CITY OF NEW BERN
BOARD OF ALDERMEN MEETING
FEBRUARY 23, 2021 – 6:00 P.M.
CITY HALL COURTROOM
300 POLLOCK STREET

Notice Regarding Public Hearings: Public hearings will be conducted, but action will be delayed by the Board until its next meeting pursuant if at least one member of the Board participates electronically. In that case, the public comment period will remain open for 24 hours following the hearings. During that time, comments may be submitted to the City Clerk by emailing blancob@newbernnc.gov or hand delivery to her office at 300 Pollock Street, New Bern. This is in compliance with the remote meetings law activated by a declared state of emergency.

1. Meeting opened by Mayor Dana E. Outlaw. Prayer Coordinated by Alderman Aster. Pledge of Allegiance.

2. Roll Call.

Consent Agenda

3. Consider Adopting a Resolution Calling for a Public Hearing on Financing a Radio System Upgrade and the Pleasant Hill Community Center.

4. Approve Minutes.

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5. Presentation on Juneteenth.

6. Conduct a Public Hearing and Consider Adopting a Resolution Approving a Residential Property Periodic Inspection Program per Section 2.1.2 of the Redevelopment Plan.

7. Consider Adopting a Resolution Approving an Amendment to the 2020 Annual Action Plan for the Community Development Block Grant Program.

8. Consider Adopting a Resolution to Authorize the City Manager to Execute Contract Documents for the Hurricane Florence Category A Drainage Ditch Project Within the Jimmie's Creek Drainage Basin.

9. Consider Adopting a Resolution to Authorize the City Manager to Execute Contract Documents for the Hurricane Florence Category A Drainage Ditch Project Within the Trent River Basin.

10. Consider Adopting a Resolution to Authorize the City Manager to Execute Contract Documents for the Hurricane Florence Category D Trent Village Retaining Wall Project.

11. Consider Adopting a Resolution Approving Additional Street Lights on Waters Street.

12. Discussion of Elections.

13. Appointment(s).

14. Attorney's Report.

15. City Manager's Report.

16. New Business.

17. Closed Session.

18. Adjourn.

INDIVIDUALS WITH DISABILITIES REQUIRING SPECIAL ASSISTANCE SHOULD CALL 639-7501 NO LATER THAN 3 P.M. THE DATE OF THE MEETING

NEW BERN
CITY OF NEW BERN

300 Pollock Street, P.O. Box 1129
New Bern, NC 28563-1129
(252) 636-4000

Memo to: **Mayor and Board of Aldermen**

From: **Mark A. Stephens, City Manager** 2/19/21

Date: **February 19, 2021**

Re: **February 23, 2021 Agenda Explanations**

Notice Regarding Public Hearings: Public hearings will be conducted, but action will be delayed by the Board until its next meeting pursuant if at least one member of the Board participates electronically. In that case, the public comment period will remain open for 24 hours following the hearings. During that time, comments may be submitted to the City Clerk by emailing blancob@newbernnc.gov or hand delivery to her office at 300 Pollock Street, New Bern. This is in compliance with the remote meetings law activated by a declared state of emergency.

1. **Meeting opened by Mayor Dana E. Outlaw. Prayer Coordinated by Alderman Aster. Pledge of Allegiance.**

2. **Roll Call.**

Consent Agenda

3. **Consider Adopting a Resolution Calling for a Public Hearing on Financing a Radio System Upgrade and the Pleasant Hill Community Center.**

   On September 9, 2020, the Board approved using debt proceeds to finance a radio system upgrade at a cost of $1,503,895 and the Pleasant Hill Community Center at $300,000. The total amount to be financed is $1,803,895. Pursuant to NCGS 160A-20, a public hearing must be held on the financing. It is requested that hearing be called for February 23, 2021. A memo from Mary Hogan, Director of Finance, is attached.

4. **Approve Minutes.**

   Draft minutes from the February 09, 2021 meeting are provided for review and approval.

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5. **Presentation on Juneteenth.**

On behalf of the #ProjectRestore movement, Talina Massey will share a PowerPoint presentation on the upcoming Juneteenth celebration. For the last four years, Juneteenth activities have been organized by #ProjectRestore and carried out by local community members.

