Town of Holly Springs
PLANNING BOARD MEETING MINUTES
Tuesday January 27, 2026 - 7:00 p.m.

Agenda Item #1, 2, 3 & 4:

The Planning Board of the Town of Holly Springs met for their regularly scheduled meeting on **January 27, 2026.** At 7:00 p.m. after determining a quorum was present, Chair Madoni called the meeting to order.

Staff Members Present:	Cheryl Caines, Senior Planner Brett Gosney, Planner II Elliot Blonshine, Development Review Engineer Jay Osbourne, Asst. Town Attorney Sean Ryan , Planning Division Manager Julie Nicewinter, Board Clerk

The Board completed roll call.

Members Present:	Rick Madoni, *Chair* Thomas Urquhart, *Vice-Chair* Roger Bess, *ETJ* Van Crandall Joseph Cuccurullo Joanna Holder Sara Kempin Craig Kessler Josh Prizer
Members Absent:	None

The Board recited the pledge of allegiance and the meeting opened with an invocation by Mr. Cuccurullo

Agenda Item #5: Agenda Adjustment

Motion to adopt new agenda

Motion by: Thomas Urquhart
Second by: Joanna Holder

Action: The Planning Board voted in favor of the motion (9-0)

Agenda Item #6: Minutes

a. *November 19, 2025 Minutes*

Motion by: Joanna Holder
Second by: Josh Prizer
Action: The Planning Board voted in favor of the motion (8-0)
Abstained: Thomas Urquhart

Agenda Item #7: Town Council Representative

a. Planning Board Representation for Town Council
   - February 17: Joseph Cuccurullo will not be able to attend. Rick Madoni and Joanna Holder will attend.
   - March 3: Sara Kempin(Quarterly Meeting)
   - April 15 – Tom Urquhart will attend.

Agenda Item #8: Public Comment Period

Public comment correspondence was provided to the Planning Board members prior to the meeting.

Dawn Santoianni
209 RiverLedge Drive
Holly Springs, NC
Ms. Santoianni submitted written comments and summarized them in favor of the changes the developer has committed to making after the public hearing. Ms. Santoianni also complimented Town Staff and Town Council feedback.

Wendy Lynn Puopolo
324 Silent Bend Drive
Holly Springs, NC
Ms. Puopolo spoke against the project.

Fran Hudson
5524 Rex Road
Holly Springs, NC
Ms. Hudson spoke against the project.

Agenda Item #9: Zone Map Change Petitions

a. 24-REZ-07 Mira Ridge Rezoning

Mr. Gosney presents the Staff report to the Board.

Mr. Blonshine continued to present the Staff report to the Board, focusing on Public Utilities and Roadways.

Applicant / Speaker:

Tommy Craven; Priest, Craven & Associates
6404 Falls of Neuse Rd; Ste 201
Raleigh, NC 27615

Mr. Craven thanks Town Staff for outlining the project. Mr. Craven proceeded to talk about the changes made to the plans from feedback received at the Town Council Public Hearing and from Town Staff and neighbors.

Mr. Craven has committed to removing Lot 38 at River Ledge. Approximately half of Lot 38 has been put into the tree conservation area. The remainder of Lot 38 has been absorbed into the four (4) neighboring lots to make them wider than they were in the previous plan.

Mr. Craven has agreed to install a fence, to Lochridge Subdivision standards. He has also agreed to increase the Type B buffer that is being planted in response to comments received from the Public Hearing.

Mr. Craven addressed feedback received about saving existing trees in the buffer area. If trees cannot be saved, the landscape requirements will be used to determine what the replacements should be.

Mr. Craven outlined the changes made to the plans from what was presented at the Town Council Public Hearing to now:

- The number of lots has been reduced from 60 to 43
- The density has decreased from 2.8 units per acre to 2 units per acre
- The minimum lot width has been increased from 35' to 60'
- The minimum lot size has been increased from 4,780 SF to 7,500 SF
- The average lot size has increased from 5,300 SF to 10,062 SF
- The sidewalk will be extended along Lochridge Subdivision frontage of Avent Ferry Road to make a sidewalk connection to the entrance of Lochridge Subdivision
- The lots previously on Avent Ferry Road frontage have been removed, and the developer is proposing to provide and install the same buffer as Lochridge Subdivision
- The alleys and rear-loaded parking have been eliminated
- There are several active open space areas which total 8.5 acres or 39%
- Trails are proposed along each of the Stormwater Control Measures (SCMs) that connect to the sidewalks within the development
- The tree conservation area increased from 4.5 acres to 4.6 acres
- A 10' Type B landscape buffer is proposed with additional plantings
- Architectural standards are similar to previous plan which will require most of the homes to be 2-stories and a minimum of 2,100 SF of heated space

Mr. Craven drew comparisons between the Lochridge Subdivision to his project as follows:

- Lochridge is 77 acres; Mira Ridge is 21.6 acres
- Lochridge provided 12.6 acres or 16.2% open space; Mira Ridge is providing 8.5 acres or 39.3% open space

Mr. Craven concluded his presentation.

Planning Board members took turns asking questions.

Mr. Kessler asked staff if there are recent examples of a similar zoning change over the past few years.

Mr. Ryan answered that the most recent example is the Ragan Subdivision, but that had a different residential designation.

Mr. Kessler asked what additional changes would need to be made to this new plan to keep is conservation neighborhood?

Mr. Gosney reviewed the guidelines for a conservation neighborhood as outlined in the Town's Comprehensive Plan.

Mr. Cuccurullo asked for clarification on how many units per acre the land is currently zoned for versus the proposal.

Staff clarified current zoning.

Mr. Cuccurullo asked how close this property is to the Ragan property.

Mr. Gosney identified the Ragan property on a map for Mr. Cuccurullo.

Mr. Ryan clarified the status of the rezoning on the Ragan property.

Mr. Cuccurullo spoke to the Planning Board members about the importance of the rezoning.

Mr. Prizer had no questions.

Ms. Holder asked how often we zone differently than the Land Use Advisory Committee (LUAC) recommends.

Mr. Ryan confirmed that it was not uncommon but is also not frequent.

Ms. Holder applauded the developer for spending time to understand the needs and responding to the feedback received. We have already approved a mixed-use neighborhood on the corner along Avent Ferry Road.

Mr. Urqhart asked staff to talk about the differences between a Type A buffer and a Type B buffer.

Mr. Gosney explained the difference. A Type A buffer provides more opacity and is 5', a Type B buffer is 10'.

Mr. Crandal asked for a visual of the Type B buffer.

Mr. Crandal asked what the maximum height of some of the plants that would be part of the planting for the Type B Buffer.

Mr. Craven advised that the plant material would be proposed per Town standards.

Mr. Craven addressed previous comments made by the Planning Board.

Mr. Craven spoke to the density and compared Mira Ridge's 2 units to the acre to Lochridge which is 1.7 units to the acre and is compatible.

This neighborhood will help the proposed commercial and retail uses in the area. This is only 40 new rooftops but is within easy distance to commercial when sidewalks are put in.

It is difficult to create a conservation subdivision with open space and lot sizes and have a subdivision that is economically viable.

Mr. Crandal observed that the conservation district designation is based on characteristics of property and trying to overlay use and designation on this property and may not be the best choice.

Mr. Crandal asked if all the properties would be sold or used as rental properties.

Mr. Craven confirmed that using the subdivision solely as rental properties has never been the intent.

Mr. Crandal asked the Assistant Town Attorney, Jay Osborne, if that was something that would go into a developer agreement?

Mr. Osborne did not readily have an answer and advised he would research the answer.

Mr. Ryan advised NCGS gives the Town authority to use the land, not ownership of property and cautions board to consider this.

Mr. Crandal had a question about saving existing trees and who is the decision maker and if the Town has oversight on the decision process in retaining trees.

Mr. Craven advised that it would be determined in the field.

Mr. Ryan advised that any tree preservation areas that are required to be preserved will be shown on construction drawings. Inspectors will monitor for compliance. Residents can also monitor for compliance and report to the Town to make sure the developer brings site back up to compliance. We do have policies and procedures in place.

Mr. Bess noted the buffer went from 5' to 10' and was confused about the Oak Tree characterization of a buffer and asked for clarification.

Mr. Craven advised that if it is an existing tree, it will extend outside of that buffer.

Mr. Bess noted that if you dig into the buffer there is a possibility of destroying existing trees.

Mr. Craven noted that they are proposing a 10' buffer and there is a 5' buffer in Lochridge Subdivision to provide a combined 15' buffer.

Mr. Bess noted that Lochridge community is requesting the change from the original rezoning and asked if that was a true characterization.

Mr. Gosney explained that feedback from the public hearing was due to many Lochridge residents attending to speak about the Mira Ridge Subdivision. The changes were made to make consistent with the Future Land Use Map.

Mr. Bess expressed concern that neighbors' objections focused on density, not the conservation designation, and questioned why the conservation district and buffers were removed in response.

Mr. Craven clarified that the primary feedback received from neighbors related to concerns about alleys and front-loaded garages. Neighbors were worried that homes built along the road, including garage placement, would be disruptive and appear to tower over existing properties. In response, those design elements were removed.

Mr. Craven stated that regarding density the proposal complies with the density requirements. However, due to the complexity and interrelated nature of the ordinances — particularly the detailed criteria for what qualifies as open space — the project could not meet conservation district standards while also addressing those requirements.

Mr. Crandal and Mr. Bess discussed the buffer.

Mr. Craven stated that with the proposed plan there is a buffer and in addition a rear yard setback on the house.

Mr. Bess asked about the rationale behind drastically reducing setback for interior corners. That's another thing that makes the neighborhood look so different from the Lochridge community.

Mr. Craven spoke about ongoing trends in development and advised that this was a way to gain square footage.

Mr. Bess asked staff if it was common to vote on both a rezoning and major subdivision plan when there was the builder was not yet known.

Mr. Gosney advised that it is not entirely uncommon.

Mr. Bess noted that on other projects the builder has been known and is surprised to hear that the builder is not yet known for this project.

Mr. Bess asked if traffic studies were performed and what the radius of the traffic study was. He also asked if the traffic study triggered any research to be done to New Hill Holleman Road.

Mr. Blonshine advised that a study was completed as part of our typical review process. A traffic study looks at a one (1) mile radius of a site. During traffic scoping process we will talk about other intersections, it is not uncommon to flex outside of the one (1) mile radius, but is typically reserved for bigger projects that may put thousands of trips on the road.

Mr. Bess stated that the Ragan property zoning was much more dense and questions whether that was a proper designation.

Ms. Kempin asked what type of fence is proposed.

Mr. Craven stated that a typical aluminum version of a wrought iron fence would be used.

Mr. Osborne shared the results of his research about the legality of adding a clause in the developer agreement regarding regulation of owning vs rental property. He advised that you can regulate use, not ownership.

Mr. Madoni asked staff about what the Holleman activity center is.

Mr. Craven believes it was in reference to the Ragan property.

Mr. Madoni asked staff to explain what happened with the Ragan property and why the Town Council ruling was overturned.

Mr. Ryan advised that Town Council came to a settlement agreement with applicant.

Mr. Cuccurullo stated he was not attempting to influence the vote but emphasized that the Planning Board's role is to evaluate the rezoning request itself, not the specific development details. He noted that considerations such as buffers and design elements are secondary to determining whether the proposed rezoning represents an appropriate use of the land, taking into account the surrounding area, the future of the town, and the ETJ.

Mr. Cuccurullo also referenced a prior rezoning case (Ragan), stating it should not be directly compared to the current request. They noted that one lesson from the Ragan case was that once a property is rezoned, subsequent options become limited, and the decision cannot easily be revisited.

Mr. Crandall asked staff to clarify what the maximum number of units is allowed in this zoning and if someone could come back to the Town to ask to rezone the property and if density could increase.

Mr. Gosney confirmed 43 detached dwelling units. A new rezoning application could be submitted and follow a similar process and density could increase.

Planning Board members discussed the project amongst themselves.

Mr. Bess asked the applicant to clarify why they removed one of the proposed lots and why that specific lot.

Mr. Craven reiterated that there are wetlands that need to be preserved.

Planning Board members continued to discuss the project amongst themselves.

No further discussion.

Motion:
To Adopt the following Plan Consistency Statement:
The requested zone map change from RR Rural Residential to SR-CD Suburban Residential Conditional District is inconsistent with Vision Holly Springs Comprehensive Plan because the Future Land Use Plan Map designates this property as Conservation Neighborhood and the Suburban Residential District does not include the conservation of 30-50% of the buildable land on site for a permanent open space, protecting environmental features, tree stands or outstanding viewsheds.

Motion by: Roger Bess
Second by: Josh Prizer
Action: The Planning Board voted in favor of the motion (8-1).
Nay: Tom Urqhart
Approved: all others

Motion:
Motion to recommend that the Town Council ***deny*** Zoning Map Amendment Petition #24-REZ-07 to change the zoning of 21.62 acres of Wake County PIN #0638011513 & #0638021524 from RR: Rural Residential to SR-CD: Suburban Residential Conditional District to include the adopted Plan Consistency Statement and Recommendation, to the Town Council.

Motion by: Roger Bess
Second by: Craig Kessler
Action: The Planning Board voted to deny the motion (7-2).
Nay - Tom Urqhart and Rick Madoni
All others approve

c. Development Services Report

Ms. Kempin provided updates about the Tree Advisory Committee
Town Council official action overviews:
Grigsby Ave went to TC and was approved.

d. Other Business

none

Agenda Item #12: Adjournment

Motion:
Motion to adjourn.

Motion by: Josh Prizer
Second by: Joe Cuccurollo

Action: The Planning Board voted in favor of the Motion (9-0)
Time: 8:45pm

Julie Nicewinter
Planning Board Clerk

Town of Holly Springs
Planning Board
7:00 PM **Tuesday, January 27, 2026**
Regular Meeting
Holly Springs Town Hall Council Chambers
128 S. Main Street, 2nd Floor

Agenda

Call to Order

Roll Call

Pledge of Allegiance

Invocation

Agenda Adjustment

Approval of Minutes

1. November 19, 2025 Regular Meeting Minutes

Town Council Meeting Representative

Public Comment

Notes on the Comment Period -Each speaker may speak up to 3 minutes, and the total comment period will be 15 minutes or less. Citizens should sign up with the Town Clerk to speak prior to the start of the meeting. Although the Council is interested in hearing your concerns, speakers should not expect Council action or deliberation on subject matter brought up during the Public Comment segment. Topics requiring further investigation will be referred to the appropriate town officials or staff and may be scheduled for a future agenda. Thank you for your consideration of the Town Council, staff, and other speakers.

-Each speaker may speak up to 3 minutes, and the total comment period will be 15 minutes or less. Citizens should sign up with the Town Clerk to speak prior to the start of the meeting. Although the Council is interested in hearing your concerns, speakers should not expect Council action or deliberation on subject matter brought up during the Public Comment segment. Topics requiring further investigation will be referred to the appropriate town officials or staff and may be scheduled for a future agenda. Thank you for your consideration of the Town Council, staff, and other speakers.

Zone Map Change Petitions

2. 24-REZ-07 Mira Ridge Rezoning

Major Subdivision Plans

3. 25-MAS-04 975 Avent Ferry Major Subdivision Plan

Other Business

4. Town Council Official Action Overview

5. Committee Reports

6. Development Services Report

7. Other Business

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

Holly Springs Planning Board

Planning Board Meeting Agenda Cover Sheet

Agenda Item#: 1.

New Business
Title: November 19, 2025 Regular Meeting Minutes
Strategic Priority Area: Growth Management & Economic Vitality
Staff Resource: Mackenzie Fretz, Development Services

Action(s):

- Approve November 19, 2025 minutes

Explanation:

Background:

Funding Source(s):

Attachment(s):
1. Nov19_2025_PB_Minutes-DRAFT

Town of Holly Springs
PLANNING BOARD MEETING MINUTES
Wednesday November 19, 2025 - 7:00 p.m.

Agenda Item #1, 2, 3 & 4:

The Planning Board of the Town of Holly Springs met for their regularly scheduled meeting on **November 19, 2025.** At 7:00 p.m. after determining a quorum was present, Chair Madoni called the meeting to order.

Staff Members Present:	Sean Ryan, Planning Division Manager Cheryl Caines, Senior Planner Sarah Lipkin Sularz, Senior Planner Grayson Taylor, Planner III Catherine Jacobs, Engineering Manager Jay Osborne, Assistant Town Attorney Mackenzie Fretz, Board Clerk

The Board completed roll call.

Members Present:	Rick Madoni, *Chair* Roger Bess, *ETJ* Josh Prizer Van Crandall Joanna Holder Sara Kempin Craig Kessler
Members Absent:	Thomas Urquhart, Vice-Chair Joseph Cuccurullo

The Board recited the Pledge of Allegiance, and the meeting opened with an invocation by Rick Madoni

Agenda Item #5: Agenda Adjustment

There were no agenda adjustments.

Agenda Item #6: Minutes

a. *October 28, 2025 Minutes*

Motion:

Motion to approve the October 28th, 2025 Planning Board Minutes.

Motion by: Josh Prizer
Second by: Craig Kessler
Action: The Planning Board vote in favor of the motion (6-0) Mr. Crandall excused himself from this vote.

Agenda Item #7: Town Council Representative

a. Planning Board Representation for Town Council

December 2 – *Joanna Holder*
December 16 – *Rick Madoni*
January 20 – *Craig Kessler*

Agenda Item #8: Public Comment Period

There was a public comment via email that was provided to the Board.

Agenda Item #9a: Zone Map Change Petition

Grigsby Ave Residential Rezoning 25-REZ-07

Grayson Taylor and Catherine Jacobs present the staff report to the Board.

Applicant / Speaker:

Jon Keener
3717 National Drive
Suite 209
Raleigh, NC 27612

Courtney McQueen
16 Consultant Place,
Suite 201
Durham NC 27707

Matt Jones
5708 Williamsburg Way
Durham NC 27713

Mr. Keener and Ms. McQueen presents the applicant report to the Board.

Mr. Kessler expresses concerns regarding the inclusion of townhomes in the proposed development and asks whether single-family homes are considered as an alternative. Ms. McQueen responds that single-family homes are evaluated; however, the applicable zoning requires the incorporation of townhomes into the project.

Mr. Bess requests clarification on the total acreage of the development. Ms. McQueen confirms that the project encompasses approximately 5.8 acres. Mr. Bess follows with concerns related to overall density, the amount of buildable area within the project boundary, and comparisons to surrounding neighborhoods.

Referring the Planning Board to the provided renderings, Ms. McQueen explains that the squares represent buildable areas but do not necessarily indicate the placement of a home. She adds that the development team considers the character of adjacent areas and the long-term vision for the project while preparing their plans.

Mr. Bess requests illustrations of the proposed two- and three-unit townhome configurations. Ms. McQueen states that similar concerns are raised by Town Council, prompting the development team to revise their plans and include these illustrations for the Board's review.

Ms. Kempin inquires about the distance between the proposed townhomes and nearby wetlands and asks about the flood study for the site.

Mr. Jones, serving as the engineering consultant, addresses the Board and confirms that a flood study is completed for the property. He indicates on the site plan that the one-hundred-year flood line lies outside the rear boundary of the proposed lots.

Mr. Madoni asks whether the preservation of trees within the northern buffer represents an adjustment based on public hearing feedback. Ms. McQueen states that this concern arises during a neighborhood meeting, and the development team seeks to collaborate with neighboring residents to provide additional screening to address buffer concerns.

Mr. Madoni then asks staff whether the project aligns with the Town's transportation bond project. Staff explains that the Comprehensive Transportation Plan (CTP) is updated during or shortly after the project's design phase. The roadway cross-section for Grigsby Road remains largely consistent between the previous and current versions of the CTP. The only significant change introduced in the 2022 update is the addition of on-street parking on the Womble Park side to increase parking capacity for park visitors.

Mr. Madoni also inquires about ensuring that these parking spaces function as overflow parking for Womble Park rather than long-term or continuous parking for nearby residents or commuters. Staff responds that coordination with the Police Department can support monitoring and enforcement of appropriate use. Any enforcement measures must comply with Town Code, and staff will review applicable ordinances to ensure alignment with the intended parking usage.

Mr. Bess requests clarification regarding the zoning implications of the proposal. Mr. Taylor explains that the action pertains to the Comprehensive Plan and Future Land Use Map and does not, by itself, alter zoning. Any zoning changes require a separate review and approval process.
The Board moves to motion.

Motion:
Staff Recommended Plan Consistency Statement
The requested Zoning Map Amendment from NR Neighborhood Residential to NR-CD Neighborhood Residential Conditional Zoning District is inconsistent with the Vision Holly Springs Comprehensive Plan since the Future Land Use Plan Map indicates this property as Residential Neighborhood, and this project proposes housing types other than detached dwellings. However, the requested rezoning is reasonable and in the public interest because it fulfills other goals and objectives of the Comprehensive Plan, including a mix of housing types, increased safety, and infill development in an appropriate location.

Motion by: Sara Kempin
Second by: Joanna Holder
Action: The Planning Board voted in favor of the motion (7-0).

Motion:
Motion to recommend that the Town Council approve/deny Zoning Map Amendment Petition 25-REZ-07 to change the zoning of 5.82 acres of Wake County PIN #0658086641 from NR Neighborhood Residential to NR-CD Neighborhood Residential Conditional Zoning District, thereby amending the Future Land Use Map from Residential Neighborhood to Mixed Residential Neighborhood, as submitted by Qunity, and to forward the Planning Board Action Report, to include the adopted Plan Consistency Statement and Recommendation, to the Town Council.

Motion by: Josh Prizer
Second by: Craig Kessler
Action: The Planning Board voted in favor of the motion (7-0).

Agenda Item #10a: Committee Reports

LUAC (Joseph Cuccurullo / Josh Prizer)
December 2 – Canceled

Tree Advisory Committee (Joanna Holder / Sara Kempin)
- Street Replacement Grant Program: **$45k**
- Total: 93 applicants for 138 tree replacements.
- Current: 61 applications approved, 81 trees to be replaced, average reimbursement $560.

Agenda Item #10b: Town Council Official Action Overview

Staff went over updates and approvals from the last Town Council meeting.

Agenda Item #10c: Development Services

- Application Period open through December 1
- 3 terms for appointment
- Expiring Terms:
  - Van Candall
  - Joe Cuccurullo
  - Roger Bess (ETJ)

Agenda Item #10d: Other Business

The next Planning Board meeting is scheduled for December 17, 2025, rescheduled due to the holidays.

Mr. Crandall asks staff for more context on presenting to Town Council and suggestions for LUAC.

Agenda Item #11: Adjournment

Motion:
Motion to adjourn.

Motion by: Josh Prizer
Second by: Joanna Holder
Action: The Planning Board voted in favor of the Motion (7-0)
Time: 7:58 pm

_____
Mackenzie Fretz
Planning Board Clerk

Holly Springs Planning Board

Planning Board Meeting Agenda Cover Sheet

Agenda Item#: 2.

Development Services
Title: 24-REZ-07 Mira Ridge Rezoning
Strategic Priority Area: Growth Management & Economic Vitality
Staff Resource: Brett Gosney, Development Services, Elliot Blonshine, Development Services

Action(s):

- Adopt Consistency Statement.
- Recommend the Town Council approve/deny 24-REZ-07 from RR Rural Residential to SR-CD Suburban Residential Conditional Zoning District, and to forward the Planning Board Action Report, to include the adopted Plan Consistency Statement and Recommendation, to the Town Council.

Explanation:

- The Town has received a Conditional District Rezoning Option 1 request to rezone the property from RR Rural Residential to SR-CD Suburban Residential Conditional Zoning District to allow for a 44-dwelling unit conventional Subdivision.
- Option 1 Conditional District Rezoning allows the applicant to combine the Major Subdivision with the rezoning application in order to provide the Town Council and general public with specific development proposal information while also providing a faster process for the applicant. If approved, this option allows the applicant to submit Construction Drawings for the project.
- The proposed rezoning area consists of 21.62 acres located at 3020 Avent Ferry Road adjacent to the Lochridge subdivision.
- The proposed subdivision will have a density of 2 units an acre with an average lot size of 10,010 sq. ft.
- The rezoning as proposed is inconsistent with the Comprehensive Plan, however, the applicant is requesting a change to the Future Land Use Map designation from Conservation Subdivision to Residential Neighborhood to be consistent with the adjacent Lochridge Subdivision.

Staff Recommendation: Approve

Town Council Public Hearing

- The legislative public hearing process for Type 6 reviews, including rezoning, is prior to the Planning Board review and recommendation.
- The public hearing was held on May 20, 2025. A link to the public hearing video is included in the staff report.

- During the Public Hearing, the applicant received feedback from residents and Town Council regarding the original proposed development being inconsistent with the neighboring Lochridge subdivision from a density and design perspective. As a result, the applicant has amended their application to address the noted concerns.

Changes made following the Public Hearing

- The applicant has since made significant changes to the application that include increasing the lot sizes, reducing the number of proposed lots, improving the buffer along Avent Ferry Rd., and changing the proposed product type to be more consistent with the adjacent Lochridge subdivision.
- The applicant is requesting to change the Future Land Use Map designation from Conservation Subdivision to Residential Neighborhood.

Background:

- The Town Council adopted an amendment to the Unified Development Ordinance (UDO) in 2024 that updated the process for legislative cases such as rezoning and UDO Amendments.
- Included in this update was a change to the timing of the public hearing - changing the public hearing to occur prior to the Planning Board meeting instead of immediately prior to the Town Council decision.
- In accordance with the updated process, consideration of these amendments will take place on the following schedule:
    - Tuesday, May 20, 2025 - Town Council Public Hearing
    - Tuesday, January 26, 2026 - Planning Board review and recommendation
    - Tuesday, February 17, 2026 - Town Council consideration and decision
- This parcel was rezoned in 2022 from R:30 Residential to RR Rural Residential as a part of the Town-wide adoption of the Unified Development Ordinance.

Funding Source(s):

N/A

Attachment(s):

1. 24REZ07_MiraRidge_StaffReport_PB
2. 24REZ07_Application
3. 24REZ07_WakeCountyLetter_Mira Ridge
4. 24REZ07_Planset

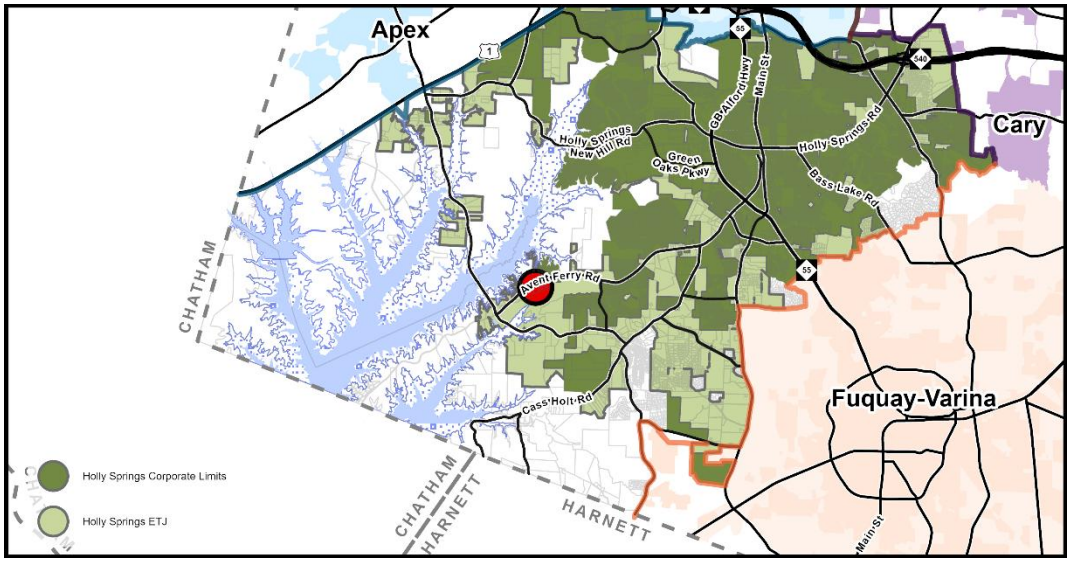
Project Type: Zoning Map Amendment (Rezoning)
Conditional Zoning District
Detailed Plan (Option 1)

Concurrent Applications:
☒ CPA

Applicant/Petitioner: Priest, Craven, and Associates, Inc. on behalf of Mira Developers, LLC

Property Address: 3020 Avent Ferry Rd.

Property Area: 21.62 ac.



Located in: ☐Holly Springs Corporate Limits ☒Holly Springs ETJ ☒Annexation Pending

Project Summary:

A rezoning of 21.62 acres from RR Rural Residential to SR-CD Suburban Residential Conditional Zoning District Conventional Subdivision location at 3020 Avent Ferry Rd.

Requested Action:

Advisory Decision: The Planning Board will review the petition and make a recommendation to the Town Council to approve or deny the requested Zoning Map Amendment petition.

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Case Summary

Current Zoning:
RR Rural Residential
☐ Conditional Zoning District

Proposed Zoning:
SR Suburban Residential
☒ Conditional Zoning District

Aerial Photograph

Growth Strategy Map:
Places to Enhance

Small Area Plan Designation:
N/A

Future Land Use Plan Designation:
Conservation Neighborhood

Staff Analysis:

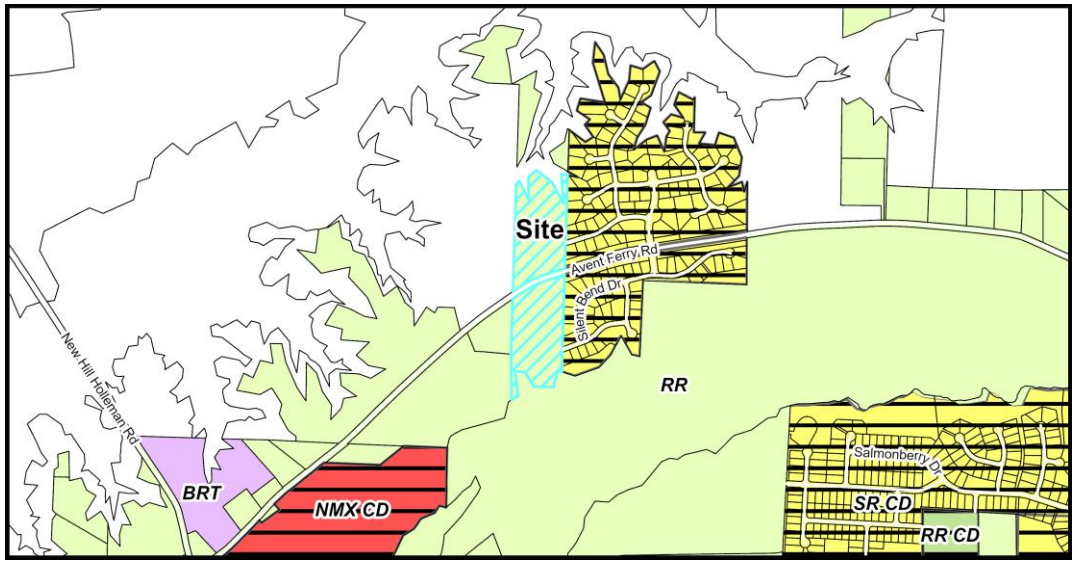
The Zoning Map Amendment is: ☐ Consistent with Adopted Plans/Ordinances ☒ Inconsistent with Adopted Plans/Ordinances

The proposed Conditional Zoning District for a SR-CD Suburban Residential Conditional District offers detached dwellings on an average lot size of 10,000 sf with a few Unified Development Ordinance (UDO) modifications. The proposed Conditional Zoning District does fail to meet several of the goals for a Conservation Neighborhood as shown within the Comprehensive Plan, however, the applicant is requesting to modify the Future Land Use Designation to Residential Neighborhood. This designation is requested in order to provide a neighborhood with larger lots at a density that is more compatible with the adjacent Lochridge Neighborhood. Staff finds the modifications to the plans made by the applicant are more consistent with land use patterns in the area and that the requested Future Land Use designation is reasonable and in the public interest.

Staff Recommendation: ☒ Approve ☐ Deny

Current Zoning Information

Parcel #	Zoning	Area
0638021524	RR	10.75 ac.
0638011513	RR	10.87 ac.
	Total Area	**21.62 ac.**



Current Zoning Map

Adjacent Property Current Zoning Information

	Zoning	Existing Land Use
Subject Property	RR Rural Residential	Vacant
North	Wake County R-80	Vacant
South	RR Rural Residential	Vacant
East	SR-CD Suburban Residential Conditional District	Single Family Subdivision
West	RR Rural Residential	Vacant

Parcel Rezoning History

Rezoning Number: 22-REZ-01 (Zoning Reassignment)
Original Zoning: R-30
Approved Zoning: RR Rural Residential
Approval Date: March 1, 2022

Land Use & Character Information

Vision Holly Springs Comprehensive Plan Section 1

Growth Strategy Map: Places to Enhance

Future Land Use: Conservation Neighborhood

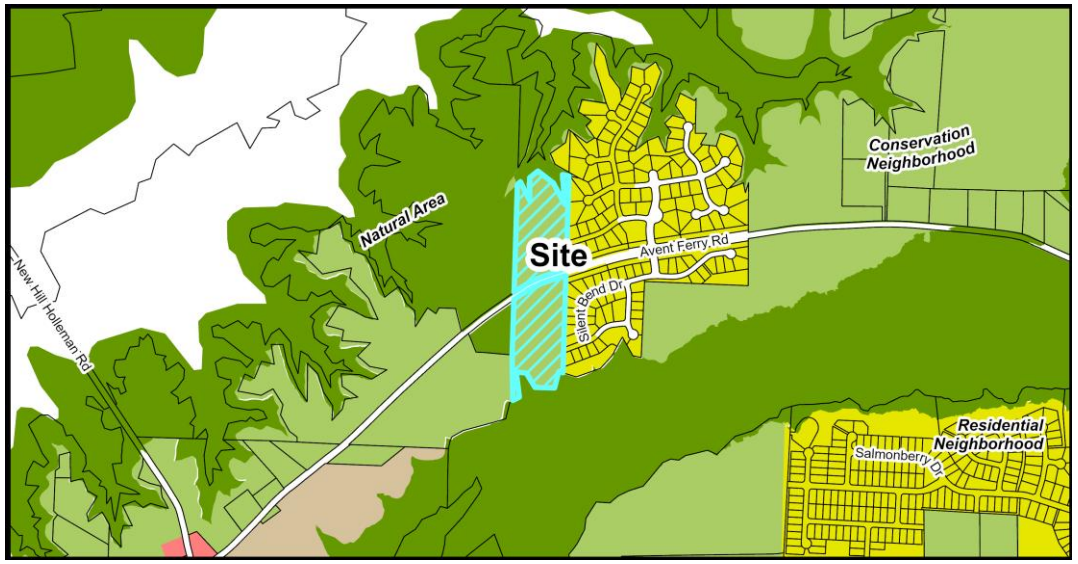
Small Area Plan: N/A

The Requested Zoning Map Amendment is:

☐ **Consistent with the Future Land Use Map**

☒ **Inconsistent with the Future Land Use Map**

If a Zoning Map Amendment is adopted and the action is deemed inconsistent with the Future Lane Use Map, the Zoning Map Amendment has the effect of also amending the Future Land-use Map.



Future Land Use Map

Important Themes for Transforming Holly Springs:

Eight important themes for Holly Springs are highlighted as high-priority principles for transforming the Town. The following theme(s) should be considered with this request:

Theme	Description
☐ Establish Mixed-Use Activity Centers Throughout Holly Springs	Mixed-use and walkable development
☐ Suburban Remix	Activate neighborhood centers
☐ Suburban Retrofit	Redevelop existing centers into mixed-use, multi-modal, activated centers
☒ Context-Sensitive Infill Development Choices	Infill around single use residential areas
☒ Transitions	Complement existing development and avoid incompatibilities
☒ Increase Home & Neighborhood Choices in Holly Springs	Variety of integrated housing products
☐ Increase Diversity & Affordability of Housing in Holly Springs	Adequate supply of affordable housing
☐ More Transportation-Land Use Coordination in the Community	Equal emphasis on land use (demand), transportation (supply) and urban design (character)

Land Use & Character Information (cont.)

Growth Strategy Map: Places to Enhance
Places to enhance in Holly Springs celebrate existing and future residential neighborhoods, and the small activity centers that serve them, as the building blocks for a strong community. They generally include Conservation Neighborhoods, Residential Neighborhoods with single dwelling detached homes on varying lot sizes, or Mixed Residential Neighborhoods with two or more home types (single dwelling detached, single dwelling attached, and multi-dwelling) in the same development. Future infill development in the enhancement areas should be sensitive to the uses and densities along the perimeter of adjacent neighborhoods.

Future Land Use: 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 Characteristics of a Conservation Neighborhood

- 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.
- New residential uses have off-street parking in the rear of the lot to enhance the streetscape and walkability.
- Lot width and depth is variable, with larger lots near the edges of the neighborhood and smaller lots near the center.
- 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.

Small Area Plan: N/A

Historic Structures: ☒ None

Land Use & Character Information (cont.)

Land Use & Character Staff Analysis:

The Zoning Map Amendment is: ☐ Consistent ☒ Inconsistent with the Land Use & Character Plan/Ordinances

The applicant is requesting consideration of rezoning to Suburban Residential Conditional District, which, according to the Unified Development Ordinance (UDO), is a district that can be compatible with the Conservation Neighborhood Character Area if the applicant can demonstrate, through the proposed conditions or development commitments, that the intent of the Character Area designation has been achieved. Staff's analysis finds the proposed zoning district and subdivision plan is inconsistent with the Town's Comprehensive Plan. Conservation Neighborhoods are intended to preserve 30-50% 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. The proposed Conditional Zoning District does not preserve 30-50% of the buildable land on the site and does not protect environmental features, tree stands or outstanding viewsheds.

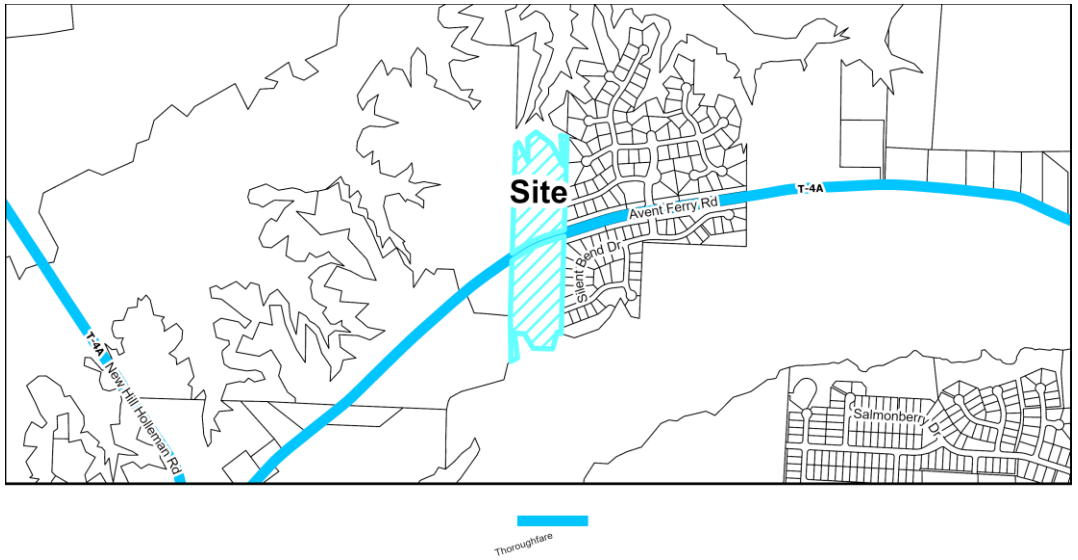
Although inconsistent with the Character Area designation, the applicant is requesting a change the Character Area Designation from Conservation Neighborhood to Residential Neighborhood in order to develop a neighborhood that is more compatible with the adjacent Lochridge Neighborhood. Staff's analysis finds the applicant's requested Future Land Use change to Residential Neighborhood is reasonable as it will allow for a residential neighborhood to be more consistent with the adjacent Lochridge Neighborhood, which also currently has the Character Area Designation of Residential Neighborhood. The changes made to the application include increasing the lot size, reducing the number of proposed lots, improving the buffer along Avent Ferry Rd. and changing the proposed product type is more compatible with current land use patterns.

Transportation Information

Vision Holly Springs Comprehensive Plan Section 2

Comprehensive Transportation Plan

Road Widening along Project Frontage	☒ Required ☐ Not Required
New Location Roadways	☐ Required ☒ Not Required
Hotspot/Safety Study Location	☐ Yes ☒ No



Roadway Map

Comprehensive Transportation Plan Summary

Road Widening along Project Frontage:
In accordance with the Unified Development Ordinance and Comprehensive Transportation Plan, road widening is required across the property frontage of Avent Ferry Road. Since this project is proposing to develop on both sides, the project will construct the full cross-section.

New Location Roadways:
There are no new CTP Roadways on this parcel. The project will, however, construct an internal road network that connects to the existing road stubs at the Lochridge Subdivision. The site access drives on Avent Ferry Road will be aligned and have full access with a median break.

Hotspot/Safety Study Location:
There are no Hotspot/Safety studies adjacent to this parcel.

Improvement Prioritization:
N/A

Transportation Information (cont.)

Traffic Study Policy

☒Traffic Study Required ☐Tier 1
☒Tier 2
☐Tier 3
☐Traffic Verification Memo

Traffic Study Summary
A Traffic Impact Analysis (TIA) and associated Transportation mitigation Agreement was completed with the rezoning petition. This development is required to adhere to and construct all recommended improvements within the approved TIA as follows:

Avent Ferry Road and Site Access 1:

- Each of the site access drives will be constructed with one (1) ingress land and one (1) egress lane.
- Provide stop control for the northbound and southbound approaches.

Frontage Widening along Avent Ferry Road:

- Widen the section of Avent Ferry Road and along the site frontages based on the CTP's ultimate cross-section standards (T-4A, 4-lane median divided).

Transportation Staff Analysis:

The Rezoning/Major Subdivision Plan is: ☒ Consistent ☐ Inconsistent with the Comprehensive Transportation Plan/Ordinances

The mitigation improvements within the Transportation Mitigation Agreement set forth by the Traffic Impact Analysis are consistent with the Comprehensive Plan and Traffic Study Policy.

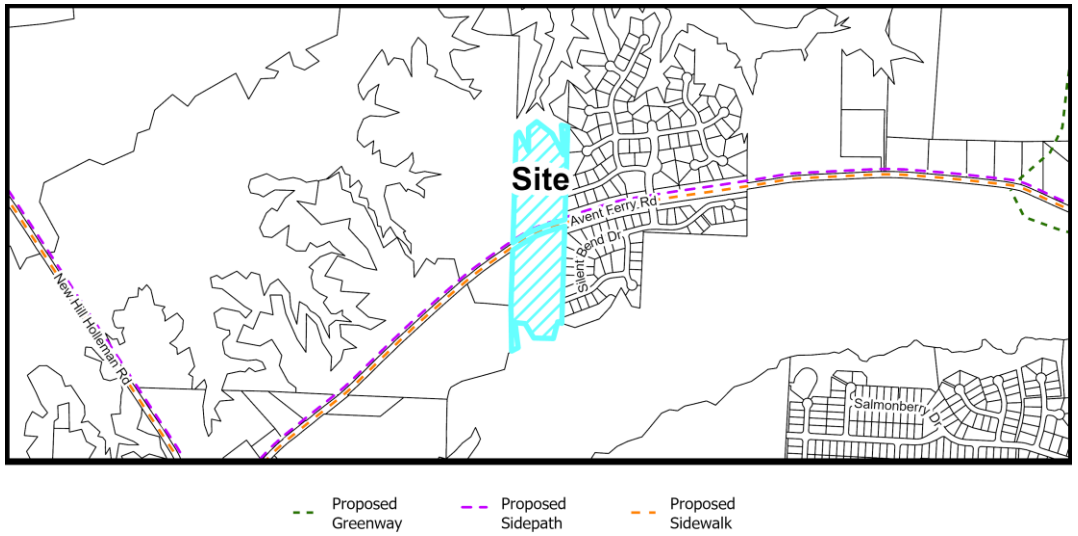
Parks, Recreation, & Greenways Information

Vision Holly Springs Comprehensive Plan Section 3

Park Search Area

☐ Yes

☒ No



Active Transportation Map

Required Active Transportation Improvements

☐ Greenway ☒ Sidepath

A 10-ft wide sidepath will be constructed on the south side of Avent Ferry Road as part of the road widening improvements in accordance with the Parks, Recreation & Greenways Master Plan.

Parks, Recreation, & Greenways Summary

A 10-ft wide sidepath will be constructed on the south side of Avent Ferry Road as part of the road widening.

Parks, Recreation, & Greenways Staff Analysis:

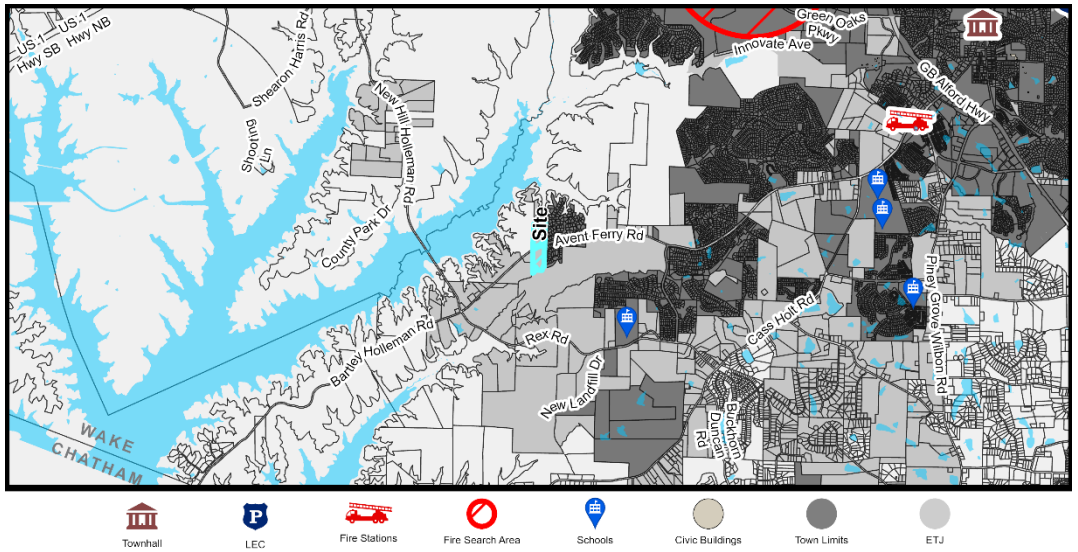
The Zoning Map Amendment is: ☒ Consistent ☐ Inconsistent with the Parks, Recreation & Greenways Master Plan/Ordinances

The site is not within a park search area; therefore, public park land dedication is not required. A fee-in-lieu will be required. The applicant has proposed a sidepath along the south side of Avent Ferry in accordance with the Parks, Recreation, & Greenways Master Plan.

Community Facilities Information

Vision Holly Springs Comprehensive Plan Section 4

Population growth increases demand for public services. In order to fulfill this demand, community facilities must be appropriately planned for and constructed. These facilities may range from additional public safety stations, such as police and fire, to new schools to handle the influx of school-aged children into an area.



Community Facilities Map

WCPSS Coordination

A Letter of Impact from Wake County Public School System (WCPSS) was received for this rezoning and is included in the attachments.

Schools at the following grade levels within the current assignment area for the proposed rezoning are anticipated to have insufficient capacity for future students; transportation to schools outside of the current assignment area should be anticipated:

☐ Elementary ☐ Middle ☐ High School ☒ N/A: All grade levels are anticipated to have sufficient capacity

The following mitigation of capacity concerns due to school construction or expansion is anticipated:

☐ School expansion or construction within the next five years is not anticipated to address concerns.

☐ School expansion or construction within the next five years may address concerns at these grade levels:

☐ Elementary ☐ Middle ☐ High School

☒Not applicable – existing school capacity is anticipated to be sufficient.

Community Facilities Staff Analysis:

The requested Zoning Map Amendment is: ☒ Consistent ☐ Inconsistent with the Community Facilities Plan

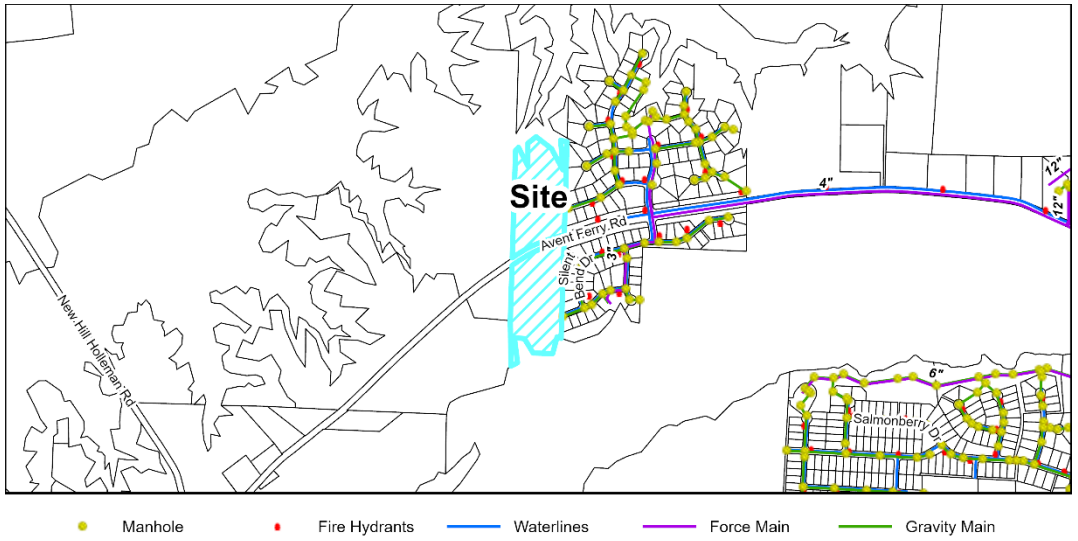
The subject property is outside of a search area for a public safety station as designated on the Community Facilities Map under the Compreheniave Plan in place at the time of application. The site is within the new plan's facility map for Station #5. As a project proposing residential units, the applicant is required to report the potential number of units to the Wake County Public School System for their facility planning.

Infrastructure & Utility Information

Vision Holly Springs Comprehensive Plan Section 5

Utility Availability

Water	☐ Yes ☒ No ☒ Study Required
Sanitary Sewer	☐ Yes ☒ No ☒ Study Required
Reclaim	☐ Yes ☒ No ☐ Study Required



Utility Map

Infrastructure & Utility Summary

Water:

The project is required to extend Municipal Water across the property's frontage of Avent Ferry Road and throughout the project site to serve the proposed development. The waterline extension will be installed by the developer in accordance with Towns Policies. A Fire Flow Analysis was completed and determined water pressure is adequate within the Town's system with the addition of this project.

Sanitary Sewer:

This project is required to extend Municipal Sewer to serve the proposed development. Sewer is proposed to tie into the existing gravity sewer manhole stubbed along the property line with the development of the Lochridge subdivision. A downstream sewer study, including a pump station capacity analysis for the two existing pump stations, was completed and concluded that the existing pump stations have adequate capacity to serve the Mira Ridge Development.

Reclaim:

This project is outside of the reclaimed service area.

Infrastructure & Utility Information (cont.)

Water Resource Management (WRMP) Policy

☒ WRMP Applicable	☐Tier 1	Allocation Elements	☒ Public Infrastructure Improvements
☐ WRMP Not Applicable	☒Tier 2		☐ Sustainable Design
	☐Tier 3		☐ Work Force Housing
			☒ Open Space/Tree Preservation

Water Resource Management Policy Summary
This project is subject to the Water Resource Management Policy and has provided a Utility Allocation Request to be considered by Town Council. This development has committed to two allocation elements as required by the Policy as a Priority Level 2. The first is Public Infrastructure Improvements, which includes the construction of vegetated stormwater wetlands as an alternative to wet ponds. The second is Open Space and Tree Preservation, with a commitment to preserve 10% of the specimen trees on the site.

Utility Allocation Summary

Priority Level: Priority Level # 2
Allocation Assignment: Residential
Allocation Requested: # 15,300 GPD

Staff Determination: Sufficient allocation is remaining in the Residential-Single Family assignment to support this project for the proposed build out year of 2028.

Infrastructure & Utility Staff Analysis:

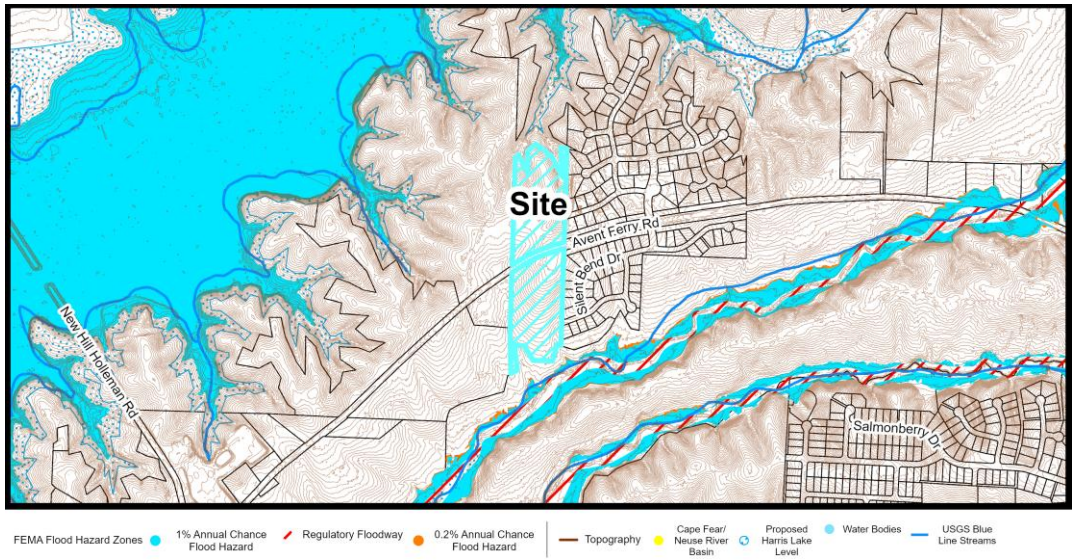
The Zoning Map Amendment is: ☒ Consistent ☐ Inconsistent with the Infrastructure & Utilities Plan/Ordinances

The proposed extensions of water and sanitary sewer are consistent with the UDO. The allocation elements selected and committed by the applicant are consistent with the Water Resource Management Policy.

Natural Resources & Open Space Information

Vision Holly Springs Comprehensive Plan Section 6

Total Required Open Space	**6.49 ac.**
Tree Preservation Area	4.23 ac.
Active Recreation Area	1.13 ac.
Urban Civic Space	N/A
Flexible Space	1.13 ac.



Natural Resources Map

Natural Resources & Open Space Summary

Open Space:

The applicant has proposed 8.33 acres of private open space on site, including 4.47 acres of tree preservation and play area pocket parks (1.32 acres). Additionally, the application is utilizing half of the Stormwater Control Measure (SCM) towards the open space requirement which is allowable with the UDO; walking trails are provided around the SCMs. The majority of the site and open space areas are improved. The project does not meet the requirement of the Comprehensive Plan to preserve 30-50% of the buildable land.

Stormwater:

The project is located within the Cape Fear River Basin and is proposing to treat all new impervious surfaces onsite with Stormwater Control Measures. There are several jurisdictional features located on and adjacent to the site such as floodplains, wetlands, streams and Riparian buffers. The proposed Stormwater Control Measures will be constructed as vegetated wetlands in lieu of wet ponds, as an allocation element per the Water Resource Management Policy.

Natural Resources & Open Space Staff Analysis:

The Zoning Map Amendment is: ☐ Consistent ☒ Inconsistent with the Natural Resources Plan/Ordinances

While the project is proposing 35% open space in line with the UDO requirement for a Conservation Subdivision, the intent of preserving buildable land in line with the Character Area Designation of Conservation Neighborhood has not been met. The proposed change to Character Area Designation to Residential Neighborhood would make the open space that is proposed consistent with the UDO and Comprehensive Plan.

Conditional Zoning District Standards Information

Unified Development Ordinance

Conditional Zoning Districts (CD) are intended to provide flexibility within the planning and development process, while creating additional controls to ensure quality development. The Conditional District allows the applicant the option of requesting this flexibility in exchange for higher quality, innovative, and sustainable development.

CD Design Goals. CD proposals shall demonstrate that the project and development therein will incorporate and/or achieve the following design goals:

1. The incorporation of existing natural features such as wooded areas and slopes into the design of new development in such a manner as to preserve the site's natural character;
2. The preservation of significant view corridors; development of out-lying areas of the Town and its Extraterritorial Jurisdiction in a manner which retains elements of traditional historical land use patterns;
3. Development of pedestrian oriented communities; development of traditional style neighborhoods;
4. Development of communities that are visually and functionally connected to one another;
5. Protection of significant watershed areas in order to preserve water quality;
6. Creativity and imagination in the process of development;
7. Unique architecture or sustainable design;
8. Efficient, aesthetic and desirable use of open space;
9. Variety in housing types and physical development patterns; and,
10. Special considerations for property with a unique history or outstanding physical features.

Conditional Zoning District & Development Standards Summary

Development Standards (UDO Section 2):

Density	**UDO Standard**	**Proposed Standard**
Number of Dwelling Units	86	44
Maximum Density	4 w/CD	2

Building Placement	**UDO Standard**	**Proposed Standard**
Side – Corner Setback	20'	10'
Side - Interior	10'	5'

Building Height	**UDO Standard**	**Proposed Standard**
Maximum Building Height	35'	35'

Landscaping (UDO Section 5):

	UDO Standard	Proposed Standard
Perimeter Buffers		
Thoroughfare Buffer	5' Type A	50' Type C
North	5' Type A	10' Type B
East	5' Type A	5' Type A
South	5' Type A	5' Type A
West	5' Type A	5' Type A
Street Trees		
	Thoroughfare: Trees on private property within 5 ft of the right-of-way	Thoroughfare: Trees on private property within 5 ft of the right-of-way

Conditional Zoning District Standards Staff Analysis

The Zoning Map Amendment is: ☒ Consistent ☐ Inconsistent with Conditional Zoning District Standards/Ordinances

The applicant previously proposed development containing small lots with an average lot size of 5,500 sq ft, with the smallest lots being approximately 4,900 sq ft and the largest approximately 8,900 sq ft. The proposed density of this development was 2.8 units an acre. During the Public Hearing, the applicant received feedback that the proposed development was too dense and inconsistent with the surrounding developments. Since this Public Hearing, the applicant has made changes to the application to increase the lot sizes, reduce the density, and overall make the project more consistent with the surrounding developments. The proposed development contains lots with an average size of 10,010 sf with the smallest lots being approximately 7,500 sf and the largest at approximately 14,000 sf. The proposed gross density is 2 units per acres.

Standard	Previously Proposed Mira Ridge	Currently Proposed Mira Ridge	Existing Lochridge
Density	2.8 u/a	2 u/a	1.71 u/a
Total Lots	60	44	129
Minimum Lot Size	4,777 sf	7,500 sf	10,000 sf
Max Lot Size	7,386 sf	14,000 sf	+/- 36,000 sf
Average Lot size	5,515 sf	10,010 sf	16,928 sf
Lot Width	35-45 ft	60 ft	70 ft

*Please see Exhibit 1 below for lot layout comparisons between previously and currently proposed Mira Ridge.

The proposed development has also modified the buffer along Avent Ferry Road to a 50' Type C buffer to be more consistent with the adjacent buffer that is along the frontage of existing Lochridge Subdivision. This creates a similar buffer along the frontage and keeps a consistent look for those traveling along Avent Ferry Road. The proposed development no longer includes rear accessed Charleston Style detached dwellings and is now providing lot sizes and product types that are more consistent with the adjacent subdivisions.

Decision-Making Information

Comprehensive Plan and Conditional Zoning District Consistency Summary Table

Vision Holly Springs Comprehensive Plan	
Land Use & Character Plan/Ordinances (Section 1)	☐ Consistent ☒ Inconsistent
Comprehensive Transportation Plan/Ordinances (Section 2)	☒ Consistent ☐ Inconsistent
Parks, Recreation & Greenways Master Plan/Ordinances (Section 3)	☒ Consistent ☐ Inconsistent
Community Facilities Plan/Ordinances (Section 4)	☒ Consistent ☐ Inconsistent
Infrastructure & Utilities Plan/Ordinances (Section 5)	☒ Consistent ☐ Inconsistent
Natural Resources Plan/Ordinances (Section 6)	☐ Consistent ☒ Inconsistent
Unified Development Ordinance	
Conditional Zoning District Standards/Ordinances	☒ Consistent ☐ Inconsistent

Zoning Map Amendment (Rezoning) Staff Analysis
The applicant must demonstrate that the proposed Zoning Map Amendment and property owner offered conditions (if any) or unique conditions associated with this request support the Town's Comprehensive Plan objectives and/or Ordinances and why the proposed zoning change is reasonable and in the public interest. The applicant has provided a statement in the petition.

Staff has reviewed the application and has determined the requested Zone Map Change is:

☐ Consistent with Adopted Plans/Ordinances
☒ Reasonable and in the Public Interest
☐ Inconsistent with Adopted Plans/Ordinances
☐ Not Reasonable and in the Public Interest

The proposed Conditional Zoning District for a SR-CD Suburban Residential Conditional District offers detached dwellings on an average lot size of 10,000 sf with a few Unified Development Ordinance (UDO) modifications. The proposed Conditional Zoning District does fail to meet several of the goals for a Conservation Neighborhood as shown within the Comprehensive Plan, however, the applicant is requesting to modify the Future Land Use Designation to Residential Neighborhood. This designation is requested in order to provide a neighborhood with larger lots at a density that is more compatible with the adjacent Lochridge Neighborhood. Staff finds the modifications to the plans made by the applicant are more consistent with land use patterns in the area and that the requested Future Land Use designation is reasonable and in the public interest.

Staff Recommendation: ☒ Approve ☐ Deny

Previous Case Related Items

Land Use Advisory Committee Discussion
The LUAC discussed the initial concept for this project on February 4, 2025
Planning Board Representatives: Josh Prizer
Town Council Representatives: Chris Deshazor
Summary of Discussion:

- Traffic Calming is needed along Avent Ferry Rd. to allow for pedestrians to easily cross the street and access open space elements on both sides of the proposed subdivision.
  - Coordinating with NCDOT as early as possible will be required
- Concerns with the development being in the spirit and intent of conservation subdivision and preserve more of the developable land to further meet this intent.
  - Large portions of the open space are not useable. The applicant is encouraged to consider redesigning to make the open space more prominent and honor the intent of the conservation subdivision.
- Off site pedestrian connectivity to the future Neighborhood Centers located at the corner of Avent Ferry and Rex Rd. may be needed as this subdivision will be walkable to those destinations.
- There was an appreciation for the housing diversity, however, there are still some unknowns on exact the look of the homes and the applicant was encouraged to include additional elevations.
- Ensure that the site design is taking into account the adjacent existing Lochridge Subdivision, specifically with the adjacent buffers and the pedestrian connectivity

Neighborhood Meeting
The applicant must hold a neighborhood meeting with all property owners within 500 feet of the project prior to submitting an application. A report of the neighborhood meeting has been submitted and is included in the agenda item attachments.

Meeting Date: 11/4/2024
Summary of Issues:

- Concerns regarding the construction traffic on existing streets within Lochridge.
- Concerns regarding the buffer adjacent to the existing Lochridge Subdivision.

The applicant held an additional meeting with the Lochridge residents on 1/20/2026 to discuss the changes made to the application prior to the development moving forward to any additional board meetings.

Legislative Public Hearing

Public Hearing Date: 5/20/2025

Public Hearing Video: https://hollyspringsnc.portal.civicclerk.com/event/563/media (Public Hearing begins at 01:18:03)

Legislative Public Hearing Summary

Prior to the Legislative Public Hearing:

- Mailed notice has been sent to all property owners within 500 feet of the project.
- Published notice has been made twice in the News & Observer.
- Posted notice has been made with a public hearing sign on the property.

Public Hearing Discussion:

- Concerns regarding the density of the project and the consistency with the adjacent Lochridge Subdivision.
- Concerns regarding the project not meeting the intentions of a Conservation Subdivision.
- Concerns regarding the neighborhood not being consistent with the adjacent Lochridge Subdivision and the area as a whole.
- Concerns regarding the buffer along Avent Ferry Rd. not matching with what has already been constructed.
- Concerns regarding the lot sizes being less than 5,000 square feet.

Planning Board Consideration & Action

Per NCGS §160D-604(b), all proposed amendments to the Unified Development Ordinance (UDO) or Zoning Map shall be submitted to the Planning Board for review and comment. If no written report is received from the Planning Board within 30 days of referral of the amendment to the Planning Board, the Town Council may act on the amendment without the Planning Board report. The Town Council is not bound by the recommendations, if any, of the Planning Board.

Planning Board Decision Type: Advisory Decision

Advisory Decision
The Planning Board must review the application and make a recommendation to the Town Council.

The Planning Board should consider whether or not the land use standards and densities allowed in the proposed zoning district are appropriate for the property and consistent with the Vision of Holly Springs Comprehensive Plan. Technical standards of the Unified Development Ordinance are addressed once a Development Plan or Subdivision Plan is submitted for review.

Action #1: Zoning Map Amendment Plan Consistency Statement
The Planning Board must determine whether the Zoning Map Amendment is consistent or inconsistent with Vision Holly Springs Comprehensive Plan.

Per NCGS §160D-604(d), the Planning Board shall advise and comment on whether the proposed action is consistent with all applicable officially adopted plans, and provide a written recommendation to the Town Council that addresses plan consistency and other matters as deemed appropriate by the Planning Board, but a comment by the Planning Board that a proposed amendment is inconsistent with the officially adopted plans shall not preclude consideration or approval of the proposed amendment by the Town Council.

Motion to Adopt the following Plan Consistency Statement (choose the appropriate Plan Consistency Statement):

Option 1: Staff Recommended Plan Consistency Statement
The Planning Board may adopt the staff recommended Plan Consistency Statement or modify the staff recommended Plan Consistency Statement.

> The requested Zoning Map Amendment from RR Rural Residential to SR-CD Suburban Residential Conditional District is inconsistent with the Vision Holly Springs Comprehensive Plan since the Future Land Use Plan Map indicates this property as Conservation Neighborhood and the Suburban Residential District does not include the conservation of 30-50% of the buildable land on site for a permanent open space, protecting environmental features, tree stands or outstanding viewsheds. However, the requested rezoning, and concurrent request to modify the Future Land Use Map, is reasonable and in the public interest because the development provides a density, lot size, and overall development that is consistent with the adjacent areas.

