



Mayor

M. Andy Moore

Mayor Pro-Tem

Sloan Stevens

Council Members

Dr. Gettys Cohen, Jr.

Travis Scott

Doris L. Wallace

Stephen Rabil

Roger Wood

John A. Dunn

Town Attorney

Robert Spence, Jr.

Town Manager

Michael L. Scott

Assistant Town Manager

Kim Pickett

Finance Director

Andrew Harris

Town Clerk

Elaine Andrews

# Town Council Agenda Packet

Meeting Date: Tuesday, December 16, 2025

Meeting Time: 7:00 p.m.

Meeting Place: Town Hall Council Chambers

350 East Market Street

Smithfield, NC 27577







**TOWN OF SMITHFIELD  
TOWN COUNCIL AGENDA  
REGULAR MEETING  
December 16, 2025  
7:00 PM**

**Call to Order**

**Invocation**

**Pledge of Allegiance**

**Approval of Agenda**

**Page**

**Presentations:**

- 1. Appearance Commission Annual Report:** In accordance with Section 2-240 (6) of the Town's Administrative Code of Ordinances, former Appearance Commission Vice-Chair Member, Emery Ashley, Jr. along with the Board Chairperson Kaitlyn Tarley will present the Appearance Commission's Annual written report of activities.  
(Kaitlyn Tarley – Chairperson) See attached information.....1
- 2. Boys and Girls Club:** The Boys and Girl's Club of Johnston County would like to propose joint use at the Sarah Yard Community Center.  
(Assistant Town Manager – Kim Pickett) See attached information.....9

**Public Hearings:**

- 1. RZ-25-04 – Rezoning requested East Side of US 70 Business West across from the Finley Landing Subdivision:** Chris Johnson is requesting the rezoning of 4.89 acres of land located on the East side of US 70 Business West across from the Finley Landing Subdivision and west of the Amazon facility. Entranceway Business (B-3) and Residential-Agriculture (R-20A) to LI - (Light Industrial).  
(Planning Director – Stephen Wensman) See attached information.....21
- 2. S-25-05 – Waddell Drive Townhomes Subdivision Preliminary Plat Approval:** BRL Engineering and Surveying is requesting the preliminary plat of approximately 1.63 acres of land located at 37 and 41 Waddell Drive, about 250 ft north of the N Brightleaf Blvd and Waddell Drive intersection, into a 16-lot attached single-family residential (townhome) development.  
(Planning Director – Stephen Wensman) See attached information.....35

**Citizens Comments:**

**Consent Agenda Items:**

- 1. Approval of Minutes**
  - a. November 18, 2025 – Regular Session.....62
  - b. December 2, 2025 – Regular Session.....75
- 2. Career Ladder Promotion request:** In keeping with stated Town goals of retaining highly qualified employees, in 2016 the Town Council approved a career ladder within the Water Plant for employees to advance their career and become a more highly valued employee. Staff respectfully requests the Town Council consider the career ladder promotion for one employee from Water Plant Operator II to Water Plant Operator III. (Shannan Parrish – Human Resources Director).....82
- 3. Consideration and request for approval of a Budget Amendment:** The Finance Department respectfully requests approval of budget amendments. Staff recommends that the Town Council approve the attached amendments as presented. (Finance Director – Andrew Harris) See attached information.....86
- 4. Consideration and request for approval to amend the Withers-Ravenel Agreement to include Easement Acquisition:** The Town was awarded a State Appropriation with project number (SRP-W-134-0013) Spring Branch Drainage Repairs - Second and Fourth Street stormwater grant on February 4, 2024, to address the flooding and undersized culverts under Second and Fourth Streets. The overall project is well under budget, given only the Second Street project will proceed to construction. Therefore, the easement acquisition will be covered by the 2023 State Budget Appropriation. Staff respectfully requests amendment of existing contract. (Planning Director - Stephen Wensman) See attached information.....91

**Business Items:**

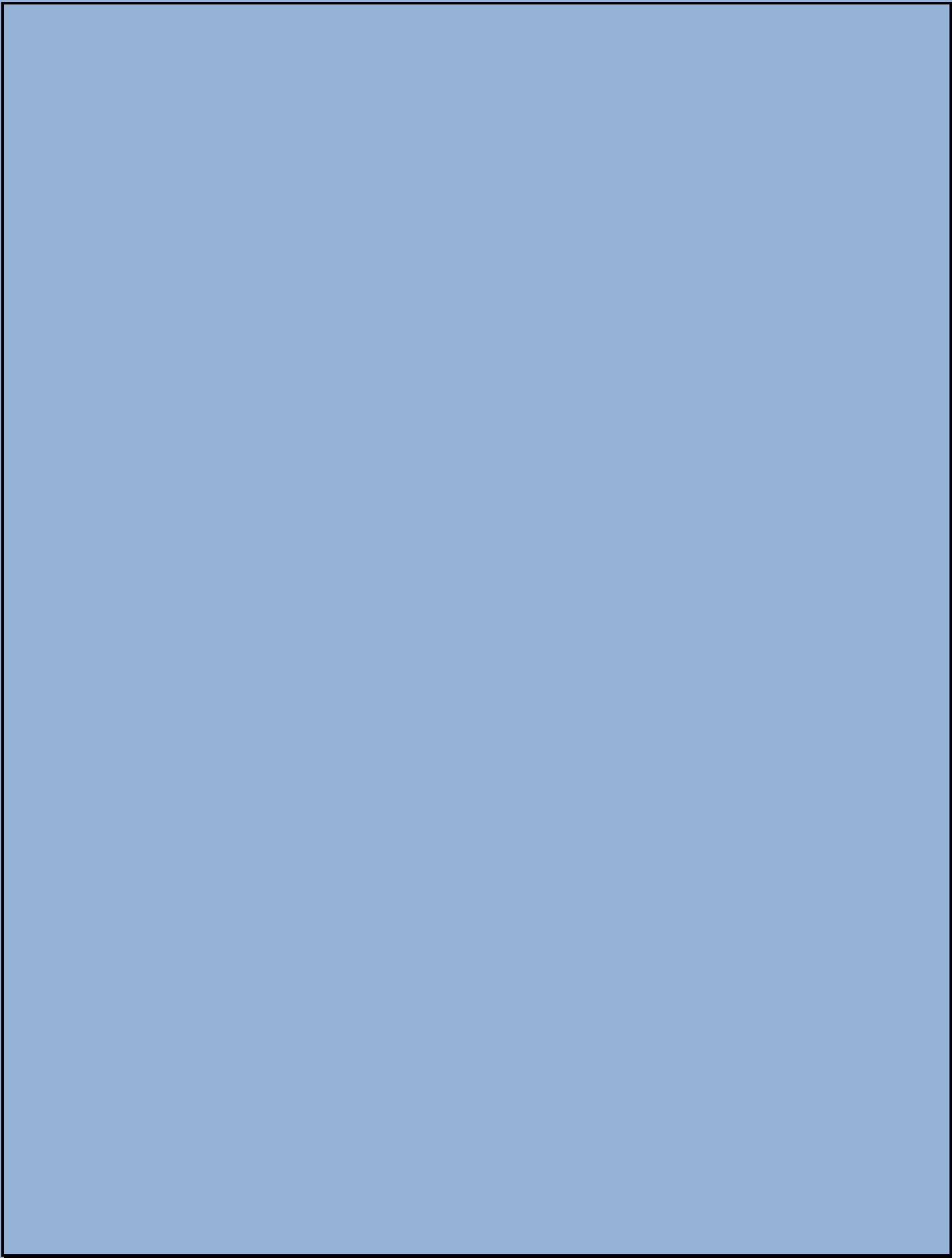
- 1. Consideration and request for approval of Dewberry Contract:** The Town desires to hire a consultant to create the initial Source Water Resiliency Response Plan (SWRRP) and bring the Town into compliance. As the future updates are required in 5-year increments, it may be possible for the Town staff to update the plan, as necessary, to lessen any future costs associated with the SWRRP. Staff respectfully requests to approve the proposed consultant, Dewberry Engineers, Inc., for the submitted proposal for \$38,200. (Public Utilities Director – Ted Credle) See attached information.....282

**Councilmember's Comments**

**Town Manager's Report**

**Adjourn**

# Presentations



To: Town Council and the Town Manager

From: Kaitlyn Tarley, Chairperson

Subject: Annual Report and Detailed Summary of the JB & JP George Endowment

Date: October 21, 2025

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1. The JB & JP George Endowment Annual - Financial Reports
2. Comprehensive report of activities of the Town of Smithfield Appearance Commission for the year ending June 30, 2025
3. Our Plan of work for the 2024-2025 year

To: Mr. Andy Moore, Mayor

Mr. Michael Scott, Town Manager

Ms. Elaine Andrews, Town Clerk

Mr. Stephen Wensman, Planning Director

Councilman Dr. David Barbour

Councilman John A. Dunn

(Vacant – District 1)

Councilman Stephen Rabil

Councilman Travis Scott

Councilman Roger Wood

Councilman Sloan Stevens

JB & JP George Endowment Reports will be delivered to Mr. George.

## Sec. 2-237.

Enactment and mission. For the purposes cited above, and for promoting the general welfare of the town and its citizens, the town council does hereby ordain, adopt and enact this article in its entirety, which shall be known as the Smithfield Appearance Ordinance. The mission of the Town of Smithfield Appearance Commission shall be to enhance the visual quality and aesthetic characteristics of the town by advising and assisting the town council in:

- Fostering neighborhood pride
- Promoting and disseminating "best management practices" that are good examples of enhancing community appearance for residential, commercial and public sites
- Acknowledging achievement and excellence of citizens in fulfilling the purposes of this article
- Showcasing natural and architectural beauty
- Encouraging appealing community entrances; seasonal or holiday decorations; and signage
- Encouraging well planned, coordinated tree planting, preservation and maintenance throughout the town
- Reviewing and advising the town council, or the town department designated by the council, as to the appearance of publicly owned or maintained property and spaces
- Reviewing and advising the planning department as to compliance with the town's ordinances regarding sanitation, public works, housing, and other regulations affecting the community appearance
- Discouraging littering and blight

### Board Members

Kaitlyn Tarley, Chairperson  
Emery Ashley Jr, Vice-Chairperson  
Carmen Zepp, Board Member  
Julia Narron, Board Member  
Michelle Choe, Board Member  
Robin Cook, Board Member  
Sharon Lynch, Board Member

### *2 Vacant Positions*

Lawrence Davis, Public Works Director  
Elaine Andrews, Town Clerk

**This Annual Report will be posted on the Appearance Commission page of the Town of Smithfield Website. For questions, please contact: Kaitlyn Tarley Chairperson or Emery Ashley Jr, Vice-Chairperson**

## 1. JB George Beautification Endowment Fund

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No expenditures were made to the account this fiscal year.

**Ending Endowment Balance** on June 30, 2025 was \$3,990.08

## 2. JP George Beautification Fund

No expenditures were made to the account this fiscal year.

**Ending Endowment Balance** on June 30, 2025 was \$1,039.10

\*JB and JP Endowment agreements can be viewed thru Town Hall.

## Appearance Commission – General Fund Expenditures

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A total of \$13,505 was spent this year on projects.

\*\*Pictures and details listed below.\*\*

The Commission encumbered \$14,266.81 for projects Planned & voted on, but not completed. The amounts listed below are estimates:

\$1,005 – Replacement Plants at the Sunset Cemetery\*

\$8,000 – Bartlett Tree Survey/Inventory\*

\$4,500 – Fall Installation for Planters (delayed expenditure)\*

These completed projects, and other expenses, total \$13,505. **\$5261.81**



## 2. Projects Completed (2024-2025)

The following projects were completed during this past fiscal year:

- Town Hall Planters:
  - Plantings are being maintained and replenished as needed
    - The Appearance Commission has agreed to cover the fall installation payments, as an ongoing collaborative effort with the DSDC to maintain the planters.
    - Some costs were saved through the redesign of the planter installations.
  - Money spent: \$4,500.00
- Completion of Bartlett Tree Survey/Inventory
  - Updated from 1980s edition to detail existing trees and make recommendations for future plantings
- Replacement Plants at the Sunset Cemetery:
  - Money spent: \$1,005.00
- Collaborations:
  - Currently working with DSDC on the upcoming library corner redesign
  - Other projects in the works!
- Donate-A-Tree Program:
  - Continued program for individuals to honor/memorialize someone with a planted tree. The placement of the trees is decided by need.
    - Revised changes incl. updated brochures and tiered donation options



**Total money spent this fiscal year: \$13,505.**

## 3. Upcoming Plans (2025 –2027)

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### Community Collaborations

Our primary goal for this past year was to pursue collaborative efforts with groups throughout our town and surrounding, local area. The following list includes current collaborative partners and potential partnerships and project areas to pursue in the coming years:

#### Current

- Downton Smithfield Development Commission:
  - Support the design and implementation of murals in the downtown area
  - Continue to seek an aesthetic vision for the downtown area
- Public works
  - Continued partnership
- Parks and Rec
  - Continued partnership
- Garden club
  - Continue to benefit from their expertise and advise
- Johnston Co. Public Library
  - Redesign of library corner
- Implementation of new bridge mural (to replace the Girls Scout mural), supported by tourism funds, to be completed soon!

#### Future

- DSDC
  - Alleyway installations
  - Other beautification efforts alongside current development
- Johnston County Art Commission:
  - Art installations
  - Art walk
  - Mural(s)
  - Local artistry
- Community Garden
  - Plantings (installation and upkeep)
- Johnston Co. Heritage Center
  - Further promote the history of the area; encompass in vision
- Local schools
  - Increase student involvement in community projects

## Upcoming Plans (2025 –2027) Cont.

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### “95 on 95” Project

This project has been discussed for several years and placed on the backburner to pursue other project areas. However, we believe it remains to be a worthy project to pursue in the coming years.

The Downtown Appearance Commission has adopted a “95 on 95” vision as a model for planning the activities coordinated by the Commission. What is 95 on 95? Utilizing the branding benefits of engaging travelers on Interstate 95 and encouraging them to stop at Smithfield on Exit 95 as means to plan for improvements to the aesthetics of our community and help residents and visitors to enjoy all the amazing opportunities our community offers. The vision of “95 on 95” will help shape where the focus of the Commission will be in the coming years. That vision will be to focus on enhancing the aesthetics of Market Street from Exit 95 leading all the way into the downtown corridor and all points of entry along the route including both sides of the train trestle. We are excited to have a planning focus for the coming years.

## Thank You!

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The Appearance Commission would not be able to do the work we do without the tireless efforts of the Town Staff.

### A Special Thank you to:

**Lawrence Davis and his entire Department of Public Works** – For always getting the many projects finished, installed, and looking great! Keeping our Beautiful Town clean and well maintained.

**Gary Johnson and his team with Parks and Recreation** – For partnering with our commission and serving as a resource for us, including help in completing projects and promoting the aesthetics of our town.

**Elaine Andrews** - For keeping us on track and taking care of our minutes and book work. We could not do what we do without her.

**Stephen Wensman** - For always being available to answer our questions and knowledge about areas we would like to work on.

**Mr. Jim George** - For his continued support of the Appearance Commission and the beautification of our Town.

**Councilman Sloan Stevens** - For his Support, for the Appearance Commission.

**Mayor, Andy Moore**

**Town Manager, Michael Scott**

**Town Council** - For their support of the Appearance Commission

**Our collaborative partners** - both in town and in the surrounding area.

Respectfully Submitted by - Chairperson, Kaitlyn Tarley



# Request for Town Council Action

**Presentation: Boys & Girls Club**  
Date: 12/16/2025

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**Subject:** Boys & Girls Club  
**Department:** General Government – Parks & Recreation  
**Presented by:** Matt Taliaferro & Dana Riley  
**Presentation:** Presentation

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## Issue Statement

The Boys & Girls Club of Johnston County would like to propose joint use at the Sarah Yard Community Center

## Financial Impact

None

## Action Needed

No action is needed tonight – the Boys & Girls club would like to hear from the Council Members and staff would like for them to hold a community meeting.

## Recommendation

Staff is recommending no action at this time.

Approved: ☒ Town Manager ☐ Town Attorney

## Attachments:

1. Staff Report
2. Presentation



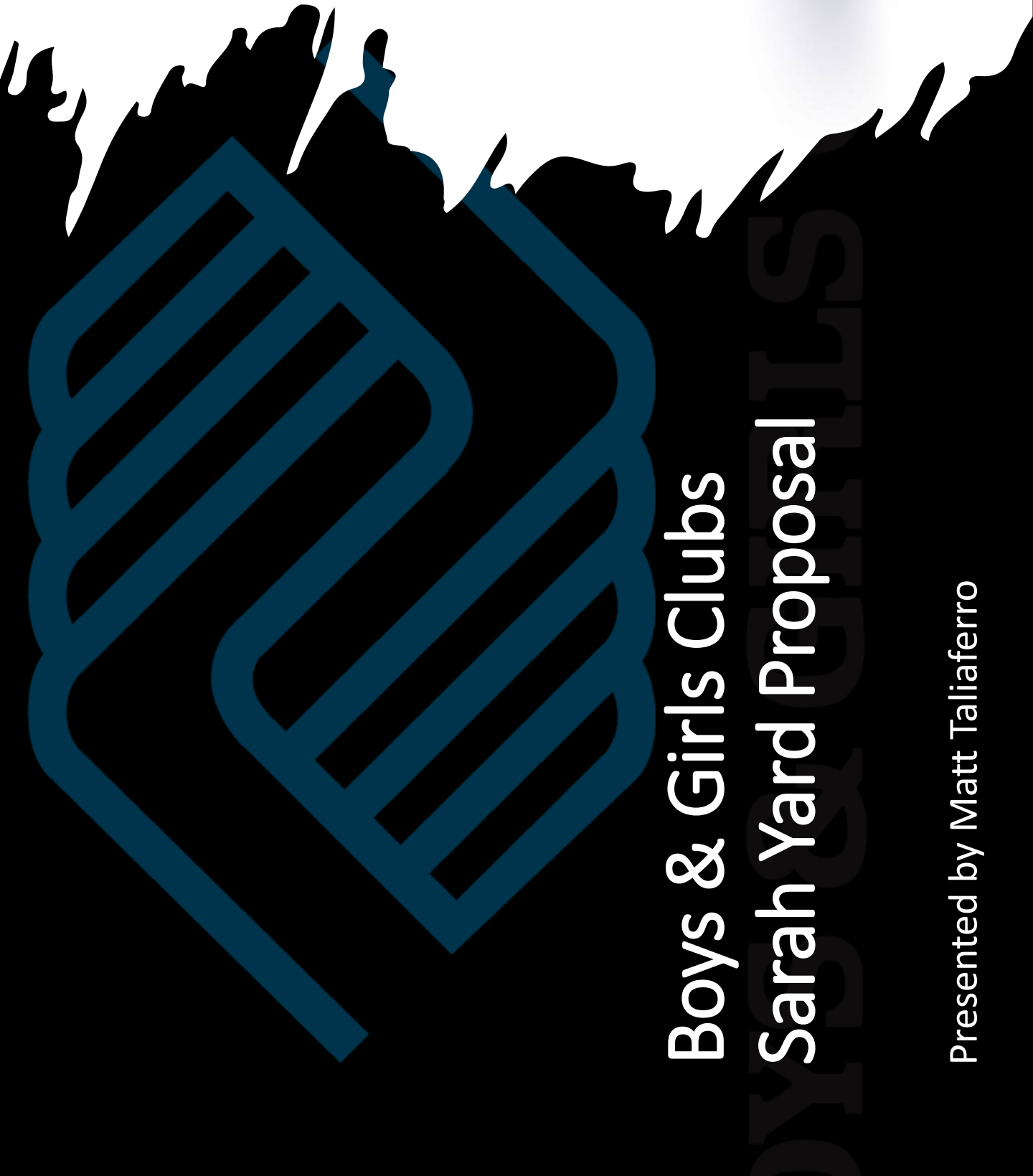
# Staff Report

Presentation Boys &  
Girls Club

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## Staff Report:

The Boys & Girls Club have approached the Town of Smithfield about the utilization of the Sarah Yard Community Center for an after school/summer program for Smithfield kids. Their hours of operation during school sessions would be from 2:45–6:30pm, Monday–Friday; Teacher Workday and Summer hours would be from 7:30am–5:30pm. Their goal is to serve 50-60 youth per day in the center.



# Boys & Girls Clubs Sarah Yard Proposal

Presented by Matt Taliaferro



BOYS & GIRLS CLUBS

# The Boys & Girls Clubs Mission

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To inspire and enable all young people, **especially those who need us most** to reach their full potential as productive, caring, responsible citizens.



# 2024 Statistics

## 10 Club Locations

### Johnston County:

- South Smithfield Elementary
- Selma

### Wake County:

- Raleigh Boys Club
- Raleigh Girls Club
- Teen Center
- Zebulon
- Wake Forest
- Brentwood
- Washington Elementary

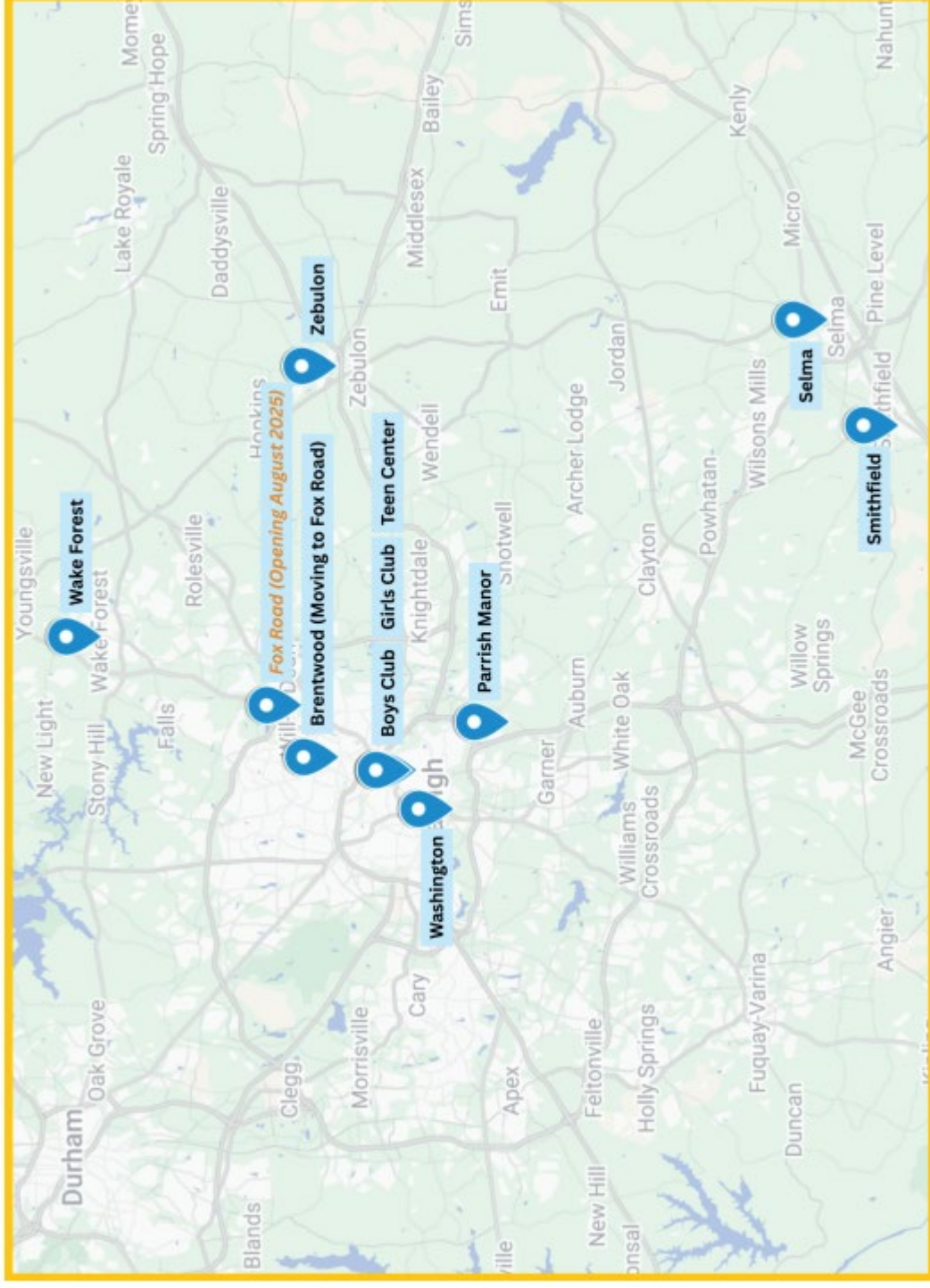
75 Staff Members

400+ Volunteers

3,455 members

95,517 meals/snacks provided at no cost

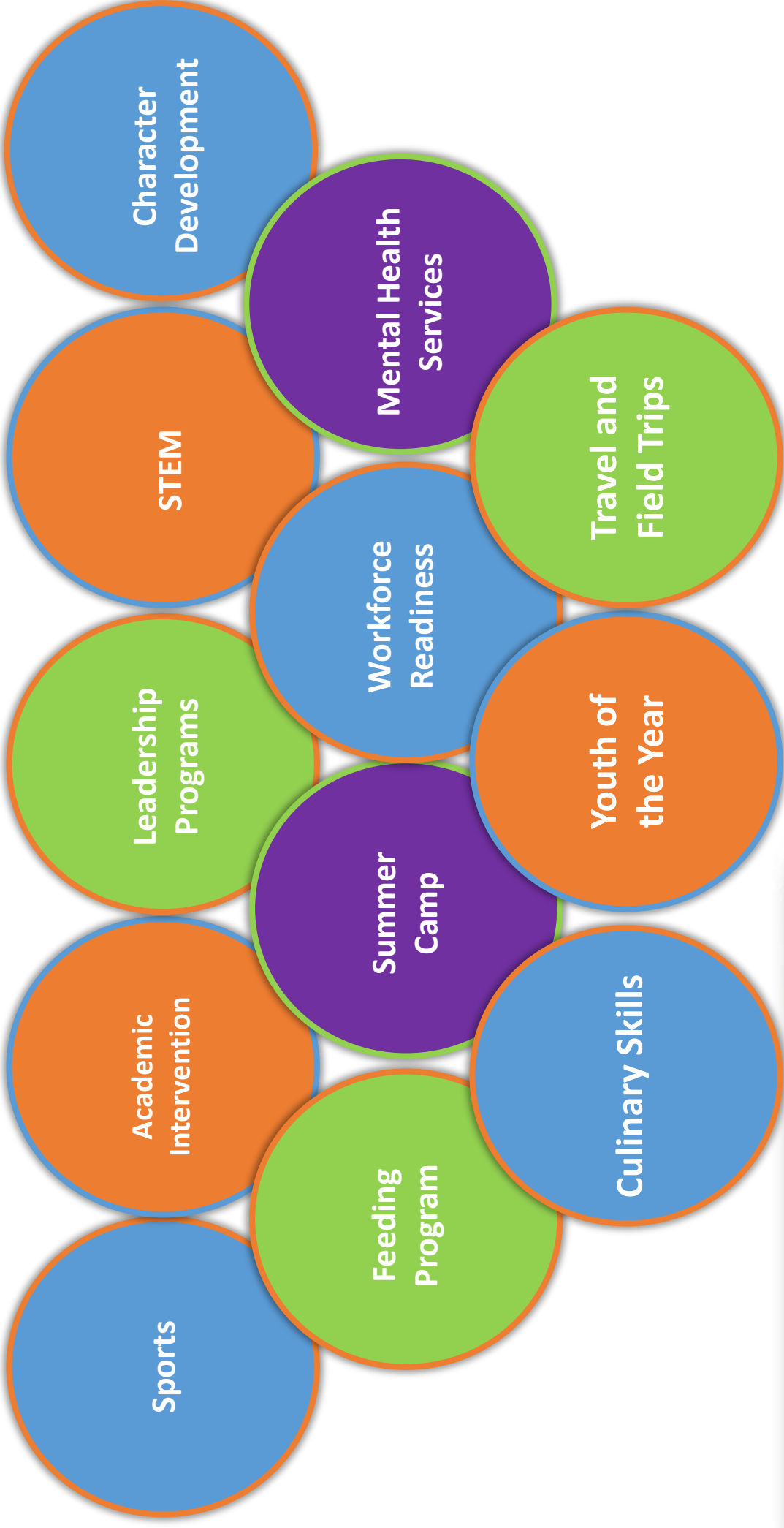
\$7.50 per year



**GREAT FUTURES START HERE.**

# What We Do

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**GREAT FUTURES START [HERE.](#)**







# Our Request

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- We respectfully request to enter into a co-use agreement with the Town of Smithfield to operate a Boys & Girls Club unit out of the Sarah Yard Community Center
- **Current situation:**
  - The Boys & Girls Club currently runs a unit at the South Smithfield Elementary School
  - Average daily attendance is 35-40 youth all from South Smithfield Elementary School
  - Unable to serve youth at West Smithfield Elementary School or Smithfield Middle School
- **The Proposal**
  - Allow the Boys & Girls Club to use Sarah Yard each day after school (2:45PM – 6:30PM), on teacher workdays (7:30AM – 5:30PM) and from 7:30AM – 5:30PM during the summer
  - Goal is to serve 50-60 youth per day
- **Specific details of the proposal**
  - Boys & Girls Club would assume all costs for staffing
  - All community youth in elementary and middle school would be welcome to join including those already coming to Sarah Yard (no sign out by parents required)
  - BGC commits to partnering with Smithfield Parks & Rec to accommodate regularly scheduled community activities at Sarah Yard
  - BGC would enter into a separate agreement with Johnston County School District to provide transportation to Sarah Yard
  - No monies would exchange hands. The Town of Smithfield would continue to cover the cost of utilities and maintenance
  - BGC would assume all legal liability for the safety of the youth during BGC scheduled activities and carry a minimum of \$1MM (\$3MM umbrella) general liability insurance policy

**GREAT FUTURES START HERE.**

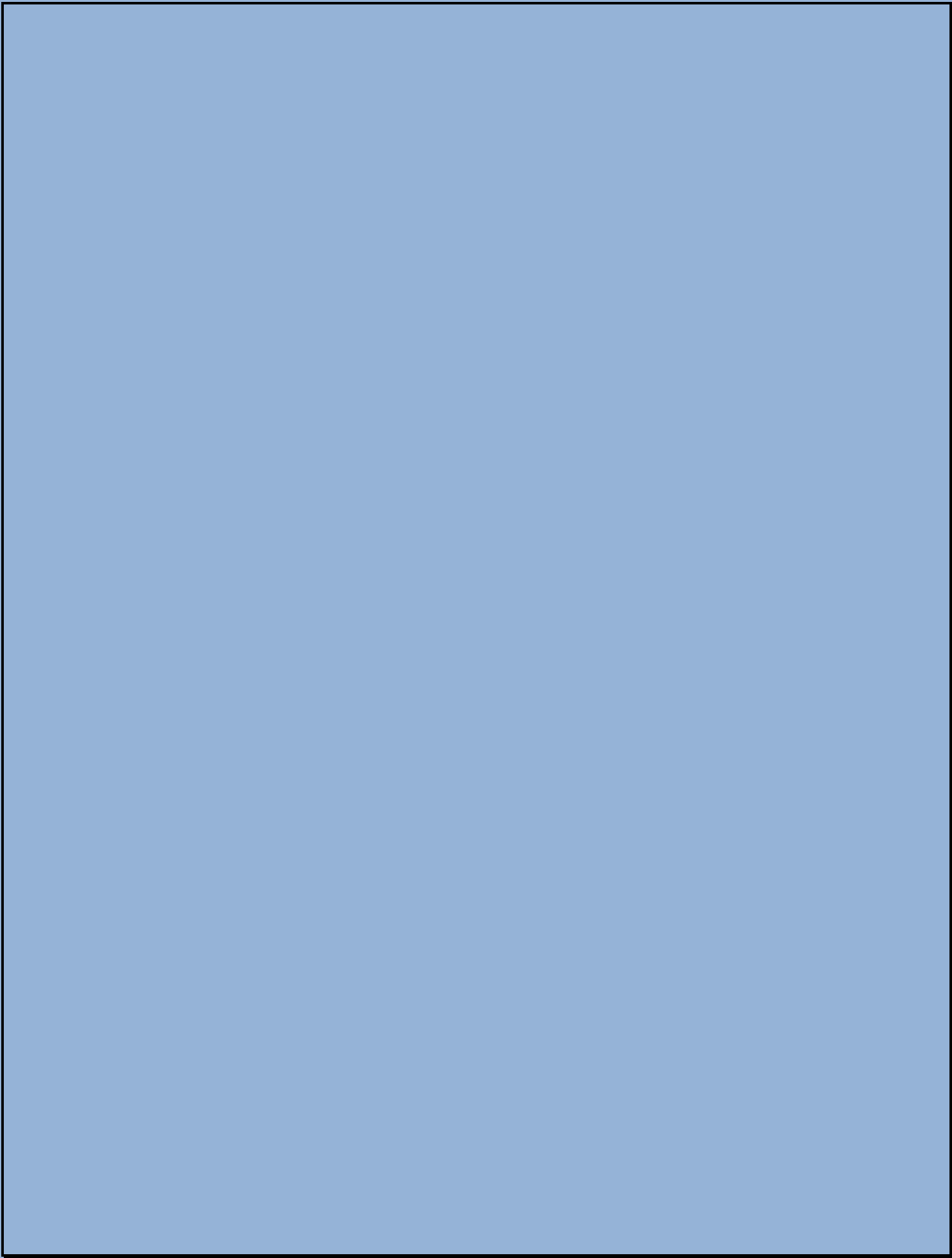


**Thank you so much for  
your support!**

**GREAT FUTURES START [HERE](#).**



# Public Hearings







# Request for Town Council Action

**Public RZ-25-04  
Hearing:**  
Date: 12/16/2025

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**Subject:** Zoning Map Amendment

**Department:** Planning

**Presented by:** Stephen Wensman, Planning Director

**Presentation:** Public Hearing

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## Issue Statement

Chris Johnson is requesting the rezoning of 4.89 acres of land located on the East side of US 70 Business West across from the Finley Landing Subdivision and west of the Amazon facility. Entranceway Business (B-3) and Residential-Agriculture (R-20A) to LI (Light Industrial).

## Financial Impact

None.

## Action Needed

The Town Council is respectfully requested to hold a public hearing to review the rezoning and to approve or deny the request.

## Recommendation

Planning Staff and the Planning Board recommends approval of the rezoning, RZ-25-04, with a statement declaring the request consistent with the Town of Smithfield Comprehensive Growth Management Plan, and other adopted plans, and that the request is reasonable and in the public interest.

Approved: ☒ Town Manager ☐ Town Attorney

## Attachments:

1. Staff report
2. Consistency Statement
3. Application
4. Adjacent Property Owners Notifications with Certifications
5. Presentation Map



# Staff Report

Public RZ-25-04  
Hearing:

## REQUEST:

Chris Johnson is requesting the rezoning of 4.89 acres of land from B-3 (Entranceway Business) and R-20A (Residential-Agriculture) to LI (Light Industrial).

## PROPERTY LOCATION:

The property to be rezoned is located on the East side of US 70 Business West across from the Finley Landing Subdivision and west of the Amazon facility.

## SITE DATA:

Tax ID#	15078019C
Acreage:	4.89
Present Zoning:	B-3 / R-20A
Proposed Zoning:	LI (Light Industrial)
Existing Use:	Residential
Proposed Use	Future Light Industrial
Town/ETJ:	ETJ
Fire District:	Town
School Impacts:	None
Parks and Recreation:	None
Water/Sewer Provider:	Town
Electric Provider:	Duke

## EXISTING CONDITIONS/ENVIRONMENTAL:

The parcel is mostly wooded with an older house and outbuildings near US 70 Business West.

## ADJACENT ZONING AND LAND USES: (see attached map for complete listing)

	Zoning	Existing Land Uses
North	Light Industrial	Agriculture
South	Light Industrial	Agriculture
East	Light Industrial	Light Industrial (Amazon)
West	Light Industrial	Agriculture

## **ANALYSIS:**

The parcel is currently split zoned with the highway frontage zoned B-3 and a small portion of the rear of the lot zoned R-20A. The applicant wishes to rezone this parcel to Light Industrial as guided in the comprehensive plan. All the other parcels surrounding have been rezoned to Light Industrial. There is no proposed use for the property currently.

## **CONSISTENCY STATEMENT (Staff Opinion):**

With approval of the rezoning, the Town Council is required to adopt a statement describing whether the action is consistent with adopted comprehensive plan and other applicable adopted plans and that the action is reasonable and in the public interest. Planning Staff considers the action to be consistent and reasonable:

- **Consistency with the Comprehensive Growth Management Plan** - *The rezoning is consistent with the town's comprehensive plan.*
- **Consistency with the Unified Development Code** – *The site will be developed in accordance with the Light Industrial standards when developed in the future.*
- **Compatibility with Surrounding Land Uses** - *The property considered for rezoning will be compatible with surrounding land uses which are all zoned light industrial.*

## **RECOMMENDATION:**

Planning Staff and the Planning Board recommend approval of RZ-25-04 with a statement declaring the request consistent with the Town of Smithfield Comprehensive Growth Management Plan, and other adopted plans, and that the amendment is reasonable and in the public interest.

## **RECOMMENDED MOTION:**

Staff recommend the following motion:

"Move to approve zoning map amendment, RZ-25-04, finding it consistent with the Town of Smithfield Comprehensive Growth Management Plan and other adopted plans, and that the amendment is reasonable and in the public interest."

**THE TOWN OF SMITHFIELD  
UNIFIED DEVELOPMENT ORDINANCE  
ZONING MAP AMENDMENT CONSISTENCY STATEMENT  
BY THE SMITHFIELD TOWN COUNCIL  
RZ-25-04**

**Whereas** the Smithfield Town Council, upon acting on a zoning map amendment to the *Unified Development Ordinance* and pursuant to NCGS §160D-605, is required to approve a statement describing how the action is consistent with the Town of Smithfield *Comprehensive Growth Management Plan*; and

**Whereas** the Smithfield Town Council, upon acting on a zoning map amendment to the *Unified Development Ordinance* and pursuant to NCGS §160D-605, is required to provide a brief statement indicating how the action is reasonable and in the public interest.

**NOW THEREFORE, BE IT ADOPTED BY THE SMITHFIELD TOWN COUNCIL AS APPROPRIATE:**

**IN THE EVENT THAT THE MOTION TO RECOMMEND THE ORDINANCE IS ADOPTED,**

That the Town Council recommendation regarding text amendment RZ-25-04 is based upon review of and consistency with, the Town of Smithfield *Comprehensive Growth Management Plan* and any other officially adopted plan that is applicable, along with additional agenda information provided to the Town Council and information provided at the public hearing; and

It is the objective of the Town of Smithfield Town Council to have the *Unified Development Ordinance* promote regulatory efficiency and consistency and the health, safety, and general welfare of the community. The zoning map amendment promotes this by offering fair and reasonable regulations for the citizens and business community of the Town of Smithfield as supported by the staff report and attachments provided to the Town Council and information provided at the public hearing. Therefore, the amendment is reasonable and in the public interest.

**IN THE EVENT THAT THE MOTION TO RECOMMEND THE ORDINANCE FAILS,**

That the final recommendation regarding zoning map amendment RZ-25-04 is based upon review of, and consistency, the Town of Smithfield *Comprehensive Growth Management Plan* and other officially adopted plans that are applicable; and

It is the objective of the Town Council to have the *Unified Development Ordinance* promote regulatory efficiency and consistency and the health, safety, and general welfare of the community. The zoning map amendment does not promote this and therefore is neither reasonable nor in the public interest.



Town of Smithfield  
Planning Department  
350 E. Market St Smithfield, NC 27577  
P.O. Box 761, Smithfield, NC 27577  
Phone: 919-934-2116  
Fax: 919-934-1134

## REZONING APPLICATION

*Pursuant to Article 4, Section 4-1 of the Unified Development Ordinance, proposed amendments may be initiated by the Town Council, Planning Board, Board of Adjustment, members of the public, or by one or more interested parties. Rezoning applications must be accompanied by one (1) application, one (1) required plan, an Owner's Consent Form (attached), (1) electronic submittal and the application fee.*

Name of Project: Johnson - US70 Business Acreage of Property: 4.89  
Parcel ID Number: 15078019C Tax ID: 15078019C  
Deed Book: 6856 Deed Page(s): 190  
Address: 2608 US 70 Hwy Business West, Smithfield NC 27577  
Location: 2608 US 70 Hwy Business West, Smithfield NC 27577

Existing Use: Rental Home and Lot Proposed Use: N/A  
Existing Zoning District: B3  
Requested Zoning District Light Industrial  
Is project within a Planned Development: ☐ Yes ☒ No  
Planned Development District (if applicable): \_\_\_\_\_  
Is project within an Overlay District: ☐ Yes ☒ No  
Overlay District (if applicable): \_\_\_\_\_

### FOR OFFICE USE ONLY

File Number: RZ-25-04 Date Received: 9/30/2025 Amount Paid: \$400.00

### OWNER INFORMATION:

Name: Chris Johnson

Mailing Address: 516 South 4th Street

Phone Number: 919-915-6202

Fax:

Email Address: chrisjohnson27577@gmail.com

### APPLICANT INFORMATION:

Applicant: Chris Johnson

Mailing Address: 516 South 4th Street

Phone Number: 919-915-6202

Fax:

Contact Person: Chris Johnson

Email Address: chrisjohnson27577@gmail

### REQUIRED PLANS AND SUPPLEMENTAL INFORMATION

*The following items must accompany a rezoning application. This information is required to be present on all plans, except where otherwise noted:*

- ☒ A map with metes and bounds description of the property proposed for reclassification.
- ☒ A list of adjacent property owners.
- ☒ A statement of justification.
- ☐ Other applicable documentation: \_\_\_\_\_

### STATEMENT OF JUSTIFICATION

*Please provide detailed information concerning all requests. Attach additional sheets if necessary.*

We respectfully request the rezoning of the subject property from Business (B) to Light Industrial (LI) to better align with the surrounding land uses and support the economic development goals of the community. The property in question is directly adjacent to multiple parcels currently zoned Light Industrial. This creates a natural extension of the existing industrial corridor and supports a cohesive land use pattern. Rezoning to Light Industrial will eliminate the current zoning mismatch and allow for compatible development that complements neighboring uses.

## APPLICANT AFFIDAVIT

*I/We, the undersigned, do hereby make application and petition to the Town Council of the Town of Smithfield to approve the subject zoning map amendment. I hereby certify that I have full legal right to request such action and that the statements or information made in any paper or plans submitted herewith are true and correct to the best of my knowledge. I understand this application, related material and all attachments become official records of the Planning Department of the Town of Smithfield, North Carolina, and will not be returned.*

**Chris Johnson**

*Print Name*

*Signature of Applicant*

9/30/25

*Date*



Town of Smithfield  
Planning Department  
350 E. Market St Smithfield, NC 27577  
P.O. Box 761, Smithfield, NC 27577  
Phone: 919-934-2116  
Fax: 919-934-1134

## OWNER'S CONSENT FORM

Name of Project: Johnson - US70 Business

Submittal Date: 9/30/25

### OWNERS AUTHORIZATION

I hereby give CONSENT to \_\_\_\_\_ (type, stamp or print clearly full name of agent) to act on my behalf, to submit or have submitted this application and all required material and documents, and to attend and represent me at all meetings and public hearings pertaining to the application(s) indicated above. Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify I have full knowledge the property I have an ownership interest in the subject of this application. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I acknowledge that additional information may be required to process this application. I further consent to the Town of Smithfield to publish, copy or reproduce any copyrighted document submitted as a part of this application for any third party. I further agree to all terms and conditions, which may be imposed as part of the approval of this application.

\_\_\_\_\_  
*Signature of Owner*

\_\_\_\_\_  
*Print Name*

\_\_\_\_\_  
*Date*

### CERTIFICATION OF APPLICANT AND/OR PROPERTY OWNER

I hereby certify the statements or information made in any paper or plans submitted herewith are true and correct to the best of my knowledge. I understand this application, related material and all attachments become official records of the Planning Department of the Town of Smithfield, North Carolina, and will not be returned.

  
\_\_\_\_\_  
*Signature of Owner/Applicant*

Chris Johnson  
\_\_\_\_\_  
*Print Name*

9/30/25  
\_\_\_\_\_  
*Date*

### FOR OFFICE USE ONLY

File Number:

Date Received:

Parcel ID Number:



# Property / Site Location



\*\*\* DISCLAIMER \*\*\*

Johnston County assumes no legal responsibility for the information represented here.



## Result

**id:** 15078019C  
**Tag:** 15078019C  
**NCPin:** 168500-43-7994  
**Mapsheet No:** 1685  
**Owner Name 1:** JOHNSON, WILLIAM CHRISTOPHER  
**Owner Name 2:** JOHNSON, KIMBERLY G.  
**Mail Address 1:** 516 S 4TH ST  
**Mail Address 2:**  
**Mail Address 3:** SMITHFIELD, NC 27577-4454  
**Site Address 1:**  
**Site Address 2:**  
**Book:** 06856  
**Page:** 0190  
**Market Value:** 229140  
**Assessed Acreage:** 4.850  
**Calc. Acreage:** 4.898  
**Sales Price:** 250000  
**Sale Date:** 2025-04-02



Scale: 1:13614 - 1 in. = 1134.5 feet

(The scale is only accurate when printed portrait on a 8 1/2 x 11 size sheet with no page scaling.)

Johnston County GIS  
September 30, 2025

# Adjoining Property Owners



\*\*\* DISCLAIMER \*\*\*

Johnston County assumes no legal responsibility for the information represented here.



## Result

**id:** 15078019A  
**Tag:** 15078019A  
**NCPin:** 168500-34-9527  
**Mapsheet No:** 1685  
**Owner Name 1:** JOHNSON, KIMBERLY GOWER  
**Owner Name 2:**  
**Mail Address 1:** 516 S 4TH ST  
**Mail Address 2:**  
**Mail Address 3:** SMITHFIELD, NC 27577-4454  
**Site Address 1:** 3063 US HWY 70 W  
**Site Address 2:** SMITHFIELD, NC 27577-  
**Book:** 04222  
**Page:** 0500  
**Market Value:** 740930  
**Assessed Acreage:** 24.780  
**Calc. Acreage:** 27.041  
**Sales Price:** 0  
**Sale Date:** 2012-12-20

## Result

**id:** 15078019F  
**Tag:** 15078019F  
**NCPin:** 168500-44-7360  
**Mapsheet No:** 1685  
**Owner Name 1:** JOHNSON, KIMBERLY GOWER  
**Owner Name 2:**  
**Mail Address 1:** 516 S 4TH ST  
**Mail Address 2:**  
**Mail Address 3:** SMITHFIELD, NC 27577-4454  
**Site Address 1:**  
**Site Address 2:**  
**Book:** 03628  
**Page:** 0932  
**Market Value:** 305950  
**Assessed Acreage:** 5.030  
**Calc. Acreage:** 5.059  
**Sales Price:** 0  
**Sale Date:** 2008-12-01



**Scale:** 1:13614 - 1 in. = 1134.5 feet

(The scale is only accurate when printed portrait on a 8 1/2 x 11 size sheet with no page scaling.)

Johnston County GIS  
September 30, 2025

**Result**

**id:** 15078011  
**Tag:** 15078011  
**NCPin:** 168500-63-4559  
**Mapsheet No:** 1685  
**Owner Name 1:** FNLI AGOUTI JNX LLC  
**Owner Name 2:**  
**Mail Address 1:**  
**Mail Address 2:** PO BOX 80416  
**Mail Address 3:** SEATTLE, WA 98108-0416  
**Site Address 1:** 2150 US HWY 70 BUS W  
**Site Address 2:** SMITHFIELD, NC 27577-  
**Book:** 05935  
**Page:** 0163  
**Market Value:** 101890830  
**Assessed Acreage:** 169.670  
**Calc. Acreage:** 169.670  
**Sales Price:** 4272000  
**Sale Date:** 2021-05-18

**Result**

**id:** 15078020  
**Tag:** 15078020  
**NCPin:** 168500-43-9522  
**Mapsheet No:** 1685  
**Owner Name 1:** JOHNSON, KIMBERLY GOWER  
**Owner Name 2:**  
**Mail Address 1:** 516 S 4TH ST  
**Mail Address 2:**  
**Mail Address 3:** SMITHFIELD, NC 27577-4454  
**Site Address 1:**  
**Site Address 2:**  
**Book:** 03628  
**Page:** 0932  
**Market Value:** 645910  
**Assessed Acreage:** 16.850  
**Calc. Acreage:** 17.828  
**Sales Price:** 0  
**Sale Date:** 2008-12-01

## List of Adjacent Properties

ParcelID	Name1	Name2	Address1	Address2	CityStateZip
15078019C	JOHNSON, WILLIAM CHRISTOPHER	JOHNSON, KIMBERLY G.	516 S 4TH ST		SMITHFIELD, NC 27577-4454
15078020A	JOHNSON, KIMBERLY G		516 S FOURTH ST		SMITHFIELD, NC 27577-0000
15078019F	JOHNSON, KIMBERLY GOWER		516 S 4TH ST		SMITHFIELD, NC 27577-4454
15079017Y	LENNAR CAROLINAS, LLC		1010 SYNC ST STE 600		MORRISVILLE, NC 27560-9044
15078011	FNLI AGOUTI JNX LLC			PO BOX 80416	SEATTLE, WA 98108-0416
15079018C	FLOYD LANDING DEVELOPERS, LLC			PO BOX 5488	CARY, NC 27512-5488
15079018	MILLROSE PROPERTIES NORTH CAROLINA, LLC		1010 SYNC ST STE 600		MORRISVILLE, NC 27560-9044
15079022Q	FINLEY LANDING OWNERS ASSOCIATION, INC		4700 HOMEWOOD CT STE 380		RALEIGH, NC 27609-5732
15078019A	JOHNSTON COUNTY AIRPORT AUTHORITY		3149 SWIFT CREEK RD		SMITHFIELD, NC 27577-6900
15079006	PRINCE HOLDINGS QOZB, LLC		951 CRANBERRY DR		LEWISVILLE, NC 27023-9823





**PLANNING DEPARTMENT**

Micah Woodard, Planner I

**ADJOINING PROPERTY OWNERS CERTIFICATION**



I, Micah Woodard, hereby certify that the property owner and adjacent property owners of the following petition(s); RZ-25-04, S-25-05, and S-25-06 were notified by First Class Mail on 10/24/25 of the Public Meeting on November 6<sup>th</sup>, 2025.

  
\_\_\_\_\_  
Signature

Johnston County, North Carolina

I, Julianne Edmonds, Notary Public for Johnston County and State of North Carolina do hereby certify that Micah Woodard personally appeared before me on this day and acknowledged the due execution of the foregoing instrument. Witness my hand and official seal, this the

24<sup>th</sup> day of October, 2025

  
\_\_\_\_\_  
Notary Public Signature  
  
\_\_\_\_\_  
Notary Public Name



Commission expires on 1-15-2028

RZ-25-04 Johnson Rezoning

**File Number:**  
RZ-25-04

**Project Name:**  
Johnson Us 70 Bus. to LI

**Location:**  
US Hwy 70 Bus. West

**Tax ID#:**  
15078019C

**Existing Zoning:**  
B-3, R-20A

**Property Owner:**  
JOHNSON,  
WILLIAM CHRISTOPHER/  
JOHNSON, KIMBERLY G.

**Applicant:**  
Chris Johnson

**City/ETJ:**  
ETJ





# Request for Town Council Action

**Public S-25-05**  
**Hearing:**  
**Date: 12/16/2025**

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**Subject:** Waddell Dr. Townhomes Preliminary Plat

**Department:** Planning Department

**Presented by:** Planning Director - Stephen Wensman

**Presentation:** Public Hearing

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## Issue Statement

BRL Engineering and Surveying is requesting the preliminary plat of approximately 1.63 acres of land located at 37 and 41 Waddell Drive, about 250 ft north of the N Brightleaf Blvd and Waddell Drive intersection, also identified by the Johnston County Tax ID 15005031, 15005029 and part of 15005031A, into a 16-lot attached single-family residential (townhome) development.

## Financial Impact

The future development will contribute to the Town's tax base.

## Action Needed

The Town Council is respectfully requested to hold a public hearing to review the preliminary plat and then make a decision to approve, approve with conditions or to deny the request.

## Recommendation

Staff recommend the Town Council approve the preliminary plat, S-25-05, with 6 conditions based on the finding of fact for preliminary subdivisions.

Approved: ☒ Town Manager ☐ Town Attorney

## Attachments:

1. Staff Report
2. Finding of Fact
3. Application/Narrative
4. Landowner Signed Consent
5. Adjacent Notification & Certification
6. Preliminary Plat
7. Presentation Map
8. Conditional Zoning Conditions of Approval





# Staff Report

Public S-25-05  
Hearing:

## REQUEST:

BRL Engineering and Surveying is requesting the preliminary plat of approximately 1.63 acres of land located at 37 and 41 Waddell Drive, about 250 ft north of the N Brightleaf Blvd and Waddell Drive intersection, also identified by the Johnston County Tax ID 15005031, 15005029 and part of 15005031A, into a 16-lot attached single-family residential (townhome) development that is consistent with the approved conditional zoning master plan.

## PROPERTY LOCATION:

The development will be located at 37 and 41 Waddell Drive, about 250 ft north of the N Brightleaf Blvd and Waddell Drive intersection.

## APPLICATION DATA:

Applicant:	Isaac Hardison, PE - BRL Engineering and Surveying
Property Owners:	Spectrum Realty, LLC and Sun Auto Wash, LLC
Project Name:	Waddell Drive Townhomes
Tax ID:	15005031, 15005029 and part of 15005031A
Acreage:	1.63-acres (1.573 R-8/ .057 B-3)
Present Zoning:	R-8 CZ (Single-Two-Multi-Family Residential Conditional)
Town/ETJ:	Town
Existing Use:	Detached Single-family
Proposed Use:	Townhomes
Fire District:	Smithfield
School Impacts:	Additional households with school-age children
Parks and Recreation:	No parks proposed – fee in lieu
Water and Sewer Provider:	Town of Smithfield
Electric Provider:	Town of Smithfield

## ADJACENT ZONING AND LAND USES: (SEE ATTACHED MAP)

	Zoning	Existing Land Uses
North	O/I	MF/Office
South	B-3	Commercial
West	R-8/B-3	Detached SF and Commercial
East	B-3	Commercial

## **EXISTING CONDITIONS/ENVIRONMENTAL IMPACTS:**

- None

## **DEVELOPMENT OVERVIEW:**

The proposed preliminary plat consists of 16 town house lots (17.5' wide x 53.5' deep) fronting a 35-stall parking lot with an access drive to Waddell Drive. The development will consist of 16 two-story, 1020 sq. ft., 2 bedrooms and 2 ½ bathroom townhomes within convenient walking distance to commercial areas and other community amenities. The preliminary plat is consistent with the approved conditional zoning master plan and conditions.

## **COMPREHENSIVE LAND USE PLAN AND DENSITY/CONDITIONAL ZONING:**

- The development is consistent with the medium density guidance which allows a maximum multi-family density of 9.68 dwelling units per acre.
- The development is consistent with the approved conditional zoning master plan.

## **SITE ACCESS:**

- The 16 townhome lots will have frontage on a homeowners' association common parking area with a single driveway access onto Waddell Drive.
- A concrete driveway apron will be required meeting town standards.
- Waddell Drive will be upgraded with curb and gutter on the development side of the street.
- A 5 ft. wide sidewalk will be constructed on the back of the curb.

## **PARKING:**

- Parking will be provided by a common parking lot that provides 2 parking spaces per unit, exceeding the parking requirements (28 spaces required/35 provided).
- A sidewalk is provided at the back of the parking lot curb connecting each unit to parking and the street.
- A Y-hammerhead is provided for an emergency vehicle turnaround to be marked and enforced as a no parking area.

## **LANDSCAPING AND BUFFERS:**

- A standard street yard will be provided in accordance with Section 10.13.1.8.2.
- The Class A perimeter buffer yard is provided as required.
- Foundation plantings are required.
- A six-foot-high screening fence will be provided at the buffer line between the adjacent single-family home and the townhouse development and behind the street yard.

## **TRASH:**

- The developer has provided "roll-out" areas for trash roll outs on trash day.
- Storage of trash rollouts will be behind the units or in the utility closet outside of trash day.

- Liability waiver should be provided in the restrictive covenants to allow town pick up of trash on private property.

#### **TRAFFIC STUDY:**

- The development is below the threshold for a traffic study.

#### **LOT DIMENSIONAL AND SETBACK STANDARDS:**

- A 30' perimeter buffer is provided whereas a 35' perimeter buffer is required. This is an approved deviation from the multi-family standards.
- Each lot will be 17.5' wide by 53.5' deep.

#### **STORMWATER MANAGEMENT:**

- Stormwater retention is required when the impervious exceeds 24%. The applicant has provided a stormwater facility as required.

#### **MAIL KIOSK AND PARKING LOT:**

- A mail kiosk is provided at the end of the parking lot to the north of unit B-5.

#### **PUBLIC UTILITIES:**

- Approximately 265' of sewer main will be provided to service units in the development under the parking lot.
- Approximately 325' of water main will be provided to service units in the development under the parking lot.
- A fire hydrant is provided for fire protection as required.
- A 30' wide easement shall be required over the utilities.

#### **ARCHITECTURAL DESIGN STANDARDS**

- The architectural design standards were established with the approved conditional zoning approval which consists of lap siding, brick on entrance canopy pillars, shutters, board and baton dormers, windows on side elevation.

#### **SUBDIVISION MONUMENT SIGNS:**

- A subdivision sign will be located at the entrance and will need to be setback 10'.

#### **PHASING:**

- No phasing has been proposed.

## **FINDING OF FACT (STAFF'S FINDINGS)**

To approve a preliminary plat, the Town Council shall make the following finding (staff's opinion in Bold/Italic):

1. The plat is consistent with the adopted plans and policies of the town; ***The plat is consistent with the adopted comprehensive plan.***
2. The plat complies with all applicable requirements of this ordinance; ***The plat complies with all applicable requirements of the Unified Development Ordinance in accordance with the approved conditional zoning master plan for the project.***
3. There exists adequate infrastructure (transportation and utilities) to support the plat as proposed. ***There is adequate infrastructure and improvements are being made to Waddell Drive.***
4. The plat will not be detrimental to the use or development of adjacent properties or other neighborhood uses. ***The plat will not be detrimental to the use or development of adjacent properties or other neighborhood uses. The land use will be single-family residential.***

## **RECOMMENDATION:**

Planning Staff recommended conditions of approval:

1. That Construction Drawings be submitted for staff approval.
2. The Y-hammerhead turnaround area shall be marked as no parking in accordance with the Fire Marshal's recommendations.
3. The HOA restrictive covenants shall require trash rollouts to be stored behind the units or in the utility closet outside of trash day.
4. Liability waiver be provided in the restrictive covenants to allow town trash pickup on private property.
5. There shall be a 30'-wide public utility easement over the public water and sewer lines.
6. That an operations and maintenance agreement be executed and recorded for the stormwater facility.

