



Agenda

1. Call to Order

2. Agenda Adjustment

3. Approval of Minutes

- a. Approve Minutes of April 4, 2023 Land Use Advisory Committee Meeting

4. Requests and Communications

- a. Ragan Mixed-Use

5. Consent Agenda

6. Other Business

7. Adjournment

In accordance with ADA regulations please contact the Town Clerk's office at least 48 hours before the meeting to request an auxiliary aid or service needed to participate in this meeting:

linda.mckinney@hollyspringsnc.us 919-557-3900



Town of Holly Springs Land Use Advisory Committee

Agenda Cover Sheet

Agenda Item#: 3.a.

Consent Agenda

Title: Approve Minutes of April 4, 2023 Land Use Advisory Committee Meeting

Strategic Priority Area:

Staff Resource:

Action(s):

Explanation:

Background:

Funding Source(s):

Attachment(s):

1. 4.4.23 LUAC Minutes - draft



Town of Holly Springs Land Use Advisory Committee

Minutes: *April 4, 2023*

Agenda Item 1: ROLL CALL

The Land Use Advisory Committee (LUAC) met on Tuesday, April 4, 2023 in the Holleman Room of Town Hall at 3:00 p.m. when a quorum was established.

Members Present: Randy Harrington
Scott Chase
Daniel Weeks
Dan Berry (Town Council Representative)
Irena Krstanovic
Ernie Carpico, Planning Representative
Chris Deshazor, Alternate Planning Representative

Members Absent: Chris Hills

Staff Members

Present: Elizabeth Goodson
Brett Gosney
Sean Ryan
Matt Beard
Catherine Jacobs
Mike Leonas
Kathy White (recording the minutes)

Staff Attending

Via Zoom Daniel Spruill

Agenda Item 2: AGENDA ADJUSTMENT

No agenda adjustment was made.

Agenda Item 3: APPROVAL OF MINUTES

Motion to approve minutes of November 1, 2022 as submitted.

Motion: Ernie Carpico
Second: Chris Deshazor
Vote: Unanimous

Agenda Item 4: Development Petition(s)

a. Old Smithfield Road Mixed Use

In attendance for this item were: Mark Frederick, Parker Poe
Collier Marsh, Parker Poe
Laura Holloman, McAdams
Scott Milke, Leon Capital Group
Kyle Greer, Mackenan Property Group

Brett Gosney, Planner, gave an overview of the request as presented in the staff report. The applicant is requesting consideration of rezoning to the Mixed-Use Residential-Conditional District (MXR-CD). They are proposing the development of approximately 22 acres of land, located just south of NC 540 between GB Alford Hwy and N. Main Street. The proposal consists of a mix of commercial uses, carriage houses and apartments. Mr. Gosney went on to explain how this proposed project incorporates some of the key themes of the Comprehensive Plan, as well as areas where the proposed project is not in alignment with the Plan.

Catherine Jacobs, Engineering, discussed the public utilities that are available for this proposed site. There is existing 8-inch gravity sewer available to the Easton Acres Pump station and ultimately to the 12 Oaks Pump Station. The Easton Acres Pump Station is at capacity, and will need to be decommissioned and abandoned as part of this development. In addition, a downstream sewer evaluation and Pump Station Report will be required at the time of Rezoning petition submittal. There is a 16-inch watermain to the east in Main Street and an existing 8-inch watermain to the south in Crittenden Lane. Watermain will be extended along Old Smithfield Road and across its frontage, as well as throughout the site to serve the developments. The watermain will also be extended to adjacent properties for future connection. A Hydraulic/Fire Flow Evaluation and Report will be required with the Master Plan and Development Plans to verify that adequate pressure and fire flow is available.

Ms. Jacobs then explained how this project would be affected by the Comprehensive Transportation Plan. The existing Old Smithfield Road is to be realigned to connect to Highway 55 further south of this project. The existing connection of Old Smithfield Road is to be closed and reconfigured as a cul-de-sac to continue to adequately provide access to the adjacent properties. Also, per the CTP and UDO, there is to be a new north/south connection between Old Smithfield Road and Crittenden Lane. The ultimate street cross section for this roadway is a 2-lane local connector.

Matt Beard, Parks and Recreation discussed how the Town's Future Active Transportation network impacts the proposed project. He explained that the side paths along the new north/south connection along Crittenden Lane will be 10' wide, and there will also be a bike path. The crossing point over Hwy 55 remains to be seen, as the other side of Hwy 55 is owned by Wake County for the Landfill. He recommended setting up the infrastructure for that area rather than building it right now.

Applicant

Mr. Marsh introduced the other members of the applicant team. He said the applicants understand the importance of this area as it's a main entrance into the Town. He showed the

Page 2 of 4
April 4, 2023 LUAC Minutes

conceptual plan, which consists of a mix non-residential on the north side of the project and approximately 330 total residential properties on the southern part. He explained the various styles of residential properties, such as disconnected carriage houses, town homes, and then the various amenities they have planned. He said they were going for more of an urban feel. He explained how they want to partner with the Town on the northern eastern section of the site to create some sort of entry feature, such as public art or signage that would really announce the entrance to the Town. He further discussed the design elements of the proposed retail spaces, emphasizing that they will be in keeping with the Town's plans.

Elizabeth Goodson opened it up for discussion.

Ernie Carpico had questions about the site map, asking for clarification on the realignment of Old Smithfield Road. The applicant said they've been working with Holly Springs and NCDOT for the past year to work out the best alignment possible, and assured that it could be a full buildout. The committee discussed the importance of shortening the distance to the realigned road and 540.

Chris Deshazor and Ernie Carpio expressed the importance of road signage at the entrance and the buffer between this project and current residential properties.

Matt Beard explained that the rules for the existing dog park should be woven into the residential design of this project.

Randy Harrington asked what would happen to the existing Old Smithfield Road. Would it be abandoned? Catherine Jacobs said it couldn't completely be abandoned

Ernie Carpico asked if the amenities would be accessible to the public. The applicant says there would be an opportunity for that, they would like to work with the Town on what we would like. It could be a sculpture, a sign easement, etc. It's a very prominent spot, although it really couldn't be a park. They are interested in working with the Town to make it a gateway signage spot.

Irena Krystanovic asked about walkability of the project and asked if the timing of the retail matches the residential development, and the applicant assured the committee they were planning to develop both at the same time.

Ernie Carpico asked if the other parcel owner was interested in selling, the applicant says not at this time. The future sale of that plan wouldn't change the layout of this project.

The committee discussed the importance of pedestrian safety in this area. Elizabeth Goodson said we would be working with NCDOT to make sure it's done to Town standards. She also mentioned the importance of spacing the access point off of 55 a greater distance than what is represented in the packet.

Randy Harrington asked for clarification on the proposed height of the buildings. The applicant stated that they are hoping to build 4 story elevator buildings and 2 story carriage style houses.

Dan Berry discussed the land use. While he does like the uniqueness of the carriage homes, and thinks that they should be dispersed throughout the project, rather than just the six proposed, he thinks there needs to be more commercial properties.

Laura Holloman asked if they integrated more commercial/retail properties, would the Town be amenable to taller building height? Dan Barry said probably.

The committee suggested that upper corner would be a great area to put a “Welcome to Holly Springs” sign, and reiterated the need for balance between commercial and residential development.

Elizabeth Goodson summarized the questions/discussion, and asked if there were any other items for discussion. Having none, she moved on to Other Business.

Agenda Item 5: OTHER BUSINESS

None

Agenda Item 6: ADJOURNMENT

The meeting adjourned at 4:00

Motion: Dan Berry

Second: Daniel Weeks

Respectfully submitted,



Kathryn L. White
LUAC Clerk



Land Use Advisory Committee

Subject Title: Ragan Mixed-Use
Meeting Date: May 2, 2023
Presenter: Brett Gosney, Catherine Jacobs, Development Services
Attachments: LUAC Application, Site Plan, Example Photos

Topic Highlights/Summary

Laura Holloman, representing McAdams, has requested to meet with the Land Use Advisory Committee to discuss the potential development of ~ 55.40 acres of land located at 3313 Avent Ferry Road (intersection of Avent Ferry Rd. and Rex Rd.). The proposal consists of a mix of commercial uses and attached dwellings (quadplexes and townhomes). The applicant can describe their proposal and the various site elements including anticipated mix of residential products, commercial uses, and potential number of units anticipated.

Future Land Use Designations: Neighborhood Center, Conservation Neighborhood, & Natural Area

Proposed Future Land Use Designations: Neighborhood Center and Mixed Residential Neighborhood

Current Zoning: RR Rural Residential

Proposed Zoning: NMX-CD Neighborhood Mixed-Use Conditional Zoning District

LUAC Discussion

The Land Use Advisory Committee is being asked to discuss the acceptability of the development proposal and consistency with the Land Use & Character expectations for development.

Points of discussion:

- Is the requested NMX zoning consistent with the goals of the Future Land Use designation? If not, how could the request be modified to meet the goals? Specific items to consider may be density and mix of uses.
- Does the proposed mix of uses represent the highest and best use development potential for the Town?
- Is a Future Land Use Map amendment from Conservation Neighborhood to Mixed Residential Neighborhood appropriate?

The applicant has requested specific guidance from LUAC on the following:

- Proposed Housing Types.
- Proposed Residential Density.
- Proposed Land Use Plan Amendment.

Project Location Map



Staff Analysis of Proposed Concept

Comprehensive Plan Analysis

The proposed project incorporates some of the key themes from the Comprehensive Plan for a Neighborhood Center & Conservation Neighborhood

- Reserving 30% of land on site as permanent open space.
- Incorporating a mix of uses from residential to commercial with commercial located at the corner of Avent Ferry Rd & Rex Rd.

Areas where the proposed project is not in alignment or in partial alignment with the Comprehensive Plan

- Large portion of the site is Natural Area Character Area which only allows for single dwelling residential houses.
- The goal of a Conservation Neighborhood is to reallocate gross allowable densities into compact development areas that minimize infrastructure investments and maximize large, continuous areas for permanent open space.

Zoning Analysis

The applicant is requesting consideration of rezoning to the Neighborhood Mixed-Use Conditional Zoning District (NMX-CD), which is a district that can have compatibility with Neighborhood Center Character Area but not generally with the Conservation Neighborhood Character Area.

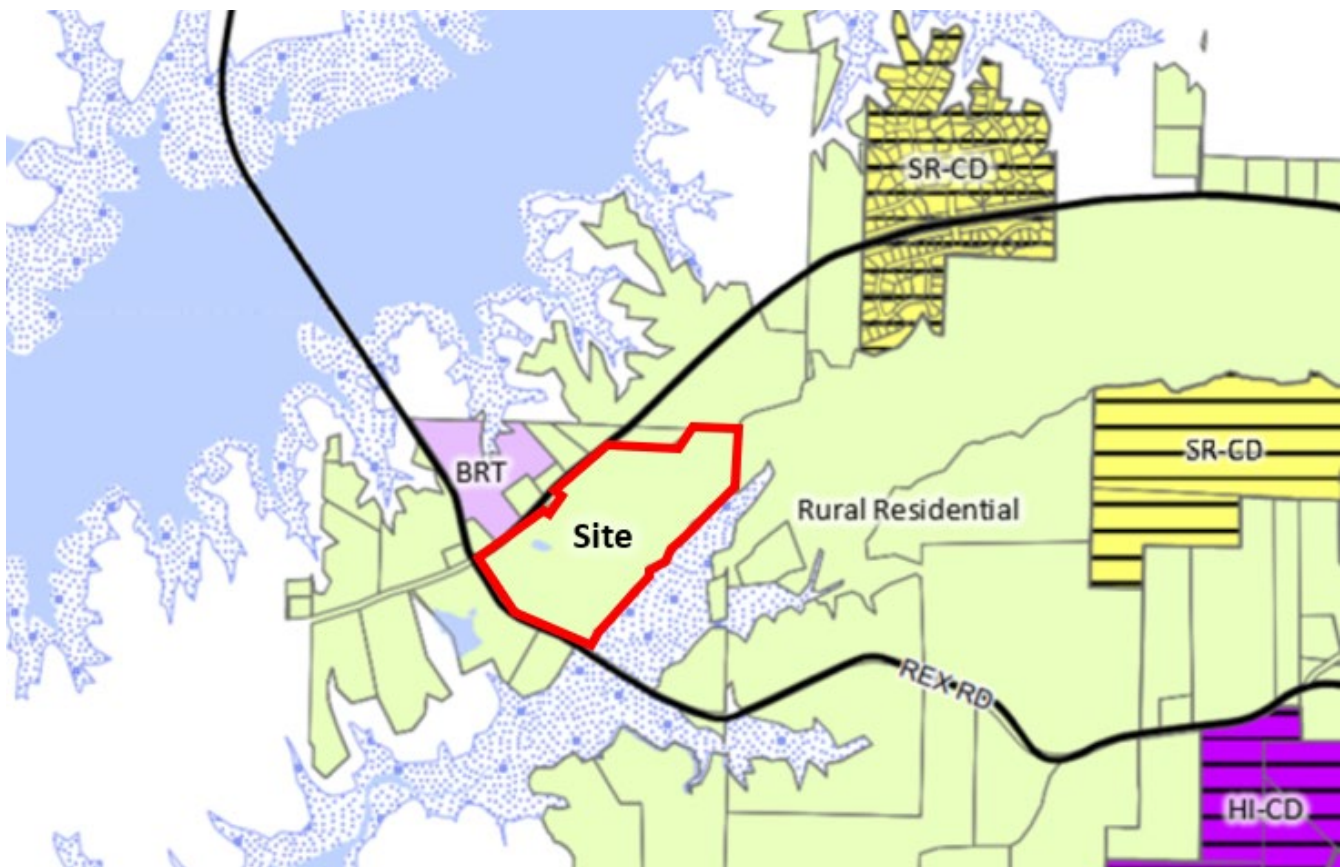
The NMX district encourages the creation of:

- Pedestrian-friendly environment for the provision of a full range of convenience goods and services, which are necessary to meet the daily needs of nearby neighborhoods.

- Low-intensity, unobtrusive, and at a scale and design compatible with nearby residential development.
- Housing is encouraged in mixed-use buildings and on adjacent blocks and circulation should encourage connectivity while minimizing the impact of cut-through traffic.
- Uses permitted by right in the NMX District generally includes upper level apartment dwellings, retail, and recreation uses. Additional uses such as business services, office use, personal service, and restaurant uses.

The NMX base district development standards allow for up to 8 units per acre by right, require building placement close to the street, and all buildings have a maximum height of 45ft/3 stories. With a Conditional Zoning District (CD), applicants can propose flexible development standards such as different building setbacks or architectural standards. Residential densities may be up to 15 units per acre.