Option 2: Alternate Plan Consistency Statement
The Planning Board may adopt an alternate Plan Consistency Statement using the guidance below.

☐ The requested amendment is **consistent** with Vision Holly Springs Comprehensive Plan

or

☐ The requested amendment is **inconsistent** with Vision Holly Springs Comprehensive Plan

for the following reasons:

_____

_____

_____

Option 3: Plan Consistency cannot be Determined
The Planning board is unable to agree by majority vote on whether the Zoning Map Amendment is consistent with Vision Holly Springs Comprehensive Plan.

Action #2: Zoning Map Amendment Petition Motion
The Planning Board must make a recommend to the Town Council on the Zoning Map Amendment.

Motion to recommend that the Town Council approve / deny Zoning Map Amendment Petition #24-REZ-07 to change the zoning of 21.62 acres of Wake County PIN #0638011513 & #0638021524 from RR: Rural Residential to SR-CD: Suburban Residential Conditional District, thereby amending the Future Land Use Map from Conservation Neighborhood to Residential Neighborhood, as submitted by

Mira Developers, LLC, and to forward the Planning Board Action Report, to include the adopted Plan Consistency Statement and Recommendation, to the Town Council.

Next Steps

Town Council Consideration & Decision

Town Council Decision: Legislative Decision

Legislative Decision:

Legislative public hearings are held prior to a change in policy that may affect the entire community, including decisions on land use. The public hearing allows the Town Council to receive public comments regarding the proposal and then have discussion and deliberation. Based on the information provided on the proposal, the Town Council will make a determination on whether or not to approve the policy or modification.

Anticipated Town Council Consideration and Decision: 2/17/2026

Exhibit 1

Mira Ridge Conditional Zoning District

62 Detached Dwelling 2.8 u/c
Alley Loaded
5,300 av lot size

44 Detached Dwellings 2.0 u/c
Front Loaded
10,010 av lot size

PETITION CONTACT INFORMATION *(Attach additional sheets if needed)* **Applicant and Financially Responsible Party will need to register for an account on the Portal.**	
Project Applicant Check One: ☐ Owner ☐ Owner's Agent ☑ Design Professional ☐ Developer ☐ Other	
Name: Thomas Craven	Company: Priest, Craven, and Associates, Inc.
Mailing Address: 6404 Falls of Neuse Road, Suite 201	
City, State, Zip: Raleigh, NC 27615	
Telephone: 919-781-0300	E-Mail: pca@priestcraven.com
Design Professional	
Name: Thomas Craven	Company: Priest, Craven, and Associates, Inc.
Mailing Address: 6404 Falls of Neuse Road, Suite 201	
City, State, Zip: Raleigh, NC 27615	
Telephone: 919-781-0300	E-Mail: pca@priestcraven.com
Developer	
Name:	Company:
Mailing Address:	
City, State, Zip:	
Telephone:	E-Mail:
Architect	
Name:	Company:
Mailing Address:	
City, State, Zip:	
Telephone:	E-Mail:
Landscape Architect	
Name:	Company:
Mailing Address:	
City, State, Zip:	
Telephone:	E-Mail:
Financially Responsible Party (REQUIRED)	
Name: Paragkumar H. Patel	Company: MIRA DEVELOPERS LLC
Mailing Address: 309 Brandywine Dr.	
City, State, Zip: Raleigh, NC 27607	
Telephone: 919-601-9221	E-Mail: paragpatelbaps@gmail.com
Property Owner (REQUIRED)	
Name: Paragkumar H. Patel	Company: MIRA DEVELOPERS LLC
Mailing Address: 309 Brandywine Dr.	
City, State, Zip: Raleigh, NC 27607	
Telephone: 919-601-9221	E-Mail: paragpatelbaps@gmail.com

HOLLY SPRINGS
North Carolina

REZONING PETITION

Rezoning, Comprehensive Plan Amendment, UDO Amendment

DPM Appendix #A.02 Supplement 20 September 2024

PETITION TYPE – each request must be a separate application in the Portal	
☐	Zoning Map Change – General Use District
☐	Zoning Map Change – Conditional Zoning District ☐ Option 1 Plan: Development Plan or Subdivision Plan (Preliminary Plat) ☐ Option 2 Plan: Master Plan
☑	Comprehensive Plan Amendment ☐ Text Amendment ☑ Future Land Use Map Amendment ☐ Small Area Plan Map Amendment
☐	UDO Text Amendment – UDO Section:

PROJECT INFORMATION https://www.hollyspringsnc.gov/742/Maps	
Project Name	Mira Ridge Subdivision
Project Location *Use street address. If none, use closest intersection*	0 and 3020 Avent Ferry Rd.
	☐Within Corporate Limits ☑ Within Holly Springs ETJ ☐ Pending Annexation
PIN(s)	0638021524, 0638011513
Real Estate ID	
Project Acreage	21.6 Partial Parcel? ☐ Yes ☑ No
Current Zoning	RR - Rural Residential
Proposed Zoning	SR-CD
Current Future Land Use Designation	Conservation Neighborhood
Proposed Future Land Use Designation	Residential Neighborhood
Small Area Plan Designation *(if applicable)*	
Special Study Scoping Meeting Dates	Fire Flow - No Scoping Required, Sanitary Study - 7/26/23, TIA - 07/27/23
Sketch Plan Review *(pre-submittal)* Meeting Date:	10/30/2024
Neighborhood Meeting Date:	11/4/2024

CERTIFICATE OF COMPLETION

I certify that all information presented in this petition is accurate to the best of my knowledge and belief.

Signature of Applicant: Thomas F Crowder Date: 11/14/2025

PLAN CONSISTENCY STATEMENT

Describe how the proposed Zone Map Change request is consistent or supported by the objectives and policies of *Vision Holly Springs: Town of Holly Springs Comprehensive Plan* and how it is inconsistent with the Plan.
You must respond to each section. Please use additional sheets as needed.

PLAN CONSISTENCY STATEMENT

In accordance with NCGS §160D-605 when adopting or rejecting any Zoning Map Amendment or UDO Text Amendment, the Town Council must approve a brief statement describing whether its action is consistent or inconsistent with an adopted comprehensive or land-use plan. In addition, a statement analyzing the reasonableness of a proposed Zoning Map Amendment shall be approved by the Town Council. This statement of reasonableness may consider, among other factors:

- The size, physical conditions, and other attributes of the area proposed to be rezoned
- The benefits and detriments to the landowners, the neighbors, and the surrounding community
- The relationship between the current actual and permissible development on the tract and adjoining areas and the development that would be permissible under the proposed amendment
- Why the action taken is in the public interest
- Any changed conditions warranting the amendment.

Please provide detailed documentation to assist the Council in making their determination.

EXECUTIVE SUMMARY

The proposed rezoning and Comprehensive Plan amendment would allow development of the property as a Suburban Residential subdivision, consistent with the Town's definition and goals. This designation supports low- to medium-density detached dwellings on varying lot sizes, providing a range of housing choices while allowing limited public or institutional uses compatible with the neighborhood. The plan includes larger lots, sidewalks, and centralized open space amenities, reflecting a traditional neighborhood form that encourages walking and biking.

The site is adjacent to the Lochridge subdivision and less than 0.75 miles from the future New Hill–Holleman Road/Avent Ferry Neighborhood Center, providing convenient access to nearby services while maintaining the area's residential character. Overall, the proposal is reasonable, compatible with surrounding development, and in the public interest.

SECTION 1: LAND USE & CHARACTER

The proposed rezoning to standard Suburban Residential (SR-CD) will create a neighborhood compatible with the adjacent Lochridge Subdivision. At a density of 2.0 lots per acre, lower than the 3.0 lots/acre required for a Conservation Subdivision, the plan allows larger single-family lots while maintaining a traditional neighborhood form. The site is within walking and biking distance of the future Neighborhood Center at Holloman Rd., and includes a sidewalk connection along Avent Ferry Road to Lochridge. This, along with 21% tree preservation area, greenways, and a nature trail with a gazebo, supports open space, connectivity, and livability consistent with Suburban Residential goals.

SECTION 2: COMPREHENSIVE TRANSPORTATION PLAN

A traffic study is required and the developer is responsible for designing and constructing all mitigation improvements set forth by the traffic study and transportation mitigation agreement. The developer is responsible for road frontage widenings in accordance with the CTP. The developer is required to provide access stubs to all adjacent properties. Included in the Comprehensive Plan, these parcels are shown along a portion of Avent Ferry Road that is scheduled to be widened in the future to provide additional capacity for growth. The Future Active Transportation designates the requirement of both sidewalks on both sides of the road as well as a side path. The TIA currently calls for Avent Ferry Road to be widened to its future width with sidewalk on north side and a side path on the south.

SECTION 3: PARKS, RECREATION

The proposal will allow for expansion of consistent single-family residential development in the area. Private and common open space, including two playgrounds, greenways around the engineered wetlands, a nature trail with gazebo, and tree save areas, is incorporated internally. Multiple sidewalk connections will be provided to the Lochridge subdivision, increasing public pedestrian circulation. While the Town's current Greenway Plan does not show a direct connection to these properties, any fee-in-lieu payments, required development fees and increasing tax revenue will help fund these important goals.

SECTION 4: COMMUNITY FACILITIES

Through the application and review process, the proposal will address the issues outlined Section 4.2 of the Comprehensive Plan as required.

SECTION 5: INFRASTRUCTURE & UTILITIES

A Sewer Study is required, and the developer will design and construct any mitigation improvements identified. The project is subject to the Town's Water Resources Management Policy (WRMP) as a Priority 2 development, committing to Public Infrastructure Improvements and Open Space/Tree Preservation. Water and sewer stubs to adjacent properties are required, and a fire flow analysis will be submitted with the Major Subdivision plan. The proposal includes extending a 12" water line along Avent Ferry Road and connecting to the existing sanitary sewer stub from Lochridge.

SECTION 8: NATURAL RESOURCES

The proposed development is consistent with the Town's Comprehensive Plan goals for Natural Resource protection. Significant tree save areas along Avent Ferry Road preserve the existing forested character of the corridor. The project will also be utilizing engineered wetlands, incorporates greenways around these areas, and includes an internal nature trail with gazebo, providing both ecological preservation and public amenity value. Overall, the design balances residential development with thoughtful conservation of natural resources, consistent with Suburban Residential objectives.

STATEMENT OF REASONABLENESS

This proposal, at a density of 2.0 lots per acre, is preferable to a Conservation Subdivision because it allows larger lot sizes, a traditional neighborhood layout, and centralized amenities. Unlike a Conservation Subdivision, which clusters lots and spreads open space unevenly, this SR design better matches the character of adjacent neighborhoods (like Lochridge), enhances pedestrian connectivity, preserves key natural resources, and supports the Town's vision for a balanced, livable residential community.

PUBLIC BENEFITS STATEMENT

A written statement that demonstrates how the proposed Project provides sufficient benefits to the general public. Public benefit may include:

1. Infrastructure improvements such as improvements to existing Streets, intersections, medians, Sidewalks, greenways, sidepaths, pedestrian crossings, and public utilities.
2. Publicly accessible Open Space such as Parks and Playgrounds, dog parks, Urban Civic Spaces, Plazas, Squares, public art, and similar outdoor amenities.
3. Sustainable design and/or architecture such as adaptive reuse of existing buildings, preservation of significant on-site environmental features, on-site renewable energy generation, compliance with established standards such as Leadership in Energy and Environmental Design (LEED), Energy Star, Earthcraft, etc., or other actions that further sustainability of the project.
4. Additional public benefits not listed above may be considered by the decision-making body.

All streets in the proposal will be public and built to Town standards, with sidewalks on both sides. Public water and sewer are available and will be extended to serve the development, and Avent Ferry Road will be improved to its ultimate dimensions, including a sidepath connecting to Lochridge along the project frontage. Existing roads and sidewalks from Lochridge will also be extended into the site, enhancing neighborhood connectivity.

The neighborhood will include two playgrounds, multiple greenways, seating areas, and a nature trail with gazebo, all integrated within internal open spaces. The project is less than 2/3 mile from the future Holleman Activity Center and less than 3 miles from Holly Springs High School, both within walking and biking distance. Conditions include two-story minimums and minimum square footage requirements.

Overall, the project benefits the public by providing connected, walkable streets, accessible open space and playgrounds, preserved natural areas, and enhanced neighborhood amenities that complement existing community resources.

AFFIDAVIT OF OWNER'S CONSENT

Before me personally appeared Paragkumar H. Patel who, being duly sworn, hereby proclaims that they are the owner of the property legally described as the specified Wake County Parcel Identification Number(s) listed below:

0638021524	0638011513

and does hereby authorize Charles R. Walker III of Entitlement Preservation Group (EPG) to act
(name of representative/applicant)

on their behalf as their agent with regard to the processing of said Development Project.

Signature of Owner

Paragkumar H. Patel
MIRA DEVELOPERS LLC
309 Brandywine Dr.
Raleigh, NC, 27607

Sworn to or affirmed and subscribed before me this 6 day of November, 2024

NOTARY PUBLIC:

Official Signature of Notary

(Official Seal)

MARY ANN WEAVER
My Comm. Expires
NOTARY PUBLIC
October 25 2027
GRANVILLE COUNTY, NC

Mary Ann Weaver, Notary Public
Print Name

My commission expires: Oct 25, 2027

DEVELOPMENT PLAN PETITION

Major Subdivision, Development Plan

DPM Appendix #A.04 Supplement 20 October 2023

PETITION CONTACT INFORMATION *(Attach additional sheets if needed)* Applicant and Financially Responsible Party will need to register for an account on the Portal.	
Project Applicant Check One: ☐ Owner ☐ Owner's Agent ☑ Design Professional ☐ Developer ☐ Other	
Name: Thomas Craven	Company: Priest, Craven, and Associates, Inc.
Mailing Address: 6404 Falls of Neuse Road, Suite 201	
City, State, Zip: Raleigh, NC 27615	
Telephone: 919-781-0300	E-Mail: pca@priestcraven.com
Design Professional	
Name: Thomas Craven	Company: Priest, Craven, and Associates, Inc.
Mailing Address: 6404 Falls of Neuse Road, Suite 201	
City, State, Zip: Raleigh, NC 27615	
Telephone: 919-781-0300	E-Mail: pca@priestcraven.com
Developer	
Name:	Company:
Mailing Address:	
City, State, Zip:	
Telephone:	E-Mail:
Architect	
Name:	Company:
Mailing Address:	
City, State, Zip:	
Telephone:	E-Mail:
Landscape Architect	
Name:	Company:
Mailing Address:	
City, State, Zip:	
Telephone:	E-Mail:
Financially Responsible Party (REQUIRED)	
Name: Paragkumar H. Patel	Company: MIRA DEVELOPERS LLC
Mailing Address: 309 Brandywine Dr.	
City, State, Zip: Raleigh, NC 27607	
Telephone: 919-601-9221	E-Mail: paragpatelbaps@gmail.com
Property Owner (REQUIRED)	
Name: Paragkumar H. Patel	Company: MIRA DEVELOPERS LLC
Mailing Address: 309 Brandywine Dr.	
City, State, Zip: Raleigh, NC 27607	
Telephone: 919-601-9221	E-Mail: paragpatelbaps@gmail.com

DEVELOPMENT PLAN PETITION

Major Subdivision, Development Plan

DPM Appendix #A.04 Supplement 20 October 2023

PROJECT INFORMATION	
Project Name	Mira Ridge Subdivision
PUD/Master Plan or Subdivision	Subdivision
Shopping Center or Lot #	
Project Location *Use street address. If none, use closest intersection*	0 and 3020 Avent Ferry Rd.
	☐ Within Corporate Limits ☑ Within Holly Springs ETJ ☐ Pending Annexation
PIN(s)	0638021524, 0638011513
Real Estate ID	
Project Acreage	21.6 Partial Parcel? ☐ Yes ☑ No
Current Zoning	RR - Rural Residential (Holly Springs)
Proposed Use	SR-CD
Open Space	☑ Dedication ☐ Fee-in-lieu ☐ Combination ☐ N/A
Waivers Requested	☐ No ☐ Yes: Specify UDO Section Number(s):
Special Study Scoping Meeting Dates	Fire Flow - No Scoping Required, Sanitary Study - 7/26/23, TIA - 07/27/23
Sketch Plan Review (pre-submittal) Meeting Date:	10/30/2024
Water Resource Management Program (WRMP)	WRMP Priority Level ☐ 1 ☑ 2 ☐ 3 Allocation Request Required

CERTIFICATE OF COMPLETION
I certify that all information presented in this petition is accurate to the best of my knowledge and belief. Signature of Applicant: Date: 11/14/2025

DEVELOPMENT PLAN & MAJOR SUBDIVISION FINDINGS OF FACT

A petition for Development Plan or Major Subdivision may only be approved upon the presentation of the following:

1. The land uses and development intensity of the proposed project will not have significant adverse impacts on adjacent properties and are consistent with the character of the Zoning District and the land uses authorized therein:

The proposal has been designed as a Standard Residential Subdivision. The 35% open space, including 21% tree preservation, will give opportunities to incorporate the tract's character while allowing for standard residential lot development consistent with the neighboring Lochridge Subdivision. As per UDO 4.4.C, passive recreation areas will also be considered in the Tree Preservation Areas.

2. The proposed project provides for the preservation, improvement, and/or enhancement of open spaces and provides sufficient land dedicated for public park space or an equivalent fee-in-lieu: *The 35% open space, including 21% tree preservation, will give opportunities to incorporate the tract's character while allowing for standard residential lot development consistent with the neighboring Lochridge Subdivision.. Active open spaces have been enhanced with a Private Greenway along both SCM devices, 2 central playgrounds, and a nature trail with Gazebo as a gathering area. Additional seating and dog waste stations have been included throughout the site. As per UDO 4.4.C, passive recreation areas will also be considered in the Tree Preservation Areas.*

3. The proposed layout of streets, lots, utilities, water metering, and public improvements, and their relation to the topography of the land, reflect a design which can be economically served by the Town with public services and facilitates the use and future development of adjacent properties:

All Streets in the proposal will be public and meet Town standards. The lots will be served by front driveways that also meet Town regulations. Both public water and sewer are available to the site and will be extended to serve this Proposal. Finally, Avent Ferry Rd will be improved to its ultimate dimensions along the entire frontage of the Project.

4. The proposed building or site design enhances the public realm, maximize natural surveillance and visibility, facilitates pedestrian access and circulation, and reinforces the Town's character:

The project enhances the public realm and Town character through larger lots (7,500 SF min., 10,000 SF avg.) that complement Lochridge and preserve 21% of the site, including a wide tree-save buffer along Avent Ferry Road. Sidewalks on both sides of the streets, two greenway trails around the engineered wetlands, and a nature trail with a gazebo provide strong pedestrian connectivity. The project also extends sidewalk access along Avent Ferry Road to link with Lochridge, promoting visibility, safety, and a cohesive neighborhood design.

5. The design of the project furthers the goals and policies of the Comprehensive Plan:

"The Suburban Residential District is established to protect, promote, and maintain the development of low to medium-density detached dwellings on different lot sizes that vary enough to provide a range of home choices in the same neighborhood and to provide for limited public and institutional uses that are compatible with those neighborhoods. For those properties in walking and biking distance to Commercial & Mixed-Use Districts, this district is expected to be compact in form with densities that support the development of traditional style neighborhoods." This proposal meets this goal, along with providing the required minimum 20% tree preservation.

WAKE COUNTY RESIDENTIAL DEVELOPMENT NOTIFICATION

(only for projects proposing residential dwelling units)

Complete the Wake County Residential Development Notification Form online and provide the following information:

DEVELOPER REPRESENTATIVE INFORMATION	
Contact Name:	Thomas Craven
Company Name:	Priest, Craven, and Associates, Inc.
Phone Number:	919-781-0300
E-Mail:	tcraven@priestcraven.com
PROJECT INFORMATION	
Project Name:	Mira Ridge
Date of Subdivision Application	11/8/2024
City, Town or Jurisdiction	Holly Springs
Address of Subdivision or nearest cross street	Avent Ferry Rd and Center Hill Dr
REID(s)	0003855 and 0365895
PIN(s)	0638021524 and 0638011513
Subdivision Completion Date	March 2026
Projected First Occupancy Date	October 2026
Total Number of Units	44
Senior Living Unit Total	
Studio Unit Total	
1 Bedroom Unit Total	
2 Bedroom Unit Total	
3 Bedroom Unit Total	44
4 Bedroom Unit Total	

ANTICIPATED COMPLETION OF UNITS & DATES	
Year: 2026	Number of Units: 18
Year: 2027	Number of Units: 26
Year:	Number of Units:
Year:	Number of Units:

Preparer's Signature: Date: 11/14/2025

NEIGHBORHOOD MEETING REPORT

A Neighborhood Meeting is required to occur prior to your submittal. The requirements for this meeting can be found in section 11.5 of the Unified Development Ordinance (UDO). The Neighborhood Meeting shall take place no more than 12 weeks prior to the application date and can be held virtually. A copy of the Neighborhood Meeting Notice must be sent to DSIntake@hollyspringsnc.gov prior to mailing for review and approval along with a copy of the mailing list.

NEIGHBORHOOD MEETING INFORMATION	
Meeting Date:	11/4/2024
Meeting Time:	6:30
Meeting Location:	Virtual

CONDUCT OF MEETINGS *(Attach additional sheets if needed)*

At the Neighborhood Meeting, the Petitioner shall explain the proposal and petition, answer any questions, respond to concerns neighbors have about the petition and proposed resolutions to these concerns. Town Staff will not attend the Neighborhood Meeting.

Summary of Issues:

General informational questions and discussion.

Neighbors expressed concern regarding construction traffic on existing streets in Lochridge.

Neighbors requested evergreen plantings between Lochridge and lots 6 through 19.

Changes made to the Petition as a result of the meeting:

We discussed potential language to address limited control of construction access.

We have added additional evergreen plantings to the Type B buffer on the landscape plan in this location.

Preparer's Signature: Date: 11/14/2025

HOLLY SPRINGS
North Carolina

Affidavit of Owner's Consent

Before me personally appeared Paragkumar H. Patel who, being duly sworn, hereby proclaims that they are the owner of the property legally described as the specified Wake County Parcel Identification Number(s) listed below:

0638021524	0638011513

and does hereby authorize Charles R. Walker III of Entitlement Preservation Group (EPG) to act

(name of representative/applicant)

on their behalf as their agent with regard to the processing of said Development Project.

Signature of Owner

Paragkumar H. Patel
MIRA DEVELOPERS LLC
309 Brandywine Dr.
Raleigh, NC, 27607

Sworn to or affirmed and subscribed before me this 6 day of November, 2024.

NOTARY PUBLIC:

Official Signature of Notary

Mary Ann Weaver, Notary Public
Print Name

My commission expires: Oct. 25, 2027

(Official Seal)

MARY ANN WEAVER
My Comm. Expires
NOTARY PUBLIC
October 25 2027
GRANVILLE COUNTY, NC

In compliance with State and Federal Laws the Town of Holly Springs has developed a Fats, Oils, and Grease (FOG) Management Program. The purpose of this program is to educate the public and business owners of the problems associated with grease and grease accumulations. FOG in wastewater can result in decreased capacity of sewer lines by cooling and congealing on the insides of pipes. This occurrence eventually causes blockages and sewer overflows and, therefore, is a major concern for the Town's wastewater collection system. Significant sources of FOG are cooking establishments due to the amount of grease used in cooking and other food preparation work. Improper disposal and cleanup practices allow FOG to enter the wastewater collection system. In an effort to work together to achieve the common goal of protecting the Town's resources we are asking business owners that produce grease as part of their daily operations to take a few moments and complete the following survey.

Return this form with your Development Petition to Development Services. For questions about permit submittals or requirements contact Development Services at 919-557-3908.

COMPANY INFORMATION	
Name of Business: Mira Developers, LLC	
Address: 309 Brandywine Dr., Raleigh, NC 27607	
Phone: 919-601-9221	E-mail: paragpatelbaps@gmail.com
Company Representative: Paragkumar H. Patel	
Title: Registered Agent	
Please provide a brief description of business operations: Residential Development at 0 & 3020 Avent Ferry Rd.	
FOG INFORMATION	
How many and what size grease handling device (grease trap or interceptor) do you have? (Please list dimensions) 0	
Location of grease handling device(s): n/a	
Cleanout service provider: n/a	
Does your grease handling device have a sampling chamber? (A sampling chamber is required for grease traps) n/a	
How is the waste disposed of and where? n/a	

Thank you for taking the time to complete this survey.

If you have any questions or concerns of your responsibilities in maintaining your grease trap or interceptor in accordance with the Town's Sewer Use Ordinance, please contact Karen Foster at (919)577-2907 or email karen.foster@hollyspringsnc.gov

HOLLY SPRINGS
North Carolina

Commercial and Industrial Wastewater Survey (IWS) Short Form

This form has been sent to your business to determine types and sources of wastewater that are entering the Town of Holly Springs' Wastewater Treatment Facility. This form must be completed in accordance with the Town's Sewer Use Ordinance. The Sewer Use Ordinance can be examined on the Town's website at www.hollyspringsnc.gov

Return this form with your Development Petition to Development Services. For questions about permit submittals or requirements contact Development Services at 919-557-3908.

If tenants and/or users in the facility are currently unknow please check here. ☑

(By checking this box and signing below you are acknowledging that once tenants are known it is your responsibility to submit an IWS for each user to the Town.)

FACILITY INFORMATION	
Name: N/A	
Address: 0 & 3020 Avent Ferry Rd, Holly Springs, NC 27540	
Phone: 919-601-9221	E-mail: paragpatelbaps@gmail.com
Type of Industry, Manufacture, Trade or Business:	
Products Produced: N/A	
Number of Employees: N/A	
General Description of the Industrial Activities and/or Plant Processes at this Site: None	
Current Federal Standard Industrial Classification Code (S.I.C) if applicable: N/A	
Does the facility discharge any water from parts washing operations, contact cooling, oil/water separators or any other type of wastewater other than from restrooms including swimming pools? If so, describe: N/A	

"Industrial Waste" means liquid or other wastes resulting from any processes of industry, manufacturing, trade, or business, or from the development of any natural resources. "Other Waste" means decayed wood, sawdust, shavings, bark, limes, garbage, refuse, ashes, offal's, tar, oil, chemicals, and all other substances, except industrial waste and sewage, which may cause pollution in any waters.

1. Does this facility discharge industrial waste or other waste to the sanitary sewer?	YES ☐ NO ☑

HOLLY SPRINGS
North Carolina

Commercial and Industrial Wastewater Survey (IWS)
Short Form

2. Is the discharge from industrial waste or other waste continuous or batch?	N/A
3. Does this facility use any type of chemical mixed with water that is discharged to the sanitary sewer?	☐ YES ☑ NO
If yes, please list:	
4. What is the total discharge to the sanitary sewer (gallons per day)?	
5. What is the total industrial or other waste discharge to the sanitary sewer (gallons per day)?	
6. Are any chemicals stored in quantities of 55 gallons or more?	☐ YES ☑ NO
7. Does this facility use any well water or other water source other than the public water supply?	☐ YES ☑ NO
8. Are any outside drains connected to the sanitary sewer?	☐ YES ☑ NO
9. Does your facility discharge stormwater to the sanitary water?	☐ YES ☑ NO

Our Sewer Use Ordinance requires that an Authorized Representative of the User sign all reports to the Town. Authorized Representative is defined as "a person responsible for the Principle Business decisions or other policy decisions for the facility."

To the best of my knowledge the information on this form is true and accurate.

Signature Harshad Patel Date 2/5/25

Print name HARSHADRAY S. PATEL Job Title MANAGER

For more information or any questions, please contact Karen Foster at 919-557-2907 or email karen.foster@hollyspringsnc.gov

WAKE COUNTY
PUBLIC SCHOOL SYSTEM

Office of Student Assignment
5625 Dillard Dr.
Cary, NC 27518
studentassignment@wcpss.net

tel: (919) 431-7333
fax: (919) 694-7753

February 10, 2025

Chris Hills, AICP
Director, Development Services
Town of Holly Springs
Chris.hills@hollyspringsnc.gov

Dear Chris,

The Wake County Public School System (WCPSS) Office of School Assignment received information about a proposed rezoning/development within the Town of Holly Springs planning area. We are providing this letter to share information about WCPSS's capacity related to the proposal. The following information about the proposed rezoning/development was provided through the Wake County Residential Development Notification database:

- Date of application: 11/08/2024
- Name of development: Mira Ridge
- Address of rezoning: 3020 Avent Ferry Road (PINs) 0638021524 & 0638011513
- Total number of proposed residential units: 61 units
- Type(s) of residential units proposed: Detached Dwellings

Based on the information received at the time of application, the Office of School Assignment is providing the following assessment of possible impacts to the Wake County Public School System:

- [X] Schools at all grade levels within the current assignment area for the proposed rezoning/development are anticipated to have sufficient capacity for future students.
- [ ] Schools at the following grade levels within the current assignment area for the proposed rezoning/development are anticipated to have insufficient capacity for future students; transportation to schools outside of the current assignment area should be anticipated:

  [ ] Elementary [ ] Middle [ ] High

The following mitigation of capacity concerns due to school construction or expansion is anticipated:

- [X] Not applicable – existing school capacity is anticipated to be sufficient.
- [ ] School expansion or construction within the next five years is not anticipated to address concerns.
- [ ] School expansion or construction within the next five years may address concerns at these grade levels:

  [ ] Elementary [ ] Middle [ ] High

Thank you for sharing this information with the Town of Holly Springs Planning Board and Town Council as they consider the proposed rezoning/development.

Sincerely,

Susan W. Pullium, MSA
Senior Director

MIRA RIDGE SUBDIVISION

MAJOR SUBDIVISION PLAN

HOLLY SPRINGS, NORTH CAROLINA
24-REZ-07/PLRZ202400236
24-MAS-02/PLMSPP202400237

SITE DATA TABLE:

TABLE OF PROPERTIES — TABLE C1.1

PIN	OWNER	DEED BOOK	DEED PAGE	SURVEY ACRES	SITE ADDRESS	ZONING
0638-02-1524	MIRA DEVELOPERS LLC	18802	358	10.75	3020 AVENT FERRY ROAD	RR
0638-01-1513	MIRA DEVELOPERS LLC	18802	358	10.87	0 AVENT FERRY ROAD	RR
TOTALS				21.62		

PROJECT STATISTICS

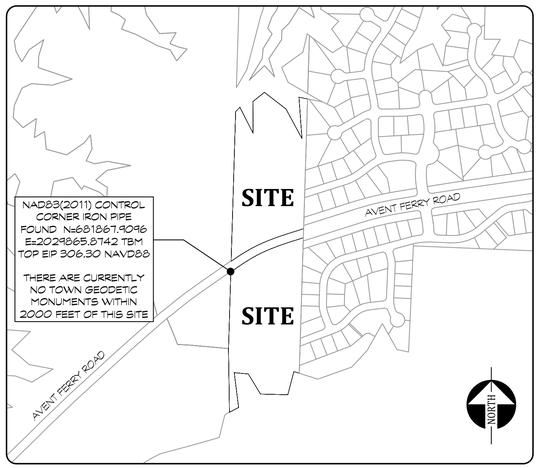
PROPERTY OWNER		PARAGKUMAR H. PATEL 309 BRANDYWINE DRIVE RALEIGH, NC 27607
DEVELOPER		MIRA DEVELOPERS, LLC 309 BRANDYWINE DRIVE RALEIGH, NC 27607
APPLICANT		ENTITLEMENT PRESERVATION GROUP 275 NORTH PEA RIDGE RD PITTSBORO, NC 27312
EXISTING USE PROPOSED USE(S)		VACANT RESIDENTIAL NEIGHBORHOOD
EXISTING ZONING PROPOSED ZONING		RR-RURAL RESIDENTIAL SR-CD SUBURBAN RESIDENTIAL
MAXIMUM GROSS DENSITY ALLOWED (PER UDO TABLE 2.2.1-A)		3 UN/AC
MAXIMUM UNITS ALLOWED (PER 2.3.2.B)		64 UN
TOTAL NUMBER OF RESIDENTIAL UNITS PROPOSED		44 UN
GROSS DENSITY PROVIDED	44 / 21.62 AC	2.0 UN/AC
PROPOSED LOT WIDTH RANGE		60 FT
MINMUM DETACHED RESIDENTIAL LOT SIZE		7,500 SF
MAXIMUM DETACHED RESIDENTIAL LOT SIZE		14,000 SF
AVERAGE DETACHED RESIDENTIAL LOT SIZE		10,010 SF
RIVER BASIN		CAPE FEAR
FEMA FLOOD PANEL *THIS SITE DOES NOT CONTAIN FEMA DESIGNATED FLOOD ZONES*		3720062800K
HISTORIC STRUCTURES LOCATED ON SITE		NONE

AREA CALCULATIONS

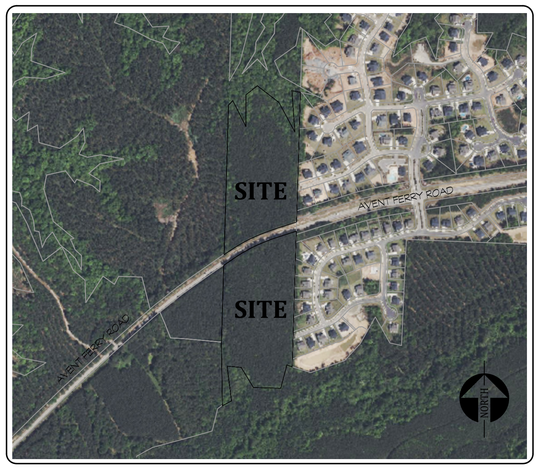
GROSS AREA OF PROJECT BASED ON SURVEY			21.62 AC
AREA IN TRACT 1 (SINGLE FAMILY)			10.75 AC
AREA IN TRACT 2 (SINGLE FAMILY)			10.87 AC
AREA IN PUBLIC R/W DEDICATION			3.18 AC
AREA IN RESIDENTIAL LOTS			10.11 AC
AREA IN OPEN SPACE			8.33 AC
SR ZONING OPEN SPACE AREAS REQUIRED		30%	6.49 AC
ELIGIBLE OPEN SPACE AREA PROVIDED		35%	7.62 AC
*50% OF SCM AREA IS ELIGIBLE PER UDO 4.3.2.C.2.a (TRAIL ALONG 50% OF PERIMETER OF SCM)			
TOTAL AREA IN OPEN SPACES, BUFFERS, SCMS, & PRESERVATION			8.33 AC
TOTAL ELIGIBLE AREA IN OPEN SPACES, BUFFERS, SCMS, & PRESERVATION		35%	7.62 AC
TREE PRESERVATION AREA OPEN SPACE		21%	4.47 AC
ACTIVE RECREATIONAL OPEN SPACE (PLAYGROUNDS, GREENBELT, GATHERING AREAS)		6%	1.32 AC
FLEXIBLE OPEN SPACE - SCM	0.71 AC ELIGIBLE	3%	1.41 AC
FLEXIBLE HOA MAINTAINED OPEN SPACE		5%	1.13 AC

TREE PRESERVATION AREA CALCULATIONS

TOTAL TREE CONSERVATION AREA		**4.47 AC**
AREA WITHIN RIPARIAN CONSERVATION BUFFER PER UDO	4.8.1.A.2 (CFRRB)	0.01 AC
AREA OUTSIDE ENVIRONMENTAL FEATURES*		4.46 AC
* SPECIMEN TREES, SIGNIFICANT TREE STANDS, UNDISTURBED PERIMETER BUFFERS		
ALLOCATION INFORMATION		
SPECIMEN TREES LOCATED ON-SITE		114 TREES
SPECIMEN TREES TO BE PRESERVED		14 TREES
PERCENTAGE OF SPECIMEN TREES TO REMAIN		12.28%



VICINITY MAP 1"=500'



AERIAL MAP 1"=500'

SHEET INDEX:

SHEET #	SHEET TITLE
C0.00	COVER SHEET
G1.00	CONDITIONAL REZONING DESIGN DETAILS
G1.01	GENERAL NOTES AND LEGEND
C1.00	EXISTING CONDITIONS
C2.00	PRELIMINARY SITE PLAN
C2.01	PRELIMINARY SIGNAGE AND ROADWAY ASSET PLAN
C2.10	PRELIMINARY OPEN SPACE PLAN
C3.00	PRELIMINARY UTILITY PLAN
C4.00	PRELIMINARY GRADING PLAN
C5.00	STORMWATER MANAGEMENT PLAN SCM 1
C5.01	STORMWATER MANAGEMENT PLAN SCM 2

SHEET #	SHEET TITLE
C5.10	SCM PLANTING PLAN
C9.00	STANDARD SITE DETAILS
C9.01	STANDARD SITE DETAILS
C9.02	STANDARD SITE DETAILS
C9.03	STANDARD SITE DETAILS
C9.04	STANDARD UTILITY DETAILS
C9.05	STANDARD UTILITY DETAILS
LS1.00	PRELIMINARY LANDSCAPE PLAN
LS2.00	LANDSCAPE CALCULATIONS, NOTES, AND DETAILS
LT1.00	PRELIMINARY STREET LIGHTING PLAN
TC1.00	EXISTING VEGETATION AND TREE PRESERVATION PLAN

APPLICANT/DEVELOPER:

MIRA DEVELOPERS, LLC
309 BRANDYWINE DRIVE, RALEIGH, NORTH CAROLINA 27607
PHONE: (919) 601-9221
EMAIL: PARAGPATELBAPS@GMAIL.COM

PLANS PREPARED BY:

PRIEST, CRAVEN & ASSOCIATES, INC.
PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 FALLS OF NEUSE DRIVE, SUITE 201, RALEIGH, N.C. 27615
PHONE 919 / 781-0300 FAX 919 / 782-1288
EMAIL PCA@PRIESTCRAVEN.COM FIRM#: C-0488

GENERAL NOTES:

1. BOUNDARY INFORMATION IS FROM A COMBINATION OF A SURVEY BY BY THIS OFFICE, DEEDS AND GIS DATA.
2. SITE TOPOGRAPHIC INFORMATION IS TAKEN FROM A SURVEY BY THIS OFFICE.
3. PLANIMETRIC AND TOPOGRAPHIC INFORMATION FOR AREAS OUTSIDE OF THIS SITE ARE TAKEN FROM WAKE COUNTY GIS INFORMATION.
4. WETLAND, CHANNEL BANK AND SUBSEQUENT NEUSE RIVER BUFFER LOCATIONS BASED ON A FIELD VERIFICATIONS BY SOIL AND ENVIRONMENTAL CONSULTANTS, PA.
5. ALL MATERIALS AND CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE TOWN OF HOLLY SPRINGS, NCDOT, AND NCDWR STANDARDS AND SPECIFICATIONS.
6. THIS SITE IS LOCATED WITHIN THE CAPE FEAR RIVER BASIN.
7. THERE ARE NO FEMA FLOOD ZONES WITHIN THE PROJECT SITE ACCORDING TO FLOOD INSURANCE RATE MAP 3720062800K.
8. NO INFRASTRUCTURE TO BE CONSTRUCTED PRIOR TO CONSTRUCTION PLAN APPROVAL AND UTILITY PERMIT ISSUANCE BY THE TOWN OF HOLLY SPRINGS, THE CITY OF RALEIGH PUBLIC UTILITIES, DEPARTMENT, AND NCDOT.
9. EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR LOCATION OF ALL EXISTING ABOVE AND BELOW GROUND UTILITY FIELD LOCATION PRIOR TO ANY CONSTRUCTION.
10. AREA IN WATERSHED BASED ON WAKE COUNTY GIS TOPOGRAPHY AND ON-SITE OBSERVATIONS.
11. THIS DOCUMENT IS BEING PROVIDED TO DEFINE MINIMUM COMPLIANCE WITH THE TOWN OF HOLLY SPRINGS SR-CD ZONING DISTRICT REQUIREMENTS.
12. A LIGHTING PLAN SHALL BE REQUIRED FOR ALL PHASES DURING CONSTRUCTION PLAN REVIEW. A MINIMUM OF 25 FEET OF SEPARATION SHALL BE REQUIRED BETWEEN LIGHT POLES, STREET TREES, AND SIGNAGE.
13. ALL CONSTRUCTION SHALL CONFORM TO TOWN OF HOLLY SPRINGS ENGINEERING DESIGN AND CONSTRUCTION STANDARDS.
14. CONSTRUCTION DRAWING APPROVAL IS REQUIRED BEFORE CONSTRUCTION ON THIS PROJECT MAY BEGIN. DEVELOPMENT FEES ARE DUE BEFORE CONSTRUCTION DRAWING APPROVAL.

UTILITY ALLOCATION:

WRMP PRIORITY LEVEL:	LEVEL 2
REQUIRED ALLOCATION ELEMENTS:	2
PROVIDED ELEMENTS:	
1. PUBLIC INFRASTRUCTURE IMPROVEMENTS: OPTION A - VEGETATED WETLANDS IN LIEU OF WETPONDS	
2. OPEN SPACE/TREE PRESERVATION: PRESERVE 10% OF SPECIMEN TREES ON SITE	

PROPOSED SEWER FLOWS:

NUMBER OF HOMES:	44 UNITS
AVG DAILY FLOW PER HOME:	255 GPD/UNIT
TOTAL AVERAGE DAILY FLOW:	11,220 GPD (7.8 GPM)

PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

NORTH CAROLINA SEAL 030... ENGINEER THOMAS F. CRAVEN

811 Know what's below. Call before you dig.

VERTICAL DATUM - NAVD88
HORIZONTAL DATUM - NAD83

REVISIONS:	SUBMITTAL DATE:
TOWN STAFF COMMENTS	11/8/2024
TOWN STAFF COMMENTS	3/14/2025
TOWN STAFF COMMENTS	4/11/2025
TOWN STAFF/PUBLIC HEARING REVISIONS	6/5/2025
TOWN STAFF/PUBLIC HEARING REVISIONS	11/13/2025
TOWN STAFF COMMENTS	12/15/2025
RELEASED FOR CONSTRUCTION DATE:	NOT RELEASED

SHEET # **C0.00**

24-REZ-07/PLRZ202400236 24-MAS-02/PLMSPP202400237

2.4 CONDITIONAL ZONING DISTRICT (CD) SUPPLEMENT #1

The applicant/development may establish the development standards that will apply to all future developments within the project boundaries. CD proposals may establish the following unique standards subject to the allowances/limitations of this section:

1. Development Standards (Chapter 2.0) – The applicant may propose development standards relating to lot area, lot width, setbacks, driveway width at the frontage, and building height that may differ from the base district.

Proposed	UDO
20 ft min. front yard	20
25 ft min. rear yard	25
5 ft min. side yard	10
10 ft min. side yard (corner)	20

Proposed min. lot area:

7500 sf min., 10,000 sf average — 10,000 sf

2. Additional Residential Building Types (Chapter 3) – The CD may include additional residential housing types that are otherwise restricted in the base district. However, the CD may not exceed the density limitations established in the base district.

The proposal does not seek to develop any additional residential housing types aside from single family. Single-family lots shall be under the recommended density goal of 3 DU/Gross AC as set in the UDO.

3. Landscaping (Chapter 5) – The applicant may propose landscaping and buffering standards for the CD and the lots/parcels therein which may be different from the other provisions of the UDO.

2.5" caliper trees will be planted along all public streets at a spacing of 35 ft on-center. The perimeter open space along Lochridge shall contain a 10 ft wide Type B Buffer (in excess of the required 5 ft wide Type A Buffer) which shall be planted along common lot lines that are cleared and are directly adjacent to lots in Lochridge.

4. Parking (Chapter 6) – The applicant may propose unique vehicle parking ratio standards or permitted vehicle parking locations which may be different from the other provisions of the UDO.

All homeowner parking will be located in front of the dwellings accessed by a public street. Each home will have three designated parking places either using a driveway, a garage, or a combination of both. Public street parking will be allowed as per UDO.

5. Street Design (Chapter 7) – A CD may include an internal street design which is a hybrid of the Town's standard street section designs.

Internal street cross-section design will be as per UDO and Staff direction.

6. Building, Site & Subdivision Lot Design Standards (Chapter 8) – A CD may provide alternative building, site, and/or subdivision lot design options that are otherwise required in this UDO where the resulting designs align with the Town's land use and character intent for the vicinity.

Design standards shall be as per the UDO and the descriptions listed in this document.

PROJECT PROPOSED CONDITIONS

1. Gross residential density will not exceed 2.0 du/ac
2. Minimum of three parking spaces, including garage parking if provided, per lot
3. Vinyl siding shall be prohibited except for accent elements of the Façade, limited to 20% of the total façade area.
4. If vinyl is used, it will be mid-grade, 0.046 thickness.
5. House foundations show at least eighteen inches vertically of Brick or stone veneer as seen from the public right of way.
6. All homes shall be a minimum of two stories.
7. All homes shall be a minimum of 2100 sf of heated space
8. A 10 ft wide Type B Buffer shall be planted along common lot lines if cleared, and directly adjacent to lots in Lochridge. This Type B buffer shall include 3 canopy trees and 3 evergreen trees per 100 lf of buffer.
9. Interior side yard setbacks will be a minimum of 5 ft wide but will allow eaves and overhangs to penetrate the setback.
10. Recreation uses in open space will include an 8ft wide private Greenway trail with seating areas at the two stormwater wetlands, (2) playgrounds (1 for ages 2-5, 1 for ages 5+) with seating, and a nature trail with a gazebo. Additionally, per udo 4.4.c, all tree preservation areas, will serve as passive recreational areas.

PROJECT ARCHITECTURAL STANDARDS

Vinyl siding shall be prohibited except for accent elements of the façade. If vinyl is used, it will be mid-grade 0.046 thickness.

House foundations shall show at least eighteen inches vertically of brick or stone veneer as seen from the public right of way.

All homes shall be a minimum of two stories and will have a minimum of 2100 SF of heated space.

PROJECT OPEN SPACE STANDARDS

The proposal has been designed as a Standard Residential Subdivision. The 35% open space, including 21% tree preservation, will give opportunities to incorporate the tract's character while allowing for standard residential lot development. As per UDO 4.4.C, passive recreation areas will also be considered in the Tree Preservation Areas.

The designed open space can be used by all residents of the subdivision. It also provides a setback/buffer from the adjacent tracts to minimize perceived changes to existing development. Active open spaces have been enhanced with a Private Greenway along both SCM devices, 2 central playgrounds, and a nature trail with Gazebo as a gathering area. Additional seating and dog waste stations have been included throughout the site. As per UDO 4.3.2.C.2.a, the required SCMs will also be designed to complement the visuals of the overall open space as engineered wetlands.

The two tracts have a pronounced ridge running north and south. The proposed layout concentrates roads along the ridge line to attempt to minimize any large changes to their respective watersheds to accommodate the new development.

The HOA will own and maintain the permanent open space.

PROJECT TRANSPORTATION

Project design shall have two new direct connections to Avent Ferry Rd. Also, both Falling Stone Dr and River Ledge Dr from Lochridge will be extended by the developer through the Project. River Ledge Dr will be extended as close as possible to its boundary with the Jones Property.

Parking for homes will be accessed from the front of each dwelling via public street access.

There will be sidewalks on both sides of the public streets.

Internal street cross-section design will be as per staff recommendation.

Avent Ferry Rd will be improved to its full width by the developer as per NCDOT regulations, the TIA and Town recommendations.

The Proposal shall include a letter specifically stating why there is no street connection to the north and south ends of the Project and requesting a hardship review. These include the North and South area surrounding the site are part of one approximate 13,000 AC single tract owned by Duke Power. The current proposal shows a street stub to the west to provide a required connection. Also, the FLUM shows the areas to be kept as "Natural Areas". Finally, the existing severe topography and wide floodplains in those areas limit the ability to extend future roads in those directions, mirroring nearby Lochridge and Bridgeberry.

PROJECT PUBLIC UTILITIES

As per Town standards and staff recommendations:

The waterline currently in Avent Ferry Rd shall be extended across the frontage of the Project and be used to supply water to the Project.

Lochridge is currently served by two existing public pump stations. One on either side of Avent Ferry Rd. The Project shall utilize both existing pump stations. The Sewer Analysis Report was submitted separately and approved by staff.

Required Fire Flow Analysis Report has been completed and approved by staff. The developer will be responsible for items listed in the report.

Residential Allocation Priority Level 2

PROJECT LANDSCAPE STANDARDS

BUFFER PLANTINGS

The following describes the plantings along the perimeter of the Project:

Open Space/buffer widths are shown within this plan set. Existing vegetation will be the preferred state. However, when development requires trees to be removed, the following shall be used to replant using the width of the required buffer in that area.

All common boundary lines with the Lochridge Subdivision will be required to have a minimum 10' Type B Buffer. If left undisturbed, existing material will be protected. If an area is disturbed or if the tree preservation area does not meet the minimum requirements for a 10' Type B Buffer, then that area will be supplemented utilizing the typical 10' Type B Buffer plantings as shown on the landscaping plan, LS1.00.

All common boundary lines with the Duke Power Property and the Jones Property will be required to have a minimum 5' Type A Buffer per the UDO. If left undisturbed, existing material will be protected. If an area is disturbed or if the tree preservation area does not meet the minimum requirements for a 5' Type A Buffer, then that area will be supplemented utilizing the typical 5' Type A Buffer as shown on the landscaping plan, LS1.00.

Buffer Width/Type	Trees/100 LF	Shrubs/100 LF
5' Type A Buffer	2 Canopy Trees	5 Shrubs
10' Type B Buffer	3 Canopy, 3 Evergreen Trees	10 Shrubs

STREET TREE PLANTINGS

Internal Streets	1 Canopy 2.5"Cal.Min. @ 35' OC
Avent Ferry Road	1 Canopy 2.5"Cal.Min. @ 35' OC
Avent Ferry Road Streetyard	50' wide street yard primarily consisting of Tree Preservation along with the UDO required Type A Thoroughfare buffer per UDO Table 5.3.1-B (2 4 Canopy 3.5"Cal.Min./5 Shrubs per 100 lf).

PROJECT WATER RESOURCE MANAGEMENT

Residential Allocation Priority Level 2

Proposed Allocation Elements (2 required):

All SCMs will be designed as Vegetated Wetlands in lieu of wet ponds

10% of Specimen trees on site are to be preserved as part of the 30% overall tree preservation.

CONDITIONAL DISTRICT UDO MODIFICATIONS

ITEM	UDO REQUIREMENT	CD PROPOSED
Maximum Gross Density	3	2.0
Minimum Side Setback (Interior)	10'	5'
Minimum Side Setback (Corner)	20'	10'
Perimeter Buffer Abutting Lochridge	Min. 5' Type A	Min.10' Type B (With 3 Canopy & 3 Evergreen Tree Plantings Per 100 LF)
Perimeter Buffer Along Avent Ferry Rd.	Min. 5' Type A Thoroughfare	50', TCA, Supplemented Where Necessary with Type C (With 5 Canopy - 80% Evergreen, 4 Small Evergreen, & 20 Evergreen Shrubs)
Minimum Lot Area	10,000 SF	7,500 SF (Min.), 10,000 SF (Avg.)
Type IV Façade Materials (Vinyl)	Prohibited	Vinyl Prohibited Except for Accent Elements, Limited to 20% of Total Façade Area (Min. 0.046 Thickness)

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029775 ENGINEER THOMAS F. CRAVEN 6/15/25

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

SCALE:	NO SCALE
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

CONDITIONAL REZONING DESIGN DETAILS

2ND REVIEW TOWN STAFF COMMENTS	3/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/16/2025
RELEASED FOR CONSTRUCTION DATE (SEE COVER)	■ NO ☐ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # G1.00

SURVEY SYMBOL LEGEND

- AC UNIT
- BACK FLOW VALVE
- BOLLARD
- CABLE PEDESTAL
- CABLE VAULT
- CATCH BASIN
- CLEAN OUT
- COMMUNICATION BOX
- CURB INLET
- ELECTRIC BOX
- ELECTRICAL VAULT
- FIRE HYDRANT
- FENCE LINE
- FIBER OPTIC
- FIBER OPTIC VAULT
- FLARED END SECTION
- GAS
- GAS VALVE
- GRATED INLET
- GW GUY WIRE
- IV IRRIGATION VALVE
- LIGHT POLE
- OH OVERHANG
- OE OVERHEAD ELECTRIC
- RCP REINFORCED CONCRETE DRAINAGE PIPE
- (S) SEWER MANHOLE
- (D) STORM MANHOLE
- JB STORM JUNCTION BOX
- SWAMP
- (T) TELEPHONE PEDESTAL
- (T) TELEPHONE MANHOLE
- TEMPORARY BENCHMARK
- TREE
- UE UNDERGROUND ELECTRIC
- UP UNDERGROUND POWER
- UT UNDERGROUND TELEPHONE
- (C) UTILITY POLE
- WL WATER LINE
- HB WATER LINE HOTBOX
- (W) WATER LINE MANHOLE
- WATER METER
- WATER VALVE
- W WELL
- YARD INLET

PROPERTY CORNERS

- CONC MONUMENT SET
- CONC MONUMENT FOUND
- PROP CORNER FOUND
- COMPUTED POINT
- CONTROL CORNER
- IRON PIPE SET
- IPF IRON PIPE FOUND

HATCH LEGEND

- TRASH/DEBRIS
- EXISTING RIPRAP

SURVEY LINETYPES

- PROPERTY LINE
- P/L NOT SURVEYED
- EASEMENT
- ADJOINER
- FL FENCE LINE
- XSS SANITARY SEWER
- XST STORM SEWER
- UPL UNDERGROUND POWER
- XFO FIBER OPTIC/COMMUNICATION
- TS TRAFFIC SIGNAL
- XWL WATERLINE
- UT UNDERGROUND TELEPHONE
- 100 YR FLOODPLAIN
- GUARD RAIL

EROSION CONTROL LEGEND

- SSF — SSF — SUPER SILT FENCE (SEE DETAIL SHEET)
- SILT FENCE (SEE DETAIL SHEET)
- TP — TP — TREE PROTECTION FENCE
- SF — TP — COMBO TREE PROTECTION & SILT FENCE
- TEMPORARY DIVERSION SWALE
- DL — DL — DISTURBED LIMITS
- DRAINAGE BASIN BOUNDARY
- SILT FENCE OUTLET
- STONE/WIRE INLET PROTECTION (SEE DETAIL SHEET)
- PLUNGE POOL / SCOUR BASIN
- WATTLE (INLET PROTECTION)
- ROCK/CHECK DAM
- WATTLE (SLOPE PROTECTION)
- STONE CONSTRUCTION ENTRANCE
- FES WITH A VELOCITY REDUCTION RIP RAP PAD
- TEMPORARY STREAM CROSSING
- TEMPORARY SEDIMENT BASIN

OTHER LINETYPES

- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- STREAM BUFFER

HATCH LEGEND

- PUDE = PUBLIC DRAINAGE EASEMENT
- PRDE = PRIVATE DRAINAGE EASEMENT
- PRIVATE SCM MAINTENANCE & ACCESS ESMT
- SEWER EASEMENT
- TREE SAVE OR PRESERVED WOODED AREA
- WETLANDS
- 10' TYPE B
- 5' TYPE A
- 50' TFARE
- PLANTING BUFFER

UTILITY SYMBOL LEGEND

- FES FLARED END SECTION
- HW HEADWALL
- CB NCDOT CATCH BASIN
- CI OPEN THROATED CURB INLET
- STMH STORM MANHOLE
- YI YARD INLET
- GI GRATED INLET
- SWALE / DITCH
- STORM DRAINAGE PIPE
- POND - NORMAL POOL
- FH FIRE HYDRANT
- GV GATE VALVE
- BO BLOW OFF & GATE VALVE
- WM WATER SERVICE
- WATER MAIN
- MH SEWER MANHOLE
- CO SEWER SERVICE
- SEWER MAIN
- SCM STORMWATER MANGEMENT AREA
- UTILITY EASEMENT LINETYPE

STANDARD ABBREVIATIONS LEGEND

SITE PLANNING AND UTILITIES

- BOC BACK OF CURB
- CB CATCH BASIN (NCDOT INLET)
- CI CURB INLET (TOWN INLET)
- COSBSE TOWN OF HOLLY SPRINGS SANITARY SEWER EASEMENT
- COSWE TOWN OF HOLLY SPRINGS WATER EASEMENT
- FH FIRE HYDRANT
- GI GRATE INLET (GRATE ONLY)
- GV GATE VALVE
- LI LANDSCAPE INLET (FOR MINOR DRAINAGE)
- MH MANHOLE
- NRRSB NEUSE RIVER RIPARIAN BUFFER
- PR,DE PRIVATE DRAINAGE EASEMENT
- PU,DE PUBLIC DRAINAGE EASEMENT
- RIM TOP OF GRATE AT OPENING
- ROW RIGHT OF WAY
- SC STANDARD CURB
- SDE SIGHT DISTANCE EASEMENT
- SDE SIGHT DISTANCE EASEMENT
- SDT SIGHT DISTANCE TRIANGLE
- SL SEWER LINE
- SW SIDEWALK
- TCE TREE CONSERVATION AREA
- TOC TOP OF CURB
- TOP TOP OF STRUCTURE (TOP OF CURB OR LID)
- TSA TREE SAVE AREA
- VC VALLEY CURB
- WCA WOODED CONSERVATION AREA
- WL WATER LINE
- YI YARD INLET

EROSION CONTROL AND GRADING

- BW BOTTOM OF WALL
- DL DISTURBED LIMITS
- TW TOP OF WALL

JURISDICTIONS

- TOHS TOWN OF HOLLY SPRINGS
- NCDEQ NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY
- NCDOT NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL JOB SITE SAFETY, INCLUDING BUT NOT LIMITED TO TRENCH SAFETY, DURING ALL PHASES OF CONSTRUCTION.
2. THE LOCATION AND SIZE OF EXISTING UTILITIES AS SHOWN IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING AND PROTECTING ALL PUBLIC OR PRIVATE UTILITIES (SHOWN OR NOT SHOWN) WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE NORTH CAROLINA ONE-CALL UTILITIES LOCATION SERVICE (ULOCO) AT 1-800-632-4949 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE SITE.
3. THE CONTRACTOR SHALL SALVAGE AND PROTECT ALL SIGNS, MANHOLES, TELEPHONE RISERS, WATER VALVES, ETC. DURING ALL CONSTRUCTION PHASES. THE CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. ALL PROPOSED UTILITIES ON-SITE SHALL BE UNDERGROUND AND ALL EXISTING ON-SITE POWER LINES WILL BE PLACED UNDERGROUND.
4. ALL CONSTRUCTION ON PUBLIC STREETS IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IN CONFORMANCE WITH THE TRAFFIC CONTROL PLAN, THE 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES,' AND AS FURTHER DIRECTED BY LOCAL AND STATE INSPECTORS.
5. THE TOWN OF HOLLY SPRINGS SHALL BE NOTIFIED OF ANY LANE CLOSURE REQUESTS AT LEAST 72 HOURS IN ADVANCE.
6. ALL MANUFACTURERS PRODUCTS SPECIFIED IN THESE PLANS OR USED AS APPROVED ALTERNATES SHALL BE INSTALLED PER THE MANUFACTURERS CURRENT SPECIFICATIONS.
7. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SPECIFICATIONS AND SITE CONDITIONS OR ANY INCONSISTENCIES OR AMBIGUITIES IN DRAWINGS OR SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER, IN WRITING, WHO SHALL PROMPTLY ADDRESS SUCH INCONSISTENCIES OR AMBIGUITIES. WORK DONE BY THE CONTRACTOR AFTER HIS DISCOVERY OF SUCH DISCREPANCIES, INCONSISTANCIES, OR AMBIGUITIES SHALL BE DONE AT THE CONTRACTORS RISK.
8. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ARRANGE THE MEETING WITH THE TOWN OF HOLLY SPRINGS, ENGINEER, AND OWNER.
9. CONTRACTOR IS RESPONSIBLE FOR VERIFYING OR OBTAINING ALL REQUIRED PERMITS AND APPROVALS PRIOR TO COMMENCING CONSTRUCTION.
10. THE FRAMES AND COVERS OF ALL EXISTING AND PROPOSED DRAINAGE, SANITARY SEWER, WATER MAIN, GAS, AND WIRE UTILITY STRUCTURES SHALL BE ADJUSTED TO MATCH PROPOSED FINISHED ELEVATIONS AND SLOPES.
11. ROADWAYS MUST BE CAPABLE OF SUPPORTING FIRE APPARATUS DURING CONSTRUCTION.
12. PLANIMETRIC AND TOPOGRAPHIC INFORMATION FOR AREAS OUTSIDE OF THE OVERALL DEVELOPMENT ARE TAKEN FROM WAKE COUNTY GIS INFORMATION.
13. NO TITLE SEARCH WAS PERFORMED BY THIS OFFICE FOR THIS PROPERTY. THIS PLAN MAY NOT SHOW ALL ENCUMBRANCES OR EASEMENTS THAT A TITLE SEARCH MAY DISCLOSE.
14. ALL PRIVATE STORM DRAINAGE EASEMENTS & STORMWATER MEASURES WILL BE MAINTAINED BY THE OWNERS ASSOCIATION.
15. ALL STREET DIMENSIONS SHOWN ON PLANS ARE FROM THE BACK OF CURB (B-B), FACE OF CURB (F-F), OR EDGE OF PAVEMENT (EOP) ON NON-CURB AND GUTTER STREETS UNLESS OTHERWISE NOTED.
16. ALL LAND DISTURBING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH AN APPROVED EROSION CONTROL PLAN.
17. ALL CONSTRUCTION AND MATERIALS TO BE IN STRICT ACCORDANCE WITH CURRENT TOWN OF HOLLY SPRINGS, DWQ, NCDENR, AND NCDOT STANDARDS AND SPECIFICATIONS AS APPLICABLE.
18. HORIZONTAL RELATION OF WATER MAINS TO SEWERS LATERAL SEPARATION OF SEWERS AND WATER MAINS. WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION - + IN WHICH CASE.

    THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN AND THERE IS A MINIMUM 3 FEET OF HORIZONTAL SEPARATION FROM THE CLOSEST EDGES OF THE PIPES.

19. VERTICAL RELATION OF WATER MAINS TO SEWERS CROSSING A WATER MAIN OVER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION -- IN WHICH CASE BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS.

    CROSSING A WATER MAIN UNDER A SEWER:
    WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN
    STANDARDS A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.

20. VERTICAL RELATION OF SANITARY SEWER MAINS TO STORM SEWER WHEN A SANITARY SEWER IS CROSSING OVER OR UNDER A STORM SEWER, A VERTICAL SEPARATION OF 24 INCHES SHALL BE MAINTAINED UNLESS BOTH LINES ARE OF A FERROUS MATERIAL, ENCASED IN CONCRETE, OR VOID SPACE FILLED WITH CONCRETE. PER TOWN OF HOLLY SPRINGS STANDARDS.
21. GENERAL VERTICAL CLEARANCE WHEN OTHER UNDERGROUND UTILITIES ARE ENCOUNTERED, 18 INCHES OF SEPARATION SHALL BE MAINTAINED.
22. SEWER SERVICES:
    TYPICAL SEWER SERVICE TO EACH LOT IS TO BE 4' PVC. BACKWATER VALVES TO BE INSTALLED AS REQUIRED. ALL SERVICES TO MEET
    THE APPLICABLE NC PLUMBING CODE.
23. WATER SERVICE TYPICAL WATER SERVICE TO EACH LOT TO BE AS SHOWN ON THE PLANS.
24. EXISTING UTILITIES ENSTING UTILITIES SHOWN ARE APPROXIMATE AND ALL MAY NOT BE SHOWN. CONTRACTOR SHALL VERIFY EXACT LOCATION AND GRADE OF ALL EXISTING UTILITIES AND COORDINATE ANY REQUIRED RELOCATION OF EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
25. ALL PRIVATE STORM SEWER LINES TO BE LOCATED WITHIN A PRIVATE DRAINAGE EASEMENT.
26. CURB, GUTTER, AND PAVEMENT TO BE FIELD ADJUSTED AS REQUIRED TO PROVIDE ADEQUATE DRAINAGE AND TO PREVENT ANY PONDING OF WATER.
27. NO INFRASTRUCTURE TO BE CONSTRUCTED PRIOR TO CONSTRUCTION PLAN APPROVAL AND UTILITY PERMIT ISSUANCE BY THE TOWN OF HOLLY SPRINGS .
28. CONTRACTOR RESPONSIBLE FOR COORDINATING FRANCHISE UTILITIES AND OTHER SERVICES (I.E. GAS, ELECTRIC, CABLE, PHONE, MAIL, WASTE COLLECTION, ETC.).
29. CONTRACTOR RESPONSIBLE FOR COORDINATING LOCATION, SIZE, AND INSTALLATIONS OF SLEEVES REQUIRED FOR OTHER UTILITY INSTALLATION INCLUDING, BUT NOT LIMITED TO ELECTRIC, PHONE, CABLE, GAS, IRRIGATION, ETC
30. CURB RAMPS SHALL BE LOCATED AND INSTALLED PER THE TOWN OF HOLLY SPRINGS LATEST DETAILS. CONTRACTOR SHALL CONFIRM LOCATIONS, GRADE AND DETAILS WITH THE LOCAL INSPECTOR PRIOR TO PLACING CONCRETE.