## **RECOMMENDED MOTION:**

"Move to recommend approval of preliminary plat, S-25-05, with the 6 conditions based on the finding of fact for preliminary subdivisions:

1. That Construction Drawings be submitted for staff approval.
2. The Y-hammerhead turnaround area shall be marked as no parking in accordance with the Fire Marshal's recommendations.
3. The HOA restrictive covenants shall require trash rollouts to be stored behind the units or in the utility closet outside of trash day.
4. Liability waiver be provided in the restrictive covenants to allow town trash pickup on private property.
5. There shall be a 30'-wide public utility easement over the public water and sewer lines.
6. That an operations and maintenance agreement be executed and recorded for the stormwater facility.

**Town of Smithfield  
Preliminary Plat  
Finding of Fact / Approval Criteria**

**Application Number:** S-25-05 **Project Name:** Waddell Drive Townhomes.

**Request:** BRL Engineering and Surveying, is requesting approval of a preliminary plat for 16-lot attached single-family residential (townhome) development on 1.63 acres in the R-8 Conditional Zone. The property considered for approval is located at 37 and 41 Waddell Drive, about 250 ft north of the N Brightleaf Blvd and Waddell Drive intersection, further identified as Johnston County Tax IDs 15005031, 15005029 and part of 15005031A

In approving an application for a preliminary plat in accordance with the principles, conditions, safeguards, and procedures specified herein, the Town Council may impose reasonable and appropriate conditions and safeguards upon the approval. The petitioner will have a reasonable opportunity to consider and respond to any additional requirements prior to approval or denial by the Town Council. The Town Council shall include in its comments a statement as to the consistency of the application with the Town's currently adopted Comprehensive Plan. The applicant has the burden of producing competent, substantial evidence tending to establish the facts and conditions which the below requires.

The Town Council shall issue a preliminary plat if it has evaluated an application through a quasi-judicial process and determined that:

1. The plan is consistent with the adopted plans and policies of the town;
2. The plan complies with all applicable requirements of this ordinance;
3. There exists adequate infrastructure (transportation and utilities) to support the plan as proposed; and
4. The plan will not be detrimental to the use or development of adjacent properties or another neighborhood uses

**Once all findings have been decided one of the two following motions must be made:**

**Motion to Approve:** *Based upon satisfactory compliance with the above stated findings and fully contingent upon acceptance and compliance with all conditions as previously noted herein and with full incorporation of all statements and agreements entered into the record by the testimony of the applicant and applicant's representative, I move to approve Preliminary Plat Application # S-25-05 with the following conditions:*

1. That Construction Drawings be submitted for staff approval.
2. The Y-hammerhead turnaround area shall be marked as no parking in accordance with the Fire Marshal's recommendations.
3. The HOA restrictive covenants shall require trash rollouts to be stored behind the units or in the utility closet outside of trash day.
4. Liability waiver be provided in the restrictive covenants to allow town trash pickup on private property.
5. There shall be a 30'-wide public utility easement over the public water and sewer lines.
6. That an operations and maintenance agreement be executed and recorded for the stormwater facility.

**Motion to Deny:** *Based upon failure to meet all of the above stated findings and for reasons stated therein, I move to deny Preliminary Plat Application # S-25-05 for the following stated reason:*

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**Record of Decision:**

**Based on a motion and majority vote of the Town of Smithfield Town Council for the Preliminary Plat Application # S-25-05 is hereby:**

\_\_\_\_\_ **approved upon acceptance and conformity with the following conditions:**

1. That Construction Drawings be submitted for staff approval.
2. The Y-hammerhead turnaround area shall be marked as no parking in accordance with the Fire Marshal's recommendations.
3. The HOA restrictive covenants shall require trash rollouts to be stored behind the units or in the utility closet outside of trash day.
4. Liability waiver be provided in the restrictive covenants to allow town trash pickup on private property.
5. There shall be a 30'-wide public utility easement over the public water and sewer lines.
6. That an operations and maintenance agreement be executed and recorded for the stormwater facility.

\_\_\_\_\_ **denied for the noted reasons.**

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**Decision made this 16 day of December, 2025 while in regular session.**

\_\_\_\_\_  
**M. Andy Moore, Mayor**

**ATTEST:**

\_\_\_\_\_  
**Elaine Andrews, Town Clerk**



## Town of Smithfield

### Planning Department

350 E. Market St Smithfield, NC 27577

P.O. Box 761, Smithfield, NC 27577

Phone 919-934-2116

Fax: 919-934-1134

### Preliminary Subdivision Application

Development Name

Proposed Use

Property Address(es)

Johnston County Property Identification Number(s) and Tax ID Number (s) for each parcel to which these guidelines will apply:

PIN#

TAX ID#

Project type? ☐ Single Family ☐ Townhouse ☐ Multi-Family ☐ Non-Residential ☐ Planned Unit Development (PUD)

### OWNER/DEVELOPER INFORMATION

Company Name

Owner/Developer Name

Address

Phone

Email

Fax

### CONSULTANT/CONTACT PERSON FOR PLANS

Company Name

Contact Name

Address

Phone

Email

Fax

### DEVELOPMENT TYPE AND SITE DATE TABLE (Applicable to all developments)

### ZONING INFORMATION

Zoning District(s)

If more than one district, provide the acreage of each:

Overlay District? ☐ Yes ☐ No

Inside City Limits? ☐ Yes ☐ No

### FOR OFFICE USE ONLY

File Number: \_\_\_\_\_ Date Submitted: \_\_\_\_\_ Date Received: \_\_\_\_\_ Amount Paid: \_\_\_\_\_



## Project Narrative

As part of a complete application, a written project narrative that provides detailed information regarding your proposal must be included. On a separate sheet of paper, please address each of the lettered items listed below (answers must be submitted in both hard copy and electronic copy using the Adobe .PDF or MS Word .DOCX file formats):

a) A listing of contact information including name(s), address(es) and phone number(s) of: the owner of record, authorized agents or representatives, engineer, surveyor, and any other relevant associates;

b) A listing of the following site data: Address, current zoning, parcel size in acres and square feet, property identification number(s) (PIN), and current legal description(s);

c) A listing of general information including: the proposed name of the subdivision, the number of proposed lots, acreage dedicated for open space or public use, acreage dedicated within rights of way;

d) A narrative explaining the intent of the project and/or your original or revised vision for the finished product;

e) A statement showing the proposed density of the project with the method of calculating said density shown;

f) Discuss proposed infrastructure improvements and phasing thereof (i.e., proposed roadways, sewer systems, water systems, sidewalks/trails, parking, etc.) necessary to serve the subdivision;

g) A narrative addressing concerns/issues raised by neighboring properties (discussing your proposal with the neighboring land owners is recommended to get a sense of what issues may arise as your application is processed);

h) A description of how conflicts with nearby land uses (livability, value, potential future development, etc.) and/or disturbances to wetlands or natural areas are being avoided or mitigated;

i) Provide justification that the proposal will not place an excessive burden on roads (traffic), sewage, water supply, parks, schools, fire, police, or other public facilities/services (including traffic flows) in the area;

j) A description of proposed parks and/or open space. Please include a brief statement on the proposed ownership and maintenance of said areas;

k) A proposed development schedule indicating the approximate date when construction of the project, or stages of the same, can be expected to begin and be completed (including the proposed phasing of construction of public improvements and recreational and common space areas).

STORMWATER INFORMATION (Separate Stormwater Application Required)			
Existing Impervious Surface	0.26 Ac	acres/sf	Flood Hazard Area <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Proposed Impervious Surface	0.74 Ac	acres/sf	Neuse River Buffer <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Watershed protection Area	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Wetlands <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If in a Flood Hazard Area, provide the FEMA Map Panel # and Base Flood Elevation N/A			
NUMBER OF LOTS AND DENSITY			
Total # of Single-Family Lots	Overall Unit(s)/Acre Densities Per Zoning Districts		
Total # of Townhouse Lots	16	Acreage in active open space Forthcoming by others	
Total # of All Lots	16	Acreage in passive open space Forthcoming by others	
SIGNATURE BLOCK (Applicable to all developments)			
<p>In filing this plan as the property owner(s), I/we do hereby agree and firmly bind ourselves, my/our heirs, executors, administrators, successors and assigns jointly and severally to construct all improvements and make all dedications as shown on this proposed subdivision plan as approved by the Town.</p> <p>I hereby designate <u>BRL Engineering &amp; Surveying</u> to serve as my agent regarding this application, to receive and respond to administrative comments, to resubmit plans on my behalf, and to represent me in any public meeting regarding this application.</p> <p>I/we have read, acknowledge, and affirm that this project conforms to all application requirements applicable with the proposed development use.</p> <p>Signature <u>Michael L. Dufford</u> Date <u>9/26/2025</u></p> <p>Signature <u>Gregg M. Hardison</u> Date <u>9/26/25</u></p>			
REVIEW FEES			
<input checked="" type="checkbox"/> Major Preliminary Subdivision (submit paper copies - 1 application and 2 sets of plans & <b>1 Digital copy off all</b> ) \$500.00 + \$5.00 a lot			
<input checked="" type="checkbox"/> Stormwater Management Application + Plan + fees as applicable ( <b>Digital copy off all</b> ) \$100/disturbed acres (\$850 min.) or \$300 if exempt			
FOR OFFICE USE ONLY			
File Number: _____ Date Submitted: _____ Date Received: _____ Amount Paid: _____			

## INFORMATION TO BE PROVIDED ON PRELIMINARY AND FINAL PLATS.

The preliminary plats shall depict or contain the information indicated in the following table. An "X" indicates that the information is required.

Information	Preliminary Plat
Vicinity map (6" W x 4" H) showing location of subdivision in relation to neighboring tracts, subdivision, roads, and waterways (to include streets and lots of adjacent developed or platted properties). Also include corporate limits, Town boundaries, county lines if on or near subdivision tract.	X
Boundaries of tract and portion to be subdivided, including total acreage to be subdivided, distinctly and accurately represented with all bearings and distances shown.	X
Proposed street layout and right-of-way width, lot layout and size of each lot. Number lots consecutively throughout the subdivision.	X
Name of proposed subdivision.	X
Statement from the Johnston County Health Department that a copy of the sketch plan has been submitted to them, if septic tanks or other onsite water or wastewater systems are to be used in the subdivision, AND/OR statement from the County Public Utilities that application has been made for public water and/or sewer permits.	X
Graphic scale.	X
North arrow and orientation.	X
Concurrent with submission of the Preliminary Plat to the Town, the subdivider or planner shall submit copies of the Preliminary Plat and any accompanying material to any other applicable agencies concerned with new development, including, but not limited to: District Highway Engineer, County Board of Education, U.S. Army Corps of Engineers, State Department of Natural Resources and Community Development, for review and recommendation.	X
List the proposed construction sequence.	X
Storm water plan – see Article 10, Part VI.	X
Show existing contour lines with no larger than five-foot contour intervals.	X
New contour lines resulting from earth movement (shown as solid lines) with no larger than five-foot contour intervals (existing lines should be shown as dotted lines).	X
Survey plat, date(s) survey was conducted and plat prepared, the name, address, phone number, registration number and seal of the Registered Land Surveyor.	X
Names, addresses, and telephone numbers of all owners, mortgagees, land planners, architects, landscape architects and professional engineers responsible for the subdivision (include registration numbers and seals, where applicable).	X
Date of the drawing(s) and latest revision date(s).	X

<b>Information</b>	<b>Preliminary Plat</b>
The owner's name(s) of adjoining properties and Zoning District of each parcel within 100' of the proposed sites.	X
State on plans any variance request(s).	X
Show existing buildings or other structures, water courses, railroads, bridges, culverts, storm drains, both on the land to be subdivided and land immediately adjoining. Show wooded areas, marshes, swamps, rock outcrops, ponds or lakes, streams or stream beds and any other natural features affecting the site.	X
The exact location of the flood hazard, floodway and floodway fringe areas from the community's FHBM or FIRM maps (FEMA). State the base flood elevation data for subdivision.	X
Show the minimum building setback lines for each lot.	X
Provide grading and landscape plans. Proposed plantings or construction of other devices to comply with the screening requirements of Article 10, Part II.	X
Show location of all proposed entrance or subdivision signage (see Section 10.23.1).	X
Show pump station detail including any tower, if applicable.	X
Show area which will not be disturbed of natural vegetation (percentage of total site).	X
Label all buffer areas, if any, and provide percentage of total site.	X
Show all riparian buffer areas.	X
Show all watershed protection and management areas per Article 10, Part VI.	N/A
Soil erosion plan.	X
Show temporary construction access pad.	X
Outdoor illumination with lighting fixtures and name of electricity provider.	forthcoming
<b>The following data concerning proposed streets:</b>	
Streets, labeled by classification (see Town of Smithfield construction standards) and street name showing linear feet, whether curb and gutter or shoulders and swales are to be provided and indicating street paving widths, approximate grades and typical street cross-sections. Private roads in subdivisions shall also be shown and clearly labeled as such.	X
Traffic signage location and detail.	X
Design engineering data for all corners and curves.	X
For office review; a complete site layout, including any future expansion anticipated; horizontal alignment indicating general curve data on site layout plan; vertical alignment indicated by percent grade, PI station and vertical curve length on site plan layout; the District Engineer may require the plotting of the ground profile and grade line for roads where special conditions or problems exist; typical section indicating the pavement design and width and the slopes, widths and details for either the curb and gutter or the shoulder and ditch proposed; drainage facilities and drainage.	X

<b>Information</b>	<b>Preliminary Plat</b>
Type of street dedication; all streets must be designated public. (Where public streets are involved which will be dedicated to the Town, the subdivider must submit all street plans to the UDO Administrator for approval prior to preliminary plat approval).	X
When streets have been accepted into the municipal or the state system before lots are sold, a statement explaining the status of the street in accordance with the Town of Smithfield construction standards.	X
If any street is proposed to intersect with a state-maintained road, a copy of the application for driveway approval as required by the Department of Transportation, Division of Highways Manual on Driveway Regulations. (1) Evidence that the subdivider has applied for such approval. (2) Evidence that the subdivider has obtained such approval.	X X X
<b>The location and dimensions of all:</b>	
Utility and other easements.	X
Pedestrian and bicycle paths.	N/A
Areas to be dedicated to or reserved for public use.	X
The future ownership (dedication or reservation for public use to governmental body or for owners to duly constituted homeowners' association) of recreation and open space lands.	X
Required riparian and stream buffer per Article 10, Part VI.	N/A
<b>The site/civil plans for utility layouts including:</b>	
Sanitary sewers, invert elevations at manhole (include profiles).	X
Storm sewers, invert elevations at manhole (include profiles).	X
Best management practices (BMPs)	X
Stormwater control structures	X
Other drainage facilities, if any.	X
Impervious surface ratios	X
Water distribution lines, including line sizes, the location of fire hydrants, blow offs, manholes, force mains, and gate valves.	X
Gas lines.	N/A
Telephone lines.	N/A
Electric lines.	N/A
Plans for individual water supply and sewage disposal systems, if any. C-2.00 and C-5.00	X
<b>Provide site calculations including:</b>	
Acreage in buffering/recreation/open space requirements.	X
Linear feet in streets and acreage.	N/A
The name and location of any property or buildings within the proposed subdivision or within any contiguous property that is located on the US Department of Interior's National Register of Historic Places.	N/A

<b>Information</b>	<b>Preliminary Plat</b>
Sufficient engineering data to determine readily and reproduce on the ground every straight or curved line, street line, lot line, right-of-way line, easement line, and setback line, including dimensions, bearings, or deflection angles, radii, central angles and tangent distance for the center line of curved property lines that is not the boundary line of curved streets. All dimensions shall be measured to the nearest one-tenth of a foot and all angles to the nearest minute.	X
The accurate locations and descriptions of all monuments, markers, and control points.	X
Proposed deed restrictions or covenants to be imposed upon newly created lots. Such restrictions are mandatory when private recreation areas are established. Must include statement of compliance with state, local, and federal regulations.	X
A copy of the erosion control plan submitted to the Regional Office of NC- DNRCD, when land disturbing activity amounts to one acre or more.	X
All certifications required in Section 10.117.	X
Any other information considered by either the subdivider, UDO Administrator, Planning Board, or Town Council to be pertinent to the review of the plat.	X
Improvements guarantees (see Section 5.8.2.6).	

### FOR OFFICE USE ONLY

File Number: \_\_\_\_\_ Date Submitted: \_\_\_\_\_ Date Received: \_\_\_\_\_ Amount Paid: \_\_\_\_\_

## REQUIRED FINDING OF FACT

*Article 4 of the Town of Smithfield Unified Development Ordinance requires applications for a preliminary subdivision plat approval to address the following findings. The applicant has the burden of producing competent, substantial evidence tending to establish the facts and conditions which this section requires. The Town Council shall grant preliminary subdivision approval if it has evaluated an application through a quasi-judicial process and determined that:*

- 1) The plan is consistent with the adopted plans and policies of the town;

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- 2) The plan complies with all applicable requirements of this ordinance;

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- 3) There exists adequate infrastructure (transportation and utilities) to support the plan as proposed; and

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- 4) The plan will not be detrimental to the use or development of adjacent properties or other neighborhood uses.

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- a) Owner/Applicant: Spectrum Realty, LLC. and Sun auto Wash, LLC.  
 Manager (for both companies): Michael McClamb.  
 Phone: (919) 801-4629  
 Email: [mlmclamb@msn.com](mailto:mlmclamb@msn.com)  
 100 Mariah Drive  
 Four Oaks, NC 27524
- Developer: Spectrum Realty, LLC.
- Engineer: Brian R. Leonard, PE, PLS, BRL Engineering & Surveying  
 Isaac M. Hardison, PE, BRL Engineering & Surveying  
 Phone: (919) 989-9300 (o)  
 Email: [brlstaff1@earthlink.net](mailto:brlstaff1@earthlink.net)  
 112 East Johnston Street  
 Smithfield, NC 27577
- Surveyor: Jamie Peacock, On the Level Land Surveying  
 Phone: (919) 422-3580  
 1646 Denning Road  
 Benson, NC 27504
- b) Site Data: See Supplementary Property Information for addresses, Parcel IDs, NCPINs
- c) Zoning: R-8 CZ
- d) Narrative: This project will be named Waddell Drive Townhomes. The proposed project plans to combine 37 Waddell Drive, 41 Waddell Drive, and approximately 0.05 acres from 903 N Brightleaf Boulevard to demolish (2) existing single family residences and develop sixteen (16) townhomes.
- e) Density 16 townhomes proposed/ 1.64 acres project area, or 10units/acre.
- f) Proposed Infrastructure  
 Driveway access, parking, utilities, landscaping, and stormwater control infrastructure.  
 Delineated open space / public use forthcoming, to be provided by others.
- g) Discussions with Neighboring Land Owners Recommended  
 During Public Meeting with town.
- h) Conflicts with Nearby Land Uses & Environmental Areas  
 None Anticipated
- i) Burdens to Roads, Sewage, Water Supply, Schools, Fire, Police or Other Public Facilities  
 All appropriate permits related to these items are currently in the process of being acquired. Project will not be developed until they are acquired.
- j) Parks or Open Space Forthcoming from others
- k) Schedule  
 Break ground as early as December 2025  
 Demo existing infrastructure as shown on the plans. Extend Utilities, Build the associated parking and driveway, plant appropriate landscaping, install stormwater collection system, build townhomes. Finish development of the site in 6-8 months after breaking ground.

# Waddell Drive Townhomes

## Supplementary Property Information

This project proposes to combine **37 Waddell Drive**, **41 Waddell Drive**, and approximately **0.05 acres from 903 N Brightleaf Boulevard** to demolish (2) existing single family residences and develop sixteen (16) townhomes with associated driveway access, parking, utilities, landscaping, and stormwater control infrastructure.

- **37 Waddell Drive** is owned by Spectrum Realty, LLC.
- **41 Waddell Drive** and the portion of **903 N Brightleaf Boulevard** are owned by Sun Auto Wash, LLC.
- Although these are two separate companies, both entities are managed by the same individual, **Michael McLamb**, who has provided full consent to alter the parcels as proposed. **Michael McLamb's** phone number is **(919) 801-4629** and his email is [mlmclamb@msn.com](mailto:mlmclamb@msn.com)

This project will be developed by Spectrum Realty, LLC.

## Parcel Information

**Site Address:** 37 Waddell Drive, Smithfield, NC 27577

- Parcel ID: 15005029
- NCPIN: 260413-03-7539
- Owner: Spectrum Realty, LLC
- Owner Address: 100 Mariah Drive, Four Oaks, NC 27524
- Acreage: 1.4 Acres (60,984sf) according to Johnston County GIS
- Deed: Book 05843; Page 0901

**Site Address:** 41 Waddell Drive, Smithfield, NC 27577

- Parcel ID: 15005031
- NCPIN: 260413-03-8418
- Owner: Sun Auto Wash, LLC
- Owner Address: P.O. Box 447, Smithfield, NC 27577
- Acreage: 0.18 Acres (7,840 sf) according to Johnston County GIS
- Deed: Book 04768; Page 0409

**Site Address:** 903 N Brightleaf Boulevard, Smithfield, NC 27577 (portion, approx. 0.05 acres)

- Parcel ID: 15005031A
- NCPIN: 260413-03-9422
- Owner: Sun Auto Wash, LLC
- Owner Address: P.O. Box 447, Smithfield, NC 27577
- Acreage: 0.88 Acres (38,333 sf) according to Johnston County GIS
- Deed: Book 02319; Page 0734

## **LANDOWNER CONSENT FORM**

(For NCDEQ Land Disturbance / Erosion & Sediment Control Applications)

Project Name: Waddell Drive Townhomes

Project Location (Address or Description): 41 Waddell Drive and approximately 0.05 Acres from 903 N Brightleaf Blvd. in Smithfield, NC 27577

Parcel ID(s): 15005031, 15005031A

### **Landowner Information**

Landowner Name: Sun Auto Wash. LLC.

Mailing Address: 100 Mariah Drive, Four Oaks, NC 27524

Phone / Email: (919) 801-4629 / mlmclamb.msn.com

### **Applicant / Developer Information**

Applicant Name / Entity: Spectrum Realty, LLC.

Mailing Address: 100 Mariah Drive, Four Oaks, NC 27524

Phone / Email: (919) 801-4629 / mlmclamb.msn.com

### Consent Statement

I, the undersigned, being the legal owner of the property described above, hereby give my consent to:

1. Allow the Applicant / Developer named above to seek and obtain a Land Disturbance Permit and other approvals as required by the North Carolina Department of Environmental Quality (NCDEQ) and/or local permitting authorities.
2. Allow construction, grading, and land disturbance activities to be carried out on my property in accordance with the approved Erosion and Sediment Control Plan.
3. Acknowledge responsibility for ensuring compliance with all applicable rules, regulations, and conditions of approval, as set forth by NCDEQ.

### Signatures

**Landowner: Sun Auto Wash, LLC.**

Signature: Michael L McLamb Printed Name: Michael L McLamb

Title Manager

Date: 10/6/2025

**Applicant / Developer: Spectrum Realty, LLC.**

Signature: Michael L McLamb Printed Name: Michael L McLamb

Title: Manager

Date: 10/6/2025

## List of Adjacent Properties for S-25-05

ParcelID	Name1	Name2	Address1	Address2	CityStateZip
15005029	SPECTRUM REALTY, LLC		100 MARIAH DR		FOUR OAKS, NC 27524-8432
15005034	JOHNSTON COUNTY INDUSTRIES INC		1100 EAST PRESTON ST		SELMA, NC 27576-0000
15004016T	J P EDWARDS RENTAL PROPRTY LLC	EDWARDS, J P SR LIFE ESTATE		P O BOX 2307	SMITHFIELD, NC 27577-0000
15004017G	NGUYEN, NI		521 OUTLET CENTER DR		SMITHFIELD, NC 27577-6011
15004032	WHITLEY, CAROLYN	EDWARDS, J P JR		P O BOX 2307	SMITHFIELD, NC 27577-0000
15004017O	TODD MARSHBURN BUILDERS, LLC		103 LAKE WENDELL RD		WENDELL, NC 27591-7143
15004017V	ANDERSON, HILLARY	ANDERSON, NICHOLAS	47 S SUSSEX DR		SMITHFIELD, NC 27577-4743
15005049	GATES GROUP OF JOHNSTON COUNTY, LLC		300 CITATION LN		SMITHFIELD, NC 27577-8738
15005026	LMR RENTALS		201 S BRIGHTLEAF BLVD STE 1		SMITHFIELD, NC 27577-4077
15005023	HERITAGE TOWNES AT WADDELL, INC.		1777 AVENUE OF THE STATES STE 204	PO BOX 30292	RALEIGH, NC 27622-0292
15004200Z	SMITHFIELD SNF REALTY LLC		25 W WADDELL DR		LAKEWOOD, NJ 08701-6206
15005024A	GARCIA, BESSIE ROCITA		849 PARKRIDGE DR		SMITHFIELD, NC 27577-4725
15005027	JAMS PROPERTIES		103 LAKE WENDELL RD		CLAYTON, NC 27527-5309
15004017I	MARSHBURN, KELLY	MARSHBURN, LARRY	910 BERKSHIRE RD		WENDELL, NC 27591-7143
15004199H	910 BERKSHIRE ROAD LLC		4 LANSDOWNE PL		SMITHFIELD, NC 27577-4751
15004016V	SPENCER, CHARLES H.	SPENCER, MABLE J.	45 S SUSSEX DR		SMITHFIELD, NC 27577-4808
15004017N	DIAZ, JERDA DIAZ JOINT TENANTS (WROS)	DIAZ, DIANA ROSA GOMEZ JOINT TENANTS (WROS)	1130 WHITLEY FARM RD		SMITHFIELD, NC 27577-4743
15004017K	THOMPSON, CHAD R	THOMPSON, AMANDA B			SMITHFIELD, NC 27577-9461
15005031	SUN AUTO WASH LLC			PO BOX 447	SMITHFIELD, NC 27577-0000
15005025	MONJARAZ-SANCHEZ, HERIBERTO JOINT TENANTS (WROS)	SOTO, LILIANA SANCHEZ JOINT TENANTS (WROS)	29 W WADDELL DR		SMITHFIELD, NC 27577-4725
15005057	DAUGHTRY, JUDY C		10 NOTTINGHAM PL		SMITHFIELD, NC 27577-4809
15004017J	BROOKS, BRADLEY WAYNE		33 S SUSSEX DR		SMITHFIELD, NC 27577-4742
15005032B	927 NORTH BRIGHTLEAF, LLC		7201 CREEDMOOR RD STE 120		RALEIGH, NC 27613-8000
15005032A	TOP NOTCH PET SPA, LLC		2341 TIMBER DR		GARNER, NC 27529-2586
15005044	JOHNSON, JOHN A		34 WEST WADDELL STREET		SMITHFIELD, NC 27577-0000
15005046	WILSON, JAMES C.		2021 CROCKERS NUB RD		MIDDLESEX, NC 27557-8767
15005052	WHITLEY, JOHN A	WHITLEY, BARBARA B	317 S 3RD ST		SMITHFIELD, NC 27577-4543
15005032C	EDWARDS, JAMES P JR	WHITLEY, CAROLYN EDWARDS AND OTHERS		P O BOX 2307	SMITHFIELD, NC 27577-0000
15005041	MOHAMED & SONS INC			PO BOX 1236	SMITHFIELD, NC 27577-1236
15005043	L M R RENTAL		201 S BRIGHTLEAF BLVD SUITE 1		SMITHFIELD, NC 27577-0000
15005028	JONES, BOBBY RAY LIFE ESTATE	WOOD, WOODY REMAINDER		P O BOX 94	SMITHFIELD, NC 27577-0000
15005032	LER COMMERCIAL PROPERTIES LLC			PO BOX 1230	CORNELIUS, NC 28031-1230
15005045	JERNIGAN, ANNETTE B.		32 W WADDELL DR		SMITHFIELD, NC 27577-4726
15004017C	BIGELOW, APRIL LYNN		29 S SUSSEX DR		SMITHFIELD, NC 27577-4742
15005047	SALINAS, RAUL P.	SALINAS, NANCY I.	24 W WADDELL DR		SMITHFIELD, NC 27577-4726
15007004	WAS VENTURES II, LLC		PO BOX 17046		RALEIGH, NC 27619-7046
15004017M	SCOTT, LAUREN L	SCOTT, TRACEY D.	31 S SUSSEX DR		SMITHFIELD, NC 27577-4742
15005033	924 BRIGHTLEAF LLC			PO BOX 979	CARY, NC 27512
15007001	SESSOMS, MORRIS TIMOTHY	SESSOMS, BRITNEY LYNN	8120 HARRELL STORE RD		KENLY, NC 27542-8938
15005056	WARD ENTERPRISES, LLC		1012 OLD OLIVE RD		SMITHFIELD, NC 27577-7855
15007005	MEDLIN, LU LONG		303 HEDRICK ST		BEAUFORT, NC 28516-2084
15007007	STARLING, LINWOOD C JR		40 DAIL ST	PO BOX 2605	SMITHFIELD, NC 27577-2605



**PLANNING DEPARTMENT**

Micah Woodard, Planner I

**ADJOINING PROPERTY OWNERS CERTIFICATION**



I, Micah Woodard, hereby certify that the property owner and adjacent property owners of the following petition(s); RZ-25-04, S-25-05, and S-25-06 were notified by First Class Mail on 10/24/25 of the Public Meeting on November 6<sup>th</sup>, 2025.

  
\_\_\_\_\_  
Signature

Johnston County, North Carolina

I, Julianne Edmonds, Notary Public for Johnston County and State of North Carolina do hereby certify that Micah Woodard personally appeared before me on this day and acknowledged the due execution of the foregoing instrument. Witness my hand and official seal, this the

24<sup>th</sup> day of October, 2025

  
\_\_\_\_\_  
Notary Public Signature  
  
\_\_\_\_\_  
Notary Public Name



Commission expires on 1-15-2028







## S-25-05 Waddell Drive Townhomes

**File Number:**

S-25-05

**Project Name:**

Waddell Drive Townhomes

**Location:**

Waddell Drive

**Tax ID#:**

15005031, 15005029 and  
part of 15005031A

**Existing Zoning:**

R-8 CZ (Single-Two-Multi-  
Family Residential  
Conditional)

**Property Owner:**

Spectrum  
Realty, LLC and Sun Auto  
Wash, LLC

**Applicant:**

Isaac Hardison, PE - BRL  
Engineering and Surveying

**City/ETJ:**

City



# **TOWN OF SMITHFIELD CONDITIONAL ZONING**

## **CZ-24-07 Waddell Drive Townhomes**

### **GRANTED**

On the date listed below, the Town Council for the Town of Smithfield met and held a public hearing to consider the following application:

**Property Owner:** Spectrum Realty, LLC and Sun Auto Wash, LLC

**Applicant/Developer:** Terraeden landscape and Design, LLC

**Property Location:** The development will be located at 37 and 41 Waddell Drive, about 250 ft north of the N Brightleaf Blvd and Waddell Drive intersection.

**Tax ID Numbers:** 15005031, 15005029 and part of 15005031A

**Proposed Use of Property:** 16-lot townhome development

**Meeting Date:** 12/17/24

Having heard all the public testimony presented at the hearing, the Town of Smithfield Town Council finds that the application is complete, that the application complies with all of the applicable requirements of the Smithfield Unified Development Ordinance for the development proposed, and that, therefore, the application to make use of the above-described property for the purpose indicated is hereby approved, subject to all applicable provisions of the Unified Development Ordinance and the following conditions:

1. That a preliminary subdivision plan and construction drawings be submitted for review in accordance with the approved master plan and Town's Unified Development Ordinance.
2. If any of the conditions affixed hereto or any part thereof shall be held invalid or void, then this rezoning shall be void and of no effect.

**In accordance with Article 4, Part II, the Town of Smithfield Town Council imposes the following additional conditions on this Conditional Zoning request:**

1. A landscape plan be submitted meeting UDO requirements.
2. The Y-hammerhead turnaround area shall be marked as no parking in accordance with the Fire Marshal's recommendations.
3. The HOA restrictive covenants shall require trash rollouts to be stored behind the units or in the utility closet outside of trash day.
4. Liability waiver should be provided in the restrictive covenants to allow town pick up of trash on private property.
5. The driveway apron in the public right-of-way be constructed in accordance with the Town's Standard Driveway Apron Detail.

6. There shall be a 30' wide public utility easement over the public water and sewer lines.
7. The townhomes shall be substantially similar to those presented with the rezoning, in design and materials.

Mike McLamb, owner of the above-identified project for the above Conditional Zoning, does hereby acknowledge receipt of this conditional zoning approval issued by the Smithfield Town Council. The undersigned does hereby acknowledge that no work may be done pursuant to this approval except in accordance with all of its conditions and requirements and that this restriction shall be binding on them and their successors in interest. Furthermore, the applicant acknowledges that the applicant shall secure a valid zoning permit for the use within 2 years from the date of approval or the rezoning may be rescinded by the Town Council in accordance with Unified Development Ordinance, Article 4, Part II, Section 4.6.5.6.3.

*Michael L McLamb*

*Member Manager  
Spectrum Realty LLC*

Michael L McLamb

*Michael L McLamb*

Michael L McLamb

NORTH CAROLINA

JOHNSTON COUNTY

I, *Julianne Edmonds*, a Notary Public in and for said County and State, do hereby certify that *Michael L. McLamb* personally appeared before me this day

and acknowledged the due execution of the foregoing instrument.

Witness my hand and notarial seal, this the *31<sup>st</sup>* day of *December*, 20 *24*.

Notary Public: *Julianne Edmonds*  
(Printed Name)

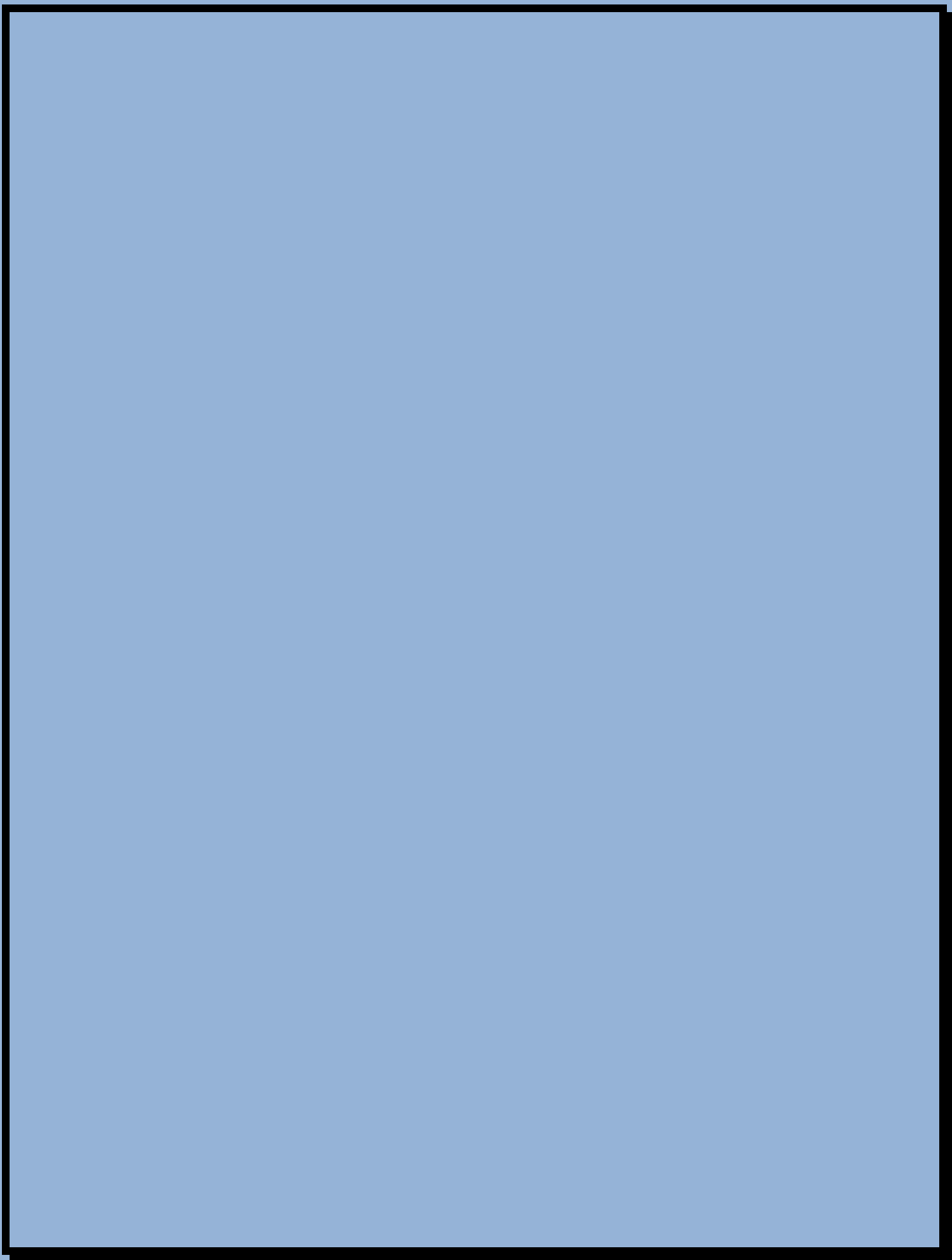
*Julianne Edmonds*  
(Signature)



(SEAL)

County of Commission: *Johnston*  
Commission Expires: *1-15-2028*

# Consent Agenda Items





The Smithfield Town Council met in regular session on Tuesday, November 18, 2025 at 7:00 p.m. in the Council Chambers of the Smithfield Town Hall, Mayor M. Andy Moore presided.

Councilmen Present:

Roger Wood, Mayor Pro-Tem  
Dr. Gettys Cohen, Jr., District 1  
Sloan Stevens, District 2  
Travis Scott, District 3  
John Dunn, At-Large  
Stephen Rabil, At-Large

Councilmen Absent

Dr. David Barbour, District 4

Administrative Staff Present

Michael Scott, Town Manager  
Kimberly Pickett, Assistant Town Manager  
Elaine Andrews, Town Clerk  
Ted Credle, Public Utilities Director  
Jeremey Daughtry, Fire Chief  
Lawrence Davis, Public Works Director  
Andrew Harris, Finance Director  
Pete Hedrick, Chief of Police  
Gary Johnson, Parks & Rec Director  
Shannan Parrish, HR Director  
Stephen Wensman, Planning Director

Also Present

Robert Spence, Jr., Town Attorney

Administrative Staff Absent

**CALL TO ORDER**

Mayor Moore called the meeting to order at 7:00 pm.

**INVOCATION**

The invocation was given by Councilman Travis Scott followed by the Pledge of Allegiance.

**APPROVAL OF AGENDA:**

Mayor Pro Tem Roger Wood made a motion, seconded by Councilman John Dunn, to approve the agenda as submitted/ amended as follows. Unanimously approved.

**PRESENTATIONS:**

**1. Acceptance of the 2025 NC One Water Potable Water Distribution System of the Year Award**

Mayor M. Andy Moore read, then presented the NC One Water Potable Water Distribution System of the Year Award to Public Utilities Director Ted Credle, and Water Sewer department employee Jordan Wilson.

**2. Acceptance of the 2025 NC One Sanitary Sewer Collection System of the Year Award**

Mayor M. Andy Moore read, then presented the NC One Sewer Collection System of the Year Award to Public Utilities Director Ted Credle, and Water Sewer department employee Jordan Wilson.

Upon presenting the awards, the mayor congratulated the entire staff on behalf of the Town Council, noting the things Town staff and the Council accomplishes, relative to providing services and affordability--given the Town's size is incredible.

**PUBLIC HEARINGS: None**



## CITIZEN'S COMMENTS:

- Kimetha Fullwood, the Population Health Officer from the Johnston County Public Health Department, addressed the council. She highlighted the department's services, including flu and COVID vaccines, upcoming diabetes self-management programs, and the availability of free Narcan (an opioid overdose reversal medication) for residents. She emphasized ongoing outreach and collaborative meetings to keep the community informed about public health resources. She expressed her ongoing commitment to serving Smithfield and Johnston County and encouraged attendees to reach out for any public health needs. She expressed gratitude to the council, and when asked she stated her department's location in proximity to the hospital.
- Richard Buckner expressed concern over the financial risk of the proposed Tob's baseball stadium, stating the risk falls primarily on the town and its citizens, not private investors or banks. He further stated his opinions as follows:
  - *He questioned prioritizing millions in funding for a new, seasonal business over addressing critical needs of existing local businesses and infrastructure, such as building a parking garage.*
  - *Buckner doubted the broader community benefit of the stadium and felt it may ignore more pressing economic development opportunities.*
  - *He criticized the proposed location, emphasizing its proximity to schools, parks, and growing neighborhoods, warning of increased congestion and traffic problems.*
  - *He cited insufficient consideration of the cumulative impact of local development decisions, particularly on traffic and livability.*
  - *Buckner expressed frustration that the project seemed to be moving forward without holding public hearings for transparency and public trust.*
  - *He urged the council to prioritize current community needs and to proceed with greater caution, transparency, and engagement.*

## CONSENT AGENDA:

*Mayor Pro Tem Roger Wood made a motion, seconded by Councilman John Dunn to approve the following items as listed on the Consent Agenda. Unanimously approved.*

### *Consent Agenda Items:*

1. **Consideration and request for approval to Adopt Resolution 791 (30-2025) authorizing the disposition of certain surplus property and the auctioning of that property by the electronic service of GovDeals.com:** The Public Utilities Department wishes to dispose of a 2003 International Bucket Truck. Staff respectfully requests approval of Resolution 791 (30-2025) authorizing sale of surplus property in accordance with NC G.S. 160A-270.
2. **Consideration and request to reappoint Mike Fleming to the Johnston County Economic Development Committee representing the Town of Smithfield:** The General Government Administration Office is in receipt of an application for the reappointment of Mike Fleming to the Johnston County Economic Development Committee representing Smithfield. The County Clerk's Office respectfully requests the Council's consideration and a response from staff by December, 2025.
3. **Consideration and request for approval for Budget Amendments:** The Finance Department respectfully requests approval of budget amendments. During the fiscal year, budget amendments are periodically required to ensure that the Town's Budget Ordinance remains balanced and accurately reflects operational needs. These adjustments address unforeseen circumstances or expenditures that were not known at the time the original budget was adopted. Staff recommends that the Town Council approve the attached Budget Amendment as presented.

## AMENDMENT TO BUDGET ORDINANCE

### TOWN OF SMITHFIELD

**BE IT ORDAINED** by the Town Council of the Town of Smithfield, North Carolina, that the following amendment is made to the budget ordinance for the fiscal year ending June 30, 2026:

**Section 1:** To amend the General Fund, the appropriations and estimated revenues are to be changed as follows:

**See Attachment A**

**Section 2:** To amend the Water Sewer Capital Project Fund, the appropriations and estimated revenues are to be changed as follows:

**See Attachment B**

**Section 3:** To amend the Water Sewer Capital Reserve Fund, the appropriations and estimated revenues are to be changed as follows:

**See Attachment C**

The General Fund expenditure requires an amendment to the budget ordinance for renovations to Howell Theatre. The transfer between the Water Sewer Capital Project Fund and Water Sewer Capital Reserve Fund requires an amendment for the purchase of the vacuum truck.

**Section 4:** Copies of the budget amendment shall be furnished to the Clerk of the Town Council, and to the Budget Officer and the Finance Officer for their direction.

**Adopted** this 18<sup>th</sup> day of November 2025 by the Smithfield Town Council.

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M. Andy Moore, Mayor

ATTEST:

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Elaine Andrews, Town Clerk

4. **Special Event – Bulldog Harley Davidson Naughty or Nice event:** Bulldog Harley-Davidson is requesting to hold a Naughty or Nice event at 1043 Outlet Center Drive on December 6, 2025. The event will run from 11:00 am to 4:00 pm. A food truck will be on-site to sell food.
5. **Special Event – Bulldog Harley Davidson Sip & Shop event:** Bulldog Harley-Davidson is requesting to hold a Sip & Shop event at 1043 Outlet Center Drive on December 13, 2025. The event will run from 11:00 am to 4:00 pm. A food truck will be on-site to sell food.
6. **Special Event – Bulldog Harley Davidson Pictures with Santa event:** Bulldog Harley-Davidson is requesting to hold Pictures with Santa at 1043 Outlet Center Drive on December 20, 2025. The event will run from 11:00 am to 4:00 pm. A food truck will be on-site to sell food.

## 7. New Hire Report

8. **Consideration and request for approval for Donation of Sick Leave to an Employee:** Staff is requesting Council approval to allow the donation of accrued sick leave from Town employees to an eligible employee who has submitted a request for donated leave.
9. **Consideration and request for approval for award of Contract for Constructing the South Smithfield Water Line Extension:** Staff respectfully requests that the Council approve the selection of Jymco Construction Company, Inc., the lowest responsive and responsible bidder, for the South Smithfield Water Line Extension project at a contract price of \$898,500.00, and authorize the Town Manager to execute the agreement.

## BUSINESS ITEMS:

1. **Consideration and request for approval to award a bid to the lowest most responsible bidder for the Downtown Street Resurfacing Project:** The Public Works Department respectfully requests the Council's approval to enter into a contract with Coastline Contracting Company, LLC, the lowest responsive and responsible bidder, in the amount of \$1,384,572.77. Pursuant to the Council's request at the October 21, 2025, regular meeting, staff has obtained and verified references to confirm the company's satisfactory reputation and work experience.

Public Works Director Lawrence Davis presented the bid and background on Coastline Construction, emphasizing the company's strong reputation and positive references. Davis outlined the project timeline, granting 224 days to completion due to the winter season, with anticipated completion by late May or mid-June.

Councilman Travis Scott asked about planning and utility coordination to prevent newly resurfaced streets from being damaged by later utility work, referencing past problems. Davis confirmed proactive measures and ongoing communication with utility teams, but acknowledged some limitations in detecting subsurface issues prior to resurfacing.

Council members discussed the need for updated road condition evaluations and ensuring prioritized repairs address the most critical areas.

Mayor Pro Tem Roger Wood asked, regarding the current list of roads for repair, whether some road segments may have worsened since the last evaluation (completed in 2017), reiterating the need for current data in future project planning and addressing immediate problems—given the Town's investment. Davis clarified the resurfacing list reflects assessments from past years but aims to address the worst conditions town-wide, confirming coverage across all districts. The total approximate mileage of resurfacing in the contract is approximately 6.5 miles of road.

The council expressed appreciation for increased transparency and thoroughness in the bid review process compared to previous years.

*Councilman Travis Scott made a motion, seconded by Mayor Pro Tem Roger Wood to approve awarding the street resurfacing project contract to Coastline Construction as requested by staff. The motion was carried and was unanimously approved by the council.*

Mayor Andy Moore noted that this was a historical amount of road repairs--more than ever done in years past.

2. **Consideration and request for approval to enter into a contract with W.T.B.C., LLC, aka Tobs Baseball, LLC:** The Town of Smithfield is requesting approval to enter into a

contract with W.T.B.C. LLC (aka the Tobs) for the use of a coastal league baseball facility – to include concession stands, meeting rooms, locker rooms, baseball field and stadium storage areas at the Smithfield Community Park.

Assistant Town Manager Kim Pickett addressed the Council stating to present details of a proposed 20-year lease (with a five-year extension option) with Tobs Baseball, LLC for use of baseball facilities at Community Park. She highlighted the following points regarding the contract:

- Outlined the financial arrangement:
  - First two years (2026–2027): \$1 annual payment.
  - 2028: \$10,000 annual payment.
  - 2029: \$12,250 annual payment.
  - 2030–2034: \$25,000 annual payment (next five years).
  - 2035–2039: 2% annual increase.
  - 2040–2044: Rate remains at 2039 level until end of 20-year term.
  - At each five-year rollover, a 5% increase is implemented.
  - Payments in 2028 split into five monthly installments, each year for April–August
- Town's responsibilities:
  - Retains naming rights and proceeds from stadium/field.
  - Receives use of facility (November 16–April 30) for parks, recreation, and town events.
  - Pays water/sewer utilities and provides refuse service.
  - Responsible for construction, maintenance, repairs, sound system, video scoreboard, pesticide application and turf aeration.
- Tobs' responsibilities:
  - Exclusive stadium use May 1–November 15.
  - Pays for electrical utilities and internet, manages playing surface, office and stadium cleaning.
  - Provides full control of concessions (with town event use possible), supplies, and event security.
  - Manages advertising (subject to town approval), and provides all staffing.
- Detailed anticipated benefits to town:
  - Not only baseball, but also other community events and enhanced community engagement opportunities.
  - Potential financial returns through naming rights, advertising, increased tourism, and expanded facility use.
- Summarized funding sources from various town and county funds, including economic development, tourism, capital, and grants.
  - *TOS Economic Development Funds: \$ 2,000,000*
  - *TOS Tourism Budget: \$584,187*
  - *TOS Capital Budget (from TH Plans) \$250,000*
  - *Bingham Park Fund: \$365,789*
  - *TOS Park in Lieu Funds: \$300,000*
  - *JCVB Budget: \$500,000*
  - *Johnston County Budget: \$2,000,000*
  - ***Total estimated rounded budget of \$6,000,000***

Pickett stated that a representative from Tobs (Greg Suire) could also speak about the community impact.

Councilman Travis Scott asked what parts of the budgeted funds are from the Town's restricted fund balance from the current general fund budget. Pickett stated Park in Lieu and Bingham Park funds are restricted. Councilman Scott also received clarification that the economic development funds used were all from the general fund, and not split from various department funds. Councilman Scott also noted his following concerns:

- Questioned the inclusion of free water and sewer service for the stadium, expressing concern that without a cap or fee, there would be no incentive for the operator to limit usage.
- Noted that the contract did not explicitly set an allocation or specify utility costs for high usage, and advocated for including such provisions.

- Raised broader issues regarding transparency, pointing out the lack of a public hearing for the project despite its scale and cost.
- Voiced concern about the suitability of the proposed location, referencing potential impacts on existing athletic facilities, increased traffic, and unfunded relocation costs for other sports fields.
- Mentioned the need to amend local ordinances if alcohol sales are planned at the facility.
- Expressed unease about whether all due diligence steps, such as traffic studies and planning board approval, had been fully addressed prior to moving forward.

Councilman Travis Scott also asked if discussions were had with NCDOT regarding a turning lane. Pickett stated NCDOT is aware of the project coming, but with no plans yet, at this point she is keeping communication going as the project progresses. Councilman Scott noted his concern with the Board discussing an item for which no plans, and only a concept exists.

Greg Suire of W.T.B.C., LLC, aka Tobs Baseball, LLC addressed the Council. He thanked the council and staff for their professionalism and the opportunity to partner with Smithfield, giving the following highlights of the proposal:

- Highlighted the Tobs' successful track record of the Coastal Plains league in Wilson and Thomasville, emphasizing the organization's experience in operating high-level summer collegiate baseball and community events.
- Stated that bringing the team to Smithfield would establish the town as a new "capital of baseball" in eastern North Carolina.
- Noted steady and significant attendance at events in Wilson, projecting similar positive impacts for Smithfield.
- Stressed the organization's commitment to professionalism, community engagement, and providing affordable, family-friendly entertainment year-round.
- Expressed excitement and readiness to be a long-term, positive presence in the Smithfield community and invited further questions from the council or public.
- Described a full calendar of events (not limited to baseball) from February to November, including amateur tournaments, high school games, and youth camps—contributing to local tourism and economic activity.

Councilman Scott asked if there has been a request made to modify town code for noise abatements. Pickett stated there has not been a request made at this time.

Councilman Scott also asked if the Board would need to address potential zoning concerns at this point. Pickett stated there were no zoning concerns that staff has been made aware of, noting they have been involved. Planning Director Stephen Wensman explained that, although he had not yet seen the specific plans for the proposed project, standard procedure would require a site plan review ensuring compliance with the Unified Development Ordinance (UDO), adherence to all required setbacks, and completion of a Traffic Analysis Addendum (TAA) as part of the approval process. Pickett added that staff is not there yet because no contract has been signed with the contractor, but these issues would be addressed, and rules will be followed—with encouragement for the Board to hold her accountable to following the standards.

Councilman Scott asked if the Town was locked in to the Community Park location. Pickett replied that she did not know of another location that would work at this time. Councilman Scott iterated that it was his, as well as his neighbors' personal opinions that this was not the right location for this project.

Mayor Pro Tem Roger Wood asked if there would be compliance with existing noise ordinances. Greg Suire noted that outlined ordinances relative to noise will be followed. He further added that the Community Park location is already an athletic site, and he believes the ball park will be a successful expansion. Councilman Travis Scott emphasized the difference between casual youth sports activities and large baseball events, expressing concern that hosting games with up to 1,500 attendees and amplified sound so close to residences (less than 100 yards away) would have a much greater impact on nearby neighbors.

Board members inquired about security, with Pickett noting that Town police staff would be utilized for security and traffic management, with the Tobs paying staff at the off-duty rate.

Questions were raised regarding the absence of detailed site plans and spatial dimensions for the stadium and related facilities. Board members and the town attorney requested clarification on stadium size, amenities, and accommodation for possible future expansion.

Greg Suire explained that the planned stadium would be similar in size to their facility in Thomasville (about 1,500 seats), with design and spatial specifics to be worked out in the design/build phase. He emphasized that the stadium would be appropriately sized for Smithfield's needs.

There was discussion regarding lessons learned from stadium projects in other locations and whether the Tobs own or lease their other ballparks; Suire clarified that they typically operate under lease agreements.

Discussion focused on contingency planning if construction costs exceed the guaranteed maximum price; Suire confirmed the Tobs would not be responsible for cost overruns. Councilman Scott stressed his concern with leaving cost overrun risk with the town.

*Mayor Andy Moore made the suggestion that the Board move forward to discuss the consideration for the construction contract of the baseball field, which was the next item on the agenda, before making its decision. The Council unanimously concurred to hear the next agenda item first, then discuss the items together for a decision.*

- 3. Consideration and request for approval to enter into a contract with Muter Construction Inc. for the design service and construction of a baseball field for the guaranteed maximum price of 6,000,000:** The Parks and Recreation Department is requesting the consideration and approval to enter into a contract for the construction of a baseball venue to be located at 1500 Buffalo Rd. at Smithfield Community Park.

Parks & Recreation Director Gary Johnson explained that, following a thorough selection and vetting process—including RFQs (requests for qualification) reviews, interviews, and evaluations—Muter Construction has submitted a design-build contract for the new baseball venue for a guaranteed maximum price of \$6 million dollars. The venue is designed to stay within the budget allotted. Johnson noted the venue will be suitable for the Coastal Plains League team and for a wide variety of town programs and events.

Johnson outlined the proposed scope of work, stating the contract covers cost for the construction of an NCAA-standard field (natural or synthetic surface), spectator seating, premium seating, a press box, team and umpire locker rooms, concession facilities, restrooms, retail/merchandise areas, storage, administrative offices, and parking. Johnson introduced Greg Driver, of Muter construction who was there to answer any questions.

Mayor Pro Tem Roger Wood asked Greg Suire if he felt that would be everything needed to complete the job.

Greg Suire highlighted that the proposed stadium will meet all Coastal Plain League requirements but is intentionally scaled to be practical and appropriate for Smithfield's community needs—not extravagant or oversized like more expensive stadiums in the region.

Councilman Travis Scott asked whether Muter Construction has built a baseball stadium before. Greg Driver, Muter Construction representative stated that the construction company themselves had not, but that their team at Carolina Greens have worked with the CRA and have done multiple fields together. It was also discussed that design would be such as to allow for future expansion.

Questions were raised about how to handle potential cost overruns, budget flexibility, and whether additional scope items—such as demolition and site preparation—would be covered by the contract or might require additional funding.

There was also discussion regarding the accommodation for players who currently frequent the soccer park at Community Park. Johnson noted the practice football field at the other side of the park would be converted to a soccer field. He also noted that Talton fields could be used more as well for the soccer teams they currently have.

Mayor Moore asked if the Town has an “out” in the lease for if perhaps there is some reason funding cannot be met by the Town. Pickett stated this was the purpose of design, so that things may be cut. Pickett explained that the goal would be to stay within the \$6 million cap, with “shopping lists” and prioritized alternatives developed during the design process to avoid exceeding budget limits.

Additional funding possibilities, such as naming rights, state appropriations, and private sponsorships, were discussed as ways to offset costs or expand features.

Attorney Bob Spence addressed the absence of a detailed site/design plan noting it as a point of concern. Staff gave assurance that NCAA and Coastal Plains League standards would provide guidance for basic stadium requirements.

Councilman Travis Scott again addressed the possibility of cost overrun, as the quoted price for construction is not “turn key”. Councilman Scott also discussed the other side of economic impacts— noting the Tobs could possibly leave Smithfield in the future, and we are left with the stadium. He also discussed a desire for public input, and the importance of tracking the project’s ongoing impact for the future.

Mayor Pro Tem Roger Wood discussed the demonstrated economic impact of sports tourism. He reflected on the legacy and historical significance of longstanding baseball venues, acknowledging that older fields may lose appeal over time. He compared renovating an old field to building a new home and expressed confidence in the Tobs’ track record of maintaining their leases and presence in previous locations. Wood commended the Tobs and the city for their work to date and encouraged them to continue their positive efforts, recognizing that circumstances and venues inevitably do change with time.

Greg Suire reemphasized that they have been in Thomasville for twenty-six years in a row. They have been in Wilson for fifteen years of his ownership. The Tobs have been in the Coastal Plains League for twenty-nine years. He stated that is three decades of commitment.

*Mayor Pro Tem Roger Wood made a motion, seconded by Councilman John Dunn to enter into a contract with the Tobs. The motion carried 5 to 1, with Councilman Travis Scott voting no.*

*Mayor Pro Tem Roger Wood made a motion, seconded by Councilman John Dunn to enter into a contract with Muter Construction for the design build of the baseball stadium. The motion carried 5 to 1 with Councilman Travis Scott voting no.*

Councilman Travis Scott asked that staff keep the Council updated on the project, and received confirmation that planning, zoning and administrative code issues pertaining to stadium construction would come before the Board.

#### **COUNCILMEMBER COMMENTS:**

- Councilman Scott thanked the community for their votes from the past election. He thanked his opponent for running a clean campaign. He iterated his open-door policy for citizen contact if needed.
- Mayor Pro Tem Roger Wood congratulated all winners of the election. He also congratulated Mayor Andy Moore for his win, and thanked him for his many years of service to the Town. He also thanked the public for their attendance at his brother’s funeral, and staff, community members and the Council for their support during that difficult time.
- Councilman Gettys Cohen, Jr. thanked the public for their support for his campaign. He extended congratulations to campaign winners. He also offered his condolences to the family of Mayor Pro

Tem Wood.