Current Zoning Map

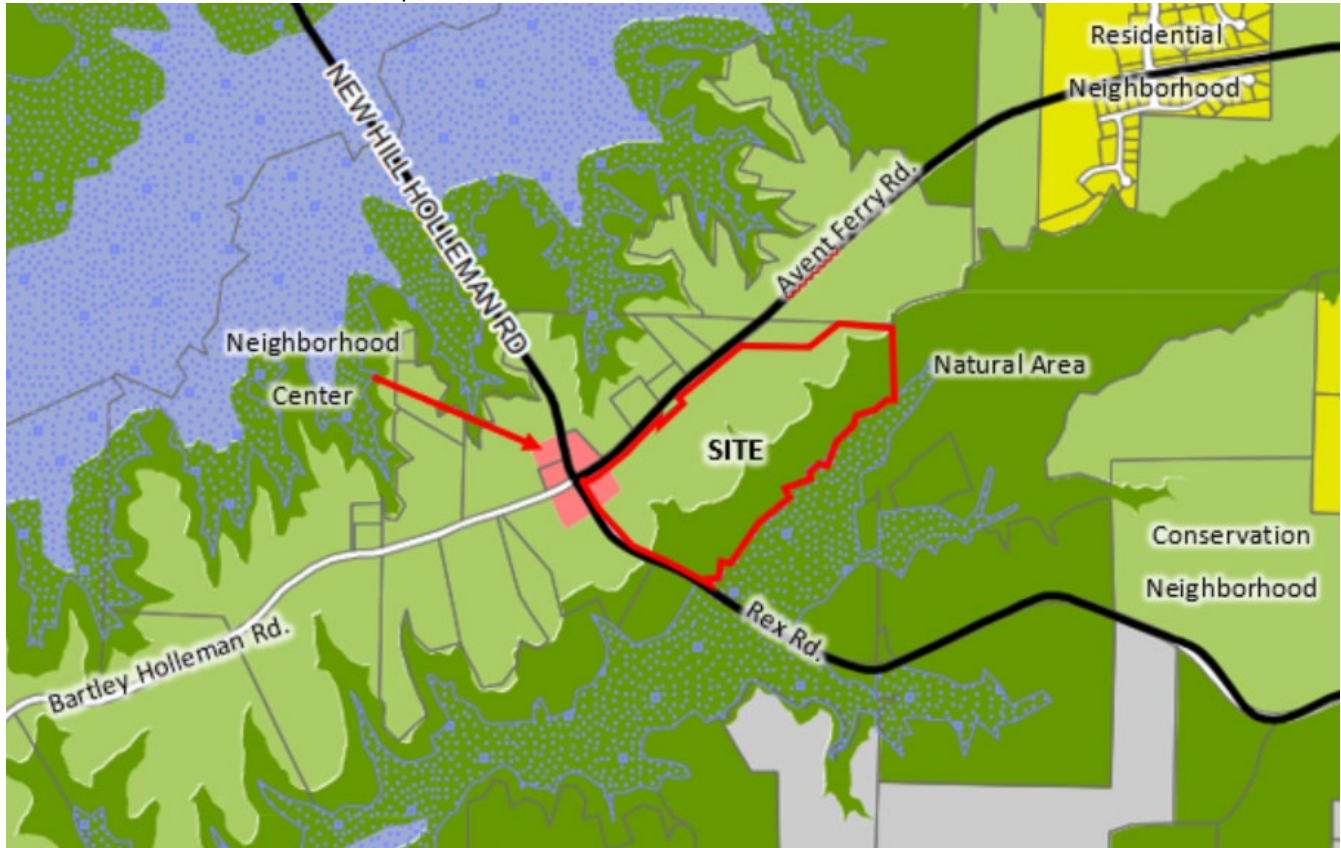


Background Information

Comprehensive Plan Section 1: Land Use & Character:

The Future Land Use Map designates the project area as Neighborhood Center, Conservation Neighborhood, and Natural Area.

Current Future Land Use Map



Neighborhood Center:

Small scale, Neighborhood Centers provide goods and services to surrounding neighborhoods. Their proximity to neighborhoods requires that operations be low-intensity, unobtrusive, and at a scale and design compatible with nearby residential development. The design of Neighborhood Centers transitions effectively between residential and nonresidential uses, and includes safe and convenient pedestrian and bicycle access for nearby residents. While this is primarily a commercial category, some Neighborhood Centers may include upper story residential or office. Sites also effectively minimize the impact of cut-through traffic on nearby neighborhood streets by orienting vehicle access and circulation away from adjacent neighborhoods.

Key features of development of Neighborhood Center:

Street & Block Patterns

- Blocks are small to medium, and typically in an interconnected grid pattern.
- Lots are primarily rear-loaded to maximize walkability and reduce the emphasis on automobiles.
- Parking is located in and accessed from the rear.
- Paved surface lots have shared parking agreements.

- Formal on-street parking is provided throughout the Neighborhood Center.

Open Spaces & Natural Resources

- These areas include a variety of shared public open spaces throughout a walkable, activated environment. These centers may include formal and informal open spaces such as greens, squares, plazas, and community gardens.
- Due to their small scale and location, Neighborhood Centers are often developed in a manner that does not allow significant protection of topography or natural landscape features, and may require significant grading, tree clearing, retaining walls or stormwater management features.
- There may be opportunities to use the natural hydrology of the site for stormwater control.
- Low-impact landscape design techniques and sustainable stormwater practices should be incorporated.
- Green roof elements and/or rooftop gardens are encouraged.
- Specimen tree preservation is encouraged.

Lot Size & Building Placement

- Lot width and depth is variable, but should be scaled so as to be compatible with adjacent development.
- Front setbacks should be minimal, with storefronts pulled up to the street to enhance walkability.

Building Types & Massing

- Building types are primarily commercial on the ground floor, but may include residential or office uses on upper floors or at the edge of the commercial center.
- Buildings may be up to 3 stories in height.

Transportation Network

- Multi-modal, somewhat urban character with curbs and formal planting arrangements.
- Grid street patterns with high connectivity for all modes of transportation.
- Sidewalks and bike facilities provide links to adjacent neighborhoods.
- Circulation should be provided internally to minimize traffic impact on adjacent neighborhoods.

Conservation Neighborhood

A Conservation Neighborhood preserves 30% to 50% of the buildable land on a site for permanent open space — protecting environmental features, tree stands, or outstanding viewsheds — by closely clustering homes together of varying lot sizes and densities. Conservation Neighborhood design should respond to specific features on the site; however, goals to reallocate gross allowable densities into compact development areas that minimize infrastructure investments and maximize large, continuous areas for permanent open space are encouraged. Resident amenities in these neighborhoods should include walking trails and neighborhood gardens. Conservation Neighborhoods are primarily residential but may include limited civic or other non-residential (non-commercial) uses.

Key features of development of a Conservation Neighborhood:

Street & Block Patterns

- Street and block patterns vary, with curvilinear roads at the edges of the neighborhood and a tighter grid pattern near the center. Street connectivity should be high in the center of the neighborhood.

- Blocks also vary in size, growing larger from the center to the edge of the neighborhood.
- New residential uses have off-street parking in the rear of the lot to enhance the streetscape and walkability.
- Informal (unmarked) parking may be provided on-street.

Open Space & Natural Resources

- These areas prioritize preservation of open space, topography and natural resources, and may include woodlands, parks, greenways and water bodies.
- Development should be sensitive to existing conditions, and mass grading and tree clearing should be limited and avoided whenever possible.
- 30%-50% of land is conserved as permanent open space, which should be primarily informal in character and can include parks, greenways, walking trails and other natural areas.
- Smaller open spaces within residential areas may be more formal, and can include greens, squares, or neighborhood gardens.
- Low-impact landscape design techniques and sustainable stormwater practices should be incorporated. Individual lots provide opportunities for rain gardens or Stormwater Control Measures (SCMs).

Lot Size & Building Placement

- Lot width and depth is variable, with larger lots near the edges of the neighborhood and smaller lots near the center.
- Front and side setbacks are variable, with larger setbacks near the edges of the neighborhood and smaller setbacks near the center.

Building Types & Massing

- Building types are primarily residential, with some small civic buildings allowed. Different types of residential buildings are encouraged, including single dwelling detached, single dwelling attached, multi-dwelling, and accessory dwelling units.
- Buildings may be up to 3 stories in height.

Transportation Network

- Rural character with curbs and formal street tree planting.
- Residential neighborhoods are very walkable, with sidewalks, bike facilities, paths and trails.

Natural Area

Natural Areas are largely undeveloped and reserved for preservation and low-impact recreation (trails and greenways) because of their outstanding beauty, environmental features, or proximity to Harris Lake.

Key features of development of a Natural Area:

Street & Block Patterns

- There are no discernible blocks.
- Other than residential driveways, curb cuts are minimal, providing access to parking areas or public utility facilities.
- Paved or unpaved surface parking lots only in association with recreational or other non-residential uses. Permeable surfaces should be considered for surface parking.

Open Space & Natural Resources

- These areas prioritize preservation of open space, topography and natural resources, and may include woodlands, parks, greenways and water bodies.
- Any development should be sensitive to existing conditions. Mass grading is not permitted. Tree clearing is not permitted except on properties under forest management programs agriculture, recreation, or for a single dwelling residential home site.
- Any civic or recreational open space is informal in character.

Lot Size & Building Placement

- Land is in large parcels, and in most cases, unable to be subdivided.
- Building placement is varied and informal.

Building Types & Massing

- Single dwelling residential houses are permitted.

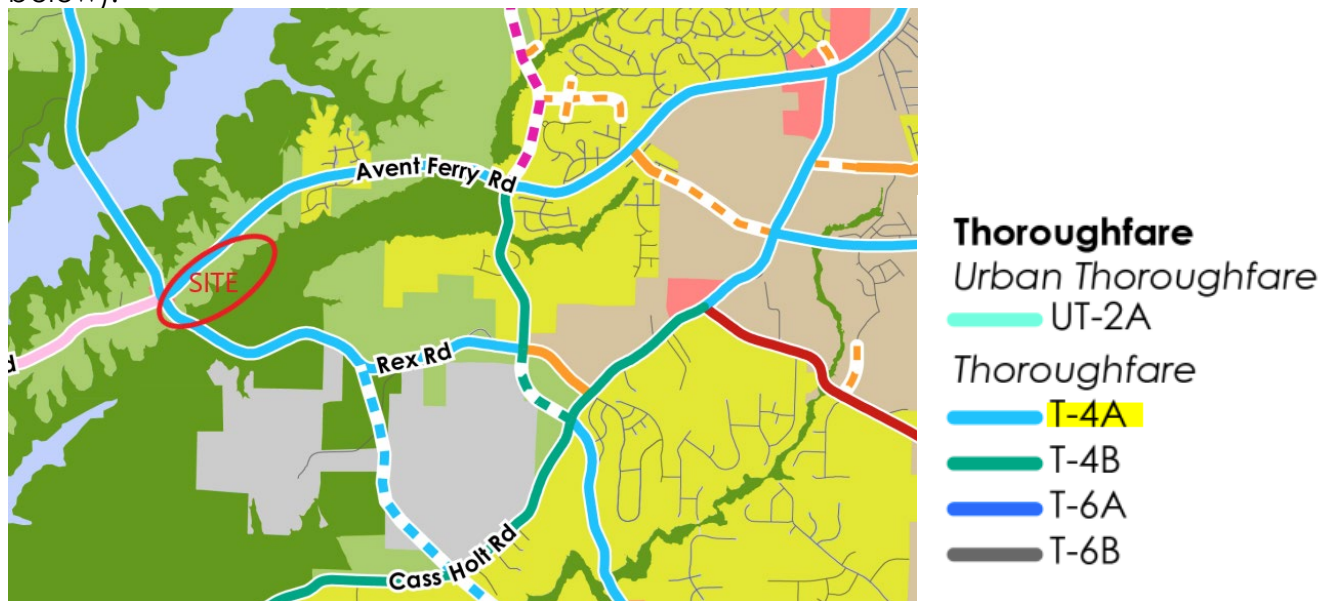
Transportation Network

- Rural road character with irregular, naturalistic street plantings.
- Curvilinear street pattern with relatively low street connectivity.
- Primarily auto-oriented.
- Sidewalk on at least one side.
- May have some trails or bike paths.

Comprehensive Plan Section 2: Comprehensive Transportation Plan

Avent Ferry Road and Rex Road Widening:

According to the Comprehensive Transportation Plan (CTP) and Unified Development Ordinance (UDO), right-of-way dedication and construction of thoroughfare widening to meet ½ of the ultimate street cross section, across the proposed project property frontages is required. This property has frontage along Avent Ferry Road and Rex Road. The ultimate street cross sections for these roadways in the CTP are 4-lane median divided thoroughfares (See below).



Traffic Study:

A Traffic Study is required with the proposed Rezoning to analyze the impact of the development on the Town's and NCDOT's transportation facilities and recommend improvements required to mitigate the project impact. All improvements identified during the Traffic Study review process are required to be shown on the subsequent Master Plan and

Development Plans. Improvements are required to be designed and constructed by the developer. A Traffic Study Scoping Meeting is required with the developer's Transportation team, the Town and NCDOT. The Traffic Study is required to be submitted with the first Rezoning Petition Submittal.

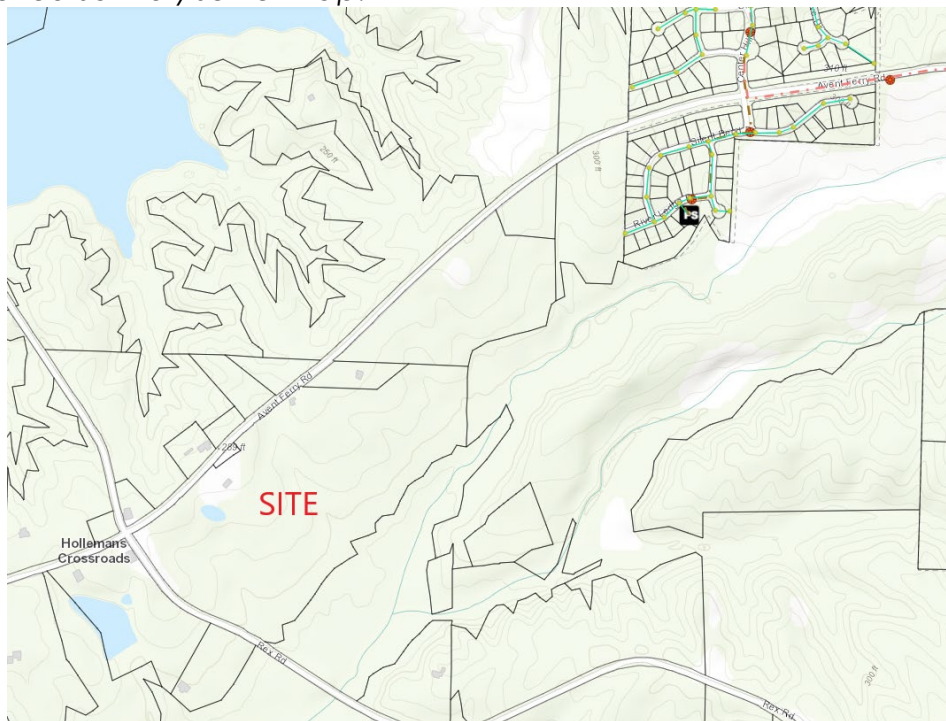
Comprehensive Plan Section 5: Utilities & Infrastructure:

With the development of these properties, public utility connection is required in accordance with the Town's Unified Development Ordinance (UDO) and Engineering Design & Construction Standards (ED&CS) and other governing standards.

Sanitary Sewer:

There is existing gravity sewer available to the northeast in Lockridge Subdivision. This development is proposing a new onsite regional pump station that will discharge to the existing Avent Ferry Pump Station. In addition, a Downstream Sewer Evaluation and Pump Station Report will be required at the time of Rezoning petition submittal to evaluate the capacity and condition of existing downstream sewer infrastructure and pump stations to determine the project impact.