STORM DRAINAGE

1. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF CURB INLETS AND GRATE INLETS AND ALL UTILITIES CROSSING THE STORM SEWER.
2. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER.
3. THE INSPECTOR SHALL INSPECT ALL PUBLIC AND PRIVATE CONSTRUCTION. THE CONTRACTORS BID PRICE SHALL INCLUDE ALL INSPECTION FEES. THE TOWN OF HOLLY SPRINGS IS RESPONSIBLE FOR INSPECTION OF PUBLIC DRAINAGE EASEMENTS. THE HOA IS RESPONSIBLE FOR THE MAINTENANCE OF ALL PRIVATE STORM DRAINAGE EASEMENTS.
4. ALL STORM SEWER MAIN AND LATERALS SHALL BE MINIMUM CLASS III REINFORCED CONCRETE PIPE OR PER TOWN STANDARDS AND SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. CLASS IV/V RCP TO BE USED IF INDICATED.
5. WHERE PROPOSED STORM SEWER PIPING TIE TO EXISTING STRUCTURES, PIPES, SWALES, ETC., THE CONTRACTOR SHALL FIELD ADJUST PROPOSED STORM SEWERS AS REQUIRED TO MATCH THE LOCATIONS OF THESE EXISTING FEATURES.
6. SEE CURRENT TOWN OF HOLLY SPRINGS UDO FOR ADDITIONAL NOTES AND DETAILS.
7. ALL CONCRETE CURB INLETS TO BE NCDOT 300.03 AND FRAMES, GRATES, AND COVERS EXCEPT AS NOTED ON PLANS.
8. ALL STORM SEWER 15" AND GREATER IS TO BE RCP. ALL 8'-12' PIPE IS TO BE HDPE. 8'-12' PIPES THROUGH OR UNDER RET. WALLS SHALL TAKE PLACE THROUGH 15' RCP SLEEVE.
9. TOP ELEVATIONS OF STORM DRAINAGE INLETS IN GRASSED AND LANDSCAPED AREAS SHALL BE ADJUSTED AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE INTO THE INLET BASED ON THE FINISHED GRADES AROUND IT. TOP ELEVATIONS ON THE PLANS ARE GIVEN FOR GENERAL INFORMATION ONLY

HDPE PIPE NOTES, DESIGN CRITERIA, AND INSTALLATION:

1. INSTALLATION OF HDPE PIPE SHALL ADHERE TO DESIGN CRITERIA STANDARDS. PIPE MATERIAL SHALL MEET THE PRODUCT SPECIFICATIONS OF ASTM F667 AND SHALL HAVE A SMOOTH INTERIOR, PIPE JOINTS SHALL CONSIST OF AN INTEGRAL BELL AND SPIGOT TYPE JOINT WITH 'A' RING RUBBER GASKET MEETING ASTM F477 PLACED ON THE SPIGOT END.
2. AT LEAST TWO (2) CORRUGATIONS OF THE SPIGOT END MUST INSERT IN THE BELL END. INSTALLATION SHALL ADHERE TO THE SPECIFICATION OF ASTM D2321 AND CERTIFIED BY AN ENGINEER. HDPE PIPE, 24" OR UNDER MAY BE USED UNDER PAVEMENT OR CURB AND GUTTER.
3. ALL HDPE TO BE ADS N-12 ST IB PIPE (PER ASTM F2648) SPECIFICATION (OR APPROVED EQUAL)
4. SCOPE: THIS SPECIFICATION DESCRIBES 4- THROUGH 60-INCH (100 TO 1500 MM) ADS N-12 ST IB PIPE (PER ASTM F2648) FOR
5. USE IN GRAVITY-FLOW LAND DRAINAGE APPLICATIONS.
6. PIPE REQUIREMENTS: ADS N-12 ST IB PIPE (PER ASTM F2648) SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS.
7. 4-INCH THROUGH 60-INCH (100 TO 1500 MM) SHALL MEET ASTM F2648.
8. MANNING'S N VALUE FOR USE IN DESIGN SHALL BE 0.012.
9. JOINT PERFORMANCE: PIPE SHALL BE JOINED USING A BELL & SPIGOT JOINT MEETING ASTM F2648. THE JOINT SHALL BE SOIL-TIGHT AND GASKETS, WHEN APPLICABLE, SHALL MEET THE REQUIREMENTS OF ASTM F477. GASKETS SHALL BE INSTALLED BY THE PIPE MANUFACTURER AND COVERED WITH A REMOVABLE WRAP TO ENSURE THE GASKET IS FREE FROM DEBRIS. A JOINT LUBRICANT SUPPLIED BY THE MANUFACTURER SHALL BE USED ON THE GASKET AND BELL DURING ASSEMBLY.
10. FITTINGS: FITTINGS SHALL CONFORM TO ASTM F 2306. BELL AND SPIGOT CONNECTIONS SHALL UTILIZE A BUN-ON OR WELDED BELL AND VALLEY OR SADDLE GASKET MEETING THE SOIL-TIGHT JOINT PERFORMANCE REQUIREMENTS OF ASTM F 2306.
11. MATERIAL PROPERTIES: MATERIAL FOR PIPE PRODUCTION SHALL BE AN ENGINEERED COMPOUND OF VIRGIN AND RECYCLED HIGH DENSITYPOLYETHYLENE CONFORMING WITH THE MINIMUM REQUIREMENTS OF CELL CLASSIFICATION 424420C (ESCR TEST CONDITION B) FOR 4-THROUGH 10-INCH (100 TO 250 MM) DIAMETERS, AND 435420C (ESCR TEST CONDITION B) FOR 12-THROUGH 60-INCH (300 TO 1500 MM) DIAMETERS, AS DEFINED AND DESCRIBED IN THE LATEST VERSION OF ASTM D3350, EXCEPT THAT CARBON BLACK CONTENT SHOULD NOT EXCEED 4%. THE DESIGN ENGINEER SHALL VERIFY COMPATIBILITY WITH OVERALL SYSTEMINCLUDING STRUCTURAL, HYDRAULIC, MATERIAL AND INSTALLATION REQUIREMENTS FOR A GIVEN APPLICATION.
12. INSTALLATION: INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 AND ADS'S PUBLISHED INSTALLATION GUIDELINES, WITH THE EXCEPTION THAT MINIMUM COVER IN TRAFFICKED AREAS FOR 4- THROUGH 48-INCH (100 TO 1200 MM) DIAMETERS SHALL BE ONE FOOT, (0.3 M) AND FOR 60-INCH (1500 MM) DIAMETERS, THE MINIMUM COVER SHALL BE 2 FT. (0.6 M) IN SINGLE RUN APPLICATIONS. BACKFILL FOR MINIMUM COVER SITUATIONS SHALL CONSIST OF CLASS 1 (COMPACTED), OR CLASS 2 (MINIMUM 90% SPD) MATERIAL. MAXIMUM FILL HEIGHTS DEPEND ON EMBEDMENT MATERIAL AND COMPACTION LEVEL; PLEASE REFER TO TECHNICAL NOTE 2.02. CONTACT YOUR LOCAL ADS REPRESENTATIVE OR VISIT OUR WEBSITE AT WWW.ADS-PIPE.COM FOR A COPY OF THE LATEST INSTALLATION GUIDELINES.
13. (HDPE SPECIFICATIONS FROM ADS WEBSITE)

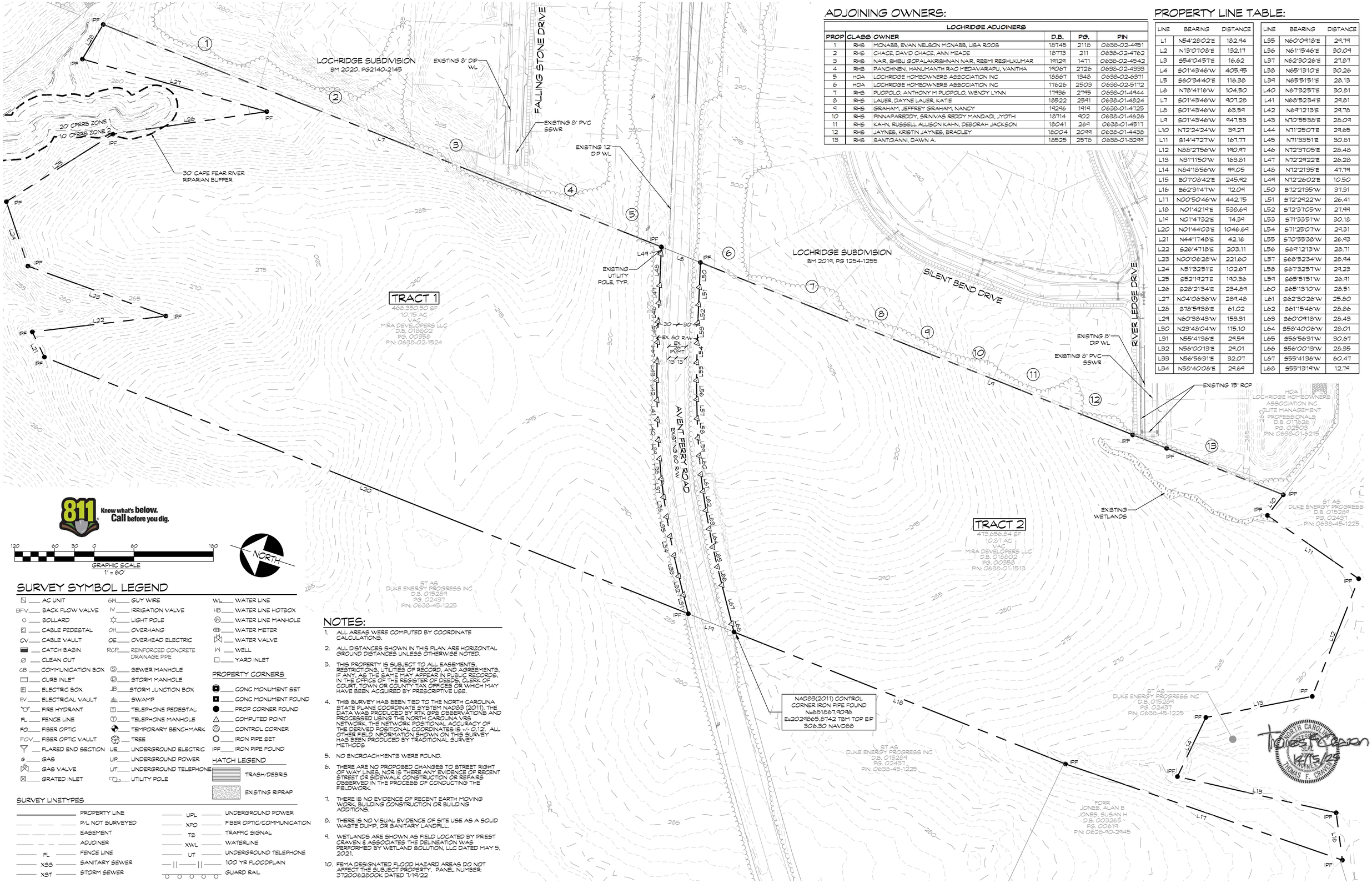
GRADING:

1. REFER TO SITE CONSTRUCTION PLANS FOR CLEARING LIMITS AND TEMPORARY EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION. PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO INSTALLATION OF MEASURES.
2. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED CONTINUOUSLY, RELOCATED WHEN AND AS NECESSARY, AND SHALL BE CHECKED AFTER EVERY RAINFALL. SEEDED AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RESEEDED, AND MULCHED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS.
3. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE, AND AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. FIELD ADJUSTMENTS TO BE MADE BY CONTRACTOR AS REQUIRED TO MAINTAIN ADEQUATE POSITIVE DRAINAGE THROUGHOUT PROJECT. IN ADDITION TO THE MEASURES SHOWN IN THESE PLANS, THE CONTRACTOR SHALL USE INTERIM SILT FENCES, DIVERSION DITCHES, BERMS, OR OTHER METHODS AS REQUIRED TO DIRECT DRAINAGE AS SHOWN ON THESE PLANS AND TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND THE ESTABLISHMENT OF A STAND OF GRASS OR OTHER GROWTH TO PREVENT EROSION.
4. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND MOISTURE CONDITION ALL FILL PER THE PROJECT GEOTECHNICAL ENGINEERS SPECIFICATIONS. THE FILL MATERIAL TO BE USED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
5. GRADING CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS.
6. ALL MATERIALS USED FOR ALL FILLING OPERATIONS SHALL BE PLACED AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER.
7. TOP OF WALL (TW) AND BOTTOM OF WALL (BW) GRADES SHOWN ON THESE PLANS REPRESENT FINISHED GROUND ADJACENT TO WALL. THE RETAINING WALL DESIGNER/CONTRACTOR SHALL PROVIDE ADDITIONAL WALL HEIGHT AS NECESSARY FOR FOOTINGS AND CAP BLOCKS.
8. ALL DEMOLITION DEBRIS SHALL BE HAULED OFF-SITE AS DIRECTED BY THE OWNER AND PROPERLY DISPOSED OF.
9. NO TREE WITHIN THE TREE PROTECTION AREA SHALL BE REMOVED OR DAMAGED WITHOUT PRIOR AUTHORIZATION OF THE TOWN. MINIMUM TREE PROTECTION AREA REQUIREMENTS FOR THE CRZ AROUND EACH TREE OR GROUP OF TREE OR TREES AT THE OUTER EDGES OF THE TREE SAVE AREA SHALL CONSTITUTE THE LIMITS OF CONSTRUCTION FOR THE PURPOSES OF THIS SUB-SECTION. THE CRZ IS THE CIRCULAR AREA OF GROUND SURROUNDING A TREE EXTENDING FROM THE CENTER OF TREE TO THE GREATER OF:
    1. 1.5 FEET PER CAUIPER INCH DBH OF THE TREE,
    2. THE DRIPLINE (FURTHEST EXTENT OF TREE CANOPY) OF THE TREE, OR
    3. 6 FEET.

    IF ANY TREE(S) USED FOR PRESERVATION CREDIT IS IMPROPERLY PROTECTED OR DETERMINED TO BE HAZARDOUS, THE ADMINISTRATOR MAY REQUIRE NEW TREES BE PLANTED EQUAL TO THE NUMBER OF CREDIT TREES.
10. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS COMPLETE.
11. BUILDING PAD AND PAVING SUB GRADE INFORMATION TO BE PER GEOTECHNICAL ENGINNEERS RECOMMENDATION AND DIRECTION.
12. PROPOSED CONTOURS AND GUTTER GRADIENTS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS AND ROADWAY PROFILES ARE TO BE USED IN CASE OF DISCREPANCY.
13. WHERE FILL IS TO BE PLACED ON EXISTING SLOPES STEEPER THAN 4:1, CONTRACTOR SHALL EXCAVATE BENCHES WITH A MAXIMUM DEPTH OF 3'.
14. THE CONTRACTOR SHALL STABILIZE ALL SLOPES STEEPER THAN 3:1 WITH MEASURES INDICATED WITHIN THESE PLANS.
15. THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR BLASTING ROCK IF BLAST ROCK IS ENCOUNTERED. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL BLASTING AND SAFETY REQUIREMENTS.
16. THE CONTRACTOR SHALL NOTE THAT THE PLACEMENT OF ANY FILL MATERIAL MUST BE CONDUCTED UNDER THE OBSERVATION OF A QUALIFIED LICENSED GEOTECHNICAL ENGINEER. AFTER COMPLETION OF THE EARTHWORK ACTIVITIES IT IS REQUESTED THAT THE OWNER, BE PROVIDED A FINAL GRADING REPORT THAT INCLUDES THE CORRESPONDING COMPACTIONS TEST RESULTS AND CERTIFIES THE TYPE OF FILL MATERIAL AND ITS PROPER PLACEMENT.

EMBANKMENT CONSTRUCTION PROCEDURES AND REQUIREMENTS

1. NO WORK SHALL TAKE PLACE ON THE DAM WITHOUT COORDINATING THE OBSERVATION AND TESTING OF THE PROJECT GEOTECHNICAL ENGINEER. ALL SOIL MATERIALS ARE TO BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO INCORPORATION INTO THE EMBANKMENT.
2. INSTALL EROSION CONTROL DEVICES PER THE PLAN, CALL FOR INSPECTION AND OBTAIN CERTIFICATE OF COMPLIANCE.
3. CUT ALL TREES AND REMOVE ALL EXISTING VEGETATION FROM THE EMBANKMENT SITE.
4. GRUB ALL TREE STUMPS, REMOVE ALL ROOT MAT, TOPSOIL, ORGANICS, POCKETS OF LOOSE SAND, GRAVEL, AND ANY UNSUITABLE MATERIAL FOUND ALONG THE EMBANKMENT SITE.
5. THE CONTRACTOR SHALL TAKE THE APPROPRIATE MEASURES AS NECESSARY TO PROTECT THE AREA OF CONSTRUCTION FROM STREAM FLOW AND STORMWATER RUNOFF.
6. EXCAVATE, BACKFILL AND COMPACT THE CUT OFF TRENCH PER THE PLANS AND DIRECTION OF THE GEOTECHNICAL ENGINEER.
7. THE CUTOFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE BOTTOM WIDTH SHALL BE A MINIMUM OF 5 FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW THE EXISTING GRADE, OR BOTTOM OF ANY PROPOSED TRENCH OR EXCAVATION WHICHEVER IS DEEPER OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE SIDE SLOPES OF THE TRENCH SHALL BE NO 1:1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.
8. INSTALL OUTLET STRUCTURE AS INDICATED ON THE PLAN.
9. RISER STRUCTURE TO BE PROVIDED WITH 12" ON CENTER INSIDE OF THE RISER. SEE NCDOT 840.66
10. NO HEAVY EQUIPMENT CAN PASS OVER CAST-IN PLACE STRUCTURES UNTIL ADEQUATE CURING TIME HAS ELAPSED.
11. REMOVE ANY LOOSE OR SOFT, WET SOILS FROM THE AREA AND BACKFILL. ALL VISIBLE ORGANIC DEBRIS SUCH AS ROOTS AND LIMBS SHALL BE REMOVED FROM THE FILL MATERIAL PRIOR TO COMPACTION TO THE REQUIRED DENSITY. SOILS WITH ORGANIC MATTER CONTENT EXCEEDING 5% BY WEIGHT SHALL NOT BE USED. STONES GREATER THAN 3-INCHES SHALL BE REMOVED FROM FILL PRIOR TO COMPACTION.
12. FOUNDATION AREAS MAY REQUIRE UNDERCUTTING OF COMPRESSIBLE AND/OR UNSUITABLE SOILS IN ADDITION TO THAT INDICATED ON THE PLANS. ALL SUCH UNDERCUTTING SHALL BE PERFORMED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND SHALL BE MONITORED AND DOCUMENTED. NO PORTIONS OF THE FOUNDATION SOILS MAY BE STABILIZED WITH CRUSHED STONE.
13. PLACE EMBANKMENT MATERIAL IN 6 INCH LOOSE LIFTS AND COMPACT TO A DENSITY OF AT LEAST 95% STANDARD PROCTOR. COMPACTION TESTING SHALL BE PERFORMED BY THE GEOTECHNICAL ENGINEER AT LOCATIONS AND FREQUENCY TO BE DETERMINED BY THE GEOTECHNICAL ENGINEER BASED ON THEIR JUDGMENT AND EXPERIENCE. SCARIFY EACH LIFT TO FORM A GOOD BOND WITH THE NEXT LIFT. THE FILL SHALL BE PLACED IN LIFTS THAT ARE PARALLEL TO THE EMBANKMENT SLOPE. TESTS FOR PERCENT COMPACTION OF THE PLACED FILL IN THE DAM MUST BE PERFORMED AS QUALITY CONTROL FOR THE CONSTRUCTION OF THE DAM. CONTRACTOR SHALL COORDINATE SO THAT THESE TESTS CAN BE DONE. ALL PORTIONS NOT CONFORMING TO THE SPECIFIED DEGREE OF COMPACTION SHALL BE REWORKED OR REBUILT. ALL PORTIONS MUST ACHIEVE SPECIFIED MINIMUM DEGREE OF COMPACTION.
14. THE EMBANKMENT FILL SHALL BE SLIGHTLY SLOPED TOWARD DOWNSTREAM TO PROMOTE THE DRAINAGE OF SURFACE WATER DURING CONSTRUCTION.
15. THE SURFACE OF THE EMBANKMENT SHALL BE SEALED OFF WITH A SMOOTH DRUM ROLLER PRIOR TO ANY PROLONGED DELAY SUCH AS AT THE END OF THE WEEK OR BEFORE A FORECASTED STORM. SCARIFY THE SMOOTH SURFACE BEFORE PLACING THE NEXT LIFT.
16. ANY EMBANKMENT FILL MATERIAL THAT IS FROZEN OR SOFTENED BY SURFACE WATER OR ICE SHALL BE REMOVED PRIOR TO THE PLACEMENT OF THE NEXT LIFT.
17. ANY COMPACTION WITHIN THREE FEET FROM THE CONCRETE WALLS AND OTHER STRUCTURES SHALL BE PERFORMED BY A PORTABLE COMPACTER TO AVOID DAMAGE TO THE STRUCTURE. THE MAXIMUM LOOSE LIFT THICKNESS SHALL BE 4 INCHES, AND MINIMUM COMPACTION SHALL BE TO 95% STANDARD PROCTOR. COMPACTION TESTING FREQUENCY SHALL BE AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
18. FILL ADJACENT TO THE RISER AND PRINCIPAL SPILLWAY PIPE SHALL BE PLACED SO THAT LIFTS ARE THE SAME LEVEL ON BOTH SIDES OF THE STRUCTURES.
19. EARTHWORK COMPACTION WITHIN 3-FEET OF ANY STRUCTURES SHALL BE ACCOMPLISHED BY MEANS OF HAND TAMPERS, MANUALLY DIRECTED POWER TAMPERS OR PLATE COMPACTORS OR MINIATURE SELF-PROPELLED ROLLERS.
20. THE CONSTRUCTION SITE SHALL BE KEPT DRY AT ALL TIMES BY MEANS OF COFFERDAMS, SUMP PUMPS, TRENCHES, PIPES AND ANY OTHER MEASURES OR EQUIPMENT THAT IS REQUIRED.
21. MOISTURE CONTENT OF THE EMBANKMENT FILL DURING PLACEMENT SHALL BE NO MORE TH



ADJOINING OWNERS:

LOCHRIDGE ADJOINERS					
PROP	CLASS	OWNER	D.B.	PG.	PIN
1	RHS	MCNABB, EVAN NELSON MCNABB, LISA ROOS	18745	2118	0638-02-4951
2	RHS	CHACE, DAVID CHACE, ANN MEADE	18713	211	0638-02-4762
3	RHS	NAIR, SHIBU GOPALAKRISHNAN NAIR, RESMI REGHUKUMAR	19129	1471	0638-02-4542
4	RHS	PANCHINENI, HANUMANTH RAO MEDAVARAPU, VANITHA	19067	2726	0638-02-4333
5	HOA	LOCHRIDGE HOMEOWNERS ASSOCIATION INC	18867	1348	0638-02-6371
6	HOA	LOCHRIDGE HOMEOWNERS ASSOCIATION INC	17626	2503	0638-02-5172
7	RHS	PUOPOLO, ANTHONY M PUOPOLO, WENDY LYNN	17936	2795	0638-01-4944
8	RHS	LAUER, DAYNE LAUER, KATIE	18522	2591	0638-01-4824
9	RHS	GRAHAM, JEFFREY GRAHAM, NANCY	19246	1919	0638-01-4725
10	RHS	PINNAPAREDDY, SRINIVAS REDDY MANDADI, JYOTHI	18714	902	0638-01-4626
11	RHS	KAHN, RUSSELL ALLISON KAHN, DEBORAH JACKSON	18041	269	0638-01-4517
12	RHS	JAYNES, KRISTIN JAYNES, BRADLEY	18004	2099	0638-01-4438
13	RHS	SANTOIANNI, DAWN A.	18525	2578	0638-01-3299

PROPERTY LINE TABLE:

LINE	BEARING	DISTANCE
L1	N54°28'02"E	182.84
L2	N13°07'08"E	132.17
L3	S54°04'57"E	16.62
L4	S01°43'46"W	405.95
L5	S60°34'40"E	116.38
L6	N78°41'16"W	104.50
L7	S01°43'46"W	907.28
L8	S01°43'46"W	63.59
L9	S01°43'46"W	947.53
L10	N72°24'24"W	34.27
L11	S14°47'27"W	167.77
L12	N88°27'56"W	190.97
L13	N31°11'50"W	163.81
L14	N84°18'56"W	99.05
L15	S07°08'42"E	245.92
L16	S62°31'47"W	72.09
L17	N00°50'46"W	442.75
L18	N01°42'19"E	538.69
L19	N01°47'32"E	74.39
L20	N01°44'03"E	1046.69
L21	N44°11'48"E	42.16
L22	S26°47'18"E	203.11
L23	N00°06'28"W	221.60
L24	N51°32'51"E	102.67
L25	S52°19'27"E	190.36
L26	S28°21'34"E	234.84
L27	N04°06'36"W	289.48
L28	S78°59'38"E	61.02
L29	N60°38'43"W	153.31
L30	N23°48'04"W	115.10
L31	N55°41'36"E	29.59
L32	N56°00'13"E	29.01
L33	N56°56'31"E	32.07
L34	N58°40'06"E	29.69

LINE	BEARING	DISTANCE
L35	N60°09'18"E	29.79
L36	N61°15'46"E	30.09
L37	N62°30'26"E	27.87
L38	N65°13'10"E	30.26
L39	N65°51'51"E	28.13
L40	N67°32'57"E	30.81
L41	N68°52'34"E	29.81
L42	N69°12'13"E	29.78
L43	N70°55'38"E	28.09
L44	N71°25'07"E	29.65
L45	N71°33'51"E	30.81
L46	N72°37'05"E	28.48
L47	N72°29'22"E	26.28
L48	N72°21'35"E	47.79
L49	N72°26'02"E	10.50
L50	S72°21'35"W	37.31
L51	S72°29'22"W	26.41
L52	S72°37'05"W	27.99
L53	S71°33'51"W	30.18
L54	S71°25'07"W	29.31
L55	S70°55'38"W	26.93
L56	S69°12'13"W	28.71
L57	S68°52'34"W	28.94
L58	S67°32'57"W	29.23
L59	S65°51'51"W	26.91
L60	S65°13'10"W	28.51
L61	S62°30'26"W	25.80
L62	S61°15'46"W	28.86
L63	S60°09'18"W	28.43
L64	S58°40'06"W	28.01
L65	S56°56'31"W	30.67
L66	S56°00'13"W	28.35
L67	S55°41'36"W	60.47
L68	S55°13'19"W	12.79

811 Know what's below. Call before you dig.

GRAPHIC SCALE
120 60 30 0 60 180
1" = 60'

NORTH

SURVEY SYMBOL LEGEND

- AC UNIT
- BFV — BACK FLOW VALVE
- BOLLARD
- CABLE PEDESTAL
- CV — CABLE VAULT
- CATCH BASIN
- CLEAN OUT
- CB — COMMUNICATION BOX
- CURB INLET
- ELECTRIC BOX
- EV — ELECTRICAL VAULT
- FIRE HYDRANT
- FL — FENCE LINE
- FO — FIBER OPTIC
- FOV — FIBER OPTIC VAULT
- FLARED END SECTION
- G — GAS
- GAS VALVE
- GRATED INLET
- GW — GUY WIRE
- IV — IRRIGATION VALVE
- LIGHT POLE
- OH — OVERHANG
- OE — OVERHEAD ELECTRIC
- RCP — REINFORCED CONCRETE DRAINAGE PIPE
- SEWER MANHOLE
- STORM MANHOLE
- JB — STORM JUNCTION BOX
- SWAMP
- TELEPHONE PEDESTAL
- TELEPHONE MANHOLE
- TEMPORARY BENCHMARK
- TREE
- UE — UNDERGROUND ELECTRIC
- UP — UNDERGROUND POWER
- UT — UNDERGROUND TELEPHONE
- UTILITY POLE
- WL — WATER LINE
- HB — WATER LINE HOTBOX
- WATER LINE MANHOLE
- WATER METER
- WATER VALVE
- W — WELL
- YARD INLET

PROPERTY CORNERS

- CONC MONUMENT SET
- CONC MONUMENT FOUND
- PROP CORNER FOUND
- COMPUTED POINT
- CONTROL CORNER
- IRON PIPE SET
- IPF — IRON PIPE FOUND

HATCH LEGEND

- TRASH/DEBRIS
- EXISTING RIPRAP

SURVEY LINETYPES

- PROPERTY LINE
- P/L NOT SURVEYED
- EASEMENT
- ADJOINER
- FL — FENCE LINE
- XSS — SANITARY SEWER
- XST — STORM SEWER
- UPL — UNDERGROUND POWER
- XFO — FIBER OPTIC/COMMUNICATION
- TS — TRAFFIC SIGNAL
- XWL — WATERLINE
- UT — UNDERGROUND TELEPHONE
- 100 YR FLOODPLAIN
- GUARD RAIL

NOTES:

1. ALL AREAS WERE COMPUTED BY COORDINATE CALCULATIONS.
2. ALL DISTANCES SHOWN IN THIS PLAN ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
3. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS, RESTRICTIONS, UTILITIES OF RECORD, AND AGREEMENTS, IF ANY, AS THE SAME MAY APPEAR IN PUBLIC RECORDS, IN THE OFFICE OF THE REGISTER OF DEEDS, CLERK OF COURT, TOWN OR COUNTY TAX OFFICES OR WHICH MAY HAVE BEEN ACQUIRED BY PRESCRIPTIVE USE.
4. THIS SURVEY HAS BEEN TIED TO THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM NAD83 (2011). THE DATA WAS PRODUCED BY RTK GPS OBSERVATIONS AND PROCESSED USING THE NORTH CAROLINA VRS NETWORK. THE NETWORK POSITIONAL ACCURACY OF THE DERIVED POSITIONAL COORDINATES IS +/- 0.12. ALL OTHER FIELD INFORMATION SHOWN ON THIS SURVEY HAS BEEN PRODUCED BY TRADITIONAL SURVEY METHODS
5. NO ENCROACHMENTS WERE FOUND.
6. THERE ARE NO PROPOSED CHANGES TO STREET RIGHT OF WAY LINES, NOR IS THERE ANY EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.
7. THERE IS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
8. THERE IS NO VISUAL EVIDENCE OF SITE USE AS A SOLID WASTE DUMP, OR SANITARY LANDFILL.
9. WETLANDS ARE SHOWN AS FIELD LOCATED BY PRIEST CRAVEN & ASSOCIATES THE DELINEATION WAS PERFORMED BY WETLAND SOLUTION, LLC DATED MAY 5, 2021.
10. FEMA DESIGNATED FLOOD HAZARD AREAS DO NOT AFFECT THE SUBJECT PROPERTY. PANEL NUMBER: 3720062800K DATED 7/19/22

NORTH CAROLINA PROFESSIONAL SEAL L-4775 ENGINEER THOMAS F. CRAVEN

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

SCALE:	1"=60'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

EXISTING CONDITIONS

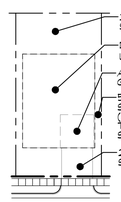
2ND REVIEW TOWN STAFF COMMENTS	3/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/18/2025
RELEASED FOR CONSTRUCTION DATE (SEE COVER)	■ NO ☐ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # C1.00

SETBACK TABLE:

20 FT MINIMUM FRONT YARD, INTERNAL STREETS
25 FT, MINIMUM REAR YARD
5 FT, SIDEYARD
10 FT, SIDE CORNER



TYPICAL LOT DETAIL

NOT TO SCALE

CLUSTER MAIL BOX STANDARDS

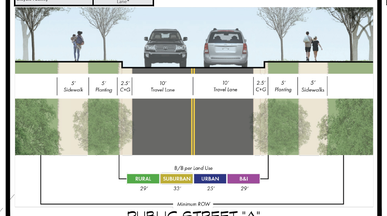
PER UDO 3.4.3
APPEARANCE STANDARDS (20 OR MORE RECEPTACLES). AN INDIVIDUAL CLUSTER MAILBOX UNIT OR COMBINATION OF CLUSTER MAILBOX UNITS LOCATED WITHIN THE SAME AREA CONTAINING 20OR MORE MAIL RECEPTACLES SHALL BE SUBJECT TO THE FOLLOW APPEARANCES STANDARDS:

A. SHALL BE BUILT INTO A WALL AS PART OF A BUILDING FACADE, OR
B. SHALL BE FREESTANDING AND SHALL BE CONSTRUCTED WITH THE FOLLOWING DESIGN AND APPEARANCE REQUIREMENTS:
  I. PRIMARY BUILDING MATERIAL SHALL BE CONSISTENT WITH THE STYLE OF THE DEVELOPMENT OR PROJECT;
  II. SETS ON A DECORATIVE PEDESTAL OR IS FIXED TO TWO DECORATIVE POSTS;
  III. DESIGNED AS AN ARCHITECTURAL FEATURE TO CREATE IDENTITY OF THE PROJECT OR SUBDIVISION; AND
  IV. PROVIDES FOUNDATION LANDSCAPING AROUND THE BASE OF THE STRUCTURE PER THE REQUIREMENT OF SECTION 5.3.4 OF THIS UDO.

Design Elements	Element Included	
Right-of-Way (ROW)	Yes	58'
Back of Curb to Back of Curb (B/B)	Yes	29'
Travel Lanes	2 Lanes	11'
Center Turn Lane	No	–
Median	No	–
Curb and Gutter (C+G)	2 Sides	2.5'
Paved Shoulder	No	–
Planting	2 Sides	5'
On-Street Parking	Varies	
Sidepath	0-1 Side*	10'
Sidewalk	1-2 Sides*	5'
Bicycle Facility	Sharrow / Wide Outside Lane*	

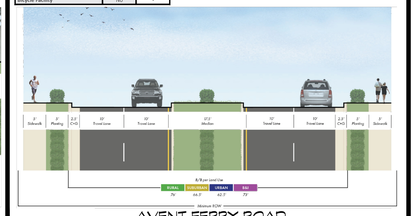
NOTE:
THIS SUBDIVISION IS IN THE TRIASSIC BASIN. ALL ROADWAYS WILL BE REQUIRED TO MEET ALL SPECIAL DESIGN REQUIREMENTS AS OUTLINED IN THE ENGINEERING DESIGN AND CONSTRUCTION STANDARDS SECTION 3.02J.

MINIMUM PAVEMENT DESIGN (PER TOHS DETAILS):
1½" I9.5B
1½" I9.5C
8"ABC
STAGE CONSTRUCTION FOR SURFACE AT TWO LIFTS SO PROPER TAPER OCCURS AT TRANSITION

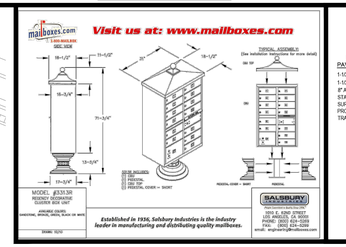


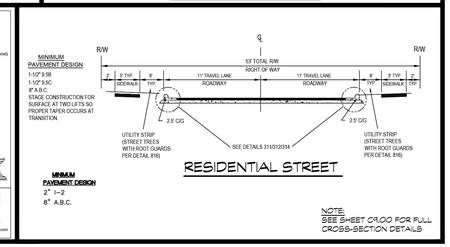
PUBLIC STREET "A"

Design Elements	Element Included	
Right-of-Way (ROW)	Yes	103'
Back of Curb to Back of Curb (B/B)	Yes	66.5'
Travel Lanes	4 Lanes	11'
Center Turn Lane	No	–
Median	Yes	17.5'
Curb and Gutter (C+G)	2 Sides	2.5'
Paved Shoulder	No	–
Planting	2 Sides	6'
On-Street Parking	No	–
Sidepath	0-2 Sides*	10'
Sidewalk	0-2 Sides*	6'
Bicycle Facility	No	



AVENT FERRY ROAD





RESIDENTIAL STREET

NOTE:
SEE SHEET C9.00 FOR FULL CROSS-SECTION DETAILS

GENERAL NOTES:

1. BOUNDARY INFORMATION IS FROM A COMBINATION OF A SURVEY BY BY THIS OFFICE, DEEDS AND GIS DATA.
2. SITE TOPOGRAPHIC INFORMATION IS TAKEN FROM A SURVEY BY THIS OFFICE.
3. PLANIMETRIC AND TOPOGRAPHIC INFORMATION FOR AREAS OUTSIDE OF THIS SITE ARE TAKEN FROM WAKE COUNTY GIS INFORMATION.
4. WETLAND, CHANNEL BANK AND SUBSEQUENT NEUSE RIVER BUFFER LOCATIONS BASED ON A FIELD VERIFICATIONS BY SOIL AND ENVIRONMENTAL CONSULTANTS, PA.
5. ALL MATERIALS AND CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE TOWN OF HOLLY SPRINGS, NCDOT, AND NCDWR STANDARDS AND SPECIFICATIONS.
6. THIS SITE IS LOCATED WITHIN THE CAPE FEAR RIVER BASIN.
7. THERE ARE NO FEMA FLOOD ZONES WITHIN THE PROJECT SITE ACCORDING TO FLOOD INSURANCE RATE MAP 3720062800K.
8. NO INFRASTRUCTURE TO BE CONSTRUCTED PRIOR TO CONSTRUCTION PLAN APPROVAL AND UTILITY PERMIT ISSUANCE BY THE TOWN OF HOLLY SPRINGS, THE CITY OF RALEIGH PUBLIC UTILITIES, DEPARTMENT, AND NCDOT.
9. EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR LOCATION OF ALL EXISTING ABOVE AND BELOW GROUND UTILITY FIELD LOCATION PRIOR TO ANY CONSTRUCTION.
10. AREA IN WATERSHED BASED ON WAKE COUNTY GIS TOPOGRAPHY AND ON-SITE OBSERVATIONS.
11. THIS DOCUMENT IS BEING PROVIDED TO DEFINE MINIMUM COMPLIANCE WITH THE TOWN OF HOLLY SPRINGS SR-CD ZONING DISTRICT REQUIREMENTS
12. A LIGHTING PLAN SHALL BE REQUIRED FOR ALL PHASES DURING CONSTRUCTION PLAN REVIEW. A MINIMUM OF 25 FEET OF SEPARATION SHALL BE REQUIRED BETWEEN LIGHT POLES, STREET TREES, AND SIGNAGE.
13. ALL CONSTRUCTION SHALL CONFORM TO TOWN OF HOLLY SPRINGS ENGINEERING DESIGN AND CONSTRUCTION STANDARDS.
14. CONSTRUCTION DRAWING APPROVAL IS REQUIRED BEFORE CONSTRUCTION ON THIS PROJECT MAY BEGIN. DEVELOPMENT FEES ARE DUE BEFORE CONSTRUCTION DRAWING APPROVAL.

HATCH LEGEND

- PU,DE = PUBLIC DRAINAGE EASEMENT
- PR,DE = PRIVATE DRAINAGE EASEMENT
- PRIVATE SCM MAINTENANCE & ACCESS ESMT
- SEWER EASEMENT
- TREE SAVE OR PRESERVED WOODED AREA
- WETLANDS
- 10 TYPE B, 5 TYPE A, 50 TFARE — PLANTING BUFFER

- 60' WIDE SINGLE FAMILY LOTS 7,500 MIN. SF, 10,000 AVG. SF
- PUBLIC STREET RIGHT-OF-WAY TO BE DEDICATED
- ON-SITE HOA MANAGED OPEN SPACE
- ACTIVE RECREATION AREA OPEN SPACE (GREENWAY WITHIN 20' GREENBELT ESMT, PLAYGROUNDS, GAZEBO MEETING AREA, ETC.)
- TREE PRESERVATION AREA OPEN SPACE
- ON-SITE PRIVATE OPEN SPACE STORMWATER CONTROL MEASURE

LAND USES AND AREA CALCULATIONS

AREA CALCULATIONS		
GROSS AREA OF PROJECT BASED ON SURVEY		21.62 AC
AREA IN TRACT 1 (SINGLE FAMILY)		10.75 AC
AREA IN TRACT 2 (SINGLE FAMILY)		10.87 AC
AREA IN PUBLIC R/W DEDICATION		3.18 AC
AREA IN RESIDENTIAL LOTS		10.11 AC
AREA IN OPEN SPACE		8.33 AC
SR ZONING OPEN SPACE AREAS REQUIRED	30%	6.49 AC
ELIGIBLE OPEN SPACE AREA PROVIDED	35%	7.62 AC
*50% OF SCM AREA IS ELIGIBLE PER UDO 4.3.2.C.2.a (TRAIL ALONG 50% OF PERIMETER OF SCM)		
TOTAL AREA IN OPEN SPACES, BUFFERS, SCMS, & PRESERVATION		8.33 AC
TOTAL ELIGIBLE AREA IN OPEN SPACES, BUFFERS, SCMS, & PRESERVATION	35%	7.62 AC
TREE PRESERVATION AREA OPEN SPACE	21%	4.47 AC
ACTIVE RECREATIONAL OPEN SPACE (PLAYGROUNDS, GREENBELT, GATHERING AREA)	6%	1.32 AC
FLEXIBLE OPEN SPACE - SCM 0.71 AC ELIGIBLE	3%	1.41 AC
FLEXIBLE HOA MAINTAINED OPEN SPACE	5%	1.13 AC

GRAPHIC SCALE
1" = 60'

SCALE:	1"=60'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

MIRA RIDGE

MAJOR SUBDIVISION PLAN

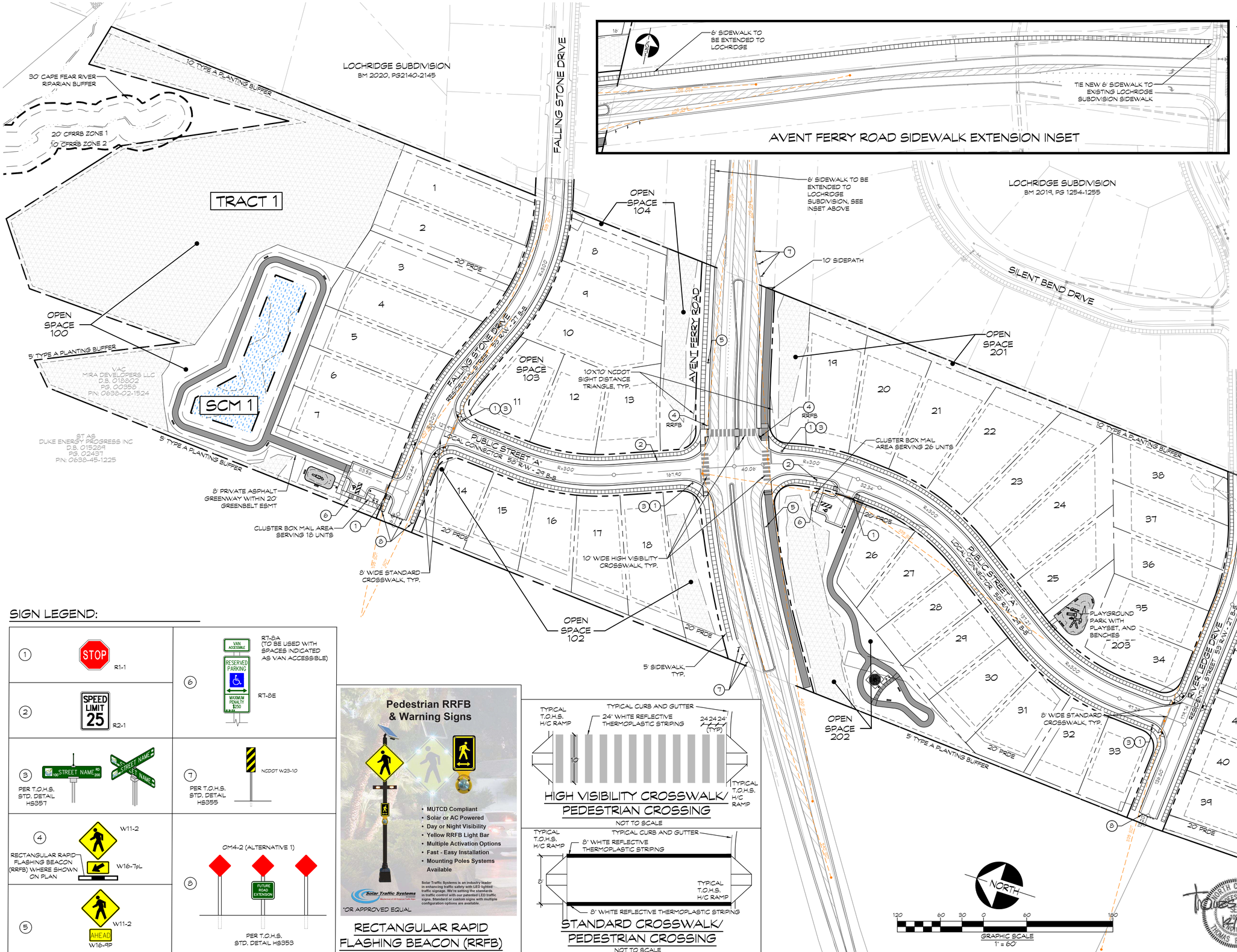
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

PRELIMINARY SITE PLAN

2ND REVIEW TOWN STAFF COMMENTS	3/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/18/2025
RELEASED FOR CONSTRUCTION DATE (SEE COVER)	■ NO ☐ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # C2.00



SIGNAGE AND MARKING NOTES:

1. THE DEVELOPER OR SUBDIVIDER SHALL ERECT OR PLACE STREET NAME SIGNS, PAVEMENT MARKING AND TRAFFIC CONTROL SIGNS IN CONFORMANCE WITH THE ENGINEERING DESIGN & CONSTRUCTION STANDARDS, TOWN POLICY AND THE NORTH CAROLINA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AT EVERY STREET INTERSECTION WITHIN THE PROJECT OR SUBDIVISION.
2. ALL ROADWAYS SHALL BE MARKED AND SIGNED IN ACCORDANCE WITH THE LATEST REVISIONS OF THE MUTCD UNLESS OTHERWISE APPROVED BY THE EXECUTIVE DIRECTOR OF UTILITIES AND INFRASTRUCTURE. PAVEMENT MARKINGS AND SIGNAGE SHALL BE SHOWN ON ROADWAY AND SUBDIVISION PLANS AND SHALL BE INSTALLED PRIOR TO THE ISSUANCE OF CERTIFICATES OF OCCUPANCY FOR THE DEVELOPMENT OR FINAL ACCEPTANCE OF THE ROADWAY. THE PAVEMENT MARKINGS FOR ALL COLLECTOR STREETS AND THOROUGHFARES SHALL BE THERMOPLASTIC.
3. THE PAVEMENT MARKINGS ALONG THOROUGHFARES SHALL BE INSTALLED SUCH THAT THE OUTSIDE LANES ARE 14 FEET IN WIDTH TO ACCOMMODATE BICYCLE TRAFFIC UNLESS OTHERWISE APPROVED BY THE EXECUTIVE DIRECTOR OF UTILITIES AND INFRASTRUCTURE.
4. SPEED LIMIT (R2-1) SIGNS SHALL BE LOCATED AT POINTS OF CHANGE FROM ONE SPEED LIMIT TO ANOTHER. SPEED LIMIT SIGNS SHALL BE REQUIRED AT ALL ENTRANCES TO A SUBDIVISION.
5. SPEED LIMIT SIGNS SHALL BE REQUIRED AT A LOCATION APPROXIMATELY 125 FEET UPON TURNING ONTO ANY PUBLIC STREET LONGER THAN 500 FEET. SPEED LIMIT SIGNS MAY BE REQUIRED AT ADDITIONAL LOCATIONS WHERE IT IS NECESSARY TO REMIND ROAD USERS OF THE SPEED LIMIT.
6. AT ANY TIME PRIOR TO 1-YEAR WARRANTY ADDITIONAL PAVEMENT MARKINGS AND/OR SIGNAGE MAY BE REQUIRED BY THE EXECUTIVE DIRECTOR OF UTILITIES AND INFRASTRUCTURE, AT THE DEVELOPER'S EXPENSE.
7. TRAFFIC CONTROL BOLLARDS AND/OR SIGN POLE BOLLARDS SHALL BE PAINTED BLACK OR PAINTED TO MATCH THE PRIMARY COLOR SCHEME OF THE FAÇADE.
8. REFER TO SHEET C9.01 FOR DETAILS.

SIGN LEGEND:

1. STOP — R1-1
2. SPEED LIMIT 25 — R2-1
3. STREET NAME — PER T.O.H.S. STD. DETAIL HS357
4. W11-2 / W16-7pL — RECTANGULAR RAPID FLASHING BEACON (RRFB) WHERE SHOWN ON PLAN
5. W11-2 / AHEAD / W16-9P
6. VAN ACCESSIBLE / RESERVED PARKING / MAXIMUM PENALTY $250 — R7-8A (TO BE USED WITH SPACES INDICATED AS VAN ACCESSIBLE); R7-8E
7. NCDOT W23-10 — PER T.O.H.S. STD. DETAIL HS355
8. OM4-2 (ALTERNATIVE 1) / FUTURE ROAD EXTENSION — PER T.O.H.S. STD. DETAIL HS353

RECTANGULAR RAPID FLASHING BEACON (RRFB)

HIGH VISIBILITY CROSSWALK/ PEDESTRIAN CROSSING
NOT TO SCALE

STANDARD CROSSWALK/ PEDESTRIAN CROSSING
NOT TO SCALE

2ND REVIEW TOWN STAFF COMMENTS	8/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/19/2025
RELEASED FOR CONSTRUCTION DATE: (SEE COVER)	■ NO ☐ YES

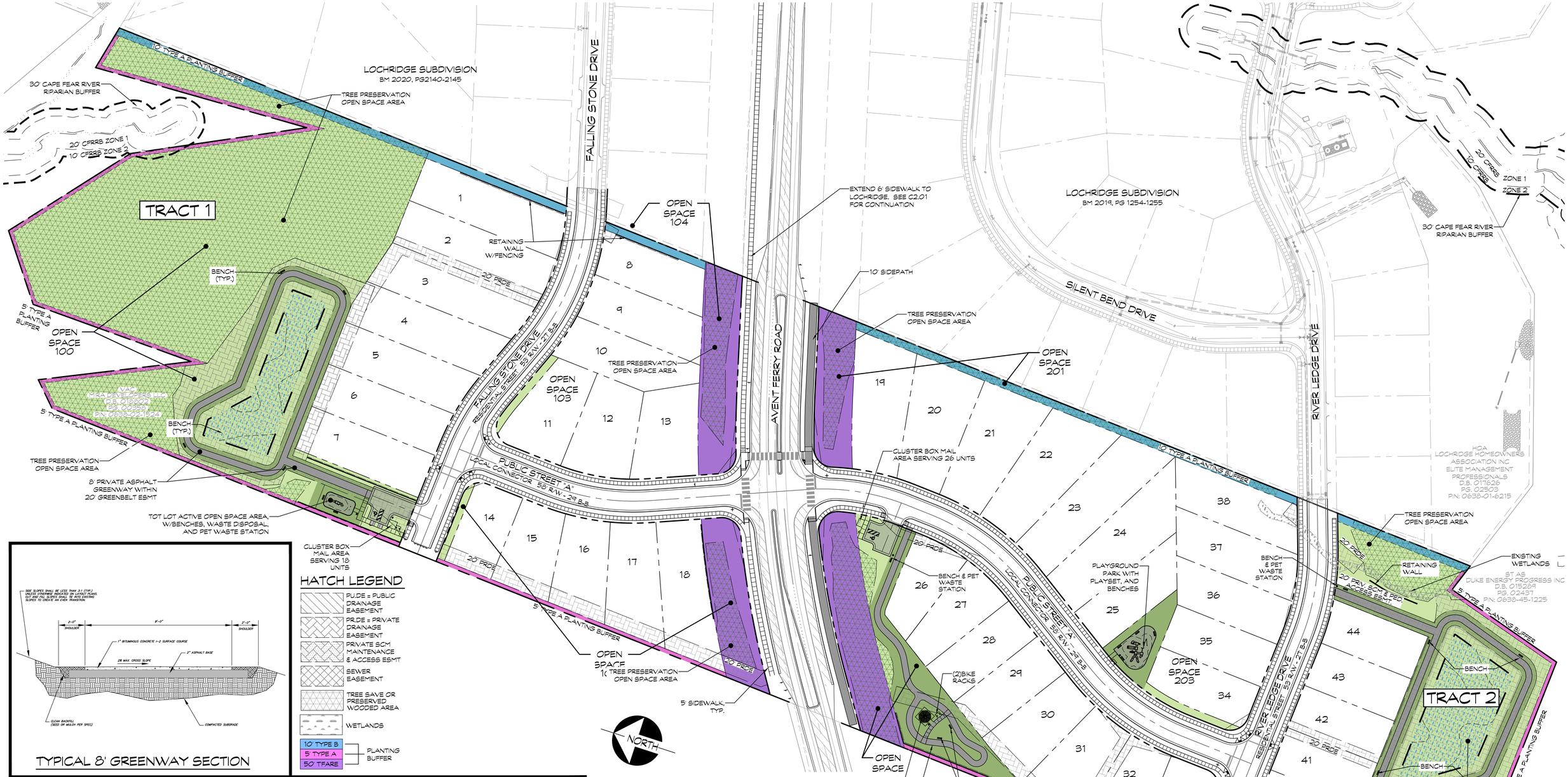
MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

SCALE:	1"=60'
DATE:	NOVEMBER 6, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

PRELIMINARY SIGNAGE AND ROADWAY ASSET PLAN

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # C2.01



TYPICAL 8' GREENWAY SECTION

HATCH LEGEND

- PUDE = PUBLIC DRAINAGE EASEMENT
- PRDE = PRIVATE DRAINAGE EASEMENT
- PRIVATE SCM MAINTENANCE & ACCESS ESMT
- SEWER EASEMENT
- TREE SAVE OR PRESERVED WOODED AREA
- WETLANDS
- 10' TYPE B, 5' TYPE A, 50' TFARE — PLANTING BUFFER

AREA CALCULATIONS

GROSS AREA OF PROJECT BASED ON SURVEY		21.62 AC
AREA IN TRACT 1 (SINGLE FAMILY)		10.75 AC
AREA IN TRACT 2 (SINGLE FAMILY)		10.87 AC
AREA IN PUBLIC R/W DEDICATION		3.18 AC
AREA IN RESIDENTIAL LOTS		10.11 AC
AREA IN OPEN SPACE		8.33 AC
SR ZONING OPEN SPACE AREAS REQUIRED	30%	6.49 AC
ELIGIBLE OPEN SPACE AREA PROVIDED	35%	7.62 AC
*50% OF SCM AREA IS ELIGIBLE PER UDO 4.3.2.C.2.a (TRAIL ALONG 50% OF PERIMETER OF SCM)		
TOTAL AREA IN OPEN SPACES, BUFFERS, SCMS, & PRESERVATION		8.33 AC
TOTAL ELIGIBLE AREA IN OPEN SPACES, BUFFERS, SCMS, & PRESERVATION	35%	7.62 AC
TREE PRESERVATION AREA OPEN SPACE	21%	4.47 AC
ACTIVE RECREATIONAL OPEN SPACE (PLAYGROUNDS, GREENBELT, GATHERING AREA	6%	1.32 AC
FLEXIBLE OPEN SPACE - SCM 0.11 AC ELIGIBLE	3%	1.41 AC
FLEXIBLE HOA MAINTAINED OPEN SPACE	5%	1.13 AC

- ON-SITE HOA MANAGED OPEN SPACE
- ACTIVE RECREATION AREA OPEN SPACE (GREENWAY WITHIN 20' GREENBELT ESMT, PLAYGROUNDS, GAZEBO MEETING AREA, ETC.)
- TREE PRESERVATION AREA OPEN SPACE
- ON-SITE PRIVATE OPEN SPACE STORMWATER CONTROL MEASURE

LAND USES AND AREA CALCULATIONS

SCM OPEN SPACE NOTES (PER UDO 7.3.2.C)

UP TO 50% OF A STORMWATER CONTROL MEASURES (SCMS) MAY BE ELIGIBLE SUBJECT TO THE FOLLOWING CONDITIONS:

1. IT IS DESIGNED FOR DRY WEATHER USAGE (E.G., DRY DETENTION AREAS) AS FIELDS OR OTHER ACTIVE RECREATION ACTIVITIES; OR,
2. THE SCM INCLUDES 1 OR MORE OF THE FOLLOWING RECREATION-RELATED DESIGN ELEMENTS.
   - A. A TRAIL FOR WALKING OR JOGGING ALONG THE SCM A MINIMUM OF 50% OF THE PERIMETER LENGTH OF THE SCM; OR,
   - B. 1 BENCH FOR EVERY 50 LINEAR FEET OF PERIMETER LENGTH OF THE SCM; OR,
   - C. A DECORATIVE WATER FEATURE, SUCH AS AERATION OR FOUNTAIN FIXTURE; OR,
   - D. A FISHING DOCK/PIER; OR,
   - E. A MINIMUM OF 2 EDUCATIONAL SIGNS EXPLAINING THE FUNCTION AND BENEFITS OF THE SCM. THE MINIMUM SIGN SURFACE AREA SHALL BE 6 SQUARE FEET AND THE MAXIMUM HEIGHT SHALL BE 4 FEET.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 049055 THOMAS F. CRAVEN 12/15/25

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

SCALE:	1"=60'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

PRELIMINARY OPEN SPACE PLAN

2ND REVIEW TOWN STAFF COMMENTS	9/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	8/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/19/2025
RELEASED FOR CONSTRUCTION DATE (SEE COVER) ■ NO □ YES	

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
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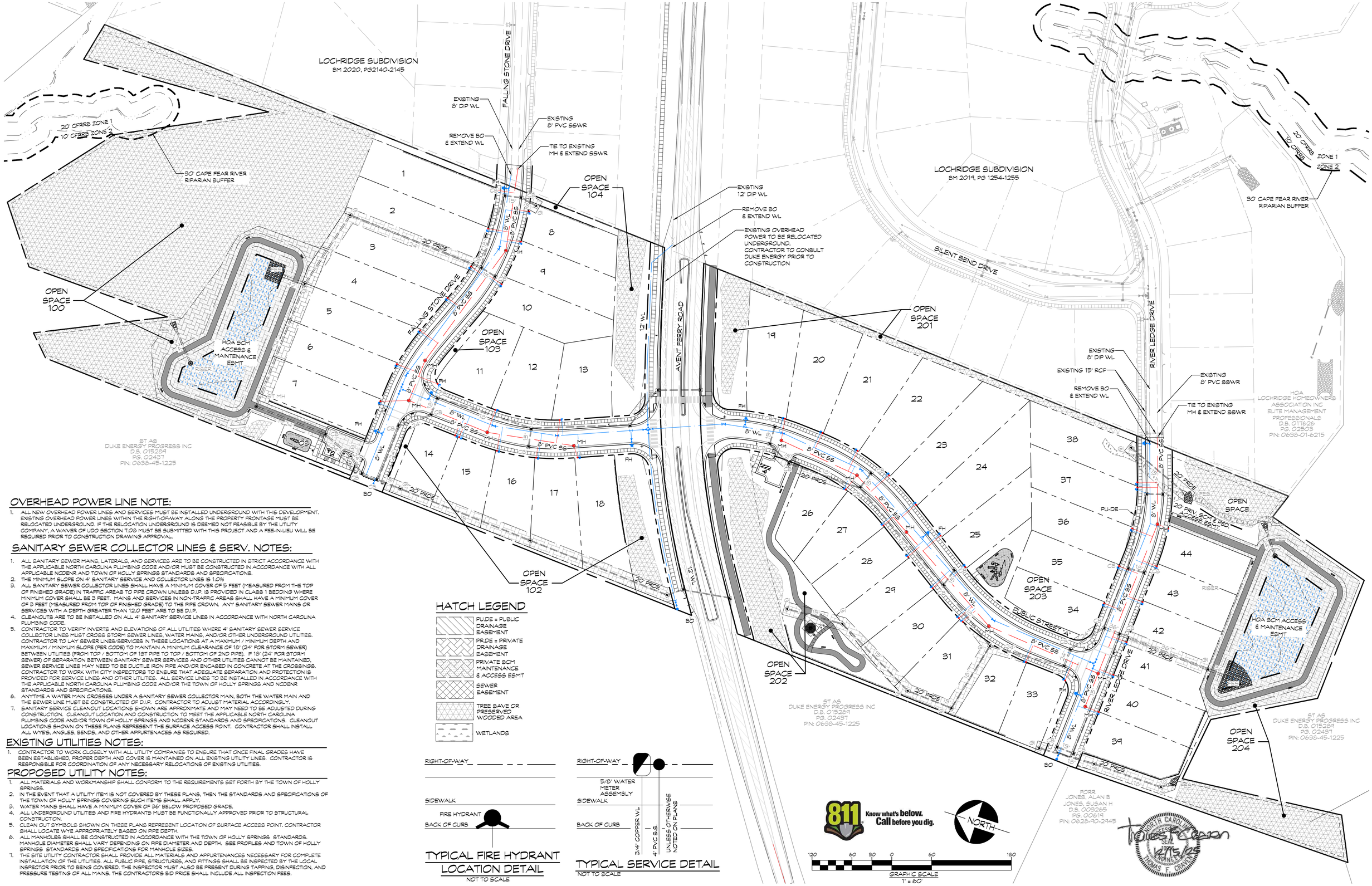
SHEET # C2.10



OVERHEAD POWER LINE NOTE:

1. ALL NEW OVERHEAD POWER LINES AND SERVICES MUST BE INSTALLED UNDERGROUND WITH THIS DEVELOPMENT. EXISTING OVERHEAD POWER LINES WITHIN THE RIGHT-OF-WAY ALONG THE PROPERTY FRONTAGE MUST BE RELOCATED UNDERGROUND. IF THE RELOCATION UNDERGROUND IS DEEMED NOT FEASIBLE BY THE UTILITY COMPANY, A WAIVER OF UDO SECTION 7.08 MUST BE SUBMITTED WITH THIS PROJECT AND A FEE-N-LIEU WILL BE REQUIRED PRIOR TO CONSTRUCTION DRAWING APPROVAL.

SANITARY SEWER COLLECTOR LINES & SERV. NOTES:

1. ALL SANITARY SEWER MAINS, LATERALS, AND SERVICES ARE TO BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE APPLICABLE NORTH CAROLINA PLUMBING CODE AND/OR MUST BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE NCDENR AND TOWN OF HOLLY SPRINGS STANDARDS AND SPECIFICATIONS.
2. THE MINIMUM SLOPE ON 4" SANITARY SERVICE AND COLLECTOR LINES IS 1.0%
3. ALL SANITARY SEWER COLLECTOR LINES SHALL HAVE A MINIMUM COVER OF 5 FEET (MEASURED FROM THE TOP OF FINISHED GRADE) IN TRAFFIC AREAS TO PIPE CROWN UNLESS D.I.P. IS PROVIDED IN CLASS 1 BEDDING WHERE MINIMUM COVER SHALL BE 3 FEET. MAINS AND SERVICES IN NON-TRAFFIC AREAS SHALL HAVE A MINIMUM COVER OF 3 FEET (MEASURED FROM TOP OF FINISHED GRADE) TO THE PIPE CROWN. ANY SANITARY SEWER MAINS OR SERVICES WITH A DEPTH GREATER THAN 12.0 FEET ARE TO BE D.I.P.
4. CLEANOUTS ARE TO BE INSTALLED ON ALL 4" SANITARY SERVICE LINES IN ACCORDANCE WITH NORTH CAROLINA PLUMBING CODE.
5. CONTRACTOR TO VERIFY INVERTS AND ELEVATIONS OF ALL UTILITIES WHERE 4" SANITARY SEWER SERVICE COLLECTOR LINES MUST CROSS STORM SEWER LINES, WATER MAINS, AND/OR OTHER UNDERGROUND UTILITIES. CONTRACTOR TO LAY SEWER LINES/SERVICES IN THESE LOCATIONS AT A MAXIMUM / MINIMUM DEPTH AND MAXIMUM / MINIMUM SLOPE (PER CODE) TO MAINTAIN A MINIMUM CLEARANCE OF 18" (24" FOR STORM SEWER) BETWEEN UTILITIES (FROM TOP / BOTTOM OF 1ST PIPE TO TOP / BOTTOM OF 2ND PIPE). IF 18" (24" FOR STORM SEWER) OF SEPARATION BETWEEN SANITARY SEWER SERVICES AND OTHER UTILITIES CANNOT BE MAINTAINED, SEWER SERVICE LINES MAY NEED TO BE DUCTILE IRON PIPE AND/OR ENCASED IN CONCRETE AT THE CROSSINGS. CONTRACTOR TO WORK WITH INSPECTOR THAT ADEQUATE SEPARATION AND PROTECTION IS PROVIDED FOR SERVICE LINES AND OTHER UTILITIES. ALL SERVICE LINES TO BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE NORTH CAROLINA PLUMBING CODE AND/OR THE TOWN OF HOLLY SPRINGS AND NCDENR STANDARDS AND SPECIFICATIONS.
6. ANYTIME A WATER MAIN CROSSES UNDER A SANITARY SEWER COLLECTOR MAIN, BOTH THE WATER MAIN AND THE SEWER LINE MUST BE CONSTRUCTED OF D.I.P. CONTRACTOR TO ADJUST MATERIAL ACCORDINGLY.
7. SANITARY SERVICE CLEANOUT LOCATIONS SHOWN ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED DURING CONSTRUCTION. CLEANOUT LOCATION AND CONSTRUCTION TO MEET THE APPLICABLE NORTH CAROLINA PLUMBING CODE AND/OR TOWN OF HOLLY SPRINGS AND NCDENR STANDARDS AND SPECIFICATIONS. CLEANOUT LOCATIONS SHOWN ON THESE PLANS REPRESENT THE SURFACE ACCESS POINT. CONTRACTOR SHALL INSTALL ALL WYES, ANGLES, BENDS, AND OTHER APPURTENACES AS REQUIRED.

EXISTING UTILITIES NOTES:

1. CONTRACTOR TO WORK CLOSELY WITH ALL UTILITY COMPANIES TO ENSURE THAT ONCE FINAL GRADES HAVE BEEN ESTABLISHED, PROPER DEPTH AND COVER IS MAINTAINED ON ALL EXISTING UTILITY LINES. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ANY NECESSARY RELOCATIONS OF EXISTING UTILITIES.

PROPOSED UTILITY NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS SET FORTH BY THE TOWN OF HOLLY SPRINGS.
2. IN THE EVENT THAT A UTILITY ITEM IS NOT COVERED BY THESE PLANS, THEN THE STANDARDS AND SPECIFICATIONS OF THE TOWN OF HOLLY SPRINGS COVERING SUCH ITEMS SHALL APPLY.
3. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" BELOW PROPOSED GRADE.
4. ALL UNDERGROUND UTILITIES AND FIRE HYDRANTS MUST BE FUNCTIONALLY APPROVED PRIOR TO STRUCTURAL CONSTRUCTION.
5. CLEAN OUT SYMBOLS SHOWN ON THESE PLANS REPRESENT LOCATION OF SURFACE ACCESS POINT. CONTRACTOR SHALL LOCATE WYE APPROPRIATELY BASED ON PIPE DEPTH.
6. ALL MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWN OF HOLLY SPRINGS STANDARDS. MANHOLE DIAMETER SHALL VARY DEPENDING ON PIPE DIAMETER AND DEPTH. SEE PROFILES AND TOWN OF HOLLY SPRINGS STANDARDS AND SPECIFICATIONS FOR MANHOLE SIZES.
7. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE UTILITIES. ALL PUBLIC PIPE, STRUCTURES, AND FITTINGS SHALL BE INSPECTED BY THE LOCAL INSPECTOR PRIOR TO BEING COVERED. THE INSPECTOR MUST ALSO BE PRESENT DURING TAPPING, DISINFECTION, AND PRESSURE TESTING OF ALL MAINS. THE CONTRACTORS BID PRICE SHALL INCLUDE ALL INSPECTION FEES.