- Councilman John Dunn expressed his excitement for the economic impact the baseball team will bring to Smithfield, noting the venue would provide not only baseball, but much needed entertainment for the citizens of Smithfield.
- Councilman Gettys Cohen, Jr. stated he appreciated the upcoming widening of Market Street on the East side of Town. He did express concerns for the noise from the project's construction in the Pine Acres community at 3:00 am. Cohen stated he understands this is a state highway, noting the Board has limited control—but wanted this concern noted.
- Mayor Andy Moore welcomed the Tobs baseball team to Smithfield. The mayor addressed the community, acknowledging that not everyone will be pleased with the council's decisions, including the baseball stadium project. He emphasized his long-term commitment and love for Smithfield, the challenge of making difficult decisions, and the responsibility to act for the greater good—even amid criticism. The mayor called for civility and mutual respect in public discussions, noting the importance of listening to all voices and respecting differing views. He expressed pride in the council's work, appreciation for positive community engagement, and encouraged a focus on the town's accomplishments and collective progress. Mayor Andy Moore further highlighted the council's reduction of the town tax rate without decreasing services, commended town staff for their work and responsiveness, and compared local government efficiency favorably to larger cities. He discussed the challenges and importance of maintaining adequate downtown parking, referenced ongoing dialogue with the DOT regarding parking changes, and reiterated support for downtown businesses. The mayor announced upcoming community events and expressed appreciation for the community's support. He acknowledged the passing of Mayor Pro Tem Roger Wood's brother, praising him as his baseball coach who truly taught the values in youth sports—noting he taught "more than baseball".

## **TOWN MANAGER'S REPORT:**

Assistant Manager Pickett made the following comments:

- Announced the launch of the Christmas.com website and detailed the schedule for upcoming holiday events:
- *Christmas tree lighting on November 28, from 3 to 8 p.m.*
- *"Shop Small" Saturday event following the lighting*
- *Christmas carriage rides begin December 5*
- *Grinch Run scheduled for December 6*
- Informed that Town offices will be closed on November 27 and 28 for the Thanksgiving holiday.
- Recognized Mayor Moore as the recipient of the Central Pines Regional Council Longleaf Leadership Award for exceptional leadership, vision, and service.
- Notified council members of an upcoming dinner event in Durham at the Central Pines Regional Council office and provided registration instructions for those wishing to attend.

Mayor Andy Moore acknowledged a retirement memo received from Town Manager Mike Scott with an effective date of February 1<sup>st</sup>, 2026. He recognized his effective leadership, thanking him for his years of dedicated service as Smithfield's Police Chief, as well as its Town Manager—noting that Manager Scott was one of, if not the best managers he has ever worked with. He thanked the Manager for his leadership and friendship.

## **ADJOURN:**

*Councilman John Dunn made a motion, seconded by Dr. Gettys Cohen, Jr., to adjourn the meeting at approximately 8:45 pm. Unanimously approved.*



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M. Andy Moore, Mayor

ATTEST:

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Elaine Andrews, Town Clerk

DRAFT

# Attachment A

Acct #	Description	Decrease	Increase
<b>Revenues:</b>			
10-10-3300-3307-0020	Grant - JC Visitors Bureau	-	150,000
<b>Expenditures:</b>			
10-10-4110-5300-3305	Miscellaneous	-	150,000
<b>Check:</b>			
		Decrease	Increase
Revenues		-	150,000
Expenditures		-	150,000
Totals		-	-
Check Figure			-

## Attachment B

Acct #	Description	Decrease	Increase
<b>Revenues:</b>			
45-75-3870-3870-0070	Transfer from Capital Reserve Fund	-	547,650
<b>Expenditures:</b>			
45-71-7220-5700-7434	1/3 Vacuum Truck	-	547,650
<b>Check:</b>			
		Decrease	Increase
Revenues		-	547,650
Expenditures		-	547,650
Totals		-	-
Check Figure			-

# Attachment C

Acct #	Description	Decrease	Increase
<b>Revenues:</b>			
70-00-3990-3990-0000	Fund Balance Appropriated	-	547,650
<b>Expenditures:</b>			
70-76-7220-5970-0045	Transfer to Water Sewer Capital Projects Fund	-	547,650
<b>Check:</b>			
		Decrease	Increase
Revenues		-	547,650
Expenditures		-	547,650
Totals		-	-
Check Figure			-



The Smithfield Town Council met in regular session on Tuesday, December 2, 2025 at 7:00 p.m. in the Council Chambers of the Smithfield Town Hall, Mayor M. Andy Moore presided.

Councilmen Present:

Roger Wood, Mayor Pro-Tem  
Dr. Gettys Cohen, Jr., District 1  
Sloan Stevens, District 2  
Travis Scott, District 3  
Dr. David Barbour, District 4  
Councilwoman Doris Wallace, District 4  
John Dunn, At-Large  
Stephen Rabil, At-Large

Councilmen Absent

Administrative Staff Present

Michael Scott, Town Manager  
Kimberly Pickett, Assistant Town Manager  
Elaine Andrews, Town Clerk  
Jeremey Daughtry, Fire Chief  
Ted Credle, Public Utilities Director  
Lawrence Davis, Public Works Director  
Andrew Harris, Finance Director  
Pete Hedrick, Chief of Police  
Gary Johnson, Parks & Rec Director  
Shannan Parrish, HR Director  
Stephen Wensman, Planning Director

Also Present

Robert Spence, Jr., Town Attorney

Administrative Staff Absent

**CALL TO ORDER**

Mayor Moore called the meeting to order at 7:00 pm.

**INVOCATION**

The invocation was given by Councilman David Barbour followed by the Pledge of Allegiance.

**APPROVAL OF AGENDA:**

*Mayor Pro Tem Roger Wood made a motion, seconded by Councilman Stephen Rabil, to approve the agenda, amended as follows. Unanimously approved.*

Changes:

- *Add item No. 5 – Consideration and request for approval for DSDC to hold a Jingle Ball Jubilee on December 14, 2025 from 3:00 pm to 8:00 pm.*
- *There was a consensus for a budget work session among council members to be scheduled for December 9, 2025. Rather than adjourning tonight's meeting, it will be recessed until December 9, 2025 at 6:30 pm.*

Councilman Travis Scott added that discussion for the process to replace the city manager needs to be had at the meeting on December ninth. The mayor concurred that the topic could be added to that meeting's agenda to be discussed.

**Old Business:**

*Mayor Pro Tem Roger Wood made a motion, seconded by Councilman John Dunn to approve the items on the Consent Agenda. Unanimously approved.*

**Consent Agenda Items:**

**1. Approval of Minutes:**

- October 7, 2025 – Regular Session
- October 7, 2025 – Closed Session
- October 21, 2025 – Regular Session
- October 21, 2025 – Closed Session

2. **Adoption of Safety Policies:** Staff is requesting the approval of the following Safety Policies: Exposure Control Plan (Bloodborne Pathogens) and Personal Protective Equipment (PPE) Hazard Assessment Program
3. **Acceptance of Streets for Maintenance – Franklin Townes residential development:** The developer of the Franklin Townes subdivision has completed the construction of all the street infrastructure, including roads, curb and gutter, street lighting and utilities. The Public Works Department has completed all the inspections of the street infrastructure to their satisfaction. Staff respectfully requests the Town Council adopt Resolution 792 (31-2025) accepting a list of Franklin Townes development streets for maintenance.

**Town of Smithfield  
Resolution No. 792 (31-2025)**

**A Resolution to Accept Paramount Drive, Golden Arms Drive, South Copper Fox Lane, North Copper Fox Lane and Peebles Drive in the Franklin Townes Development for Town Street Maintenance**

**WHEREAS**, the Town of Smithfield recognizes the importance of maintaining safe and accessible streets for the benefit of its residents; and

**WHEREAS**, Paramount Drive, Golden Arms Drive, South Copper Fox Lane, North Copper Fox Lane and Peebles Drive in the Franklin Townes Development are located within the jurisdictional limits of the Town of Smithfield, and have been constructed to meet the required standards for public roadways as set forth by the Town; and

**WHEREAS**, Town staff has conducted an evaluation of Paramount Drive, Golden Arms Drive, South Copper Fox Lane, North Copper Fox Lane and Peebles Drive in the Franklin Townes Development and determined that the streets meet the standards for acceptance of public streets pursuant to *Sections 17-27 through 17-29* of the Town of Smithfield code of Ordinances; and

**WHEREAS**, the Developer has requested the Town accept maintenance of streets and associated infrastructure for Paramount Drive, Golden Arms Drive, South Copper Fox Lane, North Copper Fox Lane and Peebles Drive in the Franklin Townes Development; and

**WHEREAS**, the acceptance of Paramount Drive, Golden Arms Drive, South Copper Fox Lane, North Copper Fox Lane and Peebles Drive into the Town's Street maintenance inventory will add approximately 3,162 linear feet of roadway, increasing the Town's responsibilities and costs for regular upkeep and repairs while also generating additional revenue through the state's Powell Bill Fund; and

**WHEREAS**, the Town Council has determined that the acceptance of Paramount Drive, Golden Arms Drive, South Copper Fox Lane, North Copper Fox Lane and Peebles Drive is in the best interest of the public;

**NOW, THEREFORE, BE IT RESOLVED** by the Town Council of the Town of Smithfield as follows:

1. **Acceptance of Streets:** The Town of Smithfield hereby accepts Paramount Drive, Golden Arms Drive, South Copper Fox Lane, North Copper Fox Lane and Peebles Drive in the Franklin Townes Development, adding approximately 3,162 linear feet, into its network of streets to be maintained by the Town.
2. **Maintenance Obligation:** The Town of Smithfield assumes responsibility for the ongoing maintenance, repair, and general upkeep of Paramount Drive, Golden Arms Drive, South Copper



Fox Lane, North Copper Fox Lane and Peebles Drive in the Franklin Townes Development in accordance with its policies and standards for public streets.

3. **Effective Date:** This resolution shall take effect immediately upon its adoption.

Adopted this 2<sup>nd</sup> day of December, 2025, by the Town Council of the Town of Smithfield.

\_\_\_\_\_  
M. Andy Moore, Mayor

ATTEST:

\_\_\_\_\_  
Elaine S. Andrews, Town Clerk

#### 4. New Hire Report

##### Filled Positions

The Town Council is informed that the following positions have been successfully filled in accordance with the Adopted FY 2025–2026 Budget. This information is provided to formally acknowledge staffing updates and to maintain transparency in the hiring process.

<u>Part Time - Position</u>	<u>Department</u>	<u>Budget Line</u>	<u>Rate of Pay</u>
Parks & Rec Staff	Parks & Rec	10-60-6200-5100-0210	\$10.00
SRAC Staff General	SRAC	10-60-6220-5100-0210	\$12.00
SRAC Staff Aquatics	SRAC	10-60-6220-5100-0220	\$10.00

##### Current Vacancies

The Town Council is informed of the following current vacancies within the organization, which remain unfilled. These vacancies are reported to ensure transparency in staffing levels and to keep the Council apprised of ongoing recruitment efforts.

<u>Position</u>	<u>Department</u>	<u>Budget Line</u>
Deputy Police Chief	Police	10-20-5100-5100-0200
Police Officer (GHSP 1 position)	Police	10-20-5100-5100-0200
Police Officer (SRO 1 position)	Police	10-20-5100-5100-0200
Firefighter (1 position)	Fire	10-20-5300-5100-0200
Street Maintenance Worker	PW – Streets	10-30-5600-5100-0200
*Sanitation Equipment Operator (2 positions)	PW – Sanitation	10-40-5800-5100-0200
Administrative Support Specialist	Parks and Rec	10-60-6200-5100-0200
Utility Line Mechanic	PU – W/S	30-71-7220-5100-0200
*Waste Water Systems Technician	PU – W/S	30-71-7220-5100-0200

\* Vacancies due to pending retirement

Note – Only 1 Sanitation Equipment Operator Vacancy is due to retirement

- 5. Consideration and request for approval the DSDC to hold a Jingle Bell Jubilee on December 14, 2025 from 3:00 pm-8:00 pm:** The event is proposed to take place in the 100 block of South Third Street. This family-friendly event will feature craft vendors, food trucks, Santa visits, carriage rides, and a community sing-along at the Town Christmas tree. A DJ will provide music from 3:00 p.m. to 7:00 p.m., and vendors will be positioned along South Third Street. The applicant is requesting the temporary closure of the 100 block of South Third Street for the duration of the event.

## **Organizational Meeting:**

Pursuant to NCGS 160A-68, the Smithfield Governing Body is scheduled to conduct an organizational meeting. Therefore, the following information is provided:

### **1. Presentation:**

- a. To outgoing Councilman Dr. David Barbour and the relinquishment of Council Seat. Councilman Barbour received a framed Proclamation from the Mayor with a key to the city.

Mayor Andy Moore and other Council members offered heartfelt words of appreciation to Councilman David Barbour upon his departure from the Board, and for his many years of dedicated service to the Town's constituents. Mayor Moore issued the following Proclamation:

#### ***TOWN OF SMITHFIELD PROCLAMATION***

#### ***HONORING THE SERVICE OF COUNCILMAN DAVID BARBOUR***

*WHEREAS, the success of local government depends upon the commitment, integrity, and professionalism of its leaders, whose service is measured by their character, ability, and thoughtful deliberation; and*

*WHEREAS, Dr. David Barbour has exemplified these qualities as a member of the Smithfield Town Council since first sworn in as Councilman for District Four of the Town of Smithfield on December 5, 2017; and*

*WHEREAS, during his tenure, Dr. David Barbour has served the citizens of Smithfield with honor, dedication, and integrity, faithfully representing his constituents and the community for the past eight years; and*

*WHEREAS, Dr. Barbour has devoted countless hours to addressing issues affecting not only District Four, but also the Town as a whole, demonstrating a steadfast commitment to progress through thoughtful dialogue and sound decision-making; and*

*WHEREAS, Dr. David Barbour, as Pastor of Watson's Grove Free Will Baptist Church in Kenly, North Carolina, and as a former educator with the Johnston County School System, has exemplified leadership rooted in faith, compassion, and service to others; and*

*WHEREAS, his tenure on the Smithfield Town Council has been marked by a genuine affection for the people of Smithfield and a passion for improving the Town's economic vitality and aesthetic development; and*

*WHEREAS, Dr. David Barbour has also faithfully served as the Council Liaison to the Parks and Recreation Advisory Committee, supporting initiatives that enrich the quality of life for residents and enhance community engagement;*

***NOW, THEREFORE, BE IT PROCLAIMED***, that I, M. Andy Moore, Mayor of the Town of Smithfield along with the members of the Town Council do hereby recognize and commend

#### ***DR. DAVID BARBOUR***

*for his distinguished service, leadership, and commitment to the citizens of Smithfield, North Carolina.*

***BE IT FURTHER PROCLAIMED***, that we extend our sincere appreciation and best wishes to Dr. David Barbour for the countless hours he has dedicated to town governing and as he continues to serve others through his ministry and community involvement.

**2. Oaths of Office:**

- a. Administering the Oath of Office to returning Honorable Mayor M. Andy Moore by the Honorable Michelle Ball, Clerk of Superior Court of Johnston County
- b. Administering the Oath of Office to Council-elect Dr. Gettys Cohen, Jr. by the Honorable Michael R. Morgan, Senior Associate Supreme Court Justice (Retired)
- c. Administering the Oath of Office to returning Councilman Sloan Stevens by the Honorable Michelle Ball, Clerk of Superior Court of Johnston County
- d. Administering the Oath of Office to returning Councilman Travis Scott by the Honorable Joy Jones, District Court Judge
- e. Administering the Oath of Office to Councilwoman-elect, Doris Louise Wallace by the Honorable Addie Rawls, District Court Judge (Retired)

**3. Election of the Mayor Pro-Tempore:**

Pursuant to NCGS 160A-70, At the organizational meeting, the Council shall elect among its members a Mayor Pro-Tempore to act during the absence of the mayor.

*Mayor Pro Tem Roger Wood made a motion, seconded by Councilman Gettys Cohen, Jr. to nominate and appoint Councilman Sloan Stevens as the Mayor Pro Tempore for the next two years. Unanimously approved.*

**4. Council Appointment to Advisory Town of Smithfield Advisory Boards:**

Mayor M. Andy Moore made the following Advisory Board appointments:

Appearance Commission – Councilman Sloan Stevens  
Library Board of Trustees – Councilman Roger Wood  
Employee Benefits Committee – Councilmen Travis Scott and Stephen Rabil  
NCEMPA Board of Commissioners – Councilman Travis Scott  
County Water/Sewer Authority – Councilmen Travis Scott and Sloan Stevens  
UCPRPO (NCDOT) – Mayor Andy Moore

*Councilman Stephen Rabil made a motion, seconded by Councilman John Dunn to appoint Councilman Roger Wood to serve on the Recreation Advisory Committee. Unanimously approved.*

Recreation Advisory Committee – Councilman John Dunn

**5. Meeting Schedule:**

Pursuant to NCGS 160A-71 and the Town of Smithfield Code of Ordinances Article II, Section 2-46, the governing body is to adopt a meeting schedule.

*Councilman Travis Scott made a motion, seconded by Councilman Stephen Rabil to adopt the 2026 Town Council Meeting Schedule as follows. Unanimously approved.*

*It was also the consensus of the Board to change the **Appearance Commission's** meeting date and time to the second Tuesday of the month at 5:30 p.m., as recommended by administrative staff and unanimously agreed upon by the Commission at their regular meeting on 11/18/25.*

## **2026 Town Council Meeting Schedule**

January 6<sup>th</sup> and 20<sup>th</sup>  
February 3<sup>rd</sup> and 17<sup>th</sup>  
March 3<sup>rd</sup> and 17<sup>th</sup>  
April 7<sup>th</sup> and 21<sup>st</sup>  
May 5<sup>th</sup> and 19<sup>th</sup>  
June 2<sup>nd</sup> and 16<sup>th</sup>  
July 7<sup>th</sup> and 21<sup>st</sup>  
August 18<sup>th</sup>  
September 1<sup>st</sup> and 15<sup>th</sup>  
October 6<sup>th</sup> and 20<sup>th</sup>  
November 17<sup>th</sup>  
December 1<sup>st</sup> and 15<sup>th</sup>

## **Councilmember's Comments**

- Councilman Roger Wood congratulated Board members and Mayor Andy Moore for their election wins—stating he looked forward to working with new Councilwoman Doris Wallace. Councilman Roger Wood recognized the commitment sacrifice it takes to publicly serve the Board. He congratulated Mayor Pro Tem Sloan Stevens for his appointment.
- Councilman John Dunn congratulated everyone for being sworn in, and echoed Councilman Woods sentiments regarding the commendable sacrifice of members in support of the community.
- Councilman Gettys Cohen, Jr. congratulated all the newly sworn-in officials and expressing his appreciation for the mayor's long service. He gave special attention to his family and pastor, acknowledging their presence and support. Dr. Cohen shared his gratitude for family members who traveled from different locations—including his aunt from South Carolina, his sister and her husband from Dallas, his pastor from South Carolina, and other relatives—highlighting the importance of family bonds. He recognized Associate Justice Morgan's effort to attend the meeting and encouraged unity for the betterment of the entire Smithfield community, not just one district. Dr. Cohen also reminisced about family connections and traditions, expressing love and pride for his grandchildren, and concluded by thanking everyone for their encouragement and presence.
- Councilman Sloan Stevens expressed his gratitude for the board's confidence in appointing him Mayor Pro Tempore. He congratulated Dr. Cohen and Councilwoman Wallace on joining the council, and thanked his family for their support, acknowledging the sacrifices required from them due to his council duties. He remarked on the challenges of balancing council work with family obligations, and concluded by stating he is thankful for the chance to serve and hopes to make a positive difference for the town.
- Councilwoman Doris Wallace congratulated the newly sworn-in officials and reflected on her late "bonus mother," whose inspiration keeps her focused on her goals. She thanked her family members—including her son, nieces, and husband—who traveled from various places to support her, as well as her close circle of friends, Pastor Whitley, and colleagues who encouraged her through her election campaign. Wallace emphasized the importance of community involvement, urging everyone to attend future board meetings, not just the current one, to help move Smithfield forward. She highlighted the values of kindness, support, and agreeing to disagree, and expressed gratitude to young women from JCC and an assistant principal from her school for attending and showing support.
- Mayor Andy Moore concluded the meeting by welcoming and congratulating all newly sworn-in and returning council members, while expressing gratitude to their families for their continued support and sacrifice. He emphasized the importance of collaboration, respect, and civility among council members

despite any differences, encouraging a spirit of unity for the benefit of Smithfield. Mayor Moore thanked town staff, particularly emergency responders, for their professionalism and swift action during a recent personal family incident. He announced several upcoming holiday events in Smithfield, including the Christmas parade, the hot cocoa crawl, carriage rides, and the staff Christmas party, inviting all attendees to participate. He also informed the council and public that the NC Department of Transportation has postponed the removal of parking on Market Street until after Christmas, commending the agency for its responsive cooperation. Mayor Moore concluded by inviting everyone to a community reception at the fire department, expressing his continued honor and enthusiasm in serving the town.

- Councilwoman Doris Wallace made an additional comment to thank her Rotary friends who attended for her oath ceremony. She also thanked Planning Board Chairman, Mark Lane.

### **Town Manager's Report**

Assistant Town Manager Pickett noted that the Grinch run was this Saturday, December 6<sup>th</sup> through Parks and Rec.

### **RECESS**

Councilman Travis Scott made a motion, seconded by Councilman Roger Wood, to recess the meeting until December 9, 2025 at 6:30pm. The meeting was recessed at approximately 6:30 pm.

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M. Andy Moore, Mayor

ATTEST:

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Elaine Andrews, Town Clerk





# Request for Town Council Action

<b>Consent Agenda Item:</b>	<b>Career Ladder Promotion</b>
<b>Date:</b>	<b>12/16/2025</b>

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**Subject:** Career Ladder Promotion  
**Department:** Public Utilities Department  
**Presented by:** Public Utilities Director - Ted Credle  
**Presentation:** Consent Agenda Item

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## Issue Statement

Approval of a career ladder promotion for an employee at the Water Plant. This promotion will advance this employee from a Water Plant Operator II to a Water Plant Operator III.

## Financial Impact

The funds for this career ladder advancement were included into the approved and adopted FY 2025-2026 budget. The employee will go from (\$25.01/hr to \$26.26/hr) for a total impact of \$1,500.00

## Action Needed

Approval of the career ladder promotion for the employee at the Water Treatment Plant

## Recommendation

Staff recommends approval of the promotion

Approved: ☒ Town Manager ☐ Town Attorney

## Attachments:

1. Staff Report
2. Copy of the Employee Certification
3. Copy of the approved career ladder





# Staff Report

**Consent Career  
Agenda Ladder  
Item: Promotion**

In keeping with stated Town goals of retaining highly qualified employees, in 2016 the Town Council approved a career ladder within the Water Plant for employees to advance their career and become a more highly valued employee.

This employee attended training in September of 2025. By State law, he took his certification test at least 30 days after the training school was completed. This employee obtained his certification in November 2025. This career ladder increase will promote the employee from Water Plant Operator II to Water Plant Operator III.

This will become effective on December 29, 2025.

\* \*



## WATER TREATMENT PLANT CAREER LADDER

TITLE	PAY GRADE	EXPERIENCE/QUALIFICATION
Water Plant Trainee	Pay Grade 11	Beginner
Water Plant Operator I	Pay Grade 12	"C" Certification & 6 months
Water Plant Operator II	Pay Grade 13	"B" Certification & 18 months
Water Plant Operator III	Pay Grade 14	"A" Certification & 30 months
Water Plant Mechanic/Operator	Pay Grade 13	(As Vacancies arise)
Chief Water Plant Operator	Pay Grade 20	(As Vacancies arise)
Water Plant Chemist	Pay Grade 20	(As Vacancies arise)
Water Plant Supervisor	Pay Grade 22	(As Vacancies arise)

### EXPLANATION OF ELIGIBILITY FOR CAREER LADDER POSITIONS:

**Water Plant Trainee:** is the title given to a worker who is coming on board with little, or no, experience. This is granted to someone looking to begin their career in the Water Plant Division. This individual will have no certification and 0-12 months experience. This title has been given the pay grade of 11.

**Water Plant Operator I:** is the title given to a worker who has obtained the first level of certification, the completion of "Operator C" licensure. This certification will only be granted by the State of North Carolina after the candidate has a minimum of 6 months of work experience, has attended the appropriate training class, and has successfully passed the required, written exam. This title has been given the pay grade of 12.

**Water Plant Operator II:** is the title given to a worker who has obtained the second level of certification, the completion of "Operator B" licensure. This certification will only be granted by the State of North Carolina after the candidate has obtained the "Operator C" licensure, has a minimum of 18 months of work experience, has attended the appropriate training class, and has successfully passed the written exam. This title has been given the pay grade of 13.

**Water Plant Operator III:** is the title given to a worker who has obtained the third level of certification, the completion of "Operator A" licensure. This certification will only be granted by the State of North Carolina after the candidate has obtained the "Operator B" licensure, has a minimum of 30 months of work experience, has attended the appropriate training class, and has successfully passed the written exam. This title has been given the pay grade of 14.



*The North Carolina Water Treatment Facility Operators  
Board of Certification*

hereby certifies that

Having given satisfactory evidence of the necessary qualifications required by Chapter 90A of the General Statutes of North Carolina, is hereby authorized to practice as a grade "A-Surface" /

*Water Treatment Facility Operator*

in the State of North Carolina

IN TESTIMONY WHEREOF: THE BOARD OF CERTIFICATION ISSUES  
THIS CERTIFICATE UNDER THE SEAL OF THE BOARD AND SIGNATURE  
OF THE CHAIRMAN EFFECTIVE 30TH DAY OF OCTOBER 2025.  
THIS CERTIFICATION SUBJECT TO ANNUAL RENEWAL PROCEDURES.



JONATHAN PONS, CHAIRMAN

CERTIFICATE NO. 230442





# Request for Town Council Action

<b>Consent Agenda Item:</b>	<b>Budget Amendment</b>
Date:	12/16/2025

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**Subject:** Budget Amendment  
**Department:** Finance Department  
**Presented by:** Finance Director – Andrew Harris  
**Presentation:** Consent Agenda Item

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## Issue Statement

Amendments are often required during the fiscal year to balance and adjust the budget ordinance due to unknown circumstances at the time of budget ordinance preparation. An explanation is provided with the proposed budget amendment.

## Financial Impact

All amendments affect each of the departments or funds budget greater than ten (10) percent. These amendments are required due to various unknowns during budget preparation and to prevent statutory budget violations. These unknowns could be related to increase in pricing, incorrect estimates, new transactions, etc.

## Action Needed

Board approval is required for the budget ordinance amendment.

## Recommendation

Staff recommends board approve the attached Budget Amendment

Approved: ☒ Town Manager ☐ Town Attorney

## Attachments

1. Staff Report
2. Budget Amendment for 2025-2026
3. Budget Amendment Attachment A (General Fund)
4. Budget Amendment Attachment B (Electric Fund)



# Staff Report

<b>Consent Agenda Item:</b>	<b>Budget Amendment</b>
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Amendments are often required during the fiscal year to balance and adjust the budget ordinance due to unknown circumstances at the time of budget ordinance preparation. An explanation is provided with the proposed budget amendment.

**AMENDMENT TO BUDGET ORDINANCE**

**TOWN OF SMITHFIELD**

**BE IT ORDAINED** by the Town Council of the Town of Smithfield, North Carolina, that the following amendment is made to the budget ordinance for the fiscal year ending June 30, 2026:

**Section 1:** To amend the General Fund, the appropriations and estimated revenues are to be changed as follows:

**See Attachment A**

**Section 2:** To amend the Electric Fund, the appropriations and estimated revenues are to be changed as follows:

**See Attachment C**

The General Fund expenditure requires an amendment to the budget ordinance for additional revenue collected and clean up expenditures in a few departments. The Electric Fund expenditures requires an amendment for workers' comp additional premiums.

**Section 5:** Copies of the budget amendment shall be furnished to the Clerk of the Town Council, and to the Budget Officer and the Finance Officer for their direction.

**Adopted** this 16th day of December 2025 by the Smithfield Town Council.

\_\_\_\_\_  
M. Andy Moore, Mayor

ATTEST:

\_\_\_\_\_  
Elaine S. Andrews, Town Clerk

**Attachment A**

<b>Acct #</b>	<b>Description</b>	<b>Decrease</b>	<b>Increase</b>
<b>Revenues:</b>			
10-10-3400-3400-0002	Zoning Permit	-	10,050
10-10-3400-3400-0005	Site Plan	-	2,450
10-40-3400-3408-0001	Sanitation - Commercial	-	125
10-10-3800-3800-0003	Fixed Assets Disposal	-	52,625
10-10-3800-3800-0011	Legal Proceeds	-	3,250
10-20-3800-3800-0012	Parking Fees	-	1,450
10-10-3900-3900-0770	Insurance Recovery	-	6,200
10-00-3900-3900-0000	Fund Balance Appropriated	42,273	-
<b>Expenditures:</b>			
10-10-4110-5300-0770	Insurance & Bonds	-	11,450
10-10-4110-5300-5702	Central Pines COG (Triangle J)	-	125
10-10-4110-5300-5703	School of Gov Foundation Dues	-	125
10-61-4110-5300-5719	Partnership for Children	-	1,000
10-10-4200-5300-3305	Miscellaneous	-	75
10-10-4200-5300-3300	Supplies / Operations	75	-
10-10-4300-5300-4501	Service Contracts	-	7,425
10-60-5500-5300-3440	Appearance Commission	-	13,752
10-40-5900-5100-0250	Overtime	-	1,125
10-40-5900-5300-3310	Drainage	1,125	-
<b>Check:</b>		<b>Decrease</b>	<b>Increase</b>
Revenues		42,273	76,150
Expenditures		1,200	35,077
Totals		41,073	41,073
Check Figure			-



**Attachment B**

<u>Acct #</u>	<u>Description</u>	<u>Decrease</u>	<u>Increase</u>
<b>Revenues:</b>			
31-72-3800-3800-0000	Fixed Assets Disposal	-	600
31-72-3900-3900-0000	Fund Balance Appropriated		8,625
<b>Expenditures:</b>			
31-72-7230-5300-0770	Property Liab / Workers' Comp	-	8,950
31-72-7230-5300-1201	Legal Fees	-	275
<b>Check:</b>			
		<u>Decrease</u>	<u>Increase</u>
Revenues		-	9,225
Expenditures		-	9,225
Totals		-	-
Check Figure			-





# Request for Town Council Action

<b>Consent Agenda Item:</b>	<b>Agreement Amendment</b>
<b>Date:</b>	12/16/2025

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**Subject:** Second and Fourth Street Stormwater Project – Revised Agreement with Withers-Ravenel

**Department:** Planning Department

**Presented by:** Planning Director – Stephen Wensman

**Presentation:** Consent Agenda Item

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## Issue Statement

Approve an amendment to the Withers-Ravenel Agreement to include Easement Acquisition

## Financial Impact

None. The Easement Acquisition will be covered by the DWI Stormwater Grant

## Action Needed

Approved the agreement amendment

## Recommendation

Staff recommend the Town Council approve the agreement amendment.

Approved: ☒ Town Manager ☐ Town Attorney

## Attachments:

1. Staff Report
2. Withers-Ravenel Agreement
3. Withers-Ravenel Amended Agreement
4. Spring Branch Drainage Design Report



# Staff Report

**Consent    Agreement**  
**Agenda    Amendment**  
**Item:**

The Town was awarded a State Appropriation with project number (SRP-W-134-0013) Spring Branch Drainage Repairs - Second and Fourth Street stormwater grant on February 4, 2024, to address the flooding and undersized culverts under Second and Fourth Streets. Withers-Ravenel was awarded the contract to study the areas and to develop construction plans.

The study determined that upsizing the culvert on Fourth Street had little impact on flooding due to other circumstances. Bypass options were considered, but the benefit reduced flooding for only the 4 adjacent properties, but the cost was greater than the cost to buy the properties.

The study determined that the upsizing of the culverts under Second Street would provide significant flood mitigation. Withers-Ravenel have nearly completed the Plans for the project and permanent drainage easements (PDE's), temporary construction easements (TCE's) and right-of-way need to be acquired. The original Withers-Ravenel Agreement did not include the easement acquisition, needed for the construction. The amended agreement will allow Withers-Ravenel to consult with Telics for easement acquisition.

The overall project is well under budget, given only the Second Street project will proceed to construction. Therefore, the easement acquisition will be covered by the 2023 State Budget Appropriation.

Once the Second Street phase is approved by DWI and under construction, the intent is to re-evaluate Fourth Street options. The Fourth Street evaluation will assist with the determination of properties to acquire to offer the most effective flood mitigation.



August 5, 2024

Stephen Wensman, Planning Director  
Town of Smithfield  
350 East Market Street  
Smithfield, NC 27577

RE: Agreement for Professional Services  
Spring Branch Drainage Repairs  
Smithfield, North Carolina  
WithersRavenel Project No. 24-0390  
DWI Project No. SRP-S-134-0013

Dear Mr. Wensman,

WithersRavenel is pleased to provide this Agreement for Professional Services. We look forward to collaborating with you on this project. Please feel free to contact me with any questions and/or to discuss any aspect of the attached agreement. My contact information is below.

Sincerely,  
WithersRavenel

Wesley "Ross" Perry, PE CFM  
Senior Project Manager, Stormwater  
[wperry@withersravenel.com](mailto:wperry@withersravenel.com)  
Ph. 919.469.3340 | Direct. 919.740.0837



# Spring Branch Drainage Repairs Smithfield, North Carolina Agreement for Professional Services

## A. Project Description

This fee agreement is intended to provide the scope of services and associated fees to provide consulting services per request of Town of Smithfield and formalize an agreement for the implementation and logistics for these services.

This agreement is based on the scope of work presented in the Request for Qualifications – Spring Branch Drainage Repairs 2<sup>nd</sup> Street and 4<sup>th</sup> Street issued by the Town of Smithfield on April 3, 2024 and includes the following tasks to be completed in a phased approach:

**Data Collection:** Includes review of draft Resiliency Study prepared by McCormick & Taylor, field survey of existing conditions, and location of sub-surface utilities within the Project Areas identified in Exhibit III and Exhibit IV.

**Preliminary Engineering Design:** Includes the development of a detailed hydrological and hydraulic (H&H) model of Spring Branch in the vicinity of the Project Areas and up to three (3) conceptual improvement designs for each Project Area. The H&H model will be used to assess the performance of each conceptual improvement.

**Final Design and Permitting:** Includes the development of Construction Documents for the chosen improvement design for each Project Area. Construction Documents will be submitted to the appropriate permitting agencies for review and approval.

**Formal Bidding:** WithersRavenel will assist the Town with soliciting bids for the project by preparing a bid advertisement, draft contract documents, attending a Pre-Bid Meeting, and addressing bidder's Request for Information (RFIs) via written addendums. WithersRavenel will also attend the bid opening and review received bids for completeness and compliance with contract documents.

**Construction Services:** Includes holding a Pre-Construction meeting, responding to contractor RFIs, and periodically observing construction activities for compliance with approved Construction Documents.

**Project Close-out:** Includes a final site inspection, review of contractor's pay applications, and the preparation of Record Drawings documenting as-built conditions.

See Section C of this agreement for a detailed description of the scope of services proposed.

For the purposes of this agreement and any subsequent agreements the following references shall apply:

Town of Smithfield shall be known as the "Client"; WithersRavenel shall be known as the "Consultant"; The property and overall project shall be known as the "Project"; Smithfield shall be known as "Town"; Johnston County shall be known as "County"; The executed agreement shall be known as the "Agreement".

The following agency references also apply: North Carolina Department of Transportation shall be known as "NCDOT"; US Army Corps of Engineers shall be known as "USACE"; North Carolina Department of Environmental Quality shall be known as "NCDEQ"; Division of Water Infrastructure shall be known as "NCDWI".





## B. Timeline for Services

WithersRavenel will begin work upon receipt of this executed Agreement and written notice to proceed from the Client. Estimated timeframe(s) for the basis of the services described in the Scope of Services are shown below.

- Data Collection: Estimated 3 Months total;
- Preliminary Engineering: Estimated 4 Months total (can partially coincide with above);
- Final Design and Permitting: Estimated 4 Months total;
- DWI Bid Document Review: Estimated 3 Months total (can partially coincide with above);
- Formal Bidding & Contract Award: Estimated 3 Months total;
- Total Construction: Estimated 6 Months total;
- Project Close-out: Estimated 2 Months.

The above estimated timeframe(s) may be impacted by, among other things:

- Timeliness and additional permit and/or plan reviews of review agencies;
- Timeliness and accuracy of information provided by the Client, Architect, and other Client consultants.

Timeframe through construction will vary based on:

- The Client's schedule and phasing;
- As-needed easement acquisition;
- Contractor's progress and adherence to completion date;
- Client and/or Agencies requesting additional work.

From the above and factoring in variability in the approval process, we estimate the total project timeframe for the Scope of Services to be 22 Months.

If available, opportunities to adjust these estimated timeframes can be discussed. Implementation of agreed-upon adjustments may result in adjustments to WithersRavenel fees.

Certain tasks, such as reviews and approvals, are performed by third parties, including governmental agencies, over which neither Client nor WithersRavenel have control or responsibility. As such, neither party is responsible for delays or the resulting cost impacts caused by third parties.

## C. Scope of Services

WithersRavenel shall provide the services identified under each task below as its "Basic Services" under the Agreement:

### Task 1. Project Management

The Consultant will provide the following services as part of this task:

- ▶ Provide overall project management services to monitor job progress, arrange resources for the project, and communicate to the Client the status of the project.
- ▶ Administer the project internally.
- ▶ Participate in regularly scheduled conference calls with Client to discuss project progress.
- ▶ Manage project processes, communication, and resources.





- ▶ The Consultant will work with the Town to coordinate schedules with permitting agencies, project stakeholders (to be invited by the Town), and Town staff to review comments, discuss permitting needs, and cover other applicable topics at the kickoff meeting. The Consultant will provide meeting minutes to the Town via e-mail.

## Task 2. Data Collection Phase

### 2.1. Review Draft Resiliency Study

Consultant will review the Resiliency Study prepared by McCormick & Taylor and provided by the Town. The purpose of this review is to ensure the hydrologic and hydraulic model (prepared under a separate task) utilizes similar hydrologic assumptions as the information presented in the Resiliency Study (or document deviations from it) and to inform the performance goals of the proposed improvements for each Project Area. The goal will be to design the improvements for the two Project Areas such that the resulting hydraulic performance aligns with the conclusions and recommendations stated within the Resiliency Study where feasible.

### 2.2. 2<sup>nd</sup> Street Topographic Survey

Consultant will provide the following services as part of this task:

- ▶ WR will provide topographic survey for the Spring Branch Drainage Repair project located along 2<sup>nd</sup> Street in Smithfield, NC as needed to facilitate the design. Topo shall include location of all improvements along the route including visible above ground utilities, buildings, curb and gutter, edge of pavement, driveways, storm drainage pipes, signs, mailboxes, etc. The area to be included is approximately 1.2 acres as depicted in Exhibit III;
- ▶ Storm and Sanitary Sewer will be located to include top and invert elevations, pipe sizes and types, where such determinations are possible;
- ▶ WR will locate sufficient property corners along the route as needed to facilitate the preparation of future easement exhibits;
- ▶ WR shall collect topographic information utilizing conventional survey methods, laser scanning, and/or LiDAR mapping using our Unmanned Air System (UAS). Execution of this Agreement will constitute permission to fly the UAS over the project site and adjacent properties;
- ▶ Horizontal control will be based on NC State Grid, NAD'83(2011) or most current North Carolina Grid Available within 2000 feet of each this site. If no NC Grid monuments are within 2000 feet of site, Global Positioning Surveys (GPS) will be used to tie property to NC Grid System;
- ▶ Vertical control will be based on NAVD'88 and will be tied to the nearest published County or NGS benchmark, or by means of GPS utilizing the North Carolina GPS Virtual Reference System (VRS);
- ▶ Contours will be mapped at a one-foot (1') intervals;
- ▶ Includes locating top and bottom of slopes and any change in the slope lines.
- ▶ A project benchmark will be set and identified in the mapping;
- ▶ Visible above ground utilities will be located and sub-surface location will be provided under a separate task;
- ▶ Locate tree lines in wooded areas. Individual tree location is not included in this task;
- ▶ Topographic mapping will be completed to a scale to be determined by Consultant and will be delivered as a digital CAD file in AutoCAD .dwg format and signed and sealed pdf.

### 2.3. 4<sup>th</sup> Street Topographic Survey



Consultant will provide the following services as part of this task:

- ▶ WR will provide topographic survey for the Spring Branch Drainage Repair project located along 4<sup>th</sup> Street in Smithfield, NC as needed to facilitate the design. Topo shall include location of all improvements along the route including visible above ground utilities, buildings, curb and gutter, edge of pavement, driveways, storm drainage pipes, signs, mailboxes, etc. The area to be included is approximately 3.3 acres as depicted in Exhibit III;
- ▶ Storm and Sanitary Sewer will be located to include top and invert elevations, pipe sizes and types, where such determinations are possible;
- ▶ WR will locate sufficient property corners along the route as needed to facilitate the preparation of future easement exhibits;
- ▶ WR shall collect topographic information utilizing conventional survey methods, laser scanning, and/or LiDAR mapping using our Unmanned Air System (UAS). Execution of this Agreement will constitute permission to fly the UAS over the project site and properties;
- ▶ Horizontal control will be based on NC State Grid, NAD'83(2011) or most current North Carolina Grid Available within 2000 feet of each this site. If no NC Grid monuments are within 2000 feet of site, Global Positioning Surveys (GPS) will be used to tie property to NC Grid System;
- ▶ Vertical control will be based on NAVD'88 and will be tied to the nearest published County or NGS benchmark, or by means of GPS utilizing the North Carolina GPS Virtual Reference System (VRS);
- ▶ Contours will be mapped at a one-foot (1') intervals;
- ▶ Includes locating top and bottom of slopes and any change in the slope lines.
- ▶ A project benchmark will be set and identified in the mapping;
- ▶ Visible above ground utilities will be located and sub-surface location will be provided under a separate task;
- ▶ Locate tree lines in wooded areas. Individual tree location is not included in this task;
- ▶ Topographic mapping will be completed to a scale to be determined by client's engineer and will be delivered as a digital CAD file in AutoCAD .dwg format and signed and sealed pdf.

## 2.4. 2<sup>nd</sup> Street SUE – Quality Level B

Consultant will provide the following services as part of this task:

- ▶ WithersRavenel will use both Electromagnetic (EM) and Ground Penetrating Radar (GPR) to designate all the utilities within the proposed limits. The specific site limits are shown on Exhibit III attached. All designated utilities will be marked using the APWA guidelines with marking paint and/or pin flags. At the conclusion of the Level B field investigation, a detailed sketch will be provided to the survey to use as a reference while locating all the Level B SUE designations. All survey information will be drafted in CAD and provided to the Client.

## 2.5. 4<sup>th</sup> Street SUE – Quality Level B

Consultant will provide the following services as part of this task:

- ▶ WithersRavenel will use both Electromagnetic (EM) and Ground Penetrating Radar (GPR) to designate all the utilities within the proposed limits. The specific site limits are shown on Exhibit IV attached. All designated utilities will be marked using the APWA guidelines with marking paint and/or pin flags. At the conclusion of the Level B field investigation, a detailed sketch will be provided to the survey to use as a reference while locating all the Level B SUE designations. All survey information will be drafted in CAD and provided to the Client.

## 2.6. SUE – Quality Level A





Consultant will provide the following services as part of this task:

- ▶ WithersRavenel will perform - Level A SUE – Test Holes to determine information such as size, depth, and material on critical utilities. All information will be incorporated into Test Hole Forms and provided to the client at the conclusion of the project. In addition, all test hole locations will be conventionally surveyed to obtain accurate Northing, Easting, and Pipe Elevation.
- ▶ For budgetary purposes the number of holes estimated is six (6) with four (4) of those within pavement areas. The exact number of Test Holes will be decided following the completion of the Level B SUE investigation. In addition, all test hole locations will be conventionally surveyed to obtain accurate Northing, Easting, and Pipe Elevation.
- ▶ Note for holes located in pavement areas, traffic control will be required and is included in the scope as time and materials.

## 2.7. Wetland/Stream/Riparian Buffer Delineation

- ▶ Obtain preliminary site information including aerial photos, USGS Quadrangle Maps, Craven Soil Survey and Craven GIS data prior to conducting site visit.
- ▶ Conduct a site review to determine if the project site contains jurisdictional wetlands, streams and surface waters. Jurisdictional wetlands will be determined using criteria set forth in the 1987 US Army Corps of Engineers (USACE) Wetlands Delineation Manual and applicable Regional Supplement.
- ▶ Delineate jurisdictional wetlands and stream origins in the field using sequentially numbered Wetland Delineation flagging.
- ▶ Review the onsite streams depicted on the USGS 7.5-minute Quadrangle and the Craven County Soil Survey to determine subjectivity to the Neuse River Riparian Buffer Rules and applicable local government riparian buffer ordinance (if applicable). Streams will be evaluated using the procedures set forth in the 2010 North Carolina Division of Water Quality (NC-DWQ) Stream Classification Method.
- ▶ Locate wetland and stream origin flags using a mapping grade Trimble GPS unit. The GPS data will be utilized for preparation of the exhibits for agency verification requests.
- ▶ Prepare a Preliminary Delineation Exhibit documenting the wetlands and riparian buffers to be surveyed, which will be provided to the client for preliminary planning purposes.

## 2.8. NCDWR Riparian Buffer Determination

WithersRavenel shall perform the following services associated with this task:

Prepare a request for a formal Buffer Determination and submit to the NC Division of Water Resources (NCDWR) to verify stream/buffer origins and subjectivity to stream/buffer origins and subjectivity to Neuse River Riparian Buffer Rules.

Coordinate with NCDWR to schedule a site visit to review and verify the stream locations and buffer subjectivity. Upon completion of the review, NCDWR will issue an official Buffer Determination Letter verifying the stream locations and buffer subjectivity for five years.

## 2.9. USACE Jurisdictional Determination

Prepare a Jurisdictional Determination Request in support of the wetland delineation and submit to the US Army Corps of Engineers (USACE).

Coordinate with the USACE to schedule a site visit to review and verify the wetland delineation. Upon completion of the field verification, the USACE will issue a Jurisdictional Determination, which will be valid for 5-years. Any changes to the original wetland line because of the USACE field verification will be communicated to the surveyor for incorporation into the final wetland survey.



Submit follow-up email to USACE recapping the results of the wetland verification and request USACE to respond concurring. This will provide adequate documentation for state and local submittals that the USACE has approved the delineation until the actual Jurisdictional Determination has been issued by the USACE, which may take several additional months to be issued.

## Task 3. Preliminary Engineering Design

### 3.1. Hydrologic and Hydraulic Modeling

The Consultant will use field collected data supplemented with GIS and other publicly available information along with information provided in the draft Resiliency Study to develop a detailed Hydrologic and Hydraulic Model (H&H Model) of the Project Area existing conditions. The Consultant will utilize the H&H Model to establish flow hydrographs for 2-year, 10-year, 25-year, and 100-year, 24-hour rainfall events (Design Storms) within Spring Branch at each Project Area. These flow hydrographs will inform the hydraulic portion of the H&H Model which will be used to assess water surface elevations, velocities, and overtopping conditions and prepare inundation maps for the Project Areas for each Design Storm.

### 3.2. Conceptual Improvement Design

The Consultant will utilize the field survey information and the H&H Model completed under previous tasks to assess up to three (3) potential improvement alternatives for each Project Area. The potential improvement alternatives will be incorporated into the H&H Model to assess the performance of each alternative compared to existing conditions. Final deliverables for this task will include:

- ▶ Schematic layouts consisting of plan and profile views for each proposed improvement alternative.
- ▶ High level budgetary cost opinions for each proposed improvement alternative.
- ▶ A brief letter style report that summarizes and compares the performance of each proposed improvement alternative and includes a discussion of the “pros and cons” of each.
- ▶ In collaboration with Town, recommend an alternative to proceed for design and construction drawings.

### 3.3. Town Council Presentation

The Consultant will prepare a presentation to the Town Council that illustrates the flooding issues present at each Project Area, explains the challenges associated with mitigating the flooding at each Project Area, and summarizes the “pros and cons” of each proposed improvement alternatives and make recommendations as to which proposed alternatives are feasible. The Town will provide a location to hold the Town Council meeting.

## Task 4. Preliminary Construction Drawings (90% Plans)

Subsequent to the completion of Task 3 and upon receipt of written authorization from the Town as to which proposed improvement alternative the Town would like to proceed with for each Project Area, the Consultant will proceed with the development of Preliminary Construction Drawings. The scope of proposed repairs/improvements is limited to the Project Areas outlined in Exhibit III and Exhibit IV.

Deliverable will include the following to be submitted electronically to the Town for one review cycle:

- ▶ Preliminary Construction Drawings (Approx. 90% Complete) including the following sheets:
  - A Cover Sheet with vicinity map and index
  - General Notes Sheet with legend
  - Existing Conditions
  - Plan & Profile of proposed improvements
  - Erosion Control Plan





- Traffic Control Plan
- Detail Sheets
- ▶ Environmental Impact Maps to assist with Environmental Permitting (Task 5.1)
- ▶ Preliminary engineer's opinion of probable construction cost (OPCC)

At this point, it is not known if utilities (such as water, sanitary sewer, or third-party utilities) will require relocation. Utility coordination and conflict resolution will be provided as Additional Services. Once the design has advance sufficiently to identify potential conflicts, Consult will convene with Town to present the potential conflicts and develop a scope and fee for Additional Services.

## Task 5. Permitting Phase

### 5.1. 404/401/Riparian Buffer Permitting

Consultant will provide the following services as part of this task:

- ▶ Consultant makes the assumption that proposed impacts to wetlands and streams will be below thresholds allowed for authorization under a Nationwide Permit (NWP), and therefore the project will be permitted under a NWP. If impacts exceed the NWP thresholds and an Individual Permit (IP) is required, a contract amendment will be provided for the Additional Services necessary to complete the IP permitting.
- ▶ Consultant assumes that proposed impacts to riparian buffers will meet conditions necessary to be classified as "Deemed Allowable", "Allowable upon Authorization" and/or "Allowable with Mitigation upon Authorization" and therefore will not require a variance (Minor or Major).
- ▶ Consultant will prepare NWP and Buffer Authorization Pre-Construction Notification (PCN) and supporting documentation and submit to the US Army Corps of Engineers (USACE) and NC Division of Water Resources (NCDWR) requesting authorization of the proposed wetland/stream/riparian buffer impacts associated with construction of the proposed project.
- ▶ Communicate with both agencies during the review period to identify comments/questions regarding site design, avoidance and minimization or mitigation requirements.
- ▶ Prepare and submit one (1) formal response to a request for additional information by either agency to facilitate issuance of the NWP.
- ▶ If an NCDWR 401 application fee is required, WithersRavenel will make payment for the application fee (up to \$767) and online payment convenience fee, which will be billed to the Client as a reimbursable expense.
- ▶ In the event that it is determined that environmental permitting is not required for the proposed activities, WR will prepare a memorandum documenting why the project either qualifies for non-notifying environmental permits or does not require environmental permits for the Client's records.

### 5.2. Erosion & Sediment Control Permitting

Following completion of Task 4 and acquisition of easements, the Consultant will prepare a submittal package for applicable permits.

It should be noted that any land disturbing activities exceeding one (1) acre will require an Erosion & Sedimentation Control Permit from the NCDEQ. The Consultant anticipates that the proposed storm sewer improvements may exceed one acre of disturbed area and therefore it is anticipated that a land disturbance permit through the Raleigh Regional Offices of NCDEQ may be required. The Consultant will prepare and submit a Land Disturbance Permit Application to NCDEQ and respond to up to two (2) rounds of comments,



however; responses that require design modifications or comments that request items outside the scope of work (such as for additional environmental services) will necessitate additional fees.

The Town shall be responsible for paying all fees associated with permitting directly to the applicable agency.

### 5.3. Floodplain Permitting

The Project Areas are located along the Spring Branch, a FEMA studied stream, within an established FEMA floodplain (Zone AE) and Floodway. Per Town of Smithfield's Unified Development Ordinance, Article X, Flood Damage Prevention, a Floodplain Development Permit is required for all proposed development (excavation, grading, fill, etc.) within a floodplain.

The Consultant will assess the potential of a No-Rise Scenario for each proposed improvement alternative using the H&H Model developed as part of Task 3 above. The Consultant will, to the extent practical, design the selected alternatives to achieve a No-Rise Scenario, meaning that the project will not result in an increase to the 1% annual chance flood elevations or Floodway flood elevations and extents established for the Spring Branch floodplain.

If a No-Rise Scenario is deemed feasible, the Consultant will prepare the following deliverables for submittal to the Town for review:

- ▶ No-Rise Feasibility Study report
- ▶ No-Rise Certification (if applicable)
- ▶ Floodplain Development Permit Application (if applicable)

The Consultant will respond to the Community Floodplain Manager's review comments as part of this task. If a no-rise is deemed unattainable, Consultant will convene with Client to discuss additional services needed to complete the floodplain development permit.

It is possible that a No-Rise is not attainable, which requires the preparation of a CLOMR/LOMR (Conditional Letter of Map Revision/Letter of Map Revision), Consultant will convene with the Town and prepare a scope and fee to provide the CLOMR/LOMR as Additional Services.

## Task 6. Easement Exhibit Map

### 6.1. 2<sup>nd</sup> Street Easement Mapping

Consultant will provide the following services as part of this task:

- ▶ WithersRavenel will prepare one easement exhibit map to include each permanent and/or temporary easement as may be required for this portion of the project. There are approximately five (5) total properties that may be impacted. Individual easement exhibits will not be prepared for each parcel;
- ▶ Points where new permanent easement lines cross existing property lines will be set using 18" long, 5/8" iron pipes or rebar. Temporary easements will be staked with wooden stakes or pin flags if needed. All other easement points will be shown as computed and tied to property boundary or labeled with survey coordinates per NC Board of Examiners for Engineering and Land Surveying policy BP-1709-1;
- ▶ Metes and Bounds descriptions will be prepared for all permanent easements and temporary construction easements, if needed;
- ▶ Survey will be completed to N.C.G.S. 47-30 standards for exhibit maps and will not be suitable for recording as a stand-alone easement map;





- ▶ The Exhibit will be submitted to the Town of Smithfield to help facilitate easement acquisition. The exhibit may be reduced in size and recorded as an attachment to a deed of easement prepared by an attorney.

## 6.2. 4<sup>th</sup> Street Easement Mapping

Consultant will provide the following services as part of this task:

- ▶ WithersRavenel will prepare easement one exhibit map to include each permanent and/or temporary easement as may be required for this portion of the project. There are approximately eleven (11) total properties that may be impacted. Individual easement exhibits will not be prepared for each parcel;
- ▶ Points where new permanent easement lines cross existing property lines will be set using 18" long, 5/8" iron pipes or rebar. Temporary easements will be staked with wooden stakes or pin flags if needed. All other easement points will be shown as computed and tied to property boundary or labeled with survey coordinates per NC Board of Examiners for Engineering and Land Surveying policy BP-1709-1;
- ▶ Metes and Bounds descriptions will be prepared for all permanent easements and temporary construction easements, if needed;
- ▶ Survey will be completed to N.C.G.S. 47-30 standards for exhibit maps and will not be suitable for recording as a stand-alone easement map;
- ▶ The Exhibit will be submitted to the Town of Smithfield to help facilitate easement acquisition. The exhibit may be reduced in size and recorded as an attachment to a deed of easement prepared by an attorney.

## Task 7. Final Construction Documents

After incorporating comments received from the Town and permitting agencies into the Preliminary Construction Drawing plan set, the Consultant will prepare Final Construction Documents to be submitted to the Town and NC DWI for review before advertising the project to solicit bids. The following deliverables constitute the Final Construction Documents package:

- ▶ Construction Drawings including the following:
  - A Cover Sheet with vicinity map and index
  - General Notes Sheet with legend
  - Existing Conditions
  - Plan & Profile of proposed improvements
  - Erosion Control Plan
  - Traffic Control Plan
  - Detail Sheets
- ▶ Updated Engineer's Opinion of Cost
- ▶ Project Manual including the following:
  - Bid Advertisement
  - Instruction to Bidders
  - Bid Form & Itemized Bid Schedule
  - Bid/Performance/Payment Bond Requirements
  - Agreement for Construction Contract





- Minority Business Participation Forms/Tables
- Technical Specifications (as deemed necessary by the Consultant)
- ▶ Submit Bid Package to NCDWI:
  - Upon approval by the Client, the Consultant will submit final Construction Drawings and Project Manual to NCDWI for approval.
  - The Consultant will address and incorporate review comments from NCDWI and re-submit to NCDWI for final approval.

## Task 8. Formal Bidding Assistance

Upon approval by the Town of Final Construction Documents, and upon receipt of written authorization from the Town, the Consultant will assist the Town with formally soliciting bids and awarding the construction contract, consisting generally of the following sub-tasks:

### Bid Advertisement

The Consultant will assist the Town in advertising the Project for competitive bids by formal process per North Carolina General Statutes. This task will include submitting the "Advertisement to Bidders" as required by the North Carolina General Statutes to the targeted contractors and/or for publication on the Town's local newspapers, Quest, and the Town's website as deemed necessary by the Consultant and the Town for proper notification and solicitation of bids. The Town will pay directly all fees associated with advertising. For purposes of this proposal, this task includes services for one bid process.

### Pre-Bid Meeting

The Consultant will conduct one hybrid Pre-Bid Meeting (In-Person and virtual) with the Town's representatives, project stakeholders, and prospective bidders and material suppliers. The Consultant will respond, in writing, to questions generated during the pre-bid meeting. After the Pre-Bid meeting, Consultant will issue an Addendum with the Pre-Bid Meeting Summary.

### Additional Bid RFIs and Addendums

The Consultant will provide prompt written responses to prospective bidders' Request for Information (RFI) between the date the project is advertised and the deadline for accepting questions regarding the bid documents (2 week maximum unless otherwise agreed to by the Consultant).

### Bid Opening, Review & Summary

The Consultant will attend the public bid opening hosted by the Town. Assuming the Town receives a minimum of three (3) bids, the Consultant will work with Town staff to review the bids for completeness and correctness. The Consultant will prepare a Bid Summary summarizing each valid bid and comparing the itemized bid tabs. Following review of the bids, the Consultant will make a recommendation to the Town as to which Contractor to award the project. The Consultant will also submit the required documents to NCDWI for DWI review and approval of the lowest responsive and responsible bidder. After DWI approval, the Consultant will assist the Town with the preparation of the Notice of Award letter.