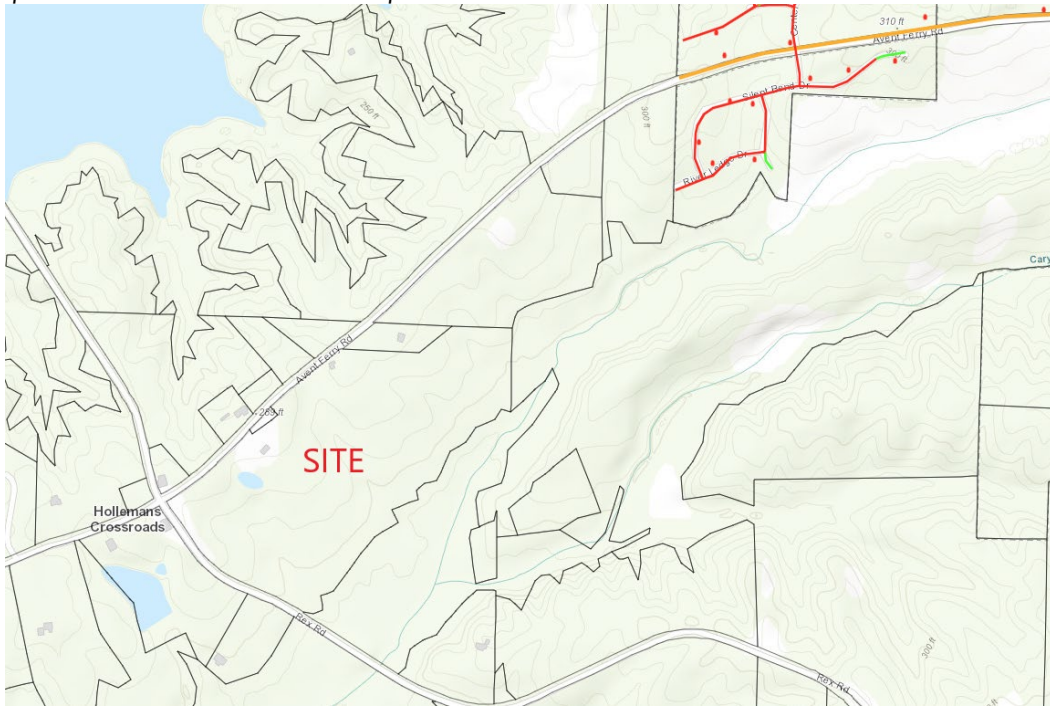
Town's Approved Sanitary Sewer Map:



Potable Water:

There is an existing watermain to the northeast in Lockridge Subdivision. Watermain will be extended along Avent Ferry Road and across the property's frontage of both Avent Ferry Road and Rex Road. Watermain will also be extended throughout the site to serve the development and to adjacent properties for future connection. A Hydraulic/Fire Flow Evaluation and Report will be required with the Master Plan and Development Plans to verify that adequate pressure and fire flow is available.

Town's Approved Potable Water Map



Motion/Action Requested

No action is requested. The purpose of this agenda item is to provide the applicant feedback and guidance regarding a potential rezoning and development request for the property in question.

Agenda Item Contact Information				
Agenda item prepared by:		Brett Gosney		
Agenda Item Department Head Approval for Review and TRC Discussion				
	Approved for Distribution			
Staff	Yes	No	Initials	Department Head Comments
Catherine Jacobs	X			
Brett Gosney	X			

LAND USE ADVISORY COMMITTEE

Request & Communication Application

DPM Appendix #A.19 Supplement 20 January 2023

PETITION CONTACT INFORMATION *(Attach additional sheets if needed)*

Applicant and Financially Responsible Party will need to register for an account on the CityView Portal.

Project Applicant Check One: ☐ Owner ☒ Owner's Agent ☐ Design Professional ☐ Developer

Name: Laura Holloman Company: The McAdams Company

Mailing Address: 621 Hillsborough Street, Suite 500

City, State Zip: Raleigh, NC 27603

Telephone: 919-610-7377

E-Mail: holloman@mcadamsco.com

REQUIRED: Property Owner(s) if different from Applicant/Contact

(Attach additional sheets if needed)

Name: Jeremy Medlin Company: AGARWAL FAMILY III LLC

Mailing Address: 1330 SUNDAY DR STE 105

City, State Zip: RALEIGH NC 27607-5196

Telephone: 919-291-3819

E-Mail: jmedlin@greenhawkcorp.com

PROJECT INFORMATION

Project Name Ragan Mixed Use

Project Location Intersection of Avent Ferry Road/Rex Road

Use street address
If none, use closes
intersection

☐ Within Corporate Limits ☒ Within Holly Springs ETJ
☐ Pending Annexation

PIN(s) 0627890439

Project Acreage 55.40

Current Zoning

RR

Proposed Zoning

NMX-CD

Current Future
Land Use Designation

Neighborhood Center & Conservation Subdivision

Proposed Future
Land Use Designation

Neighborhood Center & Mixed Residential Neighborhood

Area Plan Designation
If applicable

N/R

PROJECT TYPE *(check all that apply)*

☒ Comprehensive Plan Amendment

☐ Text Amendment ☒ Future Land Use Plan Map Amendment

☐ Area/Corridor Plan Map Amendment/Name: _____

☐ Zoning Map Change: General Use District

☒ Zoning Map Change: Conditional Zoning District

☐ Major Subdivision

☐ Development Plan

☐ Other:

LAND USE ADVISORY COMMITTEE Request & Communication Application

DPM Appendix #A.19 Supplement 20 January 2023

LUAC MEETING REQUEST

LUAC Meeting Date Requested: 5/2/23

Note: A maximum of two items shall be scheduled per LUAC meeting agenda in the order that they are received, your request will be placed on the closest meeting date to the date requested.

DISCUSSION TOPICS

What specific topics or questions are you seeking feedback from the LUAC?
(attach additional sheets if needed)

- Proposed Housing Types
- Proposed Residential Density
- Proposed Land Use Plan Amendment

PROJECT DESCRIPTION: RAGAN MIXED USE

Ragan Mixed Use is located at a key gateway into Holly Springs, at the intersection of Avent Ferry and Rx Road. This mixed-use community will allow for high-quality multifamily housing as well as walkable, neighborhood-scale commercial options.

This project supports several design objectives outlined within the Conditional District standards contained in the UDO. Specifically:

- Utilizing green space and reforestation areas to create a natural and peaceful environment, inviting visitors and residents to explore and linger throughout the development;
- Thoughtfully integrating attractive hardscaping and performance landscaping throughout well-designed landscaping throughout well-designed community gathering spaces, and;
- Utilizing high quality materials to construct the buildings, architectural features, fixtures, hardscaping and landscaping.

RAGAN MIXED-USE

Development and Design Manual



TABLE OF CONTENTS

RAGAN MIXED-USE

1. INTRODUCTION.....1-3

PURPOSE

VISION

APPLICATION

VICINITY MAP

2. LAND USE.....4-6

3. ZONING.....7-10

PERMITTED USE TABLE

4. DEVELOPMENT.....11-18

CONCEPT PLAN

DEVELOPMENT STANDARDS

DESIGN GOALS NARRATIVE

ELEVATIONS

5. DESIGN STANDARDS.....19-24

BUILDING DESIGN STANDARDS

PUBLIC REALM STANDARDS

LANDSCAPE DESIGN

GATHERING & OPEN SPACE



DEVELOPER

GREENHAWK CORPORATION
1330 SUNDAY DRIVE, SUITE 105
RALEIGH, NC 27607

JEREMY MEDLIN
(919) 258-2087
JMEDLIN@GREENHAWKCORP.COM



CIVIL ENGINEERING, PLANNING,
LANDSCAPE ARCHITECTURE

MCADAMS
621 HILLSBOROUGH STREET, SUITE 500
RALIEGH, NC 27603

LAURA HOLLOMAN
919.610.7377
HOLLOMAN@MCADAMSCO.COM



ARCHITECTURE

TAYLOR MORRISON
11405 N. COMMUNITY HOUSE ROAD,
SUITE 150
CHARLOTTE, NC 28277

SKYLAR WHITE
704.234.8670
swhite@taylormorrison.com

1 Introduction

PURPOSE

Ragan Mixed-Use is located at a key gateway into Holly Springs, at the intersection of Avent Ferry and Rex Road. This mixed-use community will allow for high-quality multifamily housing as well as walkable, neighborhood-scale commercial options. This Design Manual utilizes conceptual images to properly convey design elements which speak to: caliber of design, overall quality of materials, and the type, character, and relationship of design elements that may be used and combined to create a unique sense of place. As a result, the actual design will naturally vary from the Town's architectural standards with the overall design including materials and design elements substantially similar to those pictured and described in this Design Manual to achieve a high quality development.

This Manual is also designed to provide the developer with opportunities for flexibility and creativity in achieving the committed level of design and quality. The pictures and descriptions in this Manual are conceptual examples of the high quality of materials and caliber of design envisioned for Ragan Mixed-Use. The materials, architectural features, fixtures, hardscape, and landscape components depicted ("design elements") are i) not intended to be exclusive, (ii) not exhaustive examples of design elements that will meet the level of quality required, and (iii) not required to be duplicated in the design or construction of Ragan Mixed-Use. Instead, these design elements are intended to be used as examples of acceptable building massing and articulation, street level architecture, fenestration and materials, lighting and art, historic preservation, landscaping, and gathering and open spaces (together "Guideline elements"). Guideline elements are intended to be applied in a manner that promotes variability and variation, in order to achieve the overall goal of creating Ragan Mixed-Use as a high quality development all its own.

VISION

Generally, Ragan Mixed-Use will accomplish the design objectives by:

- » Utilizing green space and reforestation areas to create a natural and peaceful environment, inviting visitors and residents to explore and linger throughout the development;
- » Including a high level of sophistication in style, character, and design throughout Ragan Mixed-Use, in a manner that accentuates the individual uses while weaving an overall blended fabric that speaks to the project's unique amenities and architecture;
- » Designing each building in a manner to present the building in a distinguished and appealing way, consistent with the overall development;
- » Thoughtfully integrating attractive hardscaping and performance landscaping throughout well-designed community gathering spaces; and
- » Utilizing high quality materials to construct the buildings, architectural features, fixtures, hardscaping, and landscaping.

APPLICATION

This Design Manual was developed for the Ragan Mixed-Use rezoning as a zoning condition for the project to help facilitate Ragan's development as a high quality, mixed use development. The purpose of this Design Manual is to ensure that Ragan Mixed-Use is developed with a higher level of quality and an overall higher caliber of design than would otherwise be required by the Town of Holly Springs' existing building & design standards which are contained in the Town's Unified Development Ordinance ("UDO").

The Manual pursues these purposes by identifying specific types of design elements and then illustrating the level of quality required for Ragan Mixed-Use. This Design Manual utilizes pictures to convey the caliber of design, overall quality of materials, and the type, character, and relationship of design elements that may be used and combined to create a unique and special sense of place for Ragan Mixed-Use.

1 Introduction

VICINITY MAP

dated November 2022

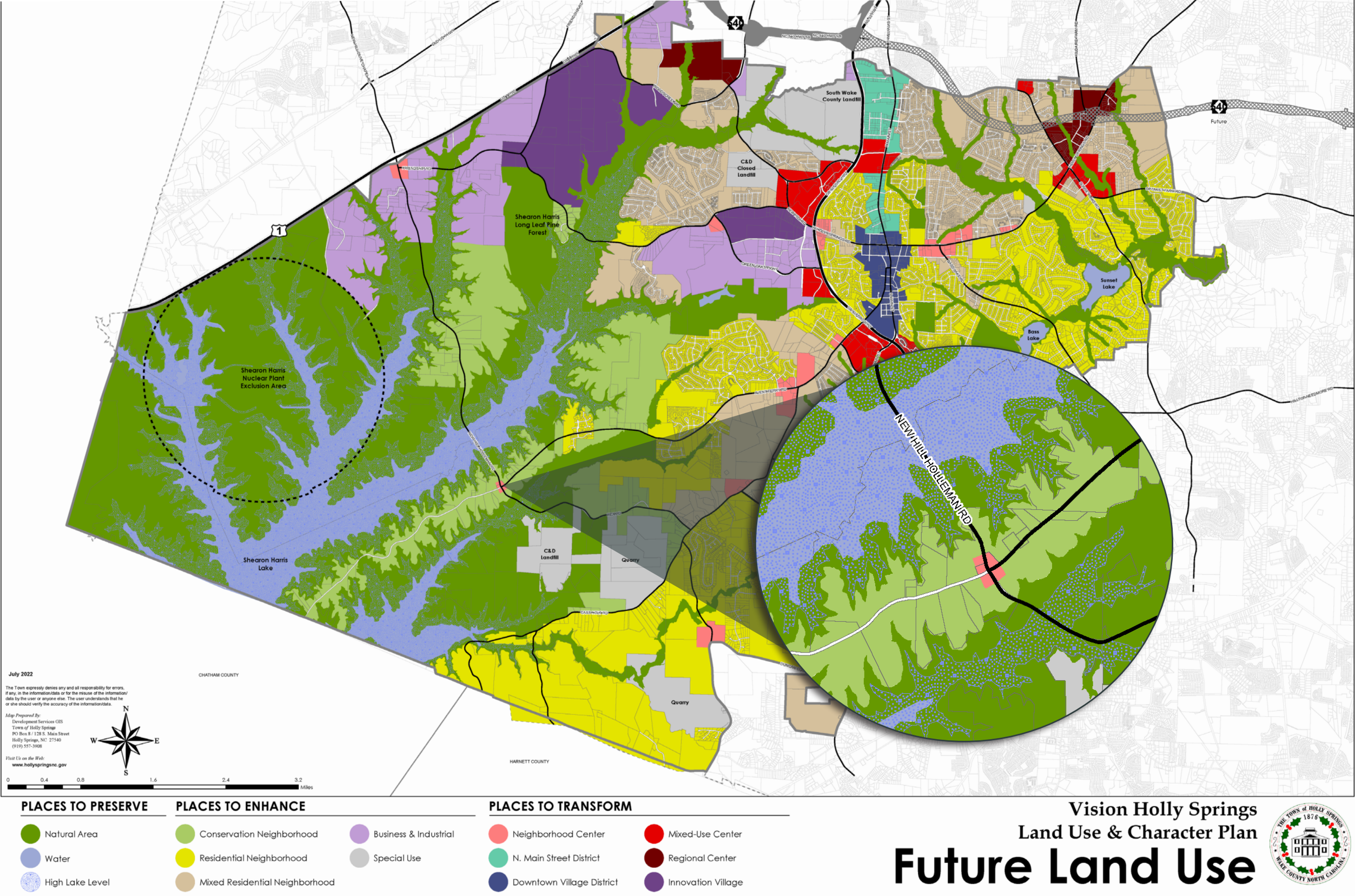


2 Land Use

Ragan Mixed-Use is a mixed-use project proposed in the southeast quadrant of the Avent Ferry Rd and Holleman Hill Rd intersection. The current zoning for this parcel is Rural Residential (RR), however Holly Spring's Future Land Use Map (FLUM) identifies the project site as a place to transform into a Neighborhood Center and Conservation Neighborhood. However the requested zoning district for this project is Neighborhood Mixed-Use. It will maintain the intent of the Comprehensive Plan by enabling the development of a small commercial center at the intersection of Avent Ferry Road and Rex Road. In addition, existing environmental features are protected and key forestation areas will be established. Furthermore, this district will enable the project to develop at a density level which will offset the infrastructure costs associated with the required improvements that will serve the sewer basin.