HATCH LEGEND

- PU.DE = PUBLIC DRAINAGE EASEMENT
- PR.DE = PRIVATE DRAINAGE EASEMENT
- PRIVATE SCM MAINTENANCE & ACCESS ESMT
- SEWER EASEMENT
- TREE SAVE OR PRESERVED WOODED AREA
- WETLANDS

TYPICAL FIRE HYDRANT LOCATION DETAIL
NOT TO SCALE

TYPICAL SERVICE DETAIL
NOT TO SCALE

811 Know what's below. Call before you dig.

NORTH

GRAPHIC SCALE 1" = 60'

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

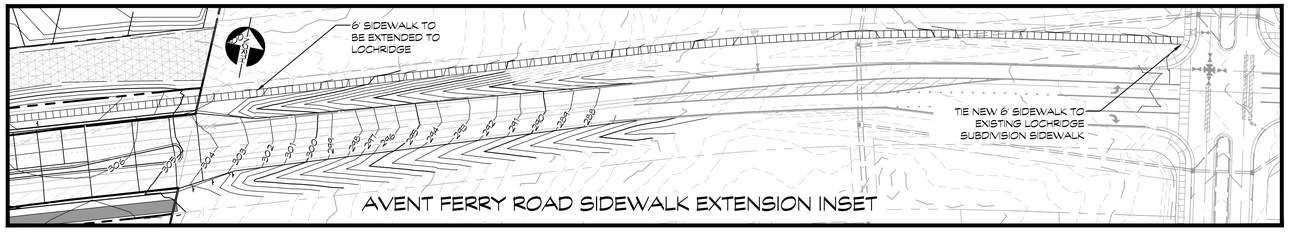
SCALE:	1"=60'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

PRELIMINARY UTILITY PLAN

2ND REVIEW TOWN STAFF COMMENTS	3/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/16/2025
RELEASED FOR CONSTRUCTION DATE (SEE COVER)	■ NO ☐ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # C3.00



LOCHRIDGE SUBDIVISION
BM 2020, PG2140-2145

LOCHRIDGE SUBDIVISION
BM 2019, PG 1254-1255

30' CAPE FEAR RIVER RIPARIAN BUFFER

20' CFRRB ZONE 1
10' CFRRB ZONE 2

TREE PRESERVATION AREA

FALLING STONE DRIVE

SILENT BEND DRIVE

RIVER LEDGE DRIVE

6' SIDEWALK TO BE EXTENDED TO LOCHRIDGE SUBDIVISION, SEE INSET ABOVE

RETAINING WALL W/FENCING

RETAINING WALL

RETAINING WALL, TYP.

OPEN SPACE 100

OPEN SPACE 102

OPEN SPACE 103

OPEN SPACE 104

OPEN SPACE 201

OPEN SPACE 202

OPEN SPACE 203

OPEN SPACE 204

SCM 1
STORMWATER WETLAND

SCM 2
STORMWATER WETLAND

RISER

ST MH

FES

20' PRDE

HATCH LEGEND

- PU,DE = PUBLIC DRAINAGE EASEMENT
- PR,DE = PRIVATE DRAINAGE EASEMENT
- PRIVATE SCM MAINTENANCE & ACCESS ESMT
- SEWER EASEMENT
- TREE SAVE OR PRESERVED WOODED AREA
- WETLANDS
- 10' TYPE B
- 5' TYPE A
- 50' TFARE
- PLANTING BUFFER

GRAPHIC SCALE
1" = 60'

NORTH

811 Know what's below. Call before you dig.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 049175 ENGINEER THOMAS F. CRAVEN 11/5/25

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

SCALE:	1"=60'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

PRELIMINARY GRADING PLAN

2ND REVIEW TOWN STAFF COMMENTS	3/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/16/2025
RELEASED FOR CONSTRUCTION DATE (SEE COVER)	■ NO ☐ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

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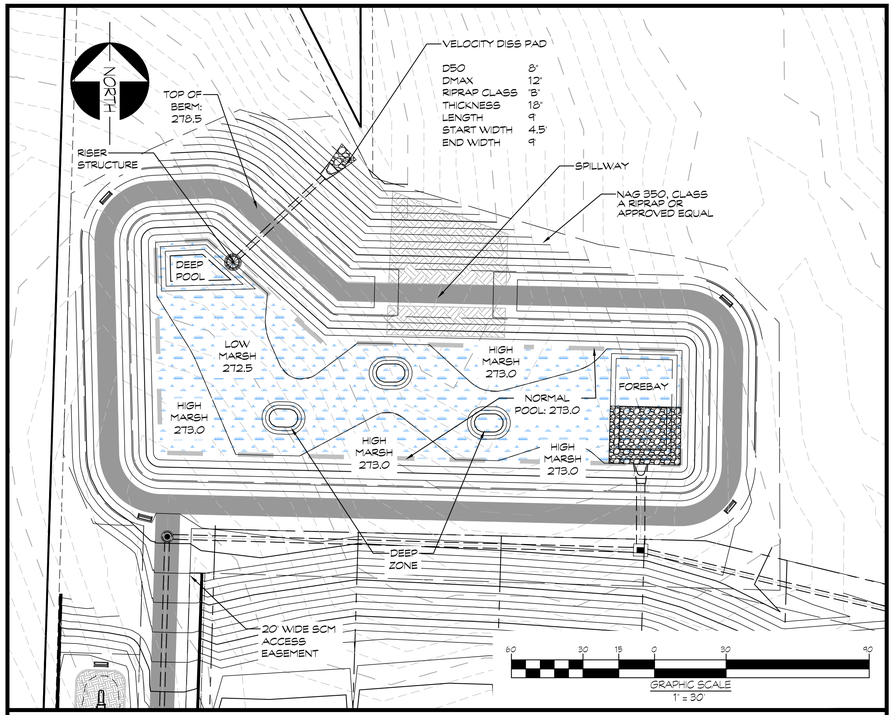
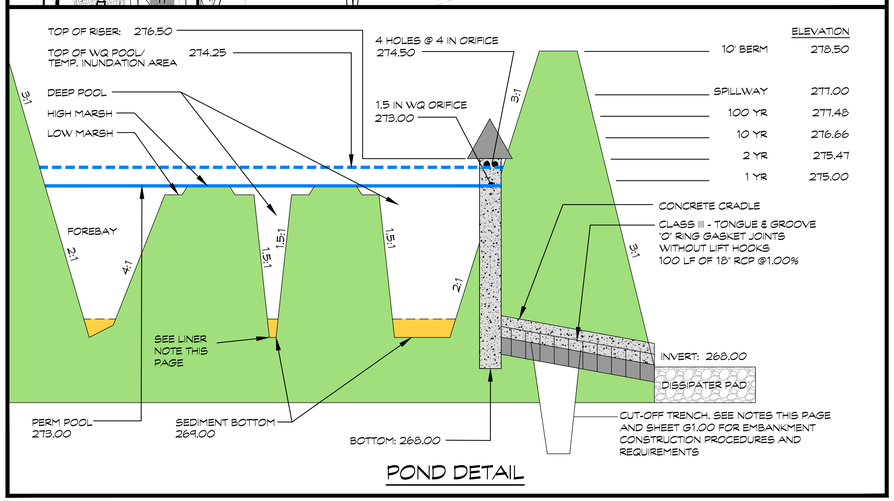




POND DETAIL

Water Quality and Quantity Volumes (Above Permanent / Normal Pool)

Elevation (ft)	Main Area (sf)	Forebay Area (sf)	Depth (ft)	Inc Total Vol (cf)	Accum' Total Vol (cf)	Notes
273.0	10521	1860	0.00	Permanent Pool Elevation		
274.0	14186		1.00	13284	13284	
275.0	16043		2.00	15115	28398	
276.0	17958		3.00	17001	45399	
277.0	19930		4.00	18944	64343	
278.0	21958		5.00	20944	85287	
			0.00	0	85287	
			0.00	0	85287	
Total			**5.0**			

Top of Water Quality Elevation / Begin Temporary Pool Elevation

Elevation	Area (sf)	Depth	Volume	Notes
274.25	14649	1.25	17062	

Water Quality Runoff Volume Calculation

Using the runoff volume calculations in the "Simple Method" as described by Schueler (1987)

Where: Rv = Runoff Coefficient, in/in

I = Percent Impervious	I=	47.0%
Rv = 0.05 + 0.009(I)	Rv =	0.473
1.0 inch runoff volume (Required)		
Runoff volume, S=(Design rainfall) (Rv) (Drainage Area)		% of Req' Volume
Design Rainfall =	1.0 inch	100%
Drainage Area =	7.72 acres	
Storage Required =	**13,255 cu. ft.**	

Volume Storage For 1.0" Runoff Above Permanent Pool (Provided)

Depth (FT)	PPE SA (SF)	Top Temp Pool SA (SF)	Volume (CF)	Elevation
1.25	12,381	14,649	17,062	274.25

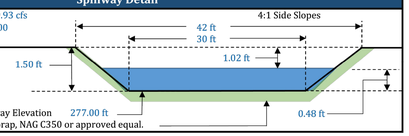
Size Water Quality Orifice for (2-5) Day Drawdown for WQ Design Volume

$Q_{1+} = CdA(2g(H_0/3))^{1/2}$	(Orifice Equation; Cd=0.60, H_0/3 per NCDENR recommendation)
1.50	Orifice Diameter (inches)
1.19	Driving Head to Centroid of Orifice (ft)
0.04	Q1.0" Drawdown Rate (cfs)
13,255	Water Quality Volume (V_{WQ})
V_{WQ}/(Q1" x 86,400)	Drawdown Time (days)
4.1	**Drawdown Time (days) (2 - 5 days)**

3.05	3.68	5.38	Detention Vol (cfs)	46,631.37	54,816.27	72,514.70

Spillway Detail

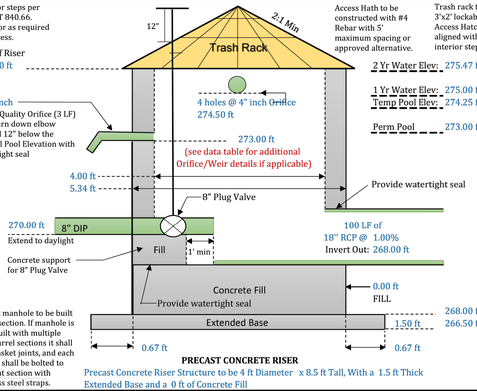
100 Yr Flow in Spillway	29.93 cfs
10 Yr Flow in Spillway	0.00
Top of Pond	278.50
100 Yr Elev:	277.48 ft
10 Yr Elev:	276.66 ft



Spillway Elevation 277.00 ft

Spillway Liner to be either Class A Riprap, NAG C350 or approved equal.

Riser Detail (not to scale)



PRECAST CONCRETE RISER

Precast Concrete Riser Structure to be 4 ft Diameter x 8.5 ft Tall, With a 1.5 ft Thick Extended Base and a 0 ft of Concrete Fill

Outlet Protection

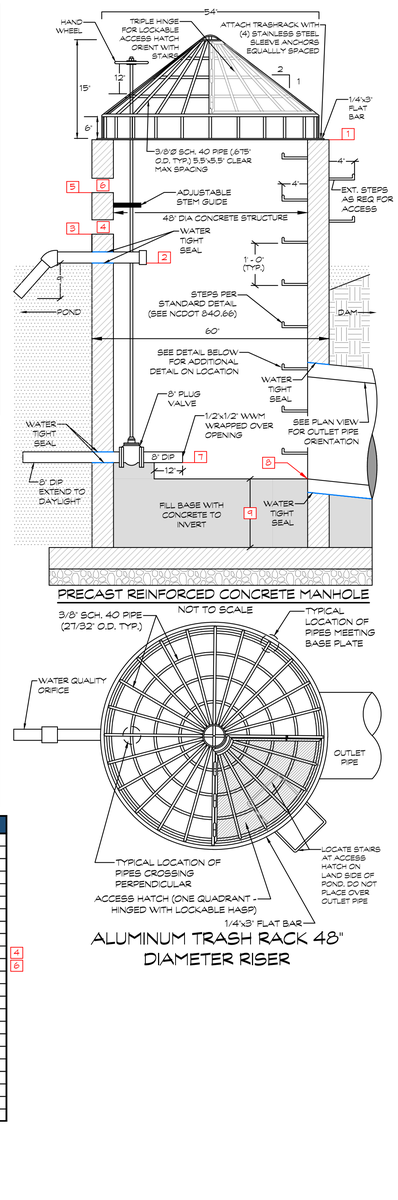
Design Freq:	Pipe Capacity	Zone	Fig. 8.06.b.1:	2	
Qmax	9.92 cfs	D50	Fig. 8.06.b.2:	8	in
V =	12.63 fps	DMAX		12	in
		Riprap Class		8	
		Apron Thickness		18	in
		Apron Length		9	ft
		Apron Width		4.5	ft
		Apron Ending Width		9	ft

Anti-Bouyancy Calculations for the Riser Structure

Riser Dimensions		Weight of Structure		Displaced Volume
Outside Dia'	5.34 ft	Walls =	15172 LBS	V = LxWx(HT+Footer) = C.F.
Inside Dia'	4.00 ft	Base =	14400 LBS	
		Fill =	0 LBS	Displaced Water =
				C.F. * 62.4 PCF = LBS
Height	8.50 ft	Outlet Pipe =	1973 LBS	
Base Thick' (ft)	1.50 ft	WQ Orifice =	1 LBS	Add 15% Factor of Safety
Add Concrete (ft)	0.00 ft			
Wall Thick' (ft)	0.67 ft			
Extend' Base (ft)	0.67 ft	Weir #1 =	0 LBS	V = 383 C.F.
Areas removed from Riser		Weir #2 =	0 LBS	Disp. Water = 23,899 LBS
Outlet Pipe	19.63 ft	Weir #3 =	0 LBS	15% F.S. = 3,585 LBS
WQ Orifice	0.01 ft	Weir #4 =	0 LBS	
Orifice #1	0.00 ft	Orifice #2 =	0 LBS	Min Weight= 27,484 LBS
Orifice #2	0.00 ft			
Orifice #3	0.00 ft	**Weight =**	**27,598 LBS LBS**	**Saftey Factor 115.48%**
Orifice #4	0.00 ft	Precast Concrete Riser Structure to be 4 ft Diameter x 8.5 ft Tall, With a 1.5 ft Thick Extended Base and a 0 ft of Concrete Fill		
Other	1.18 ft			

Pond / Riser Data & Elevations

Pond Type	Wet Pond			
TSS Removal	85%			
Top of Pond / Berm	278.50 ft			
Secondary Spillway Width	30.00 ft			
Bottom of Secondary Spillway	277.00 ft			
1 Top of Riser	276.50 ft	(at least 1' Above TPE)		
Riser Type / Size	4.00 ft	Diameter Precast Reinforced Concrete Manhole		
Top of Water Quality / Temp Pool Elev	274.25 ft	(1" Runoff)		
Permanent Pool Elevation (Normal Pool)	273.00 ft			
2 Water Quality Orifice Elevation & Size	273.00 ft		1.50 in	4
3 Secondary Orifice Elevation & Size (if applicable)	274.50 ft		4 holes @ 4" in (Qty) & Size	6
5 Additional Orifice Elevation & Size (if applicable)	0.00 ft		0 in	
Bottom of Veg. Shelf	272.50 ft	(0.5 ft below PPE)		
7 Top of Sediment Storage / Pond Bottom	270.00 ft			
Bottom of Sediment Storage	269.00 ft	(Min 1 ft)		
8 Invert Out of Riser	268.00 ft			
Outlet Pipe Size	18.00 in	Diameter RCP	9.92 Q10 CFS	
Outlet Pipe Length & Slope	100.00 ft		1.00 %	
Downstream Outlet Elevation	267.00 ft			
1 Yr Water Surface Elev / Peak Flow (CFS)	275.00 ft		1.06 CFS	
2 Yr Water Surface Elev Peak Flow (CFS)	275.47 ft		1.60 CFS	
10 Yr Water Surface Elev Peak Flow (CFS)	276.66 ft		5.23 CFS	
100 Yr Water Surface Elev Peak Flow (CFS)	277.48 ft		53.97 CFS	



PRECAST REINFORCED CONCRETE MANHOLE

ALUMINUM TRASH RACK 48" DIAMETER RISER

TYPICAL PIPE CRADLE DETAIL FOR 18" DIAMETER PIPE WITH NO BUOYANCY FORCES

*IMPERMEABLE SOIL/CLAY GEOMEMBRANE LINER

THE STORMWATER CONTROL MEASURE IS INTENDED TO MAINTAIN THE WATER ELEVATION AT THE NORMAL POOL ELEVATION INDEFINITELY ASSUMING NO EVAPORATION. BASED ON THE EXISTING SOILS, AND THE LEVEL OF THE SEASONALLY HIGH WATER TABLE, A LINER MAY BE REQUIRED TO ENSURE THE ACTUAL RATE OF DROP OF THE WATER SURFACE IS LESS THAN 0.24 INCHES PER DAY, NOT INCLUDING EVAPOTRANSPIRATION.

IT IS THE CONTRACTOR'S RESPONSIBILITY, IN CONSULTATION WITH THE PROJECT GEOTECHNICAL ENGINEER OR THE CONTRACTOR'S GEOTECHNICAL ENGINEER, TO DETERMINE IF A LINER IS NEEDED PRIOR TO CONVERTING THE STORMWATER CONTROL MEASURE FROM A TEMPORARY EROSION CONTROL MEASURE TO A PERMANENT STORMWATER CONTROL MEASURE.

IF A CLAY LINER IS USED, PRIOR TO PLACEMENT, THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE PROJECT GEOTECHNICAL ENGINEER TEST THE LINER MATERIAL PERMEABILITY, DEVELOP ANY SPECIAL CONDITIONS OF THE INSTALLATION SUCH AS PLACING THE LINER MATERIAL ON THE WET SIDE OF OPTIMUM MOISTURE CONTENT, AND CONFIRMING THAT THE EXPECTED POND INFILTRATION RATE WITH THE PROPOSED CLAY LINER WILL REDUCE SEEPAGE LOSS RATES TO THE PROJECT REQUIREMENTS. FOLLOWING INSTALLATION THE CLAY LINER THICKNESS IS TO BE CHECKED AT RANDOM LOCATION BY THE PROJECT GEOTECHNICAL ENGINEER TO VERIFY COMPLIANCE. IF A SYNTHETIC LINER IS USED, A QUALIFIED LINER DESIGNER SHALL BE CONSULTED. THE MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE REVIEWED BY THE CONTRACTOR, THE LINER DESIGNER, AND THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO INSTALLATION TO DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY BASED ON LOCAL SITE CONDITIONS. IN NO CASE SHALL THE DEPTH OF SOIL OVER THE LINER BE LESS THAN 12 INCHES IN ORDER TO PROTECT THE LINER FROM DAMAGE. THE DEPTH OF SOIL COVER OVER THE LINER SHALL BE CHECKED AT RANDOM LOCATIONS BY THE PROJECT GEOTECHNICAL ENGINEER TO VERIFY COMPLIANCE. THE CONTRACTOR SHALL WARN THE LANDSCAPING SUBCONTRACTOR ABOUT THE PRESENCE OF THE LINER. THE LANDSCAPING SUBCONTRACTOR SHALL TAKE CARE IN THE INSTALLATION OF THE PLANTING PIT TO DAMAGE THE LINER PRIOR TO INSTALLATION OF THE REQUIRED PLANT MATERIAL. THE VALVE FROM THE WETLAND BASIN SHALL BE CLOSED, THE POND FILLED, AND THE ABILITY TO HOLD WATER PER THE PROJECT REQUIREMENTS CONFIRMED. THIS TEST SHALL BE REPEATED AFTER THE INSTALLATION OF THE PLANT MATERIAL.

REGARDLESS OF THE CARE TAKEN DURING INSTALLATION AND THE TESTING AND SUPPORTING DOCUMENTATION OF THE PROJECT GEOTECHNICAL ENGINEER, IF THE LOSS RATE FROM THE POND EXCEEDS THE PROJECT REQUIREMENTS, THE CONTRACTOR IS RESPONSIBLE FOR REDUCING THAT RATE TO THE PROJECT REQUIREMENTS BY MEANS THAT STILL PROVIDE ACCEPTABLE WATER QUALITY AND CONDITIONS APPROPRIATE FOR PLANT GROWTH, AT HIS COST. THE CONTRACTOR IS RESPONSIBLE FOR QUALITY CONTROL TESTING DURING CONSTRUCTION TO VERIFY THE LINER, CLAY OR SYNTHETIC, IS INSTALLED IN ACCORDANCE WITH THE PLANS, RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER, AND MANUFACTURER'S INSTRUCTIONS. A REPORT OF THE INSTALLATION AND AS BUILT CONDITIONS SHALL BE PROVIDED TO THE OWNER BY THE CONTRACTOR'S PROJECT GEOTECHNICAL ENGINEER AFTER CONSTRUCTION. IF FOR ANY REASON THE LOSS RATE EXCEEDS THE PROJECT STANDARD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING REMEDIAL MEASURES, UNDER THE SUPERVISION OF A QUALIFIED GEOTECHNICAL ENGINEER, TO BRING THE LOSS RATE INTO COMPLIANCE WITH THE ABOVE STANDARD.

EMBANKMENT CUTOFF TRENCH (KEYWAY)

THE CUTOFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE BOTTOM WIDTH SHALL BE A MINIMUM OF 5 FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW THE EXISTING GRADE, OR BOTTOM OF ANY PROPOSED TRENCH OR EXCAVATION, WHICHEVER IS DEEPER OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE SIDE SLOPES OF THE TRENCH SHALL BE 1 TO 1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

UTILITY SYMBOL LEGEND

- FLARED END SECTION
- HEADWALL
- NCDOT CATCH BASIN
- OPEN THROATED CURB INLET
- STORM MANHOLE
- YARD INLET
- GRATED INLET
- SWALE / DITCH
- STORM DRAINAGE PIPE
- POND - NORMAL POOL
- SCM — STORMWATER MANGEMENT AREA

NORTH CAROLINA SEAL 049115 ENGINEER THOMAS F. CRAVEN

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

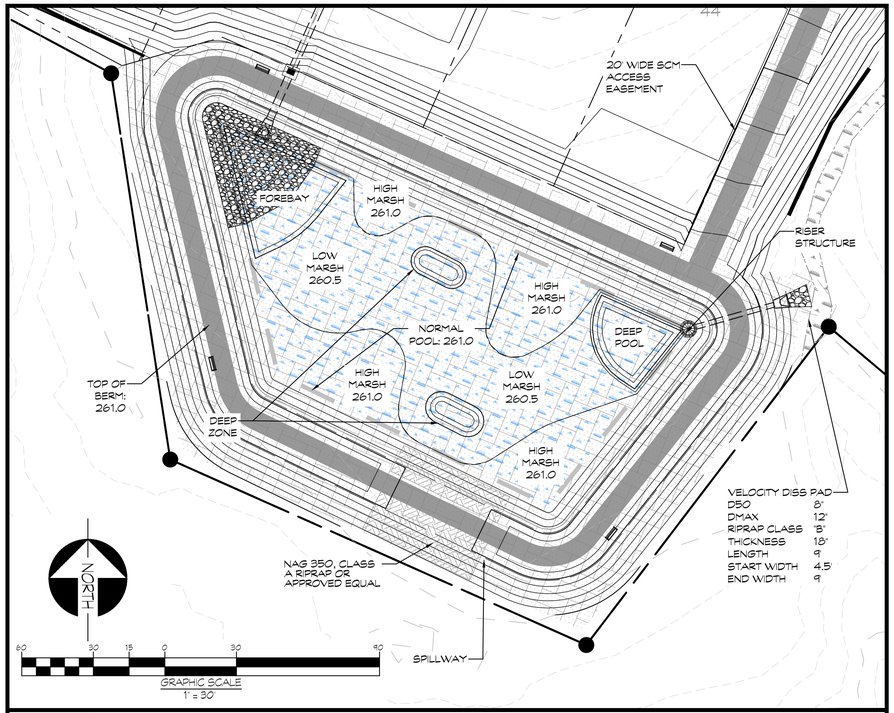
SCALE:	1"=50'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

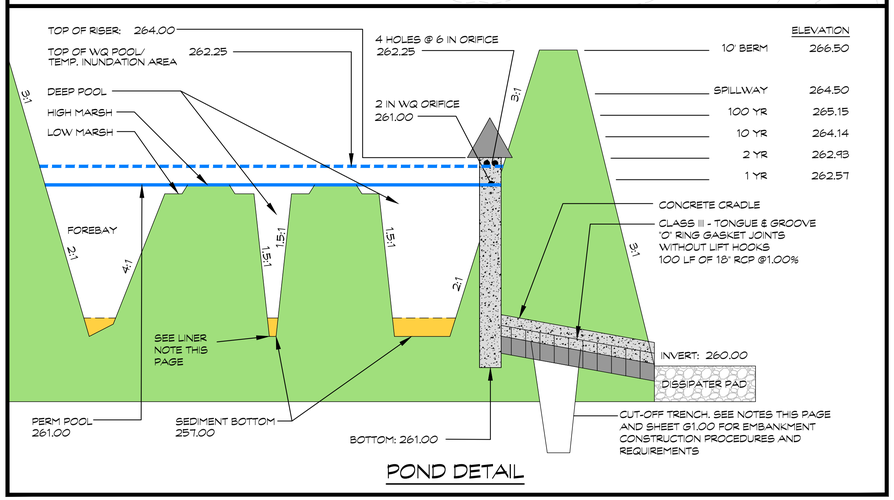
STORMWATER MANAGEMENT PLAN
SCM 1

2ND REVIEW TOWN STAFF COMMENTS	3/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/9/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/19/2025
RELEASED FOR CONSTRUCTION DATE: (SEE COVER)	■ NO ☐ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # C5.00





POND DETAIL

Water Quality and Quantity Volumes (Above Permanent / Normal Pool)

Elevation (ft)	Main Area (sf)	Forebay Area (sf)	Depth (ft)	Inc Total Vol (cf)	Accum' Total Vol (cf)	Notes
261.0	13030	2300	0.00	Permanent Pool Elevation		
262.0	17002		1.00	16166	16166	
263.0	18731		2.00	17867	34033	
264.0	20517		3.00	19624	53657	
265.0	22359		4.00	21438	75095	
266.0	24258		5.00	23309	98403	
			0.00	0	98403	
			0.00	0	98403	
Total			5.0			

Top of Water Quality Elevation / Begin Temporary Pool Elevation

Elevation	Area (sf)	Depth	Volume	Notes
262.25	17434	1.25	20633	

Water Quality Runoff Volume Calculation

Using the runoff volume calculations in the "Simple Method" as described by Schueler (1987)

Where: Rv = Runoff Coefficient, in/in

I = Percent Impervious	I=	39.0%
Rv = 0.05 + 0.009(I)	Rv =	0.401
1.0 inch runoff volume (Required)		
Runoff volume, S=(Design rainfall) (Rv) (Drainage Area)		% of Req' Volume
Design Rainfall =	1.0 inch	100%
Drainage Area =	9.60 acres	
Storage Required =	**13,974 cu. ft.**	

Volume Storage For 1.0" Runoff Above Permanent Pool (Provided)

Depth (FT)	PPE SA (SF)	Top Temp Pool SA (SF)	Volume (CF)	Elevation
1.25	15,330	17,434	20,633	262.25

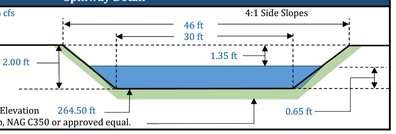
Size Water Quality Orifice for (2-5) Day Drawdown for WQ Design Volume

$Q_{1"} = CdA(2g(H_o/3))^{1/2}$	(Orifice Equation; Cd=0.60, H_o/3 per NCDENR recommendation)
2.00	Orifice Diameter (inches)
1.17	Driving Head to Centroid of Orifice (ft)
0.07	Q1.0" Drawdown Rate (cfs)
13,974	Water Quality Volume (V_{WQ})
$V_{WQ}/(Q1" \times 86{,}400)$	Drawdown Time (days)

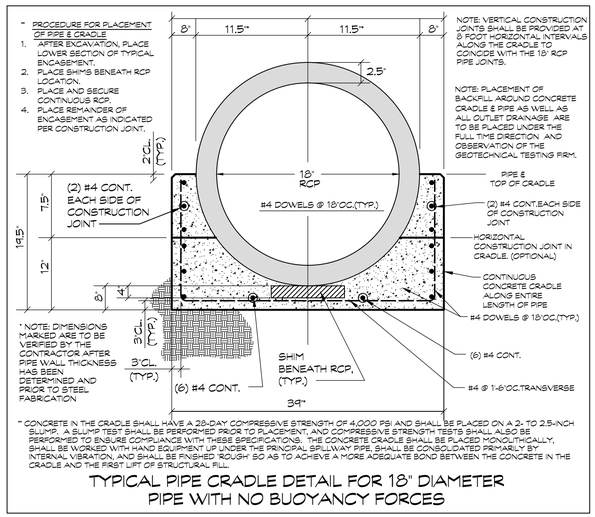
2.5			**Drawdown Time (days) (2 - 5 days)**	
3.05	3.68	5.38	Detention Vol (cfs)	53,732.09	63,535.92	84,852.42

Spillway Detail

100 Yr Flow in Spillway	47.16 cfs
10 Yr Flow in Spillway	0.00
Top of Pond	266.50
100 Yr Elev:	265.15 ft
10 Yr Elev:	264.14 ft

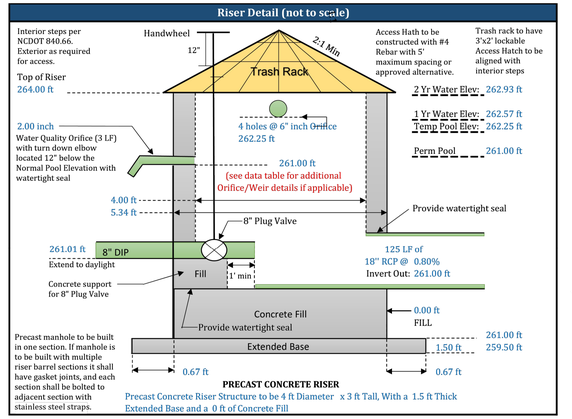


Spillway Liner to be either Class A Riprap, NAG C350 or approved equal.



TYPICAL PIPE CRADLE DETAIL FOR 18" DIAMETER PIPE WITH NO BUOYANCY FORCES

Riser Detail (not to scale)



Precast manhole to be built in one section. If manhole is to be built with multiple riser barrel sections it shall have gasket joints, and each section shall be bolted to adjacent section with stainless steel straps.

PRECAST CONCRETE RISER

Precast Concrete Riser Structure to be 4 ft Diameter x 3 ft Tall, With a 1.5 ft Thick Extended Base and a 0 ft of Concrete Fill

Outlet Protection

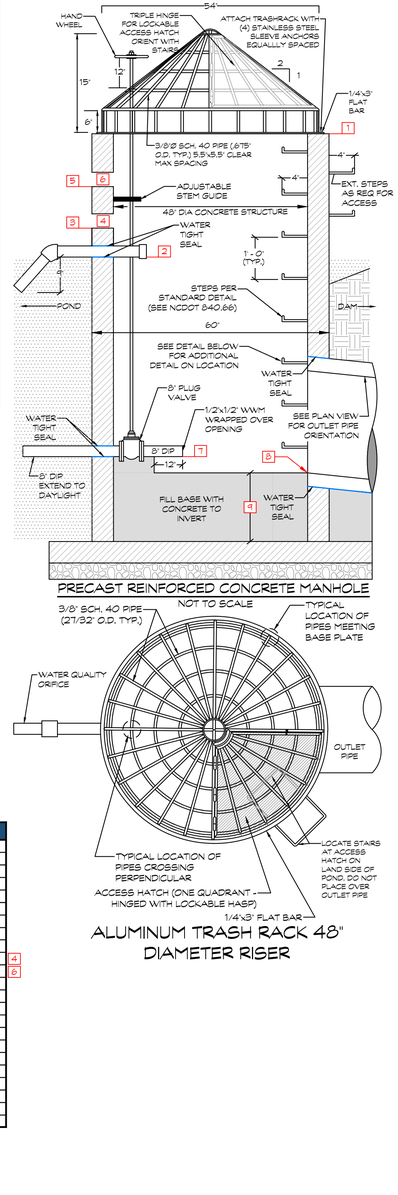
Design Freq:	Pipe Capacity	Zone	Fig. 8.06.b.1: 2
Qmax	9.91 cfs	D50	Fig. 8.06.b.2: 8 in
V =	12.62 fps	DMAX	12 in
		Riprap Class	B
		Apron Thickness	18 in
		Apron Length	9 ft
		Apron Width	4.5 ft
		Apron Ending Width	9 ft

Anti-Bouyancy Calculations for the Riser Structure

Riser Dimensions		Weight of Structure		Displaced Volume	
Outside Dia'	5.34 ft	Walls =	15172 LBS	V = LxWx(HT+Footer) = C.F.	
Inside Dia'	4.00 ft	Base =	14400 LBS		
		Fill =	0 LBS	Displaced Water =	
				C.F. * 62.4 PCF = LBS	
Height	3.00 ft	Outlet Pipe =	1973 LBS		
Base Thick' (ft)	1.50 ft	WQ Orifice =	2 LBS	Add 15% Factor of Safety	
Add Concrete (ft)	0.00 ft				
Wall Thick' (ft)	0.67 ft				
Extend' Base (ft)	0.67 ft	Weir #1 =	0 LBS	V =	383 C.F.
Areas removed from Riser		Weir #2 =	0 LBS	Disp. Water =	23,899 LBS
Outlet Pipe	19.63 ft	Weir #3 =	0 LBS	15% F.S. =	3,585 LBS
WQ Orifice	0.02 ft	Weir #4 =	0 LBS		
Orifice #1	0.00 ft	Orifice #2 =	0 LBS	Min Weight=	27,484 LBS
Orifice #2	0.00 ft				
Orifice #3	0.00 ft	Weight =	27,597 LBS LBS	Saftey Factor	115.47%
Orifice #4	0.00 ft	Precast Concrete Riser Structure to be 4 ft Diameter x 3 ft Tall, With a 1.5 ft Thick Extended Base and a 0 ft of Concrete Fill			
Other	1.18 ft				

Pond / Riser Data & Elevations

Pond Type	Wet Pond			
TSS Removal	85%			
Top of Pond / Berm	266.50 ft			
Secondary Spillway Width	30.00 ft			
Bottom of Secondary Spillway	264.50 ft			
1 Top of Riser	264.00 ft	(at least 1' Above TPE)		
Riser Type / Size	4.00 ft	Diameter Precast Reinforced Concrete Manhole		
Top of Water Quality / Temp Pool Elev	262.25 ft	(1" Runoff)		
Permanent Pool Elevation (Normal Pool)	261.00 ft			
2 Water Surface Elevation & Size	261.00 ft		2.00 in	4
3 Secondary Orifice Elevation & Size (if applicable)	262.25 ft		4 holes @ 6" in (Qty) & Size	6
5 Additional Orifice Elevation & Size (if applicable)	0.00 ft		0 in	
Bottom of Veg. Shelf	260.50 ft	(0.5 ft below PPE)		
7 Top of Sediment Storage / Pond Bottom	258.00 ft			
Bottom of Sediment Storage	257.00 ft	(Min 1 ft)		
8 Invert Out of Riser	261.00 ft			
Outlet Pipe Size	18.00 in	Diameter RCP	9.91 Q10 CFS	
Outlet Pipe Length & Slope	125.00 ft		0.80 %	
Downstream Outlet Elevation	260.00 ft			
1 Yr Water Surface Elev / Peak Flow (CFS)	262.57 ft		1.17 CFS	
2 Yr Water Surface Elev Peak Flow (CFS)	262.93 ft		2.60 CFS	
10 Yr Water Surface Elev Peak Flow (CFS)	264.14 ft		7.13 CFS	
100 Yr Water Surface Elev Peak Flow (CFS)	265.15 ft		62.90 CFS	



PRECAST REINFORCED CONCRETE MANHOLE

ALUMINUM TRASH RACK 48" DIAMETER RISER

*IMPERMEABLE SOIL/CLAY GEOMEMBRANE LINER

THE STORMWATER CONTROL MEASURE IS INTENDED TO MAINTAIN THE WATER ELEVATION AT THE NORMAL POOL ELEVATION INDEFINITELY ASSUMING NO EVAPORATION. BASED ON THE EXISTING SOILS, AND THE LEVEL OF THE SEASONALLY HIGH WATER TABLE, A LINER MAY BE REQUIRED TO ENSURE THE ACTUAL RATE OF DROP OF THE WATER SURFACE IS LESS THAN 0.24 INCHES PER DAY, NOT INCLUDING EVAPOTRANSPIRATION.

IT IS THE CONTRACTOR'S RESPONSIBILITY, IN CONSULTATION WITH THE PROJECT GEOTECHNICAL ENGINEER OR THE CONTRACTOR'S GEOTECHNICAL ENGINEER, TO DETERMINE IF A LINER IS NEEDED PRIOR TO CONVERTING THE STORMWATER CONTROL MEASURE FROM A TEMPORARY EROSION CONTROL MEASURE TO A PERMANENT STORMWATER CONTROL MEASURE.

IF A CLAY LINER IS USED, PRIOR TO PLACEMENT, THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE PROJECT GEOTECHNICAL ENGINEER TEST THE LINER MATERIAL PERMEABILITY, DEVELOP ANY SPECIAL CONDITIONS OF THE INSTALLATION SUCH AS PLACING THE LINER MATERIAL ON THE WET SIDE OF OPTIMUM MOISTURE CONTENT, AND CONFIRMING THAT THE EXPECTED POND INFILTRATION RATE WITH THE PROPOSED CLAY LINER WILL REDUCE SEEPAGE LOSS RATES TO THE PROJECT REQUIREMENTS. FOLLOWING INSTALLATION THE CLAY LINER THICKNESS IS TO BE CHECKED AT RANDOM LOCATION BY THE PROJECT GEOTECHNICAL ENGINEER TO VERIFY COMPLIANCE. IF A SYNTHETIC LINER IS USED, A QUALIFIED LINER DESIGNER SHALL BE CONSULTED. THE MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE REVIEWED BY THE CONTRACTOR, THE LINER DESIGNER, AND THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO INSTALLATION TO DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY BASED ON LOCAL SITE CONDITIONS. IN NO CASE SHALL THE DEPTH OF SOIL OVER THE LINER BE LESS THAN 12 INCHES IN ORDER TO PROTECT THE LINER FROM DAMAGE. THE DEPTH OF SOIL COVER OVER THE LINER SHALL BE CHECKED AT RANDOM LOCATIONS BY THE PROJECT GEOTECHNICAL ENGINEER TO VERIFY COMPLIANCE. THE CONTRACTOR SHALL WARN THE LANDSCAPING SUBCONTRACTOR ABOUT THE PRESENCE OF THE LINER. THE LANDSCAPING SUBCONTRACTOR SHALL TAKE CARE IN THE INSTALLATION OF THE PLANTING NOT TO DAMAGE THE LINER. PRIOR TO INSTALLATION OF THE REQUIRED PLANT MATERIAL, THE VALVE FROM THE WETLAND BASIN SHALL BE CLOSED, THE POND FILLED, AND THE ABILITY TO HOLD WATER PER THE PROJECT REQUIREMENTS CONFIRMED. THIS TEST SHALL BE REPEATED AFTER THE INSTALLATION OF THE PLANT MATERIAL.

REGARDLESS OF THE CARE TAKEN DURING INSTALLATION AND THE TESTING AND SUPPORTING DOCUMENTATION OF THE PROJECT GEOTECHNICAL ENGINEER, IF THE LOSS RATE FROM THE POND EXCEEDS THE PROJECT REQUIREMENTS, THE CONTRACTOR IS RESPONSIBLE FOR REDUCING THAT RATE TO THE PROJECT REQUIREMENTS BY MEANS THAT STILL PROVIDE ACCEPTABLE WATER QUALITY AND CONDITIONS APPROPRIATE FOR PLANT GROWTH, AT HIS COST. THE CONTRACTOR IS RESPONSIBLE FOR QUALITY CONTROL TESTING DURING CONSTRUCTION TO VERIFY THE LINER, CLAY OR SYNTHETIC, IS INSTALLED IN ACCORDANCE WITH THE PLANS, RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER, AND MANUFACTURER'S INSTRUCTIONS. A REPORT OF THE INSTALLATION AND AS BUILT CONDITIONS SHALL BE PROVIDED TO THE OWNER BY THE CONTRACTOR'S PROJECT GEOTECHNICAL ENGINEER AFTER CONSTRUCTION. IF FOR ANY REASON THE LOSS RATE EXCEEDS THE PROJECT STANDARD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING REMEDIAL MEASURES, UNDER THE SUPERVISION OF A QUALIFIED GEOTECHNICAL ENGINEER, TO BRING THE LOSS RATE INTO COMPLIANCE WITH THE ABOVE STANDARD.

EMBANKMENT CUTOFF TRENCH (KEYWAY)

THE CUTOFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE BOTTOM WIDTH SHALL BE A MINIMUM OF 5 FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW THE EXISTING GRADE, OR BOTTOM OF ANY PROPOSED TRENCH OR EXCAVATION WHICHEVER IS DEEPER OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE SIDE SLOPES OF THE TRENCH SHALL BE 1 TO 1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

UTILITY SYMBOL LEGEND

- FLARED END SECTION
- HEADWALL
- NCDOT CATCH BASIN
- OPEN THROATED CURB INLET
- STORM MANHOLE
- YARD INLET
- GRATED INLET
- SWALE / DITCH
- STORM DRAINAGE PIPE
- POND - NORMAL POOL
- SCM — STORMWATER MANGEMENT AREA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 049175 ENGINEER THOMAS F. CRAVEN

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

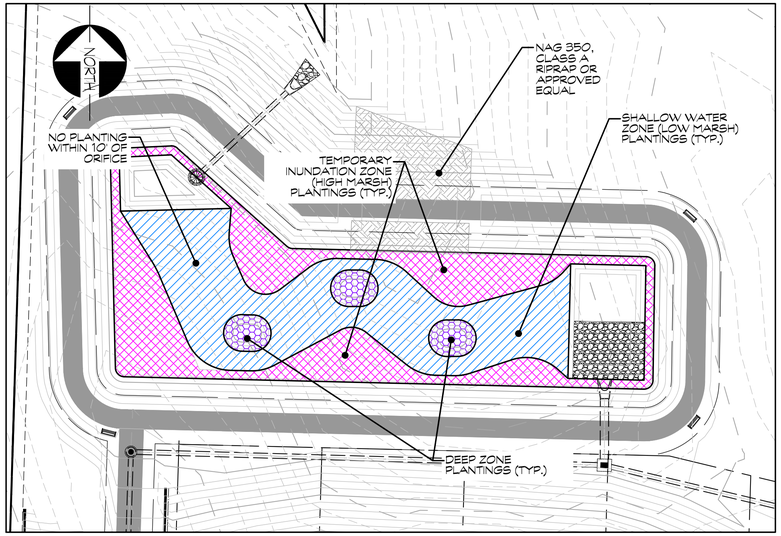
SCALE:	1"=50'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

STORMWATER MANAGEMENT PLAN
SCM 2

2ND REVIEW TOWN STAFF COMMENTS	9/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/19/2025
RELEASED FOR CONSTRUCTION DATE: (SEE COVER)	■ NO ☐ YES

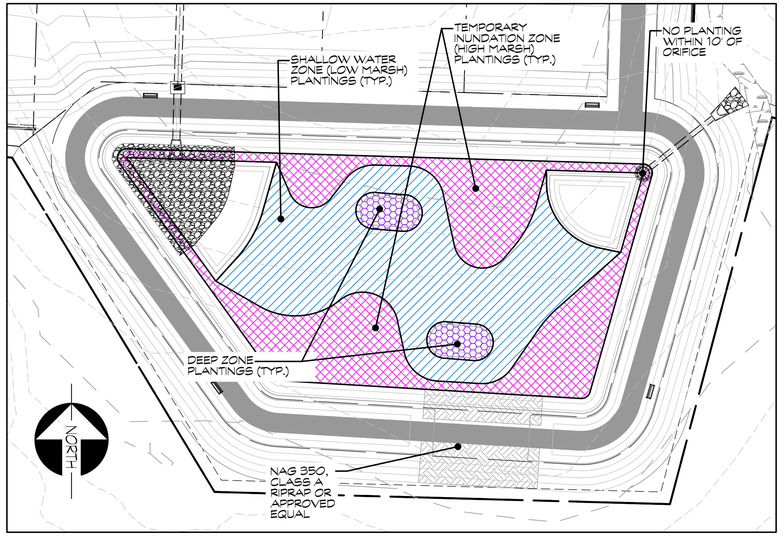
PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # C5.01



1"=30'

SCM 1 PLANTING PLAN



1"=30'

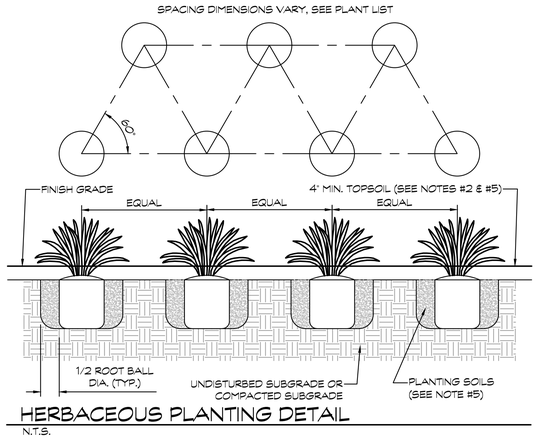
SCM 2 PLANTING PLAN

SCM 1		LANDSCAPE CALCULATIONS & PLANT LIST			
DAM/BERM		VEGETATION REQUIRED: NON-CLUMPING TURF GRASS			
SHALLOW WATER (LOW MARSH) 50 HERBACEOUS PLANTS PER 200 SF:		AREA= 5800 SF			1450
KEY	BOTANICAL NAME	COMMON NAME	TYPE	SPACING	QTY. (2" PLUGS)
AA	ACORUS AMERICANUS	SWEETFLAG	PERENNIAL	24" OC (MAX.)	210
IV	IRIS VIRGINICA	VIRGINIA IRIS	PERENNIAL	24" OC (MAX.)	210
JE	JUNCUS EFFUSUS	SOFT RUSH	PERENNIAL	24" OC (MAX.)	210
PV	PELTANDRA VIRGINICA	ARROW ARUM	PERENNIAL	24" OC (MAX.)	205
PC	PONTEDERIA CORDATA	PICKERELWEED	PERENNIAL	24" OC (MAX.)	205
SA	SPARGANIUM AMERICANUM	AMERICAN BUR-REED	PERENNIAL	24" OC (MAX.)	205
SL	SAGITTARIA LATIFOLIA	BROADLEAF ARROWHEAD	PERENNIAL	24" OC (MAX.)	205
				TOTAL PROVIDED:	1450
TEMP. INUNDATION ZONE (HIGH MARSH)		8 SHRUBS PER 200 SF:		AREA= 5800 SF	232
KEY	BOTANICAL NAME	COMMON NAME	TYPE	SPACING	QTY. (1 GALLON)
CA	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	SHRUB	5' OC (MAX.)	58
IG	ILEX GLABRA	INKBERRY	SHRUB	5' OC (MAX.)	58
RP	ROSA PALUSTRIS	SWAMP ROSE	SHRUB	5' OC (MAX.)	58
SN	SAMBUCUS CANADENSIS	ELDERBERRY	SHRUB	5' OC (MAX.)	58
				TOTAL PROVIDED:	232
DEEP ZONE				AREA= 750 SF	30
KEY	BOTANICAL NAME	COMMON NAME	TYPE	SPACING	QTY. (1 GALLON)
NL	NELUMBO LUTEA	AMERICAN LOTUS	AQUATIC	5' OC (MAX.)	15
NO	NYMPHAEA ODORATA	WHITE WATER LILY	AQUATIC	5' OC (MAX.)	15
				TOTAL PROVIDED:	30

NOTE: VARIATIONS OF APPROVED WETLAND PLANTINGS ARE LOCATED IN THE APPROVED NCDENR SCM MANUAL, PART C-3.

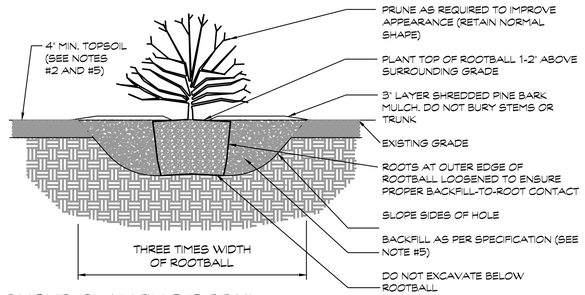
SCM 2		LANDSCAPE CALCULATIONS & PLANT LIST			
DAM/BERM		VEGETATION REQUIRED: NON-CLUMPING TURF GRASS			
SHALLOW WATER (LOW MARSH) 50 HERBACEOUS PLANTS PER 200 SF:		AREA= 6950 SF			1738
KEY	BOTANICAL NAME	COMMON NAME	TYPE	SPACING	QTY. (2" PLUGS)
AA	ACORUS AMERICANUS	SWEETFLAG	PERENNIAL	24" OC (MAX.)	250
IV	IRIS VIRGINICA	VIRGINIA IRIS	PERENNIAL	24" OC (MAX.)	250
JE	JUNCUS EFFUSUS	SOFT RUSH	PERENNIAL	24" OC (MAX.)	250
PV	PELTANDRA VIRGINICA	ARROW ARUM	PERENNIAL	24" OC (MAX.)	250
PC	PONTEDERIA CORDATA	PICKERELWEED	PERENNIAL	24" OC (MAX.)	248
SA	SPARGANIUM AMERICANUM	AMERICAN BUR-REED	PERENNIAL	24" OC (MAX.)	245
SL	SAGITTARIA LATIFOLIA	BROADLEAF ARROWHEAD	PERENNIAL	24" OC (MAX.)	245
				TOTAL PROVIDED:	1738
TEMP. INUNDATION ZONE (HIGH MARSH)		8 SHRUBS PER 200 SF:		AREA= 6950 SF	278
KEY	BOTANICAL NAME	COMMON NAME	TYPE	SPACING	QTY. (1 GALLON)
CA	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	PERENNIAL	5' OC (MAX.)	70
IG	ILEX GLABRA	INKBERRY	PERENNIAL	5' OC (MAX.)	70
RP	ROSA PALUSTRIS	SWAMP ROSE	PERENNIAL	5' OC (MAX.)	70
SN	SAMBUCUS CANADENSIS	ELDERBERRY	PERENNIAL	5' OC (MAX.)	68
				TOTAL PROVIDED:	278
DEEP ZONE				AREA= 750 SF	30
KEY	BOTANICAL NAME	COMMON NAME	TYPE	SPACING	QTY. (1 GALLON)
NL	NELUMBO LUTEA	AMERICAN LOTUS	AQUATIC	5' OC (MAX.)	15
NO	NYMPHAEA ODORATA	WHITE WATER LILY	AQUATIC	5' OC (MAX.)	15
				TOTAL PROVIDED:	30

NOTE: VARIATIONS OF APPROVED WETLAND PLANTINGS ARE LOCATED IN THE APPROVED NCDENR SCM MANUAL, PART C-3.



HERBACEOUS PLANTING DETAIL

N.T.S.



SHRUB PLANTING DETAIL

N.T.S.

WETLANDS GRADING & PLANTING NOTES:

1. IN-SITU TOPSOIL TO BE STOCKPILED ON-SITE FOR USE IN THE STORMWATER WETLAND AREAS.
2. TOPSOIL SHOULD BE SPREAD TO A MINIMUM DEPTH OF 4' THROUGHOUT THE WETLAND, INCLUDING THE DAM PRIOR TO SEEDING/PLANTING VEGETATION. TOPSOIL SHOULD BE HAND-TAMPED AND LIGHTLY COMPACTED WHILE MAINTAINING THE MINIMUM 4' OF TOPSOIL DEPTH FOR PLANT GROWTH. CONTRACTOR TO ACCOUNT FOR SETTLING OF LOOSELY COMPACTED SOILS FOR THE WETLAND PLANTING SUCH THAT ONCE SETTLING OCCURS THE FINAL GRADES AS SHOWN ON THESE PLANS ARE MAINTAINED. INSTALL 6' OF LOOSE TOPSOIL TO ACCOUNT FOR SETTLING TO FINAL DESIGN GRADES.
3. SEE EXTENDED DETENTION WETLAND NOTES ON SHEET C33 FOR DETAILED SOIL SPECIFICATIONS.
4. ACCEPTABLE FERTILIZERS CAN BE: MINERAL, ORGANIC (MANURE), COMPOST OR GREEN CROPS.
5. CONTRACTOR TO WORK WITH SOILS SCIENTIST TO ENSURE SOILS ARE ADEQUATE TO SUPPORT ESTABLISHMENT AND GROWTH OF THE WETLAND PLANTINGS. CONTRACTOR TO AMEND SOILS AND INSTALL SOILS IN PLANT, SHRUB, AND TREE AREAS PER DETAILS, SOIL SPECIFICATIONS, NCDENR SPECIFICATION, AND SOIL SCIENTIST RECOMMENDATIONS. SEE SHEET C33.
6. THE OPTIMAL PERIOD FOR PLANTING HERBACEOUS VEGETATION EXTENDS FROM LATE MARCH TO EARLY JUNE. THE BEST TIME TO PLANT SHRUBS IN A WETLAND IS FROM NOVEMBER TO MID MARCH. CONTRACTOR SHOULD SCHEDULE PLANT INSTALLATION ACCORDINGLY.
7. ONCE THE PLANTINGS HAVE BEEN DELIVERED TO THE SITE FROM THE NURSERY THEY SHOULD BE FREQUENTLY WATERED, FERTILIZED AND SHADED UNTIL THEY ARE INSTALLED.
8. ALL DISTURBED AREAS AROUND THE OUTSIDE OF THE WETLAND SHALL BE SEEDED WITH A LAWN AREA SEED MIX (PER SEEDING SPECIFICATIONS) NATIVE GRASSES, LEGUMES, CLOVERS AND WILDFLOWERS.
9. WETLAND PLANTING AREAS SHOWN SHALL BE PLANTED IN A 'NATURALIZED' MANNER WITH PLANTS GROUPED WITHIN AREAS AS LABELED AND SPACED ON-CENTER AS OUTLINED IN THE CHART.
10. IF THE WETLAND WAS USED DURING CONSTRUCTION AS A SEDIMENT BASIN OR TRAP, THE BASIN MUST BE CLEANED OUT, GRADED, CLAY LINER (OR EQUAL) INSTALLED, COVERED WITH 4' OF TOPSOIL AS SPECIFIED IN NOTE #2 ABOVE, AND VEGETATED WITHIN 14 DAYS OF THE COMPLETION OF THE CONSTRUCTION. THE CONVERSION OF THE DEVICES TO WETLANDS SHOULD NOT OCCUR UNTIL ALL CONSTRUCTION IS COMPLETE AND THE DRAINAGE AREA TO THE WETLAND IS COMPLETELY STABILIZED WITH PAVEMENT, STRUCTURES, AND VEGETATION. WETLAND PLANTINGS SHOULD BE INSTALLED PER NOTES ABOVE.
11. THE WETLAND DRAIN SHOULD BE FULLY OPENED FOR NO MORE THAN 3 DAYS PRIOR TO THE PLANTING DATE TO PRESERVE SOIL MOISTURE AND WORKABILITY.
12. ALL NEW WETLAND PLANTINGS TO BE WATERED AS REQUIRED DURING INITIAL GROWING SEASON TO KEEP PLANTS HEALTHY AND PROMOTE GROWTH.
13. A MINIMUM TWO-YEAR WARRANTY PERIOD SHALL BE PROVIDED BY THE CONTRACTOR FOR PLANT SURVIVAL/REPLACEMENT.
14. AT THE END OF THE FIRST YEAR AND AGAIN AT THE END OF THE TWO-YEAR WARRANTY PERIOD, ALL PLANTS THAT DO NOT SURVIVE MUST BE REPLACED. ESTABLISHMENT PROCEDURES, SUCH AS CONTROL OF INVASIVE WEEDS, ANIMAL AND VANDAL DAMAGE, MULCHING, RE-STAKING, WATERING, AND MESH OR TUBE PROTECTION REPLACEMENT, SHALL BE IMPLEMENTED TO THE EXTENT NEEDED TO ENSURE PLANT SURVIVAL. STAKING MUST BE REMOVED AFTER ESTABLISHMENT (APPROXIMATELY 12 MONTHS), TO PREVENT GIRDLING (STRANGLING) OF ALL WOODY PLANTS.

GEESE/ANIMAL PEST CONTROL NOTE:

CONTRACTOR SHOULD NOTE THAT GEESE ARE PRESENT IN AND AROUND THIS SITE. GEESE ARE VERY DAMAGING TO WETLAND PLANTINGS, PARTICULARLY AFTER THEY ARE FIRST PLANTED BEFORE THE ROOT SYSTEM BECOMES ESTABLISHED AND THE PLANTINGS HAVE AT LEAST ONE GROWING SEASON TO MATURE. CONTRACTOR TO INCLUDE WITHIN BID PRICE PROVISIONS FOR GEESE/BIRD/ANIMAL CONTROL TO PREVENT GEESE/BIRDS/ANIMALS FROM EATING, DAMAGING, OR DESTROYING NEWLY PLANTED WETLAND VEGETATION. MEASURES SHOULD BE INSTALLED TO PROTECT PLANTS UNTIL THE WETLAND PLANTINGS ARE WELL ESTABLISHED. POSSIBLE PROVISIONS INCLUDE, MESH/NETTING TO PROTECT PLANTS, HIRING OUTSIDE PARTIES WITH PEST CONTROL EXPERIENCE, NON-TOXIC SPRAYS APPLIED TO PLANTINGS, ARTIFICIAL FLOATING PREDATORS, ETC. CONTRACTOR TO WORK WITH QUALIFIED PARTY EXPERIENCED IN GEESE/PEST CONTROL AS NECESSARY TO PROTECT NEW WETLANDS.

CONTRACTOR SHOULD CONTACT LOCAL NURSERIES FOR PLANT SELECTION		
CULLIDE NATIVE PLANT NURSERY	621 STARBURST LANE, RALEIGH, NC 27603	(919) 662-5566
NICHE GARDENS	1111 DAWSON ROAD, CHAPEL HILL, NC 27516	(919) 967-0078
PLANT DELIGHTS NURSERY	9241 SAULS ROAD, RALEIGH, NC 27603	(919) 772-4794
TARHEEL NATIVE TREES	4339 PEELE ROAD, CLAYTON, NC 27520	(919) 553-5927
TAYLORS NURSERY, INC.	3705 NEW BERN AVE., RALEIGH, NC 27610	(919) 231-6161
MELLOW MARSH FARM	1312 WOODY STORE ROAD, SILER CITY, NC 27344	(919) 742-1200

HATCH LEGEND

- TEMPORARY INUNDATION ZONE (HIGH MARSH) PLANTINGS
- SHALLOW WATER ZONE (LOW MARSH) PLANTINGS
- DEEP ZONE (DEEP POOL) PLANTINGS

NORTH CAROLINA SEAL 042775 ENGINEER THOMAS F. CRAVEN 12/15/25

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

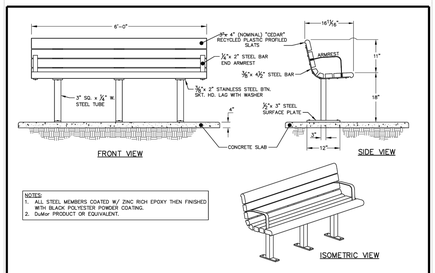
SCALE:	1"=50
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

SCM PLANTING PLAN

2ND REVIEW TOWN STAFF COMMENTS	9/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	8/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/19/2025
RELEASED FOR CONSTRUCTION DATE: (SEE COVER)	■ NO ☐ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

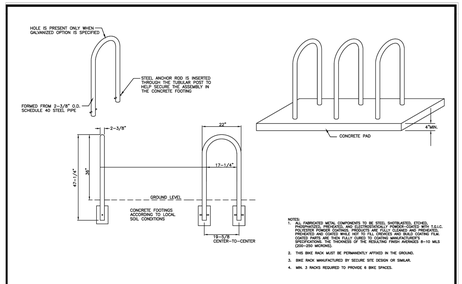
SHEET # C5.10



STANDARD BENCH

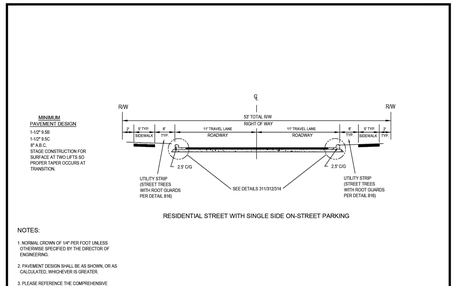
DRAWING NOT TO SCALE

GREENWAY BENCH	STANDARD DETAIL NUMBER: HS018
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	10/16/08



DRAWING NOT TO SCALE

STANDARD IN-GROUND MOUNT BIKE RACK	STANDARD DETAIL NUMBER: HS007
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	8/05/19



RESIDENTIAL STREET WITH SINGLE SIDE ON-STREET PARKING

NOTES:

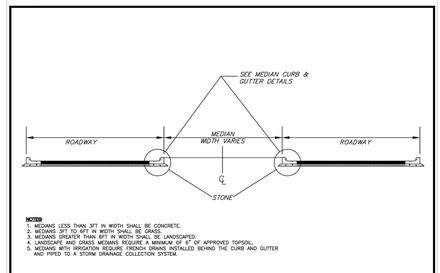
1. NORMAL CROWN OF 1/4" PER FOOT UNLESS OTHERWISE SPECIFIED BY THE DIRECTOR OF ENGINEERING.

2. PAVEMENT DESIGN SHALL BE AS SHOWN, OR AS CALCULATED, WHICHEVER IS GREATER.

3. PLEASE REFERENCE THE COMPREHENSIVE TRANSPORTATION PLAN FOR ADDITIONAL CROSS SECTIONS.

DRAWING NOT TO SCALE

MINIMUM STREET STANDARD FOR RESIDENTIAL STREETS	STANDARD DETAIL NUMBER: HS302
TOWN OF HOLLY SPRINGS	DATE / REVISIONS
	8/06/19

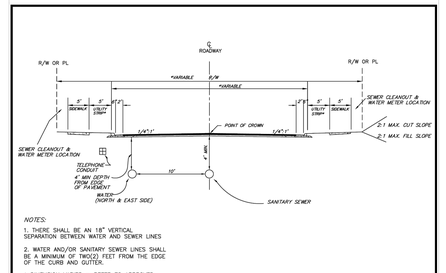


NOTES

1. MEDIANS LESS THAN 3FT IN WIDTH SHALL BE CONCRETE.
2. MEDIANS 3FT TO 8FT IN WIDTH SHALL BE GRASS.
3. MEDIANS GREATER THAN 8FT SHALL BE LANDSCAPED.
4. LANDSCAPE AND GRASS MEDIANS REQUIRE A MINIMUM OF 6" OF APPROVED TOPSOIL.
5. MEDIANS WITH IRRIGATION REQUIRE FRENCH DRAINS INSTALLED BEHIND THE CURB AND GUTTER AND PIPED TO A STORM DRAINAGE COLLECTION SYSTEM.

DRAWING NOT TO SCALE

STANDARD MEDIAN DESIGN	STANDARD DETAIL NUMBER: HS308
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	8/06/19



NOTES:

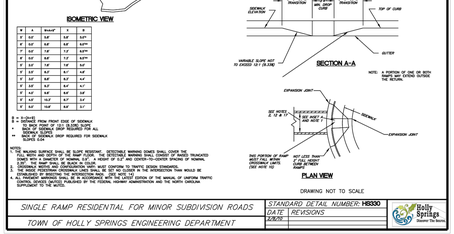
1. THERE SHALL BE AN 18" VERTICAL SEPARATION BETWEEN WATER AND SEWER LINES

2. WATER AND/OR SANITARY SEWER LINES SHALL BE A MINIMUM OF TWO(2) FEET FROM THE EDGE OF THE CURB AND GUTTER.

* DIMENSION VARIES -- REFER TO APPROVED CONSTRUCTION DRAWINGS

DRAWING NOT TO SCALE

STANDARD STREET CROSS SECTION SHOWING UTILITY LOCATIONS	STANDARD DETAIL NUMBER: HS310
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	8/06/19

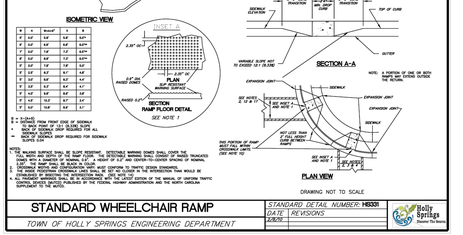


NOTES

1. DRAINAGE VALLEY OF 1/4" PER FOOT UNLESS OTHERWISE DIRECTED BY THE DIRECTOR OF ENGINEERING.
2. PAVEMENT DESIGN SHALL BE AS SHOWN, OR AS CALCULATED, WHICHEVER IS GREATER.
3. PAVEMENT RADIUS AT INTERSECTION SHALL BE 25FT.
4. PROPERTY LINE RADIUS AT INTERSECTIONS SHALL BE 20FT.
5. 6" CURB AND GUTTER IS PROVIDED ON ALLEYWAY IT MUST BE ADDITIONAL TO 16' PAVED TRAVEL LANE.

DRAWING NOT TO SCALE

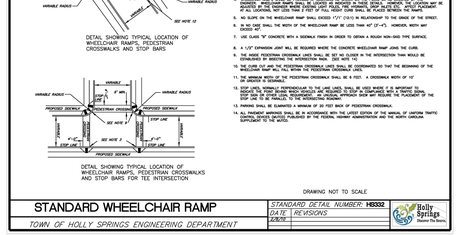
STANDARD STREET CROSS SECTIONS-ALLEYS WITH INVERTED CROWN	STANDARD DETAIL NUMBER: HS031
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	8/06/19



NOTE:
1. DIMENSIONS OF ROUND-ABOUTS VARY PER DESIGN STANDARD.
2. STAMPED CONCRETE SHOULD BE BRICK PATTERN AND RED BRICK COLOR.

DRAWING NOT TO SCALE

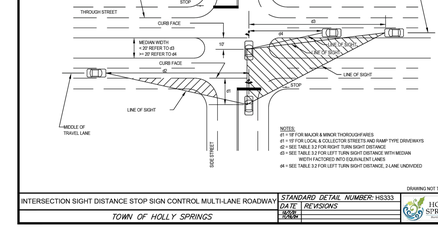
ROUNDABOUT HARDSCAPE DETAIL	STANDARD DETAIL NUMBER: HS314
TOWN OF HOLLY SPRINGS	DATE / REVISIONS
	12/19/25



NOTE:
GEOMETRY VARIES PER DESIGN.