This task includes services for one bid advertisement cycle. Re-advertisement of the project for any reason will necessitate additional fees. Execution of the Notice of Award letter shall mark the end of the Formal Bidding Assistance task.

## Task 9. Construction Phase Services

### 9.1. Construction Administration





The Consultant estimates the active construction timeframe to be four (4) months to complete the Project. The Consultant will perform the following Construction Administration services on an hourly basis:

- ▶ **Pre-Construction Meeting** – The Consultant will prepare an agenda for, coordinate scheduling of, and host a Pre-Construction Meeting at the site and subsequently distribute minutes to attendees, including NCDWI. Items to be addressed may include: correspondence distribution, shop drawing and scheduling procedures, Full Notice-to-Proceed date, critical schedule requirements, payment procedures, staging areas, emergency procedures, survey control requirements, quality control procedures and requirements, and coordination with quality assurance testing. Consultant will prepare and provide a meeting summary to the Client, Contractor, and NCDWI. Six (6) hours each for three attendees to prepare for and attend the meeting are included with this task.
- ▶ **Project Manager Duties/Contractor RFIs** - During the active construction timeframe, the Project Manager will manage internal processes and follow up with the Town or the Town's contractor through email or phone correspondence to communicate items related to the ongoing construction project. This task would include any contractor requests for information regarding the approved drawings. Thirty (30) hours total (approximately 2 hours per week) are included with this task.
  - During the estimated construction period, Consultant will hold monthly progress meetings (Virtual and In-Person) from Notice-to-Proceed through Substantial Completion. In these meetings, the Client, Consultant, and the Contractor will address such items including but not limited to schedules, coordination problems, design issues, construction issues, pending change orders, outstanding shop drawings and other submittals, procurement delays, material or construction issues, and other issues related to completion of the Project. Consultant will prepare and maintain meeting minutes for progress meetings to be provided to the Client following each meeting.
- ▶ **Shop Drawing Review** – The Consultant will review and respond to Shop Drawing submittals for which the contractor is required to submit for conformance with the design concept. The Consultant will transmit one stamped copy of shop drawings to the Town with written comments. This task assumes up to two (2) review cycles for a total of twelve (12) hours for review.
- ▶ **Review of Observation and Test Reports from other Consultants** – Review of field observation and material testing reports from Town's geotechnical consultant or other onsite consultants for compliance with approved Construction Drawings and Specifications. Eight (8) hours total are included with this task.

**Review Pay Requests** - Based on on-site observations, information provided by the RPR, and review of the applications for payment and the accompanying data and schedules, Consultant will determine the percentage of Project completion by Contractor and recommend payments to Contractor in the appropriate amount. Client is responsible for providing Pay Request to DWI for review/approval.

**Review Change Orders** - Consultant will provide contract administration services in connection with changes to the construction contract that reflect minor changes or deletions requested by Client, Consultant, or Contractor. A listing of additional costs and credits as a result of change orders will be maintained by Consultant. Upon receipt of a requested change order, it will be reviewed with Client. Client is responsible for providing Change Orders to DWI for review/approval.

- ▶ **Final Inspections** - The Consultant will conduct a walk-through inspection with the contractor and Town to determine if the Project has reached substantial completion and prepare a punch list of work items remaining to meet final completion. The Consultant will conduct one final inspection to determine if the work is substantially complete. Once work is deemed substantially complete the Consultant will complete the DWI Closeout Checklist. Twelve (12) hours total is included with this subtask, representing six (6) hours each to prepare for and attend two site visits and prepare punch lists as necessary.





## 9.2. Construction Observation

WR will perform the following limited Construction Observation Services as part of this task:

- ▶ Periodic general observation, up to twelve (12) site visits approximately once per week, to document the construction of the PROJECT (estimated six (6) hours per week during the active construction period).
- ▶ Observation includes monitoring the operations of the contractor during construction activities for general compliance with the approved plans and standards. Field Reports of activities observed while on site shall include;
- ▶ Photographs of project site and work performed;
- ▶ Identify and document progress of work;
- ▶ Identify and document non-conformance observed during site visit;
- ▶ Prepare field reports of activities observed while on site;
- ▶ Site visits by Engineer of Record (assumed two (2) hour site visit two (2) times total during active construction period).

WithersRavenel shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work and shall not have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities. Based on the site visits, WithersRavenel shall keep the Town reasonably informed about the progress of the associated Work completed, and it shall be the Town's responsibility to make decisions on work progress, changes, and costs. Also, it shall be the Town's responsibility to engage the contractor and schedule to repair any work that needs remediation as identified in WithersRavenel reports.

## Task 10. Project Close-out

### 10.1. Prepare Record Drawings

- ▶ The Consultant will use the post-construction survey and as-built drawings prepared by the Contractor to prepare record drawings for the improvements constructed within the Project Areas. Record drawings will be submitted to the Town. Comments and responses to comments on Record Drawings are not anticipated and therefore not included in the fees.

## D. Exclusions/Additional Services

Services that are not included in Section C or are specifically excluded from this Agreement (see below) shall be considered Additional Services if those services can be performed by WithersRavenel and its agents if requested in writing by the Client and accepted by WithersRavenel. The following list is not all inclusive and the Scope of Services defines the services to be provided by WithersRavenel for this project. Additional services shall be paid by the Client in accordance with the Fee & Expense Schedule outlined in Exhibit II. The exclusions are described below but are not limited to the following:

#### General

- ▶ All plan submittal, review, or permitting fees;
- ▶ Any work previously provided in other agreements;
- ▶ Any other services not specifically listed within Section C.

#### Project Specific:



- ▶ Geotechnical Engineering Services
- ▶ Structural Engineering Services
- ▶ Preparation of a CLOMR/LOMR
- ▶ Utility relocation design
- ▶ Preparation of Easement Agreements for Recordation
- ▶ Grant Funding Administration

## E. Responsibilities

The following items will be provided by the Client and WithersRavenel will rely upon the accuracy and completeness of this information:

### General:

- Provide representative for communications and decisions;
- Coordination and designation of a primary contact for architect, contractor, and other consultants engaged by the Client;
- Preferred media platforms for communications with the Client;
- Provide in writing, any information as to Client's requirements for design;
- Provide any information needed to complete the Project not specifically addressed in the Scope of Services;
- Provide all available information pertinent to the Project, including any GIS information, reports, maps, drawings, and any other data relative to the Project;
- Examine all agreements, reports, sketches, estimates and other documents presented by the Consultant and render in writing decisions pertaining thereto within a reasonable period so as not to delay the services of the Consultant;
- Give prompt written notice to Consultant whenever Client observes or otherwise becomes aware of any defect in the Project or the services of Consultant;
- Provide access to property for Consultant and subconsultants;
- Discussions/negotiations with adjacent landowners;
- Acquire all off-site utility and/or construction easements required for this Project;
- Manage and coordinate the work of any subconsultants/subcontractors that are not directly subcontracted through the Consultant;
- All submittal, review, or permitting fees associated with the Project;
- Any legal representation requiring an attorney at law.

### Project Specific:

- Preparation of Permanent Drainage & Temporary Construction Easement Agreements
- Grant Funding Administration

### Construction Specific:

- Arrange a pre-construction conference with the contractor, Client, Consultant, and other design professionals for the final Project coordination prior to the commencement of construction;
- Provide direction and payments to contractors;
- Coordination with contractor on scheduling or fulfillment of its responsibilities;
- Distribution of approved plans and permits to contractor.





## F. Compensation for Services

WithersRavenel proposes to provide the Basic Services outlined in Section C on a lump sum or hourly basis with budgets as shown below plus reimbursable expenses in accordance with Exhibit II. The amounts set forth below have been determined based on the nature, scope and complexity of the Project as represented in the information provided to WithersRavenel by Client prior to submittal of this agreement; subsequent changes thereto may result in additional fees.

Task No.	Task Name	Fee
Task 1	Project Management	\$9,000
Task 2	Data Collection Phase	
2.1	Review Draft Resiliency Study	\$2,500
2.2	2 <sup>nd</sup> Street Topographic Survey	\$17,800
2.4	4 <sup>th</sup> Street Topographic Survey	\$27,300
2.6	2 <sup>nd</sup> Street SUE – Quality Level B	\$1,880
2.6	4 <sup>th</sup> Street SUE – Quality Level B	\$2,120
2.7	SUE – Quality Level A (\$1,150/Per Hole) (Hourly)	\$6,900
2.8	Wetland/Stream/Riparian Buffer Delineation	\$2,000
2.9	NCDWR Riparian Buffer Determination	\$2,000
2.10	USACE Jurisdictional Determination	\$3,000
Task 3	Preliminary Engineering Design	
3.1	Hydrologic and Hydraulic Modeling	\$16,400
3.2	Conceptual Improvement Design	\$8,700
3.3	Town Council Meeting	\$5,500
Task 4	Preliminary Construction Drawings (90% Plans)	\$36,600
Task 5	Permitting Phase	
5.1	Environmental Permitting	\$6,000
5.2	Erosion & Sediment Control Permitting	\$5,600
5.3	Floodplain Permitting	\$8,400
Task 6	Easement Exhibit Map	
6.1	2 <sup>nd</sup> Street Easement Mapping	\$11,600
6.2	4 <sup>th</sup> Street Easement Mapping	\$16,800
Task 7	Final Construction Documents	\$12,800
Task 8	Formal Bidding Assistance	\$7,600
Task 9	Construction Phase Services	
9.1	Construction Administration (Hourly)	\$15,000
9.2	Construction Observation (Hourly)	\$30,000
Task 10	Project Close-out	
10.1	Prepare Record Drawings	\$7,000
<b>Total</b>		<b>\$262,500</b>

(Hourly) Denotes hourly tasks. The fee budgets represented with hourly tasks are good faith estimates of what can be reasonably expected during the performance of this contract.



Invoices will be issued monthly, based on the percentage of completion for each lump sum task and the hourly rate for WithersRavenel personnel in accordance with Exhibit II for hourly tasks, as accomplished during the billing period. Payment is due upon receipt of invoice.

The above fees are based on the estimated timelines noted in Section B. Any adjustments to those timelines may result in additional fees.

Consultant may alter the distribution of compensation between individual Tasks noted herein to be consistent with services rendered but shall not exceed the total Lump Sum amount unless approved in writing by the Client.

The attached Exhibit II, Fee & Expense Schedule, is based on Consultant's rates as of the date of this agreement and may be subject to change for hourly tasks and any Additional Services that occur after any adjustments to such rates go into effect.



G. Acceptance


This agreement is valid 60 days from the date it is transmitted to Client. Receipt of an executed copy of this agreement will serve as the written Agreement between WithersRavenel and Town of Smithfield. All Exhibits identified after the signature blocks below, including the Standard Terms and Conditions (Exhibit I) and the Fee & Expense Schedule (Exhibit II), are incorporated herein and are integral parts of the Agreement.

OFFERED BY:

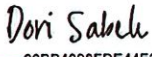
WithersRavenel

ACCEPTED BY:

Town of Smithfield

Signed by:  
  
802EBB787A79488...  
Signature Date August 5, 2024  
Wesley "Ross" Perry, PE CFM  
Name  
Senior Project Manager  
Title

Signature Date  
Stephen Wensman  
Name  
Planning Director  
Title

DocuSigned by:  
  
36BB4898FDE44E3...  
Signature Date August 5, 2024  
Dori Sabeh, PE GISP  
Name  
Director - Stormwater  
Title

**PREAUDIT STATEMENT:** This instrument has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act (NC G.S. 159-28(a)).

Signature of Finance Officer: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Date: \_\_\_\_\_

- Attachments:
- Exhibit I- Standard Terms and Conditions
  - Exhibit II- Fee & Expense Schedule
  - Exhibit III- 2<sup>nd</sup> Street Project Area
  - Exhibit IV- 4<sup>th</sup> Street Project Area
  - Attachment A – ARPA Federal Contract Provisions
  - Attachment B – Debarment Status Certification
  - Attachment C – E-Verify Affidavit





## Exhibit I

# Standard Terms and Conditions

The proposal submitted by WithersRavenel, INC. ("CONSULTANT") is subject to the following terms and conditions, which form an integral part of the Agreement. By accepting the proposal, the services, or any part thereof, the CLIENT agrees and accepts the terms and conditions outlined below:

### 1. Payment:

- a) The CLIENT will pay CONSULTANT for services and expenses in accordance with periodic invoices to CLIENT and a final invoice upon completion of the services. Each invoice is due and payable in full upon presentation to CLIENT. Invoices are past due after 30 days. Past due amounts are subject to interest at a rate of one and one-half percent per month (18% per annum) on the outstanding balance from the date of the invoice.
- b) If the CLIENT fails to make payment to the CONSULTANT within 45 days after the transmittal of an invoice, the CONSULTANT may, after giving 7 days written notice to the CLIENT, suspend services under this Agreement until all amounts due hereunder are paid in full. If an invoice remains unpaid after 90 days from invoice date, the CONSULTANT may terminate the Agreement. If Consultant initiates legal proceedings to collect the fees owed, Consultant shall also be entitled to recover the reasonable expenses of collection including attorney's fees.

2. **Notification of Breach or Default:** The CLIENT shall provide prompt written notice to the CONSULTANT if CLIENT becomes aware of any breach, error, omission, or inconsistency arising out of CONSULTANT's services or any other alleged breach of contract or negligence by the CONSULTANT. The failure of CLIENT to provide such written notice within ten (10) days from the time CLIENT became aware of the fault, defect, error, omission, inconsistency, or breach, shall constitute a waiver by CLIENT of all claims against the CONSULTANT arising out of such fault, defect, error, omission, inconsistency, or breach. Emails shall be considered adequate written notice for purposes of this Agreement.

3. **Standard of Care:** CONSULTANT shall perform its services in a professional manner, using that degree of care and skill ordinarily exercised by and consistent with the standards of professionals providing the same services in the same or a similar locality as the Project. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE THAT WILL OR CAN ARISE OUT OF THE SERVICES PROVIDED BY CONSULTANT OR THIS AGREEMENT.

4. **Waiver of Consequential Damages/Limitation of Liability:** CLIENT agrees that CONSULTANT's aggregate liability for all claims that may be asserted by CLIENT is limited to \$50,000 or to the fee paid to CONSULTANT under this Agreement, whichever is greater. Both CLIENT and CONSULTANT hereby waive any right to pursue claims for consequential damages against one another, including any claims for lost profits.

5. **Representations of CLIENT:** CLIENT warrants and covenants that sufficient funds are available or will be available upon receipt of CONSULTANT's invoice to make payment in full for the services rendered by CONSULTANT.

6. **Ownership of Instruments of Service:** All reports, plans, specifications, field data and notes and other documents, including all documents on electronic media, prepared by the CONSULTANT as instrument of service, shall remain the property of the CONSULTANT. The CONSULTANT shall retain all common law, statutory and other rights, including the copyright thereto. In the event of termination of this Agreement and upon full payment of fees owed to CONSULTANT, CONSULTANT shall make available to CLIENT copies of all plans and specifications.

7. **Change Orders:** CONSULTANT will treat as a proposed change order any written or oral order (including directions, instructions, interpretations, or determinations) from CLIENT which requests changes in the Agreement or CONSULTANT's Scope of Services. If CONSULTANT accepts the proposed

change order, CONSULTANT will give CLIENT written notice within ten (10) days of acceptance of any resulting increase in CONSULTANT's fees.

8. **Opinion of Cost/Cost Estimates:** Since the CONSULTANT has no control over the cost of labor, materials, equipment or services furnished by others, or over methods of determining prices, or over competitive bidding or market conditions, any and all opinions as to costs rendered hereunder, including but not limited to opinions as to the costs of construction and materials, shall be made on the basis of CONSULTANT'S experience and qualifications and represent its reasonable judgment as an experienced and qualified professional familiar with the construction industry; but the CONSULTANT cannot and does not guarantee the proposals, bids or actual costs will not vary significantly from opinions of probable costs prepared by it. If at any time the CLIENT wishes assurances as to the amount of any costs, CLIENT shall employ an independent cost estimator to make such determination.

9. **Assignment and Third Parties:** Nothing under this Agreement shall be construed to give any rights or benefits in this Agreement to anyone other than the CLIENT and CONSULTANT, and all duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of the CLIENT and the CONSULTANT and not for the benefit of any other party. Neither the CLIENT nor the CONSULTANT shall assign, sublet, or transfer any rights under or interests in this Agreement without the written consent of the other, which shall not be unreasonably withheld. However, nothing contained herein shall prevent or restrict the CONSULTANT from employing independent subconsultants as the CONSULTANT may deem appropriate to assist in the performance of services hereunder.

10. **Project Site:** Should CLIENT not be owner of the Project site, then CLIENT agrees to notify the site owner of the possibility of unavoidable alteration and damage to the site. CLIENT further agrees to indemnify, defend, and hold harmless CONSULTANT against any claims by the CLIENT, the owner of the site, or persons having possession of the site which are related to such alteration or damage.

11. **Access to Site:** CLIENT is responsible for providing legal and unencumbered access to site, including securing all necessary site access agreements or easements, to the extent necessary for the CONSULTANT to carry out its services.

12. **Survival:** All of CLIENT's obligations and liabilities, including but not limited to, its indemnification obligations and limitations of liability, and CONSULTANT's rights and remedies with respect thereto, shall survive completion, expiration or termination of this Agreement.

13. **Termination:** Either party may terminate the Agreement with or without cause upon ten (10) days advance written notice, if the other party has not cured or taken reasonable steps to cure the breach giving rise to termination within the ten (10) day notice period. If CLIENT terminates without cause or if CONSULTANT terminates for cause, CLIENT will pay CONSULTANT for all costs incurred, non-cancelable commitments, and fees earned to the date of termination and through demobilization, including any cancellation charges of vendors and subcontractors, as well as demobilization costs.

14. **Severability:** If any provision of this Agreement, or application thereof to any person or circumstance, is found to be invalid then such provision shall be modified if possible, to fulfill the intent of the parties as reflected in the original provision. The remainder of this Agreement, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby, and each provision of this Agreement shall be valid and enforced to the fullest extent permitted by applicable law.

15. **No Waiver:** No waiver by either party of any default by the other party in the performance of any provision of this Agreement shall operate as or be





**WithersRavenel**

Our People. Your Success.

construed as a waiver of any future default, whether like or different in character.

**16. Merger, Amendment:** This Agreement constitutes the entire Agreement between the CONSULTANT and the CLIENT and all negotiations, written and oral understandings between the parties are integrated and merged herein. This Agreement can be supplemented and/or amended only by a written document executed by both the CONSULTANT and the CLIENT.

**17. Unforeseen Occurrences:** If, during the performance of services hereunder, any unforeseen hazardous substance, material, element of constituent or other unforeseen conditions or occurrences are encountered which affects or may affect the services, the risk involved in providing the service, or the recommended scope of services, CONSULTANT will promptly notify CLIENT thereof. Subsequent to that notification, CONSULTANT may: (a) if practicable, in CONSULTANT's sole judgment and with approval of CLIENT, complete the original Scope of Services in accordance with the procedures originally intended in the Proposal; (b) Agree with CLIENT to modify the Scope of Services and the estimate of charges to include study of the previously unforeseen conditions or occurrences, such revision to be in writing and signed by the parties and incorporated herein; or (c) Terminate the services effective on the date of notification pursuant to the terms of the Agreement.

**18. Force Majeure:** Should completion of any portion of the Agreement be delayed for causes beyond the control of or without the fault or negligence of CONSULTANT, including force majeure, the reasonable time for performance shall be extended for a period at least equal to the delay and the parties shall mutually agree on the terms and conditions upon which Agreement may be continued. Force majeure includes but is not restricted to acts of God, acts or failures of governmental authorities, acts of CLIENT's contractors or agents, fire, floods, epidemics, pandemics, riots, quarantine restrictions, strikes, civil insurrections, freight embargoes, and unusually severe weather.

**19. Safety:** CONSULTANT is not responsible for site safety or compliance with the Occupational Safety and Health Act of 1970 ("OSHA"). Job site safety remains the sole exclusive responsibility of CLIENT or CLIENT's contractors, except with respect to CONSULTANT'S own employees. Likewise, CONSULTANT shall have no right to direct or stop the work of CLIENT's contractors, agents, or employees.

**20. Dispute Resolution/Arbitration:** Any claim or other dispute arising out of or related to this Agreement shall first be subject to non-binding mediation in accordance with the then-current Construction Industry Mediation Procedures of the American Arbitration Association ("AAA"). If mediation is unsuccessful, such claim or other dispute shall be subject to arbitration in accordance with the AAA's then-current Construction Industry Arbitration Rules. Any demand for arbitration shall be filed in writing with the other party and with the American Arbitration Association. CLIENT agrees to the inclusion in such arbitration (whether by initial filing, by joinder or by consolidation) of any other parties and of any other claims arising out of or relating to the Project or to the transaction or occurrence giving rise to the claim or other dispute between CLIENT and CONSULTANT.

**21. Independent Contractor:** In carrying out its obligations, CONSULTANT shall always be acting as an independent contractor and not an employee, agent, partner, or joint venture of CLIENT. CONSULTANT's work does not include any supervision or direction of the work of other contractors, their employees or agents, and CONSULTANT's presence shall in no way create

any liability on behalf of CONSULTANT for failure of other contractors, their employees, or agents to perform their work properly or correctly.

**22. Hazardous Substances:** CLIENT agrees to advise CONSULTANT upon execution of this Agreement of any hazardous substances or any condition existing in, on or near the Project Site presenting a potential danger to human health, the environment or equipment. By virtue of entering into the Agreement or of providing services, CONSULTANT does not assume control of, or responsibility for, the Project site or the person in charge of the Project site or undertake responsibility for reporting to any federal, state, or local public agencies, any conditions at the Project site that may present a potential danger to the public, health, safety, or environment except where required of CONSULTANT by applicable law. In the event CONSULTANT encounters hazardous or toxic substances or contamination significantly beyond that originally represented by CLIENT, CONSULTANT may suspend or terminate the Agreement. CLIENT acknowledges that CONSULTANT has no responsibility as a generator, treater, storer, or disposer of hazardous or toxic substances found or identified at a site. Except to the extent that CONSULTANT has negligently caused such pollution or contamination, CLIENT agrees to defend, indemnify, and hold harmless CONSULTANT, from any claim or liability, arising out of CONSULTANT's performance of services under the Agreement and made or brought against CONSULTANT for any actual or threatened environmental pollution or contamination if the fault (as defined in N.C.G.S. 22B-1(f)(7)) of CLIENT or its derivative parties (as defined in N.C.G.S. 22B-1(f)(3)) is a proximate cause of such claim or liability.

**23. Choice of Law:** The validity, interpretation, and performance of this Agreement shall be governed by and construed in accordance with the law of the State of North Carolina, excluding only its conflicts of laws principles.

**24. Construction Services:** If construction administration and review services are requested by the CLIENT, CLIENT agrees that such administration, review, or interpretation of construction work or documents by CONSULTANT shall not relieve any contractor from liability in regard to its duty to comply with the applicable plans, specifications, and standards for the Project, and shall not give rise to a claim against CONSULTANT for contractor's failure to perform in accordance with the applicable plans, specifications or standards.

**25. Field Representative:** If CONSULTANT provides field services or construction observation services, the presence of the CONSULTANT's field personnel will only be for the purpose of providing observation and field testing of specific aspects of the Project. Should a contractor be involved in the Project, the CONSULTANT's responsibility does not include the supervision or direction of the actual work of any contractor, its employees, or agents. All contractors should be so advised. Contractors should also be informed that neither the presence of the CONSULTANT's field representative nor the observation and testing by the CONSULTANT shall excuse contractor in any way for defects in contractor's work. It is agreed that the CONSULTANT will not be responsible for job or site safety on the Project and that the CONSULTANT does not have the right to stop the work of any contractor.

**26. Submittals:** CONSULTANT's review of shop drawings and other submittals is to determine conformity with the design concept only. Review of shop drawings and submittals does not include means, methods, techniques, or procedures of construction, including but not limited to, safety requirements.





## Exhibit II Fee & Expense Schedule

Description	Rate
<b>Engineering &amp; Planning</b>	
Construction Project Professional	\$ 155
Construction Manager I	\$ 160
Construction Manager II	\$ 175
Senior Construction Manager	\$ 200
CAD Technician I	\$ 110
CAD Technician II	\$ 125
Senior CAD Technician	\$ 150
Designer I	\$ 140
Designer II	\$ 160
Senior Designer	\$ 180
Landscape Architect I	\$ 160
Landscape Architect II	\$ 185
Landscape Architect III	\$ 205
Senior Landscape Architect	\$ 225
Landscape Designer I	\$ 140
Landscape Designer II	\$ 150
Planning Technician	\$ 120
Planner I	\$ 130
Planner II	\$ 150
Planner III	\$ 175
Senior Planner	\$ 185
Project Engineer I	\$ 175
Project Engineer II	\$ 185
Project Engineer III	\$ 205
Senior Project Engineer	\$ 225
Assistant Project Manager	\$ 185
Project Manager	\$ 205
Senior Project Manager	\$ 225
Resident Project Representative I	\$ 105
Resident Project Representative II	\$ 125
Resident Project Representative III	\$ 140
Senior Resident Project Representative	\$ 150
Staff Professional I	\$ 95
Staff Professional II	\$ 150
Staff Professional III	\$ 160
Staff Professional IV	\$ 200
Senior Staff Professional	\$ 210
Senior Technical Consultant	\$ 260
Client Experience Manager	\$ 240
Director	\$ 245
Principal	\$ 270
Zoning Specialist	\$ 350
<b>Project Coordinators</b>	
Project Coordinator I	\$ 100
Project Coordinator II	\$ 120
Project Coordinator III	\$ 130
Senior Project Coordinator	\$ 140
Lead Project Coordinator	\$ 150

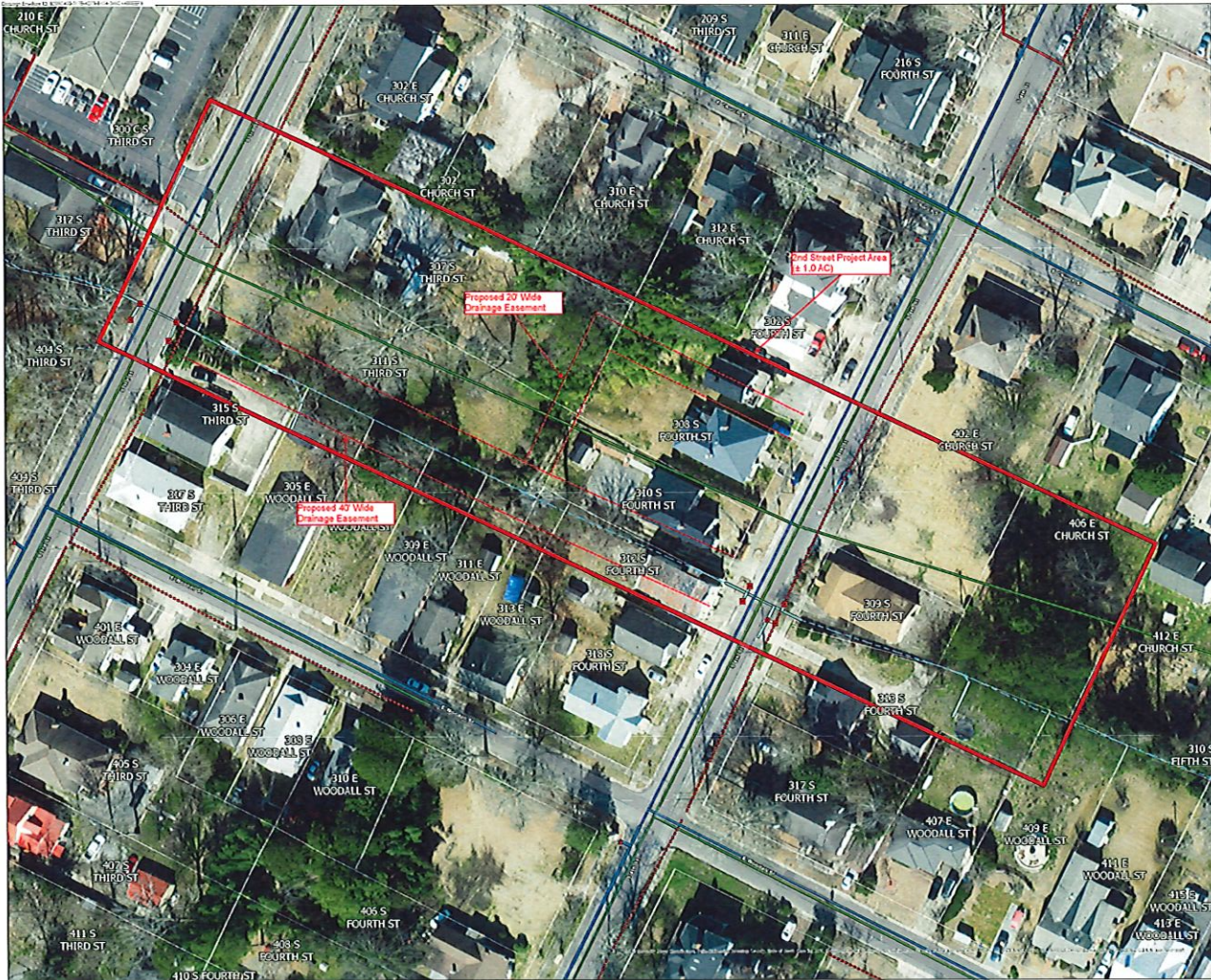
Description	Rate
<b>Funding &amp; Asset Management</b>	
GIS Senior Specialist	\$ 175
GIS Specialist	\$ 155
GIS Survey Technician I	\$ 80
GIS Survey Technician II	\$ 105
GIS Survey Technician III	\$ 125
GIS Survey Lead	\$ 140
GIS Technician	\$ 100
GIS Analyst I	\$ 125
GIS Analyst II	\$ 140
GIS Project Manager	\$ 175
GIS Manager	\$ 225
F&AM Assistant Project Manager	\$ 170
Intern I	\$ 70
Intern II	\$ 90
F&AM Implementation Specialist	\$ 155
F&AM Project Consultant I	\$ 125
F&AM Project Consultant II	\$ 135
F&AM Project Consultant III	\$ 140
F&AM Project Consultant IV	\$ 145
F&AM Senior Project Consultant I	\$ 155
F&AM Senior Project Consultant II	\$ 160
F&AM Project Manager	\$ 175
F&AM Principal	\$ 270
F&AM Director	\$ 245
F&AM Staff Professional I	\$ 75
F&AM Staff Professional II	\$ 120
F&AM Staff Professional III	\$ 160
F&AM Staff Professional IV	\$ 200
F&AM Senior Project Manager	\$ 225
F&AM Senior Technical Consultant	\$ 255
<b>Geomatics</b>	
Geomatics CAD I	\$ 105
Geomatics CAD II	\$ 125
Geomatics CAD III	\$ 140
Geomatics Project Manager I	\$ 175
Geomatics Project Manager II	\$ 185
Geomatics Project Manager III	\$ 215
Geomatics Project Professional I	\$ 155
Geomatics Project Professional II	\$ 180
Geomatics Principal	\$ 250
Geomatics Remote Sensing Crew I	\$ 225
Geomatics Remote Sensing Crew II	\$ 315
Geomatics Survey Crew I	\$ 160
Geomatics Survey Crew II (2 Man)	\$ 195
Geomatics Survey Crew III (3 Man)	\$ 240
Geomatics Senior Manager	\$ 225
Geomatics Survey Tech I	\$ 65
Geomatics Survey Tech II	\$ 95
Geomatics Survey Tech III	\$ 125
Geomatics Survey Tech IV	\$ 135
Geomatics Sr. Technical Consultant	\$ 225
Geomatics SUE Crew 1	\$ 195
Geomatics SUE Crew 2	\$ 265

Description	Rate
<b>Environmental</b>	
Environmental Technician I	\$ 85
Environmental Technician II	\$ 100
Environmental Technician III	\$ 105
Senior Environmental Technician	\$ 120
Environmental Project Geologist I	\$ 155
Environmental Project Geologist II	\$ 170
Environmental Project Geologist III	\$ 195
Environmental Senior Project Geologist	\$ 215
Environmental Assistant Project Manager	\$ 170
Environmental Project Manager	\$ 195
Environmental Senior Project Manager	\$ 215
Environmental Director	\$ 245
Environmental Project Engineer I	\$ 155
Environmental Project Engineer II	\$ 170
Environmental Project Engineer III	\$ 195
Environmental Senior Project Engineer	\$ 215
Environmental Principal	\$ 270
Environmental Project Scientist I	\$ 155
Environmental Project Scientist II	\$ 170
Environmental Project Scientist III	\$ 195
Senior Environmental Project Scientist	\$ 215
Environmental Scientist I	\$ 110
Environmental Scientist II	\$ 135
Environmental Scientist III	\$ 145
Environmental Geologist I	\$ 110
Environmental Geologist II	\$ 135
Environmental Geologist III	\$ 145
Environmental Professional I	\$ 110
Environmental Professional II	\$ 135
Environmental Professional III	\$ 145
Environmental Senior Technical Consultant	\$ 240
<b>Administrative</b>	
Administrative Assistant	\$ 70
Administrative Assistant I	\$ 85
Administrative Assistant II	\$ 95
Administrative Assistant III	\$ 105
Marketing Administration I	\$ 95
Marketing Administration II	\$ 125
Director of Marketing	\$ 155
Office Administration	\$ 75
Office Administrator I	\$ 125
Office Administrator II	\$ 130
Office Administrator III	\$ 135
<b>Expenses</b>	
Bond Prints (Per Sheet)	\$ 1.75
Mylar Prints (Per Sheet)	\$ 11.00
Mileage	Per IRS
<b>Delivery - Project Specific (Distance &amp; Priority)</b>	
Subcontractor Fees (Markup)	1.15
Expenses / Reprod. / Permits (Markup)	1.15
<b>Other</b>	
Expert Witness	\$ 400









#### Legend

- ▲ Hydrant
- Manhole
- Storm Inlets
- Channel
- Storm Pipe
- Water Pipe
- Underground Electric Line
- Overhead Electric Line
- Gravelly Sewer Pipe
- Storm Water Sewer Pipe
- Proposed Drainage Easement
- Easement
- Right-of-Way

Note:  
Parcel and utility information obtained  
from Johnston County GIS Department

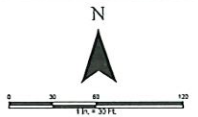


Exhibit IV: Fourth Street  
Improvement Area



**WithersRavenel**  
Engineers | Planners | Surveyors

Our People. Your Success.

115 MacKenan Dr Cary NC, 27511  
t: 919.469.3340  
license #: F-1479  
www.withersravenel.com





## ATTACHMENT A

### ARPA FEDERAL CONTRACT PROVISIONS

#### 1. LEGAL REMEDIES PROVISION AND TERMINATION PROVISION

*(As stated in 2 CFR Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards)*

*Contracts other than small purchases shall contain provisions or conditions which will allow for administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate. All contracts in excess of \$10,000 shall contain suitable provisions for termination by the grantee including the manner by which it will be effected and the basis for settlement. In addition, such contracts shall describe conditions under which the contract may be terminated for default as well as conditions where the contract may be terminated because of circumstances beyond the control of the contractor.*

#### Termination for Cause: Event of Default

- a. CLIENT may terminate contract with written notice of violation or breach of contract provided, however, that no such violation shall occur until the CLIENT has been given written notice of the breach and thirty (30) days to cure have elapsed.
- b. CLIENT may terminate contract for default in performance provided, however, that no such default shall occur until the CLIENT has been given written notice of the default and 30 days to cure have elapsed
- c. CLIENT may terminate contract for misrepresentation if any representation or warranty made by the CONSULTANT in connection with the Contract or any information, certificate, statement, or report heretofore or hereafter made shall be untrue or misleading in any material respect at the time made.

**Remedies:** If an Event of Default shall occur, the CLIENT shall have the following rights and remedies, which are exercisable at the CLIENT's sole discretion, and are cumulative, concurrent, and independent rights

- a. In the event that the CLIENT finds that it is inadvisable or impossible to continue the execution of the project; or if CONSULTANT shall fail to fulfill in a timely and proper manner its obligations under this Agreement; or, if CONSULTANT shall violate any of the covenants, agreements, or stipulations of this Agreement; or if CONSULTANT becomes subject to a voluntary or involuntary adjudication of bankruptcy or makes a general assignment for the benefit of creditors; then the CLIENT has the right to terminate at any time this Agreement or any task or phase of work being performed herein by providing thirty days written notice to CONSULTANT of such termination and specifying the effective date of such termination; provided, however, that during such period of thirty (30) days CONSULTANT shall have the opportunity to remedy such failures or violations to avoid such termination.
- b. In the event of termination, as provided herein, CONSULTANT shall be paid for all services performed and actual expenses incurred up to the effective date of the termination of services and any fees or expenses post termination effective date that may be incurred associated with transitioning the work to the CLIENT or the CLIENT's affiliate.





## 2. CONFLICT OF INTEREST

*(2 CFR Part §200.318 General Procurement Standards): Interest of Members, Officers, Or Employees Of The Recipient, Members Of Local Governing Body, Or Other Public Officials*

No member, officer, or employee of the CLIENT, or its agents, no member of the governing body of the locality in which the program is situated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the program during his tenure or for one year thereafter, shall have any financial interest, either direct or indirect, in any contract or subcontract, or the proceeds under this Agreement. Immediate family members of said members, officers, employees, and officials are similarly barred from having any financial interest in the program. The CLIENT and CONSULTANT shall incorporate, or cause to be incorporated, in all such contracts or subcontracts, a provision prohibiting such interest pursuant to the purpose of this section.

## 3. INTEREST OF CONSULTANT AND EMPLOYEES

The CONSULTANT covenants that they presently have no interest and shall not acquire interest, direct or indirect, in the project areas or any parcels therein or any other interest which would conflict in any manner or degree with the performance of his services hereunder.

## 4. ACCESS TO RECORDS AND RECORD RETAINAGE CLAUSE

In general, all official project records and documents, including personal property and financial records, adequate to identify and account for all costs pertaining to the Agreement and such other records as may be deemed necessary by the CLIENT to assure proper accounting for all project funds, must be maintained during the operation of this project and for a period of three (3) years following close out in compliance with 2 CFR 200.334-338, unless permission to destroy them is granted by the CLIENT. The North Carolina Department of the Treasurer, the Comptroller General of the United States, and the North Carolina Department of Environmental Quality, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Administering Agency which are pertinent to the execution of this Agreement, for the purpose of making audits, examinations, excerpts and transcriptions in compliance with the above Rule.

## 5. PERSONNEL & SUBCONTRACTING

- A. The CONSULTANT represents that they have, or will secure at their own expense, all personnel required in performing the services under this Agreement. Such personnel shall not be employees of the CLIENT.
- B. All of the services required hereunder will be performed by the CONSULTANT or under their supervision and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under State and local law to perform such services.
- C. None of the work or services covered by this Agreement shall be subcontracted without the prior written approval of the CLIENT.
- D. Any work or services subcontracted hereunder shall be specified by written contract or agreement and shall be subject to each provision of this Agreement.



## 6. RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT

*(As stated in 2 CFR Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards)*

If the Federal award meets the definition of "funding agreement" under 37 CFR §401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

## 7. LOBBYING CLAUSE

*(As stated in 2 CFR Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards)*

As required by 31 U.S.C. Section 1352, Byrd Anti-Lobbying Amendment, Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier, up to the non-Federal award.

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any federal grant, the making of any Federal loan, the entering into of any cooperative, agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid any person for influencing or attempting to influence an officer or employee or any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.





## 8. AMERICAN RESCUE PLAN ACT (ARPA) CIVIL RIGHTS COMPLIANCE

*(As stated in 'Compliance and Reporting Guidance, State & Local Fiscal Recovery Funds'; U.S. Department of The Treasury)*

Recipients of Federal financial assistance from the Treasury are required to meet legal requirements relating to nondiscrimination and nondiscriminatory use of Federal funds. Those requirements include ensuring that entities receiving Federal financial assistance from the Treasury do not deny benefits or services, or otherwise discriminate on the basis of race, color, national origin (including limited English proficiency), disability, age, or sex (including sexual orientation and gender identity), in accordance with the following authorities: Title VI of the Civil Rights Act of 1964 (Title VI) Public Law 88-352, 42 U.S.C. 2000d-1 et seq., and the Department's implementing regulations, 31 CFR part 22; Section 504 of the Rehabilitation Act of 1973 (Section 504), Public Law 93-112, as amended by Public Law 93-516, 29 U.S.C. 794; Title IX of the Education Amendments of 1972 (Title IX), 20 U.S.C. 1681 et seq., and the Department's implementing regulations, 31 CFR part 28; Age Discrimination Act of 1975, Public Law 94-135, 42 U.S.C. 6101 et seq., and the Department implementing regulations at 31 CFR part 23.

## 9. DEBARMENT AND SUSPENSION (EXECUTIVE ORDERS 12549 AND 12689)

*(As stated in 2 CFR Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards)*

A contract award (see 2 CFR 180.220) must not be made to parties listed on the government-wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

*(This space left intentionally blank)*



## ATTACHMENT B

### DEBARMENT STATUS CERTIFICATION

*This form must be attached and made a part of all contracts obligated by grantees and paid with federal funds.*

By entering into this Agreement, the CONTRACTOR certifies that they nor any person or firm who has an interest in the CONTRACTOR's firm is a person or firm ineligible to be awarded Government contracts by virtue of 29 CFR 5.12(a)(1), 2 CFR § 2424, 2 CFR § 180.220, and 40 U.S. Code § 3144, or if applicable, by virtue of Section 3(a) of the Davis-Bacon Act. No part of this Contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 29 CFR 5.12(a)(1), 29 CFR § 5.12, 2 CFR § 2424, 2 CFR § 180.220, and 40 U.S. Code § 3144, or, if applicable, by virtue of Section 3(a) of the Davis-Bacon Act. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001 and 18 U.S.C. 1010.

#### CONTRACTOR INFORMATION

	WithersRavenel, Inc
(Authorized Signature)	(Name of Contractor)
	115 MacKenan Drive
(Printed Name and Title)	(Street Address and/or PO Box)
	Cary, NC 27511
(Date)	(City, State, Zip Code)
Fed ID 56-1740520 / Unique Entity ID - SK8ECFTPUEH7	
(Unique Entity ID, Tax Identification or Social Security Number)	

\*\*\*\*\*

#### FOR FUNDING RECIPIENT USE ONLY

The Federal List of Parties Excluded from Federal Procurement or Non-procurement Programs ([www.sam.gov](http://www.sam.gov)) and State of North Carolina Debarred Vendors List (<http://ncadmin.nc.gov/government-agencies/procurement/contracts/debarred-vendors>) have been checked and the above contractor or subcontractor has been determined to be eligible to participate in a federally assisted project. Attached is the documentation proving eligibility (websites printout).

(Signature of Verifying Officer)	(Local Government Name)
(Printed Name and Title)	(Project Name)
(Date)	(Project Number)

Federal Debarment Search  
<https://sam.gov/content/home>



Unique Entity ID		CAGE/NCAGE	Expiration Date
SK8ECFTPUEH7		8T6L1	Dec 4, 2024
Physical Address		Mailing Address	
115 Mackenan DR		115 Mackenan DR	
Cary, North Carolina		Cary, North Carolina	
27511-7903, United States		27511-7903, United States	
Purpose of Registration			
All Awards			
Version			
Current Record ▼			





# WITHERSRAVENEL, INC

Unique Entity ID <b>SK8ECFTPUEH7</b>	CAGE / NCAGE <b>8T6L1</b>	Purpose of Registration <b>All Awards</b>
Registration Status <b>Active Registration</b>	Expiration Date <b>Dec 4, 2024</b>	
Physical Address <b>115 Mackenan DR Cary, North Carolina 27511-7903 United States</b>	Mailing Address <b>115 Mackenan DR Cary, North Carolina 27511-7903 United States</b>	

## Business Information

Doing Business as <b>(blank)</b>	Division Name <b>(blank)</b>	Division Number <b>(blank)</b>
Congressional District <b>North Carolina 13</b>	State / Country of Incorporation <b>North Carolina / United States</b>	URL <b>www.withersravenel.com</b>

## Registration Dates

Activation Date <b>Dec 7, 2023</b>	Submission Date <b>Dec 5, 2023</b>	Initial Registration Date <b>Aug 21, 2020</b>
---------------------------------------	---------------------------------------	--------------------------------------------------

## Entity Dates

Entity Start Date <b>Apr 23, 1991</b>	Fiscal Year End Close Date <b>Dec 31</b>
------------------------------------------	---------------------------------------------

## Immediate Owner

CAGE <b>8PQT6</b>	Legal Business Name <b>WITHERSRAVENEL, INC. EMPLOYEE STOCK OWNERSHIP TRUST</b>
----------------------	-----------------------------------------------------------------------------------

## Highest Level Owner

CAGE <b>(blank)</b>	Legal Business Name <b>(blank)</b>
------------------------	---------------------------------------

## Executive Compensation

Registrants in the System for Award Management (SAM) respond to the Executive Compensation questions in accordance with Section 6202 of P.L. 110-252, amending the Federal Funding Accountability and Transparency Act (P.L. 109-282). This information is not displayed in SAM. It is sent to USAspending.gov for display in association with an eligible award. Maintaining an active registration in SAM demonstrates the registrant responded to the questions.

## Proceedings Questions

Registrants in the System for Award Management (SAM.gov) respond to proceedings questions in accordance with FAR 52.209-7, FAR 52.209-9, or 2. C.F.R. 200 Appendix XII. Their responses are displayed in the responsibility/qualification section of SAM.gov. Maintaining an active registration in SAM.gov demonstrates the registrant responded to the proceedings questions.

## Exclusion Summary

Active Exclusions Records?

No

## SAM Search Authorization

I authorize my entity's non-sensitive information to be displayed in SAM public search results:

Yes

## Entity Types

### Business Types

Entity Structure <b>Corporate Entity (Not Tax Exempt)</b>	Entity Type <b>Business or Organization</b>	Organization Factors <b>Subchapter S Corporation</b>
Profit Structure <b>For Profit Organization</b>		

## Socio-Economic Types

Check the registrant's Reps & Certs, if present, under FAR 52.212-3 or FAR 52.219-1 to determine if the entity is an SBA-certified HUBZone small business concern. Additional small business information may be found in the SBA's Dynamic Small Business Search if the entity completed the SBA supplemental pages during registration.

## Financial Information

Accepts Credit Card Payments	Debt Subject To Offset
Yes	No

EFT Indicator	CAGE Code
0000	8T6L1

## Points of Contact

### Electronic Business

✎	115 Mackenan Drive
Christopher C Bryant	Cary, North Carolina 27511
	United States

### Government Business

✎	115 Mackenan Drive
Kerry T Colwell	Cary, North Carolina 27511
	United States

## Service Classifications

### NAICS Codes

Primary	NAICS Codes	NAICS Title
Yes	541330	Engineering Services
	237110	Water And Sewer Line And Related Structures Construction
	237210	Land Subdivision
	237310	Highway, Street, And Bridge Construction
	237990	Other Heavy And Civil Engineering Construction
	513210	Software Publishers
	518210	Computing Infrastructure Providers, Data Processing, Web Hosting, And Related Services
	541320	Landscape Architectural Services
	541340	Drafting Services
	541360	Geophysical Surveying And Mapping Services
	541370	Surveying And Mapping (Except Geophysical) Services
	541512	Computer Systems Design Services
	541620	Environmental Consulting Services
	541990	All Other Professional, Scientific, And Technical Services
	561990	All Other Support Services
	562212	Solid Waste Landfill
	562910	Remediation Services

## Product and Service Codes

PSC	PSC Name
B510	Special Studies/Analysis- Environmental Assessments
B517	Special Studies/Analysis- Geological
B532	Special Studies/Analysis- Soil

C219	Architect And Engineering- General: Other
F109	Environmental Systems Protection- Leaking Underground Storage Tank Support
F110	Environmental Systems Protection- Development Of Environmental Impact Statements And Assessments, Technical Analysis And Environmental Audits
R404	Support- Professional: Land Surveys-Cadastral (Non-Construction)
R425	Support- Professional: Engineering/Technical

Disaster Response

Yes, this entity appears in the disaster response registry.

Bonding Levels	Dollars
(blank)	(blank)

States	Counties	Metropolitan Statistical Areas
North Carolina	(blank)	(blank)
South Carolina		
Virginia		



## ATTACHMENT C

### E-VERIFY AFFIDAVIT

STATE OF NORTH CAROLINA

COUNTY OF Wake

\*\*\*\*\*

I, C. CHAN BRYANT, (the individual attesting below), being duly authorized by and on behalf of WithersRavenel (the entity bidding on project hereinafter "Employer") after first being duly sworn hereby swears or affirms as follows:

1. Employer understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25(5).
2. Employer understands that Employers Must Use E-Verify. Each employer, after hiring an employee to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS §64-26(a).
3. Employer is a person, business entity, or other organization that transacts business in this State and that employs 25 or more employees in this State. (mark Yes or No)
  - a. YES X, or
  - b. NO \_\_\_\_\_
4. Employer's subcontractors comply with E-Verify, and if Employer is the winning bidder on this project Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer.

This 5 day of January, 2023

Signature of Affiant: C. Chan Bryant

Print or Type Name: C. CHAN BRYANT

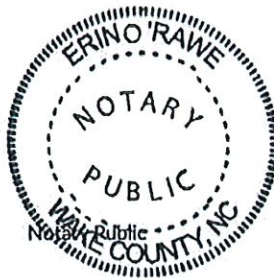
State of North Carolina County of Wake

Signed and sworn to (or affirmed) before me, this the 5

day of January, 2023

My Commission Expires:

10/18/26



(Affix Official/Notarial Seal)





# **Town of Smithfield**

## **SPRING BRANCH DRAINAGE REPAIR DESIGN REPORT**



June 30<sup>th</sup> 2025

WR Job Number: 24-0390

Wesley "Ross" Perry, PE, CFM

Kat Waldman, EI

Max Dyke, EI

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## References

Lee, W., P.E. (2012). *Phase 1 Preliminary Engineering Report* (02120101.00). WithersRavenel.

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## Introduction

The Town of Smithfield (henceforth known as The Town) contracted WithersRavenel to analyze and evaluate alternative stormwater improvement options at the 2<sup>nd</sup> and 4<sup>th</sup> Street crossings of Spring Branch (**FIGURE 1**). These two areas have a history of flooding during frequent storm events which has resulted in damage to surrounding residential and commercial properties and poses a safety risk to the community.

The purpose of this report is to summarize the methodologies and assumptions used to develop a detailed flood model of Spring Branch between 5<sup>th</sup> St and the Neuse River (Study Area). The flood model was then used to assess the potential flood mitigation benefits of various conceptual stormwater improvements for both the 2<sup>nd</sup> and 4<sup>th</sup> Street areas. A summary of the model results along with recommendations on which stormwater improvements to pursue and prioritize can be found in the conclusions of this report.

**Figure 1: Project Area Map**



## Site Information

### Overall Watershed

The Town is located within Johnston County within the Piedmont region of North Carolina and is bisected by Neuse River. Spring Branch, a tributary of the Neuse River, has an approximately 733-acre watershed (**FIGURE 2**) that receives drainage from a large area between Hwy 95 and the railroad as well as a portion of downtown Smithfield between E Johnston St (north) and E and W Davis St (south).

**Figure 2: Springbranch Watershed**

**Smithfield** Branch flows from Pine Acres Pond and agricultural fields located on the east side of downtown Smithfield to the west, where it crosses under the railroad and then Brightleaf Blvd. Spring Branch continues to flow to the west through downtown Smithfield where it crosses under 7<sup>th</sup> St, 6<sup>th</sup> St, 5<sup>th</sup> St, 4<sup>th</sup> St, 3<sup>rd</sup> St, and 2<sup>nd</sup> St via various culverts and ultimately discharges into the Neuse River.

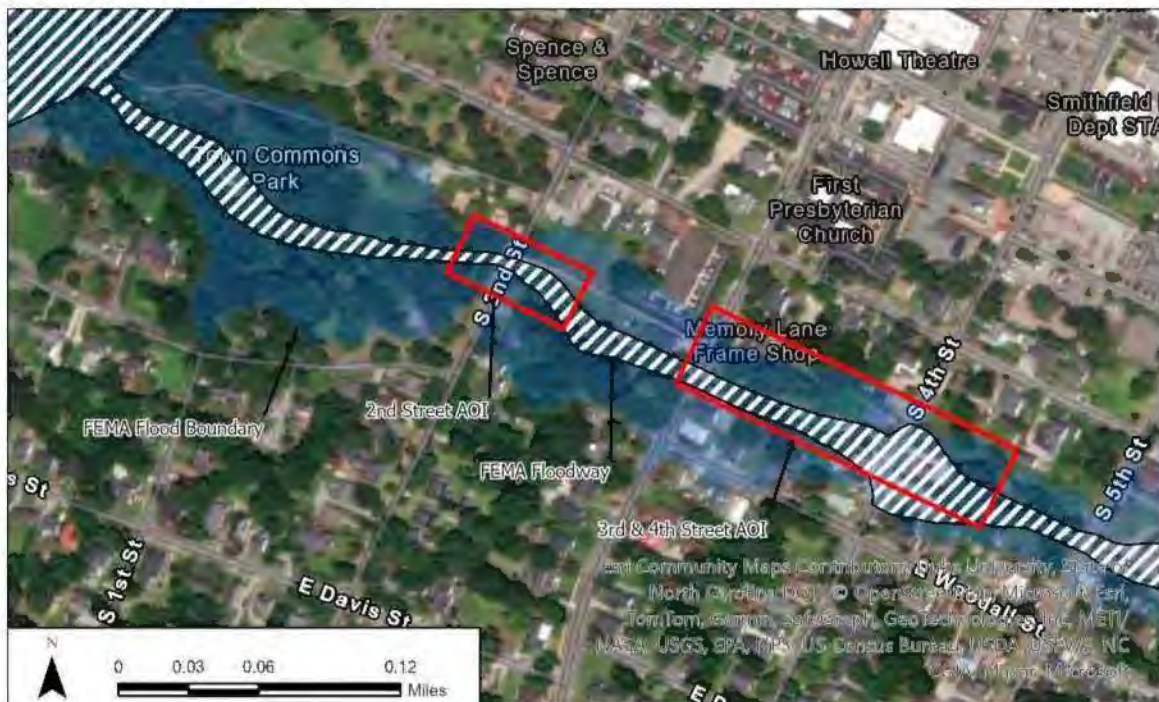
Both the Neuse River and Spring Branch have 1% Annual Chance Floodplains and Floodways established by the Federal Emergency Management Agency (FEMA) as illustrated in the below Figure and on Flood Insurance Rate Map (FIRM) # 3720169400K and 3720168200L (Included in **APPENDIX 1**).



**Figure 3: Existing Pipe Layout**



**Figure 4: FEMA Floodplain**





## 2<sup>nd</sup> Street Project Area

The 2<sup>nd</sup> St Project Area includes the culvert crossing of Spring Branch under 2<sup>nd</sup> St between E Church St (north) and East Riverside Dr (south). The existing culvert is a 65" corrugated metal pipe (CMP) with a metal flared end section (FES) on the upstream end and a concrete endwall at the downstream end. The culvert receives flows from a natural channelized portion of Spring Branch that extends upstream to 3<sup>rd</sup> St. The culvert discharges into a natural channel that flows parallel to the constructed stormwater wetland located adjacent to the Bob Wallace Jaycee Park. See **APPENDIX 2** for a Photo Record documenting existing conditions within the Project Area.

The following summarizes the existing conditions culvert design:

- Culvert Type: 122 LF of 65" CMP at 3.07% slope
- Invert In Elev: 111.75
- Invert Out Elev: 108.00
- Low Point of Road Elev: 126.99

**Figure 5: 2<sup>nd</sup> Street Existing Pipe Layout**





## 4<sup>th</sup> Street Project Area

The 4<sup>th</sup> Street Project Area includes the culvert crossing of Spring Branch under 4<sup>th</sup> St and the surrounding stormwater Infrastructure. Spring Branch transitions from a natural channel to a rectangular man-made channel consisting of vertical stone masonry wall along the south side of the channel and a concrete block wall along the north. Horizontal steel support pipes are incrementally located along this portion of the channel and appear to be stabilizing the stone masonry side wall.

This man-made channel continues to the culvert under 4<sup>th</sup> St which consist of a 6' wide by 4.5' tall box culvert constructed with what appears to be a poured concrete floor, brick masonry side walls, and a concrete slab top. A 10" PVC sanitary sewer line penetrates the upper portion of the box culvert perpendicular approximately half-way through the culvert. Four combination type inlets are located within the curb and gutter of 4<sup>th</sup> St above the box culvert. Each of these discharge directly into the box culvert via individual 10" vitrified clay pipes (VCP) that penetrate the sidewalls.

The channel immediately downstream of the box culvert is also a rectangular man-made channel. The southern sidewall immediately downstream of the channel is brick masonry and also serves as the foundation wall to the old commercial building on 312 4<sup>th</sup> Street. Just past the building, the wall transitions to a concrete block wall for approximately 30' before transitioning to a dry stacked stone wall. The northern sidewall of the channel consists of stone masonry with a concrete top. Both the upstream and downstream channel widths match that of the box culvert at 6.5' wide. See **APPENDIX 2** for a Photo Record documenting existing conditions within the Project Area.

The following summarizes the existing conditions culvert design:

- Culvert Type: 75 LF of brick/concrete box at 0.04% slope
- Invert In Elev: 121.42
- Invert Out Elev: 121.39
- Low Point of Road Elev: 126.99

**Figure 6: 4<sup>th</sup> Street Existing Pipe Layout**

## Historical Studies

The following sections summarize previous studies conducted and their findings and resulting recommendations for improvements to various portions of Spring Branch.

### Phase 1 & Phase 2 Preliminary Engineering Report Summaries

In 2012, an assessment of the Smithfield drainage infrastructure was completed by WithersRavenel. Phase 1 evaluated drainage conditions for a 575-acre study area, assessed the impact of a proposed development within the study area, and reviewed previous studies. The model indicated that flooding within the study area was caused by undersized branch lines in combination with low slopes in a generally flat basin and a lack of inlet capacity. In summary, the report proposed that the most cost-effective solution would be improving the existing stormwater infrastructure.

Phase 2 evaluated the drainage basin below Pine Acres Pond and was intended to supplement the Phase 1 report which addressed issues upstream of said pond. The model indicated numerous areas of localized flooding that were consistent with existing flood maps and citizen reports.

The existing conditions model at 2<sup>nd</sup> and 3<sup>rd</sup> street showed that the street culverts were adequately sized for the 25-year storm event, but overtopped during the 100-year storm. The proposed improvement was to install a parallel 36-inch culvert at the 2<sup>nd</sup> street crossing to increase stormwater conveyance during a 100-year event.



