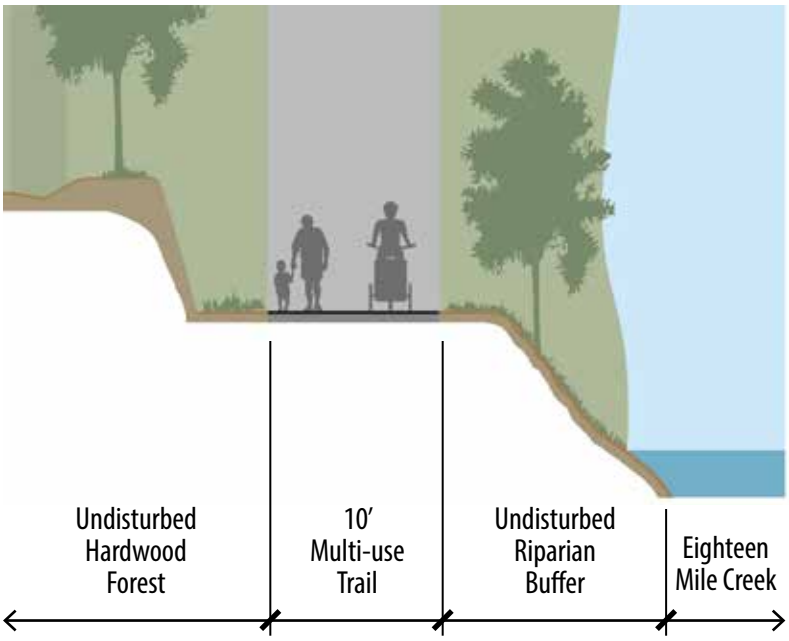


▲ MULTI-USE TRAIL ALONG PENDLETON ROAD

4.4.3 EIGHTEEN-MILE CREEK GREENWAY

The Eighteen Mile Creek will be a recreational and environmental asset to the community with the potential to connect the Tri-County Technical College to Patrick Square and Nettles Park along a 3.5 mile path.

▲ EXISTING EIGHTEEN MILE CREEK (ABOVE & RIGHT)