DRAWING NOT TO SCALE

CONCRETE SCORING (SPLITTER ISLAND) DETAIL FOR ROUNDABOUT	STANDARD DETAIL NUMBER: HS035
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	8/06/19



NOTE:
1. SEE STANDARD DETAIL NUMBER HS316 FOR ADDITIONAL INFORMATION.

DRAWING NOT TO SCALE

VEHICULAR CONCRETE PAVEMENT DETAIL AT ROUNDABOUT	STANDARD DETAIL NUMBER: HS316
TOWN OF HOLLY SPRINGS	DATE / REVISIONS
	12/19/25

DRAWING NOT TO SCALE

STANDARD SHOULDER SECTION WITHOUT SIDEWALK	STANDARD DETAIL NUMBER: HS017
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	8/06/19

NOTES

1. CURB SHALL BE TAPERED TO FINISH FLUSH WITH SIDEWALK.
2. BEGINNING RADIUS SHALL NOT ENCROACH ON ADJACENT PROPERTY LINE WHEN EXTENDED PERPENDICULAR TO PROPERTY LINE FROM THE POINT OF MAX TO THE CURB LINE.
3. RESIDENTIAL DRIVEWAYS TO BE 12' – 16' IN WIDTH.
4. COMMERCIAL AND INDUSTRIAL DRIVEWAYS TO BE A MAXIMUM OF 36' WIDE.
5. ALL CONCRETE SHALL BE 3000 PSI.
6. 12' MAX. FOR 1 CAR GARAGES.
7. 16' MAX FOR 2 OR 3 CAR GARAGES.
8. COMMERCIAL AND INDUSTRIAL DRIVEWAYS TO BE MAX OF 36'
9. STREET TYPES TURNOUTS SHALL BE USED WHEN DRIVEWAY ADT IS GREATER THAN 500 VEHICLES.

DRAWING NOT TO SCALE

STANDARD DRIVEWAY APRON	STANDARD DETAIL NUMBER: HS320
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	8/06/19

NOTES

1. CONCRETE SHALL BE 3,000 P.S.I.
2. CONTRACTION JOINTS SHALL BE SPACED AT 10' INTERVALS. (15' SPACING WILL BE ALLOWED WHEN A MACHINE IS USED)
3. REMOVAL OF ANY PORTION OF CURB AND GUTTER SHALL REQUIRE FULL REMOVAL AND REPLACEMENT SO THAT NO LONGITUDINAL SEAMS ARE CREATED.
4. MAINTAIN 50' MAX. BETWEEN JOINTS OR AT ALL RIGID OBJECTS.

DRAWING NOT TO SCALE

STANDARD CONCRETE CURB AND GUTTER	STANDARD DETAIL NUMBER: HS321
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	8/06/19

NOTES

1. STONE IS REQUIRED UNDER ALL TYPES OF CURB AND GUTTER ON STREETS
2. STONE IS NOT REQUIRED ON PARKING LOTS

DRAWING NOT TO SCALE

A.B.C. UNDER CURB AND GUTTER	STANDARD DETAIL NUMBER: HS322
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	8/06/19

NOTE TO CONTRACTOR

ALL PAVEMENT CUTS SHALL BE REPAIRED WITHIN A MAXIMUM OF TWO (2) DAYS FROM THE DATE THE CUT IS MADE. IF CONDITIONS DO NOT PERMIT A PERMANENT REPAIR WITHIN THE GIVEN TIME FRAME, A TEMPORARY REPAIR SHALL BE MADE. IT MUST BE OBTAINED FROM THE DIRECTOR OF ENGINEERING. THOROUGHFARES SHALL BE REQUIRED TO BE REPAIRED ON THE SAME DAY.

DRAWING NOT TO SCALE

STANDARD TRENCH AND PAVEMENT REPAIR SECTION	STANDARD DETAIL NUMBER: HS326
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	8/06/19

DRAWING NOT TO SCALE

STANDARD CONCRETE SIDEWALK	STANDARD DETAIL NUMBER: HS327
TOWN OF HOLLY SPRINGS	DATE / REVISIONS
	10/16/08

A
B
6" MONOLITHIC CONCRETE ISLAND
SEE NOTE 2
SEE NOTE 3
BACK OF SIDEWALK DROP 1/4"
DROP CURB (TYP. 2'-6" CURB & GUTTER SHOWN)
4" CURB
6" CURB
TOP OF CURB
GUTTER
ISOMETRIC VIEW
SECTION B-B
SECTION A-A
PLAN VIEW
EXPANSION JOINT
SEE NOTE 1
SEE NOTE 4
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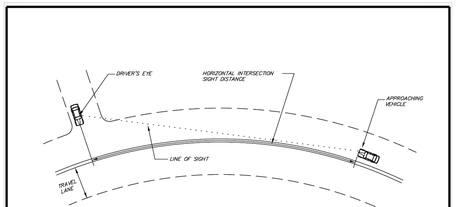
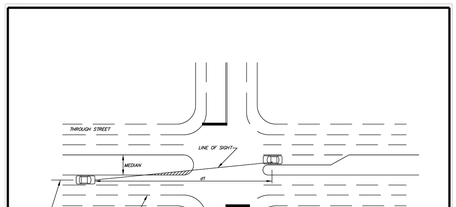


DRAWING NOT TO SCALE

MEASUREMENT OF HORIZONTAL INTERSECTION SIGHT DISTANCE — STANDARD DETAIL NUMBER: HS334

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



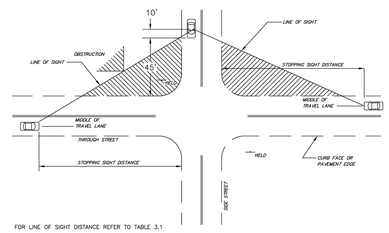
NOTES:
d1 = SEE TABLE 3.1

DRAWING NOT TO SCALE

SIGHT DISTANCE LEFT TURN FROM THROUGH STREET — STANDARD DETAIL NUMBER: HS335

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



FOR LINE OF SIGHT DISTANCE REFER TO TABLE 3.1

DRAWING NOT TO SCALE

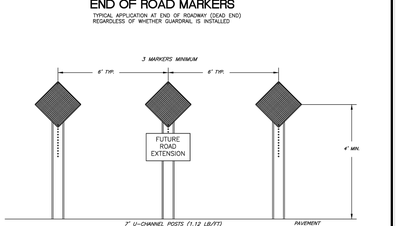
SIGHT DISTANCE YIELD SIGN CONTROLLED INTERSECTIONS — STANDARD DETAIL NUMBER: HS336

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

END OF ROAD MARKERS

TYPICAL APPLICATION AT END OF ROADWAY (DEAD END) REGARDLESS OF WHETHER GUARDRAIL IS INSTALLED



NOTE:
1. ADVANCED WARNING SIGNAGE W14-1"(DEAD END) REQUIRED AS PER MUTCD FOR DEAD END JUST AFTER LAST INTERSECTING STREET.
2. MARKERS TO COVER ENTIRE STREET WITH SPACING STARTING AT CURB.

DRAWING NOT TO SCALE

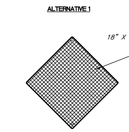
END OF ROAD MARKERS (DEAD END) — STANDARD DETAIL NUMBER: HS353

DATE | REVISIONS: 6/26/25

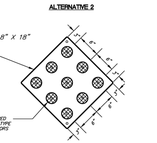
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

END OF ROAD MARKERS

ALTERNATIVE 1



ALTERNATIVE 2

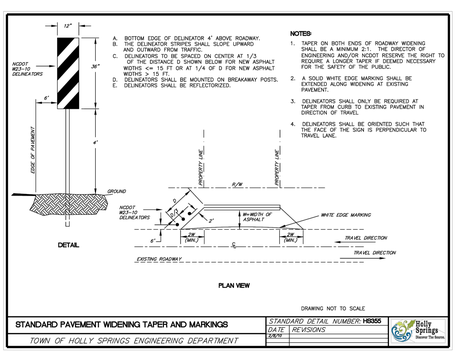


DRAWING NOT TO SCALE

END OF ROAD MARKERS — STANDARD DETAIL NUMBER: HS354

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



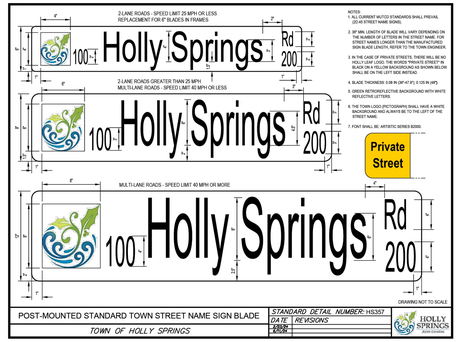
NOTES:
1. TAPER ON BOTH ENDS OF ROADWAY WIDENING SHALL BE A MINIMUM 2:1. THE DIRECTION OF ENGINEERING AND/OR NCDOT RESERVE THE RIGHT TO REQUIRE A LONGER TAPER IF DEEMED NECESSARY FOR THE SAFETY OF THE PUBLIC.
2. A SOLID WHITE EDGE MARKING SHALL BE PLACED ALONG MOCKING AT EXISTING PAVEMENT.
3. DELINEATORS SHALL ONLY BE REQUIRED AT TAPER FROM CURB TO EXISTING PAVEMENT IN DIRECTION OF TRAVEL.
4. DELINEATORS SHALL BE ORIENTED SUCH THAT THE FACE OF THE SIGN IS PERPENDICULAR TO TRAVEL LANE.

DRAWING NOT TO SCALE

STANDARD PAVEMENT WIDENING TAPER AND MARKINGS — STANDARD DETAIL NUMBER: HS355

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



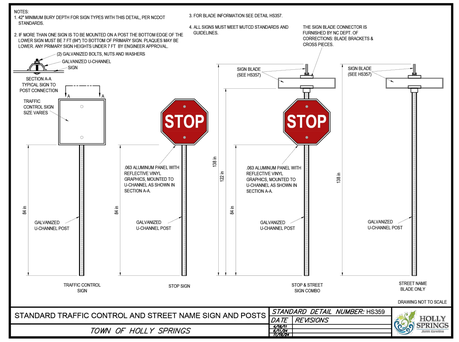
NOTES:
1. ALL CURRENT MUTCD STANDARDS SHALL PREVAIL (SEE KEYSTATE NAME SIGNS).
2. 9" MIN. LENGTH OF BLADE WILL VARY DEPENDING ON THE NUMBER OF LETTERS IN THE STREET NAME. FOR STREET NAMES LONGER THAN THE MANUFACTURED SIGN BLADE LENGTH, REFER TO THE TOWN ENGINEER.
3. IN THE CASE OF PRIVATE STREETS, THERE WILL BE NO HOLLY LEAF LOGO. THE WORDS "PRIVATE STREET" IN BLACK ON A YELLOW BACKGROUND AS SHOWN BELOW SHALL BE ON THE LEFT SIDE BLADE.
4. BLADE THICKNESS: 0.08 IN (NOM) (4"); 0.125 IN (9")
5. SIGNS TO PROTECT ELECTRIC BACKGROUND WITH WHITE REFLECTIVE LETTERS.
6. THE TOWN LOGO (PHOTOGRAPH) SHALL HAVE A WHITE BACKGROUND AND ALWAYS BE TO THE LEFT OF THE STREET NAME.
7. FONT SHALL BE: ARTISTIC SERIES B2000.

DRAWING NOT TO SCALE

POST-MOUNTED STANDARD TOWN STREET NAME SIGN BLADE — STANDARD DETAIL NUMBER: HS357

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS



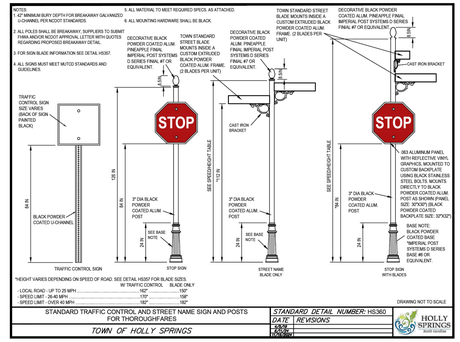
NOTES:
1. 42" MINIMUM BURY DEPTH FOR SIGN TYPES WITH THIS DETAIL, PER NCDOT STANDARDS.
2. 9" MORE THAN ONE SIGN IS TO BE MOUNTED ON A POST THE BOTTOM EDGE OF THE LOWER SIGN MUST BE 7 FT (84") TO BOTTOM OF PRIMARY SIGN. PLAQUES MAY BE LOWER, ANY PRIMARY SIGN HEIGHTS UNDER 7 FT BY ENGINEER APPROVAL.
(2) GALVANIZED BOLTS, NUTS AND WASHERS
3. FOR BLADE INFORMATION SEE DETAIL HS357.
4. ALL SIGNS MUST MEET MUTCD STANDARDS AND GUIDELINES.
THE SIGN BLADE CONNECTOR IS FURNISHED BY INC DEPT. OF CORRECTIONS. BLADE BRACKETS & CROSS PIECES.

DRAWING NOT TO SCALE

STANDARD TRAFFIC CONTROL AND STREET NAME SIGN AND POSTS — STANDARD DETAIL NUMBER: HS359

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS



*HEIGHT VARIES DEPENDING ON SPEED OF ROAD. SEE DETAIL HS357 FOR BLADE SIZES.

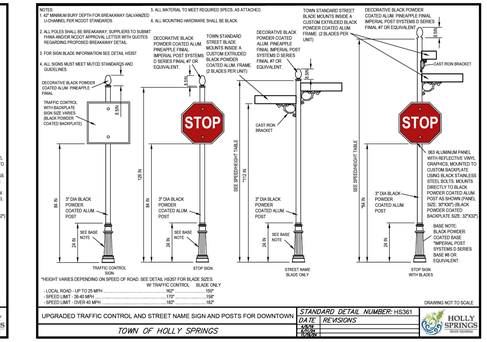
W/ TRAFFIC CONTROL	BLADE ONLY
- LOCAL ROAD - UP TO 25 MPH	102" / 150"
- SPEED LIMIT - 30 MPH	102" / 150"
- SPEED LIMIT - OVER 40 MPH	150" / 150"

DRAWING NOT TO SCALE

STANDARD TRAFFIC CONTROL AND STREET NAME SIGN AND POSTS FOR THOROUGHFARES — STANDARD DETAIL NUMBER: HS360

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS



NOTES:
1. 42" MINIMUM BURY DEPTH FOR BREAKAWAY GALVANIZED U-CHANNEL PER NCDOT STANDARDS.
2. ALL POLES SHALL BE BREAKAWAY, SUPPLIERS TO SUBMIT PARA AND/OR NCDOT APPROVAL LETTER WITH QUOTES REGARDING PROPOSED BREAKAWAY DETAIL.
3. FOR SIGN BLADE INFORMATION SEE DETAIL HS357
4. ALL SIGNS MUST MEET MUTCD STANDARDS AND GUIDELINES.
5. ALL MATERIAL TO MEET REQUIRED SPECS. AS ATTACHED.
6. ALL MOUNTING HARDWARE SHALL BE BLACK.

*HEIGHT VARIES DEPENDING ON SPEED OF ROAD. SEE DETAIL HS357 FOR BLADE SIZES.

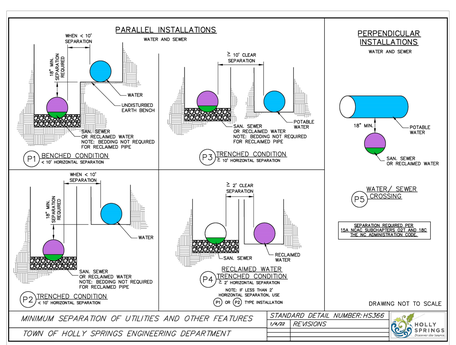
W/ TRAFFIC CONTROL	BLADE ONLY
- LOCAL ROAD - UP TO 25 MPH	102" / 150"
- SPEED LIMIT - 30 MPH	102" / 150"
- SPEED LIMIT - OVER 40 MPH	150" / 150"

DRAWING NOT TO SCALE

UPGRADED TRAFFIC CONTROL AND STREET NAME SIGN AND POSTS FOR DOWNTOWN — STANDARD DETAIL NUMBER: HS361

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS

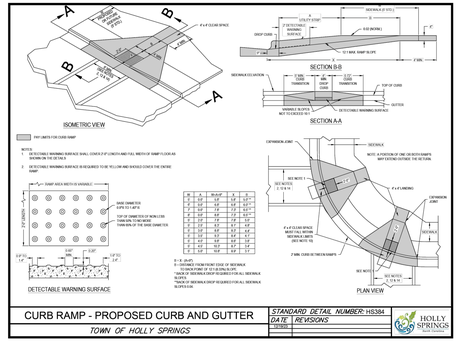


DRAWING NOT TO SCALE

MINIMUM SEPARATION OF UTILITIES AND OTHER FEATURES — STANDARD DETAIL NUMBER: HS366

1/4/24 | REVISIONS

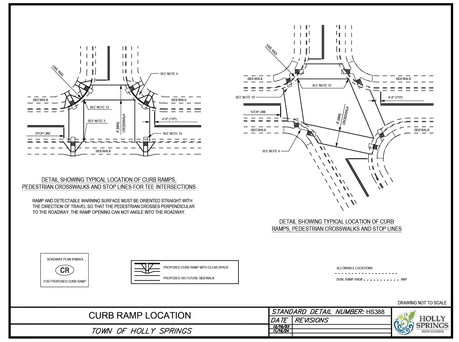
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



CURB RAMP - PROPOSED CURB AND GUTTER — STANDARD DETAIL NUMBER: HS384

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS

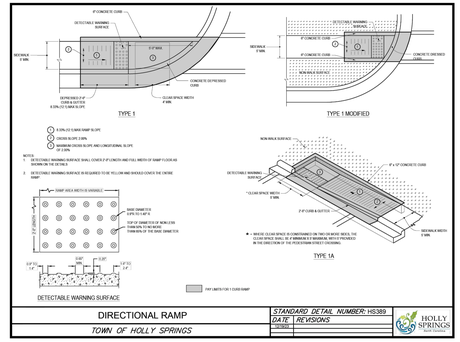


DRAWING NOT TO SCALE

CURB RAMP LOCATION — STANDARD DETAIL NUMBER: HS388

DATE | REVISIONS: 6/26/25

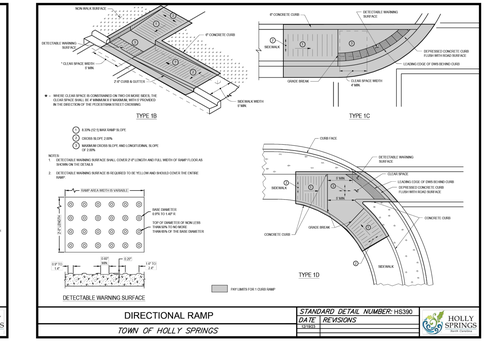
TOWN OF HOLLY SPRINGS



DIRECTIONAL RAMP — STANDARD DETAIL NUMBER: HS389

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS



DIRECTIONAL RAMP — STANDARD DETAIL NUMBER: HS390

DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS

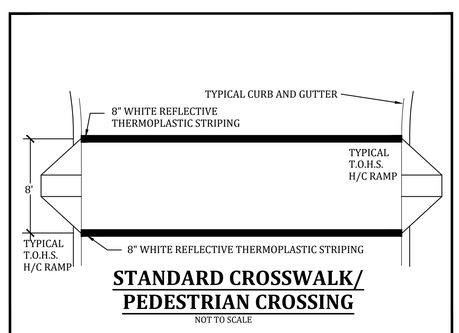
CURB RAMP NOTES:

1. CONSTRUCT THE RAMP SURFACE TO BE STABLE, FIRM, AND SLIP RESISTANT. CONSTRUCT THE CURB RAMP TYPE AS SHOWN IN THE PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER.
2. LOCATE CURB RAMPS AND PLACE PEDESTRIAN CROSSWALK MARKINGS AS SHOWN ON THE PAVEMENT MARKING PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING CURB RAMPS OR MARKINGS AS SHOWN, CONTACT THE SIGNING AND DELINEATION UNIT TO LOCATE, AS DIRECTED BY THE ENGINEER.
3. COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS SO A 4' x 4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
4. SET BACK DISTANCE FROM INSIDE OF CROSSWALK MARKING TO THE NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
5. REFER TO PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
6. TERMINATE PARKING A MINIMUM OF 20' FROM THE BACK OF PEDESTRIAN CROSSWALK.
7. CONSTRUCT CURB RAMPS A MINIMUM OF 4' WIDE.
8. CONSTRUCT THE RUNNING SLOPE OF THE RAMP 8.33% MAXIMUM.
9. ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.
10. CONSTRUCT THE SIDE FLARE SLOPE A MAXIMUM OF 10% MEASURED ALONG THE CURB LINE.
11. CONSTRUCT THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE BASE OF THE CURB RAMP A MAXIMUM OF 5% AND MAINTAIN A SMOOTH TRANSITION.
12. CONSTRUCT CLEAR SPACES FOR SIDEWALK A MINIMUM OF 4' x 4' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. CONSTRUCT CLEAR SPACES FOR MEDIAN ISLANDS A MINIMUM OF 5' x 5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. IF CONSTRUCTED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4' MINIMUM X 5' MINIMUM, WITH 5' PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.
13. TO USE A MEDIAN ISLAND AS A PEDESTRIAN REFUGE AREA, MEDIAN ISLANDS WILL BE A MINIMUM OF 6' WIDE. CONSTRUCT MEDIAN ISLANDS TO PROVIDE PASSAGE OVER OR THROUGH THE ISLAND.
14. SMALL CHANNELIZATION ISLANDS THAT CANNOT PROVIDE A 5'x5' CLEAR SPACE AT THE TOP OF RAMPS, WILL BE CUT THOUGH LEVEL WITH THE SURFACE STREET.
15. CURB RAMPS WITH RETURNED CURBS MAY BE SUED ONLY WHERE PEDESTRIAN WOULD NOT NORMALLY WALK ACROSS THE RAMP, WHERE THE ADJACENT SURFACE IS PLATING OR OTHER NON-WALKING SURFACE, OR THE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
16. PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE RAMP JOINS THE CURB RAMP AS SHOWN IN ROADWAY STANDARD DRAWING 848.01.
17. PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSING SIGNALS AS SHOWN IN THE PLANS OR AS SHOWN IN THE MUTCD.
18. DETECTABLE WARNING SURFACES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
19. DETECTABLE WARNING SURFACE IS REQURED TO BE YELLOW AND SHOULD COVER THE ENTIRE RAMP.

CURB RAMP NOTES — STANDARD DETAIL NUMBER: HS396

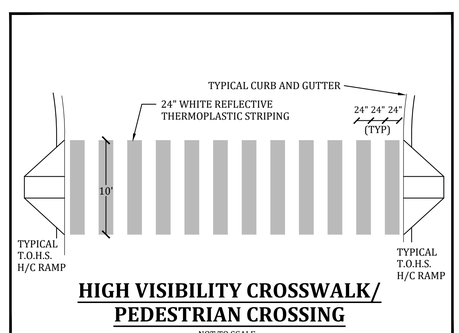
DATE | REVISIONS: 6/26/25

TOWN OF HOLLY SPRINGS



STANDARD CROSSWALK/ PEDESTRIAN CROSSING

NOT TO SCALE



HIGH VISIBILITY CROSSWALK/ PEDESTRIAN CROSSING

NOT TO SCALE

MIRA RIDGE

MAJOR SUBDIVISION PLAN

HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

SCALE:	1=60'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

STANDARD SITE DETAILS

2ND REVIEW TOWN STAFF COMMENTS	9/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/19/2025
RELEASED FOR CONSTRUCTION DATE: (SEE COVER)	■ NO ☐ YES

PRIEST, CRAVEN & ASSOCIATES, INC.

LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS

6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # C9.01

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Litter Recep Flat Top Inground
SF-209

No matter what your recreation requirements might be—from large, inclusive, ramped units, to the smallest single deck structure—Play & Park Structures has a product line designed to meet your space requirements as well as your budget.

Features and Benefits:

All of our individual products are designed with the children who will use them in mind. As your structure is designed, our playground experts look at the height of the playground components, required use zones, and pathways that encourage a good flow of traffic within the play space to eliminate unnecessary hazards.

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Product

6' Contour Recycled Plastic Bench

Model: 543-1205

thepark LAND FACILITIES CATALOG

Materials:

2" x 3/8" Gauge HD Steel Legs
Pre-Finish Recycled Plastic Seat & Black Slats
UV Resistent Recycled Plastic
50 Year Warranty On Plastic

Finishes:

Powder Coat (on legs and frame)
Our Powder Coat Finish assures a high level of adhesion and durability by following these steps:

1. Sanded Down
2. Washed and Dried
3. Zinc Primer
4. Powder Coat
5. UV Clear Topcoat

Color Options:

☐ **Standard Color**
Cedar | Brown

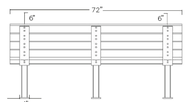
Mount Options:

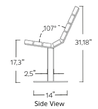
☐ **Free-Standing**

☐ **Surface**
Foot Mount has a 9/16" mounting hole for mounting to the ground

Top View

Front View



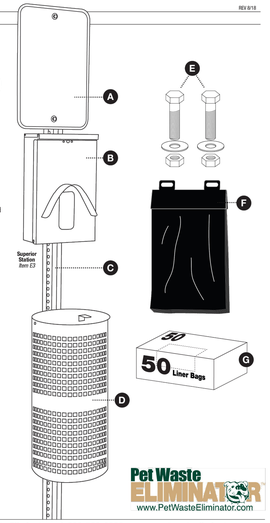


Side View

3350 NW Boca Raton Blvd., Suite B2, Boca Raton FL 33431
1-866-280-9894 | Sales@theparkcatalog.com

INSTALLATION GUIDE REV 8/18
ITEM: E3

Superior Pet Waste Station



Superior Kit Includes:

- **A.** 1 12"x18" Aluminum Sign (***Item E802***)
- **B.** 1 Dispenser Box (***Item E1***)
- **C.** 1 8-ft Steel Sign Post (***Item E18***)
- **D.** 1 10-gal Waste Receptacle with attached lid (***Item E10***)
- **E.** 3 Mounting Hardware Sets— each set includes 2 nuts, bolts and washers
- **F.** 80 Pet Waste Bags (***Item E41***)
- **G.** 50 Waste Receptacle Liners

Optional Tools Needed:

- Socket Driver or Adjustable Wrench
- Level
- Post Hole Driver

PET WASTE ELIMINATOR SUPERIOR STATIONS:

★ Lifetime Guarantee
★ Rust-Proof Construction
★ Universal Fit holds all bags on header cards or rolls

NEVER RUN OUT OF BAGS AGAIN!

Join our exclusive Refill Program and get FREE SHIPPING on every Bag Order!

Call to join today!

Pet Waste ELIMINATOR www.PetWasteEliminator.com

Need Help? Give us a call! Pet Waste Eliminator • 1-800-790-8896 • www.petwasteeliminator.com

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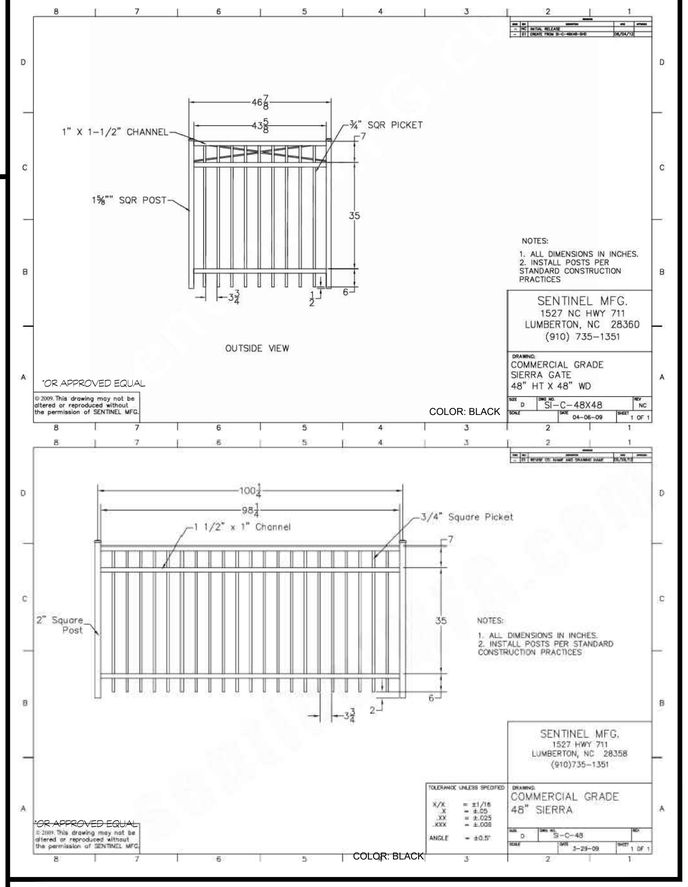
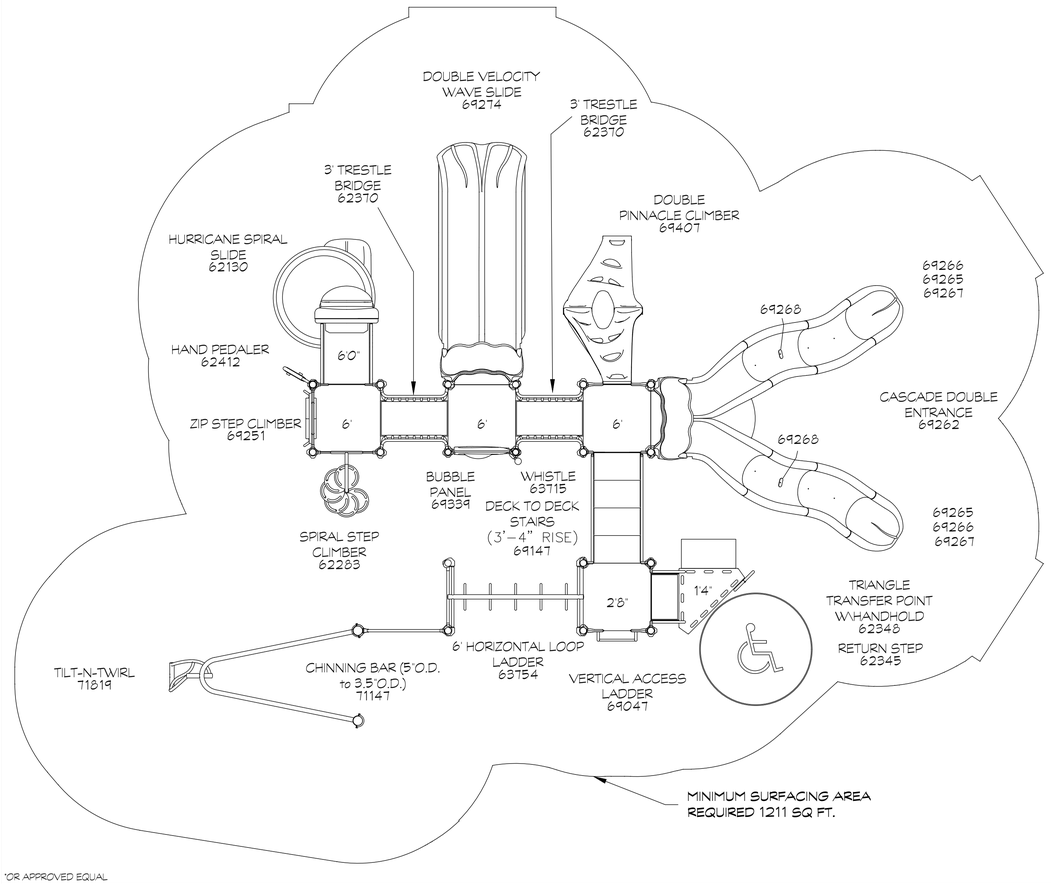
PET WASTE
TRANSMITS DISEASE
LEASH AND CLEAN UP AFTER YOUR PET
PLEASE KEEP THIS AREA CLEAN





*OR APPROVED EQUAL

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MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

SCALE:	1"=60'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

STANDARD SITE DETAILS

2ND REVIEW TOWN STAFF COMMENTS	3/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	5/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/19/2025
RELEASED FOR CONSTRUCTION DATE (SEE COVER)	■ NO ☐ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # C9.02

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Solo Flyer
66547

No matter what your recreation requirements might be—from large, inclusive, ramped units, to the smallest single deck structure—Play & Park Structures has a product line designed to meet your space requirements as well as your budget.

Features and Benefits:

All of our individual products are designed with the children who will use them in mind. As your structure is designed, our playground experts look at the height of the playground components, required use zones, and pathways that encourage a good flow of traffic within the play space to eliminate unnecessary hazards.

Age: 2-5
Space Required: 15' 5" x 14' 2"
Weight: 95 lbs

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Horse Bouncer with C Spring
66566

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Age: 2-5
Space Required: 15' 2" x 13' 0"
Weight: 106 lbs

800-727-1907

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*OR APPROVED EQUAL

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2-5 Age Appropriate Sign
Fiberglass
67866

No matter what your recreation requirements might be—from large, inclusive, ramped units, to the smallest single deck structure—Play & Park Structures has a product line designed to meet your space requirements as well as your budget.

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Age: 2-5
Weight: 82 lbs

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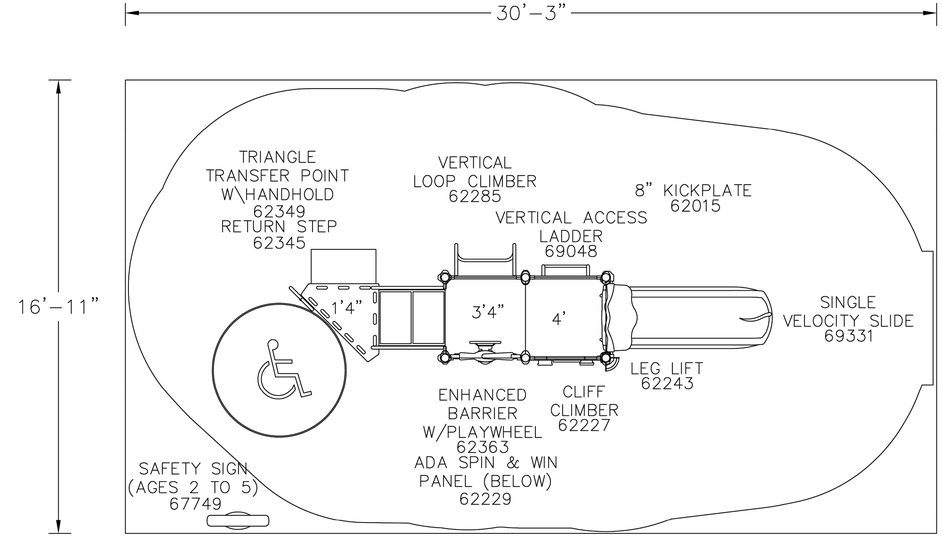
*OR APPROVED EQUAL

WEBSITE UNIT 2015	This play equipment is recommended for children ages 2-5	Scale: 3/8" = 1'-0" This drawing can be scaled only when in an 11" x 17" format	Drawn By: BOB FLATT Date: 01/29/2015 Drawing Name: 682-86230	play&park structures A PLAYCORE Company 401 Chestnut St., Ste. 410 Chattanooga, TN 37402 800-727-1907 / www.playandpark.com	Total Play Components	7			User Capacity 20-30
PLAY & PARK STRUCTURES	Minimum Area Required: 30'-3" X 16'-11"				Elevated Play Components	5			Critical Fall Height 4'-0"
					Elevated Play Components Accessible by Ramp	0	Req.	0	
					Elevated Components Accessible by Transfer	5	Req.	3	
					Accessible Ground Level Components Shown	2	Req.	2	
					Different Types of Ground Level Components	2	Req.	2	

totmex PLAY SYSTEMS

ISO 9001 CERTIFIED



It is the manufacturer's opinion that the structure shown herein complies with current ada standards concerning accessibility if used with proper accessible surfacing and together with other necessary ground level play equipment.
IMPORTANT: Never install play equipment over hard, unresilient surfaces such as asphalt, concrete, or compacted earth. It is the owner's responsibility to ensure the "minimum area required" contains an appropriate amount of resilient material to cushion accidental falls.

*OR APPROVED EQUAL

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Tot City
10-95401

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Features and Benefits:

All of our individual products are designed with the children who will use them in mind. As your structure is designed, our playground experts look at the height of the playground components, required use zones, and pathways that encourage a good flow of traffic within the play space to eliminate unnecessary hazards.

Color Palette: Custom
Age: 2-5, 5-12
Space Required: 30' 3" x 16' 11"
Capacity: 20-30
Critical Fall Height: 4'
Weight: 1079 lbs
ADA Compliant:

800-727-1907

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 10955 ENGINEER THOMAS F. CRAVEN

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

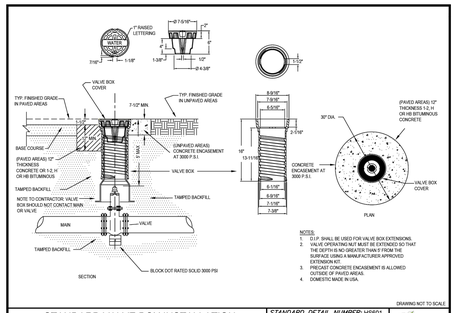
SCALE:	1"=60'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

STANDARD SITE DETAILS

2ND REVIEW TOWN STAFF COMMENTS	3/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/19/2225
RELEASED FOR CONSTRUCTION DATE (SEE COVER)	■ NO □ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # C9.03



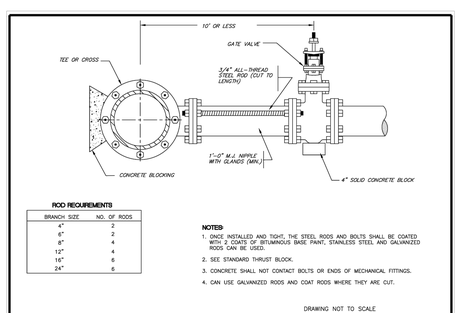
DRAWING NOT TO SCALE

STANDARD VALVE BOX INSTALLATION

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: H5601

DATE	REVISIONS
6/26/18	ADD NOTE



ROD REQUIREMENTS

BRANCH SIZE	NO. OF RODS
4"	2
6"	2
8"	4
12"	4
16"	6
24"	6

NOTES:

1. ONCE INSTALLED AND TIGHT, THE STEEL RODS AND BOLTS SHALL BE COATED WITH 2 COATS OF BITUMINOUS BASE PAINT, STAINLESS STEEL AND GALVANIZED RODS CAN BE USED.
2. SEE STANDARD THRUST BLOCK.
3. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL FITTINGS.
4. CAN USE GALVANIZED RODS AND COAT RODS WHERE THEY ARE CUT.

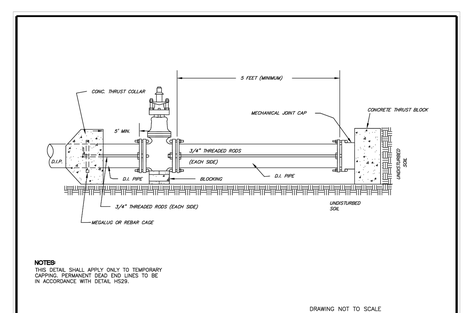
DRAWING NOT TO SCALE

STANDARD VALVE RODDING

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5603

DATE	REVISIONS
12/06/18	



NOTES:

THIS DETAIL SHALL APPLY ONLY TO TEMPORARY CAPPING. PERMANENT DEAD END LINES TO BE IN ACCORDANCE WITH DETAIL H529.

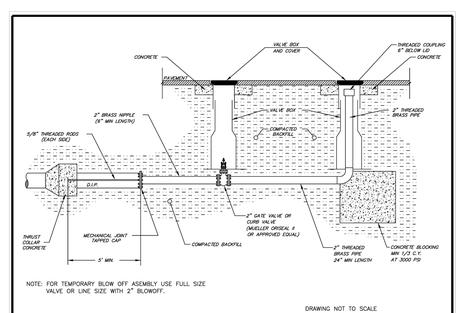
DRAWING NOT TO SCALE

STANDARD CAPPING DETAIL

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5604

DATE	REVISIONS
6/26/18	



NOTE: FOR TEMPORARY BLOW OFF ASEMBLY USE FULL SIZE VALVE OR LINE SIZE WITH 2" BLOWOFF.

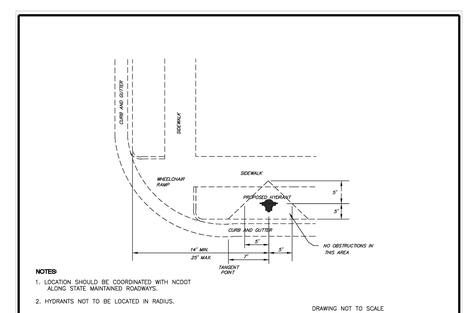
DRAWING NOT TO SCALE

STANDARD 2" BLOW-OFF ASSEMBLY

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5605

DATE	REVISIONS
6/26/18	



NOTES:

1. LOCATION SHOULD BE COORDINATED WITH NCDOT ALONG STATE MAINTAINED ROADWAYS.
2. HYDRANTS NOT TO BE LOCATED IN RADIUS.

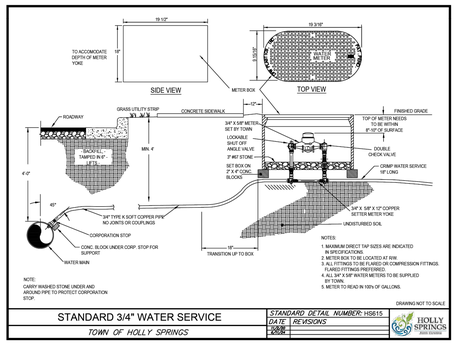
DRAWING NOT TO SCALE

STANDARD HYDRANT LOCATION

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5613

DATE	REVISIONS
12/06/18	



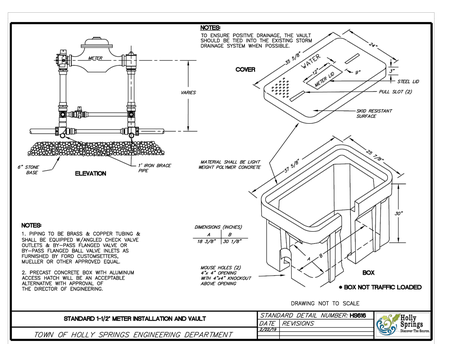
DRAWING NOT TO SCALE

STANDARD 3/4" WATER SERVICE

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: H5615

DATE	REVISIONS
6/26/18	



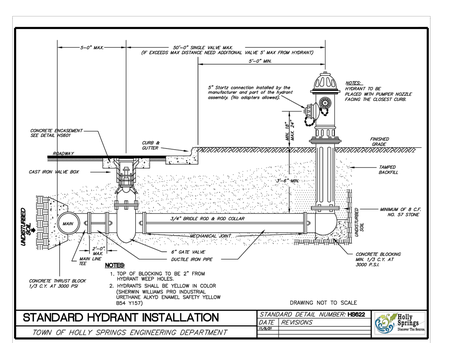
DRAWING NOT TO SCALE

STANDARD 1-1/2" METER INSTALLATION AND VAULT

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5616

DATE	REVISIONS
12/06/18	



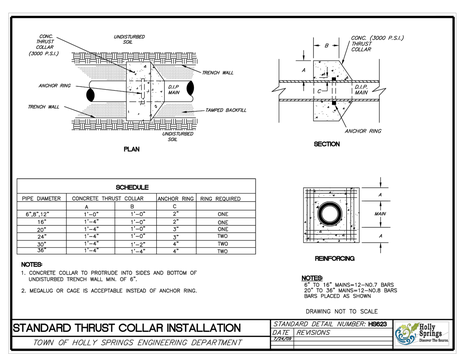
DRAWING NOT TO SCALE

STANDARD HYDRANT INSTALLATION

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5622

DATE	REVISIONS
6/26/18	



SCHEDULE				
PIPE DIAMETER	CONCRETE THRUST COLLAR		ANCHOR RING	RING REQUIRED
	A	B	C	
6"-8",12"	1'-0"	1'-0"	2"	ONE
16"	1'-4"	1'-0"	2"	ONE
20"	1'-4"	1'-0"	3"	ONE
24"	1'-4"	1'-0"	3"	TWO
30"	1'-4"	1'-2"	4"	TWO
36"	1'-4"	1'-4"	4"	TWO

NOTES:

1. CONCRETE COLLAR TO PROTRUDE INTO SIDES AND BOTTOM OF UNDISTURBED TRENCH WALL MIN. OF 6".
2. MEGALUG OR CAGE IS ACCEPTABLE INSTEAD OF ANCHOR RING.

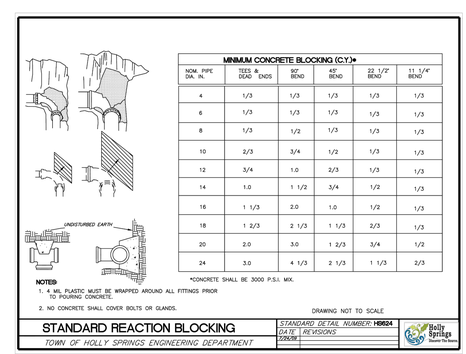
DRAWING NOT TO SCALE

STANDARD THRUST COLLAR INSTALLATION

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5623

DATE	REVISIONS
12/06/18	



MINIMUM CONCRETE BLOCKING (C.Y.)*					
NOM. PIPE DIA. IN.	TEES & DEAD ENDS	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4	1/3	1/3	1/3	1/3	1/3
6	1/3	1/3	1/3	1/3	1/3
8	1/3	1/2	1/3	1/3	1/3
10	2/3	3/4	1/2	1/3	1/3
12	3/4	1.0	2/3	1/3	1/3
14	1.0	1 1/2	3/4	1/2	1/3
16	1 1/3	2.0	1.0	1/2	1/3
18	1 2/3	2 1/3	1 1/3	2/3	1/3
20	2.0	3.0	1 2/3	3/4	1/2
24	3.0	4 1/3	2 1/3	1 1/3	2/3

*CONCRETE SHALL BE 3000 P.S.I. MIX.

NOTES:

1. 4 MIL PLASTIC MUST BE WRAPPED AROUND ALL FITTINGS PRIOR TO POURING CONCRETE.
2. NO CONCRETE SHALL COVER BOLTS OR GLANDS.

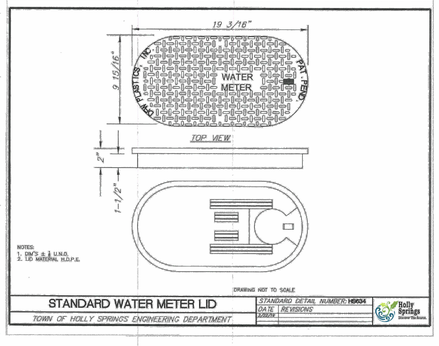
DRAWING NOT TO SCALE

STANDARD REACTION BLOCKING

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5624

DATE	REVISIONS
12/06/18	



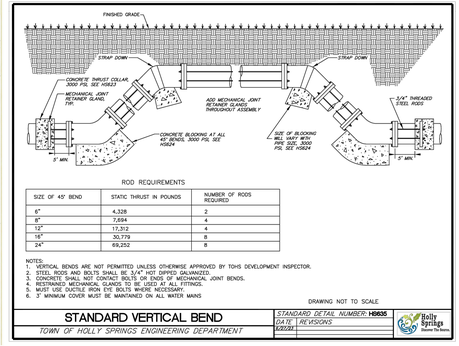
DRAWING NOT TO SCALE

STANDARD WATER METER LID

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5634

DATE	REVISIONS
6/26/18	



ROD REQUIREMENTS

SIZE OF 45° BEND	STATIC THRUST IN POUNDS	NUMBER OF RODS REQUIRED
6"	4,338	2
8"	7,694	4
12"	17,312	4
16"	30,779	8
24"	69,252	8

NOTES:

1. VERTICAL BENDS ARE NOT PERMITTED UNLESS OTHERWISE APPROVED BY TOHS DEVELOPMENT INSPECTOR.
2. STEEL RODS AND BOLTS SHALL BE 3/4" HOT DIPPED GALVANIZED.
3. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT BENDS.
4. RESTRAINED MECHANICAL GLANDS TO BE USED AT ALL FITTINGS.
5. MUST USE DUCTILE IRON EYE BOLTS WHERE NECESSARY.
6. 3" MINIMUM COVER MUST BE MAINTAINED ON ALL WATER MAINS

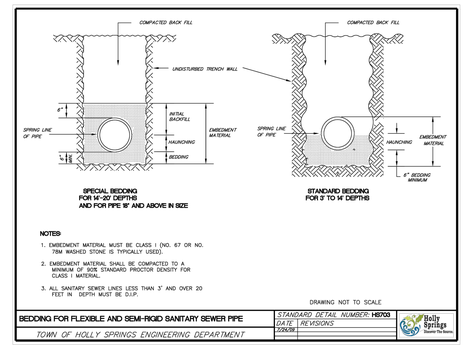
DRAWING NOT TO SCALE

STANDARD VERTICAL BEND

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5635

DATE	REVISIONS
6/25/18	



NOTES:

1. EMBEDMENT MATERIAL MUST BE CLASS I (NO. 67 OR NO. 78M WASHED STONE IS TYPICALLY USED).
2. EMBEDMENT MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY FOR CLASS I MATERIAL.
3. ALL SANITARY SEWER LINES LESS THAN 3' AND OVER 20 FEET IN DEPTH MUST BE D.I.P.

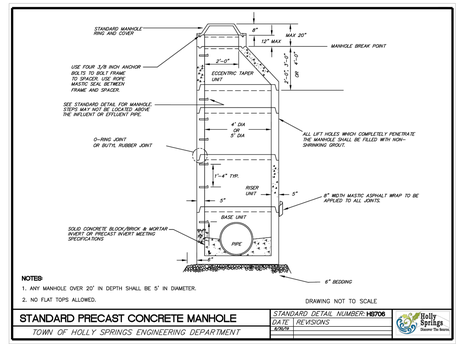
DRAWING NOT TO SCALE

BEDDING FOR FLEXIBLE AND SEMI-RIGID SANITARY SEWER PIPE

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5703

DATE	REVISIONS
12/06/18	



NOTES:

1. ANY MANHOLE OVER 20' IN DEPTH SHALL BE 5' IN DIAMETER.
2. NO FLAT TOPS ALLOWED.

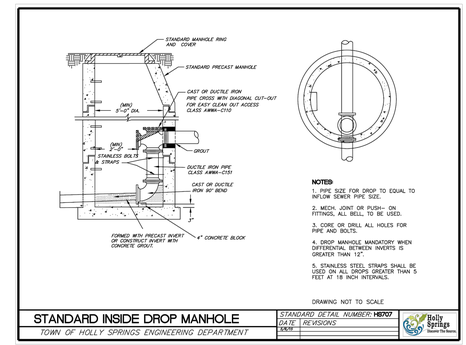
DRAWING NOT TO SCALE

STANDARD PRECAST CONCRETE MANHOLE

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5706

DATE	REVISIONS
6/26/18	



NOTES:

1. PIPE SIZE FOR DROP TO EQUAL TO INFLOW SEWER PIPE SIZE.
2. MECH. JOINT OR PUSH-ON FITTINGS, ALL BELL TO BE USED.
3. CORE OR DRILL ALL HOLES FOR PIPE AND BOLTS.
4. DROP MANHOLE MANDATORY WHEN DIFFERENTIAL BETWEEN INVERTS IS GREATER THAN 12".
5. STAINLESS STEEL STRAPS SHALL BE USED ON ALL DROPS GREATER THAN 5 FEET AT 18 INCH INTERVALS.

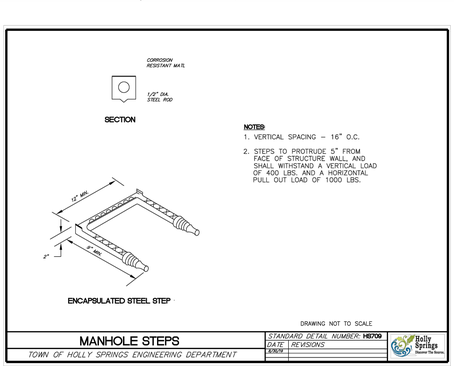
DRAWING NOT TO SCALE

STANDARD INSIDE DROP MANHOLE

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5707

DATE	REVISIONS
6/26/18	



NOTES:

1. VERTICAL SPACING – 16" O.C.
2. STEPS TO PROTRUDE 5" FROM FACE OF STRUCTURE WALL, AND SHALL WITHSTAND A VERTICAL LOAD OF 400 LBS. AND A HORIZONTAL PULL OUT LOAD OF 1000 LBS.

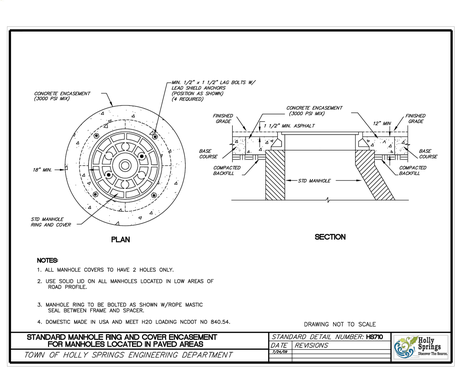
DRAWING NOT TO SCALE

MANHOLE STEPS

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5709

DATE	REVISIONS
6/26/18	



NOTES:

1. ALL MANHOLE COVERS TO HAVE 2 HOLES ONLY.
2. USE SOLID LID ON ALL MANHOLES LOCATED IN LOW AREAS OF ROAD PROFILE.
3. MANHOLE RING TO BE BOLTED AS SHOWN W/ROPE MASTIC SEAL BETWEEN FRAME AND SPACER.
4. DOMESTIC MADE IN USA AND MEET H20 LOADING NCDOT NO. 840.54.

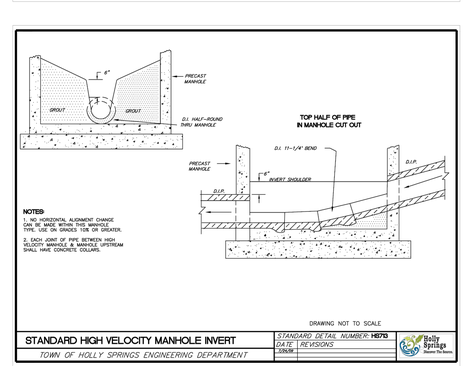
DRAWING NOT TO SCALE

STANDARD MANHOLE RING AND COVER ENCASEMENT FOR MANHOLES LOCATED IN PAVED AREAS

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5710

DATE	REVISIONS
12/06/18	



NOTES:

1. NO HORIZONTAL ALIGNMENT CHANGE ALLOWED IN MANHOLE FOR GRAVITY TYPE, USE ON GRADES 10% OR GREATER.
2. EACH JOINT OF PIPE BETWEEN HIGH VELOCITY MANHOLE & MANHOLE UPSTREAM SHALL HAVE CONCRETE COLLARS.

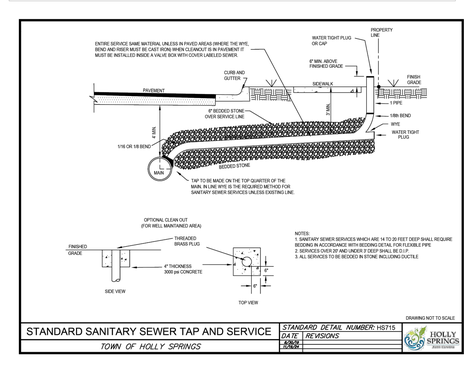
DRAWING NOT TO SCALE

STANDARD HIGH VELOCITY MANHOLE INVERT

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: H5710

DATE	REVISIONS
12/06/18	



DRAWING NOT TO SCALE

STANDARD SANITARY SEWER TAP AND SERVICE

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS715

DATE	REVISIONS
6/26/18	

MIRA RIDGE

MAJOR SUBDIVISION PLAN

HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

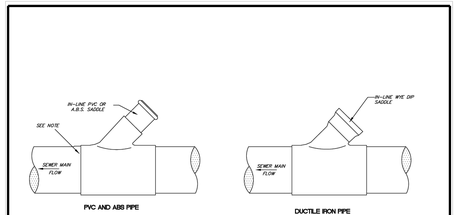
SCALE:	1"=60'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

STANDARD UTILITY DETAILS

2ND REVIEW TOWN STAFF COMMENTS	3/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	8/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/18/2025
RELEASED FOR CONSTRUCTION DATE: (SEE COVER)	■ NO ☐ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # C9.04



PVC AND ABS PIPE

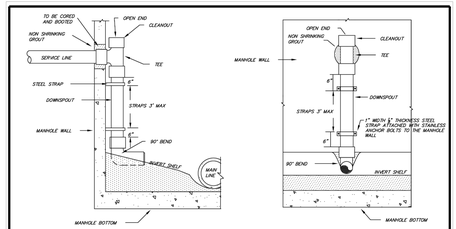
DUCTILE IRON PIPE

NOTES:

1.. PVC/ ABS SOLVENT SHALL BE USED AT ALL JOINTS.

DRAWING NOT TO SCALE

STANDARD SANITARY SEWER LATERAL CONNECTIONS FOR NEW LINES	STANDARD DETAIL NUMBER: H5716
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE REVISIONS 5/26/16



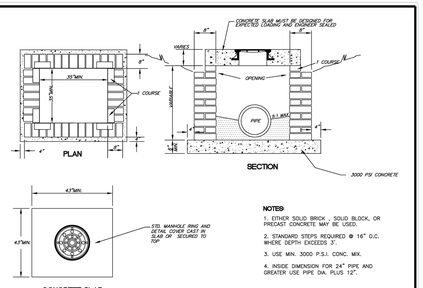
NOTES:

1. PIPING CONFIGURATION TO BE USED ON ALL DROPS.
2. DROPS TO BE CONSTRUCTED OF A.B.S, P.V.C. OR D.I.P. PIPE.
3. SERVICE LINE MAY NOT ENTER MANHOLE WITHIN 12" OF BENCH OR PIPE JOINT.
4. THIS DETAIL SHALL NOT BE USED FOR FORCE MAINS.

* MAX. NO. OF SERVICES INTO MANHOLE SHALL BE 3.

DRAWING NOT TO SCALE

STANDARD INSIDE DROP FOR SANITARY SEWER SERVICE	STANDARD DETAIL NUMBER: H5718
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE REVISIONS 5/26/16



NOTES:

1. EITHER SOLID BRICK , SOLID BLOCK, OR PRECAST CONCRETE MAY BE USED.

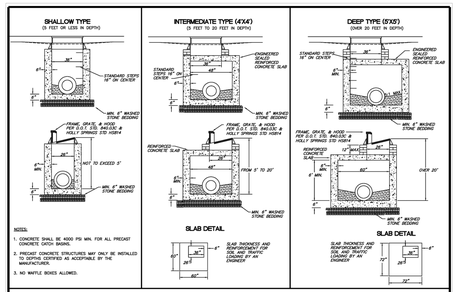
2. STANDARD STEPS REQUIRED @ 16" O.C. WHERE DEPTH EXCEEDS 3'.

3. USE MIN. 3000 P.S.I. CONC. MIX.

4. INSIDE DIMENSION FOR 24" PIPE AND GREATER USE PIPE DIA. PLUS 12".

DRAWING NOT TO SCALE

STANDARD YARD INLET WITH CONCRETE SLAB	STANDARD DETAIL NUMBER: H5803
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE REVISIONS 5/26/16



NOTES:

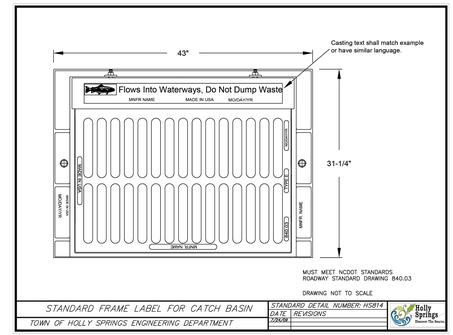
1. CONCRETE SHALL BE 4000 PSI MIN. FOR ALL PRECAST CONCRETE CATCH BASINS.

2. PRECAST CONCRETE STRUCTURES MAY ONLY BE INSTALLED IF THEY ARE IDENTIFIED AS ACCEPTABLE BY THE MANUFACTURER.

3. NO WAFFLE BOXES ALLOWED.

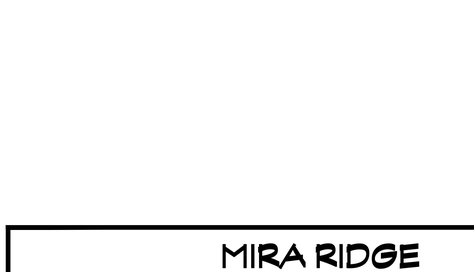
DRAWING NOT TO SCALE

PRECAST CONCRETE CATCH BASINS	STANDARD DETAIL NUMBER: H5805
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE REVISIONS 5/26/16



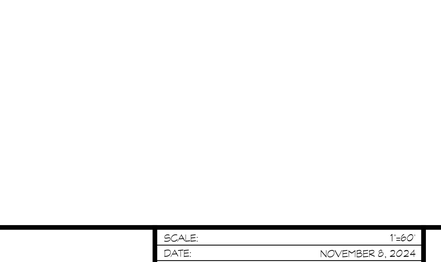
DRAWING NOT TO SCALE

STANDARD FRAME LABEL FOR CATCH BASIN	STANDARD DETAIL NUMBER: H5814
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE REVISIONS 5/26/16



DRAWING NOT TO SCALE

STANDARD PLACEMENT OF STORM DRAIN MARKER	STANDARD DETAIL NUMBER: H5815
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE REVISIONS 5/26/16



NOTE: PLACE ROOT GUARD AT EDGE OF CURB OR SIDEWALK.

DRAWING NOT TO SCALE

STANDARD ROOT GUARD INSTALLATION	STANDARD DETAIL NUMBER: H5806
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE REVISIONS 5/26/16

UB 24-2 Specifications
24" DeepRoot Tree Root Barriers

Specified tree root barriers are a mechanical barrier and root deflector to prevent tree roots from damaging hard-scapes and landscapes. Assembled in 2' long modules to form panels of various lengths, barriers shall be 24" deep (bottom shelving edge) to 18" in linear depth/shelve directly adjacent to hard-scape adjacent to one side of the trees (Linear planting style).

A. Materials

1. The contractor shall furnish and install tree root barrier panels as manufactured by DeepRoot Partners, L.P. 501 Canyon Dr. #1 as manufactured by Deep Root Partners, L.P. 501 Canyon Dr. #1 Suite 100 Fort Collins, CO 80521 (800) 458-3808. Panels shall be Black, injection molded thermo of 0.080" (2.1mm) thickness minimum, and be UV stable. Panels shall be UV and deep manufactured with a minimum 25% post consumer recycled polypropylene plastic with added ultraviolet inhibitors, and be odorless and non-toxic.

Root tree from 6 deflect Integral Vertical Root Deflecting Ribs of at least 0.080" (2.1mm) thickness protruding 1.75" (12.7mm) at 90° angles to the inside of the panel, spaced 2" (12.7mm) apart. (See panel drawing below)

A Double Top Edge consisting of two parallel, integral, horizontal ribs of at least 0.080" (2.1mm) thickness and 1/4" (6.35mm) thickness 1.75" (12.7mm) wide and 1.25" (6.35mm) apart with the lower rib attached to the vertical root deflecting rib.(See detail "C")

A minimum of 3 3/4-1/8 Ground Lock Tabs consisting of integral 0.080" (2.1mm) thick tabs, 1" (25.4mm) wide, with a 45° angle slope of a segment of a circle, the 1" (25.4mm) chord of the segment being at the bottom of the panel and spaced 1.5" (38.1mm) from the panel. The mid ground tabs on each panel shall be equal spaced between each of the vertical root deflecting ribs. (See detail "A" and panel drawing below)

An Integrated Zipper Joining System consisting of for instant assembly by sliding one panel into another. (See Detail "A")

2.The basic properties of the material shall be:

Test	ASTM Test Method	Typical Value Copolymer Polypropylene
Tensile strength @ yield – Md	D638	2,554 PSI
Tensile strength @ yield – Tmd	D638	1,944 PSI
Flash Ignition – Md	D638	1,448
Flash Ignition – Tmd	D638	1,448
Flexural Modulus	D790	110,000 PSI
Notched Izod Impact – Md	D256	2.84 (ft-lbs)
Notched Izod Impact – Tmd	D256	4.4

B. Construction and Installation

1. The contractor shall install the tree root barriers with the top edge of the panel 1/2" (12.7mm) below the finish grade. The vertical root deflecting ribs shall be facing towards the tree. The panel shall be installed with the top edge 1/2" (12.7mm) above grade. Each of the required number of panels shall be joined to the next by the zipper joining and be set level or placed in a linear fashion and placed along the adjacent hardscape.