The existing conditions model at 4<sup>th</sup> Street showed that the street culvert was adequately sized for the 25-year storm event, but overtopped during the 100-year storm. Field survey also revealed the culvert had a reverse slope. The proposed improvement was to correct the reversed grade at this crossing and that any improvement would appear to require the demolition of the 312 S. 4<sup>th</sup> Street commercial building as well as addressing the presence of the shallow rock.

## Resiliency Study Summary

In 2024, McCormick Taylor completed a Resiliency/Planning Study for the Town of Smithfield, with a goal to create a clear plan to increase the Town's resiliency and pedestrian connectivity within the Spring Branch watershed. The plan addressed flooding, improving water quality, re-establishing natural hydrologic connections, and focusing on projects that would create educational opportunities for the residents to learn about conservation and the environment.

Nine potential projects were identified using the previous published studies along with an updated analysis of the watershed. Among the nine identified projects, three of them included replacing the culvert at 2<sup>nd</sup> Street with a 10' x 8' concrete box, restoring the stream between 2<sup>nd</sup> and 3<sup>rd</sup> Street, and replacing the culvert at 4<sup>th</sup> Street with a 10' x 5' concrete box.

The projects were prioritized based on numerous criteria and broken into three phases depending on which would provide the most hydraulic benefits. The greatest reductions observed in the 2-year floodplain resulted from the Phase 1's projects which included replacing and upsizing the culverts under 2<sup>nd</sup> and 4<sup>th</sup> Street.

## Methodology

The stormwater study was conducted using the natural drainage features as depicted by Light Detection and Ranging (LIDAR) topography, previous studies, and field surveys.

The scope of work included the following analyses:

### Hydrology

- Simulation of the 2-year, 10-year, 25-year, and 100-year rainfall events (Design Storms) for the Smithfield, NC area.
- Formulation of the 2-year, 10-year, 25-year, and 100-year runoff hydrographs to each culvert along Spring Branch.

The SCS Method, in conjunction with NOAA Atlas 14 rainfall data for Durham, NC was used to develop runoff hydrographs for the Design Storms. This method requires three basic parameters: a curve number (CN), time of concentration (Tc), and drainage area.

Curve numbers were based on soil type and land use. Soil types were delineated from the Soil Survey of Johnston County, North Carolina. A spatially varying land cover raster was generated by Ecopia using artificial intelligence (AI) which converts high-resolution imagery of the earth into HD vector maps. The result was a raster which discretized land cover into the following 17 classes: bareland, building, compacted surface, driveway, forest, grass, parking, pavement,



## Spring Branch Drainage Repair Design Report

railway, road, sidewalk, swimming pool, unpaved driveway, unpaved parking, unpaved road, unpaved sidewalk, and water.

Time of concentration values for the drainage areas were derived by the SCS watershed lag method outlined in the National Engineering Handbook Part 630, Chapter 15. A minimum time of concentration of 5 minutes was used for the predominantly piped drainage systems. Drainage area maps and land use maps are included in **APPENDIX 3**. Bentley Systems PondPack v8i software was used to develop runoff hydrographs for each sub-drainage area.

The above methodology was used to generate runoff hydrographs for the following sub-drainage areas:

- Drainage Area To 5<sup>th</sup> St
- Drainage Area To 4<sup>th</sup> St
- Drainage Area To 3<sup>rd</sup> St
- Drainage Area To 2<sup>nd</sup> St
- Drainage Area To Neuse River

### Upstream Storage

Following review of the preliminary hydrology results, it was determined that the flows calculated within the Project Areas were elevated when compared to historical results and published FEMA discharges. The first iteration of the hydrology calculations conservatively assumed that the runoff from the drainage areas upstream of the Project Areas ultimately discharged to the Project Area with no significant upstream attenuation. Review of the topography and published FEMA models indicated that the culverts under the railroad had potential to throttle flows while generating a significant backwater. This was incorporated into the PondPack model by adding a storage area with a stage vs storage curve pulled from topographic contours upstream of the railroad. Information (size, material, invert elevations, etc.) for the three culverts under the railroad was pulled from the FEMA effective HEC-RAS model which was obtained from the NC Floodplain Mapping Program (NCFMP). These culverts, along with an irregular weir representing the crest of the railroad, were input as the control structure for the storage area that attenuated flows upstream of the railroad.

The resulting runoff hydrographs were used as inputs for the detailed 2D hydraulic model described below. These runoff hydrographs, along with the PondPack model input information, are provided in **APPENDIX 3**.

### Spatially Varying 2D Model

The United States Army Corps of Engineers (USACE) Hydrologic Engineering Center River Analysis System (HEC-RAS) v. 6.5 was utilized to develop a detailed hydraulic model of the Project Area. HEC-RAS was selected for its two-dimensional (2D) spatially varying and flow modeling capabilities. The 2D HEC-RAS model utilized six (6) basic components: A terrain, inflow runoff hydrographs, a Manning's "n" layer, boundary conditions, a 2D mesh, and SA/2D connections.



## Terrain

The HEC-RAS Terrain utilized in the simulation was generated from a 3ft x 3ft (1-meter) digital elevation model (DEM) developed from WithersRavenel field survey and supplemented with 2014 QL2 LIDAR (3-meter resolution) obtained from NC Spatial Data Download. Channels and ditches were "stamped" into the HEC-RAS Terrain in areas where brush and canopy cover obstructed the LIDAR along the channel bottom. Stamped channel geometry was based on field survey information where available or field observations and measurements where necessary. Building footprints obtained from NC Spatial Data Download were added to the Terrain by raising the elevations within the footprint to finished floor elevation (FEE) of each structure. The extents of the terrain generated include the area bounded by E Church St to the north, E Woodall St to the south, the Neuse River to the west, and 5<sup>th</sup> St to the east.

## Inflow Hydrographs

Runoff hydrographs for sub-drainage areas associated with each modeled culvert along Spring Branch were developed using PondPack (see Hydrology section above and **APPENDIX 3**) for each Design Storm. These hydrographs were incorporated into the HEC-RAS model using boundary conditions to "inject" the flows directly onto the terrain's surface within the Spring Branch channel.

## Manning's n Value

The Manning's Equation is used within the HEC-RAS model to determine the velocity of surface flows over different land cover types. An important variable within the Manning's Equation is the Manning's n-value, a coefficient which represents the roughness or friction applied to the flow of water over the surface. To assign appropriate Manning's n-values, the study area was delineated into varying land cover types using the Ecopia land cover raster.

For the purposes of the HEC-RAS model, land cover classifications with similar Mannings's n-values (building, driveway, pavement, parking, etc.) were combined into a single classification. Characteristics for the six (6) unique land use categories that were used to assign Manning's "n" roughness coefficients and impervious percentages can be seen in **TABLE 1**.

**Table 1: Land Cover Characteristics**

Classification	Manning's n	Impervious Percentage
Unclassified	0.06	0%
Tree Canopy	0.08	0%
Open Space	0.06	0%
Impervious	0.011	100%
Water	0.035	100%

## Boundary Conditions

Boundary conditions represent locations in the model where water can enter and leave the model limits. HEC-RAS allows a boundary condition to be applied externally (along 2D flow area

## Spring Branch Drainage Repair Design Report

perimeter), internally (within the 2D flow area), or globally (applied to the entire 2D flow area). There are several boundary condition options that can be applied depending on the type used including flow hydrograph, stage hydrograph, normal depth, rating curve, and precipitation.

The following boundary conditions were used in the 2D HEC-RAS model:

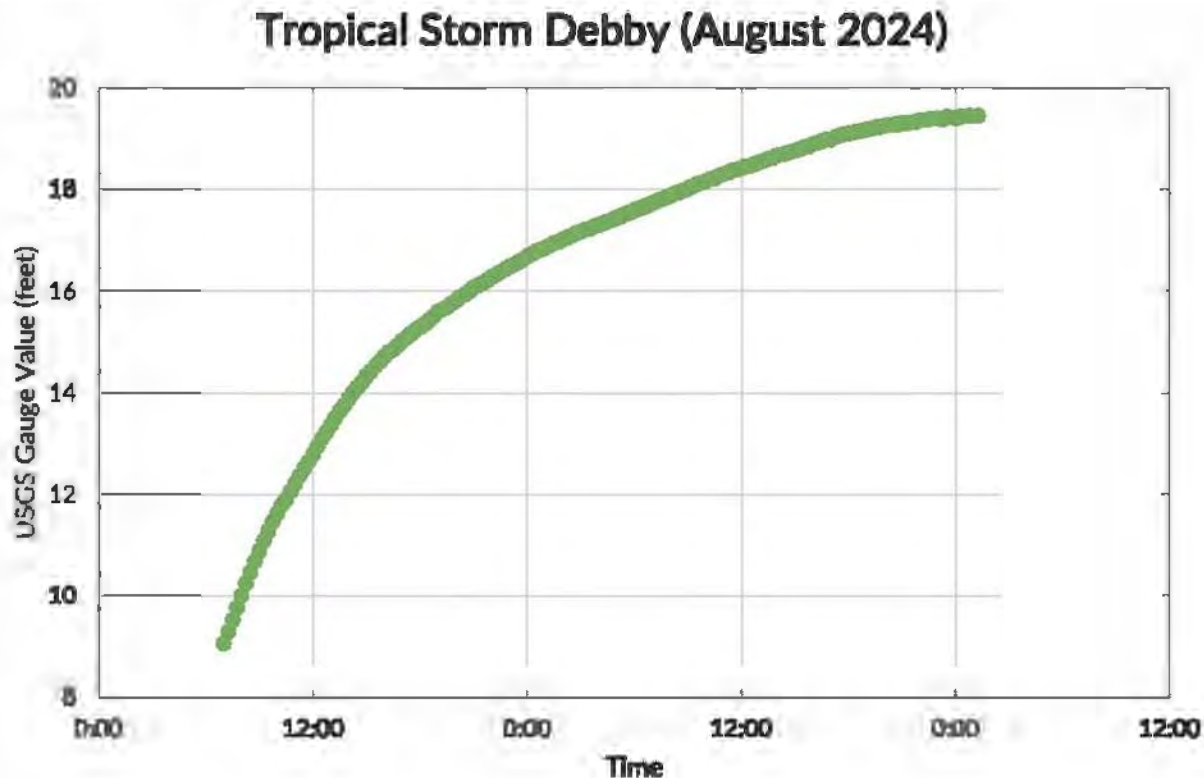
- Upstream Boundary Conditions:
  - USBC\_To 5<sup>th</sup> St → Inflow Hydrograph
- Internal Boundary Conditions → Inflow Hydrograph
  - IBC\_To 4<sup>th</sup> St
  - IBC\_To 3<sup>rd</sup> St
  - IBC\_To 2<sup>nd</sup> St
  - IBC\_To Neuse
- Downstream Boundary Conditions:
  - DSBC-01 → Stage Hydrograph

Inflow runoff hydrographs developed for each sub-drainage area (see Hydrology section above) were utilized to establish flows at each of their corresponding upstream and internal boundary conditions.

The stage hydrograph utilized for the downstream boundary condition was developed utilizing published FEMA flood elevations for each Design Storm to determine the peak water surface elevation. The temporal curve for the stage hydrograph was developed using USGS gauge information for water surface elevations within the Neuse River at the Hwy 70 bridge just downstream of the Spring Branch confluence. Gauge reading recorded after the following relatively recent storm events were reviewed to determine an average "time to peak" for the Neuse River in this area:

- Hurricane Matthew (2016)
- Hurricane Florence (2018)
- Tropical Storm Debby (2024)
- Potential Tropical Cyclone Elight (2024)



**Figure 7: Tropical Storm Debby USGS Gauge Data**

Review of the historical data indicated that the amount of time between the peak of a significant rainfall event and the resulting maximum gauge readings, or “time to peak”, for the Neuse River in the vicinity of the Project Area ranged from 40 to 62 hours. The published FEMA flood elevations for each Design Storm were fitted to a stage hydrograph curve that peaked at a conservative value of 40 hours.

### 2D Computational Mesh

The 2D computational mesh, also known as the 2D flow area, is a network of interconnected cells used to represent the two-dimensional flow characteristics of the model area. Each cell and associated cell face of the computational mesh is pre-processed to compute detailed hydraulic property tables based on the underlying terrain. For each cell, the pre-processor computes an elevation vs. volume relationship. For each cell face, which can be thought of as detailed 1D cross sections, the pre-processor computes elevation vs. wetted perimeter, roughness, area, etc. The flow of water between each cell is controlled by these detailed hydraulic property tables which are used in calculating water surface elevation, depth, velocity, etc. This modeling technique is commonly referred to as a “subgrid model” and allows HEC-RAS to determine preferential flow paths in the underlying terrain and wet only a portion of the cell below the computed water surface elevation at that time step.

The "subgrid model" associated with the 2D computational mesh allows for detailed analysis of the Town where accurate overland flow pathways are paramount for model accuracy. In addition, breaklines, which allow for portions of higher cell resolution and specific directional orientation, were utilized to increase model resolution and accuracy. Breaklines were added to ditch centerlines, stream centerlines, stream banks, road curbs, road crests, and significant topographic features. With this detailed information, the HEC-RAS model was able to represent the complex flow dynamics across the project area.

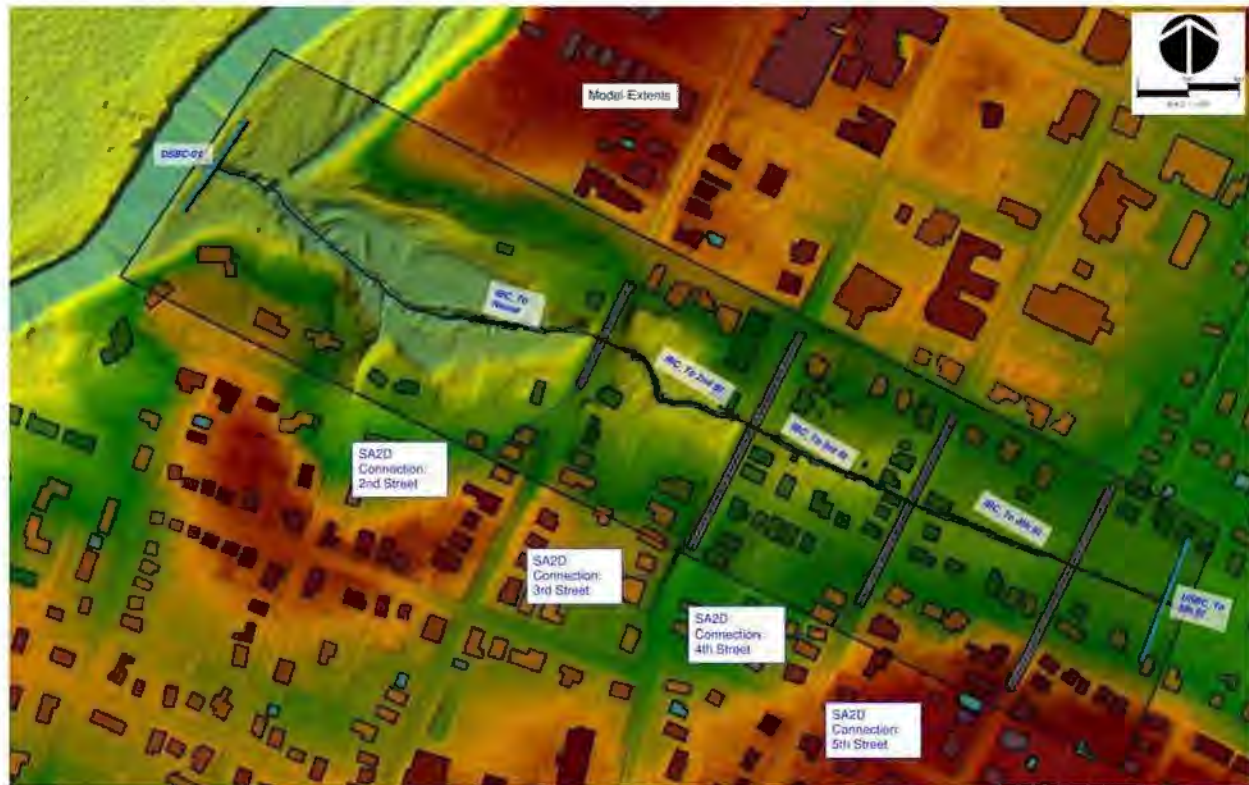
#### SA/2D Connections

SA/2D connections allow for storage areas and 2D flow areas to be hydraulically linked in various combinations. These links are represented by several types of hydraulic structures including weirs, gates, culverts, and rating curves. SA/2D connections can also be placed within a 2D flow area to control flow between one cell to another. For example, an SA/2D connection can be used to represent a roadway as an irregular weir, with station and elevation data pulled along the centerline using the specified terrain surface, and a culvert to control flow of water from one side of the road to the other.

SA/2D connections were used to model portions of the stormwater GIS inventory across the project areas and upstream streets. Where no invert information was available, the upstream and downstream invert were set based on the terrain surface and adjusted to ensure minimum 1' of cover based on the crest elevation of the roadway weir.

The HEC-RAS model performed 2D unsteady flow routing utilizing the Diffusion Wave Method. A computational time step of 5 seconds was selected for the simulation runs to maintain numerical accuracy and model stability while avoiding excessive computation time.



**Figure 8: Existing Conditions Model Layout**

## Model Calibration & Validation

The hydraulic model was calibrated with respect to real-world conditions using available resources such as the Neuse River USGS gauge data and anecdotal evidence, such as high-water marks for Hurricane Matthew (2016), Hurricane Florence (2018), and Tropical Storm Debby (2018). Additionally, the use of the stage hydrographs based on detailed flood elevation data from the FEMA effective model provides some level of continuity despite the variations in model parameters and methodology between the FEMA effective flood model and the 2D town-wide model.

## Existing Conditions Model Results

### Hydrology Results

The following figures illustrate the inflow hydrographs and stage hydrographs developed for each boundary condition within the Existing Conditions model:

Figure 9: 5<sup>th</sup> Street Hydrograph

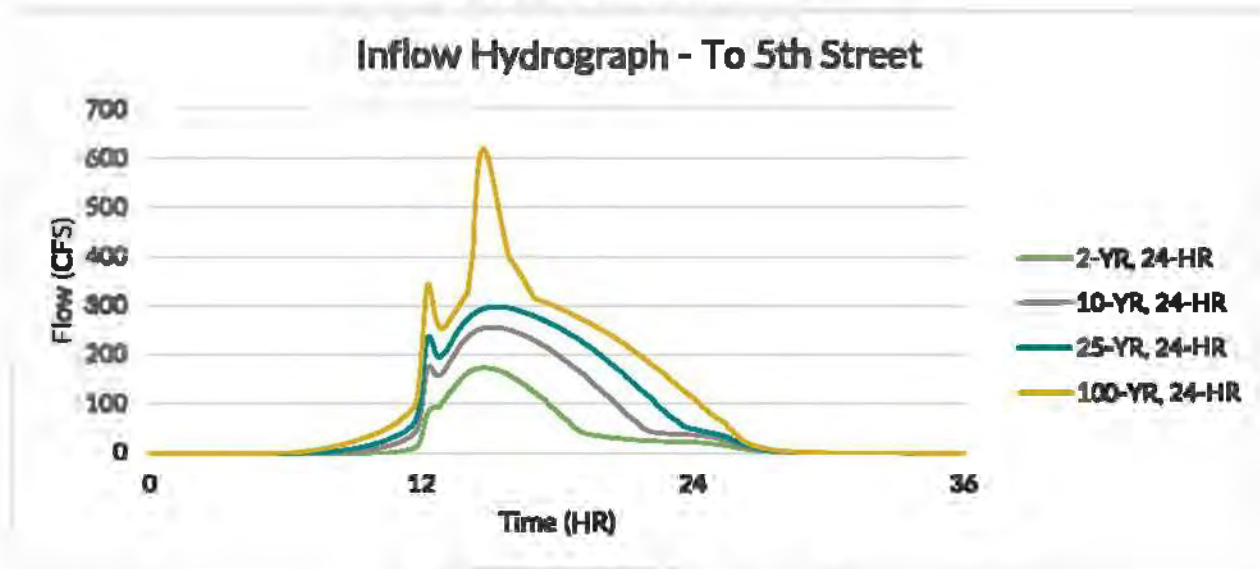


Figure 10: 4<sup>th</sup> Street Hydrograph

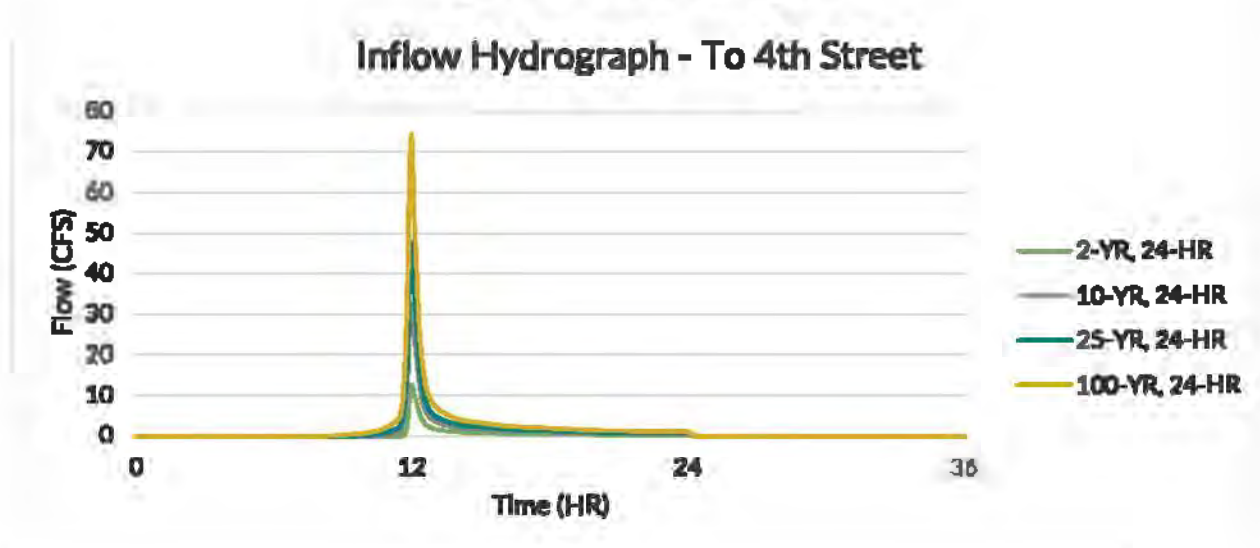


Figure 11: 3<sup>rd</sup> Street Hydrograph

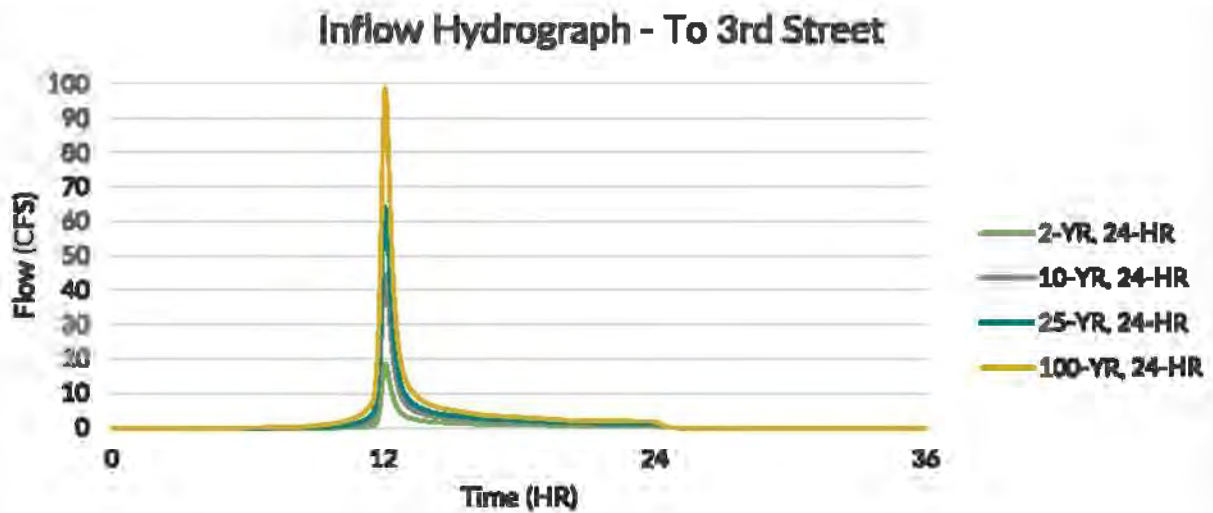
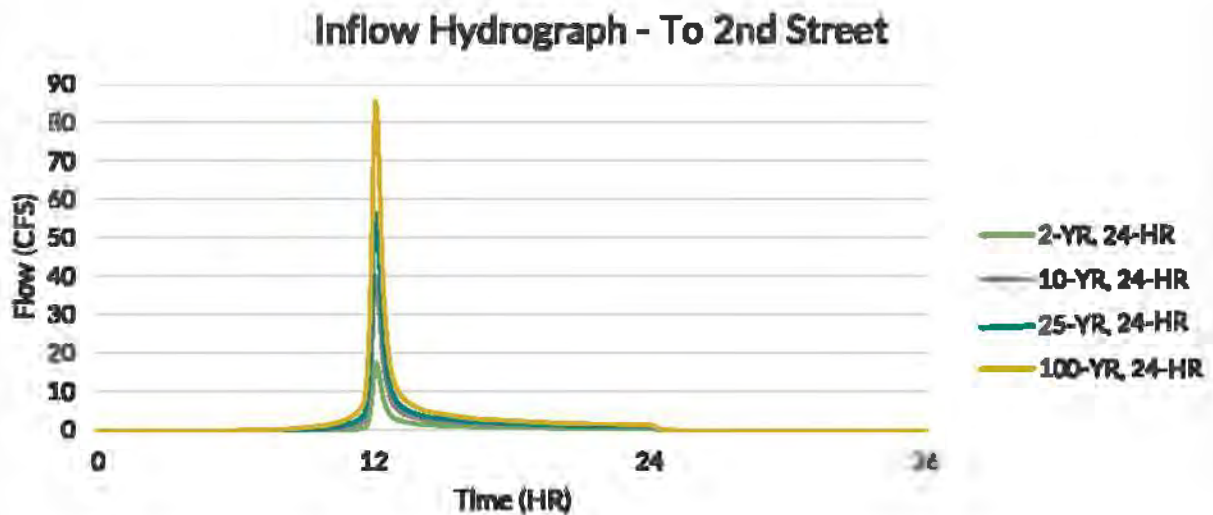
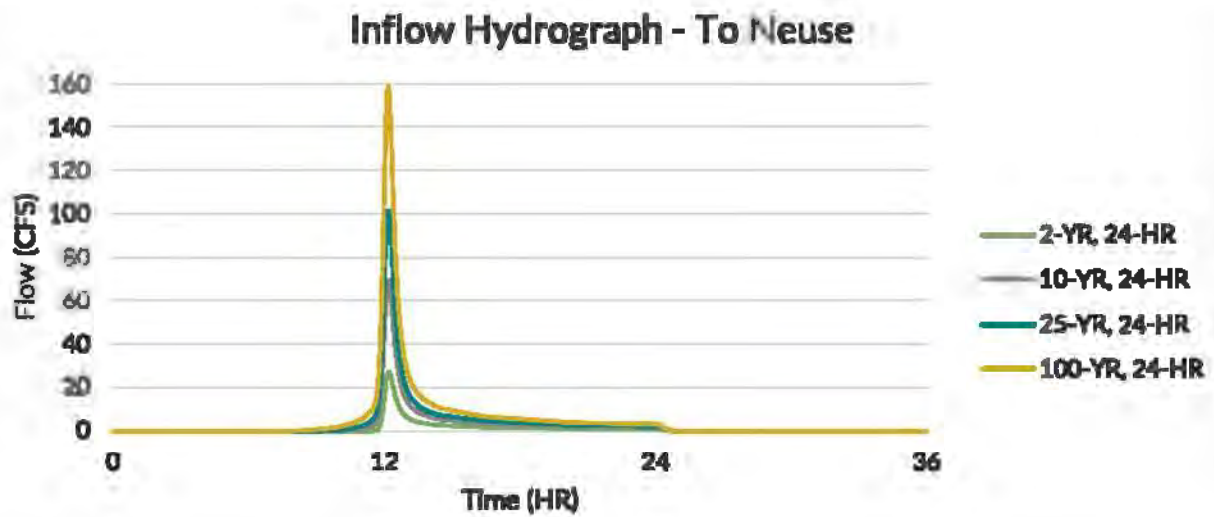


Figure 12: 2<sup>nd</sup> Street Hydrograph

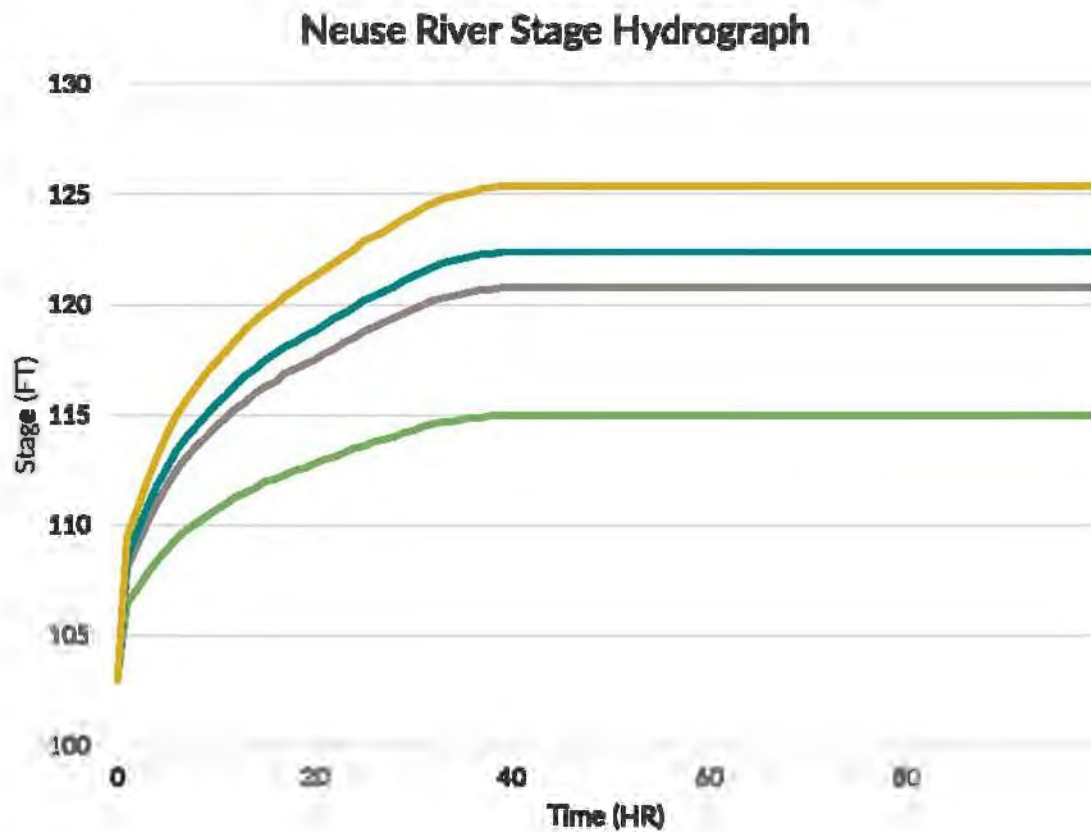




**Figure 13: To Neuse Hydrograph**



**Figure 14: Neuse River Stage Hydrograph**





## Flooding Inundation Mapping

The resulting flood inundation areas for each design storm were reviewed by WithersRavenel and Town staff. The model results validated flooding observed at both 2<sup>nd</sup> St and 4<sup>th</sup> St based off staff knowledge, historical flood events, previously submitted engineering studies, and citizen complaints.

After model validation, the results were analyzed based on flood extents and depth. Flood Inundation rasters were generated to create Existing Conditions Flood Inundation Maps to assess impacted structures, roadways, and infrastructure. Existing Conditions Flood Inundation Maps for each Design Storm can be found in **APPENDIX 4**.

## Existing Conditions Results Summary

### 2<sup>nd</sup> Street

Model results indicate that the 2-year Design Storm produces a maximum backwater flood elevation of 121.27 feet upstream of 2<sup>nd</sup> Street, which has potential to impact one residential structure located at 312 S 3<sup>rd</sup> St and its associated driveway. The 10-year and 25-year Design Storms result in maximum backwater elevations of 123.16 feet, respectively for both. The 100-year Design Storm produces a maximum backwater elevation of 128.43 feet and has the potential to impact additional residential structures at 317 and 401 2<sup>nd</sup> Street. None of the assessed Design Storms resulted in the overtopping of 2<sup>nd</sup> Street.

### 3<sup>rd</sup> Street

Model results indicate that the 2-year Design Storm produces a maximum backwater flood elevation of 122.37 feet upstream of 3<sup>rd</sup> Street, which has the potential to impact three residential structures located at 315 S 3<sup>rd</sup> Street, 310 E Woodall Street, and 305 E Woodall Street, along with their associated driveways. The 10-year and 25-year Design Storms result in maximum backwater elevations of 123.93 and 126.76 feet, respectively. The 100-year Design Storm produces a maximum backwater elevation of 128.48 feet and has the potential to impact an additional residential structure at 309 E Woodall Street.

It should also be noted that the 100-year backwater elevation exceeds the low point elevation of 125.59 feet on 3<sup>rd</sup> Street, resulting in overtopping of that roadway.

### 4<sup>th</sup> Street

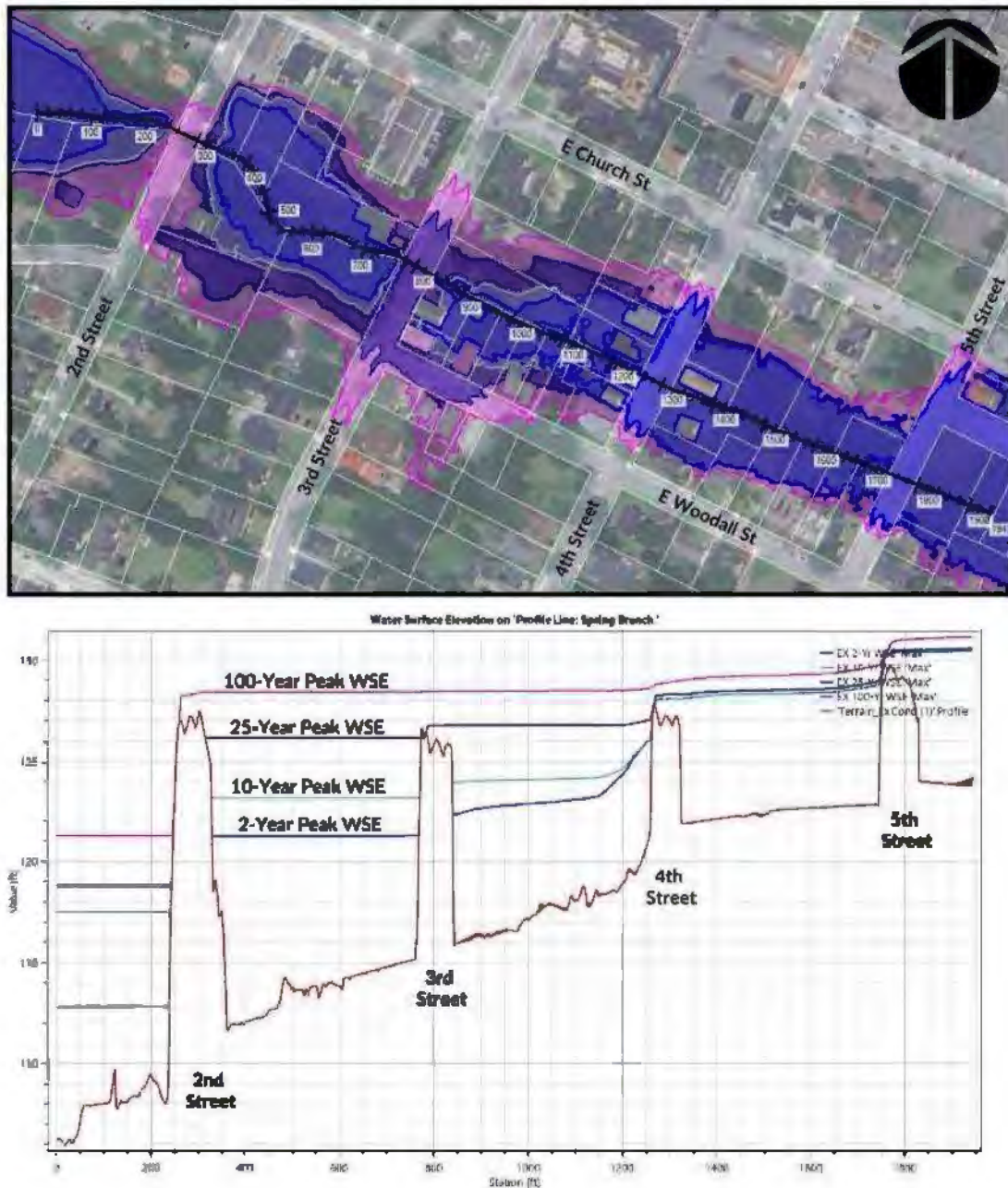
Model results indicate that the 2-year Design Storm produces a maximum backwater flood elevation of 128.09 feet upstream of 4<sup>th</sup> Street, which has the potential to impact nine residential/commercial structures located at 306, 308, 309, 310, 312, 313, 314, and 317 S 4<sup>th</sup> Street, and 411 E Woodall Street, along with their associated driveways. The 10-year, 25-year, and 100-year Design Storms result in maximum backwater elevations of 128.09, 128.30, and 129.01 feet, respectively and adversely impact the same properties.



It should also be noted that the backwater elevations associated with each of the design storms exceeds the low point elevation of 126.99 feet on 4th Street, resulting in overtopping of that roadway.

**FIGURE 5** below illustrates the extents and depth of flooding for each design storm within the modeled extents of the Existing Conditions Model.

**Figure 15: Comparison of Existing Conditions Flood Results**



## Conceptual Improvement Alternatives

### 2<sup>nd</sup> Street Proposed Improvement Options

After analysis of the model results, three proposed Improvement options were considered to mitigate flooding within Spring Branch upstream of 2<sup>nd</sup> Street:

- Option 1 – Adding a secondary 54" CMP culvert to the 2<sup>nd</sup> Street crossing, creating a dual culvert system with the existing 65" CMP.
- Option 2 – Replace the existing culvert with a 10'W x 6'H Reinforced Concrete Box Culvert (RCBC).
- Option 3 – Replace the existing culvert with a 13'W x 6'-11"H Structural Plate Arch Culvert.

Each of the above Improvement options was incorporated into the Existing Conditions Model to develop Conceptual Improvement Model Alternatives. Review of the model results for each of the three proposed Improvement options indicated that each resulted in a significant reduction in flood elevations immediately upstream of 2<sup>nd</sup> Street. The following table summarizes the modeled backwater elevations for each option relative to existing conditions:

**Table 2: 2<sup>nd</sup> Street Proposed Improvement Options Results Summary**

Scenario	Design Storm	Upstream WSE	Flood Reduction (ft)	# of Structures Impacted
Existing Conditions	2-Year	121.3	N/A	1
	10-Year	123.2	N/A	2
	25-Year	126.2	N/A	3
	100-Year	128.4	N/A	3
Option 1 Additional CMP Culvert	2-Year	116.4	4.9	1
	10-Year	117.8	5.4	1
	25-Year	119.4	6.8	1
	100-Year	123.8	4.6	2
Option 2 RCBC Replacement	2-Year	116.4	4.9	1
	10-Year	117.7	5.5	1
	25-Year	119.2	7.0	1
	100-Year	122.4	6.0	1
Option 3 Arch Culvert Replacement	2-Year	116.1	5.2	1
	10-Year	117.7	5.5	1
	25-Year	119.1	7.1	1
	100-Year	121.8	6.6	1

While each of the proposed Improvement options resulted in a significant reduction in backwater elevations, it should be noted that the change in downstream water surface elevations was relatively minor (<0.5' increase) for all options and thus the improvements are not



anticipated to have a detrimental impact on downstream flooding which is mostly impacted by backwater flooding from the Neuse River.

The following table summarizes estimated budgetary costs for each of the proposed 2<sup>nd</sup> Street Improvement Options.

**Table 3: 2<sup>nd</sup> Street Proposed Improvement Options Budgetary Costs**

Proposed Improvement Option	Budgetary Costs
Option 1 - Secondary CMP	\$425,000
Option 2 - New Reinforced Concrete Box Culvert	\$510,000
Option 3 - New Structural Plate Arch Culvert	\$500,000

### 2<sup>nd</sup> Street Recommended Proposed Improvement Options

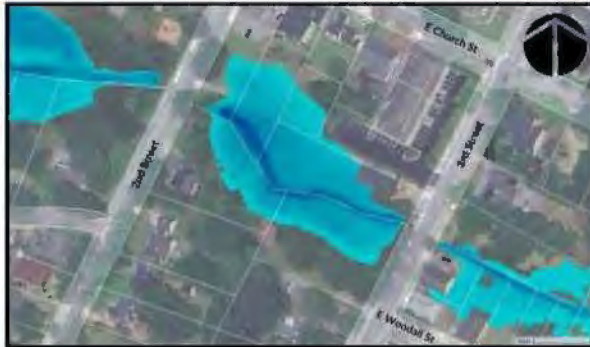
After reviewing the model results and estimated costs, it is recommended that the Town pursue the implementation of Option 2. While estimated to be the most expensive, by utilizing a concrete structure it is WithersRavenel's opinion that this option will have the longest lifespan while resulting in minimal maintenance requirements. The box culvert configuration also matches the type of culvert on upstream crossings which means ongoing maintenance programs and operations can easily be applied. Proposed Improvement Option Inundation Maps for 2<sup>nd</sup> Street can be found in **APPENDIX 5**. The following figure illustrates compares maximum modeled flood depths between the Existing Conditions and Proposed Improvement Option 2 models.

WithersRavenel also considered the potential to install a flood gate on the downstream end of the proposed box culvert. A flood gate, which would likely be activated manual or via head differential, could be used to seal the downstream end of the culvert once water surface elevations from the Neuse River exceed a pre-determined elevation, thus preventing backwater from the Neuse River from flooding upstream areas of Spring Branch. Anecdotal and model analysis indicates that the Neuse River water surface elevations peak upwards of a day after the pluvial flooding associated with Spring Branch and its contributing drainage areas.

The flood gate by default would remain open, allowing Spring Branch to discharge to the Neuse River; however, after a significant storm event (>25-Year Design Storm) the flood gate would be closed once the Spring Branch flood waters had receded but before the Neuse River water levels peaked. The window of operation would be relatively small (12-24 hours), but if operated effectively, this could mitigate upstream flooding due solely to backwater from the Neuse River. However, close monitoring of the downstream USGS Gauge for the Neuse would be required to inform when to close the flood gate. There could also be significant liability incurred to the Town if the gate were closed and not reopened before another rainfall event occurred as this would result in impede the entirety of Spring Branch from draining and likely result in an overtopping of 2<sup>nd</sup> Street. Unless the Town can guarantee the resources to monitor water surface elevations and weather forecasts to quickly operate the gate during ideal timeframes, the potential flood mitigation benefits would likely never be realized.



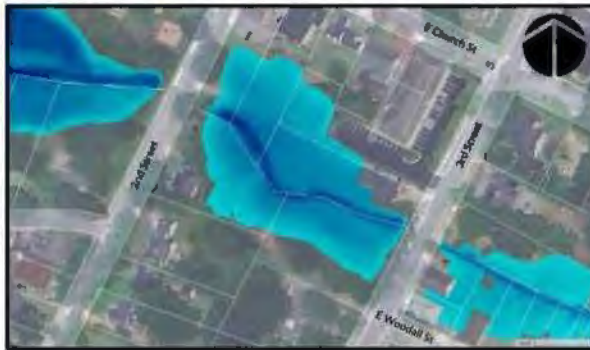
**Figure 14: Comparison of Existing Conditions & Recommended 2<sup>nd</sup> Street Improvement Option  
Inundation Mapping Results**



Existing Conditions - 2-Year Peak Flood Inundation Map



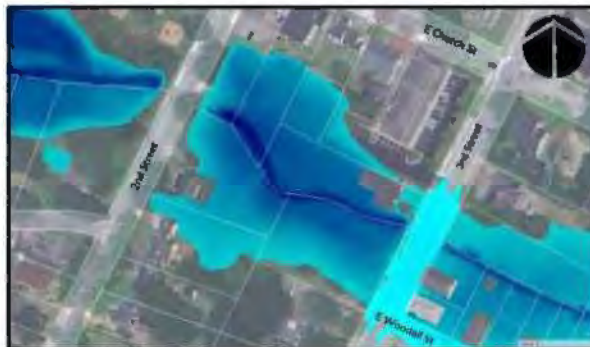
2nd Street Option 2 - 2-Year Peak Flood Inundation Map



Existing Conditions - 10-Year Peak Flood Inundation Map



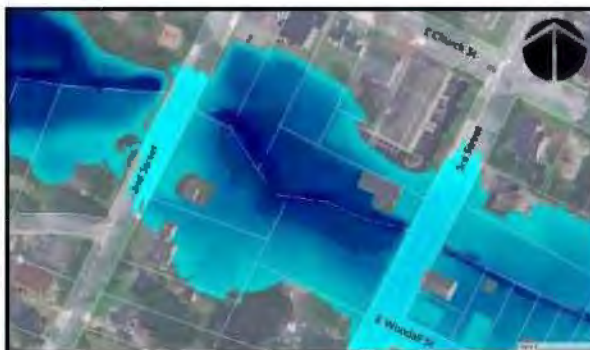
2nd Street Option 2 - 10-Year Peak Flood Inundation Map



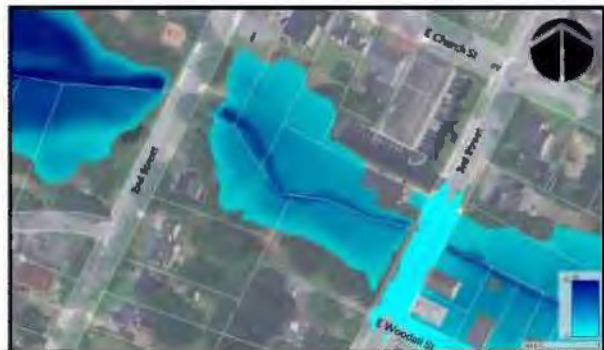
Existing Conditions - 25-Year Peak Flood Inundation Map



2nd Street Option 2 - 25-Year Peak Flood Inundation Map



Existing Conditions - 100-Year Peak Flood Inundation Map



2nd Street Option 2 - 100-Year Peak Flood Inundation Map



## 4<sup>th</sup> Street Proposed Improvement Options

After analysis of existing conditions and model results, it became evident that simply upsizing the existing box culvert under 4<sup>th</sup> Street had little to no impact on flood elevations in the immediate vicinity due to the continued constriction of flows by the upstream and downstream channel which roughly mimic the existing box culvert dimensions. Improvements to the upstream and downstream portions of the Spring Branch channel were limited due to the close proximity of the commercial and residential structures located immediately upstream (309 and 313 4<sup>th</sup> Street) and downstream (310 and 312 4<sup>th</sup> Street). Due to these limitations, alternatives in addition to simple culvert and channel enlargement were considered including high flow bypasses and acquisition of the surrounding properties.

Three approaches were taken when considering various improvement options:

1. Assume the Town is unable to fully acquire any properties in the immediate vicinity of the 4<sup>th</sup> Street crossing.
2. Assume the Town is able to acquire one upstream property (309 or 313 4<sup>th</sup> Street) AND one downstream property (310 or 312 4<sup>th</sup> Street).
3. Assume the Town is able to acquire all four of properties immediately adjacent to the 4<sup>th</sup> Street crossing of Spring Branch (309, 310, 312, & 313 4<sup>th</sup> Street).

### Approach 1: High Flow Bypasses / No Acquisition of Properties

As discussed above, this approach assumes that the Town is unable to acquire any impacted properties in the vicinity of the 4<sup>th</sup> Street Spring Branch crossing and thus improvements to the culvert and upstream and downstream channels that would result in significant capacity improvements were deemed not feasible. As a result, in-lieu of increasing the existing channel and culvert capacity, this approach focused on providing alternative high-flow bypass routes to divert flows around the existing 4<sup>th</sup> Street crossing once water surface elevations within the channel exceeded base flow conditions. Four high-flow bypass options were considered with this approach and are described below:



## Spring Branch Drainage Repair Design Report

**Approach 1 – Option 1:** This improvement option includes the installation of a 48" RCP bypass that would divert flows from Spring Branch to the north around the 4<sup>th</sup> Street crossing. The bypass Inlet would be set above the base flow elevation of Spring Branch so the bypass was only activated during "high-flow" events. This allows base flows during dry weather to continue to flow through Spring Branch so the bypass pipe will not be considered a stream diversion per environmental regulations. The bypass pipe inlet would be set southeast of 309 4<sup>th</sup> Street, upstream of the walled portion of the stream, and run north and then perpendicular across 4<sup>th</sup> Street between 308 and 310 4<sup>th</sup> Street before turning south and discharging back into Spring Branch beyond the walled portion of the stream.

It should be noted that this bypass route would parallel an existing sanitary sewer force main and thus would be located mostly within an existing easement. Additional easements would be required from three property owners where the bypass ties to the stream at the upstream and downstream ends. It should also be noted that there is very limited space between the residential buildings on 308 and 310 4<sup>th</sup> Street. This limitation should be considered during engineering design and discussions with contractors to ensure the bypass pipe can be safely installed without impacting the foundation of either adjacent building or the existing sanitary sewer force main. The following figure illustrates the proposed potential bypass route for Approach 1 – Option 1:

**Figure 17: Approach 1 - Option 1 Layout**





## Spring Branch Drainage Repair Design Report

**Approach 1 – Option 2:** This improvement option is similar to Approach 1 – Option 1 in that it utilizes a 48" RCP to bypass flows from Spring Branch to the north except that the bypass is extended to downstream of 3<sup>rd</sup> Street in an effort to alleviate backwater conditions at both 4<sup>th</sup> Street and 3<sup>rd</sup> Street. The bypass pipe would extend parallel to Spring Branch through 311 3<sup>rd</sup> Street, under 3<sup>rd</sup> Street, under the driveway of 312 3<sup>rd</sup> Street and then finally discharge back into Spring Branch. This option has the same challenges associated with Approach 1 – Option 1 relative to the close proximity of the bypass pipe to an existing sanitary sewer force main and residential/commercial building and would require easements on a minimum of four privately owned properties outside of the existing sanitary sewer easement. The following figure illustrates the proposed potential bypass route for Approach 1 – Option 2:

**Figure 18: Approach 1 - Option 2 Layout**





## Spring Branch Drainage Repair Design Report

**Approach 1 – Option 3:** This improvement option includes the installation of a 48" RCP bypass that would divert flows from Spring Branch to the south around the 4<sup>th</sup> Street crossing. As with the other bypass options, the bypass inlet would be set above the base flow elevation of Spring Branch, so the bypass was only activated during "high-flow" events. The bypass pipe inlet would be set north of 409 E Woodall Street, upstream of the walled portion of Spring Branch, and run south through 409 E Woodall Street to the right-of-way of E Woodall Street. As of the date of this report, there is no residence on the property at 409 E Woodall Street, but the property does contain a shed and concrete patio as it is owned by the eastern adjacent residential property owner. The bypass pipe would continue west within the right-of-way of E Woodall Street to 307 E Woodall Street, an undeveloped property. The bypass pipe would turn north through this property and discharge back into Spring Branch.

This improvement concept would require, at a minimum, easements on 2 privately owned properties. Detailed utility investigation should be completed along E Woodall Street during design to determine if there is a feasible route to locate a 48" RCP when considering existing utilities. It should also be noted that implementation of this option would result in significant temporary disruption to E Woodall Street and residences that front E Wood Street during construction. The following figure illustrates the proposed potential bypass route for Approach 1 – Option 3:

**Figure 19: Approach 1 - Option 3 Layout**





## Spring Branch Drainage Repair Design Report

**Approach 1 – Option 4:** This improvement option is similar to Approach 1 – Option 3 in that it utilizes a 48" RCP to bypass flows from Spring Branch to the south except that the bypass is extended along E Woodall Street, under 3<sup>rd</sup> Street, and ultimately to Spring Branch through 318 N 2<sup>nd</sup> Street. This option has the same challenges associated with Approach 1 – Option 3 in that it would require, at a minimum, easements on 2 privately owned properties. Detailed utility investigation should be completed along E Woodall Street during design to determine if there is a feasible route to locate a 48" RCP when considering existing utilities. It should also be noted that implementation of this option would result in significant temporary disruption to E Woodall Street and residences that front E Wood Street during construction. The following figure illustrates the proposed potential bypass route for Approach 1 – Option 4:

**Figure 20: Approach 1 - Option 4 Layout**



Each of the above improvement options was incorporated into the Existing Conditions Model to develop Conceptual Improvement Model Alternatives for the 4<sup>th</sup> Street crossing. Review of the model results for each of the four proposed Improvement bypass options indicated that each resulted in a minor reduction in flood elevations immediately upstream of 4<sup>th</sup> Street. The following table summarizes the modeled backwater elevations for each option relative to existing conditions:

**Table 4: 4<sup>th</sup> Street Proposed Improvement Options Results Summary – Approach 1**

Scenario	Design Storm	Upstream WSE	Flood Reduction (ft)	# of Structures Impacted
Existing Conditions	2-Year	128.1	N/A	7
	10-Year	128.2	N/A	7
	25- Year	128.4	N/A	7
	100-Year	129.0	N/A	8
Option 1 Bypass 4th St to the North	2-Year	127.2	0.9	2
	10-Year	127.2	1.0	6
	25- Year	128.0	0.4	7
	100-Year	129.0	0.0	8
Option 2 Bypass 4th & 3rd St to the North	2-Year	127.2	0.9	2
	10-Year	127.2	1.0	6
	25- Year	128.0	0.4	4
	100-Year	129.0	0.0	8
Option 3 Bypass 4th St to the South	2-Year	127.8	0.3	6
	10-Year	127.9	0.3	6
	25- Year	128.0	0.4	7
	100-Year	128.8	0.2	8
Option 4 Bypass 4th & 3rd St to the South	2-Year	128.0	0.1	6
	10-Year	128.1	0.1	6
	25- Year	128.1	0.3	7
	100-Year	128.8	0.2	8

Review of the model results indicated that none of the Approach 1 options resulted in a significant reduction ( $>0.5'$ ) in flood elevations upstream of 4<sup>th</sup> Street for any of the analyzed Design Storms. Approach 1 – Option 1 and 2 resulted in the greatest reduction in flood elevations, but it should be noted that Approach 1 – Option 2, which bypassed flows to the north around both the 4<sup>th</sup> Street and 3<sup>rd</sup> Street crossings, did not result in additional flood mitigation benefits when compared to Approach 1 – Option 2 which only bypassed flows around 4<sup>th</sup> Street. Conceptual Improvement Model Inundation Maps for each proposed Approach 1 improvement option for each Design Storm can be found in [APPENDIX 6](#).

The following table summarizes estimated budgetary costs for each of the proposed 4<sup>th</sup> Street Approach 1 Improvement Options:



**Table 5: 4<sup>th</sup> Street Proposed Improvement Options Budgetary Costs – Approach 1**

Proposed Improvement Option	Budgetary Costs
<b>Option 1 – Bypass Around 4<sup>th</sup> Street to the North</b>	Easement Acquisition: \$200,000 Construction Costs: \$750,000 Total Costs: \$850,000
<b>Option 2 – Bypass Around 4<sup>th</sup> &amp; 3<sup>rd</sup> Street to the North</b>	Easement Acquisition: \$250,000 Construction Costs: \$950,000 Total Costs: \$1,200,000
<b>Option 3 – Bypass Around 4<sup>th</sup> Street to the South</b>	Easement Acquisition: \$150,000 Construction Costs: \$1,200,000 Total Costs: \$1,350,000
<b>Option 4 – Bypass Around 4<sup>th</sup> &amp; 3<sup>rd</sup> Street to the South</b>	Easement Acquisition: \$150,000 Construction Costs: \$1,800,000 Total Costs: \$1,950,000

**Approach 2: 4<sup>th</sup> Street Improvements and Acquisition of Two Properties**

As discussed above, Improvements to the 4<sup>th</sup> Street culvert and/or upstream and downstream portions of the Spring Branch channel were limited due to the close proximity of the commercial and residential structures located immediately upstream (309 and 313 4<sup>th</sup> Street) and downstream (310 and 312 4<sup>th</sup> Street). Approach 2 assumes that the Town is able to acquire at least one upstream property (309 or 313 4<sup>th</sup> Street) AND one downstream property (310 or 312 4<sup>th</sup> Street). The following table summarizes the tax values of these properties as of the date of this report:

**Table 6: 4<sup>th</sup> Street Property Acquisition – Tax Values**

Property Address	Property Type	2025 Tax Value
<b>309 4<sup>th</sup> Street</b>	<b>Commercial</b>	<b>\$196,950</b>
<b>310 4<sup>th</sup> Street</b>	<b>Residential</b>	<b>\$217,950</b>
<b>312 4<sup>th</sup> Street</b>	<b>Commercial</b>	<b>\$127,370</b>
<b>313 4<sup>th</sup> Street</b>	<b>Residential</b>	<b>\$280,680</b>

For the purpose of illustrating the Approach 2 options below, it was assumed that that Town is able to acquire the two residential properties located at 310 and 313 4<sup>th</sup> Street; however, similar improvements can be implemented so long as the Town can acquire at least one upstream property AND one downstream property.



## Spring Branch Drainage Repair Design Report

**Approach 2 – Option 1:** This improvement option includes the removal of the structures and built-upon-area from the acquired properties to allow room for improvements to Spring Branch channel both immediately upstream and downstream of the existing culvert. On the properties acquired, the channel would be widened, and the existing vertical embankments would be removed and laid back to provide additional flow conveyance and flood storage. The existing culvert would remain unchanged.

**Figure 21: Approach 2 - Option 1 Layout**



## Spring Branch Drainage Repair Design Report

**Approach 2 – Option 2:** This improvement option includes the same improvements as Option 2 above but also includes upsizing the existing culvert. The existing 6' wide by 4.5' tall box culvert would be replaced with a 10' wide by 5.5' tall box culvert embedded 1' to allow for aquatic passage.

**Figure 22: Approach 2 - Option 2 Layout**





## Spring Branch Drainage Repair Design Report

**Approach 2 – Option 3:** This improvement option includes realigning the Spring Branch channel to be completely located on the acquired properties. While this would require construction easements from the adjacent properties, it would allow for the removal of the vertical embankments on both sides of the stream channel, further increasing flow conveyance and flood storage within the channel. As with Option 2 above, the existing culvert would be replaced with a 10' wide by 5.5' tall box culvert embedded 1' to allow for aquatic passage.