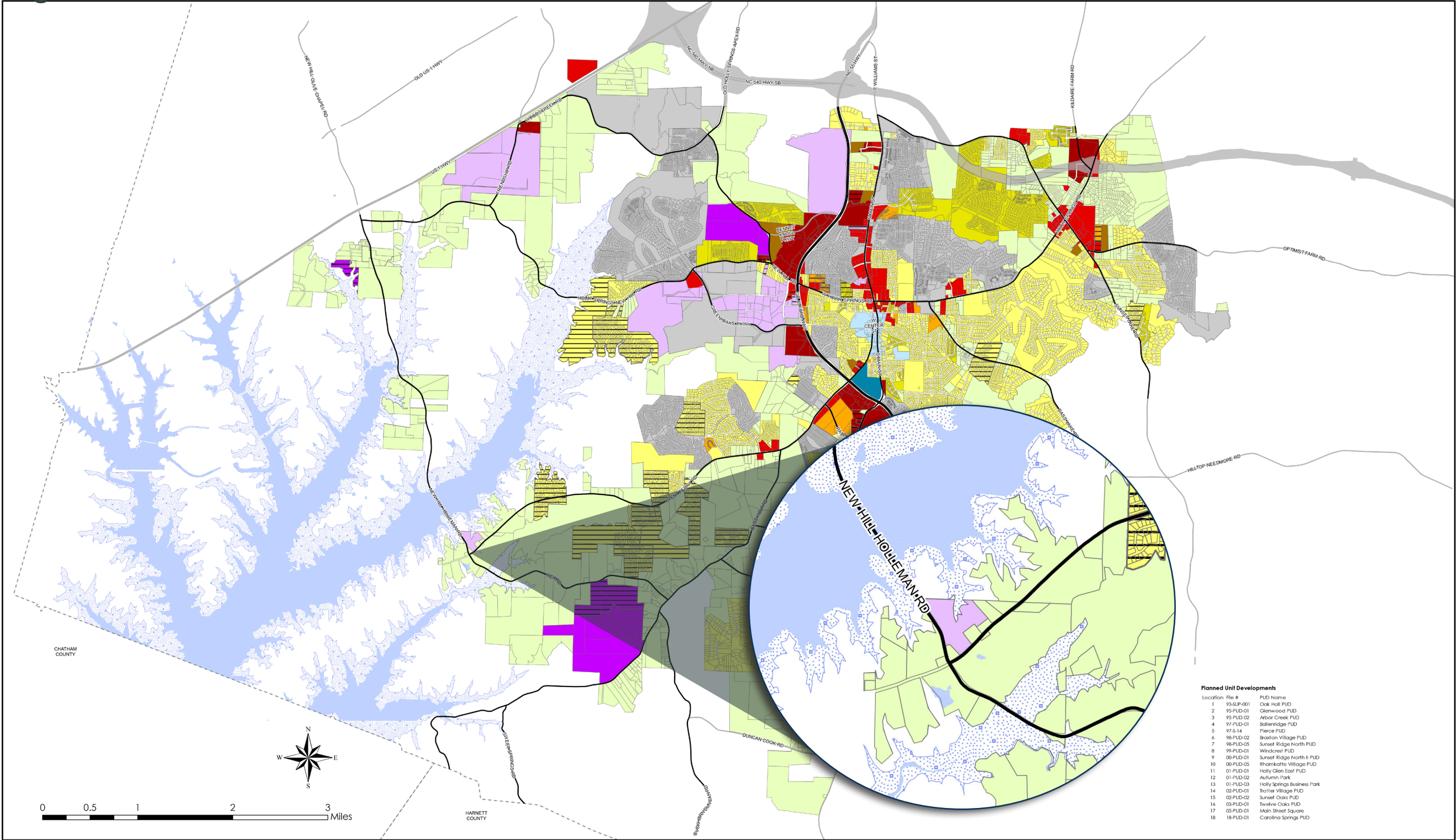
2 Land Use

dated July, 2022



3 Zoning

dated March 22, 2002



Parcels	Conditional Use	RR Rural Residential	NCR Neighborhood Center Res	DMX Downtown Mixed Use	SP CU Special District
Shearon Harris Lake		SR Suburban Residential	MXR Mixed Use Residential	PUD Planned Unit Development	BRT Business Research Technology
Proposed Shearon Harris Lake Level		NR Neighborhood Residential	NMX Neighborhood Mixed Use	CB Community Business	HI Heavy Industrial

The Town expressly denies any and all responsibility for errors, if any, in the information/data or for the misuse of the information/data by the user or anyone else. The user understands that he or she should verify the accuracy of the information/data.

Map Prepared By:
Development Services GIS
Town of Holly Springs
PO Box 8 / 125 N. Main Street
Holly Springs, NC 27540
(919) 557-3908

Visit Us on the Web:
www.hollyspringsnc.gov

Planned Unit Developments		
Location	File #	PUD Name
1	93-SUP-001	Oak Hill PUD
2	95-PUD-01	Glenwood PUD
3	95-PUD-02	Alabar Creek PUD
4	97-PUD-01	Bohennridge PUD
5	97-S-14	Pierce PUD
6	98-PUD-02	Braxton Village PUD
7	98-PUD-05	Sunset Ridge North PUD
8	99-PUD-01	Windcrest PUD
9	00-PUD-01	Sunset Ridge North II PUD
10	00-PUD-05	Rhankelthe Village PUD
11	01-PUD-01	Holly Glen East PUD
12	01-PUD-02	Autumn Park
13	01-PUD-03	Holly Springs Business Park
14	02-PUD-01	Roller Village PUD
15	02-PUD-02	Sunset Oaks PUD
16	03-PUD-01	Twelve Oaks PUD
17	05-PUD-01	Main Street Square
18	18-PUD-01	Caroline Springs PUD

Town of Holly Springs
Zoning Map



Updated: March 22, 2022

3 Zoning

The proposed rezoning to Neighborhood Mixed-Use - Conditional District (NMX-CD) is not inconsistent with Holly Springs’ Future Land Use Map, and the intent of the Comprehensive Land Use Plan. Currently the land is zoned Rural Residential. The rezoning to NMX-CD will allow for a higher quality development that will fill both a much-needed housing gap, and function as a destination for existing residents. The project will make use of performance landscaping features and reforestation areas to align with the Conservation Neighborhood designation for the the eastern portion of the site along Avent Ferry Road. The small, neighborhood scale commercial area would be located at the intersection of Avent Ferry Road and Rex Road, where the Future Land Use plan calls for a Neighborhood Center.

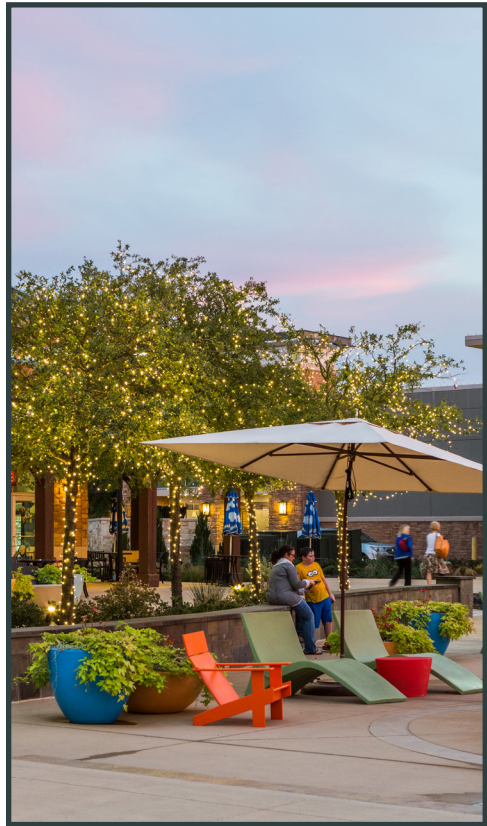
PERMITTED USE TABLE

Use	NMX
Apartment Dwelling - See Note 2	P
Attached Dwelling	P
Bed and Breakfast	P
Hotel	P
Inn	P
Business Services	P
Childcare Center	P
Medical Office	P
Office Use	P
Personal Services	P
Veterinary Clinic/Hospital	P
Bar/Nightclub/Tasting Room	P
Food/Restaurant Uses	P
Retail Uses	P
Civic Building	P
Community Support Facility	P
Assembly	P
Religious Use	P
Fitness Facilities	P
Recreation Facility, Indoor	P
Solar Energy Systems-Small	P
Transit Station/Terminal	P
Wireless Telecommunications Equipment	P
P = Permitted, PS = Permitted Use with Additional Standards SUP = Special Use Permit, CD = Con- ditional District, A = Accessory Use	
Notes:	
1. PS and SUP uses shall follow all applicable additional standards outlined in the UDO.	

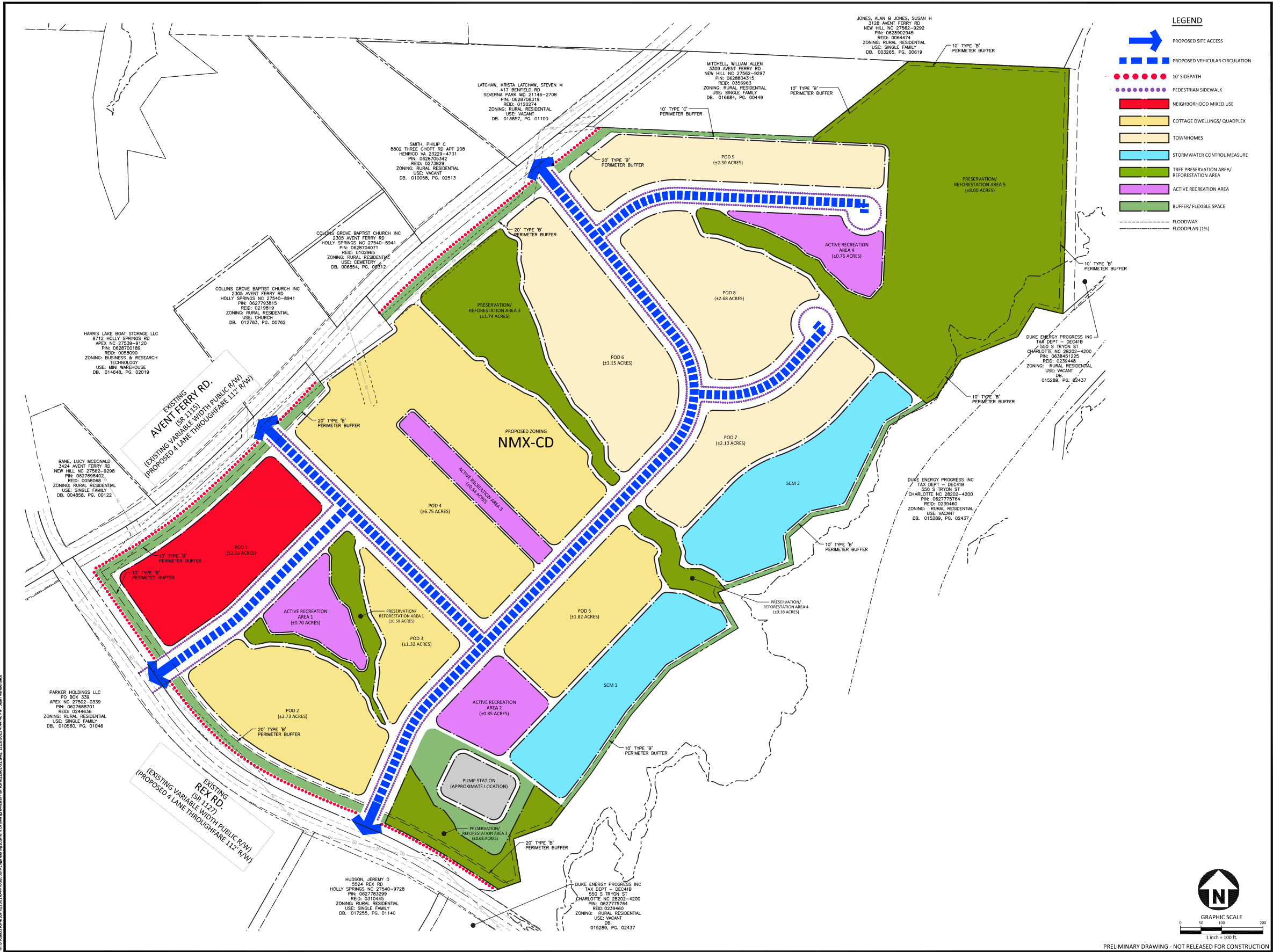
4 Proposed Development

Ragan Mixed-Use is a mixed use center proposed on approximately 57.25 acres comprised of one existing parcel on the western side of Holly Springs. This project will consist of townhomes, cottages, and neighborhood scale commercial uses. Reforestation areas, pocket parks, walking paths, and enhanced performance landscaping will be incorporated throughout the project to create a natural and calming village character. The proposed commercial section of the development will provide much needed business infusion in this part of town, and provide increased commercial access to the residents of Ragan Mixed-Use and the surrounding neighborhoods.

Proposed Uses	Units/Square Footage
Commercial	32,000 sf
Single Family Attached	115 units
Multi-Family (Cottages)	168 units



4 Proposed Development



McADAMS
The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713
phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

CLIENT
GREENHAWK CORPORATION, INC.
1330 SUNDAY DR, SUITE 105
RALEIGH, NC 27607
JEREMY MEDLIN
PHONE: 919. 258. 2087



**RAGAN PROPERTY
MASTERPLAN**
3313 AVENT FERRY ROAD
NEW HILL, NC 27562



REVISIONS

NO.	DATE
1	
2	
3	
4	
5	
6	

PLAN INFORMATION

PROJECT NO.	GHK-22001
FILENAME	GHK22001-S1
CHECKED BY	XXX
DRAWN BY	XXX
SCALE	1" = 100' XREF
DATE	03.01.2023

SHEET

CONCEPT PLAN

C2.00

4 Proposed Development

DEVELOPMENT STANDARDS

PAGE INTENTIONALLY LEFT BLANK



Ragan Mixed-Use DEVELOPMENT STANDARDS	
Development Intensity	
Maximum Gross Density	
Maximum Gross Residential Density Allowed	15 units/acre
Maximum Gross Residential Density Proposed	5.27 units/acre
Maximum Gross Floor Area	
Floor Area: Ground Floor Story Allowed	16,000 sf
Floor Area: Ground Floor Story Proposed	tbd.
Open Space and Gathering Area	
Overall Minimum Open Space Required	12%
Overall Open Space Proposed	30%
Dog Park	+/- 3,700 sq ft
Interior Building Setbacks - All Structures (ft)	
Front	Min: 5' Max: 20'
All other setbacks (Side and Rear)	Min: 5'
Side - Corner Setback	5'
Exterior Building Setbacks - All Structures (ft)	
Exterior Setback to Adjacent Winward Pointe (minimum)	30'
Exterior Multistory Building Setback Adjacent to Winward Pointe (minimum)	70'
Exterior Setback to Adjacent All Other Residential Districts (minimum)	5'
Exterior Setback to Adjacent Commerical	5'
Thoroughfare Buffer	10' (commercial) 20' (residential)
Building Height	
All Primary Structures (maximum)	45'
Primary Structures - Minimum number of stories	1
Primary Structures - Maximum number of stories	3
Accessory Structures (maximum)	15'
Minimum Ground Floor Height	
Residential Buildings:	1.5'
All other applicable development standards not listed here shall follow UDO standards and requirements.	

4 Proposed Development: Cottages

Elevations are for demonstration purposes only.