2. Excavation and sod preparation shall conform to the Drawings.

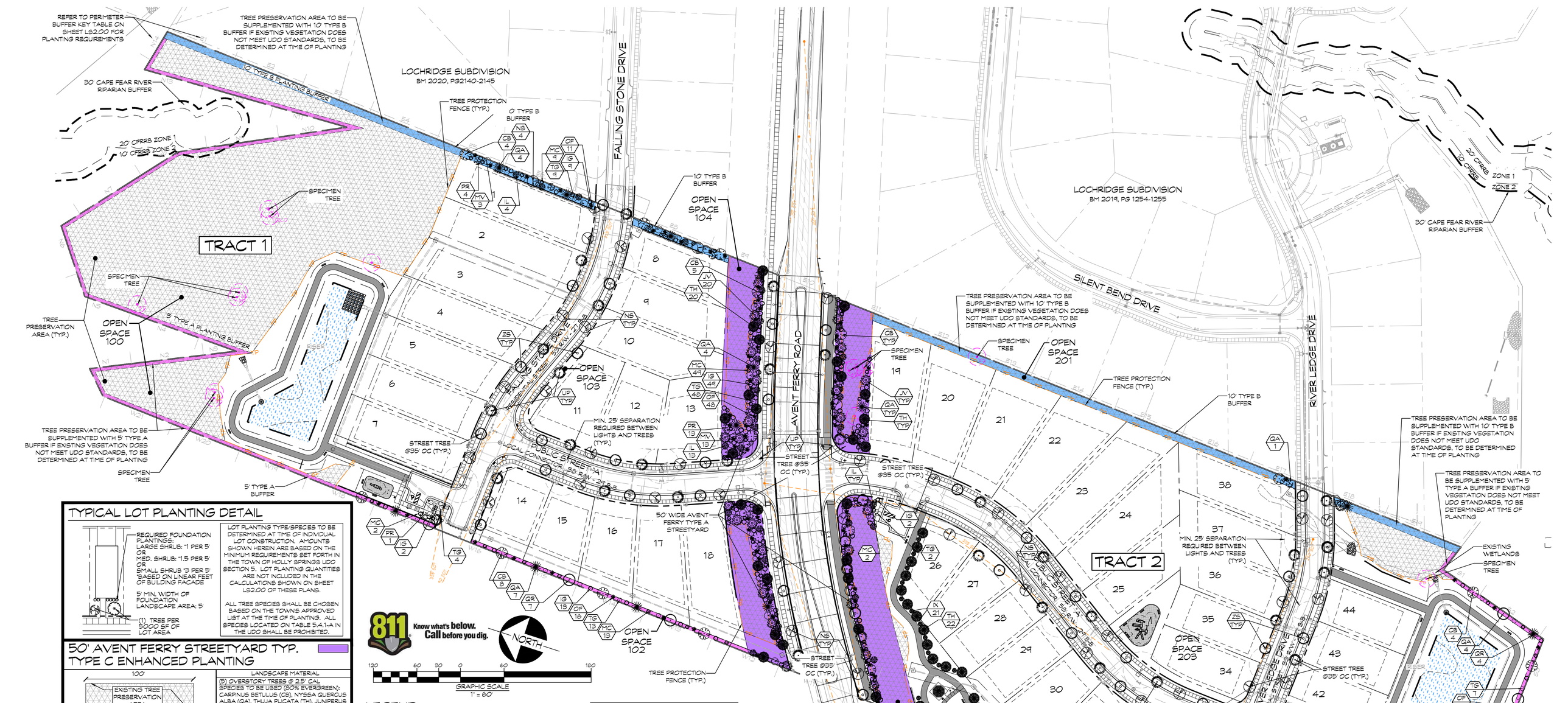
DRAWING NOT TO SCALE

STANDARD ROOT GUARD	STANDARD DETAIL NUMBER: H5807
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE REVISIONS

MIRA RIDGE MAJOR SUBDIVISION PLAN HOLLY SPRINGS WAKE COUNTY, NORTH CAROLINA	SCALE: 1"=60' DATE: NOVEMBER 8, 2024 PROJECT NUMBER: 2022-010.001 CLIENT: MIRA DEVELOPERS LLC PLAN TYPE: MAJOR SUBDIVISION PLAN	**STANDARD UTILITY DETAILS**	2ND REVIEW TOWN STAFF COMMENTS 3/14/2025 3RD REVIEW TOWN STAFF COMMENTS 4/11/2025 4TH REVIEW TOWN STAFF COMMENTS 6/5/2025 5TH REVIEW TOWN STAFF COMMENTS 11/14/2025 6TH REVIEW TOWN STAFF COMMENTS 12/19/2025 RELEASED FOR CONSTRUCTION DATE: (SEE COVER) ■ NO □ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # C9.05

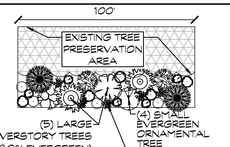


TYPICAL LOT PLANTING DETAIL

LOT PLANTING TYPE/SPECIES TO BE DETERMINED AT TIME OF INDIVIDUAL LOT CONSTRUCTION. AMOUNTS SHOWN HEREIN ARE BASED ON THE MINIMUM REQUIREMENTS SET FORTH IN THE TOWN OF HOLLY SPRINGS UDO SECTION 5. LOT PLANTING QUANTITIES ARE NOT INCLUDED IN THE CALCULATIONS SHOWN ON SHEET LS2.00 OF THESE PLANS.

ALL TREE SPECIES SHALL BE CHOSEN BASED ON THE TOWNS APPROVED LIST AT THE TIME OF PLANTING. ALL SPECIES LOCATED ON TABLE 5.4.1.A IN THE UDO SHALL BE PROHIBITED.

50' AVENT FERRY STREETYARD TYP. TYPE C ENHANCED PLANTING



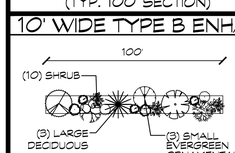
LANDSCAPE MATERIAL

(5) OVERSTORY TREES @ 2.5" CAL
SPECIES TO BE USED (60% EVERGREEN): CARPINUS BETULUS (CB), NYSSA QUERCUS ALBA (QA), THUJA PLICATA (TH), JUNIPERUS VIRGINIANA (JV)

(4) SMALL EVERGREEN TREES @ 1.5 CAL
SPECIES TO BE USED: PRUNUS CAROLINIANA (PR), MAGNOLIA VIGINIANA (MV), ILEX LATIFOLIA (IL)

(20) SHRUBS @ 24" HEIGHT
SPECIES TO BE USED: ILEX GLABRA (IG), MYRICA CERIFERA (MC), TERNSTROEMIA GYMNATHERA (TG), & OSMANTHUS FRAGRANS (OF)

10' WIDE TYPE B ENHANCED PLANTING



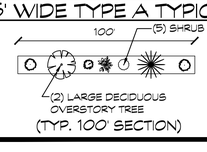
LANDSCAPE MATERIAL

(3) OVERSTORY TREES @ 2.5" CAL
SPECIES TO BE USED: CARPINUS BETULUS (CB), QUERCUS ALBA (QA), & NYSSA SYLVATICA WILDFIRE (NS)

(3) SMALL EVERGREEN TREES @ 1.5 CAL
SPECIES TO BE USED: PRUNUS CAROLINIANA (PR), MAGNOLIA VIGINIANA (MV), & ILEX LATIFOLIA (IL)

(10) SHRUBS @ 24' HEIGHT
SPECIES TO BE USED: ILEX GLABRA (IG), MYRICA CERIFERA (MC), TERNSTROEMIA GYMNATHERA (TG), & OSMANTHUS FRAGRANS (OF)

5' WIDE TYPE A TYPICAL PLANTING



LANDSCAPE MATERIAL

(2) OVERSTORY TREES @ 2.5" CAL
SPECIES TO BE USED: CARPINUS BETULUS (CB), QUERCUS ALBA (QA), & QUERCUS ROBUR (QR)

(5) SHRUBS @ 24' HEIGHT
SPECIES TO BE USED: ILEX GLABRA (IG), MYRICA CERIFERA (MC), TERNSTROEMIA GYMNATHERA (TG), & OSMANTHUS FRAGRANS (OF)

LEGEND

- PROPOSED LIGHT
- NEUSE RIVER BUFFER BOUNDARY LINE
- TP — TREE PROTECTION FENCING

HATCH LEGEND

- PUDE = PUBLIC DRAINAGE EASEMENT
- PRDE = PRIVATE DRAINAGE EASEMENT
- PRIVATE SCM MAINTENANCE & ACCESS ESMT
- SEWER EASEMENT
- TREE SAVE OR PRESERVED WOODED AREA
- WETLANDS
- 10 TYPE B
- 5 TYPE A
- 50 TFARE
- PLANTING BUFFER

ALL TREES SHALL BE LOCATED A MINIMUM OF 25 FEET FROM THE BASE OF ALL STREET LIGHT POLES.

PLAN IS PRELIMINARY IN NATURE AND SUBJECT TO CHANGE PENDING REVISIONS TO THE FINAL DESIGN DURING CONSTRUCTION PLAN REVIEWS.

PROPOSED OVERSTORY TREE LEGEND:

NYSSA SYLVATICA WILDFIRE (NS)	BLACK GUM
QUERCUS ROBUR (QR)	ENGLISH OAK
QUERCUS ALBA (QA)	WHITE OAK
CARPINUS BETULUS (CB)	EUROPEAN HORNBEAM (GROWN SINGLE STEM)
ZELKOVA SERRATA (ZS)	JAPANESE ZELKOVA
ULMUS PARVIFOLIA (UP)	CHINESE ELM

PROPOSED EVERGREEN TREE LEGEND:

JUNIPERUS VIRGINIANA (JV)	EASTERN RED CEDAR
THUJA STANDISHII X PLICATA 'GREEN GIANT (TH)	GREEN GIANT ARBORVITAE
PRUNUS CAROLINIANA (PR)	CHERRY LAUREL
MAGNOLIA VIRGINIANA (MV)	SWEETBAY MAGNOLIA
ILEX LATIFOLIA (IL)	LUSTERLEAF HOLLY

PROPOSED SHRUB LEGEND:

ILEX GLABRA (IG)	INKBERRY HOLLY
MYRICA CERIFERA (MC)	WAX MYRTLE
TERNSTROEMIA GYMNATHERA (TG)	CLEYERA
ILEX X NELLIE R. STEVENS (IX)	NELLIE STEVENS HOLLY
OSMANTHUS FRAGRANS (OF)	TEA OLIVE

LANDSCAPING NOTES:

1. HOA SHALL BE RESPONSIBLE FOR MAINTENANCE OF LANDSCAPING WITHIN OPEN SPACE AREAS.
2. INDIVIDUAL LOT OWNERS SHALL BE RESPONSIBLE FOR MAINTENANCE OF LANDSCAPING ON THEIR RESPECTIVE LOT ACCORDING TO HOA BYLAWS AND TOWN REQUIREMENTS.
3. THE REPLACEMENT OF ANY REQUIRED PLANTING, WHICH IS REMOVED OR DIES AFTER THE DATE OF PLANTING, SUCH REPLACEMENT SHALL OCCUR DURING THE NEXT PLANTING SEASON; AND, THE REPLACEMENT OF ANY TREE IN A TREE SAVE AREA, WHICH IS REMOVED OR DIES AFTER THE DATE OF APPROVAL OF A PRESERVATION LANDSCAPE PLAN, SUCH REPLACEMENT SHALL OCCUR DURING THE NEXT PLANTING SEASON.
4. PLANT MATERIALS LOCATED WITHIN 5 FEET OF THE BACK OF CURB / EDGE OF PAVEMENT OF AN INTERIOR LANDSCAPE ISLAND LOCATED AT A CRITICAL TURNING POINT WITHIN A PARKING AREA SHALL BE SELECTED OR MAINTAINED WITH A GROWTH PATTERN NOT TO EXCEED 36 INCHES ABOVE GRADE.

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 2075 THOMAS F. CRAVEN 12/15/25

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

SCALE:	1"=60'
DATE:	NOVEMBER 6, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

PRELIMINARY LANDSCAPE PLAN

2ND REVIEW TOWN STAFF COMMENTS	9/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/19/2025
RELEASED FOR CONSTRUCTION DATE: (SEE COVER)	■ NO ☐ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # LS1.00

TOWN OF HOLLY SPRINGS LANDSCAPING INSTALLATION AND MAINTENANCE (PER UDO 5.6)

5.6.1 INSTALLATION

A. INSTALLATION REQUIRED. ALL LANDSCAPING REQUIRED BY THIS SECTION SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF THE USE ON THE LOT OR THE ISSUANCE OF A CERTIFICATE OF UDO COMPLIANCE. IF SEASONS AND WEATHER CONDITIONS ARE NOT APPROPRIATE FOR THE INSTALLATION OF LANDSCAPING IMMEDIATELY PRIOR TO COMMENCEMENT OF THE USE OR THE ISSUANCE OF A CERTIFICATE OF UDO COMPLIANCE, A PERFORMANCE BOND, OR OTHER SURETY ACCEPTABLE TO THE TOWN, SHALL BE PROVIDED TO THE ADMINISTRATOR, IN COMPLIANCE WITH THE PROVISIONS OF SECTION 11.14 – CONSTRUCTION DRAWINGS OF THIS UDO. ALL LANDSCAPING REQUIRED BY THIS SECTION SHALL BE INSTALLED WITHIN THE FIRST 3 MONTHS OF THE NEXT PLANTING SEASON AFTER THE USE OF THE LOT IS COMMENCED. THE MONTHS OF JUNE, JULY AND AUGUST ARE NOT APPROPRIATE FOR THE INSTALLATION OF LANDSCAPING, UNLESS AN ADEQUATE IRRIGATION SYSTEM IS INSTALLED AND OPERATED AS PART OF THE LANDSCAPE PLAN.

B. LIVE VEGETATION. ALL LANDSCAPE MATERIALS INSTALLED AS REQUIRED BY THIS SECTION SHALL BE LIVING VEGETATION.

C. LANDSCAPE MATERIAL SIZE AT INSTALLATION. MATERIALS FOR ALL LANDSCAPE PLANS UNDER THE REQUIREMENTS OF THIS UDO SHALL COMPLY WITH THE MINIMUM SIZE AS SHOWN IN TABLE 5.6.1-A AT TIME OF PLANTING.

D. STREET TREE INSTALLATION.

1. TREES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF THE USE ON THE LOT OR THE ISSUANCE OF A CERTIFICATE OF UDO COMPLIANCE.
2. AT THE TIME OF INSTALLATION THE NURSERY TAGS MUST REMAIN ON THE STREET TREES AND A WRITTEN STATEMENT MUST BE SUBMITTED TO THE ADMINISTRATOR TO CERTIFY THAT THE CORRECT SPECIES OF TREE(S) HAS BEEN INSTALLED.
3. TREES SHALL BE INSTALLED WITH ROOT GUARDS IN ACCORDANCE WITH THE TOWN'S ENGINEERING DESIGN & CONSTRUCTION STANDARDS.
4. REPLACEMENT AND MAINTENANCE SHALL BE IN ACCORDANCE WITH SECTION 5.6.2 OF THIS UDO.

E. CERTIFICATE OF INSTALLATION. WITHIN 30 DAYS OF THE INSTALLATION OF PLANT MATERIALS, A REGISTERED LANDSCAPE ARCHITECT SHALL SUBMIT WRITTEN CERTIFICATION TO THE ADMINISTRATOR STATING THAT HEALTHY PLANT MATERIAL WAS PROPERLY INSTALLED IN ACCORDANCE WITH THE LOCATIONS, QUANTITIES, MINIMUM SIZES, AND SPECIES INDICATED ON THE APPROVED LANDSCAPED PLAN.

F. REQUIRED 1-YEAR WARRANTY. ALL LANDSCAPE MATERIALS, INCLUDING STREET TREES, THAT DO NOT LIVE FOR 1 YEAR AFTER INSTALLATION SHALL BE REPLACED. THE INSTALLER SHALL PROVIDE THE TOWN WITH A MAINTENANCE BOND.

G. BONDING FOR INSTALLATION. WHEN A PERFORMANCE BOND, OR OTHER ACCEPTABLE SURETY, IS PROVIDED IN COMPLIANCE WITH THE PROVISIONS OF SECTION 11.14 CONSTRUCTION DRAWINGS OF THIS UDO, THE ADMINISTRATOR MAY ISSUE A CERTIFICATE OF UDO COMPLIANCE EVEN THOUGH ALL REQUIRED LANDSCAPING HAS NOT YET BEEN INSTALLED. THE PERFORMANCE BOND SHALL BE ACCOMPANIED BY A DOCUMENTATION OF THE ESTIMATED COST OF THE REMAINING LANDSCAPING TO BE COMPLETED. THE DOCUMENTATION OF ESTIMATED COST MAY INCLUDE A LANDSCAPING CONTRACTOR'S BID OR CONTRACT, A NURSERY'S BILL OR SIMILAR DOCUMENT. THE PERFORMANCE BOND SHALL BE FOR AN AMOUNT EQUAL TO 1 ½ TIMES THE COST OF THE PLANT MATERIALS PLUS INSTALLATION FOR THE PLANT MATERIALS YET TO BE INSTALLED, BASED UPON THE HIGHEST ESTIMATE PROVIDED.

5.6.2 MAINTENANCE

A. THE OWNER SHALL BE RESPONSIBLE FOR:

1. THE MAINTENANCE OF ALL REQUIRED LANDSCAPING BY KEEPING LAWNS MOWED, ALL PLANTS MAINTAINED AS DISEASE-FREE, ALL PLANTING BEDS GROOMED AND KEPT WEED FREE (EXCEPT IN AREAS OF PRESERVED EXISTING NATURAL VEGETATION (I.E., THICKETS), AND KEPT FREE FROM TRASH, DEBRIS AND OTHER OBJECTIONABLE MATERIALS;
2. THE REPLACEMENT OF ANY REQUIRED PLANTING, WHICH IS REMOVED OR DIES AFTER THE DATE OF PLANTING. SUCH REPLACEMENT SHALL OCCUR DURING THE NEXT PLANTING SEASON; AND,
3. THE REPLACEMENT OF ANY TREE IN A TREE PRESERVATION AREA WHICH IS REMOVED OR DIES AFTER THE DATE OF APPROVAL OF A PRESERVATION LANDSCAPE PLAN. SUCH REPLACEMENT SHALL OCCUR DURING THE NEXT PLANTING SEASON.
4. MAINTENANCE THAT DAMAGES PLANT MATERIAL IS PROHIBITED.
5. TREE TOPPING IS PROHIBITED.

B. FAILURE TO MAINTAIN REQUIRED LANDSCAPE AREAS SHALL CONSTITUTE NONCOMPLIANCE OF THIS UDO ENFORCEABLE UNDER THE PROVISIONS OF CHAPTER 12 NONCOMPLIANCE & ENFORCEMENT.

TOWN OF HOLLY SPRINGS GENERAL LANDSCAPING STANDARDS (PER UDO 5.4)

A. GROUND COVER. GROUND COVER WITHIN LANDSCAPE AREAS MAY CONSIST OF GRASSES; PRESERVED EXISTING NATURAL VEGETATION (I.E., THICKETS); MULCH, CHIPPED BARK, PINE STRAW; WILDFLOWERS; WILD GRASS AREAS; OR OTHER NATURAL FORMS OF GROUND COVER. UPON ADMINISTRATOR APPROVAL, LOOSE STONE, ROCK OR GRAVEL MAY BE USED AS A LANDSCAPING ACCENT BUT SHALL NOT EXCEED 20% OF THE REQUIRED LANDSCAPE AREA IN WHICH IT IS USED.

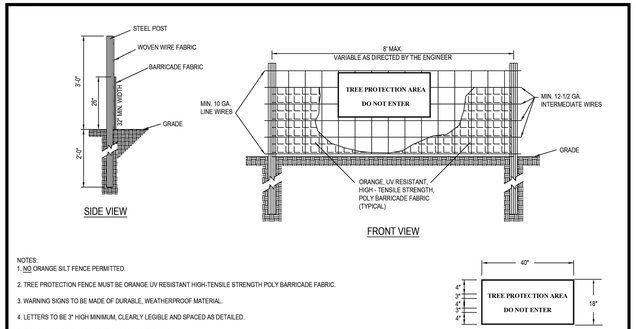
B. DROUGHT TOLERANT SPECIES SELECTION. ALL LANDSCAPE PLANS SHALL BE DESIGNED TO INCORPORATE WATER CONSERVATION MATERIALS AND TECHNIQUES THROUGH APPLICATION OF XERISCAPE LANDSCAPING PRINCIPLES, INCLUDING BUT NOT LIMITED TO:

1. USE OF LOW WATER DEMANDING PLANTS AND TURF (IE, BERMUDA OR CENTIPEDE GRASS) WHERE PRACTICAL;
2. USE OF RE-USE WATER SUPPLIES FOR IRRIGATION;
3. MINIMIZING THE USE OF HIGH IRRIGATION TURF;
4. LIMITING THE USE OF HIGH-IRRIGATION TURF (IE, FESCUE) TO AREAS OF HIGH-USE, HIGH-VISIBILITY AND HIGH FUNCTIONAL NEEDS; AND,
5. USE OF MULCHES TO REDUCE EVAPORATION RATES.

XERISCAPE LANDSCAPING PRINCIPLES SHALL NOT INCLUDE: ARTIFICIAL TURF OR PLANTS; MULCHED OR GRAVEL BEDS WITHOUT LIVE PLANT MATERIALS; PAVING OF AREAS NOT REQUIRED FOR WALKWAYS, PLAZAS OR PARKING AREAS; BARE GROUND, WEED COVERED OR INFESTED SURFACES; OR, ANY LANDSCAPING THAT DOES NOT COMPLY WITH THE REGULATIONS OF THIS SECTION.

C. STRUCTURAL SCMS. STRUCTURAL SCMS AS CONTAINED IN SECTION 8 OF THE TOWN'S ENGINEERING DESIGN AND CONSTRUCTION STANDARDS MAY BE PLACED WITHIN REQUIRED LANDSCAPE AREAS WHEN NO OTHER REASONABLE ALTERNATIVE EXISTS, AND PROVIDED THAT THE PERFORMANCE STANDARDS OF THE REQUIRED LANDSCAPE AREAS CAN BE MAINTAINED. BIORETENTION AREAS MAY BE PLACED WITHOUT ADDITIONAL JUSTIFICATION PROVIDED THE AMOUNT OF PLANT MATERIAL REQUIRED BY THIS CHAPTER FOR ALL LANDSCAPE AREAS IS MAINTAINED.

D. UTILITY EQUIPMENT SCREENING. ALL UTILITY EQUIPMENT AND FACILITIES ASSOCIATED WITH ONSITE ELECTRIC, CABLE, TELEPHONE, GAS OR OTHER SIMILAR UTILITY, INCLUDING GROUND-BASED ELECTRICAL TRANSFORMERS AND POWER METERS, SHALL BE SCREENED, TO THE EXTENT POSSIBLE, WITH EVERGREEN LANDSCAPE MATERIAL OR OTHER ACCEPTABLE ALTERNATIVE APPROVED BY THE ADMINISTRATOR. THIS REQUIREMENT APPLIES TO BOTH RESIDENTIAL AND NON-RESIDENTIAL DEVELOPMENTS. AREAS AROUND EQUIPMENT AND FACILITIES SHALL REMAIN CLEAR BASED ON EACH UTILITY COMPANY'S GUIDELINES.



NOTES:
1. NO ORANGE SILT FENCE PERMITTED.
2. TREE PROTECTION FENCE MUST BE ORANGE UV RESISTANT HIGH-TENSILE STRENGTH POLY BARRICADE FABRIC.
3. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.
4. LETTERS TO BE 3" HIGH MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
5. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS.
6. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER.
7. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.
8. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
9. MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.
10. ADDITIONAL SIGNS MAY BE REQUIRED BY TOWN OF HOLLY SPRINGS INSPECTIONS DEPARTMENT BASED ON ACTUAL FIELD CONDITIONS.

WARNING SIGN DETAIL

DRAWING NOT TO SCALE

STANDARD TREE PROTECTION DETAIL
TOWN OF HOLLY SPRINGS
STANDARD DETAIL NUMBER: HS403
DATE | REVISIONS
12/6/06 |
8/31/04 |
HOLLY SPRINGS

UB 24–2 Specifications
24" DeepRoot Tree Root Barriers

Specified tree root barriers are a mechanical barrier and root deflector to prevent tree roots from damaging hardscapes and landscapes. Assembled in 2' long modules to create varying sizes of cylinders for surrounding root balls (Surround planting style) or for linear applications directly beside a hardscape adjacent to one side of the trees (Linear planting style).

A. Materials
1. The contractor shall furnish and install tree root barriers as specified. The tree root barriers shall be product # UB 24–2 manufactured by DeepRoot Partners, L.P. 1721 Lexington St. #4 San Francisco, LA (302–426–7685), or approved equal. The barrier shall be Black, injection Molded Panels, of 0.085" (2.16mm) wall thickness in modules 24" (61cm) long by 24" (61 cm) deep; manufactured with a minimum 50% post consumer recycled polypropylene plastic with added ultraviolet inhibitors; recyclable. Each panel shall have:

Not less than 4 Molded Integral Vertical Root Deflecting Ribs of at least 0.085" (2.16mm) thickness protruding 1/2" (12.7mm) at 90° from center of the long panel, spaced 6" (152.4mm) apart. (See panel drawing below)

A Double Toe Edge consisting of two parallel, integral, horizontal ribs of the top of the panel of a minimum 0.085" (2.16mm) thickness, 3/8" (9.53mm) wide and 1/4" (6.35mm) apart with the lower rib attached to the vertical root deflecting ribs.(See detail "A")

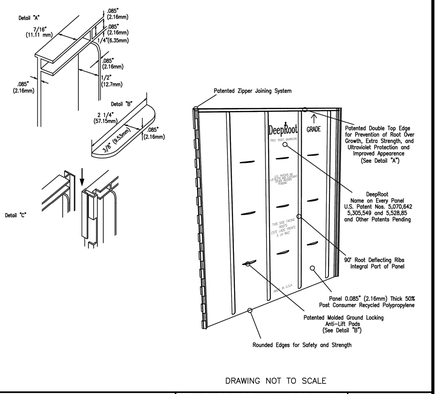
A minimum of 9 Anti–Lift Ground Lock Tabs consisting of integral horizontal ridges of a minimum 0.085" (2.16mm) thickness in the shape of a segment of a circle, the 2" (50.8mm) chord of the segment joining the panel wall and the segment, protruding 3/8" (9.53mm) from the panel. The nine ground locks on each panel shall be about equally spaced between each of the vertical root deflecting ribs (3 between each set of ribs, see Detail "B").

An integrated Zipper Joining System providing for instant assembly by sliding one panel into another. (See Detail "C")

2.The basic properties of the material shall be:

Test	ASTM Test Method	Typical Value Copolymer Polypropylene
Tensile strength @ yield — Md	D638	3,284 PSI
Tensile strength @ yield — Hoop	D638	2,848 PSI
Yield Elongation — Md	D638	7.44%
Yield Elongation — Hoop	D638	7.01%
Flexural Modulus	D790B	118,625 PSI
Notched Izod Impact — Md	D256A	3.84 (ft–lbs)
Rockwell Hardness + scale — Md	D785A	84.4

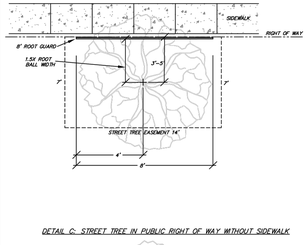
B. Construction and Installation
1. The contractor shall install the tree root barriers with the number of panels and in the manner shown on the Drawings. The vertical root deflecting ribs shall be facing inwards (i.e. facing the tree) and the panels shall be set 2" (12.7mm) above grade. Each of the required number of panels shall be connected to form a circle around the root ball or joined in a linear fashion and placed along the adjacent hardscape.
2. Excavation and soil preparation shall conform to the Drawings



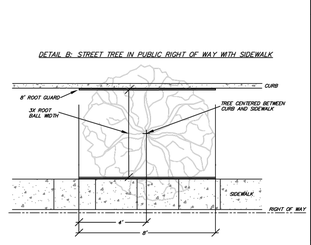
DRAWING NOT TO SCALE

STANDARD ROOT GUARD
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT
STANDARD DETAIL NUMBER: HS817
DATE | REVISIONS
HOLLY SPRINGS

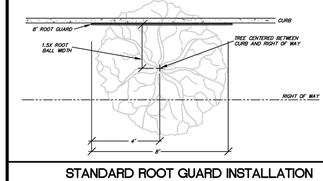
DETAIL A: STREET TREE ON PRIVATE PROPERTY



DETAIL B: STREET TREE IN PUBLIC RIGHT OF WAY WITH SIDEWALK



DETAIL C: STREET TREE IN PUBLIC RIGHT OF WAY WITHOUT SIDEWALK



NOTE: PLACE ROOT GUARD AT EDGE OF CURB OR SIDEWALK.

DRAWING NOT TO SCALE

STANDARD ROOT GUARD INSTALLATION
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT
STANDARD DETAIL NUMBER: HS816
DATE | REVISIONS
7/27/18 |
HOLLY SPRINGS

DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

STAKE TREES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT SEE STAKING DETAIL.

WRAP TREE TRUNKS ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. SEE WRAPPING DETAIL.

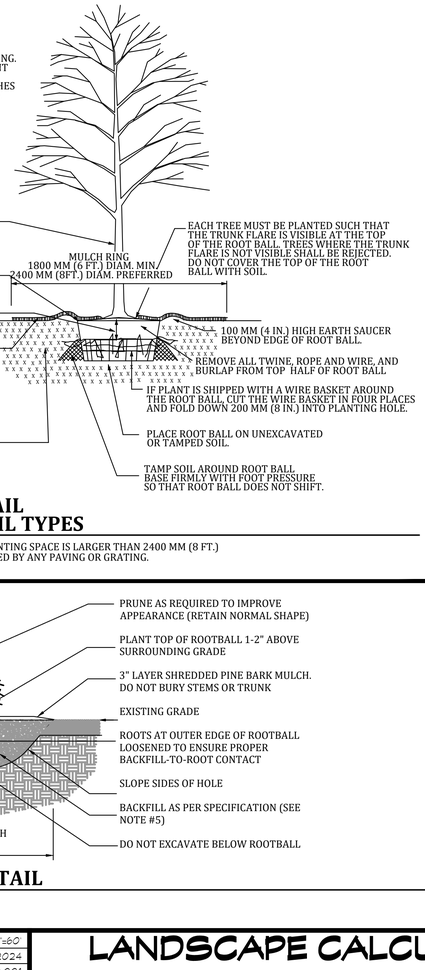
MARK THE NORTH SIDE OF THE TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHEN EVER POSSIBLE.

SET TOP OF ROOT BALL FLUSH TO GRADE OR 25-50 MM (1-2 IN.) HIGHER IN SLOWLY DRAINING SOILS.

200 MM (8 IN.)

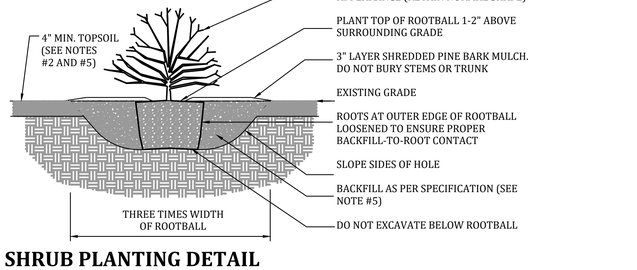
50 MM (2 IN.) MULCH. DO NO PLACE MULCH IN CONTACT WITH TREE TRUNK. MAINTAIN THE MULCH WEED-FREE FOR A MINIMUM OF THREE YEARS AFTER PLANTING.

NOTE: FOR DIMENSIONS OF PLANTING AREAS, TYPES OF SOIL AMENDMENTS, OR SOIL REPLACEMENT, SEE "SOIL IMPROVEMENT DETAILS."



TREE PLANTING DETAIL B&B TREES IN ALL SOIL TYPES

NOTE: THIS DETAIL ASSUMES THAT THE PLANTING SPACE IS LARGER THAN 2400 MM (8 FT.) SQUARE, OPEN TO THE SKY, AND NOT COVERED BY ANY PAVING OR GRATING.



SHRUB PLANTING DETAIL

N.T.S.

LANDSCAPE CALCULATIONS:

STREET TREE CALCULATIONS & PLANT LIST		
OVERSTORY STREET TREES PROVIDED ALONG INTERNAL STREETS AND AVENT FERRY(PER UDO 5.3.5):		**120 TREES**
NYSSA SYLVATICA 'WILDFIRE' (NS)	BLACK GUM	40 TREES
ULMUS PARVIFOLIA (UP)	CHINESE ELM	40 TREES
ZELKOVA SERRATA (ZS)	JAPANESE ZELKOVA	40 TREES
NORTH PROPERTY LINE - 10' TYPE C ENHANCED BUFFER (TO SUPPLEMENT EXISTING VEGETATION AREAS)		
TOTAL LENGTH OF TYPE BUFFER TO BE PLANTED		970 LF
OVERSTORY TREES REQUIRED (5 PER 100 LF):		49 TREES
PORTION OF OVERSTORY TREES REQUIRED TO BE EVERGREEN (80%)	40 TREES	
SUPPLEMENTAL EVERGREEN ORNAMENTAL TREES TO BE REQUIRED (4 PER 100 LF):		39 TREES
SHRUBS REQUIRED (20 PER 100 LF):		194 SHRUBS
PORTION OF SHRUBS TREES REQUIRED TO BE EVERGREEN (80%)	156 SHRUBS	
OVERSTORY TREES PROVIDED:		**49 TREES**
DECIDUOUS OVERSTORY TREES	9 TREES	
CARPINUS BETULUS (CB)	EUROPEAN HORNBEAM (SINGLE STEM)	5 TREES
QUERCUS ALBA (QA)	WHITE OAK	4 TREES
EVERGREEN OVERSTORY TREES	40 TREES	
JUNIPERUS VIRGINIANA (JV)	EASTERN RED CEDAR	20 TREES
THUJA STANDISHII X PLICATA (TH)	GREEN GIANT ARBORVITAE	20 TREES
EVERGREEN ORNAMENTAL TREES PROVIDED:		**39 TREES**
PRUNUS CAROLINIANA (PR)	CHERRY LAUREL	13 TREES
MAGNOLIA VIRGINIANA (MV)	SWEETBAY MAGNOLIA	13 TREES
ILEX LATIFOLIA (IL)	LUSTERLEAF HOLLY	13 TREES
SHRUBS PROVIDED (100% EVERGREEN):		**194 SHRUBS**
ILEX GLABRA (IG)	INKBERRY HOLLY	49 SHRUBS
MYRICA CERIFERA (MC)	WAX MYRTLE	49 SHRUBS
TERNSTROEMIA GYMNATHERA (TG)	CLEYERA	48 SHRUBS
OSMANTHUS FRAGRANS (OF)	TEA OLIVE	48 SHRUBS
EASTERN PROPERTY LINE - 10' TYPE C ENHANCED BUFFER		
TOTAL LENGTH OF TYPE BUFFER TO BE PLANTED		380 LF
OVERSTORY TREES REQUIRED (3 PER 100 LF):		12 TREES
EVERGREEN TREES REQUIRED (3 PER 100 LF):		12 TREES
SHRUBS REQUIRED (10 PER 100 LF):		38 SHRUBS
OVERSTORY TREES PROVIDED:		**12 TREES**
CARPINUS BETULUS (CB)	EUROPEAN HORNBEAM (SINGLE STEM)	4 TREES
QUERCUS ALBA (QA)	WHITE OAK	4 TREES
NYSSA SYLVATICA 'WILDFIRE' (NS)	BLACK GUM	4 TREES
EVERGREEN ORNAMENTAL TREES PROVIDED:		**12 TREES**
PRUNUS CAROLINIANA (PR)	CHERRY LAUREL	4 TREES
MAGNOLIA VIRGINIANA (MV)	SWEETBAY MAGNOLIA	4 TREES
ILEX LATIFOLIA (IL)	LUSTERLEAF HOLLY	4 TREES
SHRUBS PROVIDED (100% EVERGREEN):		**38 SHRUBS**
ILEX GLABRA (IG)	INKBERRY HOLLY	9 SHRUBS
MYRICA CERIFERA (MC)	WAX MYRTLE	9 SHRUBS
TERNSTROEMIA GYMNATHERA (TG)	CLEYERA	9 SHRUBS
OSMANTHUS FRAGRANS (OF)	TEA OLIVE	11 SHRUBS
SOUTH PROPERTY LINE - 10' TYPE A BUFFER		
TOTAL LENGTH OF TYPE BUFFER TO BE PLANTED		590 LF
OVERSTORY TREES REQUIRED (2 PER 100 LF):		12 TREES
SHRUBS REQUIRED (5 PER 100 LF):		30 SHRUBS
OVERSTORY TREES PROVIDED:		**12 TREES**
CARPINUS BETULUS (CB)	EUROPEAN HORNBEAM (SINGLE STEM)	4 TREES
QUERCUS ALBA (QA)	WHITE OAK	4 TREES
QUERCUS ROBUR 'FASTIGIATA' (QR)	FASTIGIANTE ENGLISH OAK	4 TREES
SHRUBS PROVIDED:		**30 SHRUBS**
ILEX GLABRA (IG)	INKBERRY HOLLY	7 SHRUBS
MYRICA CERIFERA (MC)	WAX MYRTLE	7 SHRUBS
TERNSTROEMIA GYMNATHERA (TG)	CLEYERA	7 SHRUBS
OSMANTHUS FRAGRANS (OF)	TEA OLIVE	9 SHRUBS
SOUTH PROPERTY LINE - 10' TYPE A BUFFER		
TOTAL LENGTH OF TYPE BUFFER TO BE PLANTED		1100 LF
OVERSTORY TREES REQUIRED (2 PER 100 LF):		22 TREES
SHRUBS REQUIRED (5 PER 100 LF):		55 SHRUBS
OVERSTORY TREES PROVIDED:		**22 TREES**
CARPINUS BETULUS (CB)	EUROPEAN HORNBEAM (SINGLE STEM)	8 TREES
QUERCUS ALBA (QA)	WHITE OAK	7 TREES
QUERCUS ROBUR 'FASTIGIATA' (QR)	FASTIGIANTE ENGLISH OAK	7 TREES
SHRUBS PROVIDED:		**55 SHRUBS**
ILEX GLABRA (IG)	INKBERRY HOLLY	13 SHRUBS
MYRICA CERIFERA (MC)	WAX MYRTLE	13 SHRUBS
TERNSTROEMIA GYMNATHERA (TG)	CLEYERA	13 SHRUBS
OSMANTHUS FRAGRANS (OF)	TEA OLIVE	16 SHRUBS
EAST PROPERTY LINE - 5' TYPE D (NO WALL)		
TOTAL LENGTH OF 5' FOUNDATION PLANTING AREA		70 LF
EVERGREEN TREES REQUIRED (2 PER 75 LF):		2 TREES
LARGE SHRUBS REQUIRED (1 PER 5 LF):		14 SHRUBS
UNDERSTORY TREES PROVIDED:		**2 TREES**
PRUNUS CAROLINIANA (PR)	CHERRY LAUREL	1 TREES
ILEX LATIFOLIA (IL)	LUSTERLEAF HOLLY	1 TREES
SHRUBS PROVIDED:		**14 SHRUBS**
ILEX GLABRA (IG)	INKBERRY HOLLY	4 SHRUBS
MYRICA CERIFERA (MC)	WAX MYRTLE	4 SHRUBS
TERNSTROEMIA GYMNATHERA (TG)	CLEYERA	6 SHRUBS
WEST PROPERTY LINE - 10' TYPE C SCREENING (NATURE TRAIL)		
EVERGREEN TREES PROVIDED:		**22 TREES**
THUJA STANDISHII X PLICATA (TH)	GREEN GIANT ARBORVITAE	22 TREES
EVERGREEN SHRUBS PROVIDED:		**21 SHRUBS**
ILEX X 'NELLIE R. STEVENS' (IX)	NELLIE STEVENS HOLLY	21 SHRUBS

PERIMETER BUFFER KEY:

SECTION NO.	PLANTING REQUIRED	SUPPLEMENTAL PLANTING TO BE USED IF NECESSARY
NORTH		
N1	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N2	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N3	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N4	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N5	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N6	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N7	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N8	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N9	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N10	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N11	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N12	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N13	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
N14	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
EAST		
E1	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E2	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E3	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E4	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E5	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E6	10' TYPE B (3 DCT, 3 EGT, 10 SHR)	
E7	10' TYPE B (3 DCT, 3 EGT, 10 SHR)	
E8	10' TYPE B (3 DCT, 3 EGT, 10 SHR)	
E9	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E10	N/A - ROADWAY	
E11	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E12	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E13	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E14	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E15	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E16	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E17	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E18	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
E19	TREE PRESERVATION	10' TYPE B (3 DCT, 3 EGT, 10 SHR)
SOUTH		
S1	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
S2	5' TYPE A (2 DCT, 5 SHR)	
S3	5' TYPE A (2 DCT, 5 SHR)	
S4	5' TYPE A (2 DCT, 5 SHR)	
S5	5' TYPE A (2 DCT, 5 SHR)	
S6	5' TYPE A (2 DCT, 5 SHR)	
S7	5' TYPE A (2 DCT, 5 SHR)	
S8	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
S9	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
S10	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
WEST		
W1	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
W2	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
W3	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
W4	5' TYPE A (2 DCT, 5 SHR)	
W5	5' TYPE A (2 DCT, 5 SHR)	
W6	5' TYPE A (2 DCT, 5 SHR)	
W7	5' TYPE A (2 DCT, 5 SHR)	
W8	5' TYPE A (2 DCT, 5 SHR)	
W9	5' TYPE A (2 DCT, 5 SHR)	
W10	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
W11	N/A - ROADWAY	
W12	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
W13	5' TYPE A (2 DCT, 5 SHR)	
W14	5' TYPE A (2 DCT, 5 SHR)	
W15	5' TYPE A (2 DCT, 5 SHR)	
W16	5' TYPE A (2 DCT, 5 SHR)	
W17	5' TYPE A (2 DCT, 5 SHR)	
W18	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
W19	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
W20	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)
W21	TREE PRESERVATION	5' TYPE A (2 DCT, 5 SHR)

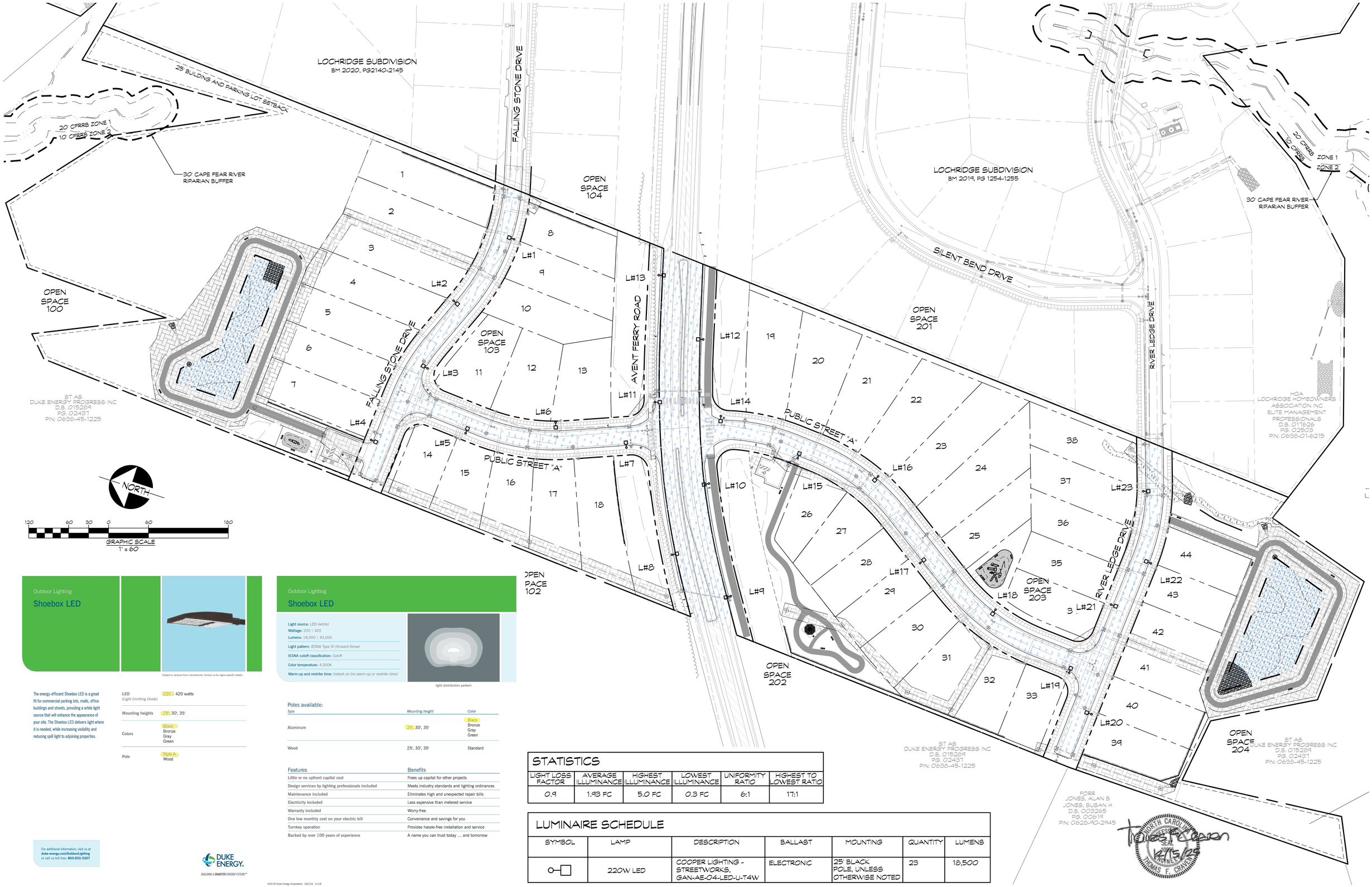
*DCT: DECIDUOUS CANOPY TREE, EGT: EVERGREEN TREE, SHR: SHRUB

PLANT LIST:

TREES — TOTAL: 290

OVERSTORY TREES

KEY	BOTANICAL NAME	COMMON NAME	MIN. CAL./HT	MATURE HT./SPREAD	QTY.	%
DECIDUOUS OVERSTORY TREES						
CB	CARPINUS BETULUS	EUROPEAN HORNBEAM	2.5"/8' MIN.	50'/40'	21	7%
NS	NYSSA SYLVATICA 'WILDFIRE'	BLACK GUM	2.5"/8' MIN.	50'/30'	44	15%
QA	QUERCUS ALBA	WHITE OAK	2.5"/8' MIN.	70'/50'	19	7%
QR	QUERCUS ROBUR 'FAST



Outdoor Lighting

Shoebox LED

Subject to variance from manufacturer. Contact us for region-specific details.

The energy-efficient Shoebox LED is a great fit for commercial parking lots, malls, office buildings and streets, providing a white light source that will enhance the appearance of your site. The Shoebox LED delivers light where it is needed, while increasing visibility and reducing spill light to adjoining properties.

LED *(Light Emitting Diode)*	220 | 420 watts
Mounting heights	25', 30', 35'
Colors	Black, Bronze, Gray, Green
Pole	Style A, Wood

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free: 800.653.5307

DUKE ENERGY.
BUILDING A SMARTER ENERGY FUTURE™

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Outdoor Lighting

Shoebox LED

Light source: LED *(white)*
Wattage: 220 | 420
Lumens: 18,500 | 43,000
Light pattern: IESNA Type IV *(forward throw)*
IESNA cutoff classification: Cutoff
Color temperature: 4,000K
Warm-up and restrike time: Instant on *(no warm-up or restrike time)*

light distribution pattern

Poles available:

Type	*Mounting height*	*Color*
Aluminum	25', 30', 35'	Black, Bronze, Gray, Green
Wood	25', 30', 35'	Standard

Features	Benefits
Little or no upfront capital cost	Frees up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than metered service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free installation and service
Backed by over 100 years of experience	A name you can trust today ... and tomorrow

STATISTICS

LIGHT LOSS FACTOR	AVERAGE ILLUMINANCE	HIGHEST ILLUMINANCE	LOWEST ILLUMINANCE	UNIFORMITY RATIO	HIGHEST TO LOWEST RATIO
0.9	1.93 FC	5.0 FC	0.3 FC	6:1	17:1

LUMINAIRE SCHEDULE

SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	QUANTITY	LUMENS
O—□	220W LED	COOPER LIGHTING - STREETWORKS, GAN-AE-04-LED-U-T4W	ELECTRONIC	25' BLACK POLE, UNLESS OTHERWISE NOTED	23	18,500

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 19995 THOMAS F. CRAVEN 12/15/25

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

SCALE:	1"=60'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

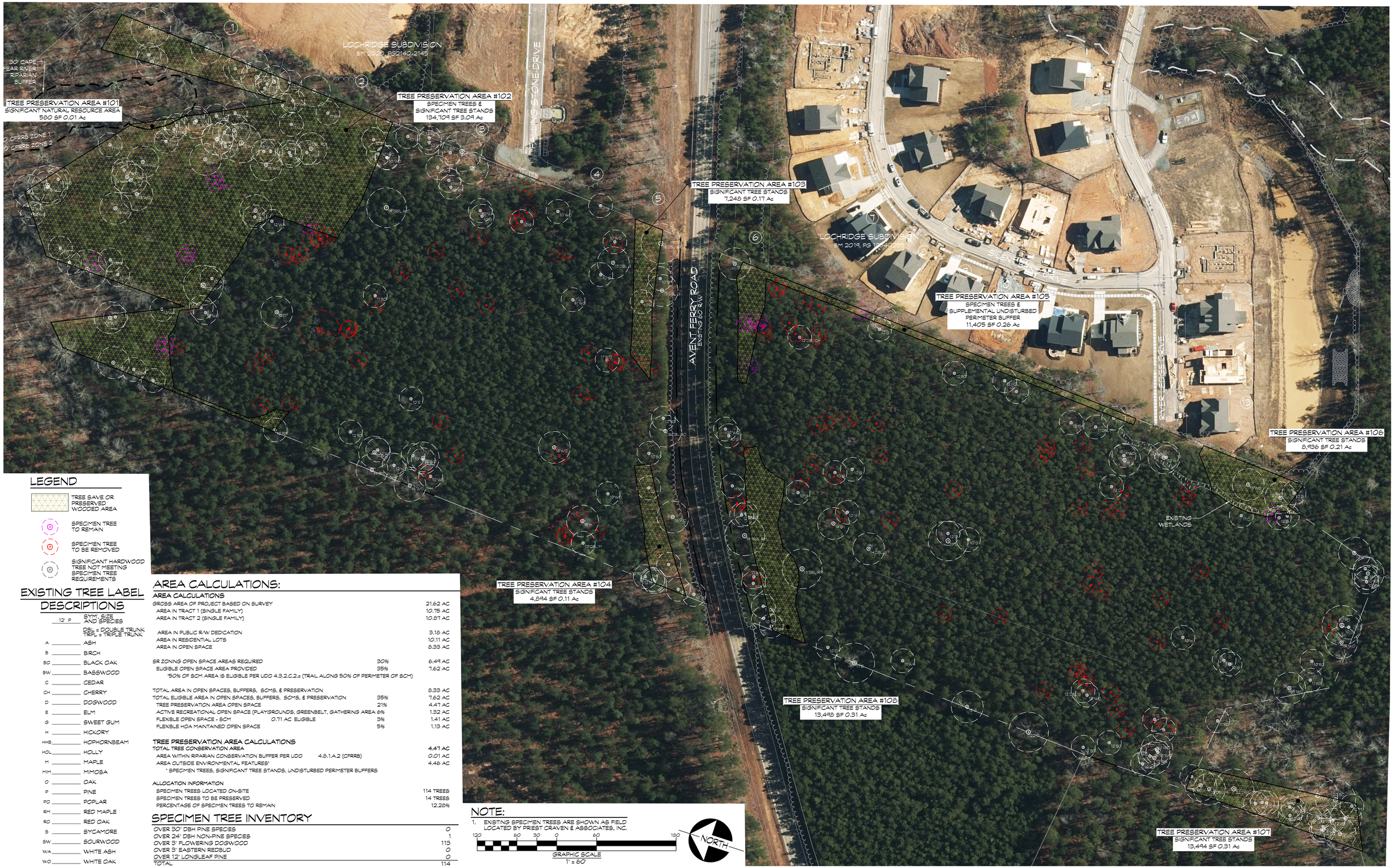
PRELIMINARY STREET LIGHTING PLAN

2ND REVIEW TOWN STAFF COMMENTS	9/4/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/15/2025
RELEASED FOR CONSTRUCTION DATE: (SEE COVER)	■ NO □ YES

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # LT1.00

F:\SHARED\ENGINEERING\2022-010.001 MIRA RIDGE - HOLLY SPRINGS\DRAWINGS\SHEET-PRELIMINARY\ LT1.00-PRE LIGHTING PLAN.DWG , Dec 16, 2025 - 10:21 AM ,



LEGEND

- TREE SAVE OR PRESERVED WOODED AREA
- SPECIMEN TREE TO REMAIN
- SPECIMEN TREE TO BE REMOVED
- SIGNIFICANT HARDWOOD TREE NOT MEETING SPECIMEN TREE REQUIREMENTS

EXISTING TREE LABEL DESCRIPTIONS

12" P — SYM., SIZE AND SPECIES

DBL = DOUBLE TRUNK
TRPL = TRIPLE TRUNK

A	ASH
B	BIRCH
BO	BLACK OAK
BW	BASSWOOD
C	CEDAR
CH	CHERRY
D	DOGWOOD
E	ELM
G	SWEET GUM
H	HICKORY
HHB	HOPHORNBEAM
HOL	HOLLY
M	MAPLE
MM	MIMOSA
O	OAK
P	PINE
PO	POPLAR
RM	RED MAPLE
RO	RED OAK
S	SYCAMORE
SW	SOURWOOD
WA	WHITE ASH
WO	WHITE OAK

AREA CALCULATIONS:

AREA CALCULATIONS		
GROSS AREA OF PROJECT BASED ON SURVEY		21.62 AC
AREA IN TRACT 1 (SINGLE FAMILY)		10.75 AC
AREA IN TRACT 2 (SINGLE FAMILY)		10.87 AC
AREA IN PUBLIC R/W DEDICATION		3.18 AC
AREA IN RESIDENTIAL LOTS		10.11 AC
AREA IN OPEN SPACE		8.33 AC
SR ZONING OPEN SPACE AREAS REQUIRED	30%	6.49 AC
ELIGIBLE OPEN SPACE AREA PROVIDED	35%	7.62 AC
*50% OF SCM AREA IS ELIGIBLE PER UDO 4.3.2.C.2.a (TRAIL ALONG 50% OF PERIMETER OF SCM)		
TOTAL AREA IN OPEN SPACES, BUFFERS, SCMS, & PRESERVATION		8.33 AC
TOTAL ELIGIBLE AREA IN OPEN SPACES, BUFFERS, SCMS, & PRESERVATION	35%	7.62 AC
TREE PRESERVATION AREA OPEN SPACE	21%	4.47 AC
ACTIVE RECREATIONAL OPEN SPACE (PLAYGROUNDS, GREENBELT, GATHERING AREA	6%	1.32 AC
FLEXIBLE OPEN SPACE - SCM 0.11 AC ELIGIBLE	3%	1.41 AC
FLEXIBLE HOA MAINTAINED OPEN SPACE	5%	1.13 AC
TREE PRESERVATION AREA CALCULATIONS		
TOTAL TREE CONSERVATION AREA		4.47 AC
AREA WITHIN RIPARIAN CONSERVATION BUFFER PER UDO 4.8.1.A.2 (CFRRB)		0.01 AC
AREA OUTSIDE ENVIRONMENTAL FEATURES*		4.46 AC
* SPECIMEN TREES, SIGNIFICANT TREE STANDS, UNDISTURBED PERIMETER BUFFERS		
ALLOCATION INFORMATION		
SPECIMEN TREES LOCATED ON-SITE		114 TREES
SPECIMEN TREES TO BE PRESERVED		14 TREES
PERCENTAGE OF SPECIMEN TREES TO REMAIN		12.28%

SPECIMEN TREE INVENTORY

OVER 30" DBH PINE SPECIES	0
OVER 24" DBH NON-PINE SPECIES	1
OVER 3" FLOWERING DOGWOOD	113
OVER 3" EASTERN REDBUD	0
OVER 12" LONGLEAF PINE	0
TOTAL	114

NOTE:

1. EXISTING SPECIMEN TREES ARE SHOWN AS FIELD LOCATED BY PRIEST CRAVEN & ASSOCIATES, INC.

120 60 30 0 60 180

GRAPHIC SCALE
1" = 60'

NORTH

MIRA RIDGE
MAJOR SUBDIVISION PLAN
HOLLY SPRINGS — WAKE COUNTY, NORTH CAROLINA

SCALE:	1"=60'
DATE:	NOVEMBER 8, 2024
PROJECT NUMBER:	2022-010.001
CLIENT:	MIRA DEVELOPERS LLC
PLAN TYPE:	MAJOR SUBDIVISION PLAN

EXISTING VEGETATION AND TREE PRESERVATION PLAN

2ND REVIEW TOWN STAFF COMMENTS	3/14/2025
3RD REVIEW TOWN STAFF COMMENTS	4/11/2025
4TH REVIEW TOWN STAFF COMMENTS	6/5/2025
5TH REVIEW TOWN STAFF COMMENTS	11/14/2025
6TH REVIEW TOWN STAFF COMMENTS	12/19/2025
RELEASED FOR CONSTRUCTION DATE: (SEE COVER) ■ NO ☐ YES	

PRIEST, CRAVEN & ASSOCIATES, INC.
LAND USE CONSULTANTS PLANNERS / LANDSCAPE DESIGNERS / SURVEYORS / ENGINEERS
6404 Falls of Neuse Drive, Suite 201 Raleigh, N.C. 27615 . Phone 919 / 781-0300 . Fax 919 / 782-1288 . Email PCA@PriestCraven.com / Firm #: C-0488

SHEET # TC1.00

P:\SHARED ENGINEERING\2022-010.001 MIRA RIDGE - HOLLY SPRINGS\DRAWINGS\SHEET FILE\PRELIMINARY\ TC1.00-PRE TREE CONSERVATION PLAN.DWG , Dec 19, 2025 - 3:00 PM ,

Holly Springs Planning Board

Planning Board Meeting Agenda Cover Sheet

Agenda Item#: 3.

Development Services
Title: 25-MAS-04 975 Avent Ferry Major Subdivision Plan
Strategic Priority Area: Growth Management & Economic Vitality
Staff Resource: Conor Ryan, Development Services, Elliot Blonshine, Development Services

Action(s):

- Recommend the Town Council approve/deny Major Subdivision Plan 25-MAS-04 for 975 Avent Ferry with the conditions in the staff report, and to forward the Planning Board Action Report, including the Recommendation, to the Town Council.

Explanation:

- A Major Subdivision Plan has been submitted to create two commercially-zoned parcels at the intersection of Ralph Stephens Rd. and Avent Ferry Rd.
- The project is located on a 4.07 acre parcel at 975 Avent Ferry Rd.
- The submitted Major Subdivision Plan conforms to the Unified Development Ordinance.

Staff Recommendation: Approve

Background:

- The existing parcel has been zoned commercially since the 1990s and has the Mixed-Use Center Future Land Use designation, which prioritizes commercial use of the site.
- All infrastructure improvements associated with the parcel, including sidepaths along both street frontages, have already been completed.
- The two parcels created will be subject to all requirements of the NMX district, as well as additional design standards per the Major Subdivision Plan.

Funding Source(s):
N/A

Attachment(s):
1. 25MAS04_975AventFerry_PBStaffReport_012726
2. 25MAS04_975AventFerry_Application
3. 25MAS04_975AventFerry_Plans

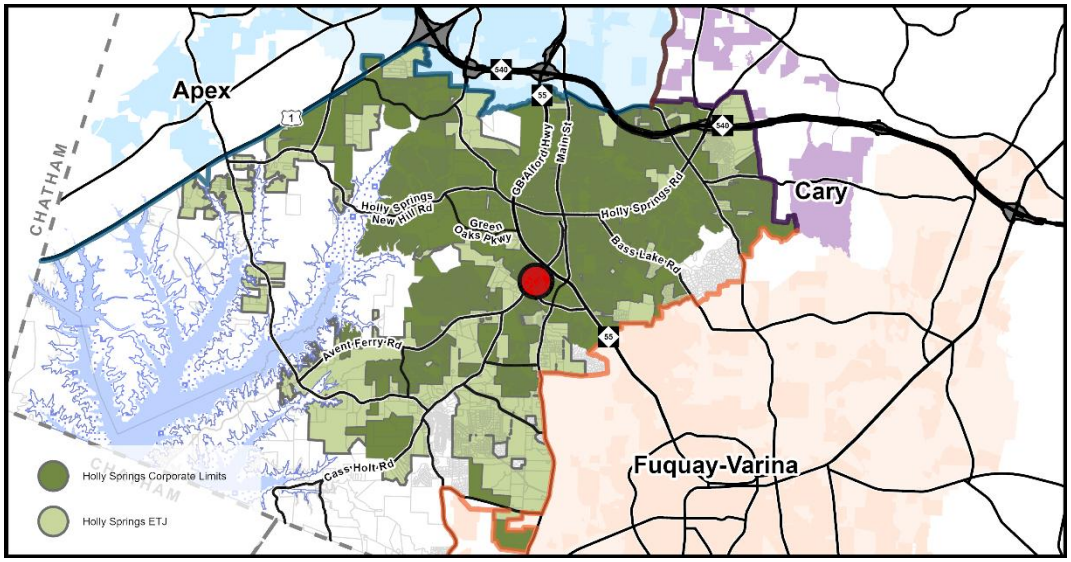
Project Type: Major Subdivision Plan

Concurrent Applications:
☐ Waiver / SUP/ VAR/ CPA

Applicant / Petitioner:
Parker Poe, on behalf of Eagle Engineering

Property Address: 975 Avent Ferry Road

Property Area: 4.07 ac.



Located in: ☐Holly Springs Corporate Limits ☐Holly Springs ETJ ☒Annexation Pending

Project Summary:

A Major Subdivision Plan for two commercially-zoned outparcels located at 975 Avent Ferry Road (intersection of Avent Ferry Road and Ralph Stephens Road), adjacent to Southpark Village shopping center and Stephens Farm subdivision. Any development of the two parcels created will be subject to separate review processes.

Requested Action:

Advisory Decision: The Planning Board will review the petition and make a recommendation to the Town Council to approve or deny the requested Major Subdivision Plan petition.

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Case Summary	Page 2
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Land Use & Character Information	Page 4
Transportation Information	Page 6
Parks, Recreation & Greenways Information	Page 8
Community Facilities Information	Page 9
Infrastructure & Utility Information	Page 10
Natural Resources Information	Page 12
Development Standards Information	Page 13
Decision-Making Information	Page 15

Case Summary

Current Zoning:
NMX Neighborhood Mixed-Use
☐ Conditional Zoning District

Current Major Subdivision Plan:
None

Aerial Photograph

Growth Strategy Map:
Places to Transform

Small Area Plan Designation:
N/A

Future Land Use Plan Designation:
Mixed-Use Center

Staff Analysis:

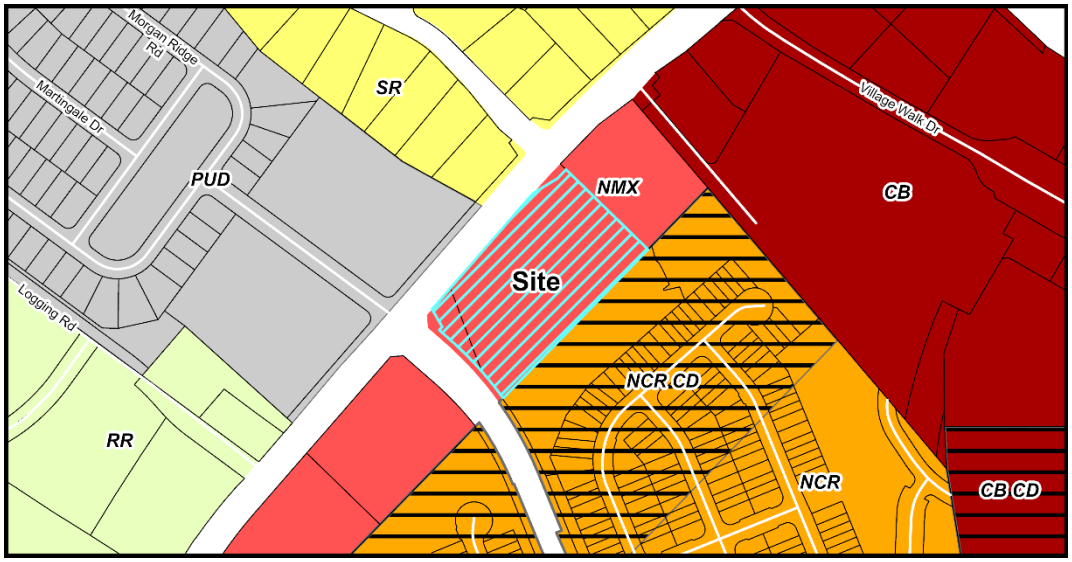
The Major Subdivision Plan is: ☒ Consistent with Adopted Plans/Ordinances ☐ Inconsistent with Adopted Plans/Ordinances

The Major Subdivision Plan complies with minimum requirements specified in Town adopted land development plans, policies, and ordinances.

Staff Recommendation: ☒ Approve ☐ Deny

Current Zoning Information

Parcel #	Zoning	Area
0648679608	NMX Neighborhood Mixed-Use	4.07
	Total Area	**4.07**



Current Zoning Map

Adjacent Property Current Zoning Information

	Zoning	Existing Land Use
Subject Property	NMX Neighborhood Mixed-Use	Vacant
North	NMX Neighborhood Mixed-Use	Commercial
South	NMX Neighborhood Mixed-Use	Vacant
East	NCR-CD Neighborhood Center Residential – Conditional Zoning District	Residential
West	SR Suburban Residential; PUD Planned Unit Development	Residential; Commercial

Parcel Rezoning History

Rezoning Number: 96-R-11
Original Zoning: R-20 Residential
Approved Zoning: C-1 Commercial
Approval Date: 10/15/1996

Rezoning Number: 22-REZ-01
Original Zoning: LB Local Business
Approved Zoning: NMX Neighborhood Mixed-Use
Approval Date: 3/1/2022

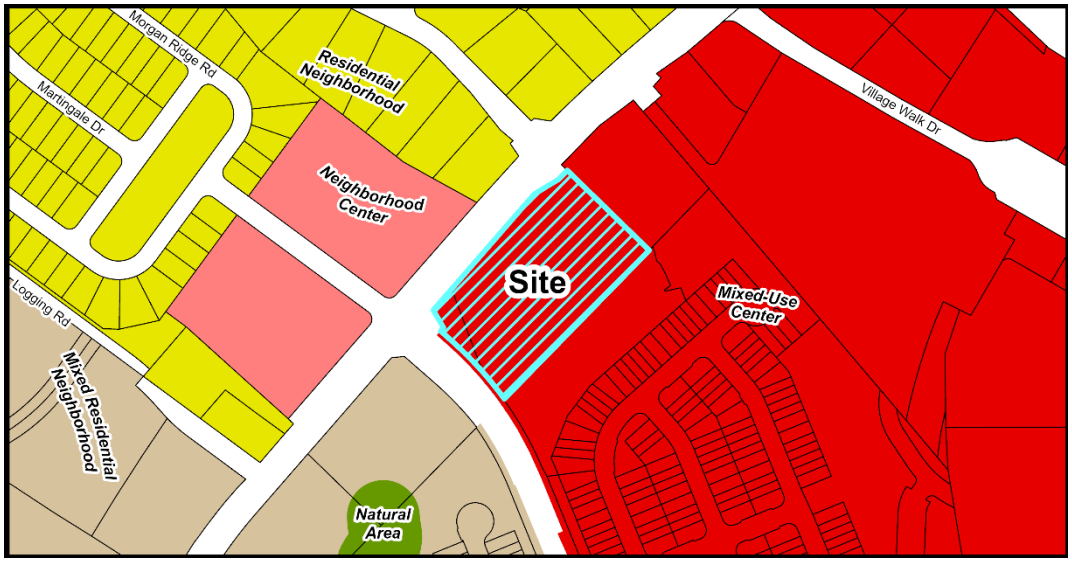
Land Use & Character Information

Vision Holly Springs Comprehensive Plan Section 1

Growth Strategy Map: Places to Transform

Future Land Use: Mixed-Use Center

Small Area Plan: N/A



Future Land Use Map

Important Themes for Transforming Holly Springs:

Eight important themes for Holly Springs are highlighted as high-priority principles for transforming the Town. The following theme(s) should be considered with this request:

Theme	Description
☒ Establish Mixed-Use Activity Centers Throughout Holly Springs	Mixed-use and walkable development
☐ Suburban Remix	Activate neighborhood centers
☐ Suburban Retrofit	Redevelop existing centers into mixed-use, multi-modal, activated centers
☒ Context-Sensitive Infill Development Choices	Infill around single use residential areas
☒ Transitions	Complement existing development and avoid incompatibilities
☐ Increase Home & Neighborhood Choices in Holly Springs	Variety of integrated housing products
☐ Increase Diversity & Affordability of Housing in Holly Springs	Adequate supply of affordable housing
☐ More Transportation-Land Use Coordination in the Community	Equal emphasis on land use (demand), transportation (supply) and urban design (character)

Land Use & Character Information (cont.)