**Figure 23: Approach 2 - Option 3 Layout**



Each of the above Improvement options was incorporated into the Existing Conditions Model to develop Conceptual Improvement Model Alternatives for the 4<sup>th</sup> Street crossing. Review of the model results for the three Approach 2 Improvement options indicated that each resulted in a minor reduction in flood elevations immediately upstream of 4<sup>th</sup> Street. The following table summarizes the modeled backwater elevations for each option relative to existing conditions:

**Table 7: 4<sup>th</sup> Street Proposed Improvement Options Results Summary – Approach 2**

Scenario	Design Storm	Upstream WSE	Flood Reduction (ft)	# of Structures Impacted
Existing Conditions	2-Year	128.1	N/A	7
	10-Year	128.2	N/A	7
	25- Year	128.4	N/A	7
	100-Year	129.0	N/A	8
Option 1 Layback Embankments	2-Year	128.1	0.0	5
	10-Year	128.2	0.0	5
	25- Year	128.3	0.1	5
	100-Year	128.9	0.1	6
Option 2 Layback Embankments & Enlarge Culvert	2-Year	127.4	0.7	2
	10-Year	127.5	0.7	2
	25- Year	128.0	0.4	4
	100-Year	128.9	0.1	6
Option 3 Realign Stream and Enlarge Culvert	2-Year	127.3	0.8	2
	10-Year	127.4	0.8	2
	25- Year	128.0	0.4	4
	100-Year	128.9	0.1	6

Review of the model results indicated that enlarging the 4<sup>th</sup> Street culvert in conjunction with increasing the channel capacity both upstream and downstream of the culvert has potential to significantly reduce (>0.5') flood elevations upstream of 4<sup>th</sup> Street for the 2- and 10-year Design Storms, but that flood mitigation benefits are minimal for the 25- and 100-year Design Storms.

However, the acquisition of two adjacent properties alone reduces the number of impact structures. It should be noted, however, that without enlarging the culvert (Approach 2- Option 1) 4<sup>th</sup> Street continues to overtop during all assessed Design Storms. By enlarging the culvert (Approach 2 - Option 2 & 3) the roadway crossing is able to pass a 2- and 10-year Design Storm without overtopping the roadway.

Approach 2 – Option 3 resulted in the greatest reduction in flood elevations with nearly a one-foot reduction in backwater elevations observed in the 2- and 10-year Design Storms. This option also reduces the number of structures impacted by flooding for both the 2- and 10-year Design Storms to just the two remaining structures located adjacent to the culvert. Conceptual Improvement Model Inundation Maps for each proposed Approach 2 Improvement option for each Design Storm can be found in **APPENDIX 7**.

The following table summarizes estimated budgetary costs for each of the proposed 4<sup>th</sup> Street Approach 2 Improvement Options:



**Table 8: 4<sup>th</sup> Street Proposed Improvement Options Budgetary Costs – Approach 2**

Proposed Improvement Option	Budgetary Costs
<b>Option 1 – Layback Embankments</b>	Property Acquisition: \$500,000 Construction Costs: \$150,000 Total Costs: \$650,000
<b>Option 2 – Layback Embankments and Enlarge Culvert</b>	Property Acquisition: \$500,000 Construction Costs: \$350,000 Total Costs: \$850,000
<b>Option 3 – Realign Stream and Enlarge Culvert</b>	Property Acquisition: \$500,000 Construction Costs: \$750,000 Total Costs: \$1,250,000

**Approach 3: 4<sup>th</sup> Street Improvements and Acquisition of Four Properties**

Approach 3 assumes that the Town is able to acquire all four properties adjacent to the 4<sup>th</sup> Street crossing of Spring Branch. Acquisition of these properties alone, followed by removal of the structures and built upon area mitigates the majority of the flooding concerns in the vicinity of 4<sup>th</sup> Street.

**Approach 3 – Option 1:** This Improvement option includes the acquisition of the four adjacent properties only. No stormwater Infrastructure Improvements included with this option:

**Figure 24: Approach 3 - Option 1 Layout**



## Spring Branch Drainage Repair Design Report

**Approach 3 – Option 2:** In addition to the acquisition of the four properties adjacent to the 4<sup>th</sup> Street crossing, this improvement option also includes the removal of the existing vertical channel embankments and laying back the embankments to provide additional flow conveyance and flood storage. Since assessment of Approach 2 – Option 1 indicated that channel improvements without enlarging the culvert had minimal impact on flood elevations, this option also includes replacing the existing box culvert with a larger 10' wide by 5.5' tall box culvert embedded 1' to allow for aquatic passage.

**Figure 25: Approach 3 - Option 2 Layout**



## Spring Branch Drainage Repair Design Report

**Approach 3 – Option 3:** Includes the same property acquisition and proposed improvements as Approach 3 – Option 2 above, with the addition of an upstream overbank storage area to increase flood storage capacity upstream of the 4<sup>th</sup> Street crossing. The storage area is proposed to function as an overbank wetland area, providing additional backwater storage capacity as well as water quality benefits such as nutrient and total suspended solids removal.

**Figure 26: Approach 3 - Option 3 Layout**



Each of the above improvement options was incorporated into the Existing Conditions Model to develop Conceptual Improvement Model Alternatives for the 4<sup>th</sup> Street crossing. Review of the model results for the three Approach 3 Improvement options indicated that the proposed Spring Branch channel and culvert improvements associated with Options 2 and 3 resulted in significant flood mitigation, with no structures being impacted during a 2- or 10-year Design Storm.

While minor flood mitigation benefits were observed for the 25- and 100-year Design Storms, it should be noted that both of these Design Storms still resulted in the overtopping of 4<sup>th</sup> Street and impacts to two and four residential structures, respectively. The following table summarizes the modeled backwater elevations for each option relative to existing conditions:



**Table 9: 4<sup>th</sup> Street Proposed Improvement Options Results Summary – Approach 3**

Scenario	Design Storm	Upstream WSE	Flood Reduction (ft)	# of Structures Impacted
Existing Conditions	2-Year	128.1	N/A	7
	10-Year	128.2	N/A	7
	25- Year	128.4	N/A	7
	100-Year	129.0	N/A	8
Option 1 No Improvements	2-Year	128.1	0.0	3
	10-Year	128.2	0.0	3
	25- Year	128.4	0.0	3
	100-Year	129.0	0.0	4
Option 2 Layback Stream Banks & Enlarge Culvert	2-Year	127.5	0.6	0
	10-Year	127.5	0.7	0
	25- Year	128.0	0.4	2
	100-Year	128.8	0.2	4
Option 3 Layback Stream Banks, Enlarge Culvert, & Add Upstream Storage	2-Year	127.3	0.8	0
	10-Year	127.3	0.9	0
	25- Year	128.0	0.4	2
	100-Year	128.7	0.3	4

Acquisition of the four adjacent properties alone significantly reduces the number of impact structures when compared to existing conditions. It should be noted, however, that if no channel or culvert improvements are implemented, 4<sup>th</sup> Street is expected to continue to overtop during all assessed Design Storms. However, improvements to the Spring Branch channel and upsizing of the existing culvert, as proposed in Approach 3 – Options 2 and 3, allow the crossing to pass a 2- or 10-year Design Storm.

Approach 3 – Options 2 and 3 resulted in similar flood mitigation benefits. However, the incorporation of an upstream wetland storage area, as proposed in Option 3, would also provide some water quality benefits in addition to the minor increase in flood mitigation provided by the additional flood storage. Conceptual Improvement Model Inundation Maps for each proposed Approach 3 improvement option for each Design Storm can be found in [APPENDIX 8](#).

The following table summarizes estimated budgetary costs for each of the proposed 4<sup>th</sup> Street Approach 3 Improvement Options:

**Table 10: 4<sup>th</sup> Street Proposed Improvement Options Budgetary Costs - Approach 3**

Proposed Improvement Option	Budgetary Costs
<b>Option 1 – No Improvements</b>	Property Acquisition: \$950,000 Construction Costs: \$0 Total Costs: \$950,000
<b>Option 2 – Layback Embankments and Enlarge Culvert</b>	Property Acquisition: \$950,000 Construction Costs: \$650,000 Total Costs: \$1,600,000
<b>Option 3 – Layback Stream Banks, Enlarge Culvert, &amp; Add Upstream Storage</b>	Property Acquisition: \$950,000 Construction Costs: \$800,000 Total Costs: \$1,750,000

**4<sup>th</sup> Street Recommended Proposed Improvement Options**

After reviewing the model results and estimated costs, it is recommended that the Town pursue Implementation of **Approach 3 – Option 2 or 3** as these options provide the largest reduction in flood elevations and minimize the number of properties potential impacted by flooding.

However, it is understood that implementation of the recommended improvement option requires that the Town acquire four privately owned properties adjacent to the existing 4<sup>th</sup> Street crossing of Spring Branch located at 309, 310, 312, and 313 4<sup>th</sup> Street. Acquisition of these properties, either through purchase or condemnation, may not be feasible.

As discussed above, improvements to the existing 4<sup>th</sup> Street culvert only results in significant flood mitigation benefits if the upstream and downstream channels are also improved to provide additional flood conveyance and storage. In order to implement these channel improvements, at least one adjacent property on BOTH the upstream and downstream sides of the culvert would need to be acquired by the City. If the Town is able acquire at least one upstream property (309 or 313 4<sup>th</sup> Street) AND one downstream property (310 or 312 4<sup>th</sup> Street), but not all four properties, then recommended improvement option is **Approach 2 – Option 3**. Model results indicated that this option provides reductions to flood elevations similar to the above recommended **Approach 3 – Option 2 or 3**, but since at least two of the adjacent properties would remain as is, and thus subject to flooding impacts, this option does not result full mitigation of flood impacts in the 2- and 10-year Design Storms.

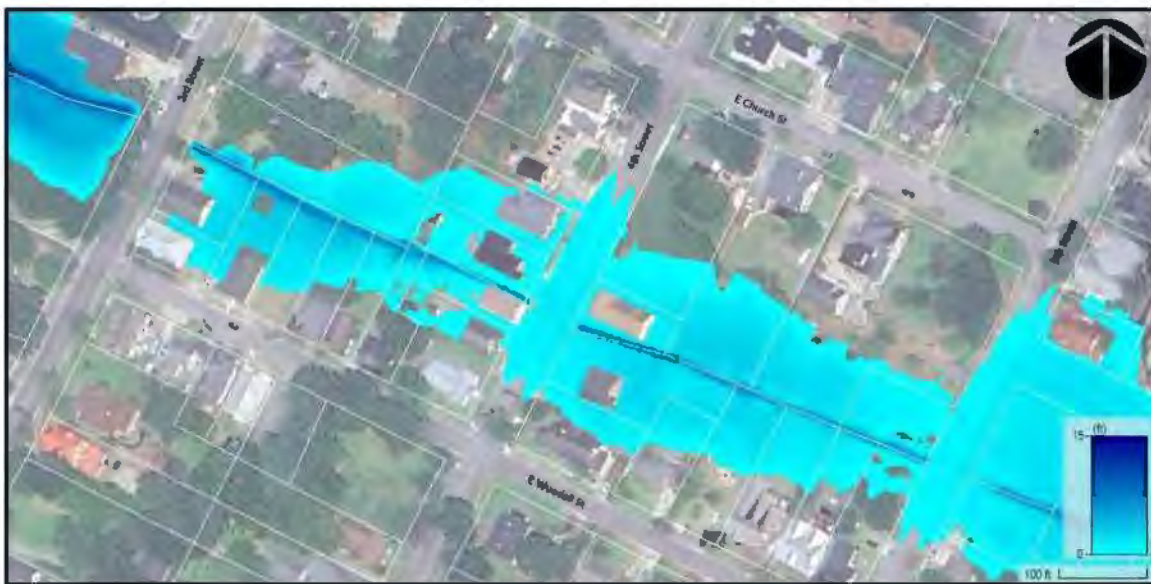
Should the Town deem it infeasible to acquire any of the properties located adjacent to the existing 4<sup>th</sup> Street crossing of Spring Branch (309, 310, 312, or 313 4<sup>th</sup> Street), then it is recommended that the Town pursue Implementation of **Approach 1 – Option 1**. This option will, at a minimum, require that the Town obtain two easements across privately owned properties in order to implement. As discussed, the close proximity of the existing sanitary sewer utility to the proposed bypass route, in combination with the proximity of the residential structures to the proposed bypass route makes estimating the cost for this option challenging. Actual construction costs by result in this option being deemed infeasible. Acquisition of the property at 310 4<sup>th</sup>



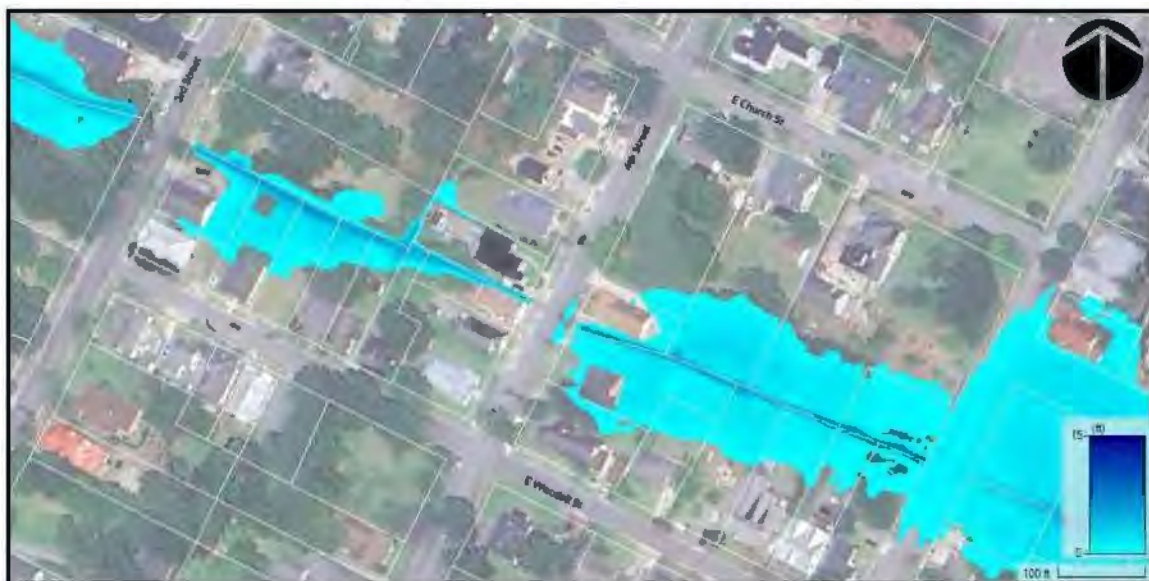
Street would significantly reduce the difficulty of the construction of this option and should be considered if feasible before completing final design and permitting as it may result in an overall cost savings.

Proposed Improvement Option Inundation Maps for 4<sup>th</sup> Street Approach 1, 2, and 3 can be found in **APPENDIX 6, 7, and 8**, respectively. The following figures illustrate maximum modeled 10-year Design Storm flood depths in the vicinity of the 4<sup>th</sup> Street crossing for Existing Conditions and the recommended improvement options for each approach above:

**Figure 27: Comparison of Existing Conditions & Recommended 4th Street Improvement Option Inundation Mapping Results**

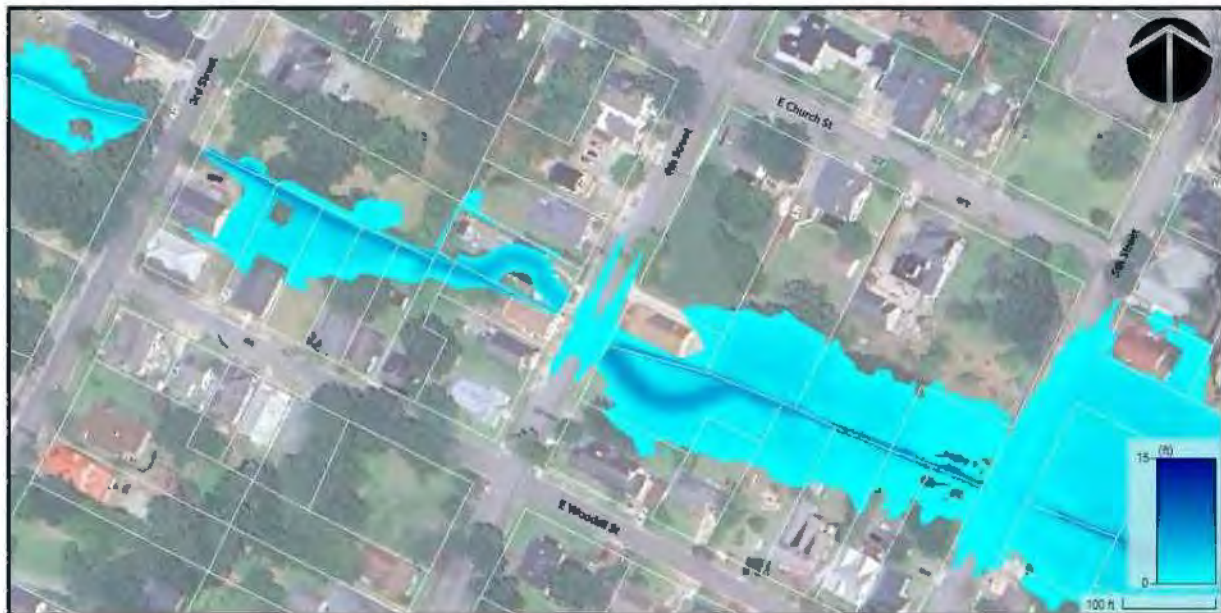


Existing Conditions - 10-Year Peak Flood Inundation Map

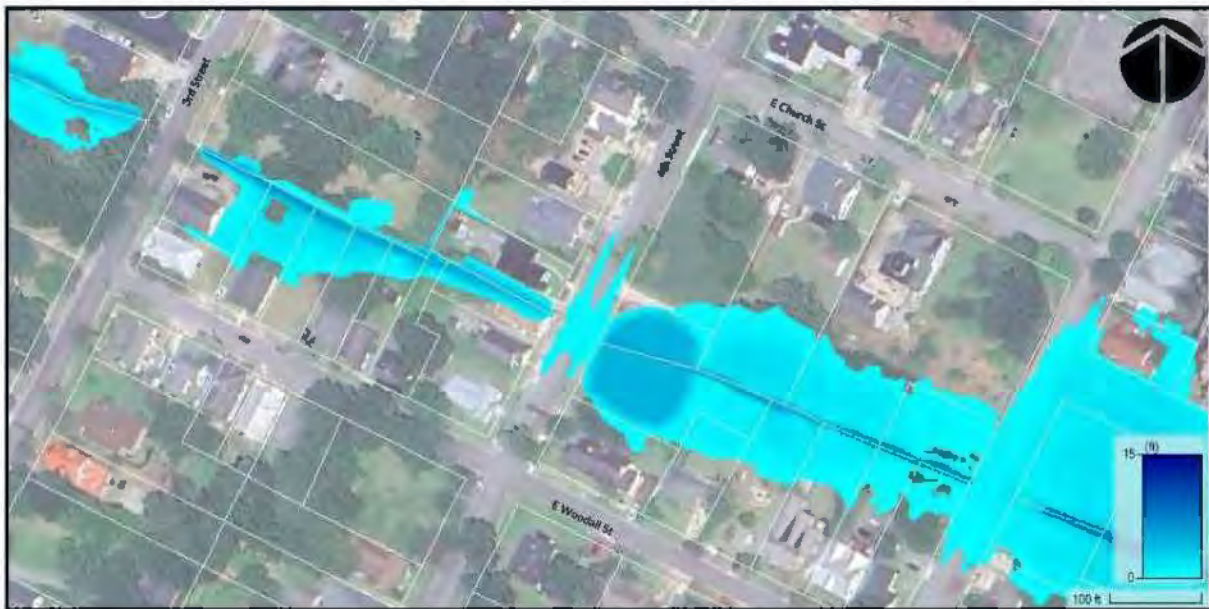


4th Street Approach 1 - Option 1 - 10-Year Peak Flood Inundation Map





4th Street Approach 2 - Option 3 - 10-Year Peak Flood Inundation Map



4th Street Approach 3 - Option 3 - 10-Year Peak Flood Inundation Map



## Conclusions

Following review of the model results and assessment of various improvement approaches and options, it is recommended that the Town consider a phased approach to implement improvements for the 2<sup>nd</sup> Street and 4<sup>th</sup> Street crossings of Spring Branch.

**Phase 1:** WithersRavenel recommends that the Town prioritize implementation of the recommended improvement option for the 2<sup>nd</sup> Street crossing of Spring Branch which includes replacing the existing 65" CMP culvert with a 10'W x 6'H RCBC. Model results indicate that this improvement would reduce backwater flood elevations upstream of 2<sup>nd</sup> Street by 5 to 7 feet in the assessed Design Storms. This reduction in backwater is significant enough that it also results in minor reductions in the backwater upstream of 3<sup>rd</sup> Street which in turn reduces the tailwater impacts on potential future 4<sup>th</sup> Street improvements. A detailed Engineers Opinion of Probable Costs for the construction of the 2<sup>nd</sup> Street proposed improvement is included in **APPENDIX 9**.

**Phase 2:** Following the implementation of improvements to the 2<sup>nd</sup> Street crossing, WithersRavenel recommends that the Town focuses resources on determining if acquisition of the properties located at 309, 310, 312, and 313 4<sup>th</sup> Street is feasible. Priority should be given to acquiring 310 4<sup>th</sup> Street property as this would help facilitate the implementation of all of the recommended improvements for each assessed approach.

Acquisition of all four properties should be considered ideal as it would allow for the implementation of the recommended Approach 3 – Option 3 alternative which model results indicated provide the greatest flood mitigation benefits and alleviates flooding for the greatest number of buildings. Also, the acquisition of the properties and removal of the buildings permanently mitigates flooding for those properties.

**Phase 3:** Once the Town has determined which properties, if any, are feasible to acquire, the following recommended improvement options should be pursued based on the following criteria:

- **Approach 3 – Option 3:** Remove vertical embankments, replace existing culvert with a 10'W x 5.5'H RCBC, and add an upstream wetland storage area. This option requires the acquisition of all four properties adjacent to the existing crossing (309, 310, 312, and 313 4<sup>th</sup> Street)
- **Approach 2 – Option 3:** Realign stream to remove vertical embankments and replace existing culvert with a 10'W x 5.5'H RCBC. This option requires the Town to acquire at least one upstream property (309 or 313 4<sup>th</sup> Street) AND one downstream property (310 or 312 4<sup>th</sup> Street).
- **Approach 1 – Option 1:** Construct a high-flow bypass pipe to the north around 309 and 310 4<sup>th</sup> Street. This option requires, at a minimum, drainage easements be established on 308, 309 and 310 4<sup>th</sup> Street; however, the acquisition of 310 4<sup>th</sup> Street would simplify construction (lowering construction costs) and eliminated the need for an easement on 308 4<sup>th</sup> Street.

The following table summarizes the budgetary costs for each recommended proposed improvement option. Costs were based on estimated material quantities and unit costs. Actual construction costs may vary significantly due to timing of construction, changed market conditions, labor rate changes, or other factors beyond control of the engineer.

**Table 11: Recommended Proposed Improvement Options Budgetary Costs**

3 <sup>rd</sup> Street Proposed Improvement Option	Budgetary Costs
<b>Option 1</b> <b>New Reinforced Concrete Box Culvert</b>	<b>Engineering Design &amp; Permitting: \$50,000</b> <b>Construction Costs: \$510,000</b> <b>Construction Administration: \$30,000</b> <b>Total Costs: \$590,000</b>
4 <sup>th</sup> Street Proposed Improvement Option	Budgetary Costs
<b>Approach 1 - Option 1</b> <b>Bypass Around 4<sup>th</sup> Street to the North</b>	<b>Easement Acquisition: \$150,000</b> <b>Engineering Design &amp; Permitting: \$100,000</b> <b>Construction Costs: \$750,000</b> <b>Construction Administration: \$50,000</b> <b>Total Costs: \$900,000</b>
<b>Approach 2 - Option 3</b> <b>Realign Stream and Enlarge Culvert</b>	<b>Property Acquisition: \$500,000</b> <b>Engineering Design &amp; Permitting: \$100,000</b> <b>Construction Costs: \$750,000</b> <b>Construction Administration: \$50,000</b> <b>Total Costs: \$1,250,000</b>
<b>Approach 3 - Option 3</b> <b>Layback Stream Banks, Enlarge Culvert, &amp; Add Upstream Storage</b>	<b>Property Acquisition: \$950,000</b> <b>Engineering Design &amp; Permitting: \$100,000</b> <b>Construction Costs: \$800,000</b> <b>Construction Administration: \$50,000</b> <b>Total Costs: \$1,750,000</b>

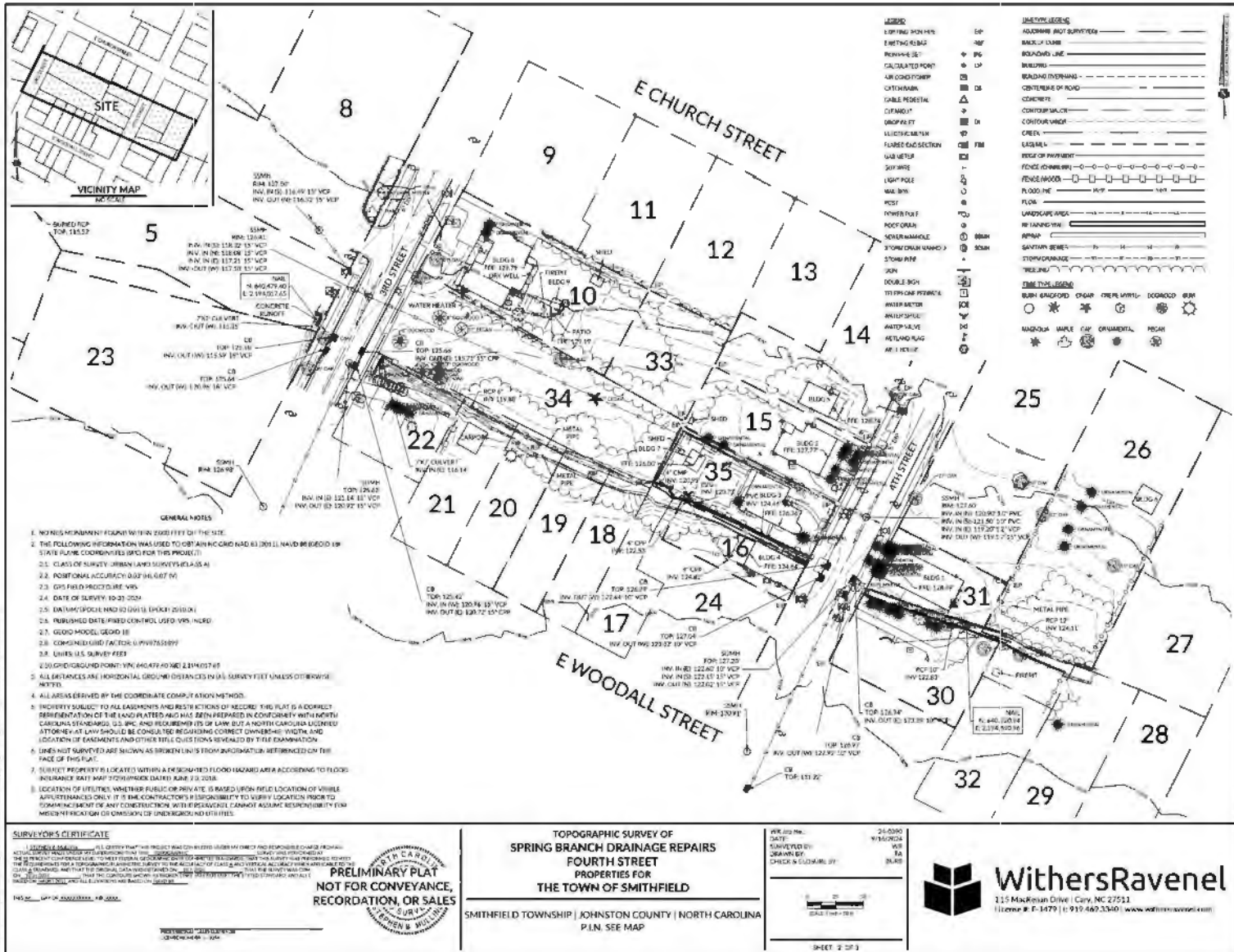
See **APPENDIX 9** for a more detailed breakdown of cost opinions for the above recommended Proposed Improvement Options.



## Appendix 1: Background Information

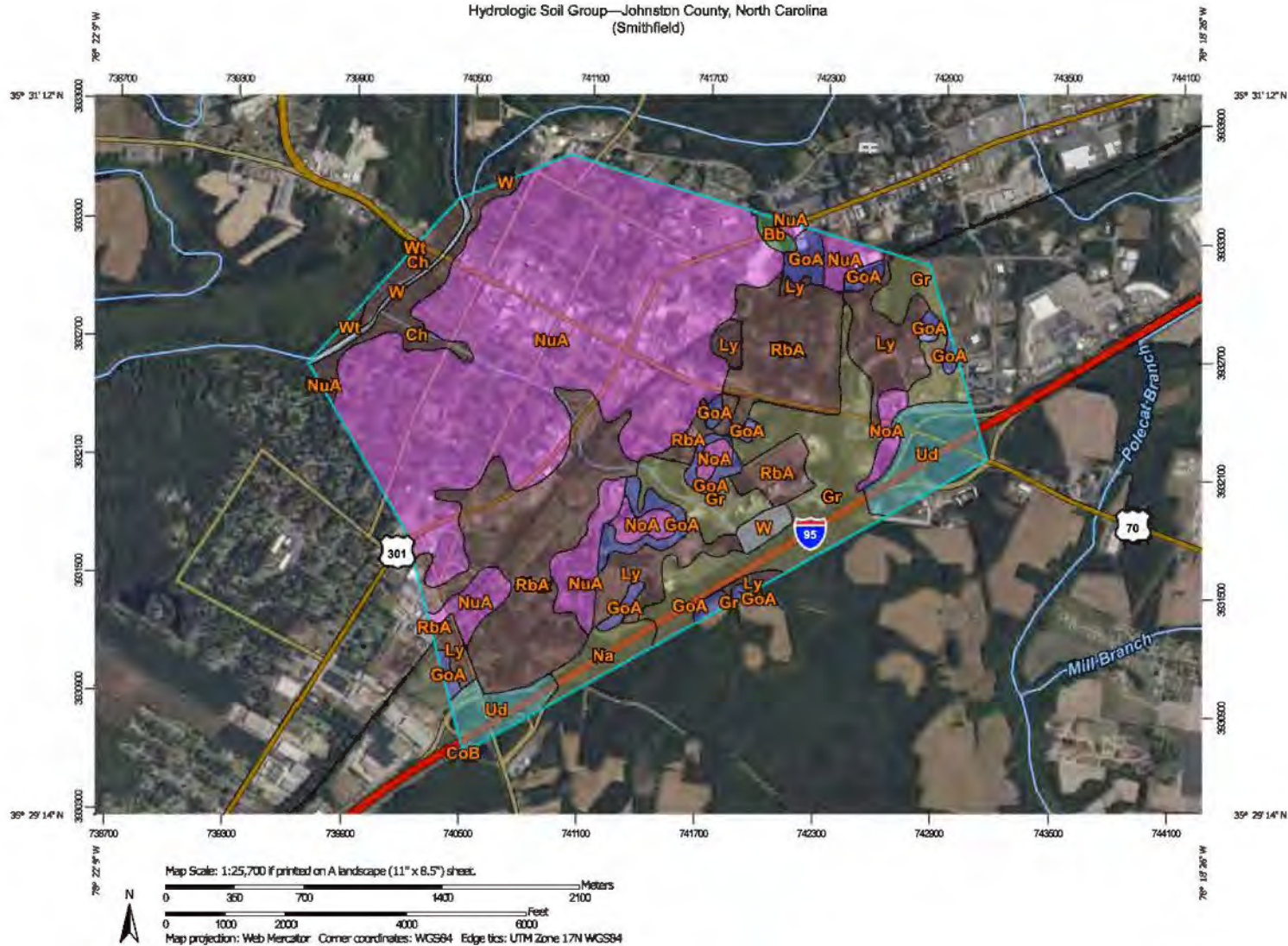
- ◆ Preliminary Project Area Survey
- ◆ Web Soil Survey Map
- ◆ Historical Data - FEMA Downstream WSEL
- ◆ NOAA Atlas 14 Precipitation Frequency Estimates
- ◆ FEMA Flood Insurance Rate Map (Map #3720169400K & 3720168200L)







# Hydrologic Soil Group—Johnston County, North Carolina (Smithfield)

























USDA  
Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

2/17/2025  
Page 1 of 4

Hydrologic Soil Group—Johnston County, North Carolina  
(Smithfield)

## MAP LEGEND

<b>Area of Interest (AOI)</b>		<b>C</b>
 Area of Interest (AOI)		 C/D
<b>Soils</b>		 D
<b>Soil Rating Polygons</b>		 Not rated or not available
 A	<b>Water Features</b>	
 A/D	 Streams and Canals	
 B	<b>Transportation</b>	
 B/D	 Rails	
 C	 Interstate Highways	
 C/D	 US Routes	
 D	 Major Roads	
 Not rated or not available	 Local Roads	
<b>Soil Rating Lines</b>	<b>Background</b>	
 A	 Aerial Photography	
 A/D		
 B		
 B/D		
 C		
 C/D		
 D		
 Not rated or not available		
<b>Soil Rating Points</b>		
 A		
 A/D		
 B		
 B/D		

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Johnston County, North Carolina  
Survey Area Date: Version 29, Sep 9, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 24, 2022—May 9, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Area in ACI	Percent of ACI
Bb	Bibb sandy loam, 0 to 2 percent slopes, frequently flooded	A/D	5.8	0.4%
Ch	Chewada loam, 0 to 2 percent slopes, frequently flooded	B/D	55.0	3.9%
CoB	Cowarts loamy sand, 2 to 6 percent slopes	C	0.0	0.0%
GoA	Goldsboro sandy loam, 0 to 2 percent slopes	B	64.4	4.2%
Gr	Grantham silt loam, 0 to 2 percent slopes	C/D	195.4	12.7%
Ly	Lynchburg sandy loam, 0 to 2 percent slopes	B/D	102.1	6.8%
Na	Nahunta silt loam, 0 to 2 percent slopes	C/D	24.5	1.6%
NoA	Norfolk loamy sand, 0 to 2 percent slopes	A	29.0	1.9%
NuA	Norfolk-Urban land complex, 0 to 3 percent slopes	A	575.4	43.8%
RbA	Rains-Urban land complex, 0 to 2 percent slopes	B/D	285.7	18.6%
Ud	Udorthents, loamy	C	78.9	5.1%
W	Water		17.5	1.1%
Wt	Wehadkee loam, 0 to 2 percent slopes, frequently flooded	B/D	3.6	0.2%
<b>Totals for Area of Interest</b>			<b>1,537.3</b>	<b>100.0%</b>



## Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

**Group A.** Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

**Group B.** Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

**Group C.** Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

**Group D.** Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## Rating Options

**Aggregation Method:** Dominant Condition

**Component Percent Cutoff:** None Specified

**Tie-break Rule:** Higher

## Historical Data FEMA Downstream WSEL

### Hurricane Matthew

Peak Rainfall:	10/8/16 12:50 PM			
Peak WSE:	10/10/16 7:45 AM	2-Year WSE: 115	Assumed (not modeled)	
Lag Time (hrs):	42.9	10-Year WSE: 120.8	FEMA	
		25-Year WSE: 122.4	FEMA	
		100-Year WSE: 125.4	FEMA	

### Hurricane Florence

Peak Rainfall:	9/14/18 3:50 PM
Peak WSE:	9/17/18 6:00 AM
Lag Time (hrs):	62.2

### Tropical Storm Debby

Peak Rainfall:	8/8/24 3:50 AM
Peak WSE:	8/10/24 1:45 AM
Lag Time (hrs):	45.9

Time (Hours)	2-Year WSEs	10-Year WSEs	25-Year WSEs	100-Year WSEs
1	103	103	103	103
2	106.5	108.1	108.6	109.5
3	107.1	109.1	109.7	110.7
4	107.8	110.1	110.8	112.0
5	108.4	111.0	111.8	113.1
6	108.9	111.8	112.6	114.1
7	109.4	112.5	113.4	115.0
8	109.8	113.1	114.0	115.7
9	110.1	113.6	114.5	116.3
10	110.4	114.0	115.0	116.9
11	110.7	114.5	115.5	117.4
12	111.0	114.9	115.9	117.9
13	111.3	115.3	116.4	118.4
14	111.5	115.6	116.8	118.9
15	111.7	116.0	117.1	119.3
16	112.0	116.3	117.5	119.7
17	112.1	116.5	117.8	120.0
18	112.3	116.9	118.1	120.4
19	112.5	117.1	118.3	120.7
20	112.6	117.3	118.6	121.0
21	112.8	117.5	118.8	121.3
22	113.0	117.8	119.1	121.6
23	113.1	118.0	119.4	121.9
24	113.3	118.3	119.6	122.2
25	113.5	118.5	119.9	122.5
26	113.6	118.8	120.2	122.9
27	113.8	119.0	120.4	123.1
28	113.9	119.2	120.6	123.3
29	114.0	119.4	120.8	123.6
30	114.2	119.6	121.1	123.9
31	114.3	119.8	121.3	124.1
32	114.5	120.0	121.5	124.4
33	114.6	120.2	121.7	124.6
34	114.7	120.3	121.9	124.8
35	114.7	120.4	122.0	124.9
36	114.8	120.5	122.1	125.0
37	114.9	120.6	122.2	125.1
38	114.9	120.7	122.3	125.3
39	115.0	120.7	122.3	125.3
40	115.0	120.8	122.4	125.4



NOAA Atlas 14, Volume 2, Version 3  
 Location name: Smithfield, North Carolina, USA\*  
 Latitude: 35.5094°, Longitude: -78.3434°  
 Elevation: 134 ft\*\*  
 \* source: ESRI Maps  
 \*\* source: USGS



### POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M. Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aeriels](#)

### PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) <sup>1</sup>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.426 (0.390-0.467)	0.497 (0.455-0.543)	0.567 (0.520-0.620)	0.638 (0.583-0.697)	0.712 (0.648-0.777)	0.772 (0.700-0.842)	0.827 (0.745-0.901)	0.879 (0.787-0.958)	0.939 (0.834-1.02)	0.994 (0.875-1.09)
10-min	0.681 (0.623-0.746)	0.794 (0.728-0.868)	0.908 (0.832-0.993)	1.02 (0.933-1.12)	1.14 (1.03-1.24)	1.23 (1.12-1.34)	1.31 (1.18-1.43)	1.39 (1.25-1.52)	1.48 (1.32-1.62)	1.58 (1.38-1.71)
15-min	0.881 (0.779-0.932)	0.998 (0.915-1.09)	1.15 (1.05-1.26)	1.29 (1.18-1.41)	1.44 (1.31-1.57)	1.56 (1.41-1.70)	1.66 (1.50-1.81)	1.76 (1.57-1.82)	1.87 (1.66-2.04)	1.96 (1.73-2.15)
30-min	1.17 (1.07-1.28)	1.38 (1.28-1.51)	1.63 (1.50-1.78)	1.87 (1.71-2.04)	2.13 (1.94-2.32)	2.34 (2.13-2.56)	2.54 (2.29-2.77)	2.74 (2.45-2.98)	2.97 (2.64-3.24)	3.18 (2.80-3.48)
60-min	1.46 (1.33-1.59)	1.73 (1.59-1.89)	2.09 (1.92-2.29)	2.44 (2.23-2.66)	2.84 (2.58-3.10)	3.18 (2.88-3.46)	3.50 (3.16-3.82)	3.84 (3.44-4.18)	4.27 (3.79-4.66)	4.64 (4.09-5.08)
2-hr	1.71 (1.55-1.89)	2.04 (1.85-2.25)	2.50 (2.28-2.76)	2.96 (2.68-3.26)	3.52 (3.16-3.87)	4.01 (3.60-4.41)	4.50 (4.01-4.95)	5.02 (4.44-5.52)	5.72 (5.02-6.29)	6.35 (5.52-7.00)
3-hr	1.91 (1.64-2.01)	2.16 (1.97-2.40)	2.67 (2.42-2.96)	3.18 (2.88-3.51)	3.82 (3.44-4.21)	4.40 (3.93-4.86)	4.99 (4.43-5.50)	5.63 (4.96-6.20)	6.52 (5.68-7.19)	7.34 (6.31-8.10)
6-hr	2.16 (1.97-2.39)	2.58 (2.36-2.86)	3.19 (2.90-3.52)	3.80 (3.45-4.19)	4.58 (4.13-5.05)	5.30 (4.74-5.83)	6.04 (5.36-6.63)	6.83 (6.00-7.49)	7.95 (6.90-8.72)	8.98 (7.69-9.88)
12-hr	2.54 (2.31-2.81)	3.03 (2.78-3.38)	3.76 (3.42-4.17)	4.51 (4.08-4.99)	5.47 (4.91-6.04)	6.37 (5.67-7.01)	7.30 (6.43-8.02)	8.32 (7.25-9.13)	9.77 (8.38-10.7)	11.1 (9.40-12.2)
24-hr	2.96 (2.73-3.22)	3.59 (3.32-3.92)	4.61 (4.24-5.03)	5.44 (4.99-5.92)	6.51 (6.05-7.20)	7.59 (6.90-8.28)	8.62 (7.80-9.39)	9.73 (8.74-10.8)	11.3 (10.1-12.4)	12.6 (11.2-13.8)
2-day	3.43 (3.17-3.73)	4.15 (3.84-4.51)	5.28 (4.88-5.73)	6.20 (5.72-6.72)	7.50 (6.88-8.13)	8.56 (7.82-9.30)	9.70 (8.81-10.5)	10.9 (9.84-11.9)	12.6 (11.3-13.8)	14.1 (12.5-15.4)
3-day	3.85 (3.38-3.94)	4.40 (4.09-4.76)	5.57 (5.16-6.02)	6.51 (6.02-7.02)	7.83 (7.21-8.46)	8.91 (8.17-9.63)	10.1 (9.17-10.9)	11.3 (10.2-12.2)	13.0 (11.7-14.1)	14.4 (12.8-15.7)
4-day	3.86 (3.60-4.16)	4.66 (4.33-5.02)	5.86 (5.44-6.30)	6.82 (6.32-7.33)	8.17 (7.54-8.78)	9.27 (8.52-9.97)	10.4 (9.52-11.2)	11.6 (10.6-12.6)	13.4 (12.0-14.5)	14.8 (13.2-16.1)
7-day	4.49 (4.19-4.83)	5.40 (5.03-5.81)	6.71 (6.24-7.21)	7.75 (7.20-8.32)	9.20 (8.51-9.88)	10.4 (9.66-11.1)	11.6 (10.6-12.6)	12.9 (11.7-13.9)	14.6 (13.3-15.8)	16.1 (14.5-17.4)
10-day	5.15 (4.83-5.50)	6.16 (5.77-6.58)	7.53 (7.06-8.04)	8.61 (8.04-9.17)	10.1 (9.39-10.7)	11.2 (10.4-12.0)	12.6 (11.5-13.3)	13.7 (12.6-14.7)	15.4 (14.1-16.6)	16.8 (15.3-18.1)
20-day	6.92 (6.49-7.39)	8.22 (7.72-8.78)	9.90 (9.27-10.6)	11.2 (10.5-12.0)	13.0 (12.1-13.9)	14.4 (13.4-15.4)	15.9 (14.6-17.0)	17.3 (15.9-18.6)	19.4 (17.7-20.8)	21.0 (19.1-22.6)
30-day	8.62 (8.12-9.18)	10.2 (9.61-10.9)	12.1 (11.3-12.8)	13.5 (12.7-14.4)	15.4 (14.4-16.4)	16.9 (15.7-18.0)	18.3 (17.0-19.6)	19.8 (18.4-21.2)	21.8 (20.1-23.4)	23.4 (21.4-25.2)
45-day	10.9 (10.4-11.6)	12.9 (12.2-13.7)	15.0 (14.2-15.8)	16.6 (15.7-17.7)	18.8 (17.7-19.9)	20.4 (19.2-21.7)	22.0 (20.6-23.4)	23.6 (22.1-25.2)	25.7 (23.9-27.5)	27.4 (25.4-29.3)
60-day	13.1 (12.4-13.8)	15.4 (14.6-16.3)	17.8 (16.8-18.8)	19.6 (18.5-20.7)	21.9 (20.6-23.1)	23.6 (22.3-25.0)	25.3 (23.8-26.9)	27.0 (25.3-28.7)	29.2 (27.3-31.1)	30.9 (28.8-32.9)

<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

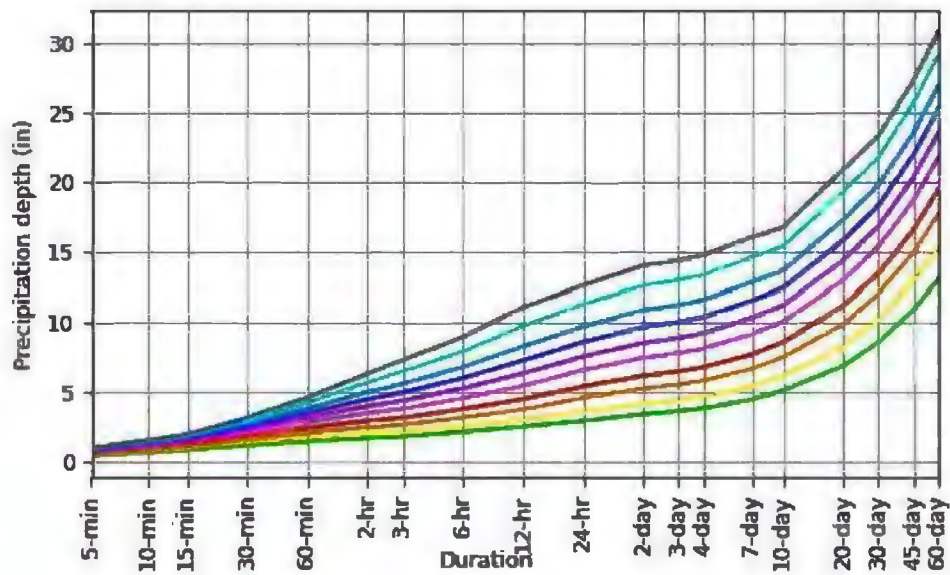
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### PF graphical

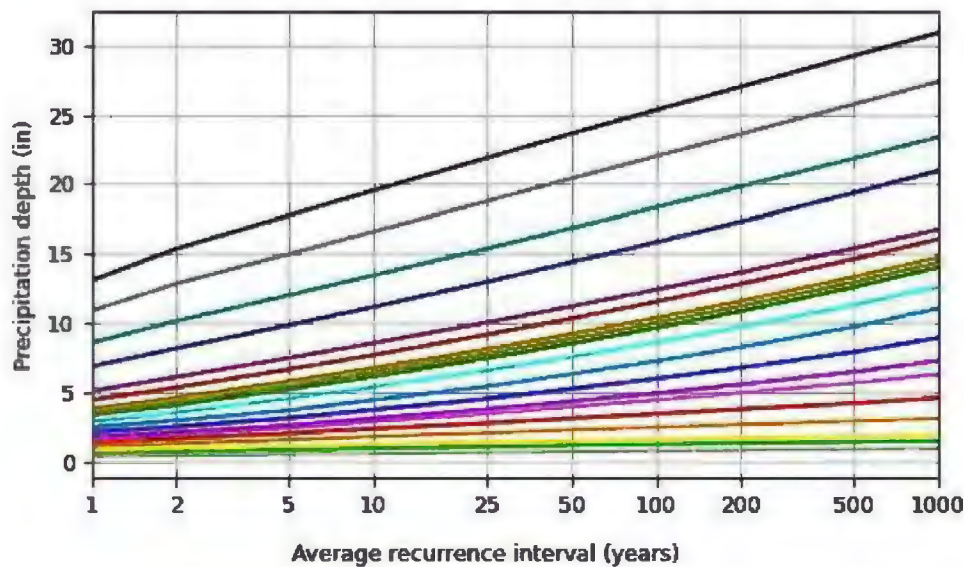


### PDS-based depth-duration-frequency (DDF) curves

Latitude: 35.5094°, Longitude: -78.3434°



Average recurrence interval (years)
1
2
5
10
25
50
100
200
500
1000



Duration	
5-min	2-day
10-min	3-day
15-min	4-day
30-min	7-day
60-min	10-day
2-hr	20-day
3-hr	30-day
6-hr	45-day
12-hr	60-day
24-hr	

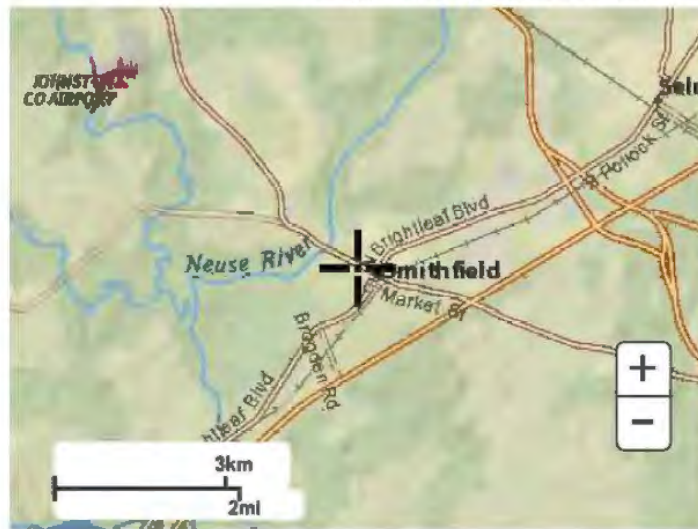
NOAA Atlas 14, Volume 2, Version 3

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## Maps & aeriels

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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US Department of Commerce  
National Oceanic and Atmospheric Administration  
National Weather Service  
National Water Center  
1325 East West Highway  
Silver Spring, MD 20910  
Questions?: [HDSC.Questions@noaa.gov](mailto:HDSC.Questions@noaa.gov)

[Disclaimer](#)









## Appendix 2: Photo Record

### ◆ Photo Record



### Spring Branch Photo Log



*2<sup>nd</sup> Street – 65" CMP Downstream*



*2<sup>nd</sup> Street – 65" CMP Upstream*





*4<sup>th</sup> Street – 6-ft x 4.5 ft Box Downstream*



*4<sup>th</sup> Street – 6-ft x 4.5 ft Box Downstream*





*4<sup>th</sup> Street – 6-ft x 4.5 ft Box Downstream*



*4<sup>th</sup> Street – 6-ft x 4.5 ft Box Downstream*





*4<sup>th</sup> Street – 6-ft x 4.5 ft Box Upstream*



*4<sup>th</sup> Street – 6-ft x 4.5 ft Box Upstream*



*4<sup>th</sup> Street – 6-ft x 4.5 ft Box Upstream*



*4<sup>th</sup> Street – 6-ft x 4.5 ft Box Upstream*



## Appendix 3: Hydrology Calculations

- ◆ Drainage Area Map
- ◆ Land Use Map
- ◆ CN Summary
- ◆ TC – Lag Time Calculations
- ◆ Pondpack Schematic
- ◆ Pondpack Master Summary Report
- ◆ Inflow Hydrograph – To 5<sup>th</sup> Street
- ◆ Inflow Hydrograph – To 4<sup>th</sup> Street
- ◆ Inflow Hydrograph – To 3<sup>rd</sup> Street
- ◆ Inflow Hydrograph – To 2<sup>nd</sup> Street
- ◆ Inflow Hydrograph – To Neuse
- ◆ Stage Hydrograph – Neuse River





**Legend**


DA

- 1st St
- 2nd St N
- 2nd St S
- 3rd St N
- 3rd St S
- 4th St N
- 4th St S
- 5th St N
- 5th St S
- 6th St
- Front St
- US RR

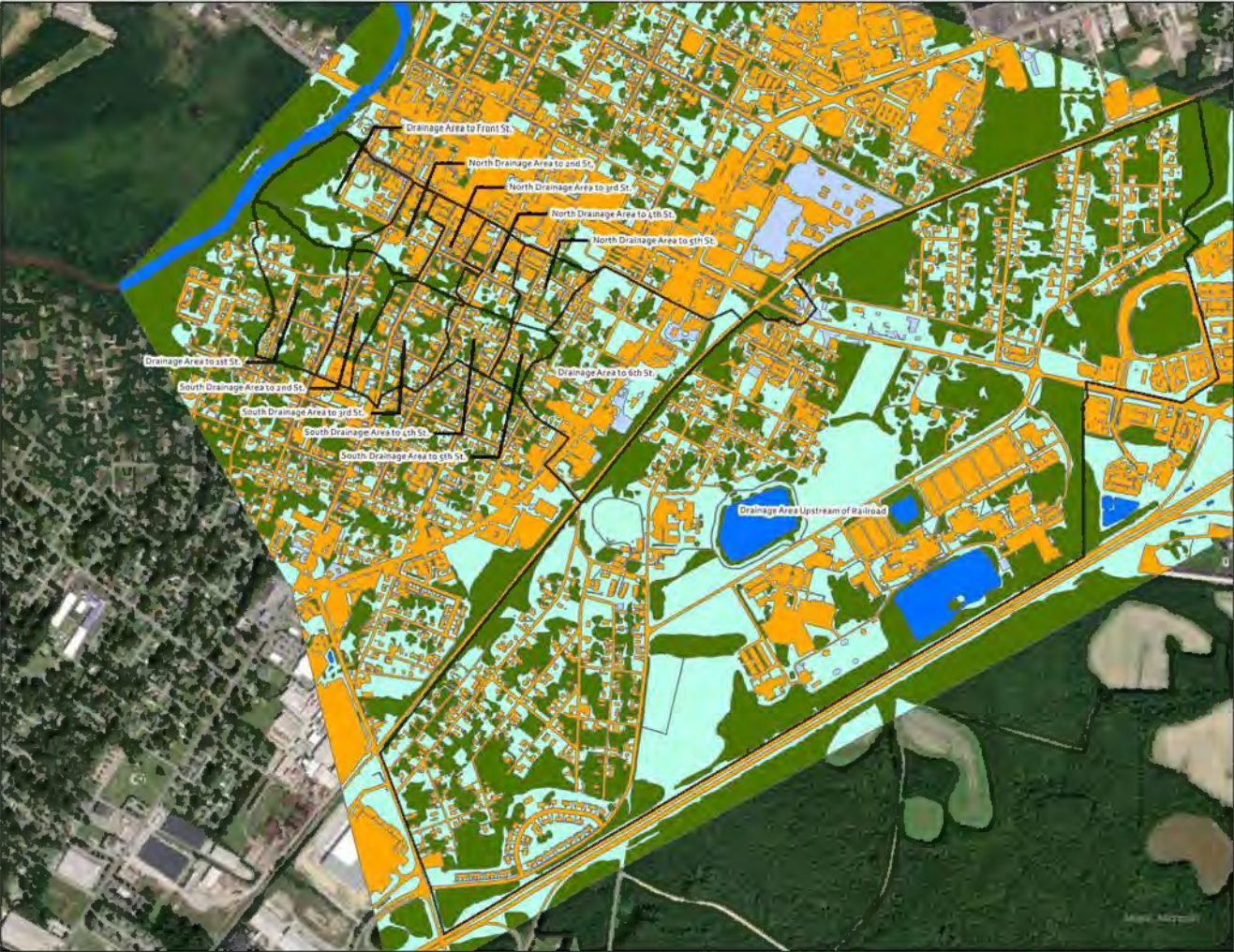
0 800 1,600 N  
1 Inch = 1600 feet

Drainage Area Map

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**Legend**

- Sub Drainage Area
- Existing Land Use
  - Impervious
  - Open Space
  - Tree Canopy
  - Unclassified
  - Water

\*Land Use sourced from Esri

0 800 1,600 N  
1 inch = 1600 feet

Drainage Area & Land Use Map

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### Smithfield Spring Branch - Smithfield, NC

#### Summary of Hydrology Inputs Per Sub-Drainage Area Area

#### Existing Conditions

ONSITE / OFFSITE	LAND USE	HSG	CN	% Total Imp	Total Imp Area	AREA (SF)	AREA (ACRE)
Drainage Area to POA #1 (Neuse River)							
DA to 1st St.							
Onsite	Impervious	A	98	100%	223,274	223,274	5.13
Onsite	Impervious	D	98	100%	5,861	5,861	0.13
Onsite	Open Space	A	39	---	---	211,421	4.85
Onsite	Open Space	D	80	---	---	11,688	0.27
Onsite	Tree Canopy	A	45	---	---	283,947	6.52
Onsite	Tree Canopy	O	83	---	---	167,222	3.84
Onsite	Water	A	98	---	---	179	0.00
Total Onsite Impervious Area:						229,135	5.26
Total Onsite Area:						903,593	20.74
Total Sub-Drainage Area Basin Area:						903,593	20.74
Total Impervious Area:						229,135	5.26
Cumulative Curve Number (CN):						65	
DA to Front St.							
Onsite	Impervious	A	98	100%	146,878	146,878	3.37
Onsite	Impervious	O	98	100%	8,434	8,434	0.19
Onsite	Open Space	A	39	---	---	204,285	4.69
Onsite	Open Space	D	80	---	---	55,213	1.27
Onsite	Tree Canopy	A	45	---	---	146,112	3.35
Onsite	Tree Canopy	O	83	---	---	137,800	3.14
Total Onsite Impervious Area:						155,312	3.57
Total Onsite Area:						900,722	20.68
Total Sub-Drainage Area Basin Area:						900,722	20.68
Total Impervious Area:						155,312	3.57
Cumulative Curve Number (CN):						69	
North DA to 2nd St.							
Onsite	Impervious	A	98	100%	155,229	155,229	3.56
Onsite	Impervious	D	98	100%	9,014	9,014	0.21
Onsite	Open Space	A	39	---	---	83,140	1.91
Onsite	Open Space	O	80	---	---	37,462	0.86
Onsite	Tree Canopy	A	45	---	---	43,093	0.99
Onsite	Tree Canopy	D	83	---	---	23,792	0.55
Total Onsite Impervious Area:						164,243	3.77
Total Onsite Area:						351,730	8.07
Total Sub-Drainage Area Basin Area:						351,730	8.07
Total Impervious Area:						164,243	3.77
Cumulative Curve Number (CN):						75	
South DA to 2nd St.							
Onsite	Impervious	A	98	100%	158,747	158,747	3.64
Onsite	Impervious	D	98	100%	2,754	2,754	0.06
Onsite	Open Space	A	39	---	---	85,594	1.96
Onsite	Open Space	O	80	---	---	6,378	0.15
Onsite	Tree Canopy	A	45	---	---	138,488	3.18
Onsite	Tree Canopy	D	83	---	---	54,187	1.25
Total Onsite Impervious Area:						161,500	3.71
Total Onsite Area:						426,627	9.79
Total Sub-Drainage Area Basin Area:						426,627	9.79
Total Impervious Area:						161,500	3.71
Cumulative Curve Number (CN):						67	



**Smithfield Spring Branch - Smithfield, NC**  
 Summary of Hydrology Inputs Per Sub-Drainage Area Area

**Existing Conditions**

ONSITE / OFFSITE	LAND USE	HSG	CN	% Total Imp	Total Imp Area	AREA (SF)	AREA (ACRE)
North DA to 3rd St.							
Onsite	Impervious	A	98	100%	191,927	191,927	4.41
Onsite	Impervious	D	98	100%	427	427	0.01
Onsite	Open Space	A	39	---	---	55,794	1.28
Onsite	Tree Canopy	A	45	---	---	66,870	1.54
Onsite	Tree Canopy	D	83	---	---	384	0.01
Total Onsite Impervious Area:						192,354	4.42
Total Onsite Area:						315,401	7.24
Total Sub-Drainage Area Basin Area:						315,401	7.24
Total Impervious Area:						192,354	4.42
Cumulative Curve Number (CN):						76	
South DA to 3rd St.							
Onsite	Impervious	A	98	100%	273,354	273,354	6.28
Onsite	Impervious	D	98	100%	617	617	0.01
Onsite	Open Space	A	39	---	---	201,699	4.63
Onsite	Tree Canopy	A	45	---	---	196,826	4.52
Onsite	Tree Canopy	D	83	---	---	5,654	0.13
Onsite	Unclassified	A	98	100%	162	162	0.00
Total Onsite Impervious Area:						274,133	6.29
Total Onsite Area:						678,312	15.57
Total Sub-Drainage Area Basin Area:						678,312	15.57
Total Impervious Area:						274,133	6.29
Cumulative Curve Number (CN):						65	
North DA to 4th St.							
Onsite	Impervious	A	98	100%	177,440	177,440	4.07
Onsite	Open Space	A	39	---	---	120,138	2.76
Onsite	Tree Canopy	A	45	---	---	63,392	1.46
Onsite	Unclassified	A	98	100%	2,433	2,433	0.06
Total Onsite Impervious Area:						179,873	4.13
Total Onsite Area:						363,403	8.34
Total Sub-Drainage Area Basin Area:						363,403	8.34
Total Impervious Area:						179,873	4.13
Cumulative Curve Number (CN):						69	
South DA to 4th St.							
Onsite	Impervious	A	98	100%	121,741	121,741	2.79
Onsite	Open Space	A	39	---	---	103,791	2.38
Onsite	Tree Canopy	A	45	---	---	75,806	1.74
Onsite	Water	A	98	---	---	693	0.02
Total Onsite Impervious Area:						121,741	2.79
Total Onsite Area:						302,031	6.93
Total Sub-Drainage Area Basin Area:						302,031	6.93
Total Impervious Area:						121,741	2.79
Cumulative Curve Number (CN):						64	
North DA to 5th St.							
Onsite	Impervious	A	98	100%	156,494	156,494	3.59
Onsite	Open Space	A	39	---	---	128,039	2.94
Onsite	Tree Canopy	A	45	---	---	75,044	1.72
Total Onsite Impervious Area:						156,494	3.59
Total Onsite Area:						359,577	8.25
Total Sub-Drainage Area Basin Area:						359,577	8.25
Total Impervious Area:						156,494	3.59
Cumulative Curve Number (CN):						66	
South DA to 5th St.							
Onsite	Impervious	A	98	100%	46,559	46,559	1.07
Onsite	Open Space	A	39	---	---	59,548	1.37
Onsite	Tree Canopy	A	45	---	---	99,196	2.28
Total Onsite Impervious Area:						46,559	1.07
Total Onsite Area:						205,303	4.71
Total Sub-Drainage Area Basin Area:						205,303	4.71
Total Impervious Area:						46,559	1.07
Cumulative Curve Number (CN):						55	

### Smithfield Spring Branch - Smithfield, NC

Summary of Hydrology Inputs Per Sub-Drainage Area Area

#### Existing Conditions

ONSITE / OFFSITE	LAND USE	HSG	CN	% Total Imp	Total Imp Area	AREA (SF)	AREA (ACRE)
<b>DA to 6th St.</b>							
Onsite	Impervious	A	98	100%	566,302	566,302	13.00
Onsite	Impervious	D	98	100%	235,214	235,214	5.40
Onsite	Open Space	A	39	---	---	560,094	12.86
Onsite	Open Space	D	80	---	---	195,921	4.50
Onsite	Tree Canopy	A	45	---	---	243,657	5.59
Onsite	Tree Canopy	D	83	---	---	188,633	4.33
Onsite	Unclassified	A	98	100%	29,642	29,642	0.68
Onsite	Unclassified	D	98	100%	55,788	55,788	1.28
<b>Total Onsite Impervious Area:</b>						<b>886,946</b>	<b>20.36</b>
<b>Total Onsite Area:</b>						<b>2,075,252</b>	<b>47.64</b>
<b>Total Sub-Drainage Area Basin Area:</b>						<b>2,075,252</b>	<b>47.64</b>
<b>Total Impervious Area:</b>						<b>886,946</b>	<b>20.36</b>
<b>Cumulative Curve Number (CN):</b>						<b>73</b>	
<b>DA Upstream of Railroad</b>							
Onsite	Impervious	A	98	100%	1,355,241	1,355,241	31.11
Onsite	Impervious	B	98	100%	205,988	205,988	4.73
Onsite	Impervious	C	98	100%	78,076	78,076	1.79
Onsite	Impervious	D	98	100%	3,937,794	3,937,794	90.40
Onsite	Open Space	A	39	---	---	1,919,491	44.07
Onsite	Open Space	B	61	---	---	1,062,240	24.39
Onsite	Open Space	C	74	---	---	120,705	2.77
Onsite	Open Space	D	80	---	---	6,543,040	150.21
Onsite	Tree Canopy	A	45	---	---	1,263,653	29.01
Onsite	Tree Canopy	B	66	---	---	285,465	6.55
Onsite	Tree Canopy	C	77	---	---	141,617	3.25
Onsite	Tree Canopy	D	83	---	---	7,244,391	166.31
Onsite	Unclassified	A	98	100%	50,210	50,210	1.15
Onsite	Unclassified	D	98	100%	48,455	48,455	1.11
Onsite	Water	A	98	---	---	5,028	0.12
Onsite	Water	B	98	---	---	94,204	2.16
Onsite	Water	D	98	---	---	684,333	15.71
<b>Total Onsite Impervious Area:</b>						<b>5,675,764</b>	<b>130.30</b>
<b>Total Onsite Area:</b>						<b>25,039,930</b>	<b>574.84</b>
<b>Total Sub-Drainage Area Basin Area:</b>						<b>25,039,930</b>	<b>574.84</b>
<b>Total Impervious Area:</b>						<b>5,675,764</b>	<b>130.30</b>
<b>Cumulative Curve Number (CN):</b>						<b>80</b>	
<b>Total Site Information</b>							
<b>Total Onsite Impervious Area:</b>						<b>8,244,053</b>	<b>189.26</b>
<b>Total Onsite Area:</b>						<b>31,921,881</b>	<b>732.83</b>
<b>Total Watershed Area:</b>						<b>31,921,881</b>	<b>732.83</b>

### Smithfield Spring Branch - DA to 6th St.

#### SUMMARY OF HYDROLOGIC INPUTS

#### Time of Concentration & Lag Time Calculations

**Maximum Potential Retention (in.):**

$$S = (1000/CN) - 10$$

**Time of Concentration (hours):**

$$T_c = \frac{I^{0.8} (S+1)^{0.7}}{1140 * Y^{0.5}}$$

Basin Data:		Input Values:	
Curve Number:	CN =	73	
Maximum Potential Retention:	S =	3.70	in.
Mean Basin Slope:	Y =	4.33	%
Longest Flowpath:		0.413	mi.
Flow Length	L =	2181	ft.