Building 1 | 4 Plex - CMU (Units A, A, B, C) | Library Plan

3-18-2022

5 Building Design Standards

The following standards shall apply to all proposed buildings within the development. Building and Site Design shall be in accordance with UDO Section 8, except as modified in this section:

VERTICAL VARIATIONS

Building walls shall consist of a building bay or structural building system visually established by architectural features such as columns, ribs, pilasters or piers, changes in plane, or an equivalent element that subdivides the wall into human scale proportions. Minimum change shall be two (2) inches depth.

COMMERCIAL FACADE STANDARDS

The following shall be in place of UDO Section 8.2. G.a

- » Brick (maximum of three (3) colors);
- » Cut stone (maximum of two (2) colors, dimensions minimum 8" x 16" and maximum 18" x 36");
- » Fiber cement panels with battens (maximum three (3) colors);
- » Fiber cement panels with reveals (maximum three (3) colors);
- » Fiber cement lap siding (maximum two (2) colors);
- » Fiber cement trim boards (maximum 3 colors);
- » Vinyl windows;
- » Prefinished aluminum storefront;
- » Prefinished metal trim and copings;
- » Prefinished metal canopies;
- » Fabric awnings;
- » Metal railings (painted - dark gray, dark bronze or black)

RESIDENTIAL FACADE STANDARDS

- » Primary facades of all-residential buildings shall be comprised of varying combinations of brick, stone or it's synthetic equivalent, stucco, cementitious siding, fiber cement (Hardie Plank), and/or metal.
- » Brick or stone materials will be used along prominent pedestrian entrances.
- » There will be no large expanse of blank walls exceeding 20' in length.
- » Different brick colors, textures and finishes shall be used to create different architectural looks.
- » Storefronts use any number of colors and materials to achieve individual character



Different colors and materials create unique architectural looks.



A variety of materials including cementitious siding, brick, and stone shall be used on residential buildings



Awnings and varying materials create inviting and cohesive spaces



Articulation in facade depth, multiple building expressions

5 Design Standards

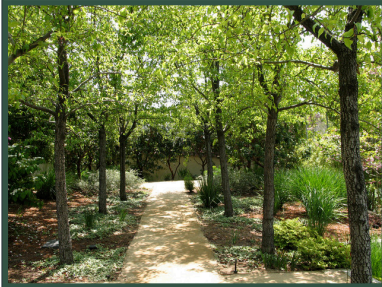
LANDSCAPE DESIGN

KEY ELEMENTS

- » Plant species shall be selected that offer strong, bold seasonal colors and a variety of textures.
- » Placemaking shall be encouraged in commercial areas, which may contain decorative pavers, benches, trash receptacles, as well as supplemental plantings.
- » Whenever foundation landscaping is not feasible along commercial buildings, potted planters shall be installed along the front building facade. Final pot design and placement shall be approved by Development Services.
- » A 20’ perimeter buffer shall be utilized where residential areas border Rex Road and Avent Ferry Road.
- » A 10’ perimeter buffer shall be utilized where commercial areas border Rex Road and Avent Ferry Road.
- » Street trees shall be required to be placed every 40 feet along Rex Road and Avent Ferry Road.
- » Reforestation areas will be located across the development and distributed to ensure access for all residents. These will be planted in accordance with UDO section 4.4.3. A.



Pocket park areas throughout the site encourage active recreation.



Reforestation areas will be planted throughout the site in accordance with UDO standards.



Buffers will be planted along roadways. 20’ buffers will be used for residential uses and a 10’ buffer will be used for commercial uses.



Plant species that offer bold seasonal colors and a variety of textures.



Street trees will be planted along Avent Ferry and Rex Road.

5 Design Standards

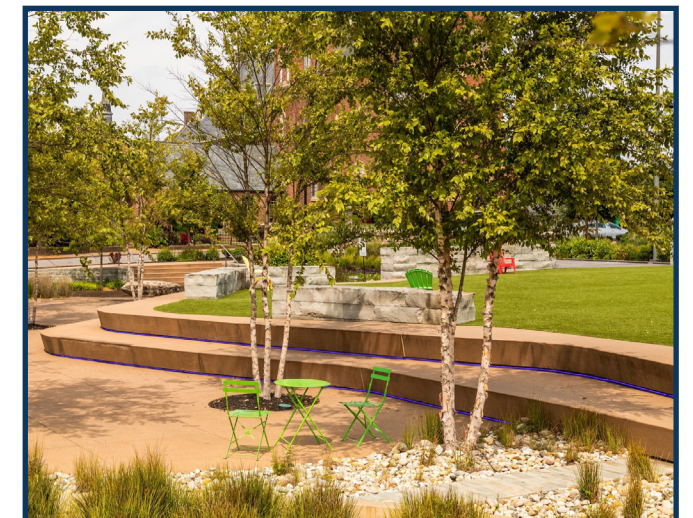
GATHERING & OPEN SPACE

KEY ELEMENTS

- » Urban civic space shall be met by introducing plaza areas that will be available for all residents and business patrons alike. These plaza areas shall contain the following elements: benches, trash receptacles, decorative pavers and supplemental landscaping.
- » The overall open space provided shall be 17.08 acres.
- » Pocket parks shall be distributed throughout the entire development and connected via sidewalks for easy bicycle and pedestrian access.
- » Walking paths and trails shall be dispersed across the development area.



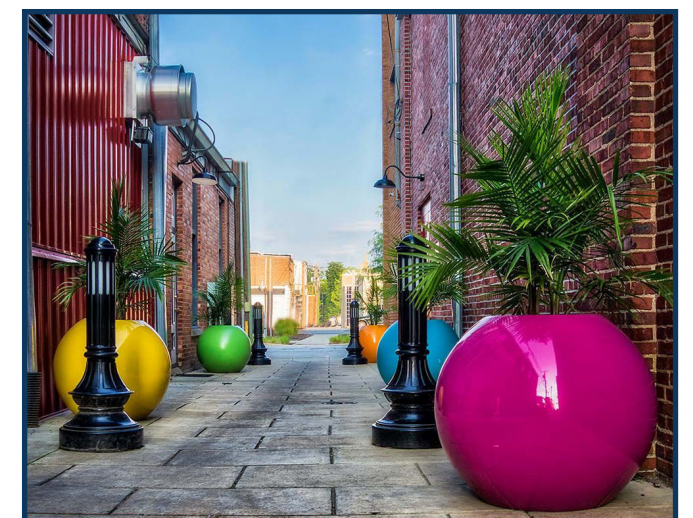
Pocket parks dispersed across the project area



Balance of hardscape and landscape



Benches and other amenities will activate open spaces



Colorful planters add visual interest

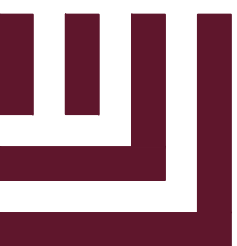


Walking paths and trails



Variation assures interest is maintained within the gathering space

CERTAIN ITEMS WITHIN THESE PLANS HAVE BEEN PRODUCED
IN COLOR FOR CLARITY OF THE PLANS. THESE PLANS MUST BE
PLOTTED IN COLOR TO BE VALID.



McADAMS
The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713

phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187

www.mcadamsco.com

CONTACT

TYLER PROBST, PE
probst@mcadamsco.com
PHONE: 919. 287. 0844

CLIENT

GREENHAWK CORPORATION, INC.
1330 SUNDAY DR, SUITE 105
RALEIGH, NC 27607
JEREMY MEDLIN
PHONE: 919. 258. 2087



PROJECT DIRECTORY

RAGAN PROPERTY

MASTER PLAN
3313 AVENT FERRY ROAD
NEW HILL, NC 27562

MASTER PLAN
PROJECT NUMBER: GHK-22001
DATE: MARCH 1, 2023

SHEET INDEX

C1.00	EXISTING CONDITIONS
C2.00	CONCEPT PLAN
C2.01	TRANSPORTATION PLAN
C2.02	OPEN SPACE & PRESERVATION PLAN
C3.00	GRADING PLAN
C4.00	UTILITY PLAN
C8.00	TYPICAL SECTIONS
L5.00	LANDSCAPE PLAN

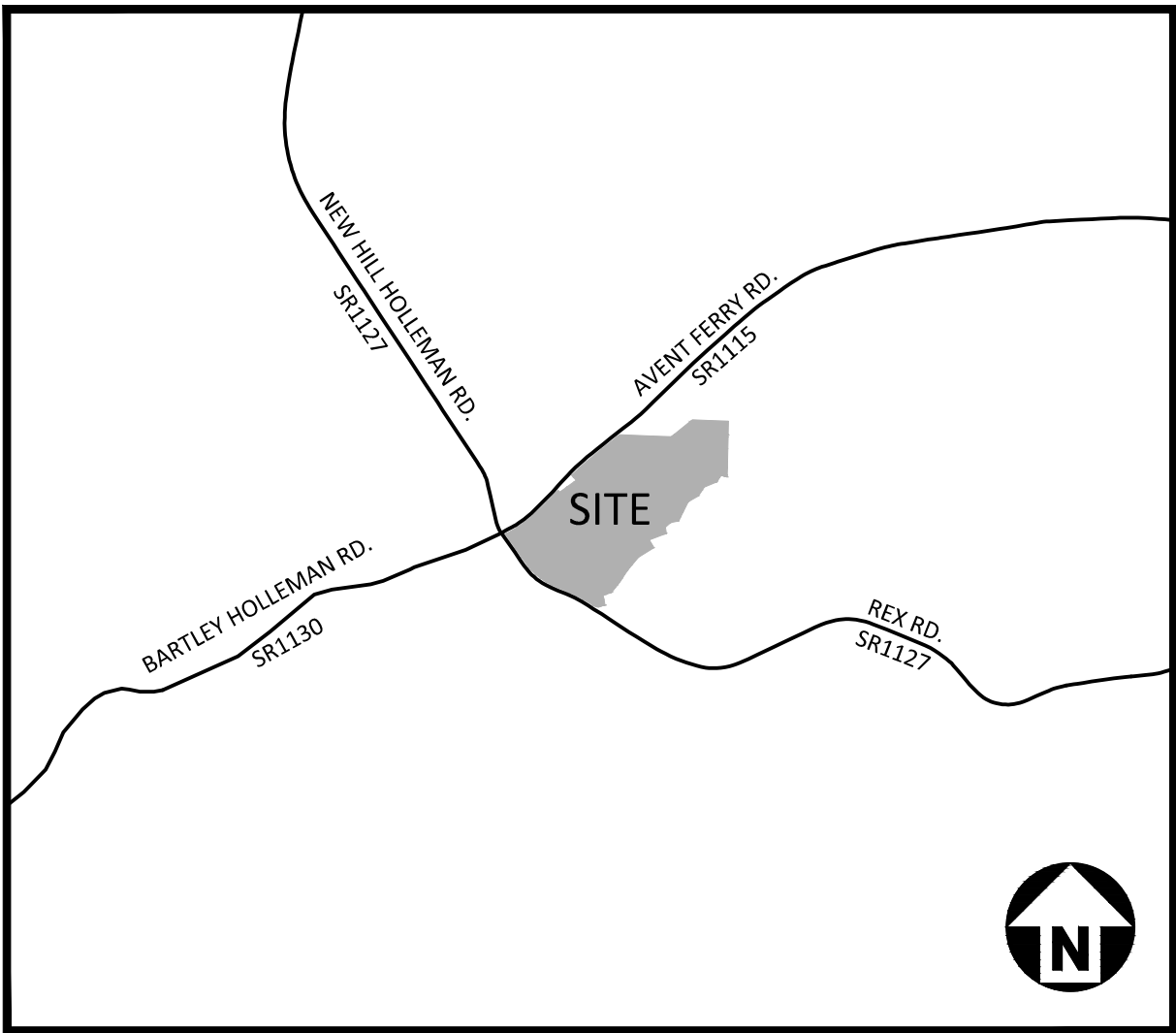
SITE DATA			
OWNERS	NAME AGARWAL FAMILY III LLC 1330 SUNDAY DR STE 105 RALEIGH NC 27607-5196	PIN 0627890439	REAL ESTATE ID 0058074
SITE ADDRESS	3313 AVENT FERRY RD NEW HILL, NC 27562		
DEVELOPER	GREENHAWK CORPORATION		
EXISTING ZONING	RURAL RESIDENTIAL		
PROPOSED ZONING	NEIGHBORHOOD MIXED-USE CONDITIONAL DISTRICT (NMX-CD)		
SITE AREA	GROSS SITE AREA:	56.913 ACRES (2,479,152 SF)*	
	RIGHT OF WAY DEDICATION:	8.54 ACRES (371,865 SF)	
	NET SITE AREA:	48.38 ACRES (2,107,287 SF)	
	*INCLUDES ACREAGE WITHIN AVENT FERRY R/W		
RIVER BASIN	CAPE FEAR RIVER BASIN		
WATERSHED OVERLAY	NONE APPLICABLE		
EXISTING USE	FORESTRY/ VACANT		
PROPOSED USES	COMMERCIAL; ATTACHED DWELLING; MULTI-FAMILY		
PERIMETER BUFFERS	NORTH	10' TYPE B&C	
	WEST	10'&20' TYPE B	
	EAST	10' TYPE B	
	SOUTH	10'&20' TYPE B	
DENSITY	MAXIMUM	853 UNITS (15 UN/AC)	
	PROPOSED	250 TO 300 UNITS = 4.4 DU/AC TO 5.27 DU/AC	
INTERIOR BUILDING SETBACKS (ALL STRUCTURES)	FRONT		NO MINIMUM, 10' MAXIMUM
	SIDE AND REAR		NO MINIMUM, 10' MAXIMUM
	SIDE CORNER		NONE
EXTERIOR BUILDING SETBACKS (ALL STRUCTURES)	SINGLE-STORY ADJACENT TO WINWARD POINT		30' MINIMUM
	MULTI-STORY ADJACENT TO WINWARD POINT		70' MINIMUM
	ADJACENT TO ALL OTHER RESIDENTIAL DISTRICTS		5' MINIMUM
	ADJACENT TO COMMERCIAL		5' MINIMUM
	THOROUGHFARE BUFFER		10' MINIMUM
BUILDING HEIGHT	PRIMARY STRUCTURES		60' MAXIMUM
			3 STORIES MINIMUM
			5 STORIES MAXIMUM
GROUND FLOOR HEIGHT	ACCESSORY STRUCTURES		15' MAXIMUM
	MIXED-USE BUILDINGS		15'-0" MINIMUM
	LIVE/WORK BUILDINGS		10'-8" MINIMUM
	LEASING OFFICE/AMENITY BUILDINGS		13'-8" MINIMUM
	RESIDENTIAL BUILDINGS		10'-8" MINIMUM

NMX ZONING OPEN SPACE SITE DATA

GROSS SITE AREA	56.91 ACRES (2,479,152 SF)
ON-SITE PRIVATE OPEN SPACE	REQUIRED: 6.83 ACRES (12%) PROVIDED: 17.08 ACRES (30% MIN.)
TREE PRESERVATION AREA	REQUIRED: 5.69 ACRES (10%) PROVIDED: 11.38 ACRES (20% MIN.)
ACTIVE RECREATION AREA	REQUIRED: 0.00 ACRES (0%) PROVIDED: 2.85 ACRES (5%)
URBAN CIVIC SPACE	REQUIRED: 12,396 SF (0.5%) PROVIDED: 12,396 SF (MIN.)
FLEXIBLE SPACE	REQUIRED: 0.85 ACRES (1.5%) PROVIDED: 2.85 ACRES (5% MIN.)