Growth Strategy Map: Places to Transform
Specific focus areas in Holly Springs provide opportunities to grow and transform in the future. These areas will evolve over time in terms of land use mix, density and intensity, home choices, and transportation options. These are the areas where the Town should emphasize public and private investment — increasing allowable densities and intensities, adding infrastructure capacity, improving access from nearby neighborhoods, investing in the public realm, and encouraging private investment — to diversify the Town's development strategy and support continued growth and economic prosperity in the future.

Future Land Use: Mixed-Use Center
A Mixed-Use Center offers the opportunity to serve broader economic, entertainment, and housing needs in the community. Land uses and buildings on small blocks in the core may stand three or more stories tall and encourage active public spaces between the buildings. Parking is satisfied using on-street parking, structured parking, and shared rear-lot parking strategies. The compact, walkable environment and mix of residential and non-residential uses in the center supports multiple modes of transportation, including the potential for transit-oriented development if-when a decision is made to invest in premium transit along the NC 55 corridor.

Key characteristics include:

- Parking between the street and the building should be limited.
- Areas include a variety of shared public open spaces throughout a walkable, activated environment, and may include formal and informal open spaces such as greens, squares, plazas, and community gardens.
- Buildings should be 3 to 5 stories along the corridor but may be 2 to 3 stories in transitional areas.

Small Area Plan: N/A

Historic Structures: ☒ None

Land Use & Character Staff Analysis:

The Major Subdivision Plan is: ☒ Consistent ☐ Inconsistent with the Land Use & Character Plan/Ordinances

The proposed subdivision is consistent with the Future Land Use Plan as it will provide development that is complementary to existing uses at the Ralph Stephens – Avent Ferry intersection in terms of lot size, building massing and placement, and architectural elements, thus meeting the expectations for compatible transitions defined as one of the 8 important themes for transforming Holly Springs. The expanded perimeter buffer along the eastern property line also provides an appropriate transition between commercial and residential development. Staff finds that the proposed Major Subdivision Plan is consistent with the Vision Holly Springs Land Use and Character Plan.

Transportation Information

Vision Holly Springs Comprehensive Plan Section 2

Comprehensive Transportation Plan

Road Widening along Project Frontage	☐ Required ☒ Not Required
New Location Roadways	☐ Required ☒ Not Required
Hotspot/Safety Study Location	☐ Yes ☒ No

Roadway Map

Comprehensive Transportation Plan Summary

Road Widening along Project Frontage:

The project has frontage on Ralph Stephens Road and on Avent Ferry Road. Improvements for both roads along the property frontage have already been completed. Avent Ferry Road meets the current CTP cross section of T-4B, which is a 4-lane median divided thoroughfare. Ralph Stephens Road was constructed to a previous CTP cross section, which was also a 4-lane median divided thoroughfare, but included bike lanes.

New Location Roadways:

There are no new CTP roadways through this parcel. This project will construct a new driveway off the existing shared driveway between this site and Goodwill.

Hotspot/Safety Study Location:

There are no Hotspot/Safety studies adjacent to this parcel.

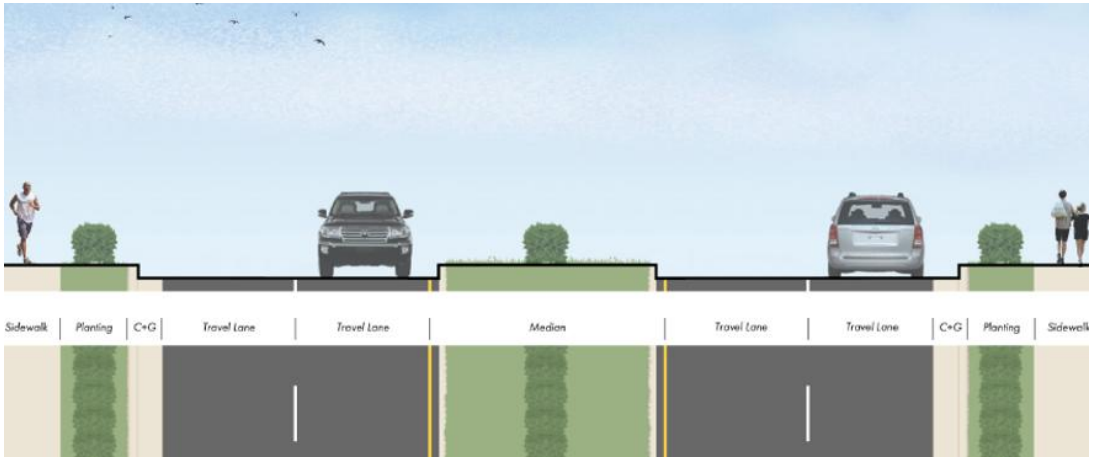
Improvement Prioritization:

N/A

Transportation Information (cont.)

Traffic Study Policy

☒Traffic Study Required ☐Tier 1
☒Tier 2
☐Tier 3
☐Traffic Verification Memo



Example of T-4A Thoroughfare Cross Section

Traffic Study Summary

A Site Specific Traffic Assessment (Tier 2 traffic study) was completed with this Major Subdivision. The study analyzed the following intersections:

- Avent Ferry Road at Ralph Stephens Road / Paddock View Drive
- Avent Ferry Road at Goodwill Driveway (right-in/right-out)
- Avent Ferry Road at Mallie Jack Way
- NC 55 at Avent Ferry Road
- NC 55 at U-turn North of Avent Ferry Road
- NC 55 at U-turn South of Avent Ferry Road
- S. main Street / Piney Grove Wilbon Road at Ralph Stephens Road

Based on the study, and in accordance with the Town's traffic study policy, no improvements are warranted at the study intersections.

Transportation Staff Analysis:

The Major Subdivision Plan is: ☒ Consistent ☐ Inconsistent with the Comprehensive Transportation Plan/Ordinances

No further widening or improvements are required along the frontages of Ralph Stephens Road and Avent Ferry Road. The Traffic Study is consistent with the Town's Traffic Study Policy. The project is therefore consistent with the Town's Comprehensive Transportation Plan.

Parks, Recreation & Greenways Information

Vision Holly Springs Comprehensive Plan Section 3

Park Search Area ☐ Yes ☒ No

Active Transportation Map

Required Active Transportation Improvements

☐ Greenway ☒ Sidepath

There is an existing 10' sidepath along Ralph Stephens Road and an existing 8' sidepath along Avent Ferry Road. No other active transportation improvements are required of the project.

Parks, Recreation, & Greenways Summary

The project is not within a park search area and there are no Greenways expected for the project area per the Parks, Recreation and Greenways Master Plan. The required improvements, sidepaths along both frontages of the site, have already been installed.

Parks, Recreation, & Greenways Staff Analysis:

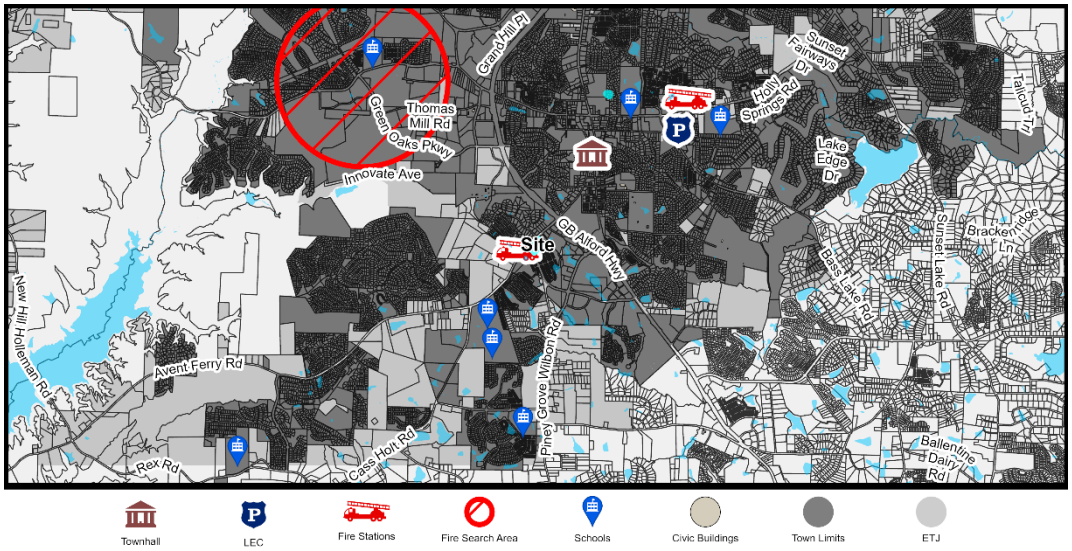
The Major Subdivision Plan is: ☒ Consistent ☐ Inconsistent with the Parks, Recreation & Greenways Master Plan/Ordinances

The development of this parcel is consistent with the Town's Parks, Recreation & Greenways Master Plan as the required improvements, sidepaths along Avent Ferry Road and Ralph Stephens Road, are already installed and are not being impacted by this development.

Community Facilities Information

Vision Holly Springs Comprehensive Plan Section 4

Population growth increases demand for public services. In order to fulfill this demand, community facilities must be appropriately planned for and constructed. These facilities may range from additional public safety stations, such as police and fire, to new schools to handle the influx of school-aged children into an area.



Community Facilities Map

Community Facilities Staff Analysis:

The Major Subdivision Plan is: ☒ Consistent ☐ Inconsistent with the Community Facilities Plan/Ordinances

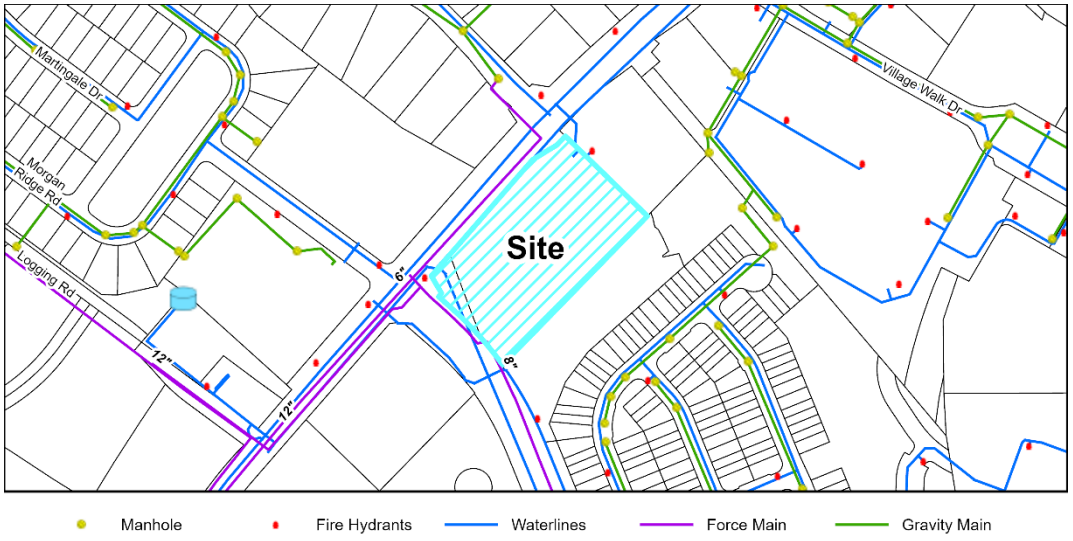
The subject property is outside of a search area for a public safety station as designated on the Community Facilities Map. The proposed commercial subdivision has no impacts on schools.

Infrastructure & Utility Information

Vision Holly Springs Comprehensive Plan Section 5

Utility Availability

Water	☒ Yes ☐ No ☒ Study Required
Sanitary Sewer	☐ Yes ☒ No ☒ Study Required
Reclaim	☐ Yes ☒ No ☐ Study Required



Utility Map

Infrastructure & Utility Summary

Water:

Watermain is currently installed along the property frontages of Avent Ferry Road and Ralph Stephens Road. No additional water main extensions are required with this subdivision. A service line will be installed from the existing water lines to serve the site. A Fire Flow Analysis was performed with this project and determined there are adequate pressures within the Town's system to support the project.

Sanitary Sewer:

There is an existing sewer manhole within the Goodwill lot. Sewer will be extended from this manhole into the site. A downstream sewer study, including a pump station capacity analysis, was performed and confirmed the existing system is adequate to support this project.

Reclaim:

The project is outside of the Town's Reclaimed Water Service Area.

Infrastructure & Utility Information (cont.)

Water Resource Management (WRMP) Policy

☒ WRMP Applicable	☒Tier 1	Allocation Elements	☐ Public Infrastructure Improvements
☐ WRMP Not Applicable	☐Tier 2		☐ Sustainable Design
	☐Tier 3		☐ Work Force Housing
			☐ Open Space/Tree Preservation

Water Resource Management Policy Summary
This project is subject to the Water Resource Management Policy, as a Priority Level 1. Priority Level 1 projects are not required to commit to allocation elements to be considered for allocation by Town Council.

Utility Allocation Summary

Priority Level: Priority Level 1
Allocation Assignment: Non-residential
Allocation Requested: 5,750 gallons per day

Staff Determination: Sufficient allocation is remaining in the non-residential assignment to support this project for the proposed build out year of 2027.

Infrastructure & Utility Staff Analysis:

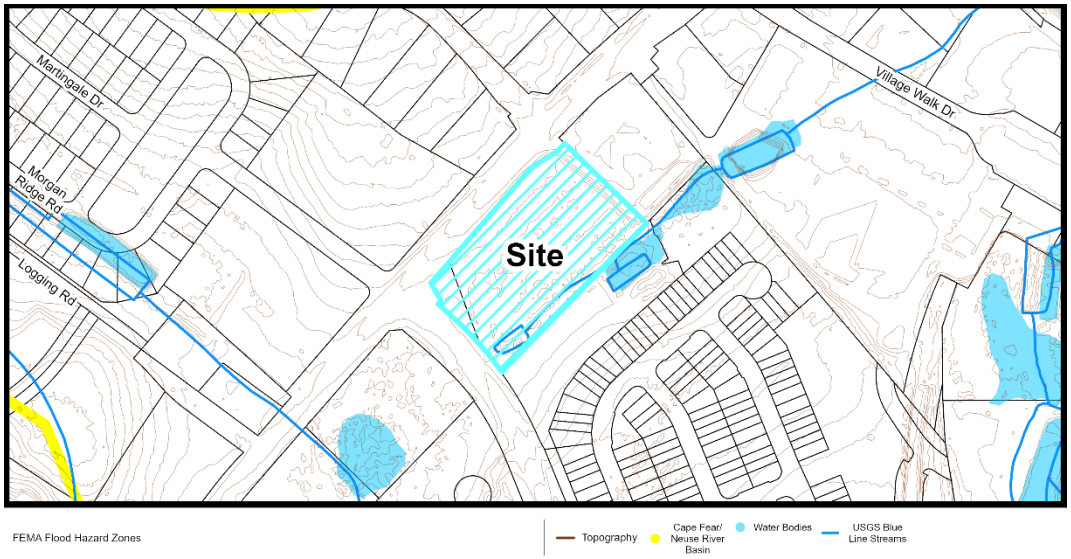
The is: ☒ Consistent ☐ Inconsistent with the Infrastructure & Utilities Plan/Ordinances The Development Plan is: ☒ Consistent ☐ Inconsistent with the Infrastructure & Utilities Plan/Ordinances

The proposed extension of sanitary sewer and utilization of the existing watermains are consistent with Town Standards and Comprehensive Plan. The allocation request is consistent with the Water Resource Management Policy.

Natural Resources & Open Space Information

Vision Holly Springs Comprehensive Plan Section 6

On-site Private Open Space	**12% (.49 ac)**
Tree Preservation Area	10%
Active Recreation Area	N/A
Urban Civic Space	.5%
Flexible Space	1.5%



Natural Resources Map

Natural Resources & Open Space Summary

Open Space:

The project proposes .82 acres (20.05%) of the site dedicated as open space, split between .73 acres (17.8%) of Tree Preservation Area; .03 acres (.75%) of Urban Civic Space; and .06 acres (1.5%) of flex space, which is provided as additional Tree Preservation Area. The project is increasing the required amount of Urban Civic Space by 50% as their UDO-required Public Realm Option. The Urban Civic Space is provided at the corner of Ralph Stephens Road and Avent Ferry Road, and is to contain public art, planters, and additional hardscape.

Stormwater:

This project is located within the Neuse River Basin and proposes to treat all new impervious surfaces onsite with an onsite stormwater control measure. There are several jurisdictional features located on and adjacent to the site such as wetlands streams and riparian buffers.

Natural Resources & Open Space Staff Analysis:

The Major Subdivision Plan is: ☒ Consistent ☐ Inconsistent with the Natural Resources Plan/Ordinances

The proposed Major Subdivision Plan meets the requirements of the Natural Resources and Open Space regulations of the Unified Development Ordinance. Any and all permits required to construct this development must be obtained prior to Civil Construction Drawing approval. This site has been designed to minimize impacts to existing environmental features and is consistent with the Comprehensive Plan.

Development Standards Information

Unified Development Ordinance

The following is a summary of how the proposed development satisfies the applicable 2022 Holly Springs Unified Development Ordinance (UDO). The applicant has submitted a subdivision plan which establishes the vehicular & utility access for each lot, new lot lines, common landscaping/open space elements, public improvements, and common architectural design. The Major Subdivision Plan features two lots for future development. Should the subdivision plan be approved, detailed development plans for the individual lots may be submitted and reviewed for compliance. The two parcels that are created will be subject to all standards of the NMX district unless modified by the Major Subdivision Plan. All open space and landscaping is required to be installed with the first Development Plan associated with the Major Subdivision.

Development Standards Summary

Development Standards (UDO Section 2):

Building Placement	**UDO Standard**	**Proposed**
Thoroughfare Setback (front)	25'	25'
All Other Setbacks (Side and Rear)	5'	5'; 20' adjacent to residential

Landscaping (UDO Section 5):

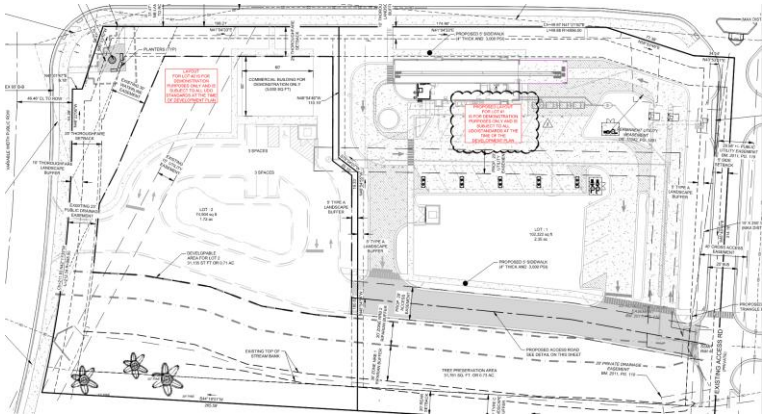
	Standard	**Proposed**
Perimeter Buffers		
Avent Ferry Road Buffer (West)	5' Type A	5' Type A
Stephens Farm Road Buffer (South)	5' Type A	5' Type A
North	5' Type A	5' Type A
East	10' Type B	20' Type C
Street Trees		
	Thoroughfare: Trees on private property within 5 ft of the right-of-way	14 street trees provided, placed in front of perimeter buffer

Building, Site and Subdivision Design (UDO Section 8):

	Proposed
Building Design	
Materials and Architecture	Common architectural details are established with this Subdivision Plan to create unifying elements between the buildings on both lots. These are in addition to the Building Design Standards found in the UDO. Architectural design standards will be reviewed for each site-specific development plan.

Site Design	
Pedestrian Access & Circulation	All buildings within 50 ft of the Avent Ferry Road shall have an entrance facing the road and shall have sidewalk connections to the main 8 ft sidewalk along the thoroughfare.
Public Realm	Increase in Urban Civic Space by 50%.

Proposed Site Design (UDO Section 8 and Conditional Zoning District)



Site Design Highlights

- Division of one parcel into two commercial outlots.
- Urban Civic Space comprised of public art, planters, and hardscape located at the high-visibility corner of Ralph Stephens and Avent Ferry.
- Expanded landscape buffer along eastern property line, adjacent to residential subdivision.
- The greyed-out details on the site plan are for exhibit only; development of the two parcels will be subject to separate review processes.

Development Standards Staff Analysis

The Major Subdivision Plan is: ☒ Consistent ☐ Inconsistent with the Unified Development Ordinance

The Major Subdivision Plan is consistent with the UDO and Comprehensive Plan. The creation of two outlots creates more commercial development potential along a high-traffic corridor and is consistent with the Mixed-Use Center Future Land Use development expectations. Perimeter buffers meeting and exceeding UDO requirements are provided around the project area. A prominent Urban Civic Space incorporating public art and landscaping is provided at the corner of Ralph Stephens and Avent Ferry, while Tree Preservation Area is provided around a prominent stream running along the eastern property line. Sidepaths have already been constructed along the project frontages and are not impacted by the proposed development. The proposed architectural standards are consistent and compatible with adjacent development.

Decision-Making Information

Comprehensive Plan and Unified Development Ordinance Consistency Summary Table

Vision Holly Springs Comprehensive Plan	
Land Use & Character Plan/Ordinances (Section 1)	☒ Consistent ☐ Inconsistent
Comprehensive Transportation Plan/Ordinances (Section 2)	☒ Consistent ☐ Inconsistent
Parks, Recreation & Greenways Master Plan/Ordinances (Section 3)	☒ Consistent ☐ Inconsistent
Community Facilities Plan/Ordinances (Section 4)	☒ Consistent ☐ Inconsistent
Infrastructure & Utilities Plan/Ordinances (Section 5)	☒ Consistent ☐ Inconsistent
Natural Resources Plan/Ordinances (Section 6)	☒ Consistent ☐ Inconsistent
Unified Development Ordinance	
Unified Development Ordinance	☒ Consistent ☐ Inconsistent

Major Subdivision Plan Staff Analysis
The applicant must demonstrate that the proposed Major Subdivision Plan complies with minimum requirements specified in Town's adopted land development policies and ordinances.

The Major Subdivision Plan complies with minimum requirements specified in Town adopted land development policies and ordinances. The proposed lot layouts on the site plan are for exhibitory purposes only, and any development of the two lots will be subject to separate review processes and will be held to the NMX standards of the UDO.

Staff Recommendation: ☒ Approve ☐ Deny

Previous Case Related Items

Neighborhood Meeting
The applicant must hold a neighborhood meeting with all property owners within 500 feet of the project prior to submitting an application. A report of the neighborhood meeting has been submitted and is included in the agenda item attachments.

Meeting Date: 3/20/2025
Summary of Issues:

- Timeline of the project
- Use of Lot 2 (the outparcel fronting Avent Ferry and Ralph Stephens)

Planning Board Consideration & Action

Per NCGS §160D-301(b), the Planning Board may provide a preliminary forum for review of quasi-judicial decisions, provided that no part of the forum or recommendation may be used as a basis for the deciding board.

Planning Board Decision Type: Advisory Decision

Advisory Decision
The Planning Board must review the application and make a recommendation to the Town Council.

The Planning Board should consider whether or not the proposed Major Subdivision Plan is consistent with the technical standards of Town of Holly Springs Unified Development Ordinance.

Action: Major Subdivision Plan Petition Motion
The Planning Board must make a recommendation to the Town Council on the Major Subdivision Plan.

Motion to recommend that the Town Council approve / deny Major Subdivision Plan 25-MAS-04 for 975 Avent Ferry as submitted by Parker Poe, dated Revised 1/8/2026 with staff recommended conditions, and to forward the Planning Board Action Report, to include the Recommendation, to the Town Council.

Conditions of Approval:

1. Invoiced fees from Special Study review must be paid prior to first Construction Drawing Submittal, and no later than prior to Construction Drawing Approval.
2. The Build-out analysis in the Traffic Impact Analysis (TIA) associated with this development included a mix of background improvements and recommended development mitigations. If the assumed background projects do not occur, it should be the developer's sole responsibility to construct all of the background improvements included in the Traffic Study unless additional analysis can be provided to demonstrate the background mitigations are not warranted by the subject development.
3. If build out exceeds the anticipated time frame in the approved Traffic Study, an update of the Traffic Study will be required prior to or with the Development Plan for the associated phase. Recommended improvements will be required to be completed prior to plat approval of that phase.
4. A Deed of Easement is required to be executed for public vehicular & public pedestrian access between the property owners at the time of plat.
5. All Special Studies must be finalized prior to being scheduled for Planning Board.
6. Approval of Stormwater Management Plan is required prior to issuance of a land disturbance permit or construction drawing approval.
7. Payment of the Stormwater Fee-in-Lieu will be required prior to construction drawing approval.
8. All items listed on the Stormwater Submittal Checklist, Form #16003, must be included with the first construction drawing submittal.

9. Please note that this project will be required to meet Town's NPDES Phase II Post Construction Stormwater ordinance. A general stormwater requirement may affect this project. Refer to NCDWQ's website for more information.
10. Please note that the Town Staff has been delegated approval authority by NCDWQ for stormwater management plans. Documentation of approval to NCDEQ is the responsibility of the owner.
11. Stormwater sureties are required on this project. A performance surety in the form of a bond, letter of credit or cash is required in the amount of 125% estimated construction cost of the stormwater BMP prior to the preconstruction meeting and a maintenance surety in the form of a cash escrow account in the amount of 35% the actual construction cost of the SCM is required at the end of the performance monitoring period for the project.
12. All environmental permits must be obtained prior to construction drawing approval and/or issuance of a land disturbance permit for the entire project. This will become a condition of plan approval.
13. Since the relocation of overhead power is deemed not feasible by the Utility company, a fee estimate and a fee-in-lieu will be required prior to Construction Drawing approval.
14. All signage is subject to separate sign permits.

Next Steps

Quasi-Judicial Public Hearing

Anticipated Town Council Public Hearing Date: 2/17/2026

Prior to the Legislative Public Hearing:

- Mailed notice will be sent to all property owners within 500 feet of the project.
- Posted notice will be made with a public hearing sign on the property.

Town Council Decision: Quasi-Judicial Decision

Quasi-Judicial Decision:

Quasi-Judicial decisions are determined by the presentation of factual evidence as to whether the proposed Development Plan satisfies the applicable development standards. The Town Council must hold a Quasi-Judicial public hearing to collect facts and then make a decision based on the written and oral evidence presented. A Quasi-Judicial decision must be made on facts and evidence and cannot be based on opinions or hearsay. Anyone who presents facts and evidence during the Quasi-Judicial public hearing must be sworn in under oath and may be subject to cross-examination. These criteria shall be used to evaluate whether the proposal will cause significant adverse impacts on adjacent properties:

Criterion 1: The land uses and development intensity of the proposed project will not have significant adverse impacts on adjacent properties and are consistent with the character of the Zoning District and the land uses authorized therein.

Criterion 2: The proposed project provides for the preservation, improvement, and/or enhancement of open spaces and provides sufficient land dedicated for public park space or an equivalent fee-in-lieu.

Criterion 3: The proposed layout of streets, lots, utilities, water metering, and public improvements, and their relation to the topography of the land, reflect a design which can be economically served by the Town with public services and facilitates the use and future development of adjacent properties.

Criterion 4: The proposed building or site design enhances the public realm, maximizes natural surveillance and visibility, facilitates pedestrian access and circulation, and reinforces the Town's character.

Criterion 5: The design of the project furthers the goals and policies of the Comprehensive Plan.

DEVELOPMENT PLAN PETITION

Major Subdivision, Development Plan

DPM Appendix #A.04 Supplement 20 October 2023

PROJECT INFORMATION	
Project Name	Sam's Xpress Car Wash - Holly Springs
PUD/Master Plan or Subdivision	Carroll Crossing
Shopping Center or Lot #	1 & 2
Project Location *Use street address. If none, use closest intersection*	975 Avent Ferry Rd, Holly Springs NC
	☐ Within Corporate Limits ☑ Within Holly Springs ETJ ☐ Pending Annexation
PIN(s)	0648-67-8653
Real Estate ID	0174459, 0499903
Project Acreage	4.092 Partial Parcel? ☐ Yes ☐ No
Current Zoning	NMX-Neighborhood Mixed Use
Proposed Use	Commercial
Open Space	☑ Dedication ☐ Fee-in-lieu ☐ Combination ☐ N/A
Waivers Requested	☑ No ☐ Yes: Specify UDO Section Number(s):
Special Study Scoping Meeting Dates	Sewer Scoping: 01/09/2025
Sketch Plan Review (pre-submittal) Meeting Date:	6/5/2025
Water Resource Management Program (WRMP)	WRMP Priority Level ☑ 1 ☐ 2 ☐ 3 Allocation Request Required

CERTIFICATE OF COMPLETION
I certify that all information presented in this petition is accurate to the best of my knowledge and belief. Signature of Applicant: Date: 6/11/2025

DEVELOPMENT PLAN PETITION

Major Subdivision, Development Plan

DPM Appendix #A.04 Supplement 20 October 2023

PETITION CONTACT INFORMATION *(Attach additional sheets if needed)* Applicant and Financially Responsible Party will need to register for an account on the Portal.	
Project Applicant Check One: ☐ Owner ☐ Owner's Agent ☑ Design Professional ☑ Developer ☐ Other	
Name: Ashley Terrazas	Company: Parker Poe
Mailing Address: 301 Fayetteville St Suite 1400	
City, State, Zip: Raleigh, NC 27601	
Telephone: 919-835-4043	E-Mail: ashleyterrazas@parkerpoe.com
Design Professional	
Name: Matthew C. Kirchner	Company: Eagle Engineering Inc.
Mailing Address: 2013 Van Buren Ave, Suite A	
City, State, Zip: Indian Trail, NC 28079	
Telephone: 704-882-4222	E-Mail: pc@eagleonline.net
Developer	
Name: Matthew Parker	Company: Sam's Xpress Car Wash
Mailing Address: 7932 Council Place Ct Suite 200	
City, State, Zip: Matthews, NC 28105	
Telephone: 704-563-3981	E-Mail: Mparker@samsxpress.com
Architect	
Name: John Urbam	Company: Urban Architectural Group PA
Mailing Address: 1242 Mann Dr, Suite 200	
City, State, Zip: Matthews, NC 28105	
Telephone: 704-841-1899	E-Mail: JOHNURBAN@URBANAIA.COM
Landscape Architect	
Name: TBD	Company:
Mailing Address:	
City, State, Zip:	
Telephone:	E-Mail:
Financially Responsible Party (REQUIRED)	
Name: Matthew Parker	Company: Sam's Xpress Car Wash
Mailing Address: 7932 Council Place Ct Suite 200	
City, State, Zip: Matthews, NC 28105	
Telephone: 704-563-3981	E-Mail: Mparker@samsxpress.com
Property Owner (REQUIRED)	
Name: Michael W. Carroll and Mary Joe Pendleton Carroll	Company: N/A
Mailing Address: 814 Cannonsgate Dr	
City, State, Zip: Newport NC 28570	
Telephone:	E-Mail:

DEVELOPMENT PLAN & MAJOR SUBDIVISION FINDINGS OF FACT

A petition for Development Plan or Major Subdivision may only be approved upon the presentation of the following:

1. The land uses and development intensity of the proposed project will not have significant adverse impacts on adjacent properties and are consistent with the character of the Zoning District and the land uses authorized therein:

The proposed subdivision creates two non-residential parcels with the same permitted uses that are permitted on the property today. The subdivision will allow for the development of two smaller-scale commercial projects, which will need to be owned by different businesses.

2. The proposed project provides for the preservation, improvement, and/or enhancement of open spaces and provides sufficient land dedicated for public park space or an equivalent fee-in-lieu:

All open space and tree save requirements are met. 17.8% of the land will be tree preservation area, there is a minimum of 900 square feet of urban civic space, and 1,291 square feet of flexible open space.

3. The proposed layout of streets, lots, utilities, water metering, and public improvements, and their relation to the topography of the land, reflect a design which can be economically served by the Town with public services and facilitates the use and future development of adjacent properties:

The proposed layout of private streets to serve the corner development was envisioned when the Goodwill driveway was built with the cross-access easement, and this will be consistent with the adjacent shopping center. The frontage improvements along Ralph Stephens Road and Avent Ferry Road are already in place. Public utilities will be extended to serve the development of both commercial parcels.

4. The proposed building or site design enhances the public realm, maximize natural surveillance and visibility, facilitates pedestrian access and circulation, and reinforces the Town's character:

The proposed subdivision design provides for two commercial parcels where the development will be concentrated on Avent Ferry Road, where it will be most visible, away from the Stephens Farm townhomes. Pedestrian facilities exist along the property's frontage and will be provided as required by the UDO for the development of the commercial parcels in conformance with the property's zoning.

5. The design of the project furthers the goals and policies of the Comprehensive Plan:

The proposed subdivision allows for the development of smaller-scale commercial amenities on the edge of a larger Mixed Use Center concentrated at the intersection of Hwy 55 and Avent Ferry Road. This provides appropriate transitions with residential development, and the NMX zoning, which is recommended in MU, will require development consistent with the Comprehensive Plan guidance for the parcels. The subdivision will also allow for two commercial businesses to bring more tax revenue to the Town, consistent with economic development goals.

HOLLY SPRINGS
North Carolina

Affidavit of Owner's Consent

Before me personally appeared Michael William Carroll who, being duly sworn, hereby proclaims that they are the owner of the property legally described as the specified Wake County Parcel Identification Number(s) listed below:

0648679608	975 Avent Ferry Road
0648676575	0 Avent Ferry Road

and does hereby authorize SXCW Properties II, LLC c/o Paxton Widenhouse to act

(name of representative/applicant)

on their behalf as their agent with regard to the processing of said Development Project.

Michael William Carroll
Signature of Owner

Michael William Carroll

814 Cannonsgate Dr.
Newport, NC 28570

Sworn to or affirmed and subscribed before me this 10th day of June, 2025.

NOTARY PUBLIC:

Bridgette K Feagans
Official Signature of Notary

Bridgette K Feagans, Notary Public
Print Name

My commission expires: Dec 17, 2029

Bridgette K. Feagans
NOTARY PUBLIC
Carteret County, NC
My Commission Expires December 17, 2029

HOLLY SPRINGS
North Carolina

Affidavit of Owner's Consent

Before me personally appeared Mary Joe Pendleton Carroll who, being duly sworn, hereby proclaims that they are the owner of the property legally described as the specified Wake County Parcel Identification Number(s) listed below:

0658679608	975 Avent Ferry Road
0648676575	0 Avent Ferry Road

and does hereby authorize SXCW Properties II, LLC c/o Paxton Widenhouse to act

(name of representative/applicant)

on their behalf as their agent with regard to the processing of said Development Project.

Mary Joe Pendleton Carroll
Signature of Owner

Mary Joe Pendleton Carroll
814 Cannonsgate Dr.
Newport, NC 28570

Sworn to or affirmed and subscribed before me this 10th day of June, 2025.

NOTARY PUBLIC:

Bridgette K Feagans
Official Signature of Notary

Bridgette K Feagans, Notary Public
Print Name

My commission expires: Dec 17, 2029

Bridgette K Feagans
NOTARY PUBLIC
Carteret County, NC
My Commission Expires December 17, 2029

NEIGHBORHOOD MEETING REPORT

A Neighborhood Meeting is required to occur prior to your submittal. The requirements for this meeting can be found in section 11.5 of the Unified Development Ordinance (UDO). The Neighborhood Meeting shall take place no more than 12 weeks prior to the application date and can be held virtually. A copy of the Neighborhood Meeting Notice must be sent to DSIntake@hollyspringsnc.gov prior to mailing for review and approval along with a copy of the mailing list.

NEIGHBORHOOD MEETING INFORMATION	
Meeting Date:	March 20, 2025
Meeting Time:	7-8pm
Meeting Location:	Microsoft Teams

CONDUCT OF MEETINGS *(Attach additional sheets if needed)*

At the Neighborhood Meeting, the Petitioner shall explain the proposal and petition, answer any questions, respond to concerns neighbors have about the petition and proposed resolutions to these concerns. Town Staff will not attend the Neighborhood Meeting.

Summary of Issues:

See attached.

Changes made to the Petition as a result of the meeting:

None

Preparer's Signature: Date: 6/11/25

975 Avent Ferry Road - Pre-Filing Neighborhood Meeting Report

On March 20, 2025, at 7:00 pm, the applicant's team held a virtual neighborhood meeting via Zoom. Four neighbors attended the meeting. After a presentation of the project, the applicant team responded to questions about the project. The following is a summary of the questions and comments from the neighbors in attendance.

Summary of Questions and Comments:

1. Concern from property owner about the timeline of the project with construction not beginning until fall of 2026.

   Response: The applicant's counsel explained that the timeline of the presentation is tentative due to the uncertainty of the number of staff review and comment rounds will be required. Further, the applicant's counsel explained that the timeline for project will become more predictable after staff review and comment since hearing dates will be scheduled with the Town Council for a quasi-judicial hearing on the subdivision and Board of Adjustment for the special use permit. The development team ensured that they are committed to making the site work and making the project approval process as quick as possible.

2. Question regarding what the developer plans to do with the outparcel fronting Avent Ferry and Ralph Stephens Road.

   Response: The development team explained that currently there is no binding contract for a project on the outparcel. This will be decided at a later date, and the user would need to go through a development plan process similar to the process for Sam's Xpress.

3. Question regarding the progress of the sewer study.

   Response: The development team explained that Kimley Horn is currently in the process of conducting the sewer study for items not provided by the Town during the sewer scoping meeting.

Attendance Roster:

1. Barbara Keating
2. Baxter Walker, representative for owner of 975 Avent Ferry Rd
3. Justin Carroll, 404 N. Main St, Holly Springs, NC 27540
4. Mike Carroll

975 Avent Ferry Road - 500ft Propert Owner/Tenant List

Owner	Mailing Address 1	Mailing Address 2	Mailing Address 3
1201 AVENT FERRY LLC	114 BAYBROOK CT	CARY NC 27518-9422	
ADWA LLC	465 MORGAN RIDGE RD	HOLLY SPRINGS NC 27540-4455	
CARROLL, MICHAEL W CARROLL, MARY J P	814 CANNONSGATE DR	NEWPORT NC 28570-4551	
CHOLAK, BENJAMIN CHOLAK, MELISSA	109 ROSLIN WAY	HOLLY SPRINGS NC 27540-5997	
ERNEST, MICHAEL E. ERNEST, CORAZON DIOSANTA	1312 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540-9150	
FRY, GERALD W.	109 DESERT ORCHID RD	HOLLY SPRINGS NC 27540-6933	
GOODWILL INDUSTRIES OF EASTERN NORTH CAROLINA INC	4721 EMPEROR BLVD STE 260	DURHAM NC 27703-7664	
HATCH, NICOLE LYNN KUBEL, THOMAS M III	1304 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540-9150	
HOLLY SPRINGS TOWN OF	TOWN ATTORNEY	PO BOX 8	HOLLY SPRINGS NC 27540-0008
KUSHI LLC	4141 PINEY GAP DR	CARY NC 27519-7515	
NORMAN, BRIAN NORMAN, LAURA	1308 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540-9150	
OPTIMUS SPRINGS LLC	2949 HUNTINGTON WAY	AURORA OH 44202-8766	
PADOVANO, DANIEL JOSEPH III TRUSTEE PADOVANO, CYNTHIA ANN TRUSTEE	105 DESERT ORCHID RD	HOLLY SPRINGS NC 27540-6933	
Q STEPHENS FARM HOLDINGS LLC	3348 PEACHTREE RD NE STE 1460	ATLANTA GA 30326-1497	
RAMKUMAR, RAJIT NAIR, LEKSHMI CHANDRASEKHARAN	2009 AUSTIN POND DR	CARY NC 27519-6522	
RUIZ, CHRISTIAN A NEVADO, RIGOBERTO RUIZ	1309 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540-9151	
SCIARI, TIMOTHY MCGOWAN, MAURA	1300 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540-9150	
SCIOTO BLUE RIVER PROPERTIES LLC	6531 MERIDIEN DR STE 103	RALEIGH NC 27616-8892	
TURNER, DAVID R.	1301 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540-9151	
WAKE COUNTY BOARD OF ALCOHOLIC CONTROL	1212 WICKER DR	RALEIGH NC 27604-1428	
WILLIAMS, JOEL LAWSON II HOLMES, JESSICA G	6813 REBECCA CIR	CARY NC 27518-6843	
POSTAL CUSTOMER	1201 AVENT FERRY RD	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	1251 AVENT FERRY RD	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	1201 AVENT FERRY RD	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	1251 AVENT FERRY RD	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	1305 TROTTER BLUFFS DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	975 AVENT FERRY RD	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	0 AVENT FERRY RD	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	908 AVENT FERRY RD	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	925 AVENT FERRY RD	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	1136 AVENT FERRY RD	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	300 VILLAGE WALK DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	220 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	222 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	224 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	226 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
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POSTAL CUSTOMER	302 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
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POSTAL CUSTOMER	314 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	318 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	320 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	322 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	225 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	223 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	221 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	216 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	218 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540	
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POSTAL CUSTOMER	224 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	226 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	427 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	425 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	423 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	421 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	419 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540	
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POSTAL CUSTOMER	408 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	410 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	412 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	416 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	418 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	420 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	215 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	213 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	211 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
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POSTAL CUSTOMER	214 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	216 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	218 LEMON LEAF PL	HOLLY SPRINGS NC 27540	
POSTAL CUSTOMER	102 GARDEN ROSE DR	HOLLY SPRINGS NC 27540	

POSTAL CUSTOMER	400 LEMON LEAF PL	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	402 LEMON LEAF PL	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	404 LEMON LEAF PL	HOLLY SPRINGS NC 27540
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POSTAL CUSTOMER	410 LEMON LEAF PL	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	220 WALNUT BRANCH PL	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	233 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	231 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	229 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	227 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	100 ENGLISH DAISY ST	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	109 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	107 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	105 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	103 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	101 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	102 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	104 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	106 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	316 LEMON LEAF PL	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	228 DOUBLE TULIP DR	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	414 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	1719 RALPH STEPHENS RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	100 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	236 LEMON LEAF PL	HOLLY SPRINGS NC 27540
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POSTAL CUSTOMER	427 FOXTAIL LILY DR	HOLLY SPRINGS NC 27540
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POSTAL CUSTOMER	216 LEMON LEAF PL	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	218 LEMON LEAF PL	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	102 GARDEN ROSE DR	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	100 ENGLISH DAISY ST	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	105 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	103 DAISY MUM RD	HOLLY SPRINGS NC 27540
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POSTAL CUSTOMER	102 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	1719 RALPH STEPHENS RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	100 DAISY MUM RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	236 LEMON LEAF PL	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	916 AVENT FERRY RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	100 VILLAGE WALK DR	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	1008 AVENT FERRY RD	HOLLY SPRINGS NC 27540
POSTAL CUSTOMER	1100 AVENT FERRY RD	HOLLY SPRINGS NC 27540

975 Avent Ferry Road

500ft Property Notification Map

N

0 200 400 800 ft

1 inch equals 400 feet

Disclaimer

*iMaps makes every effort to produce and publish the most current and accurate information possible. However, the maps are produced for information purposes, and are **NOT** surveys. No warranties, expressed or implied ,are provided for the data therein, its use,or its interpretation.*

March 10, 2025

Event: 975 Avent Ferry Road Neighborhood Meeting
Location: Virtual (ZOOM)
Date/Time: March 20, 2025 (7:00 – 8:00pm)

Neighboring Property Owners and Occupants:

Parker Poe Adams & Bernstein LLP is inviting you to attend a virtual neighborhood meeting on March 20, 2025 from 7:00–8:00pm to discuss upcoming applications for a Special Use Permit, Development Plan, and Major Subdivision for property located at 975 Avent Ferry Road (PIN 064807678653) (the "Site") Attached is a vicinity map outlining the location of the Site. These applications will allow for the subdivision of the parcel into two commercial lots and the development of a drive-through car wash on one of the new lots. During the meeting, the Applicant will describe the nature of the proposed applications and field any questions from the public.

The meeting will be held virtually. You can participate online via Zoom or by telephone. To participate in the Zoom online meeting:

Visit:	https://zoom.us./join
Enter the following meeting ID:	815 8320 1926
Enter the following password:	466037

To participate by telephone:

Dial:	1 929 205 6099
Enter the following meeting ID:	815 8320 1926 #
Enter the Participant ID:	#
Enter the Meeting password:	466037 #

If you have any questions about these proposed applications, please contact me at (919) 835-4043 or via email at ashleyterrazas@parkerpoe.com.

Thank you,

Ashley Honeycutt Terrazas

975 Avent Ferry Road

Vicinity Map

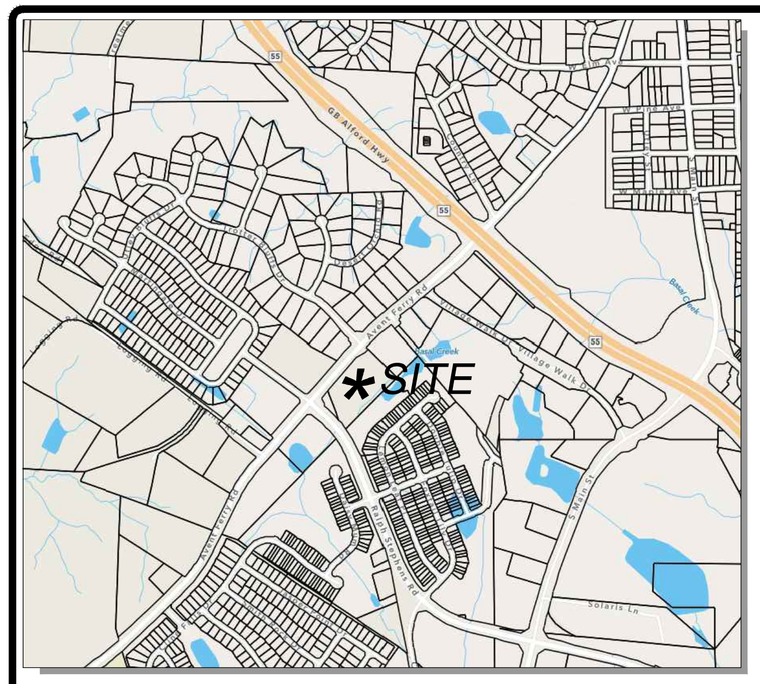
N

0 200 400 800 ft

1 inch equals 400 feet

Disclaimer

*iMaps makes every effort to produce and publish the most current and accurate information possible. However, the maps are produced for information purposes, and are **NOT** surveys. No warranties, expressed or implied ,are provided for the data therein, its use,or its interpretation.*


*SITE
GB Alford Hwy
Avent Ferry Rd
Sunset Lake Rd
Holly Springs Rd
Main St
Williams St
Old Smithfield

CARROLL CROSSING

975 AVENT FERRY RD, HOLLY SPRINGS NC

MAJOR SUBDIVISION PLANS
MAJOR SUBDIVISION: CARROLL CROSSING (25-MAS-04)

SITE AND DEVELOPMENT DATA	
JURISDICTION	HOLLY SPRINGS
TAX PARCEL(S):	0648679608, 0648676575
REAL ESTATE ID NUMBER(S):	0174459, 0499903
SITE ADDRESS:	975 AVENT FERRY RD
ZONING	NMX
TOTAL SITE AREA	177,226 SQ FT / 4.07 AC
TOTAL PROPOSED LOTS	2 LOTS
PROPOSED LOT 1	102,322 SQ FT/ 2,35 AC
PROPOSED LOT 2	74,904 SQ FT/ 1,72 AC
MINIMUM FRONT SETBACK	25 FT (THOROUGHFARE)
MINIMUM CORNER/SIDE SETBACK	5 FT, 0 FT INTERNAL
MINIMUM SETBACK (RALPH STEPHENS RD)	25 FT (THOROUGHFARE)
MINIMUM REAR SETBACK	20 FT
OPEN SPACE REQUIREMENTS (TOTAL)	
OPEN SPACE (TREE PRESERVATION)	10% (17,826 SQ FT/ 0,41 AC)
URBAN CIVIC SPACE	0,75% (1,338 SQ FT/ 0.03 AC)
FLEXIBLE SPACE	1.5% (2,676 SQ FT/ 0.06 AC)
OPEN SPACE PROVIDED (TOTAL)	
OPEN SPACE (TREE PRESERVATION)	17.8% (31,761 SQ FT/ 0,73 AC)
URBAN CIVIC SPACE	0,75% (1,353 SQ FT/ 0.03 AC)
FLEXIBLE SPACE (AS TREE PRESERVATION)	1.5% (2,676 SQ FT/ 0.06 AC)
SDT: PUBLIC REALM OPTION #9:	INCREASE IN URBAN CIVIC SPACE BY 50%

3

VICINITY MAP

NOT TO SCALE

CONTACTS:

ZONING:
CONOR RYAN
TOWN OF HOLLY SPRINGS
128 MAIN ST
HOLLY SPRINGS, NC 27540
TELEPHONE: (919) 428-4526

DEVELOPMENT SERVICES:
CONOR RYAN
TOWN OF HOLLY SPRINGS
128 MAIN ST
HOLLY SPRINGS, NC 27540
TELEPHONE: (919) 577-3908

BUILDING & INSPECTIONS:
DAVID IVEY
TOWN OF HOLLY SPRINGS
128 MAIN ST
HOLLY SPRINGS, NC 27540
TELEPHONE: (919) 557-3914

STREET & HIGHWAY DATA:
NCDOT - RAYMOND HAYES
NORTH CAROLINA DEPT. OF TRANSPORTATION
2612 NORTH DUKE ST
DURHAM, NC 27704
TELEPHONE: (919)-628-8999

STORM SEWER:
GRANT JONES
TOWN OF HOLLY SPRINGS
ADDRESS
CITY, STATE, ZIP
TELEPHONE: (919) 577-3120

SANITARY SEWER AND WATER:
NATE LESHER
TOWN OF HOLLY SPRINGS
128 MAIN ST
HOLLY SPRINGS, NC 27540
TELEPHONE: (919) 577-2911

FIRE:
WAYNE STRICKLAND
TOWN OF HOLLY SPRINGS
128 MAIN ST
HOLLY SPRINGS, NC 27540
TELEPHONE: (919) 567-4002

EAGLE ENGINEERING

PROJECT ARCHITECT:	URBAN ARCHITECTURAL GROUP PA
CONTACT:	JOHN URBAN, AIA, LEED AP
STREET ADDRESS:	1242 MANN DR, SUITE 200
CITY, STATE , ZIP:	MATTHEWS, NC 28105
PHONE:	704-841-1899
EMAIL:	JOHNURBAN@URBANAIA.COM
PROJECT DEVELOPER:	SAM'S XPRESS CAR WASH
CONTACT:	JEANETTE LUCAS
STREET ADDRESS:	7932 COUNCIL PLACE, SUITE 200
CITY, STATE , ZIP:	MATTHEWS, NC 28105
PHONE:	704-209-4507
EMAIL:	JLUCAS@SAMSXPRESS.COM

PROJECT ENGINEER:	EAGLE ENGINEERING
FIRM LICENSE # :	C-0873
PROJECT ENGINEER:	MATTHEW C. KIRCHNER, P.E.
STREET ADDRESS:	2013A VAN BUREN AVENUE
CITY, STATE, ZIP	INDIAN TRAIL, NC 28079
PHONE:	704-882-4222
EMAIL:	PC@EAGLEONLINE.NET
PROJECT APPLICANT:	SAM'S XPRESS CAR WASH
CONTACT:	JEANETTE LUCAS
STREET ADDRESS:	7932 COUNCIL PLACE, SUITE 200
CITY, STATE , ZIP:	MATTHEWS, NC 28105
PHONE:	704-209-4507
EMAIL:	JLUCAS@SAMSXPRESS.COM

PRELIMINARY
NOT FOR CONSTRUCTION

811
Know what's **below.**
Call before you dig.
CALL 1-800-632-4949 OR 811
WWW.NC811.ORG
NC ONE-CALL CENTER
IT'S THE LAW!

DRAWING INDEX

		REVISION #	06/09/2025	09/04/2025 1	11/24/2025 2	01/08/2026 3	4	5	6
CIVIL DRAWINGS									
MAS-0.0	COVER SHEET			●	●	●			
C-1.0	EXISTING CONDITIONS			●	●	●			
~~C-1.1~~	~~EXISTING CONDITIONS NOTES~~ (SHEET REMOVED)			●		●			
MAS-2.0	CONCEPTUAL SITE PLAN		●	●	●	●			
MAS-2.1	CONCEPTUAL SIGN PLAN			●	●	●			
MAS-3.0	CONCEPTUAL LANDSCAPE PLAN			●	●	●			
MAS-4.0	CONCEPTUAL STORM DRAINAGE AND GRADING PLAN			●	●	●			
MAS-5.0	CONCEPTUAL UTILITY PLAN			●	●	●			
MAS-6.0	ARCHITECTURAL STANDARDS			●	●				
EX-1	FUTURE GRADING EXHIBIT			●	●	●			

EAGLE ENGINEERING
FIRM LICENSE # C-0873
2013A VAN BUREN AVE.
INDIAN TRAIL, NC 28079
(704) 882-4222
www.eagleonline.net

NORTH CAROLINA PROFESSIONAL SEAL 045509 ENGINEER MATTHEW C KIRCHNER
01/08/2026

NO.	DATE	BY	ISSUE
1	09/04/2025	DAM	ADDRESSED HOLLY SPRINGS COMMENTS
2	11/24/2025	DAM	ADDRESSED HOLLY SPRINGS COMMENTS
3	01/08/2026	DAM	ADDRESSED HOLLY SPRINGS COMMENTS

CARROLL CROSSING
975 AVENT FERRY RD
HOLLY SPRINGS, NC

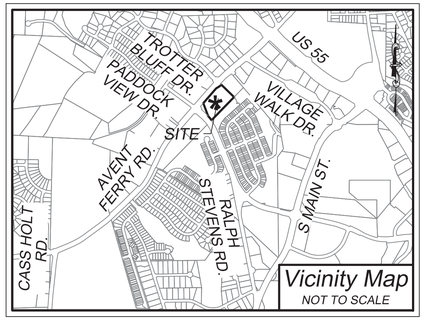
SAM'S XPRESS CAR WASH
7935 COUNCIL PLACE, SUITE 200
MATTHEWS, NC 28105

COVER SHEET

DESIGNED BY	DRAWN BY	CHECKED BY
DAM	DAM	JLR
SCALE	DATE	JOB NUMBER
AS SHOWN	06/09/2025	8337

Sheet
MAS-0.0

X:\Land Projects R2\8337 - SXCW - Avent Ferry Rd, Holly Springs\DWG\Civil\Plans\8337 - Preliminary Subdivision Plan Set.dwg, 1/8/2026 12:00:38 PM



MISCELLANEOUS NOTES

SURVEY POSITIONING IS TIED TO NCGS MONUMENT "EYSTER" USING A TRIMBLE R-12 GNSS GPS RECEIVER UTILIZING THE NORTH CAROLINA GEODETIC SURVEY VRS NETWORK. ALL COORDINATES AND BEARINGS SHOWN ARE BASED ON NAD 83/2011.

AREAS COMPUTED USING COORDINATE GEOMETRY.

SITE ADDRESS: 975 AVENT FERRY ROAD

IRON REBARS AT ALL PROPERTY CORNERS UNLESS OTHERWISE NOTED.

REFERENCE(S):
BK. 6097, PG. 41 (FEE TRACT 1)
BM. 1994, PG. 448 (FEE TRACT 1)
BK.12029, PG. 758 (FEE TRACT 1, LESS AND EXCEPT)
BK. 17042, PG. 1888 (FEE TRACT 1, LESS AND EXCEPT)
BK. 14000, PG. 2758 (FEE TRACT 1, LESS AND EXCEPT)
BK. 7076, PG. 551 (FEE TRACT 2)
BM. 1996, PG. 1059 (FEE TRACT 2)
BK. 12029, PG. 758 (FEE TRACT 2, LESS AND EXCEPT)
BK. 17042, PG. 1880 (FEE TRACT 2, LESS AND EXCEPT)
BM. 2006, PG. 1976 (FEE TRACT 3)
BK. 14000, PG. 2752 (EASEMENT TRACT)

ALL ADJOINER PROPERTY OWNER INFORMATION IS TAKEN FROM CURRENT DEEDS AND TAX RECORDS AND ARE CONSIDERED "NOW OR FORMERLY".

RAW ERROR OF CLOSURE: 1: 55,309. BOUNDARY TRAVERSE WAS ADJUSTED USING THE LEAST SQUARES METHOD.

OTHER UNDERGROUND UTILITIES MAY EXIST BUT THEIR LOCATIONS ARE NOT KNOWN.

ALL DISTANCES SHOWN ARE HORIZONTAL GROUND DISTANCES.

PROJECT DATUM IS REFERENCED TO NAVD 88.

COMBINED GRID FACTOR = 0.99987849

THE SUBJECT PROPERTY SHOWN HEREON DOES NOT LIE WITHIN A PROTECTED WATERSHED AREA OF THE CAPE FEAR LOCAL WATERSHED PLAN FOR THE MIDDLE CAPE FEAR RIVER BASIN.

THE PROPERTY SHOWN HEREON IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP 3720064800K COMMUNITY PANEL NO. 0648 HAVING AN EFFECTIVE DATE OF JULY 19TH, 2022.

THERE ARE NO CURRENT ENCROACHMENTS FOR THE SUBJECT PROPERTY.

THERE ARE NO CURRENT GAPS OR GORES PRESENT WITHIN THE SUBJECT PROPERTY BOUNDARY.

UTILITY NOTES

THE LOCATION OF UTILITIES SHOWN HEREON ARE FROM OBSERVED EVIDENCE OF ABOVE GROUND APPURTENANCES ONLY. THE SURVEYOR WAS NOT PROVIDED WITH UNDERGROUND PLANS TO DETERMINE THE LOCATION OF ANY SUBTERRANEAN USES. THIS SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THERE IS NO CERTAINTY OF THE ACCURACY OF THE INFORMATION AND IT SHALL BE CONSIDERED IN THE LIGHT BY THOSE USING THIS SURVEY. UTILITIES AND STRUCTURES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS CONSULTANTS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT THIS SURVEYOR IS NOT RESPONSIBLE FOR THE SUFFICIENCY OF THE UNDERGROUND UTILITY INFORMATION PROVIDED HEREON, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

ZONING INFORMATION

ACCORDING TO THE WAKE COUNTY GEOGRAPHIC INFORMATION SYSTEM (GIS) WEBSITE ADDRESSED ON DATE, THE SUBJECT PROPERTY IS ZONED "NMX" (NEIGHBORHOOD MIXED USE) BECAUSE THERE MAY BE A NEED FOR INTERPRETATION OF THE APPLICABLE ZONING CODES, WE REFER YOU TO THE TOWN OF HOLLY SPRINGS, AND THE APPLICABLE ZONING CODES.

THE FOLLOWING SETBACK, YARD, AND BUILDING HEIGHT REQUIREMENTS ARE PER TOWN OF HOLLY SPRINGS UNIFIED DEVELOPMENT ORDINANCE SECTION 2.2.2, TABLE A BEING LAST AMENDED OCTOBER 17TH, 2023.

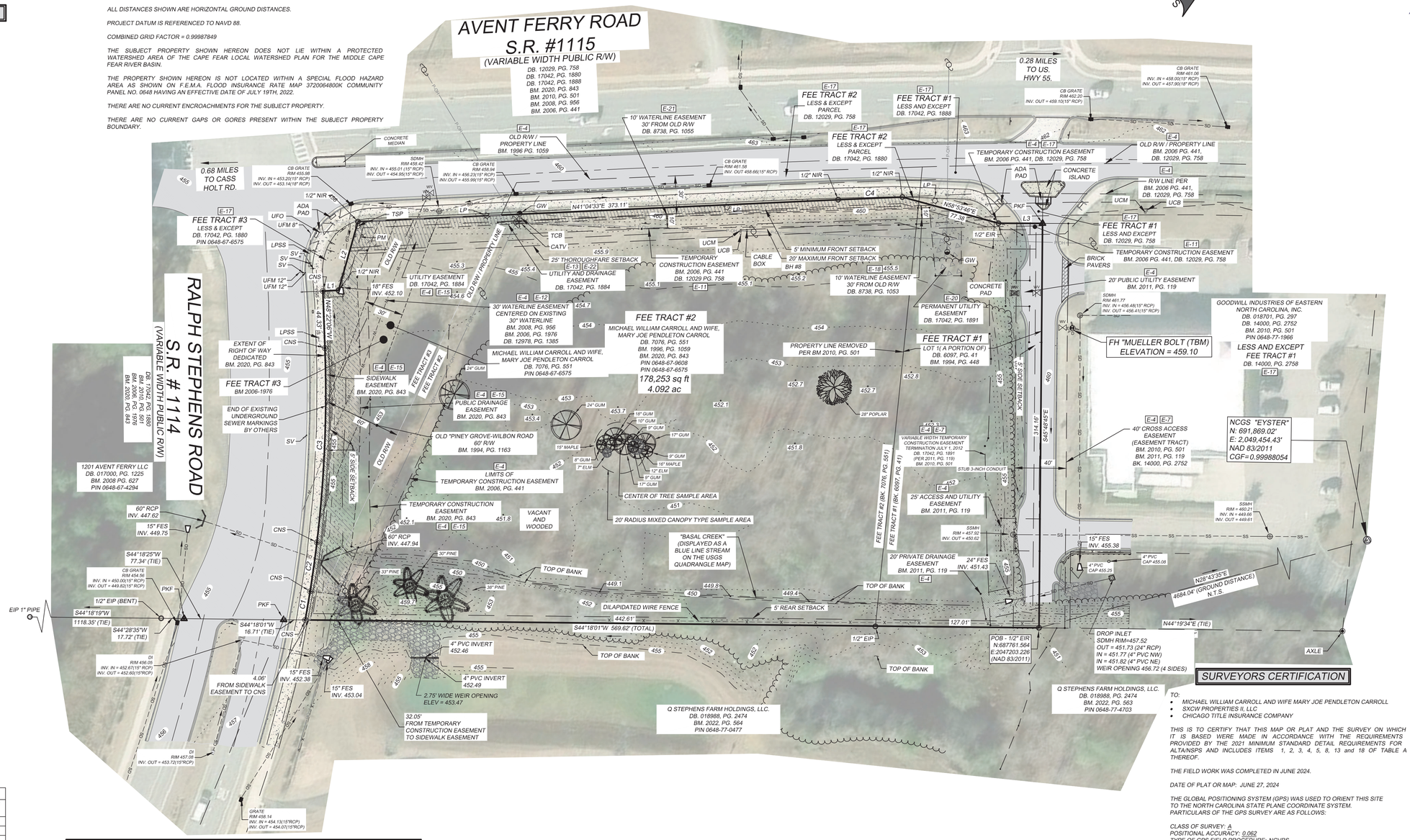
MINIMUM FRONT SETBACK:	*5 FEET*
MAXIMUM FRONT SETBACK:	*20 FEET*
THOROUGHFARE SETBACK:	*25 FEET*
REAR SETBACK:	*5 FEET*
SIDE YARD:	*5 FEET*
MIN HEIGHT:	*20 FEET*

USERS OF THIS SURVEY ARE REQUIRED TO USE SHEET 1 AND 2 ATTACHED HERETO.

LEGEND OF SYMBOLS & ABBREVIATIONS

BH - BOREHOLE
BOC - BACK OF CURB
CNS - CONCRETE NAIL SET
C.P. - COMPUTED POINT
CPP - CORRUGATED PLASTIC PIPE
DI - DROP INLET
ECM - EXISTING CONCRETE MONUMENT
EIP - EXISTING IRON PIPE
EIR - EXISTING IRON REBAR
ELEV - ELEVATION
EOP - EDGE OF PAVEMENT
EPK - EXISTING P.K. NAIL
E.U. - END UNKNOWN
FES - FLARED END SECTION
GPUE - GENERAL PUBLIC UTILITY EASEMENT
INV. - INVERT
NAVD - NORTH AMERICAN VERTICAL DATUM
NCGS - NORTH CAROLINA GEODETIC SURVEY
NIR - NEW IRON REBAR
N.T.S. - NOT TO SCALE
PKF - PK (PARKER KRYLON) NAIL FOUND
PM - POWER METER
POB - POINT OF BEGINNING
R/W - RIGHT OF WAY
RCP - REINFORCED CONCRETE PIPE
S.T. - SIGHT TRIANGLE
SV - SEWER VALVE
LP - LIGHT POLE
LPSS - LOW PRESSURE SEWER SYSTEM
TCB - TELECOMMUNICATION BOX
TSB - TRAFFIC SIGNAL BOX
TSP - TRAFFIC SIGNAL POLE
UFO - UNDERGROUND FIBER OPTIC
UFM - UNDERGROUND FORCE MAIN
UCB - UNDERGROUND CABLE BOX
UCM - UNDERGROUND CABLE MARKER
P.S.D.E. - PUBLIC STORM DRAINAGE EASEMENT
P.S.S.E. - PRIVATE SANITARY SEWER EASEMENT
S.S.E. - SANITARY SEWER EASEMENT
SSMH - SANITARY SEWER MANHOLE
TBM - TEMPORARY BENCHMARK

- *UTILITY POLE*
- *SANITARY SEWER MANHOLE*
- *FIRE HYDRANT*
- *WATER VALVE*
- *YARD INLET / AREA DRAIN*
- *SIGN*
- *ELECTRIC BOX/TRANSFORMER*
- *CURB INLET*
- *GUY WIRE*
- *WATER METER*
- *PROPERTY BOUNDARY*
- *UNDERGROUND GASLINE*
- *OVERHEAD UTILITY LINE*
- *UNDERGROUND POWER LINE*
- *SANITARY SEWER LINE*
- *STORM DRAIN*
- *WATER LINE*
- *FENCE LINE*
- *FIBER OPTIC LINE*
- *UNDERGROUND TELEPHONE*
- *RIP RAP*
- *PAVEMENT*
- *CONCRETE*
- *EASEMENT*
- *PERMANENT EASEMENT*
- *PUBLIC DRAINAGE EASEMENT*
- *UTILITY EASEMENT*
- *ELM TREE*
- *GUM TREE*
- *MAPLE TREE*
- *PINE TREE*
- *POPLAR TREE*



Parcel Line Table		
Line #	Length	Direction
L1	12.18	N41° 01' 47"E
L2	55.47	N30° 31' 10"W
L3	34.14	N43° 53' 21"E

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	22.57	981.00	1.32	N36° 38' 09"W	22.57
C2	38.36	981.00	2.24	N38° 24' 54"W	38.36
C3	151.24	981.00	8.83	N43° 57' 06"W	151.09
C4	49.88	4956.00	0.58	N41° 21' 50"E	49.87

GRAPHIC SCALE
0 40' 80'
(IN FEET)
1 inch = 40 ft.