▲ PROPOSED EIGHTEEN MILE CREEK GREENWAY TRAIL

5: GREEN INFRASTRUCTURE

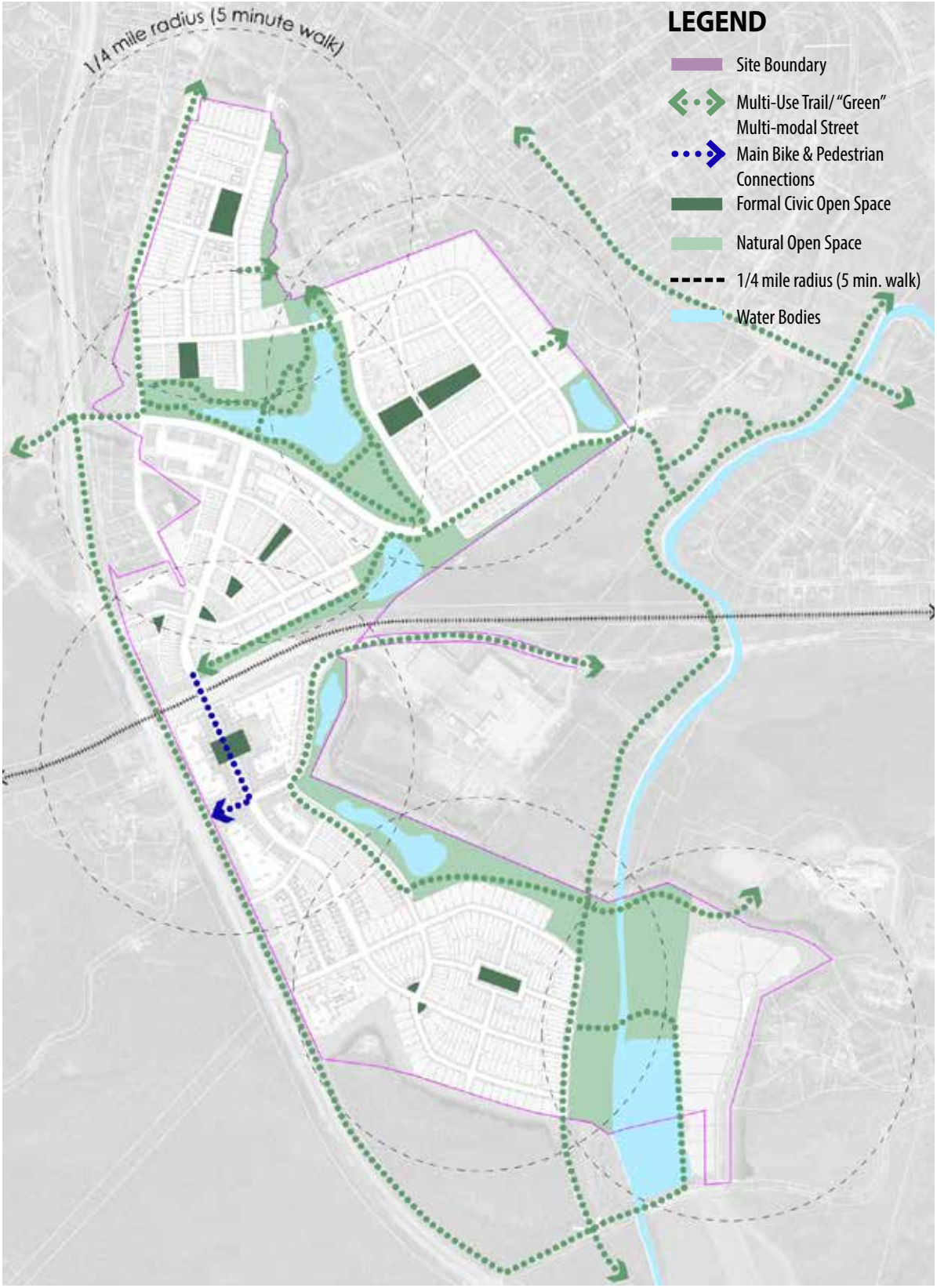
5.1 PRESERVED OPEN SPACE

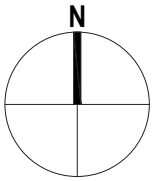
5.1.1 THE IMPORTANCE OF PRESERVING OPEN SPACE

There are social, environmental, economic, and health reasons to maintain permanent open space. First, preserving open space creates communal areas for neighbors to meet, by plan or accident. This can build social cohesion and neighborliness. Second, preserving open space retains a natural habitat for animals. Allowing species to remain reduces the need for them to migrate, creating a more unique and sustainable place to live. Third, it creates pleasant views from residential units which makes them more valuable and maximizes return on investment. Concentrating a higher number of units on wooded views allows more people to benefit from the views and increases their tax and market value. Finally, providing recreation opportunities as part of the preservation of open space encourages walking and cycling enabling a healthier lifestyle for residents of all ages.

5.1.2 PRESERVED & CONNECTED OPEN SPACE

The diagram below illustrates how the preserved open space is woven together by the trail and street network, enabling a high degree of connectivity between the neighborhoods to the surrounding area.





5.2 TYPES OF PUBLIC SPACE

The master plan provides varied types of public space to meet the needs of the residents and provide unique experiences in the community and nature. Below are the 5 types of public spaces:

DESCRIPTION	PLAN	EXAMPLES
VILLAGE GREEN A village green acts as a the heart and center of a neighborhood. Every home is within a 5 minute walk of a village green, which provides a space for social and recreational activities. This space is left open, so that it can be flexible to whatever activity is required by the community.		 *Image Source: Terrain*
POCKET PARKS These are small, programmed open spaces nestled in between buildings or at intersections in the development. Pocket parks provide a space for a rest while walking your dog, jogging, or reading a book. They also offers places for chance meetings with neighbors.		 *Image Source: Hyde Park United*
WOODLAND The quiet, natural, and undisturbed character of woodland is something that is very unique in new development, especially when so close to a town center. Preserving mature tree lines and wooded areas, especially around the streams, will provide a unique experience for residents through recreation and interacting with native species on site.		 *Image Source: 365 Cincinnati*

DESCRIPTION

PLAN

EXAMPLES

COMMUNITY FARMING

Many public open spaces in the development, especially those areas around the streams can be used for community farming by residents that live near or in the development. This allows better access to fresh food, physical activity, and meeting of neighbors. There are many social and environmental benefits to community farming.