GENERAL NOTES

- SIDEWALKS, GREENWAY MUTLI-USE PATHS, AND PEDESTRIAN CONNECTIONS SHOWN ON THIS PLAN ARE APPROXIMATE. AT THE TIME OF DEVELOPMENT PLAN REVIEW, THE LOCATION AND DESIGN OF SUCH FEATURES SHALL COMPLY WITH THE APPLICABLE STANDARDS OF THE HOLLY SPRINGS UDO AND OTHER APPLICABLE LAWS, STANDARDS, POLICIES AND GUIDELINES.
- EXCEPT AS OTHERWISE DESCRIBED OR PERMITTED IN THIS MASTER PLAN, DEVELOPMENT ON THIS SITE SHALL COMPLY WITH ALL THE REQUIREMENTS OF THE TOWN OF HOLLY SPRINGS UDO, ALL OF WHICH SHALL CONSTITUTE THE ZONING REGULATIONS FOR THE APPROVED DISTRICT AND ARE BINDING ON THE PROPERTY.
- ALL MODIFICATIONS TO MASTER PLAN SHALL BE APPROVED IN ACCORDANCE WITH UDO SECTION 11.16.
- BOUNDARY SHOWN PER ESP ASSOCIATES, INC..
- THE LOCATION OF ACCESS POINTS AND INTERNAL STREETS SHOWN ON THE MASTER PLAN ARE ILLUSTRATIVE, WITH FINAL LOCATIONS TO BE DETERMINED AT THE TIME OF DEVELOPMENT PLAN.
- CHANGES TO THE USE/INTENSITY AND PROPOSED USES SHALL REQUIRE A REZONING.



VICINITY MAP
1" = 2000'

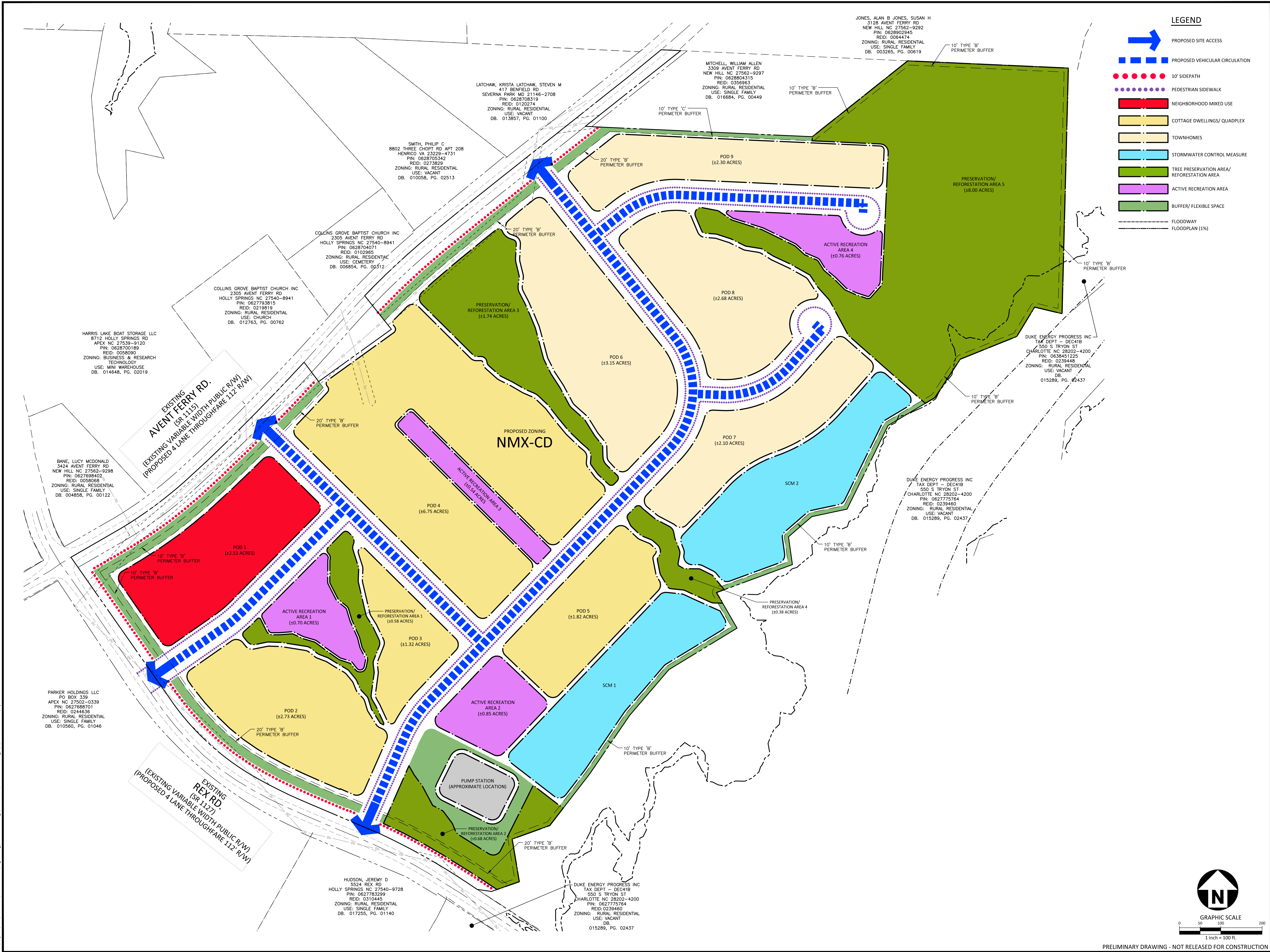


REVISIONS

NO.	DATE
1	
2	
3	
4	
5	
6	

MASTER PLAN FOR:
RAGAN PROPERTY
MASTER PLAN
3313 AVENT FERRY ROAD
NEW HILL, NC 27562
PROJECT NUMBER: GHK-22001

\\Projects\GHK\22001\04-Production\Engineering\Current Drawings\MasterPlan\GHK22001-SI.dwg, 3/1/2023 4:00:55 PM, Tyler Probst



McADAMS
The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713
phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

CLIENT
GREENHAWK CORPORATION, INC.
1330 SUNDAY DR, SUITE 105
RALEIGH, NC 27607
JEREMY MEDLIN
PHONE: 919. 258. 2087

GH GREENHAWK

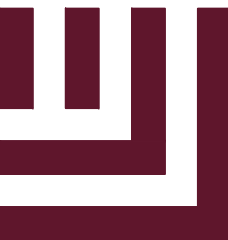
RAGAN PROPERTY
MASTER PLAN
3313 AVENT FERRY ROAD
NEW HILL, NC 27562



REVISIONS	
NO.	DATE
1	
2	
3	
4	
5	
6	
PLAN INFORMATION	
PROJECT NO.	GHK-22001
FILENAME	GHK22001-SI
CHECKED BY	XXX
DRAWN BY	XXX
SCALE	1"=100'
DATE	03.01.2023
SHEET	
CONCEPT PLAN	
C2.00	

\\projects\GHK\GHK22001\04-Production\Engineering\Current Drawings\MasterPlan\GHK22001-SI.dwg, 3/7/2023 4:08:09 PM, Tyler Probst





McAdams
The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713
phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

CLIENT

GREENHAWK CORPORATION, INC.
1330 SUNDAY DR, SUITE 105
RALEIGH, NC 27607
JEREMY MEDLIN
PHONE: 919. 258. 2087

REVISIONS

NO.	DATE
1	
2	
3	
4	
5	
6	

PLAN INFORMATION

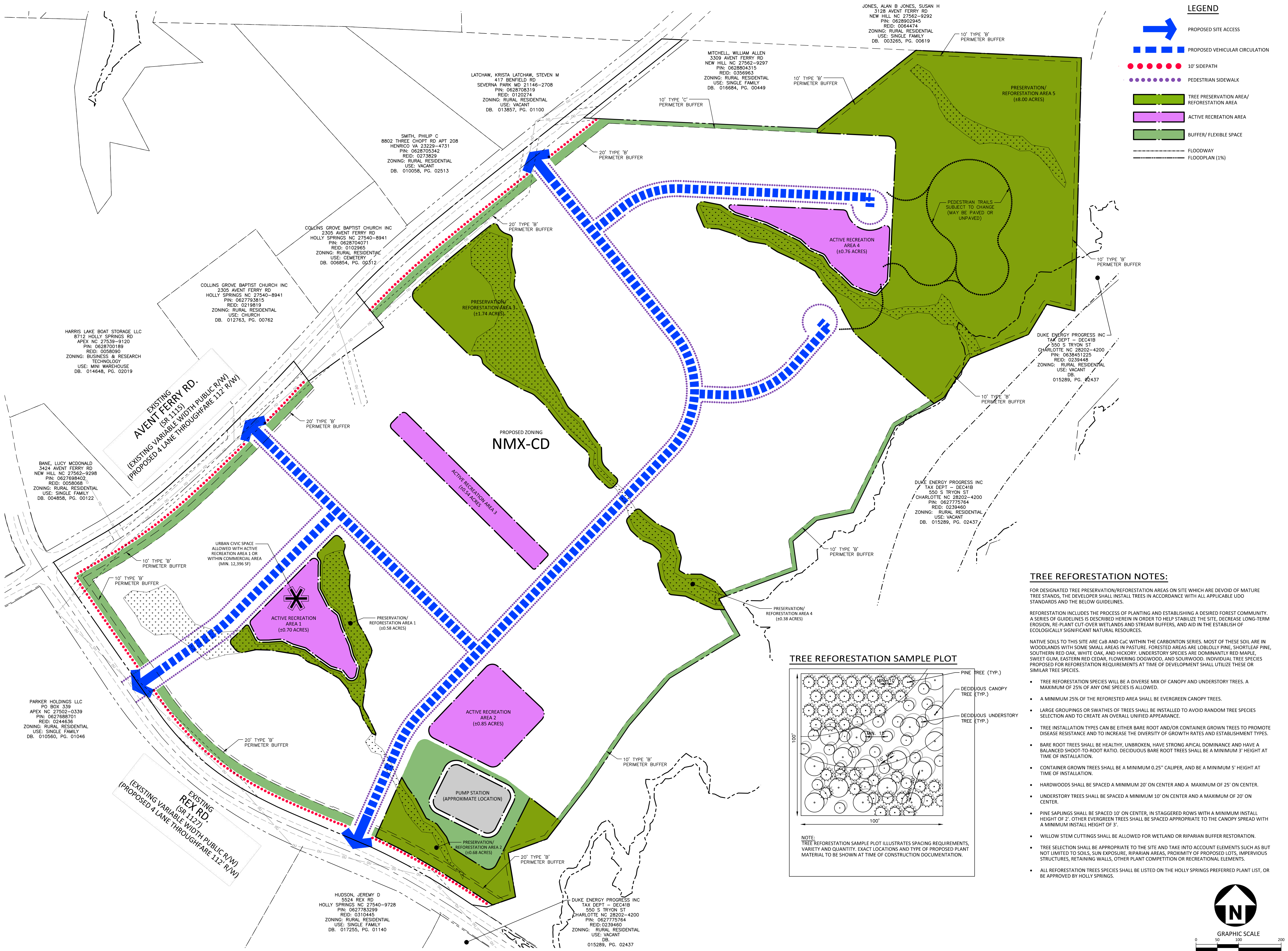
PROJECT NO.	GHK-22001
FILENAME	GHK22001-SI
CHECKED BY	XXX
DRAWN BY	XXX
SCALE	1"=100'
DATE	03.01.2023

SHEET

TRANSPORTATION PLAN

C2.01

I:\Projects\GHK\GHK22001\04-Production\Engineering\Current Drawings\MasterPlan\GHK22001-51.dwg, 3/7/2023 4:01:05 PM, Tyler Probst



LEGEND

- PROPOSED SITE ACCESS
- PROPOSED VEHICULAR CIRCULATION
- 10' SIDEPATH
- PEDESTRIAN SIDEWALK
- TREE PRESERVATION AREA/ REFORESTATION AREA
- ACTIVE RECREATION AREA
- BUFFER/ FLEXIBLE SPACE
- FLOODWAY
- FLOODPLAIN (1%)

TREE REFORESTATION NOTES:

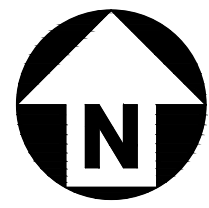
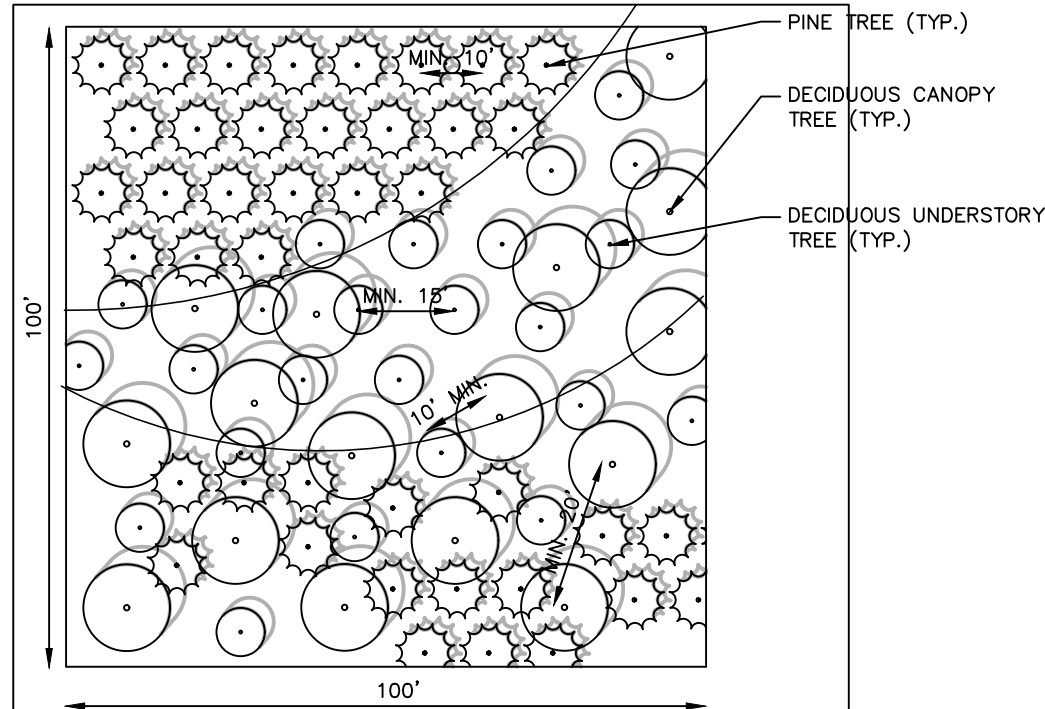
FOR DESIGNATED TREE PRESERVATION/REFORESTATION AREAS ON SITE WHICH ARE DEVOID OF MATURE TREE STANDS, THE DEVELOPER SHALL INSTALL TREES IN ACCORDANCE WITH ALL APPLICABLE UDO STANDARDS AND THE BELOW GUIDELINES.

REFORESTATION INCLUDES THE PROCESS OF PLANTING AND ESTABLISHING A DESIRED FOREST COMMUNITY. A SERIES OF GUIDELINES IS DESCRIBED HEREIN IN ORDER TO HELP STABILIZE THE SITE, DECREASE LONG-TERM EROSION, RE-PLANT CUT-OUT WETLANDS AND STREAM BUFFERS, AND AID IN THE ESTABLISH OF ECOLOGICALLY SIGNIFICANT NATURAL RESOURCES.