TREE INVENTORY		
TREE SPECIES	NUMBER OF TREES	CALIPER INCHES (DBH)
ELM	2	19
GUM	9	145
MAPLE	2	31
PINE	3	101
POPLAR	1	28
TOTAL	17	324

EAGLE ENGINEERING
FIRM LICENSE # C-0873
2013A VAN BUREN AVE.
INDIAN TRAIL, NC 28079
(704) 882-4222
www.eagleonline.net

NORTH CAROLINA PROFESSIONAL SEAL 3661 LAND SURVEYOR RUSSELL L. WHITEHURST
01/08/2026

NO.	DATE	BY	ISSUE
1	08-09-2024	RMC	ADDRESS ATTORNEY COMMENTS
2	08-11-2025	ATZ	ADD TREE SURVEY DATA
3	11-18-2025	RMC	ADDRESS TOWN OF HOLLY SPRINGS REVIEW COMMENTS
4	01-08-2026	JDM	REVISED PER TOWN OF HOLLY SPRINGS COMMENTS

SQUARE XPRESS CAR WASH

PROPERTY OF: MICHAEL WILLIAM CARROLL AND WIFE, MARY JOE PENDLETON CARROLL
HOLLY SPRINGS TOWNSHIP, WAKE COUNTY, NC

CERTIFY TO:
SXCW PROPERTIES II, LLC
CHICAGO TITLE INSURANCE COMPANY
MICHAEL WILLIAM CARROLL AND WIFE, MARY JOE PENDLETON CARROLL

ALTA/NSPS SURVEY
4.092 ACRES (TOTAL)

DESIGNED BY	DRAWN BY	CHECKED BY	JOB NUMBER
N/A	RMC	RLW	8337
Scale	1" = 40'	DATE	06/27/2024

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SURVEYORS CERTIFICATION

TO:
- *MICHAEL WILLIAM CARROLL AND WIFE MARY JOE PENDLETON CARROLL*
- *SXCW PROPERTIES II, LLC*
- *CHICAGO TITLE INSURANCE COMPANY*

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE REQUIREMENTS PROVIDED BY THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS AND INCLUDES ITEMS 1, 2, 3, 4, 5, 8, 13 and 18 OF TABLE A THEREOF.

THE FIELD WORK WAS COMPLETED IN JUNE 2024.

DATE OF PLAT OR MAP: JUNE 27, 2024

THE GLOBAL POSITIONING SYSTEM (GPS) WAS USED TO ORIENT THIS SITE TO THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM. PARTICULARS OF THE GPS SURVEY ARE AS FOLLOWS:

CLASS OF SURVEY: A
POSITIONAL ACCURACY: 0.062
TYPE OF GPS FIELD PROCEDURE: NCVRS
DATE SURVEY: 06/24/2024
DATUM/EPOCH: NAD83/2011
PUBLISHED/FIXED-CONTROL USE: NGS MONUMENT "EYSTER"
GEOID MODEL: 2018
COMBINED GRID FACTOR(S): 0.99988054
UNITS: US FEET

SIGNED AND SEALED 06/27/2024
RUSSELL L. WHITEHURST
PROFESSIONAL LAND SURVEYOR # 3661
STATE OF NORTH CAROLINA

USERS OF THIS SURVEY ARE REQUIRED TO USE SHEET 1 AND 2 ATTACHED HERETO.

ITEMS CORRESPONDING TO SCHEDULE B SECTION II

CHICAGO TITLE INSURANCE COMPANY
COMMITMENT NO. 24-07402WS (REVISION ONE 6/20/2024) FOLLOWED BY (REVISION TWO 8/08/2024)
ISSUING OFFICE FILE NO. 24-07402WS
PROPERTY ADDRESS: 0 AND 975 AVENT FERRY ROAD, HOLLY SPRINGS, NC 27540
COMMITMENT DATE: MAY 23, 2024 AT 8:00 AM

PROPOSED INSURED: SXCW PROPERTIES II, LLC, A NORTH CAROLINA LIMITED LIABILITY COMPANY
THE ESTATE OR INTEREST TO BE INSURED: FEE SIMPLE AND EASEMENT
THE TITLE IS, AT THE COMMITMENT DATE, VESTED IN: MICHAEL W. CARROLL AND WIFE, MARY JOE PENDLETON CARROLL

SCHEDULE B, PART II - EXCEPTIONS
SOME HISTORICAL LAND RECORDS CONTAIN DISCRIMINATORY COVENANTS THAT ARE ILLEGAL AND UNENFORCEABLE BY LAW. THIS COMMITMENT AND THE POLICY TREAT ANY DISCRIMINATORY COVENANT IN A DOCUMENT REFERENCED IN SCHEDULE B AS IF EACH DISCRIMINATORY COVENANT IS REDACTED, REPUDIATED, REMOVED, AND NOT REPUBLISHED OR RECIRCULATED. ONLY THE REMAINING PROVISIONS OF THE DOCUMENT WILL BE EXCEPTED FROM COVERAGE.
THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND CONDITIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET. ***NOT A MATTER OF SURVEY***

THE FOLLOWING EXCEPTIONS APPLY TO ALL TRACTS:

2. TAXES OR ASSESSMENTS FOR THE YEAR 2024, AND SUBSEQUENT YEARS, NOT YET DUE OR PAYABLE. ***NOT A MATTER OF SURVEY***

3. TERMS, PROVISIONS, OPTIONS, RIGHT OF FIRST REFUSAL, COVENANTS, CONDITIONS, RESTRICTIONS, EASEMENTS, CHARGES, ASSESSMENTS, AND LIENS PROVIDED FOR IN INSTRUMENT(S) APPEARING IN THE PUBLIC RECORDS, AND ANY RELATED MAPS, PLANS, BYLAWS AND OTHER DOCUMENT(S) AND AMENDMENT(S). ***NOT A MATTER OF SURVEY***

E-4 *4. ANY RIGHT, EASEMENT, SETBACK, INTEREST, CLAIM, ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATIONS OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE DISCLOSED BY PLAT(S) RECORDED IN BOOK OF MAPS 1996, PAGE 1059; PLAT BOOK 1989, PAGE 434; PLAT BOOK 1994, PAGE 448; PLAT BOOK 2006, PAGE 441; PLAT BOOK 2006, PAGE 1976; PLAT BOOK 2008, PAGE 956; PLAT BOOK 2010, PAGE 501; PLAT BOOK 2011, PAGE 119; PLAT BOOK 2020, PAGE 843.* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENT SHOWN HEREON.***

5. RIGHTS OF TENANTS IN POSSESSION, AS TENANTS ONLY, UNDER UNRECORDED LEASES. ***NOT A MATTER OF SURVEY.***

6. ~~(INTENTIONALLY DELETED) ACCESS TO THE LAND IS AVAILABLE ONLY BY MEANS OF PRIVATE EASEMENT.~~

E-7 *7. TERMS, CONDITIONS AND RIGHTS OF OTHERS OF THE DECLARATION OF EASEMENT, CROSS ACCESS, AND MAINTENANCE AGREEMENT RECORDED IN BOOK 14000, PAGE 2752.* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENT SHOWN HEREON.***

E-8 *8. EASEMENT IN FAVOR OF CAROLINA POWER AND LIGHT COMPANY RECORDED IN BOOK 934, PAGE 387* ***(BLANKET IN NATURE AND CANNOT BE GRAPHICALLY SHOWN)****; BOOK 1024, PAGE 258* ***UNABLE TO DETERMINE LOCATION OF THIS EXCEPTION*** *AND BOOK 4637, PAGE 703.* ***GENERAL IN NATURE AND CANNOT BE GRAPHICALLY SHOWN.***

E-9 *9. EASEMENT IN FAVOR OF CENTRAL CAROLINA TELEPHONE COMPANY RECORDED IN BOOK 1097, PAGE 399.* ***GENERAL IN NATURE AND CANNOT BE GRAPHICALLY SHOWN.***

E-10 *10. EASEMENT IN FAVOR OF UNITED TELEPHONE COMPANY OF THE CAROLINAS RECORDED IN BOOK 1240, PAGE 383.* ***GENERAL IN NATURE AND CANNOT BE GRAPHICALLY SHOWN.***

E-11 *11. TEMPORARY CONSTRUCTION EASEMENT FAVOR OF THE TOWN OF HOLLY SPRINGS IN NORTH CAROLINA GENERAL WARRANTY DEED FOR HIGHWAY RIGHT OF WAY RECORDED IN BOOK 12029, PAGE 758.* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENT SHOWN HEREON***.

E-12 *12. 30' WATERLINE EASEMENT IN FAVOR OF THE TOWN OF HOLLY SPRINGS IN NORTH CAROLINA SPECIAL WARRANTY DEED RECORDED IN BOOK 12978, PAGE 1385.* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENT SHOWN HEREON***.

E-13 *13. EASEMENT FOR UTILITY AND DRAINAGE PURPOSES IN FAVOR OF THE TOWN OF HOLLY SPRINGS RECORDED IN BOOK 17042, PAGE 1884.* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENT SHOWN HEREON.***

E-14 *14. EASEMENT IN FAVOR OF DUKE ENERGY PROGRESS, LLC RECORDED IN BOOK 17311, PAGE 2592.* ***GENERAL IN NATURE AND CANNOT BE GRAPHICALLY SHOWN.***

E-15 *15. PERMANENT PUBLIC DRAINAGE, RIGHT OF WAY AND PUBLIC SIDEWALK AND TEMPORARY CONSTRUCTION EASEMENT AGREEMENT RECORDED IN BOOK 17890, PAGE 418.* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENT SHOWN HEREON.***

E-16 *16. TITLE TO ANY PORTION OF THE LAND LYING WITHIN THE RIGHT OF WAY OF AVENT FERRY ROAD (SR 1115) AND PINEY GROVE WILBON ROAD (SR 1101).* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENTS SHOWN HEREON.***

E-17 *17. ANY DISCREPANCY, CONFLICT, MATTERS REGARDING ACCESS, SHORTAGE IN AREA OR BOUNDARY LINES, ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OVERLAP, SETBACK, EASEMENT OR CLAIMS OF EASEMENT, RIPARIAN RIGHT, AND TITLE TO LAND WITHIN ROADS, WAYS, RAILROADS, WATERCOURSES, BURIAL GROUNDS, MARSHES, DREDGED OR FILLED AREAS OR LAND BELOW THE MEAN HIGHWATER MARK OR WITHIN THE BOUNDS OF ANY ADJOINING BODY OF WATER, OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY A CURRENT INSPECTION AND ACCURATE AND COMPLETE LAND SURVEY OF THE LAND.* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENTS SHOWN HEREON.***

THE FOLLOWING EXCEPTIONS APPLY TO FEE TRACT #1:

E-18 *18. DEED OF EASEMENT FOR WATER LINE PURPOSES IN FAVOR OF THE TOWN OF HOLLY SPRINGS RECORDED IN BOOK 8738, PAGE 1053.* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENTS SHOWN HEREON.***

E-19 *19. EASEMENT IN FAVOR OF CAROLINA POWER AND LIGHT COMPANY D/B/A PROGRESS ENERGY CAROLINAS, INC., RECORDED IN BOOK 11557, PAGE 706, BOOK 13609, PAGE 746 AND BOOK 14729, PAGE 1569.* ***GENERAL IN NATURE AND CANNOT BE GRAPHICALLY SHOWN.***

E-20 *20. EASEMENT FOR UTILITY LINE PURPOSES IN FAVOR OF THE TOWN OF HOLLY SPRINGS RECORDED IN BOOK 17042, PAGE 1891.* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENTS SHOWN HEREON***.

THE FOLLOWING EXCEPTIONS APPLY TO FEE TRACT #2 AND FEE TRACT #3:

E-21 *21. DEED OF EASEMENT FOR WATER LINE PURPOSES IN FAVOR OF THE TOWN OF HOLLY SPRINGS RECORDED IN BOOK 8738, PAGE 1055.* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENTS SHOWN HEREON.***

E-22 *22. EASEMENT FOR UTILITY AND DRAINAGE PURPOSES IN FAVOR OF THE TOWN OF HOLLY SPRINGS RECORDED IN BOOK 17042, PAGE 1884.* ***AFFECTS THE SUBJECT PROPERTY TO THE EXTENTS SHOWN HEREON.***

EXHIBIT "A" LEGAL DESCRIPTION

EXHIBIT "A"
LEGAL DESCRIPTION
LYING AND BEING SITUATE IN WAKE COUNTY, NORTH CAROLINA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FEE TRACT #1
BEING THAT CERTAIN LOT OR PARCEL OF LAND LYING IN THE TOWN OF HOLLY SPRINGS, WAKE COUNTY, NORTH CAROLINA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEING ALL OF TRACT 1, CONTAINING 3.00 ACRES, AS SHOWN ON MAP ENTITLED "FINAL PLAT MINOR SUBDIVISION FOR FOR MICHAEL WILLIAM CARROLL AND MARY JOE PENDLETON CARROLL" AS RECORDED IN BOOK OF MAPS 1994, PAGE 448, WAKE COUNTY REGISTRY, REFERENCE TO WHICH IS HEREBY MADE FOR GREATER CERTAINTY OF DESCRIPTION.

LESS AND EXCEPT THAT PORTION CONVEYED TO THE TOWN OF HOLLY SPRINGS BY NORTH CAROLINA GENERAL WARRANTY DEED FOR HIGHWAY RIGHT OF WAY RECORDED IN BOOK 12029, PAGE 758, WAKE COUNTY REGISTRY.

LESS AND EXCEPT THAT PORTION CONVEYED TO GOODWILL COMMUNITY FOUNDATIO, INC., A NORTH CAROLINA NON-PROFIT CORPORATION, BY GENERAL WARRANTY DEED RECORDED IN BOOK 14000, PAGE 2758, WAKE COUNTY REGISTRY.

LESS AND EXCEPT THAT PORTION CONVEYED TO THE TOWN OF HOLLY SPRINGS BY GENERAL WARRANTY DEED FOR STREET RIGHT OF WAY RECORDED IN BOOK 17042, PAGE 1888, WAKE COUNTY REGISTRY.

FEE TRACT #2
BEING THAT CERTAIN LOT OR PARCEL OF LAND LYING IN THE TOWN OF HOLLY SPRINGS, WAKE COUNTY, NORTH CAROLINA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEING ALL OF LOT 2A, CONTAINING 3.01 ACRES, AS SHOWN ON MAP ENTITLED "BOUNDARY SURVEY & PLAT FOR MICHAEL WILLIAM CARROLL AND MARY JOE PENDLETON CARROLL" DATED MARCH 25, 1994, AND RECORDED IN BOOK OF MAPS 1996, PAGE 1059, WAKE COUNTY REGISTRY, REFERENCE TO WHICH IS HEREBY MADE FOR GREATER CERTAINTY OF DESCRIPTION.

LESS AND EXCEPT THAT PORTION CONVEYED TO THE TOWN OF HOLLY SPRINGS BY NORTH CAROLINA GENERAL WARRANTY DEED FOR HIGHWAY RIGHT OF WAY RECORDED IN BOOK 12029, PAGE 758, WAKE COUNTY REGISTRY.

LESS AND EXCEPT THAT PORTION CONVEYED TO THE TOWN OF HOLLY SPRINGS BY GENERAL WARRANTY DEED FOR STREET RIGHT OF WAY RECORDED IN BOOK 17042, PAGE 1880, WAKE COUNTY REGISTRY.

FEE TRACT #3
TOGETHER WITH THAT CERTAIN LOT OR PARCEL OF LAND LYING IN THE TOWN OF HOLLY SPRINGS, WAKE COUNTY, NORTH CAROLINA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE SOUTHERN R/W OF AVENT FERRY ROAD (SR 1115), SAID POINT BEING THE INTERSECTION OF SAID R/W AND THE OLD R/W OF PINEY GROVE WILBON ROAD (SR 1101) AS SHOWN ON A MAP ENTITLED "RIGHT OF WAY/EASEMENT ACQUISITION PLAT" BY WK DICKSON AND RECORDED IN BOOK OF MAPS 2006 PAGE 1976 WAKE COUNTY REGISTRY, SAID POINT ALSO BEING THE NORTHWEST CORNER OF A CERTAIN TRACT NOW ORFORMERLY OWNED BY MICHAEL W. CARROLL AND MARY JO CARROLL AS RECORDED IN DEED BOOK 7076 PAGE 551 WAKE COUNTY REGISTRY, PROCEEDING THENCE WITH THE OLD R/W OF PINEY GROVE WILBON ROAD (SR 1101) S 21°01'45" E 347.76' TO A POINT IN THE SOUTHERN LINE OF THE ABOVE REFERENCED DEED, THENCE WITH SAID LINE S 44°19'45" W 20.64' TO A POINT IN THE NEW R/W OF PINEY GROVE WILBON ROAD (SR 1101), PROCEEDING THENCE WITH SAID R/W ALONG A CURVE TO THE LEFT 41.11', SAID CURVE HAVING A RADIUS OF 964.00' AND A CHORD OF N 36°53'56" W 41.11', THENCE CONTINUING WITH SAID R/W ALONG ANOTHER CURVE TO THE LEFT 88.89', SAID CURVE HAVING A RADIUS OF 964.00' AND A CHORD OF N 40°45'43" W 88.85', THENCE CONTINUING WITH SAID R/W ALONG ANOTHER CURVE TO THE LEFT 92.56' SAID CURVE HAVING A RADIUS OF 964.00' AND A CHORD OF N 46°09'15" W 92.53', THENCE WITH SAID R/W N 48°54'17" W 60.66' AND N 03°54'17" W 35.35' TO A POINT IN THE SOUTHERN R/W OF AVENT FERRY ROAD (SR 1115), PROCEEDING THENCE WITH SAID R/W N 41°05'43" E 132.63' TO THE POINT AND PLACE OF BEGINNING.

EASEMENT TRACT
TOGETHER WITH THE RIGHTS, PRIVILEGES, AND EASEMENTS SET FORTH IN THAT CERTAIN DECLARATION OF EASEMENT, CROSS ACCESS AND MAINTENANCE AGREEMENT RECORDED IN BOOK 14000, PAGE 2752, WAKE COUNTY REGISTRY.

AS-SURVEYED LEGAL DESCRIPTION

BEING ALL THAT PARCEL OF LAND LOCATED IN THE HOLLY SPRINGS TOWNSHIP, WAKE COUNTY, NORTH CAROLINA AS RECORDED IN DEED BOOK 7076, PAGE 551, MAP BOOK 1996, PAGE 1059 AND MAP BOOK 2020, PAGE 843 (PIN: 0648-67-8608); DEED BOOK 17042, PAGE 1880 (PIN: 0648-77-5575) OF THE WAKE COUNTY REGISTER OF DEEDS BEING BOUND BY THE EASTERLY RIGHT OF WAY MARGIN OF RALPH STEPHENS ROAD (S.R. #1114) ALONG WITH THE SOUTHERLY RIGHT OF WAY MARGIN OF AVENT FERRY ROAD (S.R. #1115) AND ADJOINING THE LANDS OF GOODWILL INDUSTRIES OF NORTH CAROLINA, INC. (PIN: 0648-77-1966) AS RECORDED IN DEED BOOK 18701, PAGE 297, MAP BOOK 2010, PAGE 501AND Q STEPHENS FARM HOLDINGS, LLC. (PIN: 0648-77-0477) AS RECORDED IN DEED BOOK 18988, PAGE 2474, MAP BOOK 2022, PAGE 564 AND BEING MORE PARTICULAR DESCRIBED AS FOLLOWS:

BEGINNING AT AN EXISTING 1 /2" REBAR HAVING NORTH CAROLINA STATE PLANE COORDINATES OF N: 687761.564' E: 2047203.226' (NAD83/2011), BEING THE SOUTHERN MOST CORNER OF THE AFOREMENTIONED GOODWILL INDUSTRIES OF NORTH CAROLINA, INC. PROPERTY, SAID REBAR ALSO LYING IN THE ADJOINING LINE OF THE AFOREMENTIONED Q STEPHENS FARM HOLDINGS, LLC., AND RUNS THENCE WITH SAID LINE SOUTH 44° 18' 01" WEST, FOR A DISTANCE OF 569.62 FEET TO A CONCRETE NAIL SET IN THE EASTERLY MARGIN OF RALPH STEPHENS ROAD.

THENCE WITH THE AFORESAID RIGHT OF WAY FOR THE FOLLOWING SIX (6) CALLS: (1) ALONG A CIRCULAR CURVE TO THE LEFT HAVING A RADIUS OF 981.00 FEET, AN ARC LENGTH OF 22.57 FEET, AND A CHORD BEARING AND DISTANCE OF NORTH 36° 38' 09" WEST 22.57 FEET TO A CONCRETE NAIL SET; (2) ALONG A CIRCULAR CURVE TO THE LEFT HAVING A RADIUS OF 981.00 FEET, AN ARC LENGTH OF 38.36 FEET, AND A CHORD BEARING AND DISTANCE OF NORTH 38° 24' 54" WEST 38.36 FEET TO A CONCRETE NAIL SET; (3) ALONG A CIRCULAR CURVE TO THE LEFT HAVING A RADIUS OF 981.00 FEET, AN ARC LENGTH OF 151.24 FEET, AND A CHORD BEARING AND DISTANCE OF NORTH 43° 57' 06" WEST 151.09 FEET TO A CONCRETE NAIL SET; (4) NORTH 48° 22' 06" WEST FOR A DISTANCE OF 44.33 FEET TO A CONCRETE NAIL SET; (5) NORTH 41° 01' 47" EAST FOR A DISTANCE OF 12.18 FEET TO A 1/2" NEW IRON REBAR; (6) NORTH 30° 31' 10" WEST FOR A DISTANCE OF 55.47 FEET TO A 1/2" NEW IRON REBAR IN THE RIGHT OF WAY MARGIN OF THE AFOREMENTIONED AVENT FERRY ROAD.

THENCE WITH THE SOUTHERLY RIGHT OF WAY MARGIN OF AVENT FERRY ROAD FOR THE FOLLOWING FOUR (4) CALLS: (1) NORTH 41° 04' 33" EAST FOR A DISTANCE OF 373.11 FEET TO A 1/2" NEW IRON REBAR; (2) ALONG A CIRCULAR CURVE TO THE RIGHT HAVING A RADIUS OF 4896.00 FEET, AN ARC LENGTH OF 49.88 FEET, AND A CHORD BEARING AND DISTANCE OF NORTH 41° 21' 50" EAST 49.87 FEET TO A 1/2" NEW IRON REBAR; (3) NORTH 58° 53' 46" EAST FOR A DISTANCE OF 77.38 FEET TO AN EXISTING 1 /2" REBAR; (4) NORTH 43° 53' 21" EAST FOR A DISTANCE OF 34.14 FEET TO AN EXISTING PK NAIL FOUND, BEING THE NORTH WESTERN MOST PROPERTY CORNER OF THE AFORESAID GOODWILL INDUSTRIES OF NORTH CAROLINA, INC.

THENCE WITH SAID CORNER AND LEAVING THE RIGHT OF WAY MARGIN OF AVENT FERRY ROAD, SOUTH 45° 48' 45" EAST FOR A DISTANCE OF 314.16 FEET TO AN EXISTING 1 /2" REBAR BEING THE POINT AND PLACE OF BEGINNING.

THE PARCEL AS DESCRIBED CONTAINS 4.092 ACRES, MORE OR LESS. ALL AS SHOWN ON THAT CERTAIN ALTA/NSPS SURVEY PREPARED BY EAGLE ENGINEERING, INC, (RUSSELL L. WHITEHURST, PLS) DATED JUNE 27TH, 2024, BEING LAST REVISED ON 08/09/2024.

BEING THE SAME VESTING PROPERTIES AS OUTLINED IN TITLE COMMITMENT NUMBER 24-07402WS, (REVISION TWO 08/08/2024) FROM TITLE COMMITMENT DATED MAY 23, 2024 PROVIDED BY CHICAGO TITLE INSURANCE COMPANY.

TOGETHER WITH THE RIGHTS, PRIVILEGES, AND EASEMENTS SET FORTH IN THAT CERTAIN DECLARATION OF EASEMENT, CROSS ACCESS, AND MAINTENANCE AGREEMENT RECORDED IN BOOK 14000, PAGE 2752, WAKE COUNTY REGISTRY.

EAGLE ENGINEERING
FIRM LICENSE # C-0873
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INDIAN TRAIL, NC 28079
(704) 882-4222
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NORTH CAROLINA PROFESSIONAL SEAL L-3661 LAND SURVEYOR RUSSELL L. WHITEHURST
01/08/2026

NO.	DATE	BY	ISSUE
1	08-09-2024	RMC	ADDRESS ATTORNEY COMMENTS
2	08-11-2025	ATZ	ADD TREE SURVEY DATA
3	11-18-2025	RMC	ADDRESS TOWN OF HOLLY SPRINGS COMMENTS, ADD SURVEYED LEGAL
4	01-08-2026	JDM	REVISED PER TOWN OF HOLLY SPRINGS COMMENTS

PROPERTY OF: MICHAEL WILLIAM CARROLL AND WIFE, MARY JOE PENDLETON CARROLL
HOLLY SPRINGS TOWNSHIP, WAKE COUNTY, NC

CERTIFY TO:
SXCW PROPERTIES II, LLC
MICHAEL WILLIAM CARROLL AND WIFE, MARY JOE PENDLETON CARROLL
CHICAGO TITLE INSURANCE COMPANY

ALTA/NSPS SURVEY
4.092 ACRES (TOTAL)

DESIGNED BY	DRAWN BY	CHECKED BY
N/A	RMC	RLW
Scale	DATE	JOB NUMBER
1" = 40'	06272024	8337

Sheet
C-1.1

VICINITY MAP

1" = 500'

NOTE:

THE PLANNED CROSS SECTIONS FOR BOTH AVENT FERRY ROAD AND RALPH STEVENS ROAD EXIST CURRENTLY AND WILL NOT REQUIRE ADDITIONAL ROAD WIDENING.

0.75% OF THE TOTAL AREA (0.031 AC, OR 1,353 SQ FT) SHALL BE DEDICATED AS OPEN SPACE TO PUBLIC USE IN THE FORM OF A URBAN CIVIC SPACE CONSISTING OF SIDEWALKS, PLANTERS, PUBLIC ART, AND STAMPED CONCRETE/PAVERS LOCATED AT THE NORTH EASTERN CORNER OF THE SITE.

1.5% OF THE TOTAL AREA (0.061 AC, OR 2,676 SQ FT) SHALL BE DEDICATED AS FLEXIBLE SPACE TO PUBLIC USE IN THE FORM OF ADDITIONAL TREE PRESERVATION AREA

17.8% OF THE TOTAL AREA (0.73 AC, OR 31,761 SQ FT) SHALL BE DEDICATED AS TREE PRESERVATION SPACE IN THE FORM OF UNDISTURBED VEGETATION LOCATED ON THE SOUTH SIDE OF THE PROPERTY MOSTLY WITHIN THE RIPARIAN ZONE 1 BUFFER. THIS NUMBER INCLUDES THE FLEXIBLE SPACE OF 2,676 SQ FT

A DEED OF EASEMENT FOR VEHICULAR AND PEDESTRIAN ACCESS SHALL BE EXECUTED BETWEEN PROPERTY OWNERS AT THE TIME OF PLAT.

SITE AND DEVELOPMENT DATA

JURISDICTION	HOLLY SPRINGS
TAX PARCEL(S):	0648679608, 0648676575
REAL ESTATE ID NUMBER(S):	0174459, 0499903
SITE ADDRESS:	975 AVENT FERRY RD
ZONING	NMX
TOTAL SITE AREA	177,226 SQ FT / 4.07 AC
TOTAL PROPOSED LOTS	2 LOTS
PROPOSED LOT 1	102,322 SQ FT/ 2.35 AC
PROPOSED LOT 2	74,904 SQ FT / 1.72 AC
MINIMUM FRONT SETBACK	25 FT (THOROUGHFARE)
MINIMUM CORNER/SIDE SETBACK	5 FT, 0 FT INTERNAL
MINIMUM SETBACK (RALPH STEPHENS RD)	25 FT (THOROUGHFARE)
MINIMUM REAR SETBACK	20 FT
OPEN SPACE REQUIREMENTS (TOTAL)	
OPEN SPACE (TREE PRESERVATION)	10% (17,826 SQ FT/ 0.41 AC)
URBAN CIVIC SPACE	0.75% (1,338 SQ FT/ 0.03 AC)
FLEXIBLE SPACE	1.5% (2,676 SQ FT/ 0.06 AC)
OPEN SPACE PROVIDED (TOTAL)	
OPEN SPACE (TREE PRESERVATION)	17.8% (31,761 SQ FT/ 0.73 AC)
URBAN CIVIC SPACE	0.75% (1,353 SQ FT/ 0.03 AC)
FLEXIBLE SPACE (AS TREE PRESERVATION)	1.5% (2,676 SQ FT/ 0.06 AC)
SDT: PUBLIC REALM OPTION #9:	INCREASE IN URBAN CIVIC SPACE BY 50%

PROPOSED OPEN SPACE = 1,353 SQ FT TOTAL TO BE DEDICATED FOR PUBLIC USE. CONSISTING OF PUBLIC ART AND PLANTERS, STAMPED CONCRETE/PAVERS, SIDEWALKS, AND LANDSCAPING ELEMENTS.

PUBLIC ART. EXACT ITEM TO BE DETERMINED PRIOR TO PLAN APPROVAL

PAVERS/ STAMPED CONCRETE

AVENT FERRY RD
(S.R. #1115)
VARIABLE WIDTH PUBLIC ROW

18' X 385' SIGHT TRIANGLE
(AS PER TABLE 3.2, PS=35, RT TURN)

18' X 305' SIGHT TRIANGLE
(AS PER TABLE 3.3, PS=35)
(TRAFFIC SIGNAL CONTROL)

18' X 223' SIGHT TRIANGLE
(MAX DISTANCE TO INTERSECTION)

105' ROW

29' B-B

31.47' CL TO CL
46' MIN ROW TO ROW

198.21'
N41°04'33"E

10' THOROUGHFARE LANDSCAPE BUFFER

174.90'
N41°04'33"E

Ch=49.87 N41°21'50"E
L=49.88 R=4956.00

77.38'
N58°53'46"E

34.14'
N43°53'21"E

PROPOSED 5' SIDEWALK
(4" THICK AND 3,000 PSI)

PLANTERS (TYP)

25' THOROUGHFARE SETBACK

LAYOUT FOR LOT #2 IS FOR DEMONSTRATION PURPOSES ONLY AND IS SUBJECT TO ALL UDO STANDARDS AT THE TIME OF DEVELOPMENT PLAN

60'

COMMERCIAL BUILDING FOR DEMONSTRATION ONLY
(3,000 SQ FT)

50'

N48°54'46"W
110.19'

PROPOSED LAYOUT FOR LOT #1 IS FOR DEMONSTRATION PURPOSES ONLY AND IS SUBJECT TO ALL UDO/STANDARDS AT THE TIME OF THE DEVELOPMENT PLAN

PERMANENT UTILITY EASEMENT
DB. 17042, PG. 1891

20' PUBLIC UTILITY EASEMENT
BM. 2011, PG. 119

29.58' +/- PUBLIC UTILITY EASEMENT
BM. 2011, PG. 119

5' SIDE SETBACK

PIN: 0648-77-1966
OWNER: GOODWILL INDUSTRIES OF EASTERN NORTH CAROLINA, INC
ZONE: CB

EX 65' B-B

46.46' CL TO ROW

N41°01'47"E
8.18'

EXISTING 30' WATERLINE EASEMENT

RALPH STEPHENS RD
(S.R. #1114)
VARIABLE WIDTH PUBLIC ROW

N48°22'06"W
44.39'

3 SPACES

3 SPACES

EXISTING 15' UTILITY EASEMENT

S78°40'24"E
20.10'

19.33'

N48°54'55"W

PROP. 25' UTILITY EASEMENT

5' TYPE A LANDSCAPE BUFFER

10' THOROUGHFARE LANDSCAPE BUFFER

EXISITING 23' PUBLIC DRAINAGE EASEMENT

18' X 161' SIGHT TRIANGLE
(MAX DISTANCE TO INTERSECTION)

LOT : 2
74,904 sq ft
1.72 ac

LOT : 1
102,322 sq ft
2.35 ac

5' TYPE A LANDSCAPE BUFFER

5' TYPE A LANDSCAPE BUFFER

15' X 250' SIGHT TRIANGLE
(MAX DISTANCE TO INTERSECTION)

S47°53'43"E
314.16'

40' CROSS ACCESS EASEMENT

25' B-B

DEVELOPABLE AREA FOR LOT 2
31,135 ST FT OR 0,71 AC

PROPOSED 5' SIDEWALK
(4" THICK AND 3,000 PSI)

Ch=211.93 N42°11'33"W
L=212.34 R=865.00

180.53'
N45°54'55"W

PROP. 28' ACCESS EASEMENT

20' ZONE NRB 2 RIPARIAN BUFFER

20' HOLDSTEIN EASEMENT
BM. 2011, PG. 119

PROPOSED SIGHT TRIANGLE EASEMENT

NCG "EYSTER"
N: 691,896.02'
E: 2,049,454.43'
CGF = 0.9998805

18' X 385' SIGHT TRIANGLE
(AS PER TABLE 3.2, PS=35)
(DEPARTURE DISTANCE)

PROPOSED ACCESS ROAD
SEE DETAIL ON THIS SHEET

SSMH
RIM 41

EXISTING ACCESS RD
(PRIVATE)

EXISTING TOP OF STREAM BANK

30' ZONE NRB 1 RIPARIAN BUFFER

TREE PRESERVATION AREA
31,761 SQ. FT., OR 0.73 AC.

20' PRIVATE DRAINAGE EASEMENT
BM. 2011, PG. 119

20' REAR SETBACK

20' TYPE C LANDSCAPE BUFFER

S44°18'01"W
265.59'

S44°18'01"W
299.97'

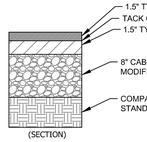
N28° 43' 35"E
4686.04 GROUND DISTANCE (NTS)

POB - 1/2" EIR
N:687761.56
E:2047203.23
(NAD 83/2011)

PIN: 0648-77-0447
OWNER: Q STEPHENS FARM HOLDINGS LLC
ZONE: NCR CD

12" PINE
30" PINE
38" PINE

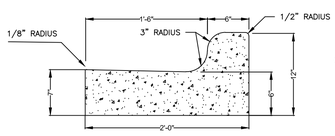
* PAVEMENT SECTIONS SHOWN ARE A STANDARD PAVEMENT SECTION. REFER TO GEOTECHNICAL INVESTIGATION REPORT FOR SPECIFIC PAVEMENT SECTION BASED ON SOIL CONDITIONS.



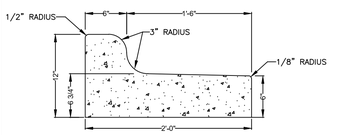
(SECTION)

ACCESS ROAD ASPHALT PAVEMENT DETAIL*

(NTS)



STANDARD 2'–0" CURB AND GUTTER

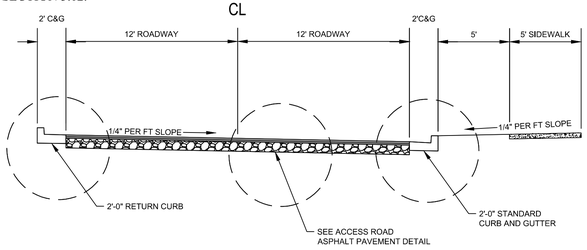


2'–0" RETURN CURB

ALL ROADWAYS WILL BE REQUIRED TO MEET ALL SPECIAL DESIGN REQUIREMENTS AS OUTLINED IN THE ENGINEERING DESIGN AND CONSTRUCTION STANDARDS SECTION 3.02.

MINIMUM PAVEMENT DESIGN

1-1/2" 9.5C
1-1/2" 9.5C
8" A.B.C.
STAGE CONSTRUCTION FOR SURFACE AT TWO LIFTS SO PROPER TAPER OCCURS AT TRANSITION.



SUPER ELEVATED PRIVATE ACCESS ROAD
(NOT TO SCALE)

PRELIMINARY
NOT FOR CONSTRUCTION

GRAPHIC SCALE
0 30' 60'
(IN FEET)
1 inch = 30 ft.

EAGLE ENGINEERING
FIRM LICENSE # C-0873
2013A VAN BUREN AVE.
INDIAN TRAIL, NC 28079
(704) 882-4222
www.eagleonline.net

NORTH CAROLINA PROFESSIONAL SEAL 045509 ENGINEER MATTHEW C KIRCHNER 01/08/2026

NO.	DATE	BY	ISSUE
1	09/04/2025	DAM	ADDRESSED HOLLY SPRINGS COMMENTS
2	11/24/2025	DAM	ADDRESSED HOLLY SPRINGS COMMENTS
3	01/08/2026	DAM	ADDRESSED HOLLY SPRINGS COMMENTS

Sam's Xpress CAR WASH

CARROLL CROSSING
975 AVENT FERRY RD
HOLLY SPRINGS, NC

SAM'S XPRESS CAR WASH
7935 COUNCIL PLACE, SUITE 200
MATTHEWS, NC 28105

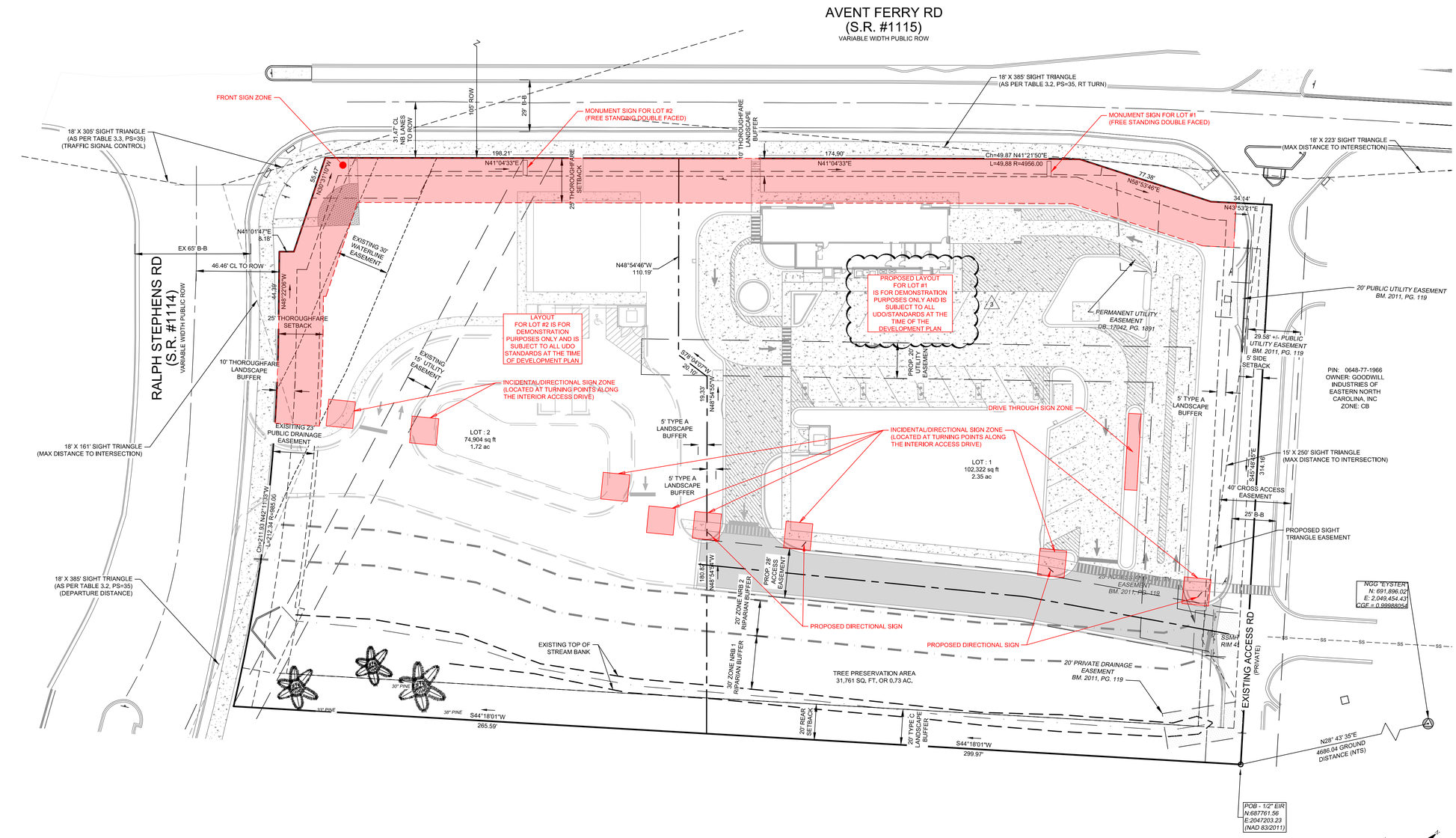
CONCEPTUAL SITE PLAN

DESIGNED BY	DAM	CHECKED BY	JLR
DRAWN BY	DAM	JOB NUMBER	8337
SCALE	AS SHOWN	DATE	06/09/2025

Sheet
MAS–2.0

FREE STANDING SIGN TABLE	
SIGN TYPE	MAX NUMBER
FREESTANDING (OUT LOT, DOUBLE SIDED)	1 PER OUT LOT
FREESTANDING (OUT LOT, SINGLE SIDED)	2 PER OUT LOT
INCIDENTAL	1 PER INCIDENTAL SIGN ZONE
DIRECTIONAL	1 PER DIRECTIONAL SIGN ZONE

SIGNAGE NOTES:
1. THE AREA OF THE SIGNS SHALL MEET THE SEPARATION AND AREA REQUIREMENTS OF THE UDO.
2. ALL SIGNAGE SHALL BE CONSISTENT IN TERMS OF MATERIALS, FONT, AND COLORS USED.



PRELIMINARY
NOT FOR CONSTRUCTION

GRAPHIC SCALE
0 30' 60'
(IN FEET)
1 inch = 30 ft.

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Sam's Xpress CAR WASH

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975 AVENT FERRY RD
HOLLY SPRINGS, NC

SAM'S XPRESS CAR WASH
7935 COUNCIL PLACE, SUITE 200
MATTHEWS, NC 28105

CONCEPTUAL SIGN PLAN

DESIGNED BY	DRAWN BY	CHECKED BY
DAM	DAM	JLR
SCALE	DATE	JOB NUMBER
AS SHOWN	06/09/2025	8337

Sheet
MAS–2.1

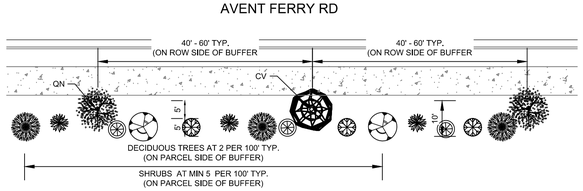
PLANT SCHEDULE

CODE	COMMON NAME	BOTANICAL NAME	QTY.	%	CALIPER	HEIGHT	SPREAD	COMMENTS
TREES								
QN	NUTTAL OAK	QUERCUS NUTTALLII	5	10%	2.5"	35'-50'	35'-45'	LARGE DECIDUOUS
CV	FRINGE TREE	CHIONANTHUS VIRGINICUS	5	10%	2.5"	35'-50'	12'-20'	MEDIUM DECIDUOUS
CC	EASTERN REDBUD	CERCIS CANADENSIS	12	24%	2.5"	20'-30'	25'-35'	MEDIUM DECIDUOUS
LI	CRAPE MYRTLE	LAGESTROEMIA INDICA	11	22%	2.5"	25'	20'	MEDIUM DECIDUOUS
AS	SUGAR MAPLE	ACER SACCHARUM	12	24%	2.5"	25'	20'	MEDIUM DECIDUOUS
CF	DOGWOOD	CORNUS FLORIDA	3	6%	2.5"	25'	15'-30'	MEDIUM DECIDUOUS
QS	SHUMARD OAK	QUERCUS SHUMARDII	2	4%	2.5"	50'	30'	LARGE DECIDUOUS
SHRUBS								
IV	DWARF YAUPON HOLLY	ILEX VOMITORIA 'NANA'	22	16.54%	---	24" MIN	24"	CONTAINER, DOUBLE PINK FLOWERS
ICC	CARISSA HOLLY	ILEX CORNUTA 'CARISSA'	22	16.54%	---	24" MIN	18"-24"	CONTAINER, MAGENTA FLOWERS
IG	SHAMROCK INKBERRY HOLLY	ILEX GLABRA 'INKBERRY'	23	17.29%	---	24" MIN	18"-24"	CONTAINER, MAGENTA FLOWERS
AM	AUTUMN MOONLIGHT ENCORE AZALEA	AZALEA x 'MOOTUM' TM	22	16.54%	---	24" MIN	18"-24"	CONTAINER, MAGENTA FLOWERS
IC	DWARF BUFORD HOLLY	ILEX CORNUTA 'BUFORDII NANA'	22	16.54%	---	24" MIN	18"-24"	CONTAINER
MP	DWARF WAX MYRTLE	MYRICA PUSILLA	22	16.54%	---	24" MIN	18"-24"	CONTAINER, YELLOW FLOWERS

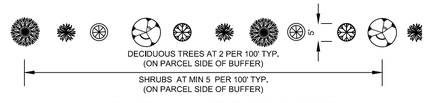
PROPOSED TREE PRESERVATION AREA (31,761 SF. / 0.73 AC.)

LANDSCAPE NOTES:
1. ANY BUFFERS TO BE COMPRISED OF EXISTING VEGETATION SHALL BE SUPPLEMENTED AS NECCESSARY TO MEET THE MINIMUM STANDARDS OF THE UDO.
2. ALL LANDSCAPING COMMON THROUGHOUT THE PROJECT (PERIMETER BUFFERS AND STREET TREES) MUST BE INSTALLED AT TIME OF FIRST DEVELOPMENT PLAN

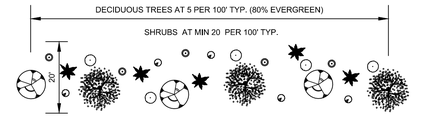
3



THOROUGHFARE LANDSCAPE BUFFER
SCALE: 1" = 20'



TYPE A LANDSCAPE BUFFER
SCALE: 1" = 20'



TYPE C LANDSCAPE BUFFER
SCALE: 1" = 20'

SEEDING SCHEDULE

FOR SHOULDERS, SIDE DITCHES & SLOPES (MAX 2:1)

DATE	TYPE	PLANTING RATE
AUG 15-NOV1	TALL FESCUE	300 #/AC
NOV 1-MAR 1	TALL FESCUE	300 #/AC
	AND ABRUZZI RYE	25 #/AC
MAR 1-APR 15	TALL FESCUE	300 #/AC
APR 15-JUN 30	HULLED COMMON BERMUDA GRASS	25 #/AC
JUL 15-AUG 15	TALL FESCUE	120 #/AC
	AND BROWNTOP MILLET	35 #/AC
	OR SORGHUM-SUDAN HYBRIDS	30 #/AC

FOR SLOPES (3:1 TO 2:1)

MAR1-JUN1	TALL FESCUE	50#/AC
(MAR 1-JUNE 30)	OR ADD WEEPING LOVEGRASS	10 #/AC
(MAR 1-JUNE 30)	OR ADD HULLED COMMON BERMUDA GRASS	25 #/AC
JUN 1-SEPT 1	***TALL FESCUE AND	120 #/AC
	***BROWNTOP MILLET	35 #/AC
	***OR SORGHUM-SUDAN HYBRIDS	30 #/AC
SEPT 1-MAR 1	TALL FESCUE	120 #/AC
(NOV 1-MAR 1)	ADD ABRUZZI RYE	25 #/AC

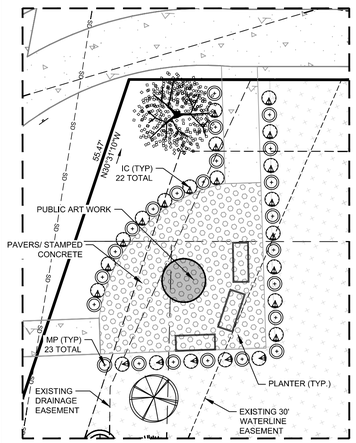
CONSULT CONSERVATION ENGINEER OR SCS FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS: OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

***TEMPORARY-RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING. OTHERWISE FESCUE MAY BE SHADED OUT.

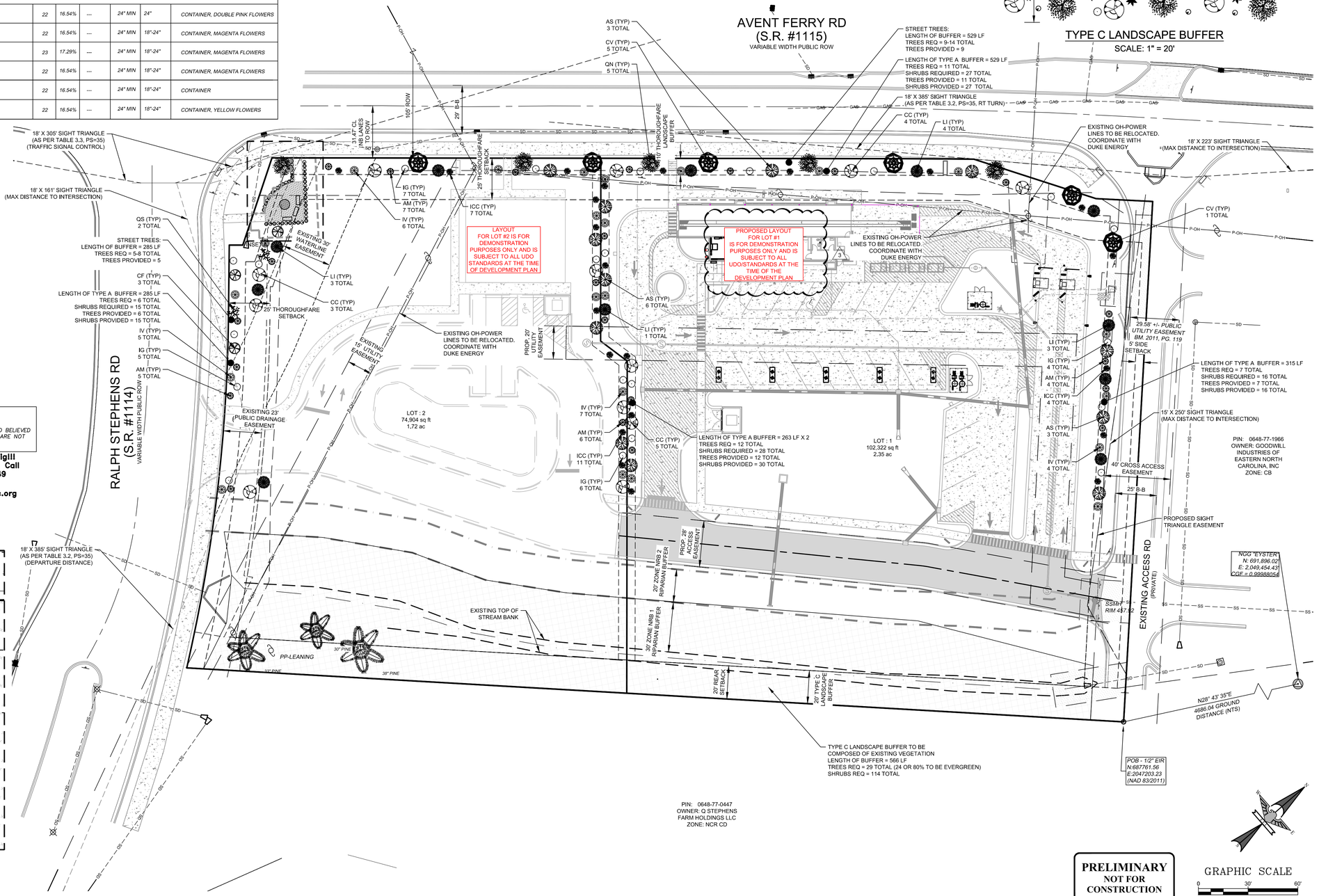
QUANTITIES

QUANTITIES SHOWN IN LIST ARE FOR THE CONVENIENCE OF CONTRACTORS AND BELIEVED TO BE SUBSTANTIALLY CORRECT, BUT THE ACCURACY OF QUANTITIES IN LIST ARE NOT GUARANTEED.

Call Before You Dig!!!
North Carolina One Call
1-800-632-4949
IT'S THE LAW
http://www2.ncocc.org



INSET A: URBAN CIVIC SPACE DETAIL
SCALE: 1" = 10'



PRELIMINARY
NOT FOR CONSTRUCTION

GRAPHIC SCALE
0 30' 60'
(IN FEET)
1 inch = 30 ft.

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NORTH CAROLINA PROFESSIONAL SEAL 045509 ENGINEER MATTHEW C KIRKPATRICK 01/08/2026

NO.	DATE	BY	ISSUE
1	09/04/2025	DAM	ADDRESSED HOLLY SPRINGS COMMENTS
2	11/24/2025	DAM	ADDRESSED HOLLY SPRINGS COMMENTS
3	01/08/2026	DAM	ADDRESSED HOLLY SPRINGS COMMENTS

Sam's Xpress Car Wash

CARROLL CROSSING
975 AVENT FERRY RD
HOLLY SPRINGS, NC

SAM'S XPRESS CAR WASH
7935 COUNCIL PLACE, SUITE 200
MATTHEWS, NC 28105

CONCEPTUAL LANDSCAPE PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	JOB NUMBER
DAM	DAM	JLR	8337
SCALE	DATE		
AS SHOWN	06/09/2025		

Sheet
MAS-3.0

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NORTH CAROLINA PROFESSIONAL
SEAL
045509
ENGINEER
MATTHEW C KIRCHNER
01/08/2026

NO.	DATE	BY	ISSUE
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HOLLY SPRINGS, NC

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CONCEPTUAL GRADING AND STORM DRAINAGE PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	JOB NUMBER
DAM	DAM	JLR	8337
SCALE	DATE		
AS SHOWN	06/09/2025		

Sheet
MAS-4.0

ARCHITECTURAL DESIGN STANDARDS AND ELEMENTS ACROSS MAJOR SUBDIVISION

- ALL BUILDINGS WITHIN THE MAJOR SUBDIVISION ARE TO BE CONSTRUCTED WITH MASONRY EXTERIOR FINISHES WITH A MEDIUM GRAY COLOR. THE BASE OF THE BUILDING AND ACCENT AREAS WILL BE CREAM BRICK COLOR. (SEE DETAILS ON THIS SHEET)
- ALL SCREENING WALLS AND ACCESSORY STRUCTURES SHALL BE CONSTRUCTED WITH MASONRY EXTERIOR FINISHES TO MATCH THE BUILDINGS
- ALL BUILDINGS WITHIN 50 FT OF THE AVENT FERRY ROAD SHALL HAVE AN ENTRANCE FACING THE ROAD AND SHALL HAVE SIDEWALK CONNECTIONS TO THE MAIN 8 FT SIDEWALK ALONG THE THOROUGHFARE
- ALL BUILDINGS SHALL HAVE ARCHITECTURAL DESIGN ELEMENTS TO PROVIDE VISUAL INTEREST INCLUDING THE FOLLOWING:
  - HORIZONTAL VARIATIONS TO DISTINGUISH THE BASE, MIDDLE, AND CAP OF EACH BUILDING
  - VERTICAL VARIATIONS TO PROJECTIONS OR RECESSES SPACED NO MORE THAN 50 FT APART
  - 60% OF THE PRIMARY BUILDING FAÇADE MUST BE CONSTRUCTED OF TYPE 1 MATERIALS
- ALL BOLLARDS ON SITE SHALL BE PAINTED BLACK

2

CAR WASH:
PEBBLE GRAY WIRE CUT BRICK IMAGE

CAR WASH:
CREAM BRICK IMAGE

ALTERNATE COLOR #1:
32 GRAY MODULAR WIRECUT

ALTERNATE COLOR #2:
301 BUFF MODULAR WIRECUT

ALTERNATE COLOR #3:
311 AUTUMN BLEND MODULAR WIRECUT

BRICK COLOR OPTIONS

CAR WASH:
RED TRELLIS & ACCENT BAND

CAR WASH:
LIGHT BEIGE-EIFS

ALTERNATE COLOR #4:
MEDIUM BEIGE-EIFS

CAR WASH:
METAL COPING

CAR WASH:
CLEAR ANODIZED ALUMINUM STOREFRONT

ALTERNATE COLOR #6:
DARK BEIGE-EIFS

ALTERNATE COLOR #5:
DARK MEDIUM BEIGE-EIFS

NOTE: ALL SUBMITTED ELEVATIONS ARE REQUIRED TO MEET THE UDO STANDARDS.

EIFS/ TYPE 2 MATERIALS
COLOR OPTIONS

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11/24/2025

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ARCHITECTURAL STANDARDS

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SCALE	DATE		
AS SHOWN	06/09/2025		

Sheet
MAS-6.0

X:\Land Projects R2\8337 - SXCW - Avent Ferry Rd, Holly Springs\DWG\Civil\Plans\8337 - Preliminary Subdivision Plan Set.dwg, 11/22/2025 6:56:47 PM

AVENT FERRY RD
(S.R. #1115)
VARIABLE WIDTH PUBLIC ROW

RALPH STEPHENS RD
(S.R. #1114)
VARIABLE WIDTH PUBLIC ROW

18' X 385' SIGHT TRIANGLE
(AS PER TABLE 3.2, PS=35, RT TURN)

18' X 223' SIGHT TRIANGLE
(MAX DISTANCE TO INTERSECTION)

18' X 305' SIGHT TRIANGLE
(AS PER TABLE 3.3, PS=35)
(TRAFFIC SIGNAL CONTROL)

18' X 161' SIGHT TRIANGLE
(MAX DISTANCE TO INTERSECTION)

18' X 385' SIGHT TRIANGLE
(AS PER TABLE 3.2, PS=35)
(DEPARTURE DISTANCE)

15' X 250' SIGHT TRIANGLE
(MAX DISTANCE TO INTERSECTION)

105' ROW
29' B-B
31.47' CL
45' HALF CL
TO ROW
EX 65' B-B
46.46' CL TO ROW
25' THOROUGHFARE SETBACK
5' SIDE SETBACK
40' CROSS ACCESS EASEMENT
25' B-B

198.21'
N41°04'33"E
174.90'
N41°04'33"E
Ch=49.87 N41°21'50"E
L=49.88 R=4956.00
77.38'
N58°53'46"E
34.14'
N43°53'21"E
55.42'
N05°31'10"W
N41°01'47"E
8.18'
44.39'
N48°22'06"W
N48°54'46"W
110.19'
180.82'
N48°54'54"W
19.33'
N48°54'55"W
S41°05'14"E
374.16'
N28° 43' 35"E
4686.04 GROUND
DISTANCE (NTS)
S44°18'01"W
265.59'
S44°18'01"W
299.97'
Ch=211.93 N42°11'33"W
L=212.34 R=865.00

EXISTING 8" WATER LINE
EXISTING OH-POWER LINES TO BE RELOCATED, COORDINATE WITH DUKE ENERGY
PROPOSED HYDRANT
20' PUBLIC UTILITY EASEMENT BM. 2011, PG. 119
PROPOSED COMMERCIAL BUILDING (FFE: 458.50)
COMMERCIAL BUILDING FOR DEMONSTRATION ONLY (3,000 SQ FT)
LAYOUT FOR LOT #2 IS FOR DEMONSTRATION PURPOSES ONLY AND IS SUBJECT TO ALL UDO STANDARDS AT THE TIME OF DEVELOPMENT PLAN
PROPOSED LAYOUT FOR LOT #1 IS FOR DEMONSTRATION PURPOSES ONLY AND IS SUBJECT TO ALL UDO/STANDARDS AT THE TIME OF THE DEVELOPMENT PLAN
PERMANENT UTILITY EASEMENT DB. 17042, PG. 991
PROPOSED SAN SEWER (TYP.)
240.00' of 8" PVC @ 0.40%
PROPOSED STORM SEWER (TYP.)
145.00' of 8" PVC @ 0.40%
30.00' of 8" PVC @ 0.40%
45.00' of 8" PVC @ 1.00%
SSMH-3
STA:4+35.66
RIM:457.34
INV IN:453.08
INV OUT:452.88
SSMH-4
STA:4+80.66
RIM:457.00
INV OUT:453.53
SSMH-2
STA:1+95.66
RIM:457.11
INV IN:451.92
INV IN:451.92
INV OUT:451.72
SSMH-1
STA:0+50.66
RIM:457.61
INV IN:451.14
INV OUT:450.94
EX-SSMH
STA:0+20.66
RIM:457.92
INV IN:450.82
PROPOSED SSMH
RIM 44
PROPOSED SANITARY SEWER CONNECTION TO EXISTING MANHOLE
PROPOSED SIGHT TRIANGLE EASEMENT
PROPOSED SERVICE
PROPOSED 20' PUBLIC UTILITY EASEMENT BM. 2011, PG. 119
PF 29.58' +/-
CE
PROP. 20' UTILITY EASEMENT
EXISTING 15' UTILITY EASEMENT
EXISITING 23' PUBLIC DRAINAGE EASEMENT
EXISTING 30' WATERLINE EASEMENT
PROP. 28' ACCESS EASEMENT
20' PRIVATE DRAINAGE EASEMENT BM. 2011, PG. 119
20' PUBLIC UTILITY EASEMENT BM. 2011, PG. 119
20' ZONE NRB 2 RIPARIAN BUFFER
30' ZONE NRB 1 RIPARIAN BUFFER
EXISTING TOP OF STREAM BANK
EXISTING OH-POWER LINES TO BE RELOCATED. COORDINATE WITH DUKE ENERGY
EXISTING ACCESS RD (PRIVATE)
PP-LEANING
30" PINE
32" PINE
38" PINE

LOT : 2
74,904 sq ft
1.72 ac

LOT : 1
102,322 sq ft
2.35 ac

PIN: 0648-77-1966
OWNER: GOODWILL INDUSTRIES OF EASTERN NORTH CAROLINA, INC
ZONE: CB

PIN: 0648-77-0447
OWNER: Q STEPHENS FARM HOLDINGS LLC
ZONE: NCR CD

NGS "EYSTER"
N: 691,896.02'
E: 2,049,454.43'
CGF = 0.9998054

POB - 1/2" EIR
N:687761.56
E:2047203.23
(NAD 83/2011)

PRELIMINARY
NOT FOR CONSTRUCTION

GRAPHIC SCALE
0 30' 60'
(IN FEET)
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01/08/2026

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CONCEPTUAL
UTILITY PLAN

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SCALE	DATE		
AS SHOWN	06/09/2025		

Sheet
MAS-5.0

X:\Land Projects R2\8337 - SXCW - Avent Ferry Rd, Holly Springs\DWG\Civil\Plans\8337 - Preliminary Subdivision Plan Set.dwg, 1/8/2026 12:10:19 PM

Holly Springs Planning Board

Planning Board Meeting Agenda Cover Sheet

Agenda Item#: 4.

New Business
Title: Town Council Official Action Overview
Strategic Priority Area: Growth Management & Economic Vitality
Staff Resource: Sean Ryan, Development Services

Action(s):

- Receive project updates.
  - Grigsby Avenue Residential Rezoning 25-REZ-07

Explanation:

Background:

Funding Source(s):

Attachment(s):
None

Holly Springs Planning Board

Planning Board Meeting Agenda Cover Sheet

Agenda Item#: 5.

New Business
Title: Committee Reports
Strategic Priority Area: Growth Management & Economic Vitality
Staff Resource: Sean Ryan, Development Services

Action(s):

- Receive updates from Planning Board representatives for:
  - Land Use Advisory Committee (LUAC)
  - Tree Advisory Committee (TAC)

Explanation:

- The Planning Board appoints members to represent the Board on various committees.

Background:

Funding Source(s):

Attachment(s):
None

Holly Springs Planning Board

Planning Board Meeting Agenda Cover Sheet

Agenda Item#: 6.

New Business
Title: Development Services Report
Strategic Priority Area: Growth Management & Economic Vitality
Staff Resource: Sean Ryan, Development Services

Action(s):

- Receive Development Services Department updates.

Explanation:

Background:

Funding Source(s):

Attachment(s):
None

Holly Springs Planning Board

Planning Board Meeting Agenda Cover Sheet

Agenda Item#: 7.

New Business
Title: Other Business
Strategic Priority Area: Growth Management & Economic Vitality
Staff Resource:

Action(s):
Receive Information

Explanation:
Development Services staff will provide an update to the Planning Board on current volume of traffic on Piney Grove Wilbon Rd. and proposed improvements that are planned associated with private development in the corridor area.

Background:
At the December 16th Town Council meeting, Development Services staff presented an update to Town Council regarding the development proposals and associated transportation improvements in the Piney Grove Wilbon corridor. Planning Board Chairman Rick Madoni has requested that staff provide this update to the Planning Board as well, which will occur under other business.

Funding Source(s):
NA

Attachment(s):
None

HOLLY SPRINGS
North Carolina

Planning Board
Sign-in for Public Comment

Meeting Date: January 27th, 2026

Note: Each speaker is asked to limit comments to **3 minutes or less** and the total comment period will be a maximum of 15 minutes. Citizens are asked to sign-in to speak prior to the start of the meeting. Please print clearly.

Name	Address, CSZ	Phone Number/E-Mail	Agenda Topic
Dawn Santoianni	209 River Ledge Dr. Holly Springs NC	919-638-0139 dawn.santoianni@gmail.com	Mira Ridge
Wendy Lynn Stys Popolo	324 Silent Bend Drive	973-997-1556	Mira Ridge
Fran Hudson	5524 Rex Rd.	919-600-0212	Mira Ridge