6. **Conduct a Public Hearing and Consider Adopting a Resolution Approving a Residential Property Periodic Inspection Program per Section 2.1.2 of the Redevelopment Plan.**

(Wards 1, 2 and 5) One of the requirements established in the Redevelopment Plan is the creation of a Residential Property Periodic Inspection Program ("RIPE") Lengthy discussions by the Redevelopment Commission yielded a unanimous decision to create a RIPE. The program is designed to proactively identify and remediate housing that does not meet the City's minimum housing code or related ordinances. Enforcement will be conducted by the City's Minimum Housing Officer. If a property fails an inspection, the officer will meet with the property owner to discuss the deficiencies and establish a reasonable timeframe in which to bring the property up to minimum standards. A memo from Jeff Ruggieri, Director of Development Services, is attached.

7. **Consider Adopting a Resolution Approving an Amendment to the 2020 Annual Action Plan for the Community Development Block Grant Program.**

The US Department of Housing and Urban Development ("HUD") requires Community Development Block Grant ("CDBG") Entitlement Cities submit an Annual Action Plan summarizing the actions, activities and resources that will be used to address needs and goals identified in the Strategic Plan section of the 2020 Consolidated Plan. A public hearing was held on February 09, 2021 to receive comments on a proposed amendment to the Annual Action Plan. The amendment includes HUD's third round of CDBG coronavirus ("CDBG-CV") funds and describes how the funding will be utilized. The latest funds amount to $194,483, bringing New Bern's total amount of CDBG-CV funding to $346,735. A memo from Amanda Ohlensehlen, Community and Economic Development Manager, is attached.

8. **Consider Adopting a Resolution to Authorize the City Manager to Execute Contract Documents for the Hurricane Florence Category A Drainage Ditch Project Within the Jimmie's Creek Drainage Basin.**

(Ward 6) The City has been working with FEMA over the past two years on a project to remove sediment and debris from 66 miles of drainage ditches throughout the City. The work to address the Jimmie's Creek drainage basin Category A project was put out to bid, and Grillot Construction Company, LLC submitted the lowest bid at $449,650. It is requested the City Manager be authorized to execute a contract with Grillot Construction for this portion of the project, along with any change orders within the budgeted amount. A memo from Matt Montanye, Director of Public Works, is attached.

9. **Consider Adopting a Resolution to Authorize the City Manager to Execute Contract Documents for the Hurricane Florence Category A Drainage Ditch Project Within the Trent River Basin.**

(Ward 2) Similar to the previous item, the work to address the Trent River Basin Category A project was put out to bid, and Grillot Construction Company, LLC submitted the lowest bid at $469,830. It is requested the City Manager be authorized to execute a contract with Grillot Construction for this portion of the project, along with any change orders within the budgeted amount. A memo from Mr. Montanye is attached.

10. **Consider Adopting a Resolution to Authorize the City Manager to Execute Contract Documents for the Hurricane Florence Category D Trent Village Retaining Wall Project.**

(Ward 2) In correlation with the previous item, bids were sought to make repairs to permanent structures damaged during Hurricane Florence. With a bid of $609,900, Trader Construction Company, Inc. submitted the lowest bid to replace the damaged retaining wall located along the Trent Village neighborhood near Richmond Court. It is requested the City Manager be authorized to execute a contract with Grillot Construction for this portion of the project, along with any change orders within the budgeted amount. A memo from Mr. Montanye is attached.

11. **Consider Adopting a Resolution Approving Additional Street Lights on Waters Street.**

(Ward 2) Sharon Bryant of 2011 Waters Street has requested an additional streetlight on Waters Street. Staff evaluated the request and determined the area does not meet the City's light standard and recommended the addition of two streetlights on existing poles. The installation of the lights will cost $1,166.67, and the monthly utility charge for service will be $16.88. A memo from Charles Bauschard, Director of Public Utilities, is attached along with other supporting documentation.