NATIVE SOILS TO THIS SITE ARE C8B AND C8C WITHIN THE CARBONTON SERIES. MOST OF THESE SOIL ARE IN WOODLANDS WITH SOME SMALL AREAS IN PASTURE. FORESTED AREAS ARE LOBLOLLY PINE, SHORTLEAF PINE, SOUTHERN RED OAK, WHITE OAK, AND HICKORY. UNDERSTORY SPECIES ARE DOMINANTLY RED MAPLE, SWEET GUM, EASTERN RED CEDAR, FLOWERING DOGWOOD, AND SOURWOOD. INDIVIDUAL TREE SPECIES PROPOSED FOR REFORESTATION REQUIREMENTS AT TIME OF DEVELOPMENT SHALL UTILIZE THESE OR SIMILAR TREE SPECIES.

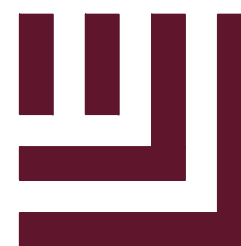
- TREE REFORESTATION SPECIES WILL BE A DIVERSE MIX OF CANOPY AND UNDERSTORY TREES. A MAXIMUM OF 25% OF ANY ONE SPECIES IS ALLOWED.
- A MINIMUM 25% OF THE REFORESTED AREA SHALL BE EVERGREEN CANOPY TREES.
- LARGE GROUPINGS OR SWATHES OF TREES SHALL BE INSTALLED TO AVOID RANDOM TREE SPECIES SELECTION AND TO CREATE AN OVERALL UNIFIED APPEARANCE.
- TREE INSTALLATION TYPES CAN BE EITHER BARE ROOT AND/OR CONTAINER GROWN TREES TO PROMOTE DISEASE RESISTANCE AND TO INCREASE THE DIVERSITY OF GROWTH RATES AND ESTABLISHMENT TYPES.
- BARE ROOT TREES SHALL BE HEALTHY, UNBROKEN, HAVE STRONG APICAL DOMINANCE AND HAVE A BALANCED SHOOT-TO-ROOT RATIO. DECIDUOUS BARE ROOT TREES SHALL BE A MINIMUM 3' HEIGHT AT TIME OF INSTALLATION.
- CONTAINER GROWN TREES SHALL BE A MINIMUM 0.25" CALIPER, AND BE A MINIMUM 5' HEIGHT AT TIME OF INSTALLATION.
- HARDWOODS SHALL BE SPACED A MINIMUM 20' ON CENTER AND A MAXIMUM OF 25' ON CENTER.
- UNDERSTORY TREES SHALL BE SPACED A MINIMUM 10' ON CENTER AND A MAXIMUM OF 20' ON CENTER.
- PINE SAPLINGS SHALL BE SPACED 10' ON CENTER, IN STAGGERED ROWS WITH A MINIMUM INSTALL HEIGHT OF 2'. OTHER EVERGREEN TREES SHALL BE SPACED APPROPRIATE TO THE CANOPY SPREAD WITH A MINIMUM INSTALL HEIGHT OF 3'.
- WILLOW STEM CUTTINGS SHALL BE ALLOWED FOR WETLAND OR RIPARIAN BUFFER RESTORATION.
- TREE SELECTION SHALL BE APPROPRIATE TO THE SITE AND TAKE INTO ACCOUNT ELEMENTS SUCH AS BUT NOT LIMITED TO SOILS, SUN EXPOSURE, RIPARIAN AREAS, PROXIMITY OF PROPOSED LOTS, IMPERVIOUS STRUCTURES, RETAINING WALLS, OTHER PLANT COMPETITION OR RECREATIONAL ELEMENTS.
- ALL REFORESTATION TREES SPECIES SHALL BE LISTED ON THE HOLLY SPRINGS PREFERRED PLANT LIST, OR BE APPROVED BY HOLLY SPRINGS.

TREE REFORESTATION SAMPLE PLOT



GRAPHIC SCALE
0 50 100 200
1 inch = 100 ft.

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION



McADAMS

The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713

phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187

www.mcadamsco.com

CLIENT

GREENHAWK CORPORATION, INC.
1330 SUNDAY DR, SUITE 105
RALEIGH, NC 27607
JEREMY MEDLIN
PHONE: 919. 258. 2087



RAGAN PROPERTY
MASTER PLAN
3313 AVENT FERRY ROAD
NEW HILL, NC 27562



REVISIONS

NO.	DATE
1	
2	
3	
4	
5	
6	

PLAN INFORMATION

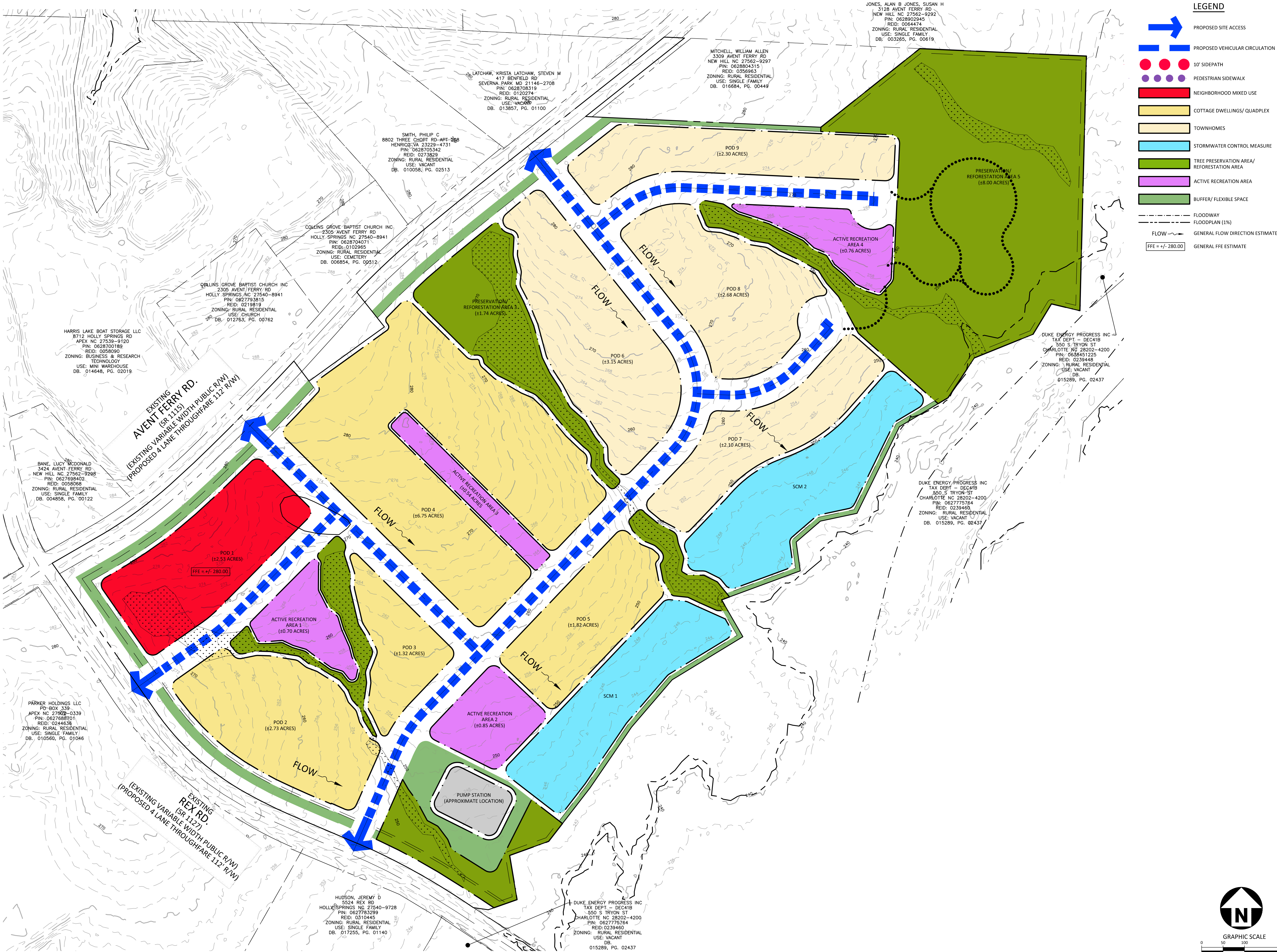
PROJECT NO.	GHK-22001
FILENAME	GHK22001-51
CHECKED BY	XXX
DRAWN BY	XXX
SCALE	1"=100'
DATE	03. 01. 2023

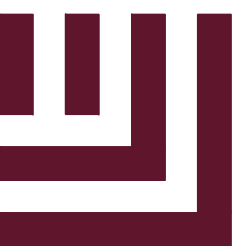
SHEET

OPEN SPACE &
PRESERVATION PLAN

C2.02

I:\Projects\GHK\GHK22001\04-Production\Engineering\Current Drawings\MasterPlan\GHK22001-G1.dwg, 3/1/2023 4:01:15 PM, Tyler Probst





McADAMS
The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713

phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187

www.mcadamsco.com

CLIENT

GREENHAWK CORPORATION, INC.
1330 SUNDAY DR, SUITE 105
RALEIGH, NC 27607
JEREMY MEDLIN
PHONE: 919. 258. 2087

GH GREENHAWK

**RAGAN PROPERTY
MASTER PLAN
3313 AVENT FERRY ROAD
NEW HILL, NC 27562**



REVISIONS	
NO.	DATE
1	
2	
3	
4	
5	
6	

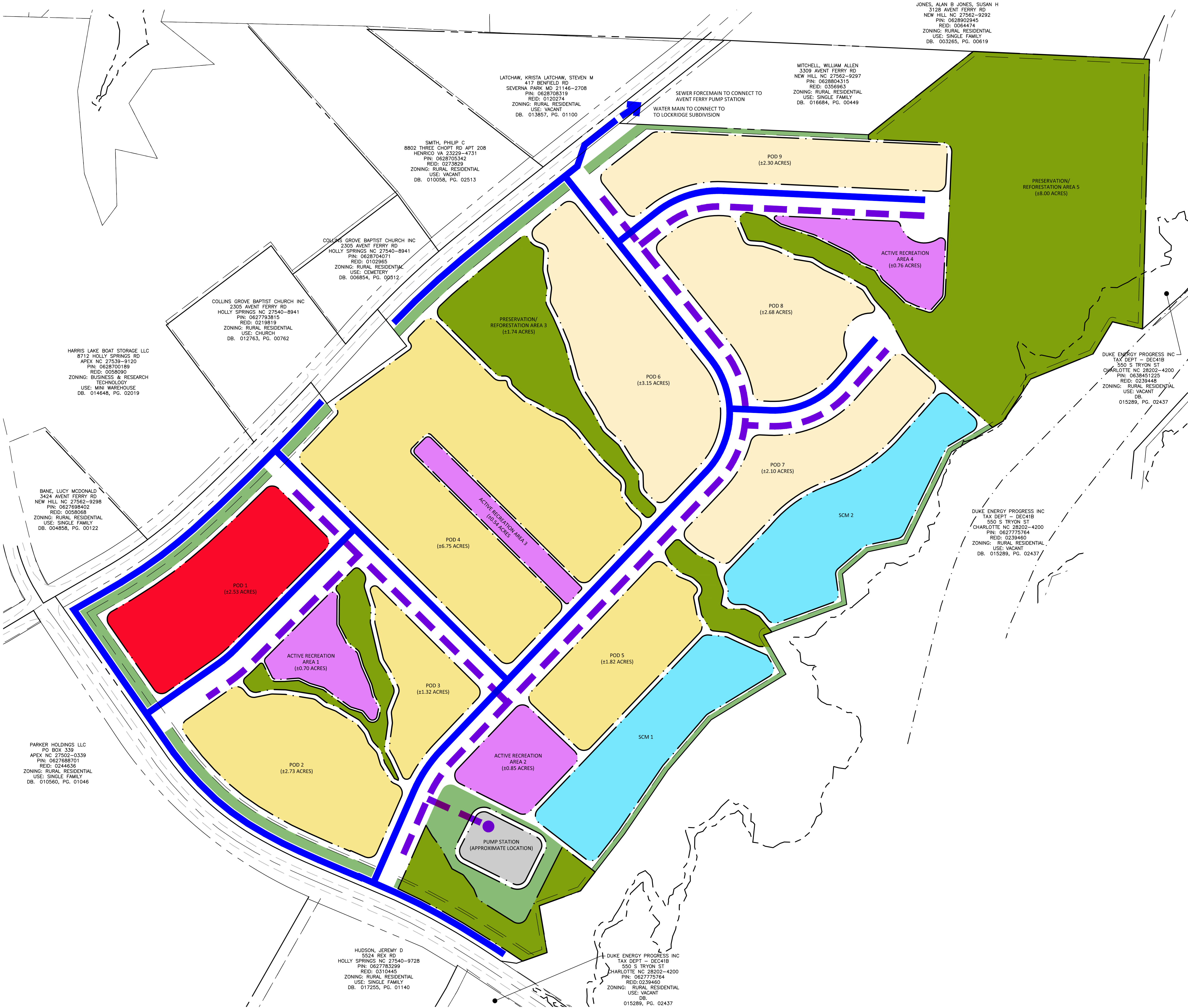
PLAN INFORMATION	
PROJECT NO.	GHK-22001
FILENAME	GHK22001-G1
CHECKED BY	XXX
DRAWN BY	XXX
SCALE	1" = 100' XREF
DATE	03. 01. 2023

SHEET	
GRADING PLAN	

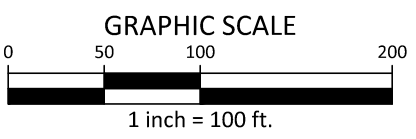
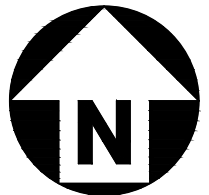
C3.00

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

I:\Projects\GHK\GHK22001\04-Production\Engineering\Current Drawings\MasterPlan\GHK22001-U1.dwg, 3/1/2023 4:01:27 PM, Tyler Probst



- LEGEND**
- PROPOSED SANITARY SEWER LINE
 - PROPOSED WATER LINE
 - NEIGHBORHOOD MIXED USE
 - COTTAGE DWELLINGS/ QUADPLEX
 - TOWNHOMES
 - STORMWATER CONTROL MEASURE
 - TREE PRESERVATION AREA/ REFORESTATION AREA
 - ACTIVE RECREATION AREA
 - BUFFER/ FLEXIBLE SPACE
 - FLOODWAY
 - FLOODPLAN (1%)



PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION



McADAMS
The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713
phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