**Time of Concentration**

**0.58 Hours**

**T<sub>c</sub> = 35 mins**

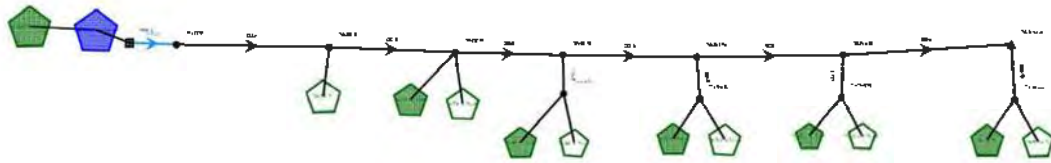
**Lag Time**

**0.35 Hours**

**T<sub>L</sub> = 21 mins**



## Scenario: Pre-Development 1 yr - 24 hr



Subsection: Master Network Summary

**Catchments Summary**

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft <sup>3</sup> /s)
DA Upstream of RR	Pre-Development 2 yr - 24 hr	2	82.208	13.350	254.27
DA Upstream of RR	Pre-Development 10 yr - 24 hr	10	155.430	13.350	494.33
DA Upstream of RR	Pre-Development 25 yr - 24 hr	25	207.270	13.350	662.15
DA Upstream of RR	Pre-Development 100 yr - 24 hr	100	296.510	13.350	947.01
DA 6th St	Pre-Development 2 yr - 24 hr	2	4.952	12.250	42.90
DA 6th St	Pre-Development 10 yr - 24 hr	10	10.315	12.250	93.76
DA 6th St	Pre-Development 25 yr - 24 hr	25	14.264	12.250	130.59
DA 6th St	Pre-Development 100 yr - 24 hr	100	21.221	12.200	194.82
DA 5th St North	Pre-Development 2 yr - 24 hr	2	0.588	12.250	4.88
DA 5th St North	Pre-Development 10 yr - 24 hr	10	1.380	12.200	12.85
DA 5th St North	Pre-Development 25 yr - 24 hr	25	1.990	12.200	19.04
DA 5th St North	Pre-Development 100 yr - 24 hr	100	3.099	12.200	30.14
DA 5th St South	Pre-Development 2 yr - 24 hr	2	0.149	12.200	0.92
DA 5th St South	Pre-Development 10 yr - 24 hr	10	0.466	12.150	4.54
DA 5th St South	Pre-Development 25 yr - 24 hr	25	0.736	12.150	7.82
DA 5th St South	Pre-Development 100 yr - 24 hr	100	1.258	12.150	14.10
DA 4th St North	Pre-Development 2 yr - 24 hr	2	0.706	12.100	7.91
DA 4th St North	Pre-Development 10 yr - 24 hr	10	1.567	12.100	19.02
DA 4th St North	Pre-Development 25 yr - 24 hr	25	2.219	12.100	27.29
DA 4th St North	Pre-Development 100 yr - 24 hr	100	3.384	12.100	41.84
DA 4th St South	Pre-Development 2 yr - 24 hr	2	0.437	12.000	7.15
DA 4th St South	Pre-Development 10 yr - 24 hr	10	1.066	11.950	19.07
DA 4th St South	Pre-Development 25 yr - 24 hr	25	1.560	11.950	28.18
DA 4th St South	Pre-Development 100 yr - 24 hr	100	2.464	11.950	44.46

Subsection: Master Network Summary

**Catchments Summary**

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft <sup>3</sup> /s)
DA 3rd St North	Pre-Development 2 yr - 24 hr	2	0.868	12.050	11.73
DA 3rd St North	Pre-Development 10 yr - 24 hr	10	1.731	12.050	23.90
DA 3rd St North	Pre-Development 25 yr - 24 hr	25	2.355	12.050	32.50
DA 3rd St North	Pre-Development 100 yr - 24 hr	100	3.444	12.050	47.17
DA 3rd St South	Pre-Development 2 yr - 24 hr	2	1.045	12.200	8.85
DA 3rd St South	Pre-Development 10 yr - 24 hr	10	2.498	12.200	24.36
DA 3rd St South	Pre-Development 25 yr - 24 hr	25	3.629	12.200	36.30
DA 3rd St South	Pre-Development 100 yr - 24 hr	100	5.690	12.150	57.90
DA 2nd St North	Pre-Development 2 yr - 24 hr	2	0.925	12.100	11.64
DA 2nd St North	Pre-Development 10 yr - 24 hr	10	1.870	12.100	24.04
DA 2nd St North	Pre-Development 25 yr - 24 hr	25	2.558	12.100	32.85
DA 2nd St North	Pre-Development 100 yr - 24 hr	100	3.761	12.100	47.92
DA 2nd St South	Pre-Development 2 yr - 24 hr	2	0.740	12.200	6.76
DA 2nd St South	Pre-Development 10 yr - 24 hr	10	1.703	12.200	17.18
DA 2nd St South	Pre-Development 25 yr - 24 hr	25	2.441	12.150	25.24
DA 2nd St South	Pre-Development 100 yr - 24 hr	100	3.774	12.150	39.61
DA 1st St	Pre-Development 2 yr - 24 hr	2	1.392	12.250	10.69
DA 1st St	Pre-Development 10 yr - 24 hr	10	3.328	12.250	29.59
DA 1st St	Pre-Development 25 yr - 24 hr	25	4.834	12.250	44.16
DA 1st St	Pre-Development 100 yr - 24 hr	100	7.579	12.250	70.39
DA Front St	Pre-Development 2 yr - 24 hr	2	1.748	12.200	17.29
DA Front St	Pre-Development 10 yr - 24 hr	10	3.882	12.150	41.69
DA Front St	Pre-Development 25 yr - 24 hr	25	5.495	12.150	59.92
DA Front St	Pre-Development 100 yr - 24 hr	100	8.382	12.150	92.04



Subsection: Master Network Summary

**Node Summary**

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft <sup>3</sup> /s)
US of RR	Pre-Development 2 yr - 24 hr	2	82.205	14.550	168.95
US of RR	Pre-Development 10 yr - 24 hr	10	155.428	14.950	248.55
US of RR	Pre-Development 25 yr - 24 hr	25	207.267	15.200	288.60
US of RR	Pre-Development 100 yr - 24 hr	100	296.507	14.500	603.47
DA 6th St	Pre-Development 2 yr - 24 hr	2	87.157	14.700	172.74
DA 6th St	Pre-Development 10 yr - 24 hr	10	165.743	15.050	254.98
DA 6th St	Pre-Development 25 yr - 24 hr	25	221.531	15.250	296.65
DA 6th St	Pre-Development 100 yr - 24 hr	100	317.727	14.650	616.43
DA 5th St	Pre-Development 2 yr - 24 hr	2	87.894	14.800	173.39
DA 5th St	Pre-Development 10 yr - 24 hr	10	167.588	15.150	256.28
DA 5th St	Pre-Development 25 yr - 24 hr	25	224.258	15.350	298.36
DA 5th St	Pre-Development 100 yr - 24 hr	100	322.084	14.750	619.30
DA 4th St	Pre-Development 2 yr - 24 hr	2	89.037	14.900	174.27
DA 4th St	Pre-Development 10 yr - 24 hr	10	170.222	15.200	257.91
DA 4th St	Pre-Development 25 yr - 24 hr	25	228.036	15.400	300.49
DA 4th St	Pre-Development 100 yr - 24 hr	100	327.933	14.650	622.75
To 4th St	Pre-Development 2 yr - 24 hr	2	1.142	12.000	12.82
To 4th St	Pre-Development 10 yr - 24 hr	10	2.634	12.000	32.68
To 4th St	Pre-Development 25 yr - 24 hr	25	3.779	12.000	47.67
To 4th St	Pre-Development 100 yr - 24 hr	100	5.849	12.000	74.28
DA 3rd St	Pre-Development 2 yr - 24 hr	2	90.950	15.000	175.69
DA 3rd St	Pre-Development 10 yr - 24 hr	10	174.452	15.300	260.49
DA 3rd St	Pre-Development 25 yr - 24 hr	25	234.021	15.450	303.79
DA 3rd St	Pre-Development 100 yr - 24 hr	100	337.067	14.950	628.04

## Subsection: Master Network Summary

### Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft <sup>3</sup> /s)
To 3rd St	Pre-Development 2 yr - 24 hr	2	1.913	12.100	18.79
To 3rd St	Pre-Development 10 yr - 24 hr	10	4.229	12.100	44.80
To 3rd St	Pre-Development 25 yr - 24 hr	25	5.985	12.100	64.24
To 3rd St	Pre-Development 100 yr - 24 hr	100	9.134	12.100	98.60
DA 2nd St	Pre-Development 2 yr - 24 hr	2	92.614	15.050	176.87
DA 2nd St	Pre-Development 10 yr - 24 hr	10	178.025	15.400	262.56
DA 2nd St	Pre-Development 25 yr - 24 hr	25	239.020	15.550	306.44
DA 2nd St	Pre-Development 100 yr - 24 hr	100	344.602	15.050	632.20
To 2nd St	Pre-Development 2 yr - 24 hr	2	1.665	12.100	17.53
To 2nd St	Pre-Development 10 yr - 24 hr	10	3.573	12.100	40.03
To 2nd St	Pre-Development 25 yr - 24 hr	25	4.999	12.100	56.58
To 2nd St	Pre-Development 100 yr - 24 hr	100	7.535	12.100	85.52
To Neuse	Pre-Development 2 yr - 24 hr	2	3.140	12.200	27.40
To Neuse	Pre-Development 10 yr - 24 hr	10	7.210	12.200	69.73
To Neuse	Pre-Development 25 yr - 24 hr	25	10.329	12.200	101.76
To Neuse	Pre-Development 100 yr - 24 hr	100	15.961	12.150	158.83
DA Stream	Pre-Development 2 yr - 24 hr	2	95.754	15.150	179.27
DA Stream	Pre-Development 10 yr - 24 hr	10	185.235	15.450	267.03
DA Stream	Pre-Development 25 yr - 24 hr	25	249.349	12.300	341.92
DA Stream	Pre-Development 100 yr - 24 hr	100	360.563	15.150	641.41

### Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft <sup>3</sup> /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
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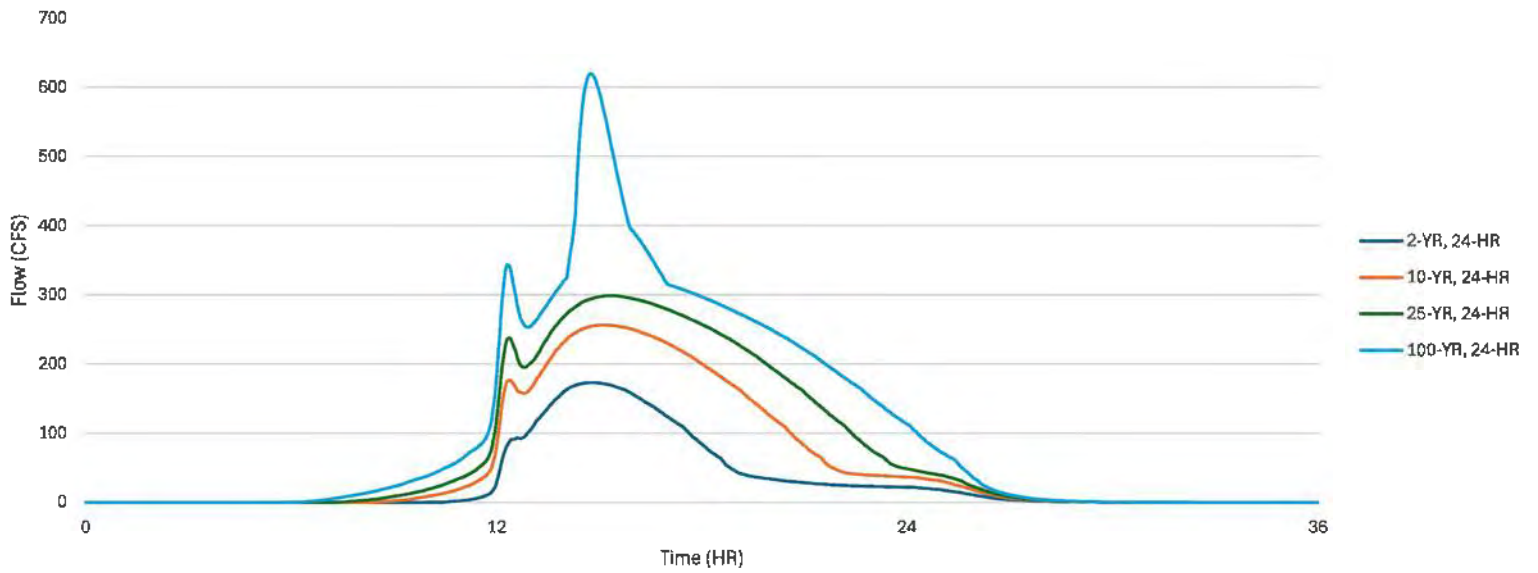
## Subsection: Master Network Summary

### Pond Summary

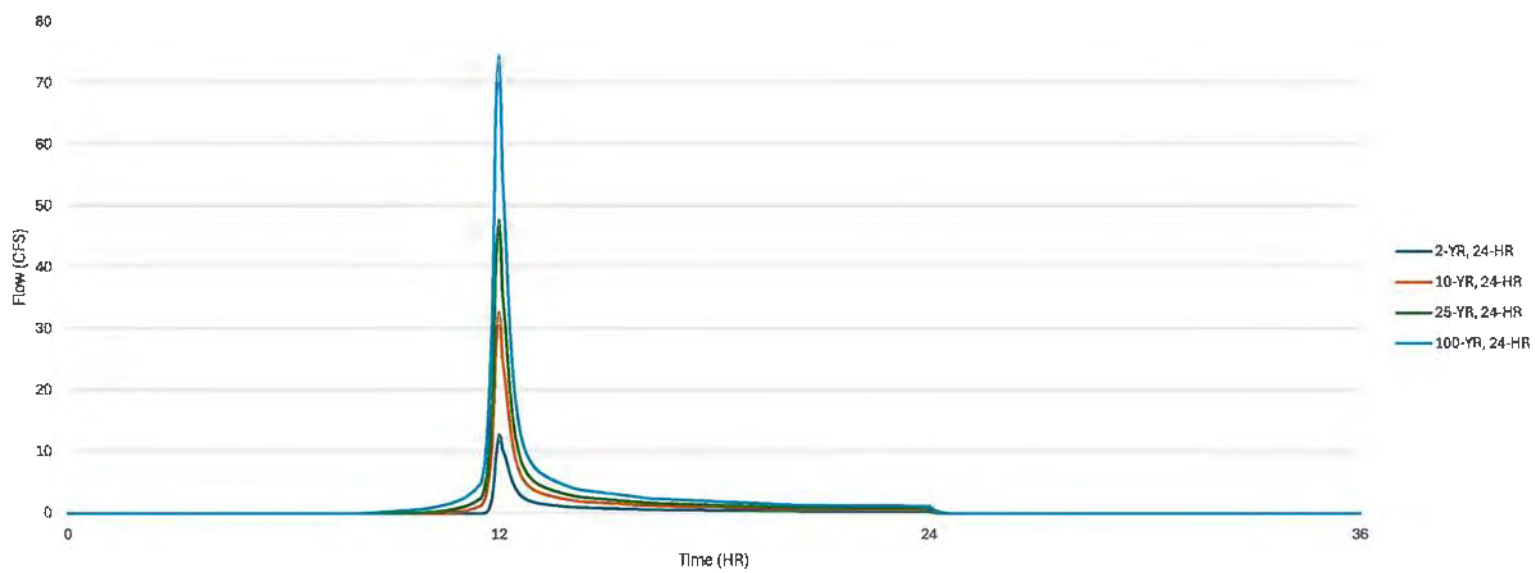
Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft <sup>3</sup> /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
Stage Storage US RR (IN)	Pre-Development 2 yr - 24 hr	2	82.208	13.350	254.27	(N/A)	(N/A)
Stage Storage US RR (OUT)	Pre-Development 2 yr - 24 hr	2	82.205	14.550	168.95	137.20	14.994
Stage Storage US RR (IN)	Pre-Development 10 yr - 24 hr	10	155.430	13.350	494.33	(N/A)	(N/A)
Stage Storage US RR (OUT)	Pre-Development 10 yr - 24 hr	10	155.428	14.950	248.55	139.09	43.255
Stage Storage US RR (IN)	Pre-Development 25 yr - 24 hr	25	207.270	13.350	662.15	(N/A)	(N/A)
Stage Storage US RR (OUT)	Pre-Development 25 yr - 24 hr	25	207.267	15.200	288.60	140.40	66.975
Stage Storage US RR (IN)	Pre-Development 100 yr - 24 hr	100	296.510	13.350	947.01	(N/A)	(N/A)
Stage Storage US RR (OUT)	Pre-Development 100 yr - 24 hr	100	296.507	14.500	603.47	141.83	93.649



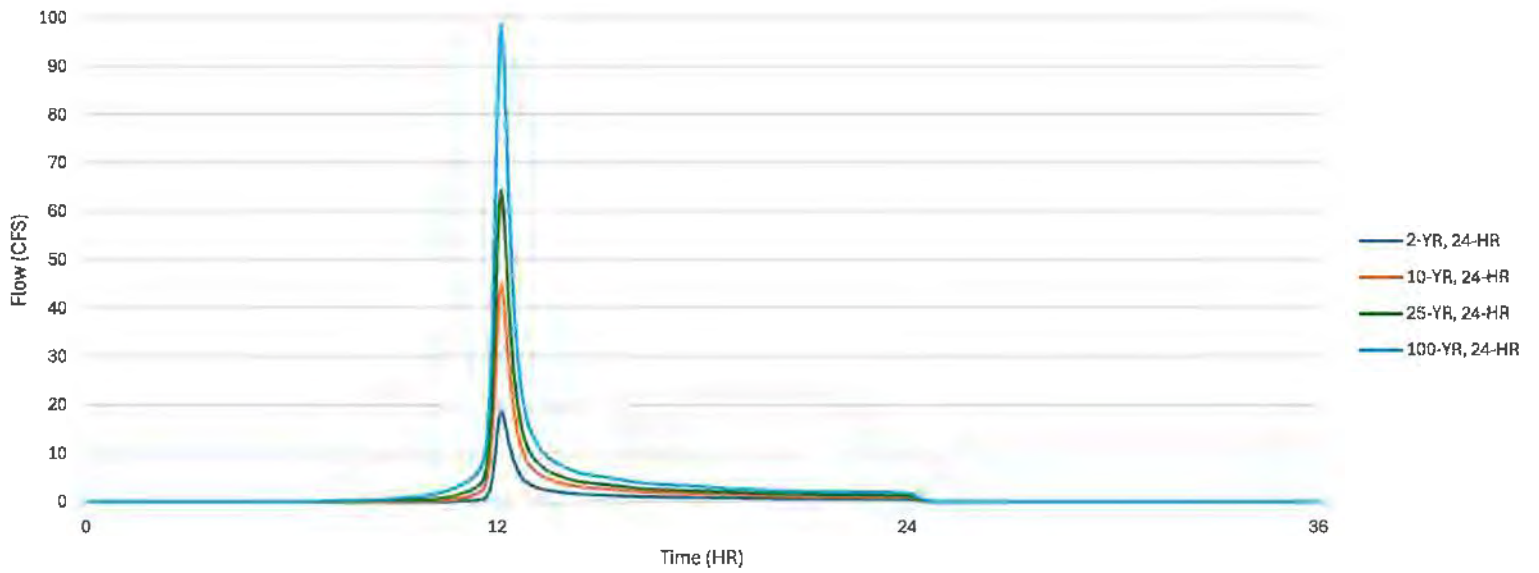
Inflow Hydrograph - To 5th Street



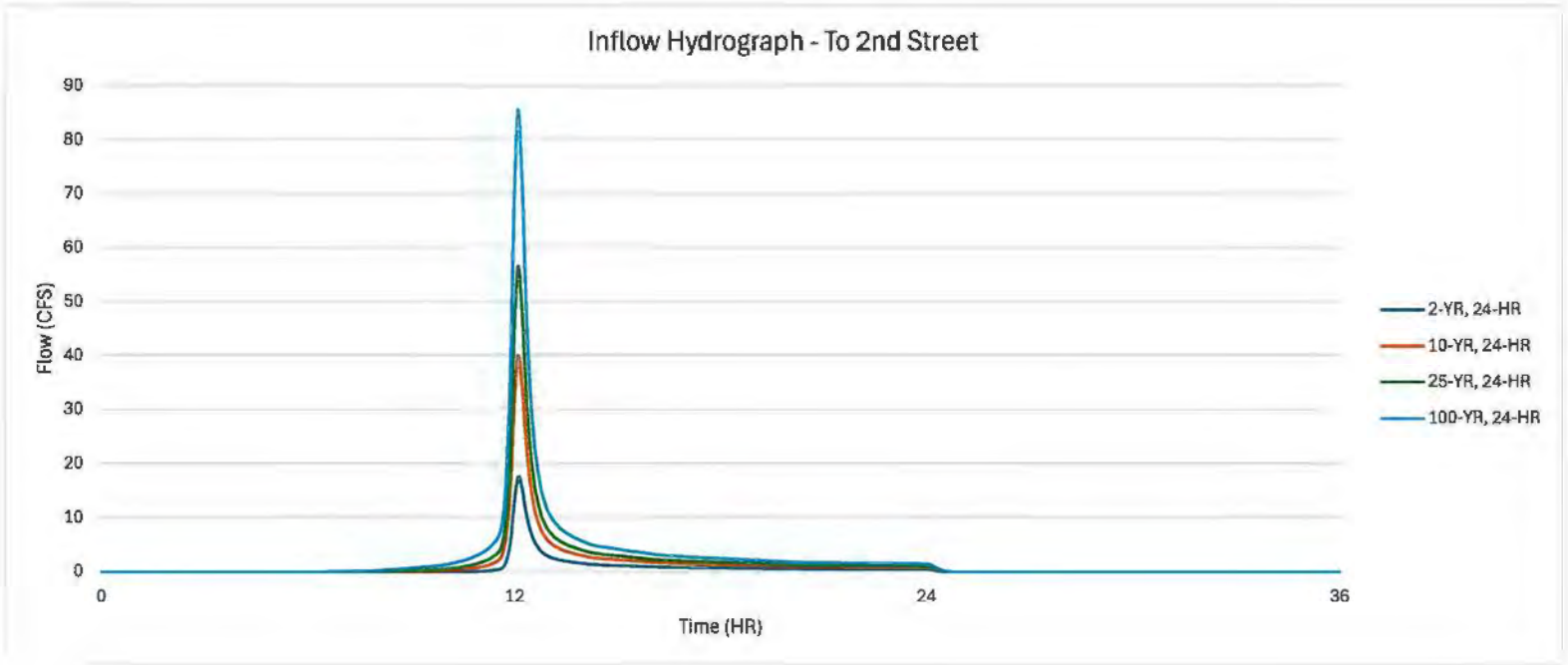
Inflow Hydrograph - To 4th Street



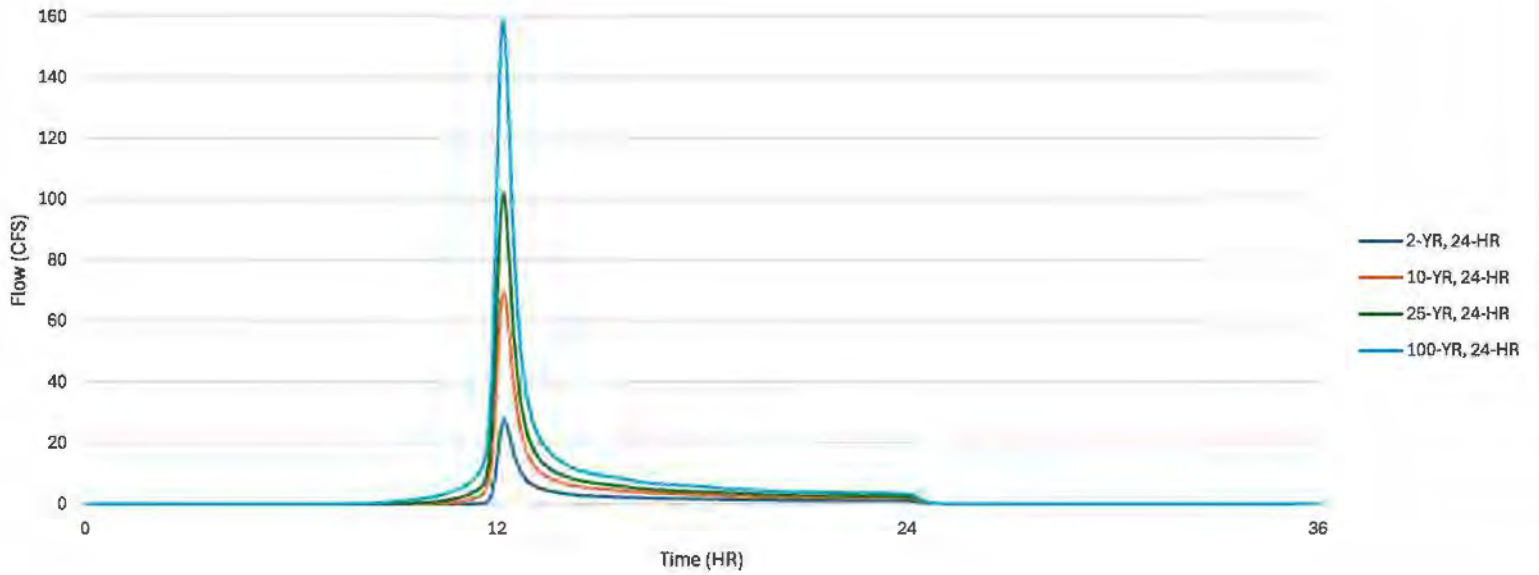
Inflow Hydrograph - To 3rd Street







Inflow Hydrograph - To Neuse



## Appendix 4: Existing Condition Model Results

- ◆ Existing Conditions - 2-yr Inundation Map
- ◆ Existing Conditions - 10-yr Inundation Map
- ◆ Existing Conditions - 25-yr Inundation Map
- ◆ Existing Conditions - 100-yr Inundation Map





**Legend**

- <all other values>
- Storm Pipes
- Building Outlines
- Parcel Boundaries

**2-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)**

Value
0.04939
0.00100708

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Existing Conditions  
2-Yr, 24-Hr Peak Inundation Depth Map

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**Legend**

- Storm Inlets
- Storm Pipes
- Building Outlines
- Parcel Boundaries

**25-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)**

Value

13.3393  
0.000999451

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Existing Conditions  
25-Yr, 24-Hr Peak Inundation Depth Map

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## Appendix 5: 2<sup>nd</sup> Street Proposed Improvements Model Results

- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 1 - 2-yr Inundation Map
- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 1 - 10-yr Inundation Map
- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 1 - 25-yr Inundation Map
- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 1 - 100-yr Inundation Map
- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 2 - 2-yr Inundation Map
- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 2 - 10-yr Inundation Map
- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 2 - 25-yr Inundation Map
- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 2 - 100-yr Inundation Map
- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 3 - 2-yr Inundation Map
- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 3 - 10-yr Inundation Map
- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 3 - 25-yr Inundation Map
- ◆ Proposed Improvement - 2<sup>nd</sup> Street - Option 3 - 100-yr Inundation Map





**Legend**

Parcel Boundaries  
Building Footprints  
Existing Structures  
Proposed Pipes  
Existing Pipes

25-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)

Value

13.5  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 2nd St.  
Option 1  
25-Yr, 24-Hr Peak Inundation Depth Map



  
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### Legend

Parcel Boundaries

Building Outlines

Existing Structures

Proposed Pipes

Existing Pipes

100-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

15.7

0.0

0 200 400 N

1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 2nd St  
Option 1  
100-Yr, 24-Hr Peak Inundation Depth Map

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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Pipes  
Existing Pipes

100-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)  
Value  
15.7  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 2nd St.  
Option 2  
100-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Pipes  
Existing Pipes

2-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)  
Value  
8.3  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 2nd St  
Option 3  
2-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

100-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)  
Value  
15.7  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 2nd St  
Option 3  
100-Yr, 24-Hr Peak Inundation Depth Map



  
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## Appendix 6: 4<sup>th</sup> Street Proposed Improvements Model Results – Approach 1

- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 1 – 2-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 1 – 10-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 1 – 25-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 1 – 100-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 2 – 2-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 2 – 10-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 2 – 25-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 2 – 100-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 3 – 2-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 3 – 10-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 3 – 25-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 3 – 100-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 4 – 2-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 4 – 10-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 4 – 25-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 1 – Option 4 – 100-yr Inundation Map



**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Pipes  
Existing Pipes

2-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
8.3  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St  
Approach 1 Option 1  
2-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Pipes  
Existing Pipes

10-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)  
Value  
12.4  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 1  
10-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

25-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
13.5  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 1  
25-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

100-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
15.7  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 1  
100-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

2-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)  
Value  
8.3  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 2  
2-Yr, 24-Hr Peak Inundation Depth Map



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### Legend

- Parcel Boundaries
- Building Outlines
- Existing Structures
- Proposed Piers
- Existing Piers

10-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

12.4

0.0

0 200 400 N

1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Option 1 Approach 2  
10-Yr, 24-Hr Peak Inundation Depth Map

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### Legend

- Parcel Boundaries
- Building Outlines
- Building Structures
- Proposed Pipes
- Existing Pipes

25-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

13.5

0.0

0 200 400 N

1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 2  
25-Yr, 24-Hr Peak Inundation Depth Map

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### Legend

- Parcel Boundaries
- Building Outlines
- Existing Structures
- Proposed Pipes
- Existing Pipes

100-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

15.7

0.0

0 200 400 N

1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 2  
100-Yr, 24-Hr Peak Inundation Depth Map

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### Legend

- Parcel Boundaries
- Building Outlines
- Existing Structures
- Proposed Pipes
- Existing Pipes

2-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

8.3

0.0

0 200 400 N

1 inch = 200 feet

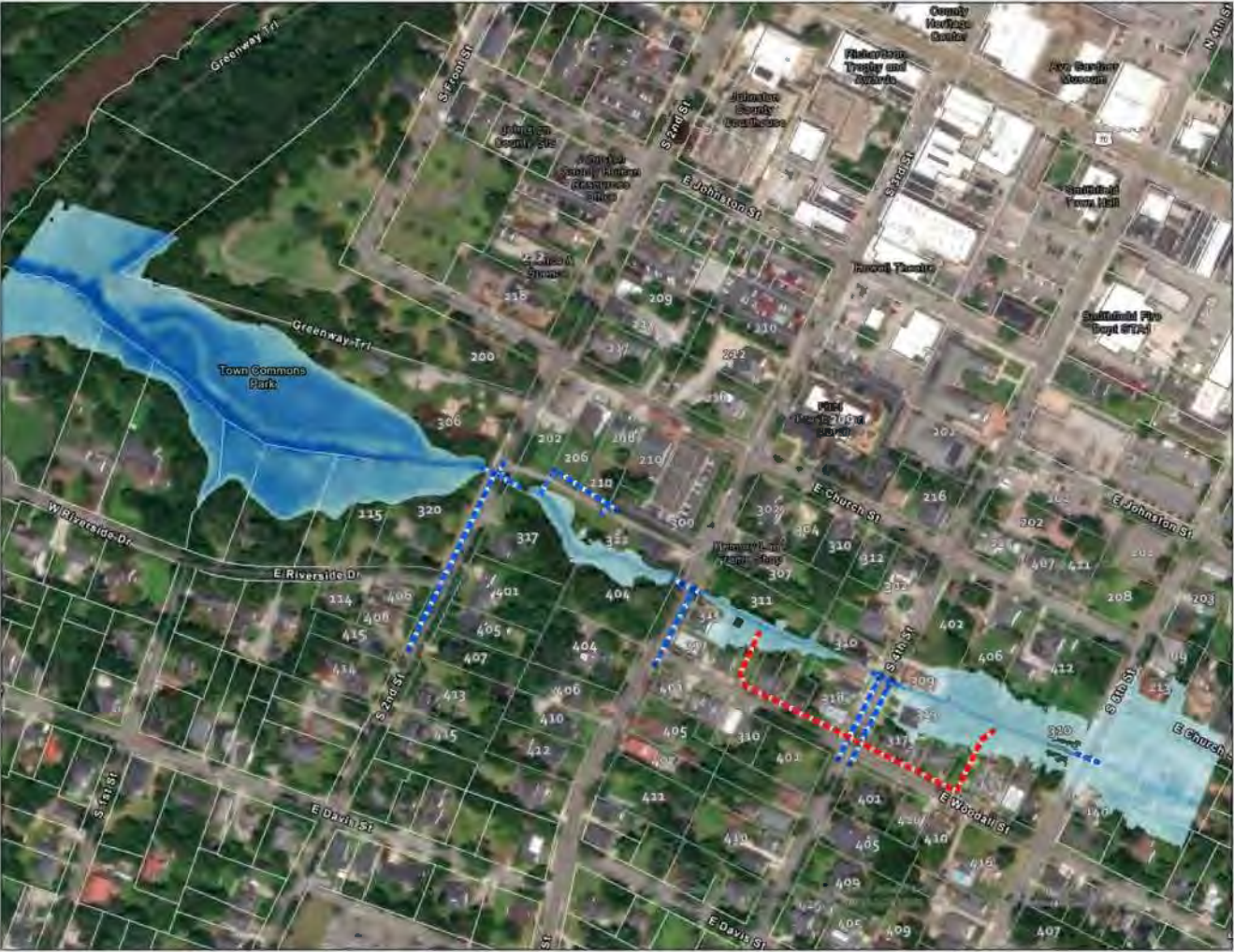
Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 3  
2-Yr, 24-Hr Peak Inundation Depth Map

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### Legend

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

10-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)  
Value  
12.4  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 3  
10-Yr, 24-Hr Peak Inundation Depth Map

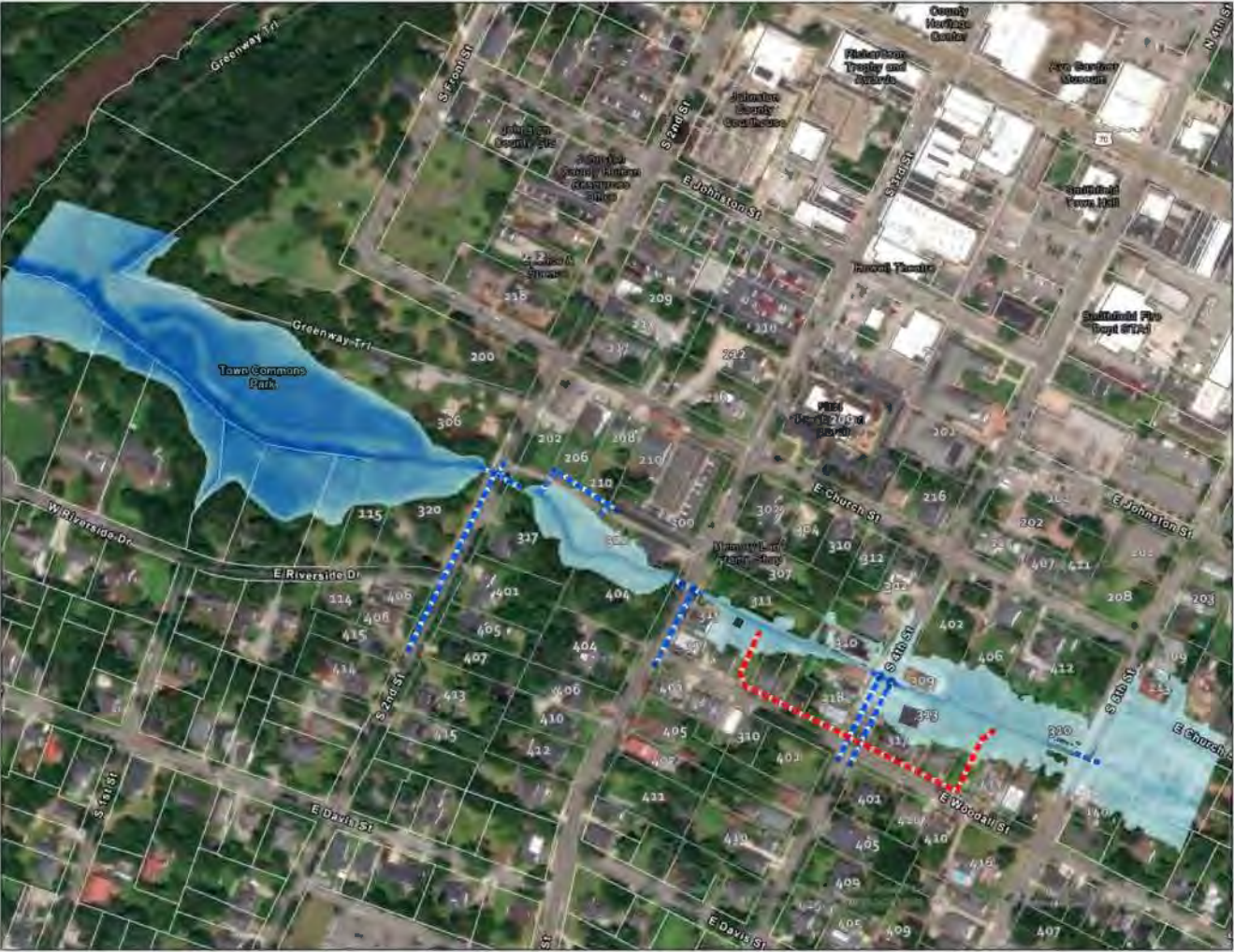


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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

25-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
13.5  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 3  
25-Yr, 24-Hr Peak Inundation Depth Map



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### Legend

- Parcel Boundaries
- Building Outlines
- Existing Structures
- Proposed Pipes
- Existing Pipes

100-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

15.7

0.0

0 200 400 N

1 inch = 200 feet

h Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 3  
100-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

2-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
8.3  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St  
Approach 1 Option 4  
2-Yr, 24-Hr Peak Inundation Depth Map



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### Legend

- Parcel Boundaries
- Building Outlines
- Existing Structures
- Proposed Piers
- Existing Piers

10-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

12.4

0.0

0 200 400 N

1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 4  
10-Yr, 24-Hr Peak Inundation Depth Map

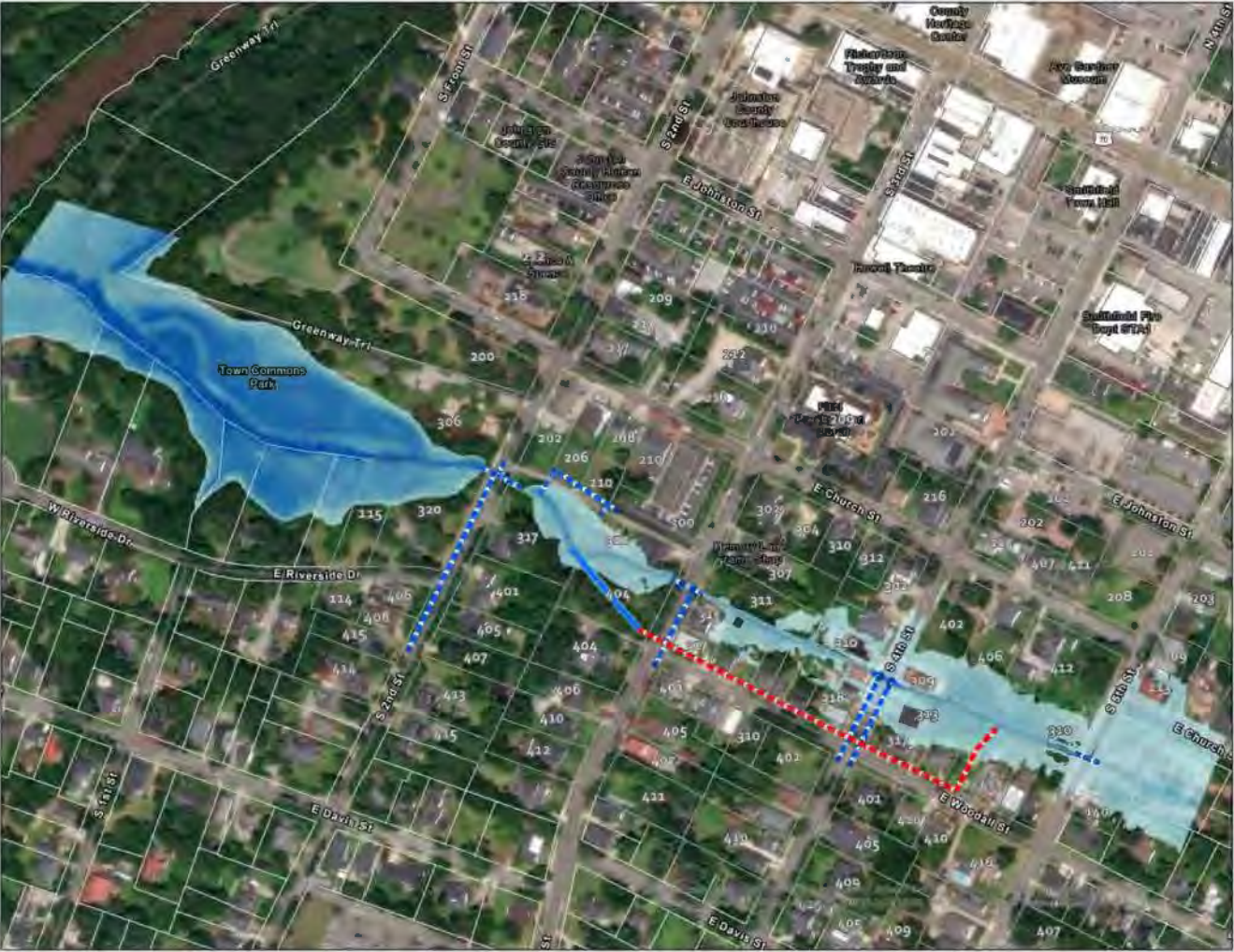
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**Legend**

Parcel Boundaries  
Building Footprints  
Existing Structures  
Proposed Piers  
Existing Piers

25-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
13.5  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 4  
25-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

100-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
15.7  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 1 Option 4  
100-Yr, 24-Hr Peak Inundation Depth Map



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## Appendix 7: 4<sup>th</sup> Street Proposed Improvements Model Results – Approach 2

- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 1 – 2-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 1 – 10-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 1 – 25-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 1 – 100-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 2 – 2-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 2 – 10-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 2 – 25-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 2 – 100-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 3 – 2-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 3 – 10-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 3 – 25-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 2 – Option 3 – 100-yr Inundation Map





### Legend

- Parcel Boundaries
- Building Outlines
- Existing Structures
- Proposed Pipes
- Existing Pipes

2-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

8.3

0.0

0 200 400 N

1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 2 Option 1  
2-Yr, 24-Hr Peak Inundation Depth Map

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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

10-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
12.4  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 2 Option 1  
10-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

25-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
13.5  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 2 Option 1  
25-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Pipes  
Existing Pipes

100-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
15.7  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 2 Option 1  
100-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

2-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
8.3  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 2 Option 2  
2-Yr, 24-Hr Peak Inundation Depth Map



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### Legend

- Parcel Boundaries
- Building Outlines
- Existing Structures
- Proposed Piers
- Existing Piers

10-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

12.4

0.0

0 200 400 N

1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 2 Option 2  
10-Yr, 24-Hr Peak Inundation Depth Map

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### Legend

Parcel Boundaries

Building Outlines

Existing Structures

Proposed Piers

Existing Piers

25-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

13.5

0.0

0 200 400 N

1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 2 Option 2  
25-Yr, 24-Hr Peak Inundation Depth Map

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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

100-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
15.7  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 2 Option 2  
100-Yr, 24-Hr Peak Inundation Depth Map



  
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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

2-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
8.3  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 2 Option 3  
2-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

10-Yr 24-Hr Design Storm Peak Inundation Depth (feet)  
Value  
12.4  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St  
Approach 2 Option 3  
10-Yr, 24-Hr Peak Inundation Depth Map



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### Legend

- Parcel Boundaries
- Building Outlines
- Existing Structures
- Proposed Piers
- Existing Piers

25-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

13.5

0.0

0 200 400 N

1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St  
Approach 2 Option 3  
25-Yr, 24-Hr Peak Inundation Depth Map

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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Pipes  
Existing Pipes

100-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)  
Value  
15.7  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 2 Option 3  
100-Yr, 24-Hr Peak Inundation Depth Map



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## Appendix 8: 4<sup>th</sup> Street Proposed Improvements Model Results – Approach 3

- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 1 – 2-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 1 – 10-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 1 – 25-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 1 – 100-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 2 – 2-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 2 – 10-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 2 – 25-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 2 – 100-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 3 – 2-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 3 – 10-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 3 – 25-yr Inundation Map
- ◆ Proposed Improvement – 4<sup>th</sup> Street – Approach 3 – Option 3 – 100-yr Inundation Map



**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

2-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
6.3  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 3 Option 1  
2-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

10-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)  
Value  
12.4  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 3 Option 1  
10-Yr, 24-Hr Peak Inundation Depth Map



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### Legend

- Parcel Boundaries
- Building Outlines
- Building Structures
- Proposed Piers
- Existing Piers

25-Yr 24-Hr Design Storm Peak Inundation Depth (feet)

Value

13.5

0.0

0 200 400 N

1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St  
Approach 3 Option 1  
25-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Building Structures  
Proposed Piers  
Existing Piers

100-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
15.7  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St  
Approach 3 Option 1  
100-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Pipes  
Existing Pipes

2-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
8.3  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 3 Option 2  
2-Yr, 24-Hr Peak Inundation Depth Map



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### Legend

- Parcel Boundaries
- Building Outlines
- Existing Structures
- Proposed Pipes
- Existing Pipes

10-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)

Value

12.4

0.0

0 200 400 N

1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St  
Approach 3 Option 2  
10-Yr, 24-Hr Peak Inundation Depth Map

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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

25-Yr 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
13.5  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 3 Option 2  
25-Yr, 24-Hr Peak Inundation Depth Map



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### Legend

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Pipes  
Existing Pipes

100-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)  
Value  
15.7  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 3 Option 2  
100-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Pipes  
Existing Pipes

10-Yr, 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
12.4  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 3 Option 3  
10-Yr, 24-Hr Peak Inundation Depth Map



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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Pipes  
Existing Pipes

25-Yr 24-Hr Design  
Storm Peak Inundation  
Depth (feet)  
Value  
13.5  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 3 Option 3  
25-Yr, 24-Hr Peak Inundation Depth Map



  
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**Legend**

Parcel Boundaries  
Building Outlines  
Existing Structures  
Proposed Piers  
Existing Piers

100-Yr, 24-Hr Design Storm Peak Inundation Depth (feet)  
Value  
15.7  
0.0

0 200 400 N  
1 inch = 200 feet

Smithfield Spring Branch Drainage Repairs  
Proposed Conditions - 4th St.  
Approach 3 Option 3  
100-Yr, 24-Hr Peak Inundation Depth Map



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## Appendix 9: Opinions of Probable Costs

- ◆ Proposed Improvement – 2<sup>nd</sup> Street – Option 2 – Engineer's Opinion of Probable Costs



**Spring Branch Drainage Repair**  
**ENGINEER'S OPINION OF PROBABLE COST**  
**2nd Street - Proposed Improvement Option**  
**June 30, 2025**

ITEM NUMBER	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
<b>SITE PREPARATION</b>					
1	Mobilization	1	LS	\$24,000.00	\$24,000.00
2	Construction Surveying	1	LS	\$5,000.00	\$5,000.00
3	Temporary Traffic Control	1	LS	\$10,000.00	\$10,000.00
SUBTOTAL - SITE PREPARATION:					\$39,000.00
<b>CLEARING &amp; DEMOLITION</b>					
4	Remove & Dispose Existing Asphalt	119	SY	\$6.50	\$772.78
5	Remove & Dispose Existing 6" Curb	72	LF	\$7.00	\$504.00
6	Remove & Dispose Existing Concrete Apron and Gutter	8	SY	\$13.00	\$97.50
7	Remove & Dispose Existing Concrete Sidewalk	48	SY	\$14.00	\$672.00
8	Remove & Dispose Existing Catch Basin (4'-6' Deep)	2	EA	\$2,750.00	\$5,500.00
9	Remove & Dispose Existing Manhole (8'-10' Deep)	1	EA	\$5,000.00	\$5,000.00
10	Remove & Dispose Existing RCP and VCP (12" to 18" Diameter)	73	LF	\$12.00	\$876.00
11	Remove & Dispose Existing Concrete Headwall	1	EA	\$3,500.00	\$3,500.00
10	Remove & Dispose Existing 65" CMP and FES	122	LF	\$15.00	\$1,830.00
11	Remove & Dispose Existing RipRap	21	TON	\$35.00	\$735.00
12	Remove & Dispose Existing Tree (only if necessary)	1	EA	\$2,000.00	\$2,000.00
SUBTOTAL - CLEARING & DEMOLITION:					\$21,487.28
<b>EROSION CONTROL</b>					
13	Furnish, Install, Maintain & Remove Silt Fence	80	LF	\$8.50	\$680.00
14	Furnish, Install, Maintain & Remove Silt Fence Outlet	1	EA	\$1,500.00	\$1,500.00
15	Furnish, Install, Maintain & Remove Concrete Washout	1	EA	\$3,500.00	\$3,500.00
16	Furnish, Install, Maintain & Remove Inlet Protection	2	EA	\$850.00	\$1,700.00
17	Furnish, Install, Maintain, & Remove Impervious Dike (Upstream)	1	EA	\$5,000.00	\$5,000.00
18	Furnish, Install, Maintain, & Remove Stone Check Dam (Downstream)	1	EA	\$4,500.00	\$4,500.00
19	Furnish, Install & Maintain NCDOT Approved Geotextile Fabric (Permanent)	250	SY	\$21.00	\$5,250.00
20	Furnish, Install, and Maintain Class "1" Rip-Rap	173	TON	\$105.00	\$18,176.67
21	Furnish, Install, and Maintain Erosion Control Matting	246	SY	\$8.50	\$2,089.11
22	Furnish, Install, Maintain Permanent Seeding	0.3	AC	\$1,200.00	\$407.16
23	Furnish, Install, Maintain & Remove Stream Bypass and Dewatering System	1	LS	\$15,000.00	\$15,000.00
SUBTOTAL - EROSION CONTROL:					\$57,802.94
<b>SITE WORK</b>					
24	Furnish and Install 6'H x 10'W Reinforced Concrete Box Culvert	106	LF	\$2,200.00	\$233,200.00
25	Furnish and Install Cast-in-Place Concrete Headwalls & Footings	84	CY	\$1,200.00	\$100,400.00
26	Furnish and Install Catch Basin (4'-6' Deep)	2	EA	\$5,000.00	\$10,000.00
27	Furnish and Install Manhole (8'-10' Deep)	1	EA	\$7,500.00	\$7,500.00
28	Furnish and Install 15" Class III RCP	28	LF	\$125.00	\$3,500.00
29	Furnish and Install 18" Class III RCP	44	LF	\$135.00	\$5,940.00
30	Support Existing 12" DIP Water Line Through Excavation	1	LS	\$7,500.00	\$7,500.00
SUBTOTAL - SITE WORK:					\$368,040.00
<b>PAVING &amp; CONCRETE</b>					
31	Furnish and Install Asphalt Patch	119	SY	\$75.00	\$8,916.67
32	Furnish and Install 6" Concrete Curb	72	LF	\$35.00	\$2,520.00
33	Furnish and Install Concrete Apron and Gutter	8	SY	\$95.00	\$712.50
34	Furnish and Install Concrete Sidewalk	48	SY	\$120.00	\$5,760.00
SUBTOTAL - PAVING & CONCRETE:					\$17,909.17

**Notes:** This estimate of probable cost is approximate. Actual construction bids may vary significantly from this statement of probable costs due to timing of construction, changed conditions, labor rate changes, or other factors beyond the control of the estimators.