12. **Discussion of Elections.**

On several previous occasions, the Board has discussed the election process. Meloni Wray, Director of the Craven County Board of Elections, recently provided a letter with cost estimates and information on municipal redistricting. This information will be discussed.

13. **Appointment(s).**

On June 11, 2019, Mayor Outlaw appointed Martha "Molly" Ingram to the Appearance Commission. Ms. Ingram recently resigned from her seat, as she will be relocated to another state in November. Mayor Outlaw is asked to make a new appointment to serve the remainder of Ms Ingram's term.

14. **Attorney's Report.**

15. **City Manager's Report.**

16. **New Business.**

17. **Closed Session.**

18. **Adjourn.**

AGENDA ITEM COVER SHEET

NEW BERN
CITY OF NEW BERN

Agenda Item Title:

Consider adopting resolution calling for a Public Hearing for comments on the financing for Radio System Upgrade and the Pleasant Hill Community Center Building.

Date of Meeting: 02/23/2021	**Ward # if applicable:** N/A
Department: Finance	**Person Submitting Item:** Mary M. Hogan
Call for Public Hearing: ☒Yes☐No	**Date of Public Hearing:** 3/9/2021

Explanation of Item:	A public hearing is required pursuant to GS160A-20 for citizen comment regarding the proposed financing for the radio system upgrade and the Pleasant Hill Community Center building.
Actions Needed by Board:	Adopt a resolution calling for a public hearing March 9, 2021.
Backup Attached:	Memo and Resolution

Is item time sensitive? ☒**Yes** ☐**No**
Will there be advocates/opponents at the meeting? ☐**Yes** ☒ **No**

Cost of Agenda Item: $0.00
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? ☐**Yes** ☐ **No**

Additional Notes:

NEW BERN
CITY OF NEW BERN

300 Pollock Street, P.O. Box 1129
New Bern, NC 28563-1129
(252) 636-4000

TO: City Manager, Honorable Mayor and Members of the Board of Aldermen

FROM: Mary Hogan, Director of Finance

DATE: February 11, 2021

RE: Call for Public Hearing on Radio Project Upgrade and Pleasant Hill Community Center Financing

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Background Information

On September 9, 2020, the Board approved financing for the Radio system $1,503,895 and the Pleasant Hill Community Center $300,000 for a total of $1,803,895 to be paid through debt proceeds.

As a result, a public hearing is required pursuant to G.S 160A-20. Attached is a resolution calling for a public hearing to be held on March 9, 2021 for comments on said financing.

Requested Action

It is recommended that the Board adopt the enclosed resolution at its meeting to be held on February 23, 2021.

RESOLUTION BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN

WHEREAS, the City of New Bern is required to hold a public hearing to receive public comments on financing contracts authorized under G.S. 160A-20 involving real property and contracts extending five or more years which requires approval by the Local Government Commission.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

That a public hearing will be conducted by the Board of Aldermen of the City of New Bern at 6:00 p.m., or as soon thereafter as the matter may be reached, on the 9th day of March, 2021, in the City Hall Courtroom in said City for public discussion on a request to enter into a financing agreement for the purchase of a radio system and a steel commercial building to be used as a Parks & Recreation Center.

ADOPTED THIS THE 23RD DAY OF FEBRUARY, 2021.

_____
DANA E. OUTLAW, MAYOR

_____
BRENDA E. BLANCO, CITY CLERK

AGENDA ITEM COVER SHEET

NEW BERN
CITY OF NEW BERN

Agenda Item Title:

Presentation on Juneteenth

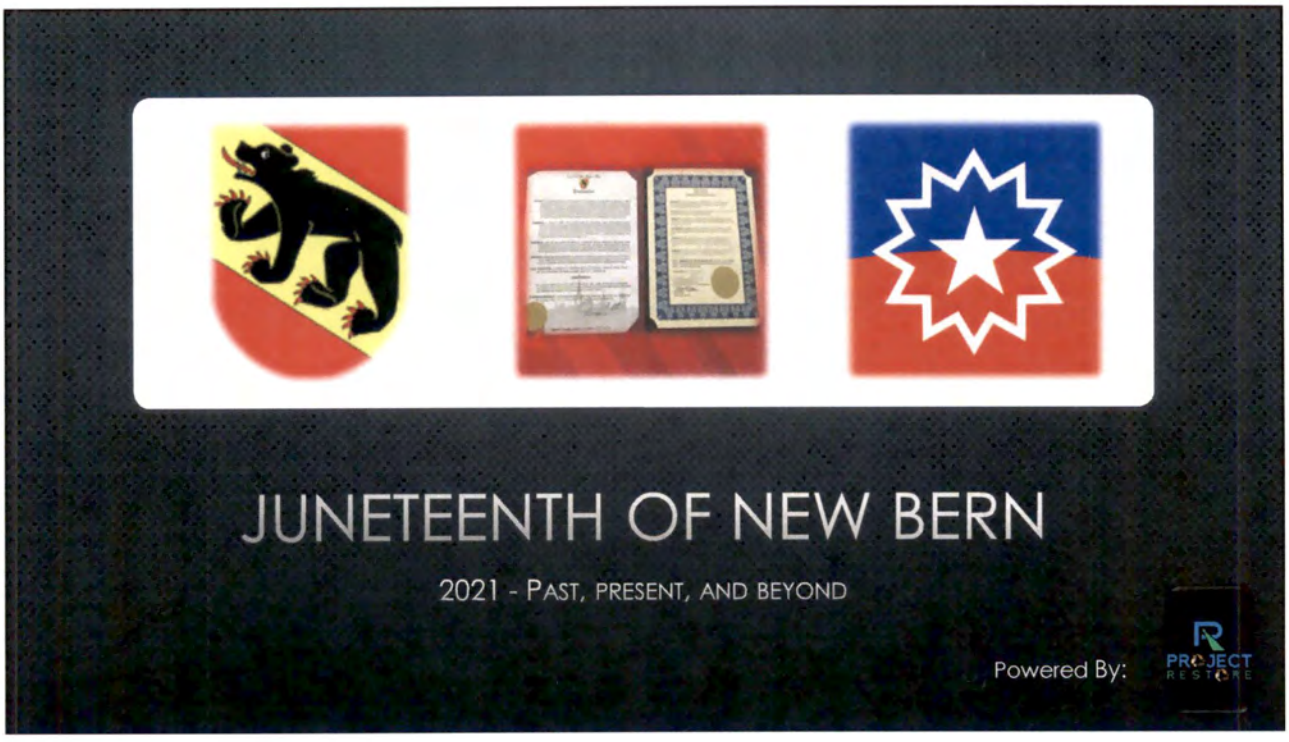
Date of Meeting: 2/23/2021	**Ward # if applicable:** N/A
Department: City Clerk	**Person Submitting Item:** Brenda Blanco, City Clerk
Call for Public Hearing: ☐Yes☒No	**Date of Public Hearing:** N/A

Explanation of Item:	Talina Massey will make a presentation on Juneteenth.
Actions Needed by Board:	Informational only
Backup Attached:	None