CLIENT

GREENHAWK CORPORATION, INC.
1330 SUNDAY DR, SUITE 105
RALEIGH, NC 27607
JEREMY MEDLIN
PHONE: 919. 258. 2087

GH GREENHAWK

**RAGAN PROPERTY
MASTER PLAN
3313 AVENT FERRY ROAD
NEW HILL, NC 27562**



REVISIONS

NO.	DATE
1	
2	
3	
4	
5	
6	

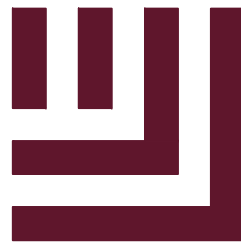
PLAN INFORMATION

PROJECT NO.	GHK-22001
FILENAME	GHK22001-U1
CHECKED BY	TEP
DRAWN BY	TEP
SCALE	1" = 100'
DATE	03.01.2023

SHEET

UTILITY PLAN

C4.00



McAdams

The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713

phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187

www.mcadamsco.com

CLIENT

GREENHAWK CORPORATION, INC.
1330 SUNDAY DR, SUITE 105
RALEIGH, NC 27607
JEREMY MEDLIN
PHONE: 919. 258. 2087



RAGAN PROPERTY
MASTER PLAN
3313 AVENT FERRY ROAD
NEW HILL, NC 27562



REVISIONS

NO.	DATE
1	
2	
3	
4	
5	
6	

PLAN INFORMATION

PROJECT NO. GHK-22001
FILENAME GHK22001-TS1
CHECKED BY XXX
DRAWN BY XXX
SCALE #####
DATE 03. 01. 2023

SHEET

TYPICAL SECTIONS

C8.00

REX ROAD & AVENT FERRY ROAD

T-4A

Thoroughfare | 4 Lanes

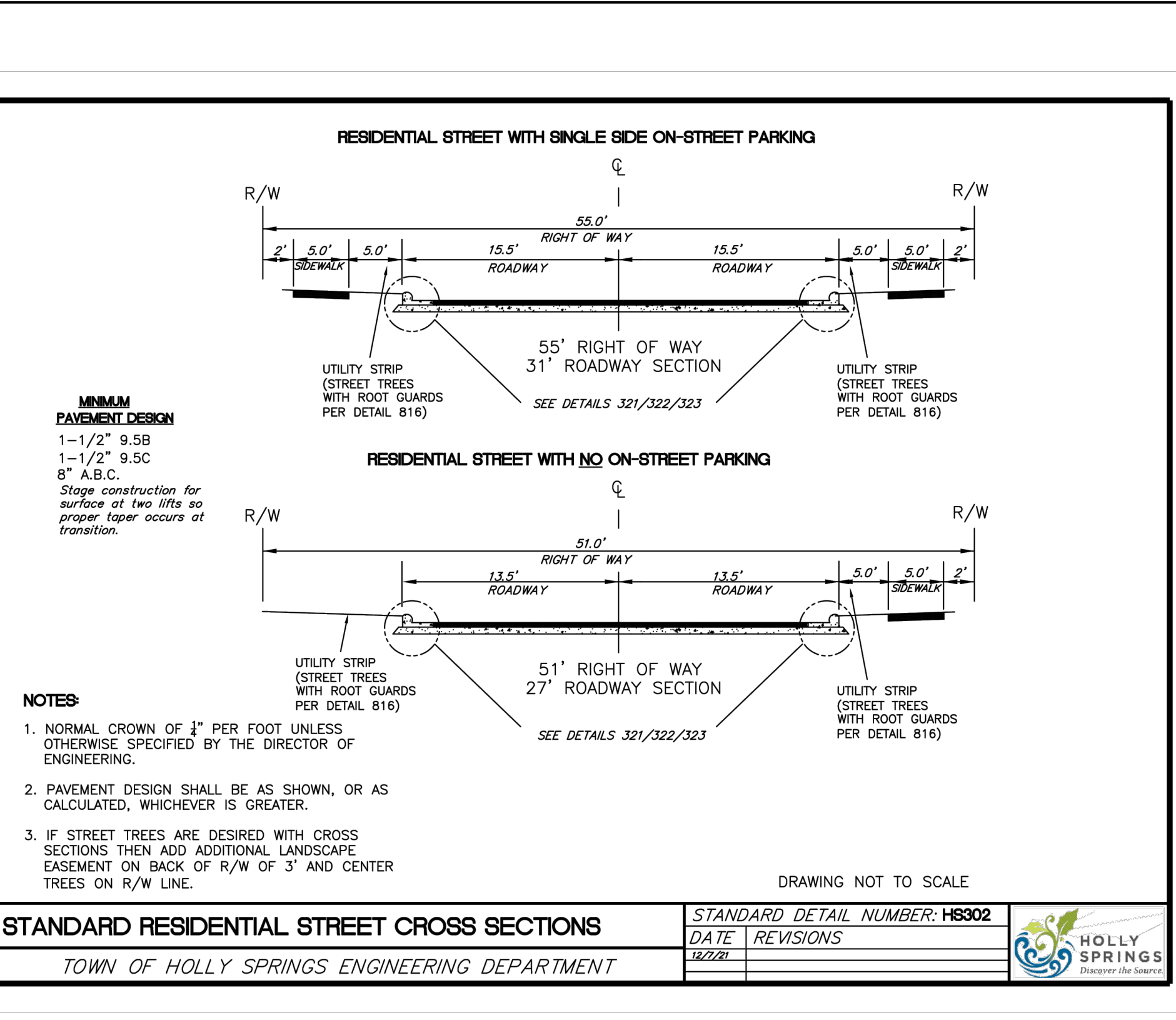
T-4A Minimum



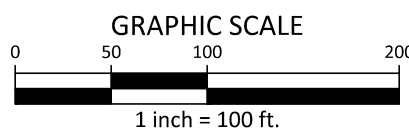
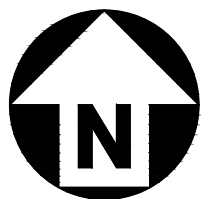
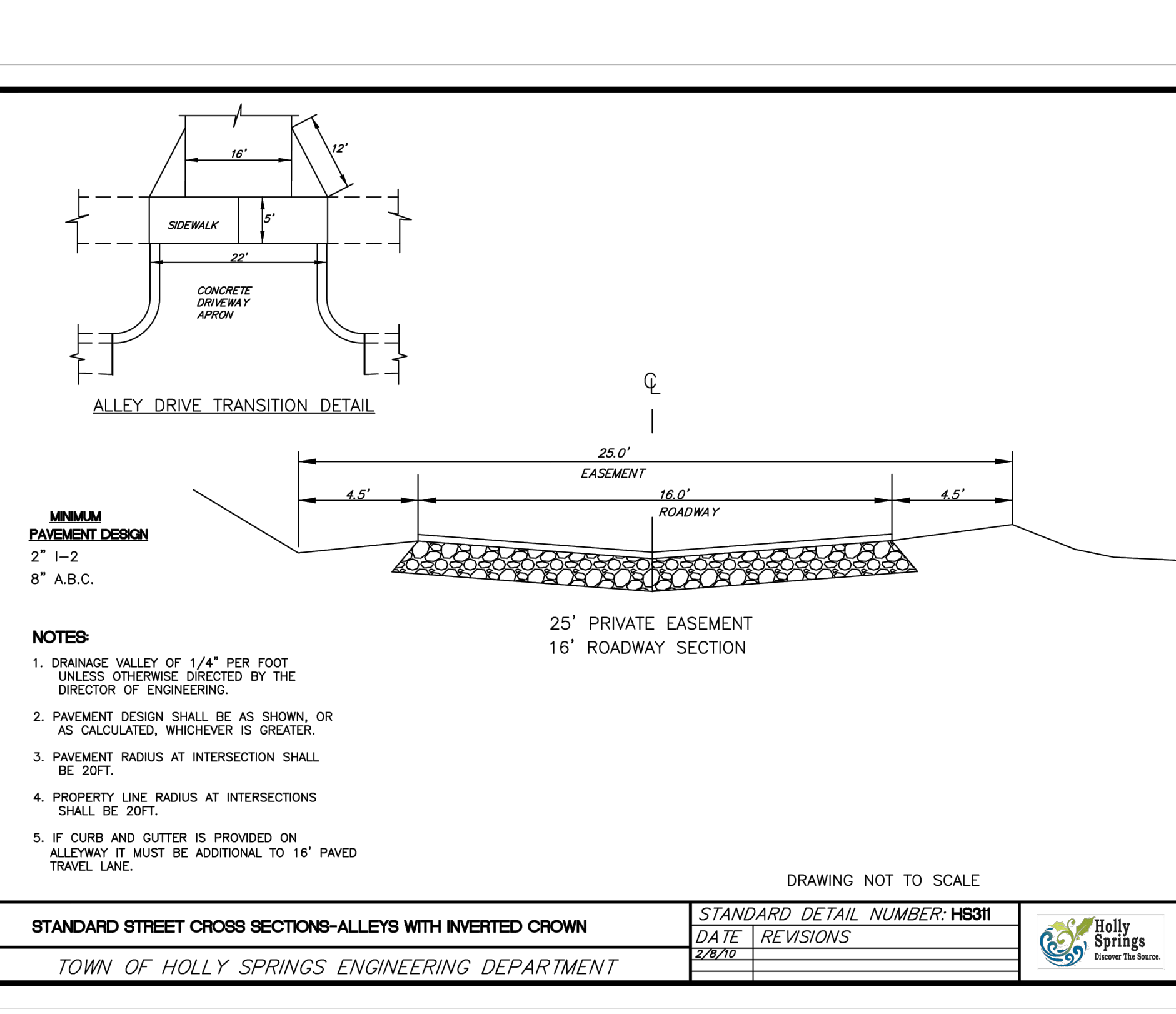
T-4A	Design Elements	Element Included	Minimum Dimension	Land Use Character Area			
				Rural	Suburban	Urban	Business & Industrial
	Right-of-Way (ROW)	Yes	112'	112'	103'	103'	107'
	Back of Curb to Back of Curb (B/B)	Yes	73'	76'	66.5'	62.5'	73'
	Travel Lanes	4 Lanes	10'	12'	11'	10'	12'
	Center Turn Lane	No	-	-	-	-	-
	Median	Yes	17.5'	23'	17.5'	17.5'	20'
	Curb and Gutter (C+G)	2 Sides	2.5'	2.5'	2.5'	2.5'	2.5'
	Paved Shoulder	No	-	-	-	-	-
	Planting	2 Sides	5'	6'	6'	8'	5'
	On-Street Parking	No	-	-	-	-	-
	Sidepath	0-2 Sides*	10'	10'	10'	10'	10'
	Sidewalk	0-2 Sides*	5'	5'	6'	8'	5'
	Bicycle Facility	No	-	-	-	-	-

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.
Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.
*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

PUBLIC RESIDENTIAL STREETS

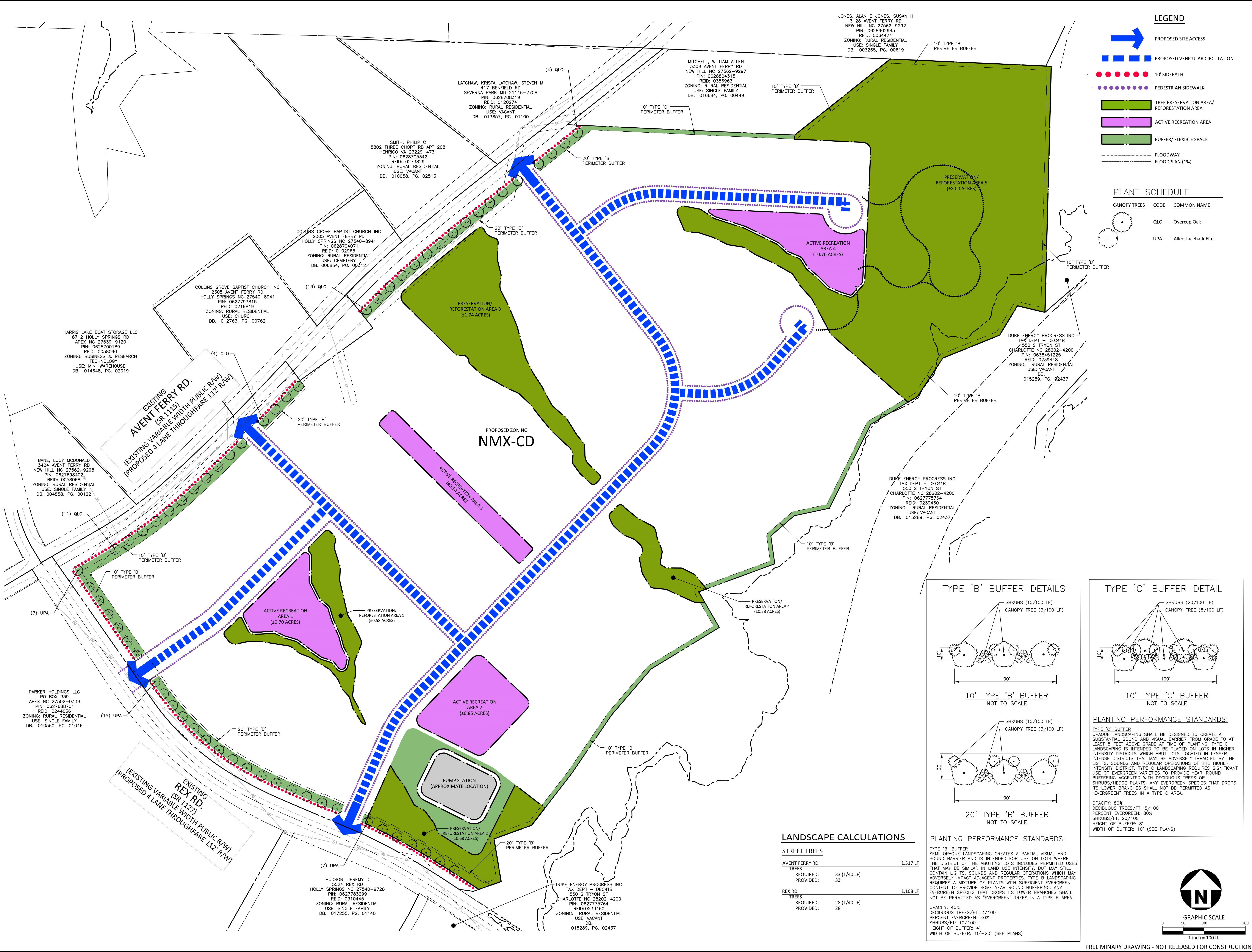


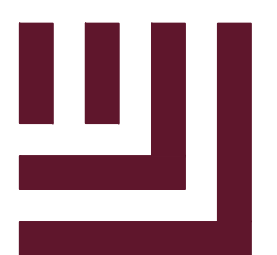
INTERNAL RESIDENTIAL POD ACCESS



PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

I:\Projects\GHK\22001\04-Production\Engineering\Current\Drawings\MasterPlan\GHK22001-LS1.dwg, 3/1/2023 4:50:54 PM, Tyler Probert



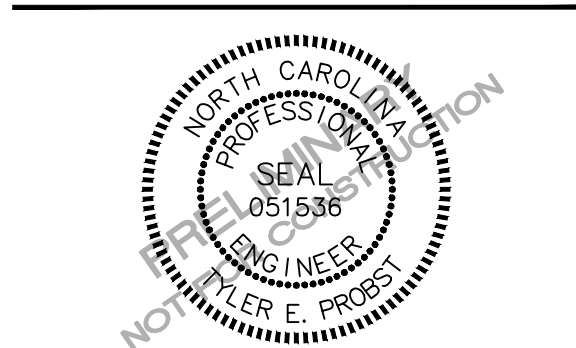


McADAMS
The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713
phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

CLIENT
GREENHAWK CORPORATION, INC.
1330 SUNDAY DR, SUITE 105
RALEIGH, NC 27607
JEREMY MEDLIN
PHONE: 919. 258. 2087



**RAGAN PROPERTY
MASTER PLAN
3313 AVENT FERRY ROAD
NEW HILL, NC 27562**



REVISIONS	
NO.	DATE
1	
2	
3	
4	
5	
6	
PLAN INFORMATION	
PROJECT NO.	GHK-22001
FILENAME	GHK22001-LS1
CHECKED BY	MV
DRAWN BY	SMV
SCALE	1" = 100'
DATE	03.01.2023
SHEET	
LANDSCAPE PLAN	
L5.00	