Image Source: Go Buy Local

STREAMS & WATER RESOURCES

There is currently a small stream covered by brush that traverses the northwest of the site as an offshoot of eighteen-Mile Creek. It can be cleaned up and restored as an amenity for the community in the preserved open and wooded space. This stream was once dammed in the last century to create a water supply for the mill. This stream can be dammed once again to provide a larger body of water at the center of the neighborhoods. Doing so would honor the history the site and the legacy of the mill. Both provide wonderful opportunities for nature, recreation, and return on investment.

Image Source: USG S

Image Source: Neponset River

5.3 THE CENTRAL PARK

In addition to the village center, the central park is one of the most important pieces of infrastructure for not just this area, but the entire Clemson and Pendleton community. At 26 acres, this largely natural park provides an extensive trail system, a protected hardwood forest, and very wide buffers around the stream corridors. The conceptual plan also envisions a community center and a sculptural bridge spanning either a restored stream corridor or a re-established pond. It is very easily accessible via the new parkway connecting Highway 76 to Pendleton Road.

▲ EXISTING CONDITIONS OF THE SPILLWAY FROM THE OLD POND

▲ NEW HOMES ALONG THE PARKWAY

6: UTILITIES

6.1 EARTHWORK & EROSION CONTROL

The site will be graded to conserve sensitive environmental areas, including streams and wetlands, where possible. Grading will take into account existing drainage patterns and aim to preserve the general direction of stormwater runoff. Erosion control practices shall be incorporated into the project in accordance with the South Carolina Department of Health and Environmental Control (SCDHEC) and City of Clemson standard requirements (including, but not limited to: silt fencing, sediment basins, storm drain inlet protection, stabilized construction entrances, temporary and permanent seeding, etc.). The project will require a Notice of Intent (NOI) be submitted to the SCDHEC prior to beginning any land disturbing activities. The NOI will be used to obtain coverage under South Carolina's Construction General Permit (CGP) for Stormwater Discharges from Large and Small Construction Activities. Following construction and subsequent site stabilization a Notice of Termination (NOT) will be filed with SCDHEC to close coverage under the CGP.

Due to the severity of some of the existing topography on the site (5 to in excess of 20% slopes), the project will be generally be mass-graded in phases as the site develops. Based on the schematic site plans, grading will seek to flatten road grades to accommodate the mixed-use nature of the site and promote pedestrian circulation. Any excess soil that cannot be utilized on-site, debris or unsuitable materials shall be hauled off site.

A geotechnical investigation of the site should be provided and data concerning the suitability of existing site soils, presence of rock, groundwater elevations, etc., should be taken into account during the detailed site grading phase.

6.2 WATER SERVICE

Water service is provided under the authority of the Anderson Regional Joint Water (AJRW) system. The project will tap the existing 24" water main along Highway 76 on the west edge of the project. Fire protection service will be achieved with fire hydrants spaced throughout the site in accordance with fire code requirements. New waterlines will be constructed of ductile iron pipe (DIP) below the proposed street pavement sections. Backflow prevention devices will be located in accordance with state and local requirements.

6.3 SEWER SERVICE

Sanitary sewer service is provided under the authority of the Pendleton/Clemson Wastewater Treatment Plant. An existing 8-inch sanitary sewer line runs through the north side of the project, and connects to an existing 18-inch sanitary sewer along the east side of 18 Mile Creek, which crosses the southeast portion of the site. A new 8-inch sanitary sewer service network will be extended throughout the project to service the proposed uses. New sewer services will generally be constructed using DIP pipe and concrete manholes.

6.4 OTHER UTILITIES

Gas, electric, and telecommunications services for the project will be provided through connections to the available existing utility services generally located at the perimeter of the site.

6.5 STORMWATER MANAGEMENT

Drainage from proposed development generally flows from northwest (Highway 76) to southeast (18 Mile Creek) where it leaves the south end of the site. 18 Mile Creek continues to flow in a southerly direction to Lake Hartwell and subsequently forms the Savannah River. The site will be subject to SCDHEC erosion control and stormwater management regulations. These guidelines require pre-construction stormwater controls for erosion and sediment control, as well as post construction stormwater treatment for water quality and stormwater detention for peak control.

Stormwater will generally be collected in piped systems and conveyed to suitable management devices or outlets. Underground piping will generally be reinforced concrete, though HDPE or PVC piping will be used for smaller roof and area drain systems.