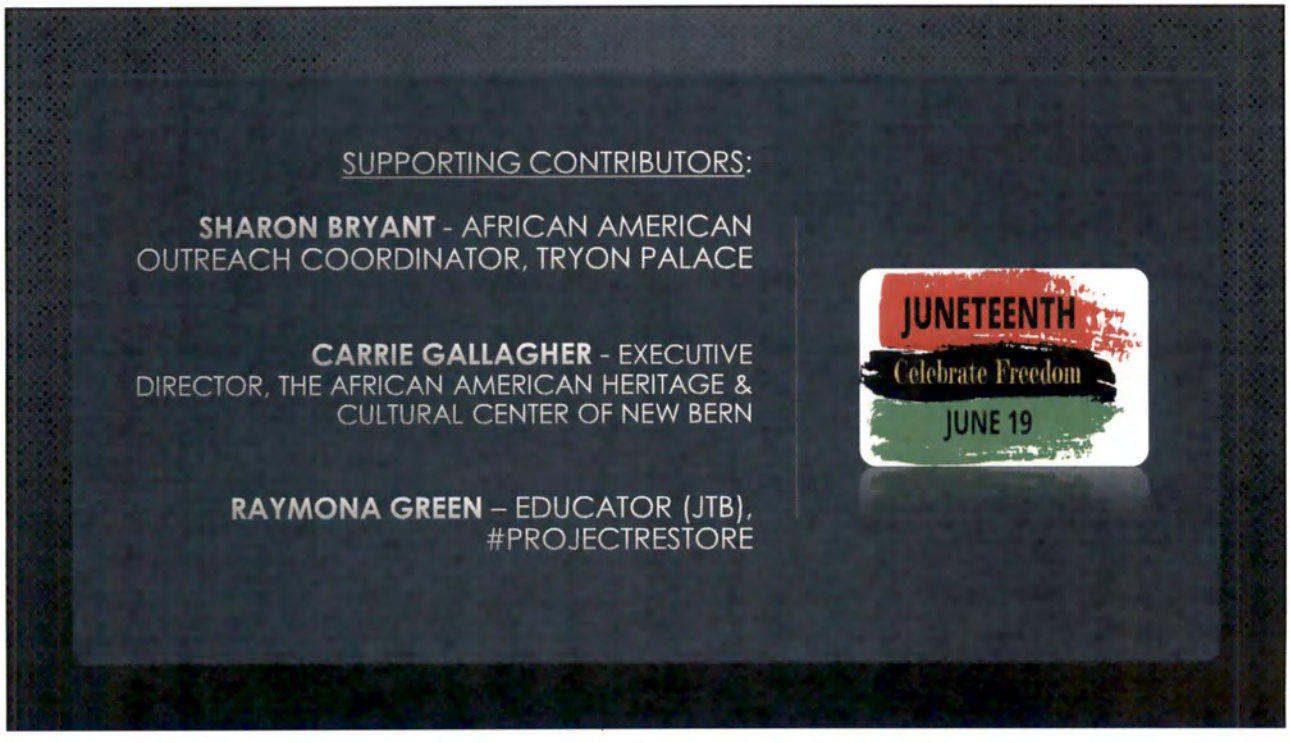
Is item time sensitive? ☐**Yes** ☐**No**
Will there be advocates/opponents at the meeting? ☐**Yes** ☐ **No**

Cost of Agenda Item:
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? ☐**Yes** ☐ **No**

Additional Notes:


JUNETEENTH OF NEW BERN
2021 - PAST, PRESENT, AND BEYOND
Powered By:
PROJECT RESTORE

1


SUPPORTING CONTRIBUTORS:
SHARON BRYANT - AFRICAN AMERICAN OUTREACH COORDINATOR, TRYON PALACE
CARRIE GALLAGHER - EXECUTIVE DIRECTOR, THE AFRICAN AMERICAN HERITAGE & CULTURAL CENTER OF NEW BERN
RAYMONA GREEN – EDUCATOR (JTB), #PROJECTRESTORE
JUNETEENTH
Celebrate Freedom
JUNE 19

2

JUNETEENTH HISTORY

3


Juneteenth of New Bern Celebration

Task: Create an annual celebration of Juneteenth

Goal: Increase the positive social connections among families, neighbors and cultures

Activities: Historian Lecture, Flag Presentation, City Proclamation, Middle School Essay Contest, Commemorative Poem, Reception

Proposed Venue: North Carolina History Center, *Tryon Palace*

Collaborators: Sharon Bryant, *Tryon Palace*; Talma Massey, *Project Restore*; Jamesha Harris, *City of New Bern*

Program Schedule

7:00pm	Present Flag, Poets
7:15pm	Read Proclamation
7:30pm	Lecture, Donald Payton
8:10pm	Q&A
8:20pm	Present Essay winner, reward

the 1st Annual Juneteenth Celebration of New Bern. We're looking for middle school/early high school students to write a minimum of 200 words on: 1. What is Juneteenth? (Past/History) 2. Why do we celebrate this event? (Present) 3. Why is it important that we continue to cultivate, preserve and share this knowledge, and celebrate cultural diversity? (Future). One first place winner will be announced and awarded $200 at the Juneteenth program at 7pm on June