**TOTAL CONSTRUCTION COSTS:** \$504,239.38

**15% CONTINGENCY:** \$75,635.91

**CONSTRUCTION ADMINISTRATION:** \$30,000.00

**ENGINEERED DESIGN AND PERMITTING:** \$50,000.00

**TOTAL PROJECT COSTS:** \$659,875.29



November 21, 2025

Stephen Wensman, Planning Director  
Town of Smithfield  
350 East Market Street  
Smithfield, NC 27577

RE: **Amendment No. 1**  
**Spring Branch Drainage Repairs**  
**Smithfield, North Carolina**  
**WithersRavenel Project No. 24-0390**

Dear Mr. Wensman,

WithersRavenel has entered into an "Agreement" with Town of Smithfield for the project known as Spring Branch Drainage Repairs, dated 8/14/2024, for the furnishing of professional services in which Town of Smithfield requests to amend. The attached Amendment Number 1 outlines the additional services included with this amendment.

We look forward to continuing our collaboration with you on this project. Please feel free to contact me with any questions and/or to discuss any aspect of the attached amendment.

Sincerely,

WithersRavenel

A handwritten signature in black ink, appearing to read "Nathaniel Eddy".

Nathaniel Eddy, PE  
Project Engineer, Stormwater  
[neddy@withersravenel.com](mailto:neddy@withersravenel.com)  
Ph. 919.535.5200 | Direct. 919.238.0347

# **Town of Smithfield Spring Branch Drainage Repairs Smithfield, North Carolina Amendment No. 1**

## **C. General**

WithersRavenel has previously entered into an “Agreement” with Town of Smithfield, dated 8/14/2024, for the furnishing of professional services; the parties now wish to amend said “Agreement”.

Therefore, it is mutually understood that the “Agreement” is amended to include the Additional Services to be performed by WithersRavenel and provisions for additional compensation from Town of Smithfield to WithersRavenel, all as set forth within this Amendment. The parties ratify the terms and conditions of the Agreement which are incorporated by reference and any changes to those terms and conditions shall be noted in this amendment.

If there are any conflicts in rates and/or terms and conditions, those specified in this Amendment will take precedence.

## **D. Timeline for Services**

WithersRavenel will begin scope of work upon receipt of executed Amendment and written notice to proceed from Town of Smithfield. Estimated timeframe(s) for the basis of the services described herein are shown below and, if applicable, will amend the overall schedule as noted.

- ▶ Easement Acquisition Assistance: Estimated 6 Months total;

The above estimated timeframe(s) may be impacted by, among other things:

- Timeliness and additional permit and/or plan reviews of review agencies;
- Timeliness and accuracy of information provided by the Client, Architect, and other Client consultants.

From the above and factoring in variability in the approval process, we estimate the total project timeframe for the easements related services to be 7 Months. Construction administration related services are provided during construction as detailed in the Scope of Services.

If available, opportunities to adjust these estimated timeframes can be discussed. Implementation of agreed-upon adjustments may result in adjustments to WithersRavenel fees.

Certain tasks, such as reviews and approvals, are performed by third parties, including governmental agencies, over which neither Client nor WithersRavenel have control or responsibility. As such, neither party is responsible for delays or the resulting cost impacts caused by third parties.

## **E. Scope of Services**

WithersRavenel shall provide the services identified under each task below as its “Basic Services” under the Agreement:

### **Task 11. Easement Acquisition**

The Consultant will retain a qualified subconsultant to perform all easement acquisition negotiations. It is assumed that four (4) property owner(s) will be engaged as part of this process, and that Town of Smithfield representatives will support the Consultant in the easement acquisitions as needed. Any title search or appraisal efforts are not included and would be negotiated as additional effort if needed. Any attorney opinions or closing efforts are not included. Any recordation effort or fees are not included.

## **F. Exclusions, Client Responsibilities, and Expenses**

Exclusions, Client Responsibilities, and Expenses outlined in the Agreement remain in effect unless specifically noted herein.

## **G. Compensation for Additional Services**

WithersRavenel proposes to provide the Basic Services outlined in Section C on a lump sum or hourly basis with budgets as sho



expenses in accordance with the most current Fee & Expense Schedule. The amounts set forth have been determined based on the nature, scope and complexity of the Project as represented in the information provided to WithersRavenel by Town of Smithfield prior to submittal of this Amendment; subsequent changes thereto may result in additional fees.

Original Agreement Fee: \$262,500

Total net changes by previously authorized Amendments: \$0

Total revised fee, prior to this Amendment: \$0

This Amendment proposes an increase in fee in the amount of: \$23,000

**Total revised fee, including this Amendment:** \$285,500.00

Fee by Task							
Task No.	Task Name	Original Fee	Previous Amendments	Amended Fee	Proposed Increase	Proposed Decrease	New Fee
1	Project Management	\$9,000	\$0	\$ 0.00	0	0	\$9,000.00
2	Data Collection Phase	\$0	\$0	\$ 0.00	0	0	0
2.1	Review Draft Resiliency Study	\$2,500	\$0	\$ 0.00	0	\$0	\$2,500.00
2.2	2 <sup>nd</sup> Street Topographic Survey	\$17,800	\$0	\$ 0.00	0	\$0	\$17,800.00
2.3	4 <sup>th</sup> Street Topographic Survey	\$27,300	\$0	\$ 0.00	0	\$0	\$27,300.00
2.4	2 <sup>nd</sup> Street SUE – Quality Level B	\$1,880	\$0	\$ 0.00	0	\$0	\$1,880.00
2.5	4 <sup>th</sup> Street SUE – Quality Level B	\$2,120	\$0	\$ 0.00	0	\$0	\$2,120.00

Task No.	Task Name	Original Fee	Previous Amendments	Amended Fee	Proposed Increase	Proposed Decrease	New Fee
2.6	SUE - Quality Level A (\$1,150/Per Hole) (Hourly)	\$6,900	\$0	\$ 0.00	0	\$0	\$6,900.00
2.7	Wetland/Stream/Riparian Buffer Delineation	\$2,000	\$0	\$ 0.00	0	\$0	\$2,000.00
2.8	NCDWR Riparian Buffer Determination	\$2,000	\$0	\$ 0.00	0	\$0	\$2,000.00
2.9	USACE Jurisdictional Determination	\$3,000	\$0	\$ 0.00	0	\$0	\$3,000.00
3	Preliminary Engineering Design	\$0	\$0	0	0	\$0	\$ 0.00
3.1	Hydrologic and Hydraulic Modeling	\$16,400	\$0	\$ 0.00	0	\$0	\$16,400
3.2	Conceptual Improvement Design	\$8,700	\$0	\$ 0.00	0	\$0	\$8,700
3.3	Town Council Meeting	\$5,500	\$0	\$ 0.00	0	\$0	\$5,500.00
4	Preliminary Construction Drawings (90% Plans)	\$36,600	\$0	\$ 0.00	0	\$0	\$36,600
5	Permitting Phase	\$0	\$0		0	\$0	0
5.1	Environmental Permitting	\$6,000	\$0	\$ 0.00	0	\$0	\$6,000
5.2	Erosion & Sediment Control Permitting	\$5,600	\$0	\$ 0.00	0	\$0	\$5,600
5.3	Floodplain Permitting	\$8,400	\$0	\$ 0.00	0	\$0	\$8,400
6	Easement Exhibit Map	\$0	\$0		0	\$0	0
6.1	2 <sup>nd</sup> Street Easement Mapping	\$11,600	\$0	\$ 0.00	0	\$0	\$11,600
6.2	4 <sup>th</sup> Street Easement Mapping	\$16,800	\$0	\$ 0.00	0	\$0	\$16,800
7	Final Construction Documents	\$12,800	\$0	\$ 0.00	0	\$0	\$12,800

Task No.	Task Name	Original Fee	Previous Amendments	Amended Fee	Proposed Increase	Proposed Decrease	New Fee
8	Formal Bidding Assistance	\$7,600	\$0	\$ 0.00	0	\$0	\$7,600
9	Construction Phase Services	\$0	\$0	\$ 0.00	0	\$0	0
9.1	Construction Administration (Hourly)	\$15,000	\$0	\$ 0.00	0	\$0	\$15,000
9.2	Construction Observation (Hourly)	\$30,000	\$0	\$ 0.00	0	\$0	\$30,000
10	Project Close-out	\$0	\$0	\$ 0.00	0	\$0	0
10.1	Prepare Record Drawings	\$7,000	\$0	\$ 0.00	0	\$0	\$7,000
11	Easement Acquisition	\$0	\$0	\$ 0.00	\$23,000	\$0	\$23,000
		\$262,500.00	\$ 0.00	\$ 0.00	\$23,000	\$ 0.00	\$285,500.00

(\*\*) Denotes hourly tasks. The fee budgets represented with hourly tasks are good faith estimates of what can be reasonably expected during the performance of this contract.

The Fee & Expense Schedule (Exhibit II) provided with the original Agreement may or may not apply to the scope of work provided herein. Fees for this Amendment are calculated based upon the most current Fee & Expense Schedule, as noted within the original Agreement, subsequent Amendments, or as attached. Invoice and billing terms can be found in the Agreement and are considered part of this Amendment.



## H. Acceptance

This amendment is valid 60 days from the date it is transmitted to Client. Receipt of an executed copy of this amendment will serve as Town of Smithfield's authorization to amend the Agreement to include the scope of services outlined herein.

OFFERED BY:

WithersRavenel



November 20,  
2025

Signature Date

Nathaniel Eddy, PE

Name

Project Engineer

Title

ACCEPTED BY:

Town of Smithfield

Signature Date

Stephen Wensman

Name

Planning Director

Title



November 20,  
2025

Signature Date

Dori Sabeh, PE, GISP

Name

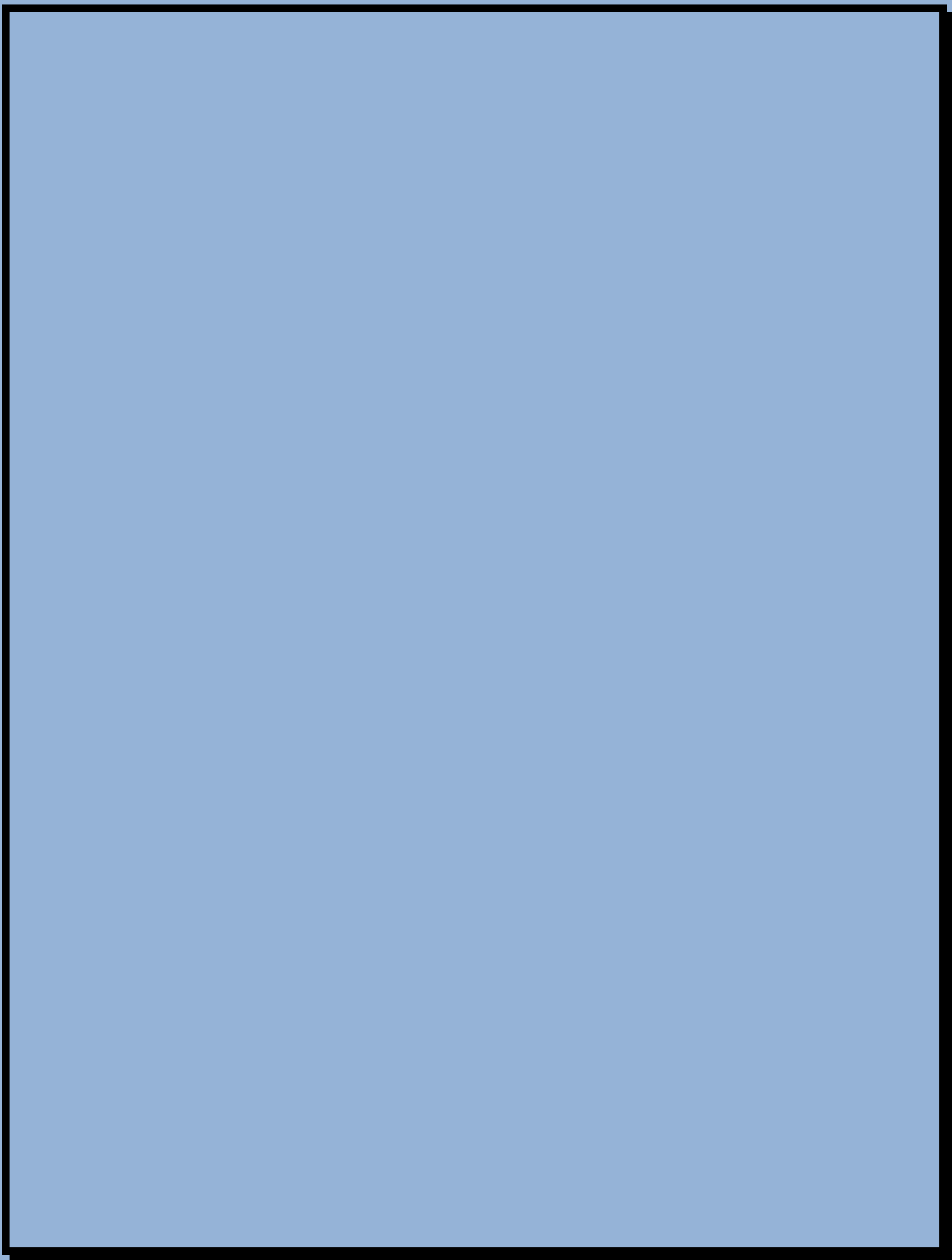
Practice Area Lead

Title



# Business Items







# Request for Town Council Action

<b>Business Agenda Item:</b>	<b>Award of Contract</b>
<b>Date:</b>	<b>12/16/2025</b>

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**Subject:** Award of Contract for Creating a Source Water Resiliency and Response Plan (SWRRP)

**Department:** Public Utilities Department

**Presented by:** Public Utilities Director - Ted Credle

**Presentation:** Business Agenda Item

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## Issue Statement

In late October, the Town received notification from the NCDEQ that the Town was missing a necessary plan, called the Source Water Resiliency and Response Plan (SWRRP). After a diligent search, staff could not find record of a plan being submitted. After communication with the NCDEQ, the Town agreed to hire a consultant to assist putting the SWRRP together. After bids were received the most qualified consultant has been forwarded to Town Council for approval.

## Financial Impact

The funds (\$38,200.00) to pay for these services were not budgeted. This will mean that these funds will have to come from the Water Fund contingency line item.

## Action Needed

Approve the proposed consultant (Dewberry Engineers Inc.), as recommended by staff, and authorize the Town Manager to execute the proposed agreement

## Recommendation

Staff recommends the approval of Dewberry Engineers Inc. as the most qualified consultant and authorize the Town Manager to execute the contract

Approved: ☒ Town Manager ☐ Town Attorney

## Attachments:

1. Staff Report
2. Directive from the NCDEQ
3. Proposed Consultants



# Staff Report

**Business Award of  
Agenda Contract  
Item:**

In late October, the Town received notification from the NCDEQ that the Town was missing a necessary plan, called the Source Water Resiliency and Response Plan (SWRRP). After a diligent search, staff could not find record of a plan being submitted. After communication with the NCDEQ, the Town agreed to hire a consultant to assist putting the SWRRP together. After bids were received the most qualified consultant has been forwarded to Town Council for approval.

The Town desires to hire a consultant to create the initial SWRRP and bring the Town into compliance. As the future updates are required in 5-year increments, it may be possible for the Town staff to update the plan, as necessary, to lessen any future costs associated with the SWRRP.

Staff is asking Council to approve the proposed consultant and to authorize the Town Manager to execute the contract with the proposed consultant, to create the SWRRP, in the amount of \$38,200.00, per the submitted proposal.

\* \*



## Ted Credle

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**From:** swap <swap@deq.nc.gov>  
**Sent:** Friday, October 24, 2025 12:43 PM  
**To:** Ted Credle; Steve Lane  
**Cc:** swap  
**Subject:** Source Water Protection Planning Rule Resources  
**Attachments:** NC0351010\_SMITHFIELD\_TOWN\_OF\_2025.piz; PCS\_NC0351010\_NEUSE\_RIVER\_2025.xls; Instructions to Access PIZ file.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Completed



## NC DEQ Public Water Supply Section

### Notice of Source Water Protection Planning Rule Resources

Dear TOWN OF SMITHFIELD Water System,

Our records indicate that your public water system treats and furnishes water from a surface water source and is therefore required to satisfy the requirements of 15A NCAC 18C .1305 Source Water Protection Planning, which became effective January 1, 2019 and was amended effective April 1, 2020. Rule language and additional information can be found on our website at: [NC Drinking Water Protection Program](#).

15A NCAC 18C .1305 (g) requires any public water system required to create and implement a Source Water Resiliency and Response Plan (SWRRP) review and update its SWRRP at five year-intervals from its creation deadline.

To assist you in complying with the Rule, attached are spreadsheets containing a subset of potential contaminant sources (PCS) for your intake(s). The information provided is an update to the PCS information emailed to each water system in February of 2020 to assist in the initial creation of plans. The updated PCS data sets used to generate these spreadsheets were collected in the spring of 2025. The attached PCSs are those that exist within the areas prescribed by .1305 (b). A zipped geodatabase file containing the prescribed areas and identified PCSs is also attached. To extract the zip file, the extension on the file must first be changed from .piz to .zip. [Amanda TerBeek](#), our Environmental Data Specialist, can assist you if you have questions regarding these files. This information is provided to simplify your compliance efforts and is not intended for wider distribution. Please see additional information below:

The PCS data was provided by other state/federal programs that are responsible for permitting, tracking and evaluating PCS facilities. The Public Water Supply Section does not maintain the original data sets. Although the data is believed to be the “best available,” we do not have a way to independently verify the information provided to us. Any questions regarding errors or omissions should be directed to the originating agency. The following link provides details and contact information related to the data providers: [PCS Contact Information](#).

Areas prescribed in .1305 (b) that do not contain any PCSs per the data sets utilized will not have an associated spreadsheet for that intake. The files for these prescribed areas are still included in the zipped geodatabase file for situational awareness.

There may be additional PCSs that you believe merit consideration for your source water protection planning efforts that are outside the .1305 prescribed areas. We have an online application that provides information regarding other permitted facilities in the proximity of your water system's intakes. The application can be found here: [SWAP Info 2.1](#).

Please contact Brad Whitman at [bradley.whitman@deq.nc.gov](mailto:bradley.whitman@deq.nc.gov) if you have any questions or need further information regarding compliance with 15A NCAC 18C .1305 Source Water Protection Planning.

**Brad Whitman, E.I.**

Drinking Water Protection Program Coordinator  
NC Public Water Supply Section  
NC Division of Water Resources  
NC Department of Environmental Quality

Phone: (919) 707-9076  
[bradley.whitman@deq.nc.gov](mailto:bradley.whitman@deq.nc.gov)

1634 Mail Service Center  
Raleigh, NC 27699-1634

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Email correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties by an authorized state official.



Dewberry Engineers Inc.  
2610 Wycliff Road, Suite 410  
Raleigh, NC 27607

919.881.9939  
919.881.9923 fax  
www.dewberry.com

November 5, 2025

Ted Credle, P.E.  
Town of Smithfield Public Utilities  
230 Hospital Rd  
Smithfield, NC 27577

RE: Town of Smithfield's Source Water Resiliency and Response Plan (SWRRP)

Dear Mr. Credle,

Dewberry Engineers Inc. (Dewberry) is pleased to submit this proposal to provide professional engineering services for the above-referenced project.

To facilitate your review, our proposal is organized as follows:

- Project Understanding
- Scope of Services
- Fee
- Schedule
- Terms and Conditions
- Attachments

## PROJECT UNDERSTANDING

North Carolina regulation 15A NCAC 18C .1305, effective on January 1, 2019, requires that every supplier of water operating a public water system that treats and furnishes water from a surface water source shall create and implement a Source Water Protection Plan, also known as a Source Water Resiliency and Response Plan (SWRRP). Any community water system subject to the requirements of the stated regulation was required to complete and implement a SWRRP by December 31, 2022, and update the plan every five years. The Town of Smithfield needs to develop an SWRRP for its community water system.

Dewberry will develop an SWRRP that meets the seven elements outlined in 15A NCAC 18C .1305(c). Generally, the SWRRP must include evaluations of the water system's identification of emergency events, emergency response strategies, procedures for intakes during contamination, public notification methods, and an assessment of facilities and equipment that may lead to water outages.

Below is the scope of the services that will be provided to develop a SWRRP for the Town of Smithfield.



## SCOPE OF SERVICES

The proposed Scope of Services is described below:

### **Task 1 - Kickoff Meeting and Information Request**

Dewberry will conduct a kickoff meeting with the Town of Smithfield staff. During the kickoff meeting, the team will review the project goals, scope, schedule, communication plans, deliverables, quality control, and critical success factors. Dewberry will provide guidance on specific topics to be covered and recommend staff within the Town of Smithfield who are stakeholders to participate in future meetings. Prior to the kickoff meeting, Dewberry will submit an information request, which will generally cover current drawings/site layouts, system maps, system procedures, policies, security, and other relevant information.

### **Task 2 – Site Evaluation and Stakeholder Meetings**

Dewberry will visit the Town of Smithfield's Public Utilities Department and facilities to view the operation and maintenance of the water distribution system and water treatment plant. In addition to the site visits, Dewberry will host meetings with stakeholders from the Town of Smithfield (such as operations and maintenance staff, staff responsible for IT and communications, etc) to review policies and procedures in place for emergencies. Dewberry anticipates 2-3 separate stakeholder meetings. Discussion during site visits and stakeholder meetings will include, but is not limited to the required elements of an SWRRP:

- Personnel responsible for emergency management
- Evaluation of the system's ability to manage the intake during a contamination event
- Identification of foreseeable emergency events, both natural and human-caused
- Response strategies for each type of emergency event
- Standard operating procedures for closing the intake and managing alternative intakes
- Public notification procedures
- Facilities and equipment that upon failure, would result in a water outage

### **Task 3 – Report**

Dewberry will submit a preliminary SWRRP and host a meeting with the Town of Smithfield to review the report. Dewberry will incorporate revisions and submit a final SWRRP that meets the requirements of 15A NCAC 18C .1305. Dewberry will provide a certification to be signed by the Town of Smithfield upon completion of the SWRRP that can be submitted to Public Water Supply.

## FEE

Dewberry will provide the Scope of Services detailed above for a Lump Sum (LS) fee of \$38,200.

In developing the fee, Dewberry made the following assumptions:

- Field services such as sampling and survey are not included.
- Identification of potential sources of contamination will be based on publicly available information and desktop analysis.

- Existing standard operating procedures for emergency response are adequate and up-to-date, and will be referenced but not revised by Dewberry.

## SCHEDULE

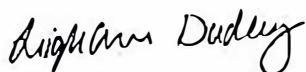
With services provided by Dewberry, the Town of Smithfield's water system will achieve timely completion of its SWRRP. Dewberry anticipates approximately 16 weeks from Notice to Proceed to completion of the SWRRP. An example schedule is provided below based on an assumed Notice to Proceed Date of November 24, 2025.

Task	Duration	Date
Notice to Proceed	--	November 24, 2025
Task 1 – Kickoff Meeting and Information Review	4 weeks	December 19, 2025
Task 2 – Site Visit and Stakeholder Meetings	6 weeks	January 30, 2026
Task 3 – Finalized Report	6 weeks	March 13, 2026

## TERMS AND CONDITIONS

This scope of services will be performed in accordance with our Standard Terms and Conditions in Attachment B. If the Town of Smithfield has a preferred contract for professional services, Dewberry can review the preferred contract terms and conditions.

Sincerely,



Dewberry Engineers Inc.  
Senior Associate, Department Manager

## ATTACHMENTS

Attachment B – Standard Terms and Conditions (10/2020)

ATTACHMENT B  
STANDARD TERMS AND CONDITIONS

These Standard Terms and Conditions ("STCs") are incorporated by reference into the foregoing agreement or proposal, along with any future modifications or amendments thereto made in accordance with Paragraph 23 below (the "Agreement") between Dewberry ("we" or "us" or "our") and its client ("you" or "your") for the performance of services as defined in our proposal ("Services"). These STCs are fully binding upon you, just as if they were fully set forth in the body of the Agreement, and shall supersede any term or provision elsewhere in the Agreement in conflict with these STCs.

1. **Period of Offer.** Unless we decide, in writing, to extend the period for acceptance by you of our proposal, you have 90 days from our proposal date to accept our proposal. We have the right to withdraw the proposal at any time before you accept. Delivery of a signed proposal—whether original or copy—to us constitutes your acceptance of the proposal, including attachments expressly incorporated into the proposal by reference. The proposal and incorporated attachments shall constitute the entire Agreement between you and us. If you request us to render Services before you deliver a signed proposal to us, and we render Services in accordance with the proposal, you agree that the proposal and these STCs constitute the Agreement between you and us even if you fail to return a signed proposal to us.
2. **Scope of Services.** For the fee set forth in the Agreement, you agree that we shall only be obligated to render the Services expressly described in the Agreement. Our Services shall not be construed as providing legal, accounting, or insurance services. Unless the Agreement expressly requires, in no event do we have any obligation or responsibility for:
  - a. The correctness or completeness of any document which was prepared by another entity.
  - b. The correctness or completeness of any drawing prepared by us, unless it was properly signed and sealed by a registered professional on our behalf.
  - c. Favorable or timely comment or action by any governmental entity on the submission of any construction documents, land use or feasibility studies, appeals, petitions for exceptions or waivers, or other requests or documents of any nature whatsoever.
  - d. Taking into account off-site circumstances other than those clearly visible and actually known to us from on-site work.
  - e. The actual location (or characteristics) of any portion of a utility which is not entirely visible from the surface.
  - f. Site safety or construction quality, means, methods, or sequences.
  - g. The correctness of any geotechnical services performed by others, whether or not performed as our subcontractor.
  - h. The accuracy of earth work estimates and quantity take-offs, or the balance of earthwork cut and fill.
  - i. The accuracy of any opinions of construction cost, financial analyses, economic feasibility projections or schedules for the Project.

Should shop drawing review be incorporated into the Services, we shall pass on the shop drawings with reasonable promptness. Our review of shop drawings will be general, for conformance with the design concept of the Project to which this Agreement relates ("Project") and compliance with the information given in the construction documents, and will not include quantities, detailed dimensions, nor adjustments of dimensions to actual field conditions. Our review shall not be construed as permitting any departure from contract requirements nor as relieving your contractor of the sole and final responsibility for any error in details, dimensions or otherwise that may exist.

3. **Your Oral Decisions.** You, or any of your directors, officers, partners, members, managers, employees or agents having apparent authority from you, may orally: (a) make decisions relating to Services or the Agreement; (b) request a change in the scope of Services under the Agreement; or (c) request us to render additional Services under the Agreement, subject to our right to require you to submit the request in writing before your decision or request shall be considered to have been effectively made. You may, at any time, limit the authority of any or all persons to act orally on your behalf under this Paragraph 3, by giving us seven (7) days advance written notice.
4. **Proprietary Rights.** The drawings, specifications and other documents prepared by us under this Agreement are instruments of our service for use solely for the Project and, unless otherwise provided, we shall be deemed the author of these documents and shall retain all common law, statutory, and other reserved rights, including the copyright and rights to any Dewberry trademarks. Upon payment in full for our Services, you shall be permitted to retain copies, including reproducible copies of our instruments of service for information and reference for the Project. Our instruments of service shall not be used by you or others on other projects for any reason or for completion or modification of this Project by other professionals, unless you enter into a written agreement with us allowing for such use. Submission or distribution of documents to meet official regulatory requirements or for similar purposes in connection with the Project is not to be construed as publication inconsistent with our reserved rights. You shall defend, indemnify and hold us harmless, and release us, from any and all liability, loss, damages, claims and demands for loss, damages, property damages or bodily injury, arising out of any use (including, without limitation, the means or media of transfer, possession, use, or alteration) of our instruments of service by (i) you, if such use is inconsistent with our reserved rights or this Paragraph 4, or (ii) any third party, regardless of the manner of use, if such third party received our instruments of service directly or indirectly from you (including if we or others have transmitted such Instruments of service to the third party at your request or direction, for your benefit, or, and without limiting the foregoing, pursuant to a contractual obligation that is directly or indirectly derived (or flowed down) from a contract to which you have privacy).
5. **Fees and Compensation.** If you request us to render services not specifically described in the Agreement, or, if we or anyone in our employ, is called upon to be deposed or to testify in a matter in which we are not a named party, that relates to the Project, you agree to compensate us for such services in accordance with the hourly rates as set forth on Attachment A of this Agreement or in any subsequently effective schedule, unless otherwise agreed in writing. If no compensation rate is set forth on Attachment A, or through written agreement between you and us, we shall be compensated for such services at our then current hourly rates. We may unilaterally increase our lump sum or unit billing rates on each anniversary of your acceptance of this Agreement by as much as five percent or the percentage increase in the CPI-W (U.S. Department of Labor Consumer Price Index-Washington), whichever is greater. Hourly rates are subject to periodic revision at our discretion.
6. **Period of Service.** The provisions of this Agreement and the compensation provided for under the Agreement have been established in anticipation of the orderly and continuous progress of the Project. Our obligation to render the Services will extend only for that period which may reasonably be required to complete the Services in an orderly and continuous manner, and we may then, at our sole option, terminate the Agreement.
7. **Reimbursable Expenses.** Unless the Agreement otherwise provides, you shall reimburse us, or our affiliates, for all expenses we incur to render the Services for you under this Agreement, plus fifteen percent. We may submit invoices for reimbursable expenses separately from invoices for Services.
8. **Payment Terms.** We may submit invoices at any time to you for Services and for reimbursable expenses incurred. Invoices are payable within 30 days of the invoice date, and you agree to pay a finance charge of 1½% per month on any unpaid balance not received by us within 30 days of the invoice date. If you require payment via credit card, Dewberry will assess a 3% processing fee on the total amount invoiced. Invoices may be based either upon our estimate of the proportion of the total Services actually completed at the time of billing for lump sum or fixed fee services, or in the case of hourly services, upon rendering of the Services. If any invoice is not paid within 30 days of the invoice date, we shall have the right either to suspend the performance of our Services until all invoices more than 30 days past due are fully paid or to terminate the agreement and to initiate proceedings to recover amounts owed by you. Additionally, we shall have the right to withhold from you the possession or use of any drawings or documents prepared by us for you under this or any other agreement with you until all delinquent invoices are paid in full. You shall not offset payments of our invoices by any amounts due or claimed to be due for any reason. If you do not give us written notice disputing an Invoice within 20 days of the invoice date, the invoice shall conclusively be deemed correct. All payments made by you should specify the invoice numbers being paid. If we receive payments that do not specify the invoices being paid, you agree that we may apply payments in our sole discretion. Time is of the essence of your payment obligations; and your failure to make full and timely payment shall be deemed a material breach.
9. **Information from You and Public Sources.** You shall furnish us all plans, drawings, surveys, deeds and other documents in your possession, or that come into your possession, which may be related to the Services, and shall inform us in writing about all special criteria or requirements related to the Services (together, "Information"). We may obtain deeds, plats, maps and any other information filed with or published by any governmental or quasi-governmental entity (together, "Public Information"). Unless we are engaged in writing as an additional service to independently verify such, we may rely upon Information and Public Information in rendering Services. We shall not be responsible for errors or omissions or additional costs arising out of our reliance on Information or Public Information. You agree to give prompt notice to us of any development or occurrence that affects the scope or timing of Services, or any defect in the final work submitted by us, or errors or omissions of others as they are discovered. We shall not be responsible for any adverse consequence arising in whole or in part from your failure to provide accurate or timely information, approvals and decisions, as required for the orderly progress of the Services.
10. **Plan Processing.** We may submit plans and related, or other, documents to public agencies for approval. However, it may be necessary, in order to serve your interests and needs, for us to perform special processing, such as attending meetings and conferences with different agencies, hand carrying plans or other documents from agency to agency, and other special services. These special services are not included in the basic fee and shall be performed as additional services on an hourly fee basis in accordance Paragraph 5 above.



11. **Meetings and Conferences.** To the extent the Agreement provides, we will attend meetings and conferences that you, or your representatives, reasonably require. Furthermore, we will meet on an as-needed basis with public agencies that might be involved in the Project. Because we cannot forecast the scope and nature of these meetings and conferences, we will perform meeting and conference services on an hourly fee basis in accordance with our applicable hourly rate schedule.
12. **Your Claims.** You release us from, and waive, all claims of any nature for any and all errors or omissions by us related to our performance under this Agreement, or in the performance of any supplementary services related to this Agreement, unless you have strictly complied with all of the following procedures for asserting a claim, as to which procedures time is of the essence:
  - a. You shall give us written notice within 10 days of the date that you discover, or should, in the exercise of ordinary care, have discovered that you have, or may have, a claim against us. If you fail to give us written notice within such 10 days, then such claim shall forever be barred and extinguished.
  - b. If we accept the claim, we shall have a reasonable time to cure any error or omission and any damage. This shall be your sole remedy, and you must not have caused the error or omission, or any damage resulting from the error or omission, to be cured, if we are ready, willing and able to do so.
  - c. If we reject the claim, we shall give you written notice of our rejection within 30 days of our receipt of your notice of claim. You shall then have 60 days to give us an opinion from a recognized expert in the appropriate discipline, corroborating your claim that we committed an error or omission, and establishing that the error or omission arose from our failure to use the degree of care ordinarily used by professionals in that discipline in the jurisdiction local to the Project. If you fail to give us such an opinion from a recognized expert within 60 days from the date we send you notice of our rejection of the claim, then such claim shall forever be barred and extinguished.
  - d. We shall have 60 days from receipt of your expert's written opinion to reevaluate any claim asserted by you. If we again reject such claim, or if the 60-day period from receipt of the written opinion of your expert elapses without action by us, then you may have recourse to such other remedies as may be provided under this Agreement.
13. **Hazardous or Toxic Wastes or Substances, Pollution or Contamination.** You acknowledge that Services rendered under this Agreement may be affected by hazardous or toxic wastes or substances, or pollution or contamination due to the presence of hazardous or toxic wastes or substances. To induce us to enter into this Agreement, you agree to indemnify, defend and hold us harmless from and against any and all liability, loss, damages, claims and demands for loss, damages, property damages or bodily injury, that relate, in any way, to both (a) hazardous or toxic wastes or substances, or pollution or contamination due to the presence of hazardous or toxic wastes or substances, and (b) the performance by us of our obligations under the Agreement, whether or not such performance by us is claimed to have been, or was, or may have been, negligent. Unless otherwise expressly set forth in this Agreement, we shall have no responsibility for searching for, or identifying, any hazardous or toxic wastes or substances, or pollution or contamination due to the presence of hazardous or toxic wastes or substances; but if we discover or suspect the presence of any such wastes, substances, pollution or contamination due to the presence of hazardous or toxic wastes or substances, then we, in our sole discretion, and at any time, may stop work under, or terminate, this Agreement, in which event we will have no further liability to you for performance under this Agreement, and you shall make the payments to us required by Paragraph 14 of the STCs.
14. **Termination.** Either party may terminate the Agreement if the other party materially breaches the Agreement and does not cure the breach within 7 days after receiving notice of the breach from the non-breaching party. You shall immediately pay us for our Services rendered and expenses incurred through the termination date, including fees and expenses that we incur as a result of the termination.
15. **Payment of Other Professionals.** If this Agreement includes continuation of services begun by other architects, engineers, planners, surveyors, or other professionals, we may suspend our Services until you make arrangements satisfactory to such other professionals for payment. If satisfactory arrangements have not been made within a time determined by us to be reasonable, then we may in our sole discretion terminate this Agreement.
16. **Assignment and Third-Party Beneficiaries.** Neither party shall assign or transfer any rights, interests or claims arising under this Agreement without the written consent of the other, provided, however, that we are permitted to (i) employ independent consultants, associates, and subcontractors as we may deem necessary to render the Services, (ii) assign our right to receive compensation under this Agreement, and (iii) transfer the Agreement to an affiliate of ours, in our sole discretion, with written notice to you (an affiliate for purposes of this Paragraph 16 is defined as any other business entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, us). This Agreement does not confer any benefit or right upon any person or entity other than the parties, except that our partners, members, managers, directors, officers, employees, agents and subcontractors shall have and be entitled to the protection afforded us under Paragraphs 9, 12, 13, 16, 20 and 22 of this Agreement.
17. **Applicable Law and Forum Selection.** The Commonwealth of Virginia's laws shall govern this Agreement in all respects, including matters of construction, validity, and performance. Except as provided in Paragraph 18, the parties agree that the courts of Fairfax County, Virginia, and the Federal District Court, Eastern District of Virginia, Alexandria Division, (together, "Courts") shall have exclusive jurisdiction over any controversy, including matters of construction, validity, and performance, arising out of this Agreement. The parties consent to the jurisdiction of the Courts and waive any objection either party might otherwise be entitled to assert regarding jurisdiction. The parties irrevocably waive all right to trial by jury in any action, proceeding, or counterclaim arising out of or related to this Agreement.
18. **Arbitration of Our Claims for Compensation.** Instead of proceeding in court, we, in our sole and absolute discretion, may submit any claim for compensation due us under this Agreement to arbitration in Fairfax County, Virginia in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, and judgment upon the arbitration award may be entered in any court having jurisdiction. You agree not to assert any counterclaim or any defense by way of set-off in such arbitration, and that the arbitrator or panel shall have no authority to consider, or to render, an award based upon any such counterclaim or defense by way of set-off. We shall have the right to withdraw our demand for arbitration at any time before the arbitration hearing starts by giving written notice to the arbitrator or panel and you; and upon the giving of such notice by us, the arbitration shall terminate, no award shall be rendered, and we may then pursue our remedies in accordance with Paragraph 17 above.
19. **Severability.** If any part, term, or provision of this Agreement is held to be illegal or unenforceable, the validity and enforceability of the remaining parts, terms, and provisions of this Agreement shall not be affected, and each party's rights shall be construed and enforced as if the Agreement did not contain the illegal or unenforceable part, term, or provision.
20. **Limitations on Liability.** In recognition of the relative risks and benefits of the Project to you and us, you agree, that our liability for any loss, damages, property damages or bodily injury of or to you caused in whole or in part by us in the performance of this Agreement or any supplementary services in any way related to this Agreement, shall be limited in the aggregate to the amount of fees that you have paid to us for the Services. The parties intend that the foregoing limitation on liability shall apply to all claims, whether sounding in tort, contract, warranty, or otherwise. You release, waive, and shall not seek contribution from, or indemnification by, us for any claims of any nature made against you by any other person who may suffer any loss, damages, property damages or bodily injury in any manner associated with our services, or any supplementary services in any way related to this Agreement. Notwithstanding anything to the contrary elsewhere in the Agreement, we shall not be liable to you, in any event or for any amount, for delays; or for consequential, special or incidental damages; or for punitive or exemplary damages; or for the cost to add an item or component that we omitted from the instruments of service due to our negligence, to the extent that item or component would have otherwise been necessary, or adds value or betterment, to the Project. Should you find the terms of this Paragraph 20 unacceptable, we are prepared to negotiate a modification in consideration of an equitable surcharge to pay our additional insurance premiums and risk.
21. **Payment of Attorney's Fees.** The losing party shall pay the winning party's reasonable attorney's fees and expenses for the prosecution or defense of any cause of action, claim or demand arising under this Agreement in any court or in arbitration.
22. **Indemnification.** You agree to indemnify, defend and hold us harmless from and against any and all liability, loss, damages, claims and demands for loss, damages, property damages or bodily injury, arising out of acts or omissions by you, or your contractor, subcontractor or other independent company or consultant employed by you to work on the Project, or their respective partners, members, managers, directors, officers, employees, agents or assigns; or arising out of any other operation, no matter by whom committed or omitted, for and on behalf of you, or such contractor, subcontractor or other independent company or consultant, whether or not due in part to errors or omissions by us in the performance of this Agreement, or in the performance of any supplementary service in any way related to this Agreement, provided that you are not required to indemnify and hold us harmless under this Paragraph 22 in the event of our sole negligence.
23. **Integration Clause.** The Agreement represents the entire agreement of the parties. No prior representations, statements, or inducements made by either us, you, or the respective agents of either, that is not contained in the Agreement shall enlarge, modify, alter, or otherwise vary the written terms of the Agreement unless they are made in writing and made a part of the Agreement by attachment, incorporated by reference in the Agreement or signed or initialed on behalf of both parties.
24. **Notice.** Any notices issued to us shall be sent to our project manager with a copy sent via email to [Notices@dewberry.com](mailto:Notices@dewberry.com) or mailed to 8401 Arlington Blvd, Fairfax VA 22031, Attn: Legal Department.



November 7, 2025

Mr. Ted Credle, P.E.  
Director of Public Utilities  
Town of Smithfield  
230 Hospital Road  
Smithfield, NC 27577

RE: Proposal for Preparation of Source Water Protection Plan

Dear Mr. Credle,

McGill Associates, PA (McGill) is pleased to submit this proposal to prepare the Source Water Protection Plan to the Town of Smithfield (the Town). It is our understanding that the Town has not prepared this plan as is required by 15A NCAC 18C.1305. As such the plan will be developed as a brand new plan using information that is existing in data bases and other sources that the Town has access to as well as developed via a series of meetings.

### **SCOPE OF SERVICES**

Based on this understanding of the project, we anticipate providing the following Scope of Services:

#### **Task 1 Review of Existing Data**

McGill will meet with the Town to review existing data that can help in the development of a potential contaminant source (PCS) inventory for use in the source water protection plan development. We assume for the purposes of this proposal that the information contained in the Town's source water assessment program report on file with NCDEQ is suitable for use and we will work with the Town to identify those PCS locations that are within the prescribed limits for Class IV water supplies as per regulation 15A NCAC 18C.1305.

Following this meeting we will identify data gaps if any that need to be addressed in order to develop the Source Water Protection Plan. Addressing required data gaps is beyond the scope of this proposal as this information is currently unknown; however we will work with the Town to develop additional scope of services if necessary to address data gaps.

#### **Task 2 Preparation of Draft Source Water Protection Plan**

After reviewing and obtaining available data, McGill will prepare a draft of the source water protection plan for the Town's water source in accordance with the requirements in 15A NCAC 18C.1305. The plan will include the following elements:

- Identification and Contact information of personnel responsible for emergency management; it is assumed that the Town will provide this information to McGill
- Potential Contaminant Source Inventory Matrix and Maps (if appropriate)
- A summary of the Town's ability to do the following:
- Close its water intake(s) in the event of contamination, including a determination of the

duration of time the water intake(s) can remain closed while maintaining positive water pressure within the distribution system;

- Isolate or divert contaminated water from its surface water intake(s);
- Reduce demand by implementing conservation measures during a contamination event. Existing Water Shortage Response Plans currently on file with the Town may be referenced to fulfill this requirement
- Meet demand via alternate sources of supply in the event of contamination or loss of its primary water source.
- Identification of foreseeable natural and human-caused emergency events, including water shortages and outages;
- A description of the emergency response strategies for each identified shortage or outage event and each potential contamination event associated with PCSs identified that are within the critical area and within 1,000 feet from perennial streambanks within the protected area (since the Smithfield Water Supply is classified as WS-IV);
- Standard operating procedures to close intakes and switch to an alternate intake during a contamination event, including procedures that outline exercises designed to practice closure and switching of the intake(s);
- A description of public notification procedures; and identification and evaluation of facilities and equipment that upon failure would result in a water outage or regulatory violations.

McGill will submit a copy of the draft report to the Town for review and will attend one meeting with the Town to review the draft report.

After review, McGill will finalize the report and submit it to the Town so that the Town can submit the report to the NCDEQ.

## **BASIS OF COMPENSATION AND SCHEDULE**

McGill will perform the Scope of Services for a lump sum fee of \$48,750. Terms and conditions for performance and payment will be as set forth in the attached services agreement.

We anticipate that the draft report will be submitted to the Town within 8 weeks from the completion of the existing data review, assuming that identified data gaps (if any) can be rectified within this time frame.

## **ADDITIONAL SERVICES**

If any of the following services are required, they can be charged as Additional Services in accordance with the attached Basic Fee Schedule or for a lump sum fee as may be separately agreed upon.

- a. Additional meetings (either In-person or virtual) as requested by and with the Town
- b. Field investigations to rectify data gaps
- c. Providing services of professional consultants for items of work other than those outlined under Scope of Services.



- d. Any other services not specifically identified in the scope of services in this letter proposal.

We appreciate the opportunity to provide this proposal to you for this important project. If the above is acceptable to you, please execute the attached service agreement and return one signed copy to me for final execution. If you have any questions concerning this proposal or any element of our work, please do not hesitate to contact me on my cell phone at 984-364-7446.

Sincerely,  
**McGILL ASSOCIATES, P.A.**

A handwritten signature in black ink, appearing to read "Robert M. Miller".

**Robert M. Miller, PE**  
Principal/Raleigh Office Manager

Attachments: Basic Fee Schedule

## BASIC FEE SCHEDULE

July 2025

<b>PROFESSIONAL FEES</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>
Senior Principal	\$320			
Principal – Regional Manager – Director	\$265	\$275	\$295	\$305
Practice Area Lead	\$235	\$260	\$285	\$295
Senior Project Manager	\$235	\$255	\$280	\$290
Senior Engineer	\$235	\$255	\$280	\$290
Project Manager	\$205	\$220	\$235	\$245
Senior Project Engineer	\$205	\$220	\$235	\$245
Project Engineer	\$165	\$180	\$190	\$200
Engineering Associate	\$145	\$155	\$160	\$165
Planner- Consultant – Designer	\$145	\$160	\$180	\$200
Engineering Technician	\$130	\$145	\$155	\$165
CAD Operator – GIS Analyst	\$110	\$120	\$135	\$145
Construction Services Manager	\$190	\$200	\$210	\$225
Construction Administrator	\$145	\$160	\$170	\$185
Construction Field Representative	\$120	\$130	\$145	\$155
Project Administrator	\$110	\$130	\$135	\$155
Funding-Financial Service-Manager	\$215	\$230	\$240	\$250
Grant Administrator	\$135	\$150	\$160	\$170
Environmental Specialist	\$115	\$125	\$130	\$135
Administrative Assistant	\$90	\$100	\$110	\$125
Survey Party Chief	\$110	\$125	\$140	\$160
Survey Field Technician	\$95	\$100	\$105	\$110

### EXPENSES

- a. Mileage - \$0.75/mile
- b. Flow Monitoring Equipment: Pressure Flow Meter- \$400/wk.; Gravity Flow Meter - \$1,000/deployment
- c. Robotics/GPS Equipment: \$35/hr.
- d. Aquatic Surveying Equipment – Vessel \$250/day
- e. Telephone, reproduction, postage, lodging, and other incidentals shall be a direct charge per receipt.

### ASSOCIATED SERVICES

- a. Associated services required by the project such as soil analysis, materials testing, etc., shall be at cost plus ten (10) percent.

Revised July 2025



## CONSULTING SERVICES AGREEMENT

This contract entered into this 7<sup>th</sup> day of 1 November 2025 by and between Town of Smithfield North Carolina, hereinafter called the Client, and McGill Associates, PA;

Witnesseth that:

Whereas, the Client desires to engage McGill Associates to provide consulting services; and,  
Whereas, the Client finds that the attached Scope of Services and terms of this agreement are acceptable; and,  
Whereas, McGill Associates desires to provide said services and agrees to do so for the compensation and upon the terms and conditions as hereinafter set forth. Now, therefore, the parties hereto do mutually agree as follows:

**1. Scope of Services:** McGill Associates shall provide the services attached hereto in the Contract Proposal "Scope of Services" of this Agreement, hereinafter called services. Fees for additional services will be negotiated with the Client prior to proceeding with the work.

**2. Standard of Care:** McGill Associates will perform its services using that degree of skill and diligence normally employed by professional engineers or consultants performing the same services at the time these services are rendered.

**3. Authorization to Proceed:** Execution of this Consulting Services Agreement will be considered authorization for McGill Associates to proceed unless otherwise provided for in this Agreement.

**4. Changes in Scope:** The Client may request changes in the Scope of Services provided in this Agreement. If such changes affect McGill Associates cost of or time required for performance of the services, an equitable adjustment will be made through an amendment to this Agreement.

**5. Compensation:** The Client shall pay the compensation to McGill Associates set forth in the Contract Proposal "Basis of Compensation" attached hereto. Unless otherwise provided in the Basis for Compensation, McGill Associates shall submit invoices to the Client monthly for work accomplished under this agreement and the Client agrees to make payment to McGill Associates within thirty (30) days of receipt of the invoices. It is also mutually agreed that should the Client fail to make prompt payments as described herein, McGill Associates reserves the right to immediately stop all work under this agreement until disputed amounts are resolved.

**6. Personnel:** McGill Associates represents that it has, or will secure at their own expense, all personnel required to perform the services under this agreement and that such personnel will be fully qualified and adequately supervised to perform such services. It is mutually understood that should the scope of services require outside subcontracted expertise McGill Associates may employ such services at their discretion.

**7. Opinions or Estimates of Cost:** Any costs estimates provided by McGill Associates shall be considered opinions of probable costs. These along with project economic evaluations provided by McGill Associates will be on a basis of experience and judgment, but, since McGill Associates has no control over market conditions or bidding procedures, McGill Associates cannot warrant that bids, ultimate construction cost, or project economics will not vary from these opinions.

**8. Termination:** This Agreement may be terminated for convenience by either the Client or McGill Associates with fifteen (15) days written notice or if either party fails substantially to perform through no fault of the other and does not commence correction of such non-performance within five (5) days of written notice and diligently complete the correction thereafter. On termination, McGill Associates will be paid for all authorized work performed up to the termination date plus reasonable project closeout costs.

**9. Limitation of Liability:** McGill Associates liability for Client's damages will, in aggregate, not exceed the total fees paid by the Client for the Scope of Services referenced herein or \$50,000 whichever is greater. This provision takes precedence over any conflicting provision of this Agreement

or any documents incorporated into it or referenced by it. This limitation of liability will apply whether McGill Associates liability arises under breach of contract or warranty; tort, including negligence; strict liability; statutory liability; or any other cause of action, and shall include McGill Associates' directors, officers, employees and subcontractors. At additional cost, Client may obtain a higher limit prior to commencement of services.

**10. Assignability:** This agreement shall not be assigned or otherwise transferred by either McGill Associates or the Client without the prior written consent of the other.

**11. Severability:** The provisions of this Consulting Services Agreement shall be deemed severable, and the invalidity or enforceability of any provision shall not affect the validity or enforceability of the other provisions hereof. If any provision of this consulting services agreement is deemed unenforceable for any reason whatsoever, such provision shall be appropriately limited, and given effect to the extent that it may be enforceable.

**12. Ownership of Documents:** All documents, calculations, drawings, maps and other items generated during the performance of services shall be considered intellectual property and remain the property of McGill Associates. Client agrees that the deliverables are intended for the exclusive use and benefit of and may be relied upon for this project only by the Client and will not be used otherwise. Client agrees that any prospective lender, buyer, seller or third party who wishes to rely on any deliverable must first sign McGill Associates' Secondary Client Agreement.

**13. Excusable Delay:** If performance of service is affected by causes beyond McGill Associates control, project schedule and compensation shall be equitably adjusted.

**14. Indemnification:** Client agrees to indemnify, defend and hold McGill Associates, its agents, employees, officers, directors and subcontractors harmless from any and all claims, and costs brought against McGill Associates which arise in whole or in part out of the failure by the Client to promptly and completely perform its obligations under this agreement, and as assigned in the Contract Proposal "Scope of Services" or from the inaccuracy or incompleteness of information supplied by the Client and reasonably relied upon by McGill Associates in performing its duties or for unauthorized use of the deliverables generated by McGill Associates. Furthermore, McGill agrees to indemnify, defend and hold the Client harmless from any claims brought against the Client as a result of McGill's work.

**15. Choice of Law:** This Agreement shall be governed by the internal laws of the State of North Carolina.

**16. Entire Agreement:** This Agreement contains all of the agreements, representations and understandings of the parties hereto and supersedes any previous understandings, commitments, proposals, or agreements, whether oral or written, and may only be modified or amended as herein provided; and as mutually agreed.

**17. Attachments to this document:**

1. Contract Proposal including Scope of Services and Basis of Compensation.

Client:

McGill Associates, P.A.

Authorized Signature:

Authorized Signature:

Print Name:

Robert M. Miller, P.E.

Title:

Principal/Raleigh Office Manager

Address:

Address: 5400 Trinity Road Suite 107, Raleigh NC 27607



## Ted Credle

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**From:** Mason, William <masonwr@cdmsmith.com>  
**Sent:** Monday, November 3, 2025 9:20 AM  
**To:** Ted Credle  
**Subject:** RE: Source Water Protection Plan - Smithfield, NC

Ted,

I've checked with folks in the company that may be a good fit for this work and unfortunately, they're committed to other projects right now and we wouldn't be able to provide this the attention it deserves.

Thank you for thinking of CDM Smith on this and giving us the opportunity to review. If there are other opportunities that come up, please let us know.

---

**Bill Mason, PE, BCEE**  
CDM Smith  
4130 Parklake Ave., Ste. 350  
Raleigh, NC 27612  
919.325.3505  
[cdmsmith.com](http://cdmsmith.com)



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**From:** Ted Credle <ted.credle@smithfield-nc.com>  
**Sent:** Wednesday, October 29, 2025 3:28 PM  
**To:** Mason, William <masonwr@cdmsmith.com>  
**Subject:** Source Water Protection Plan - Smithfield, NC

EXTERNAL EMAIL You don't often get email from [ted.credle@smithfield-nc.com](mailto:ted.credle@smithfield-nc.com). [Learn why this is important](#)

Good People,

Good morning.

The following is what I received via e-mail, yesterday. After review, it was decided we need some help. I am reaching out to you, to see if you would be interested in assisting us, create & file the necessary plan with the NCDEQ.

Dear TOWN OF SMITHFIELD Water System,

Our records indicate that your public water system treats and furnishes water from a surface water source and is therefore required to satisfy the requirements of 15A NCAC 18C .1305 Source Water Protection Planning, which became effective January 1, 2019 and was amended effective April 1, 2020. Rule language and additional information can be found on our website at: [NC Drinking Water Protection Program](#).

## Ted Credle

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**From:** Chris Petree <Chris.Petree@timmons.com>  
**Sent:** Monday, November 10, 2025 2:04 PM  
**To:** Ted Credle  
**Cc:** Bruce Strickland  
**Subject:** RE: Source Water Protection Plan - Smithfield, NC

Ted,

My sincerest apologies for the not following up. Between the conference and the resulting backlog of urgent tasks, my week got away from me. I honestly meant to shoot you an email to let you know that we were going to pass on this one. Again, my apologies for letting that slip!

Did you get responses from the other folks? Do you have what you need? If you do not have what you need, let me know and we can reevaluate.

Thank you,  
Chris

**Christopher Petree, PE, DBIA**  
*Manager - Water Infrastructure, Carolinas*

**TIMMONS GROUP** | [www.timmons.com](http://www.timmons.com)  
5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
Office: 919.532.3234 | Fax: 919.859.5563  
[chris.petree@timmons.com](mailto:chris.petree@timmons.com)  
*Your Vision Achieved Through Ours*

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**From:** Ted Credle <ted.credle@smithfield-nc.com>  
**Sent:** Monday, November 10, 2025 9:18 AM  
**To:** Chris Petree <Chris.Petree@timmons.com>  
**Cc:** Bruce Strickland <Bruce.Strickland@timmons.com>  
**Subject:** RE: Source Water Protection Plan - Smithfield, NC

I did not receive anything from Timmons.  
Are you not interested?  
Please let me know.  
Thanks

Ted Credle, P.E.  
Director of Public Utilities  
Town of Smithfield  
230 Hospital Road  
Smithfield, NC 27577  
919-934-2116 x-1162

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**From:** Chris Petree <[Chris.Petree@timmons.com](mailto:Chris.Petree@timmons.com)>  
**Sent:** Monday, November 3, 2025 6:19 PM  
**To:** Ted Credle <[ted.credle@smithfield-nc.com](mailto:ted.credle@smithfield-nc.com)>

## Ted Credle

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**From:** Hopkins, Cory <chopkins@hazenandsawyer.com>  
**Sent:** Tuesday, November 4, 2025 8:56 AM  
**To:** Ted Credle  
**Subject:** Re: Source Water Protection Plan - Smithfield, NC

Good morning Ted,

Thank you for reaching out and considering Hazen for this effort. Unfortunately, after checking on our internal resources and availability, I'm afraid that we just don't have the bandwidth to support this effort currently. Please do keep us in mind for future needs that require consultant support. It's been a pleasure working with you and Steve on the intake evaluation and please don't hesitate to reach out with any final questions concerning this effort.

-Cory

D. Cory Hopkins, PE

**Senior Associate | Hazen and Sawyer**  
4011 WestChase Boulevard Suite 500, Raleigh NC 27607  
919.833.7152 (main) | ext. 88640 | 919.755.8640 (direct) | 919.906.9640 (cell)  
[chopkins@hazenandsawyer.com](mailto:chopkins@hazenandsawyer.com) | [hazenandsawyer.com]hazenandsawyer.com

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**From:** Ted Credle <ted.credle@smithfield-nc.com>  
**Sent:** Wednesday, October 29, 2025 2:37 PM  
**To:** Hopkins, Cory <chopkins@hazenandsawyer.com>  
**Subject:** RE: Source Water Protection Plan - Smithfield, NC

We cannot find an existing plan... so, create a plan.  
Thanks

Ted Credle, P.E.  
Director of Public Utilities  
Town of Smithfield  
230 Hospital Road  
Smithfield, NC 27577  
919-934-2116 x-1162

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**From:** Hopkins, Cory <chopkins@hazenandsawyer.com>  
**Sent:** Wednesday, October 29, 2025 2:32 PM  
**To:** Ted Credle <ted.credle@smithfield-nc.com>  
**Subject:** Re: Source Water Protection Plan - Smithfield, NC

Ted,

Thanks for thinking of us. Can you clarify...do you need to develop a new plan or just update an existing plan?

-Cory

D. Cory Hopkins, PE