Essay submissions can be emailed to projectrestore78@gmail.com, or given to any #ProjectRestore member, from

NEW BERN'S HISTORY OF PARTICIPATION 2018*

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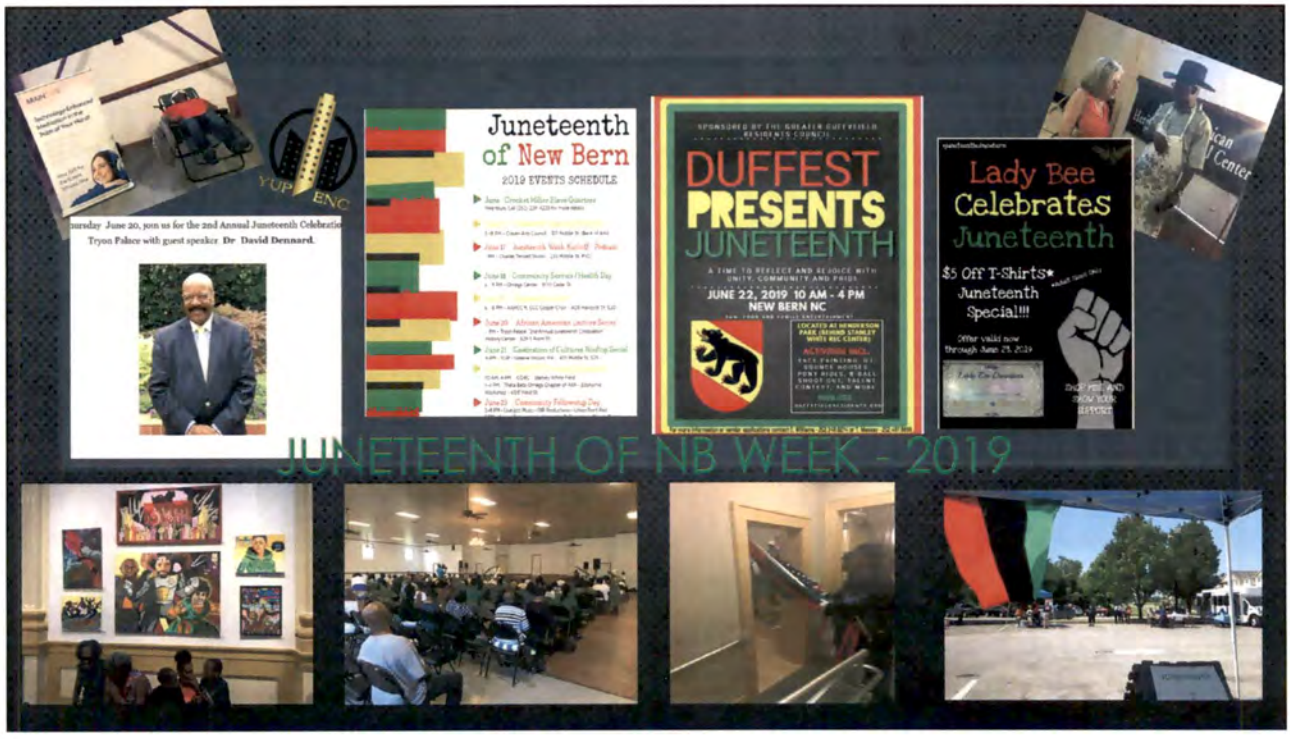
Juneteenth of New Bern
2019 EVENTS SCHEDULE
DUFFEST PRESENTS JUNETEENTH
JUNE 22, 2019 10 AM - 4 PM
NEW BERN NC
Lady Bee Celebrates Juneteenth
$5 Off T-Shirts*
Juneteenth Special!!!
JUNETEENTH OF NB WEEK - 2019

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IN AND AROUND THE ENC
JUNETEENTH OF NEW BERN
UPCOMING EVENTS
STARTING JUNE 12, 2020
JUNE 15-21, 2020
JUNE 18, 2020
JUNE 19, 2020
Bra'Lon Cherry
I WANT TO THANK ALL OF THE SUPPORT SO TODAY WE HAVE A 12 HR SALE 50% OFF EVERYTHING
#RealDesigner (automatically takes off ... See More
50% OFF
JUNETEENTH FREEDOM DAY
SALE
WWW.FLIGHTSKULLY.COM
FREEDOM
9 |3:00PM
Destination:
Town Commons
100 E. 1st St.
Greenville NC 27858
5pm-7
LIVE MUSIC, ACTIVISTS, ADVOCATES, BLACK ORGANIZATIONS, BLACK VENDORS, BLACK PRIDE.
JUNETEENTH OF NB – 2020 – COVID-19*

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PRESENTLY

- National Celebrations in cities like Rockford IL, Philadelphia PA, And Buffalo NY, with dedicated annual **municipal** support are experiencing not only increased quality of life through the celebration of cultural differences, but positive economic impact through festival concessions, entertainment and increased tourism.
- In 2007, **North Carolina** became the 26th state to ***recognize Juneteenth*** as a state holiday or a state holiday observance when it is recognized nationally. Since, several NC Counties have offered Juneteenth as a paid holiday – Wake, Orange, Bertie, Cook.
- NC Cities that currently offer June 19th as a paid city holiday – Carrboro, Monroe, Durham, Greensboro, Apex, Winston-Salem, Vance, Raleigh and a handful of North Carolina municipalities.
- The city of New Bern currently has a proclamation on record that recognizes Juneteenth as a day of celebration and urges all citizens to participate in celebrations and festivities to recognize the significance of this date and celebrate the freedom and achievements of African Americans, signed by Mayor D. Outlaw on 3/13/18.
- New Bern's Cultural, Artistic, Business, Journalistic, Philanthropic, Wellness, and Educational communities continue to show interest in the planning and execution of future Juneteenth events.

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"THE CELEBRATION OF JUNETEENTH IS NOT ONLY A SHOWCASE EVENT OF THE AFRICAN AMERICAN COMMUNITY'S POSITIVE CONTRIBUTIONS TO THE AMERICAN WAY OF LIFE, BUT IT ALSO MAKES A STATEMENT FOR ALL AMERICANS THAT THE UNITED STATES IS TRULY THE 'LAND OF THE FREE'

JUNETEENTH IS AN EXPRESSION AND EXTENSION OF AMERICAN FREEDOM AND, LIKE THE FOURTH OF JULY, A TIME FOR ALL AMERICANS TO CELEBRATE OUR INDEPENDENCE, HUMAN RIGHTS, CIVIL RIGHTS AND FREEDOM.

Reginald D. Greene

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JUNETEENTH 2021 AND BEYOND

- **Community Action:** The Juneteenth community collaborators are currently planning and organizing both virtual and in-person events for 2021, paying close attention to CDC guidelines for social distancing and safety. We've also collectively decided that this is a year to move from grassroots funded individual JUNETEENTH celebrations year to year.
- **City of New Bern Request:** That the city of New Bern NC Government work with the Juneteenth organizers and African-American community to establish an annually celebrated, city supported event during the weekend closest to June 19th in solidarity of their proclamation directive "to participate in celebrations and festivities to recognize the significance of this date" as written by our mayor.
  - Recommended Services should include those extended during local events such as Mumfest, Street Cafes and Independence Day Celebrations
  - Ex. Street closures, Portable restrooms, trash collection, firework sponsorship/support
- **Community Action:** *To establish a Juneteenth council composed of past community collaborators, supporters, volunteers, and residents with the common goal of streamlining the Juneteenth of New Bern collaboration process, to work as liaison to the city of New Bern and surrounding supporting towns/cities for annual event coordination, and to grow interest in the history and continued celebration of Juneteenth in New Bern and surrounding areas.*
- **City of New Bern Request:** *Consider adopting a forward-thinking resolution to recognize Juneteenth as a paid holiday for city workers to encourage the celebration of the freedom and achievements of their fellow Americans.*

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QUESTIONS?

FOR MORE INFORMATION

- VISIT THE JUNETEENTH OF NEW BERN FB PAGE
- EMAIL PROJECTRESTORE716@GMAIL.COM
- CALL TALINA MASSEY AT 252-497-8838

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AGENDA ITEM COVER SHEET

NEW BERN
CITY OF NEW BERN

Agenda Item Title:

Conduct a Public Hearing and Consider Adopting a Resolution to Create a Residential Property Periodic Inspection Program per Section 2.1.2 of the Redevelopment Plan.

Date of Meeting: 02/23/2021	**Ward # if applicable:** Wards: 1, 2 & 5
Department: Development Services	**Person Submitting Item:** Jeff Ruggieri, Director of Development Services
Call for Public Hearing: ☐Yes☒No	**Date of Public Hearing:** 2/23/2021

Explanation of Item:	Policy 2.1.2 of the Redevelopment Plan requires the creation of a Residential Property Periodic Inspection Program.
Actions Needed by Board:	Conduct a Public Hearing and Adopt a Resolution
Backup Attached:	Memo, Resolution

Is item time sensitive? ☐Yes ☐No
Will there be advocates/opponents at the meeting? ☐Yes ☐ No

Cost of Agenda Item:
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? ☐Yes ☐ No

Additional Notes:

NEW BERN
NORTH CAROLINA
300 Pollock Street, P.O. Box 1129
New Bern, NC 28563
(252)636-4000

MEMORANDUM

TO: Mayor Dana Outlaw, City of New Bern Board of Aldermen

FROM: Jeff Ruggieri, Director Development Services

DATE: February 12, 2021

SUBJECT: Conduct a Public Hearing and Consider Adopting a Resolution to Create a Residential Property Periodic Inspection Program per Section 2.1.2 of the Redevelopment Plan.

Policy 2.1.2 of the Redevelopment Plan requires the creation of a Residential Property Periodic Inspection Program ("RIPE"). The Redevelopment Commission has discussed this program at length during several meetings, with a unanimous decision to create a Residential Inspection Program Enforcement. This program is designed to proactively identify and remediate housing that does not meet the City of New Bern's Minimum Housing Code and related ordinances.

The enforcement of the RIPE will be done by the City of New Bern Minimum Housing Officer who will conduct inspections on residential properties that are in the designated redevelopment area. Inspections will be conducted by priority sub areas and when violations of the minimum housing code or related codes are visible from the outside of the property.

If a property fails a minimum housing inspection the Minimum housing officer will schedule a meeting with the property owner to discuss the deficiencies and establish a reasonable time frame to bring the property up to minimum standards.

If the February 23, 2021 Board of Aldermen meeting is conducted virtually, the public will have 24 hours to submit comments. Please contact Jeff Ruggieri at 639-7587 should you have questions or need additional information.

RESOLUTION

BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

THAT WHEREAS, the Board of Aldermen of the City of New Bern adopted a Redevelopment Plan prepared by the Redevelopment Commission of the City of New Bern on February 11, 2020 ("Redevelopment Plan"), which, among other things, established a Redevelopment Area; and

WHEREAS, the Redevelopment Area consists of property that meets the definition of a "blighted area" or "blighted parcel" as those terms are defined in G.S. §160A-503(2) and G.S. §160A-503(2a), respectively; and

WHEREAS, a periodic inspection program is necessary as a part of a targeted effort to respond to blighted or potentially blighted conditions within the Redevelopment Area; and

WHEREAS, pursuant to G.S. §160D-1207(b), the Redevelopment Commission of the City of New Bern has developed a Residential Inspection Program Enforcement Plan ("Plan"), a copy of which is attached hereto and incorporated herein by reference; and

WHEREAS, the Plan establishes procedures to require periodic minimum housing inspections as part of a targeted effort to respond to blighted or potentially blighted conditions within the Redevelopment Area; and

WHEREAS, pursuant to G.S. §160D-1207(b), notice was published in the *Sun Journal*, a newspaper having general circulation in the city to advise of the Plan, and to advise of a public hearing regarding the Plan; and

WHEREAS, on February 23, 2021, at 6:00 p.m., the Board of Aldermen of the City of New Bern conducted a duly advertised public hearing regarding the Plan, at which time all interested parties were given an opportunity to be heard; and

WHEREAS, the Board of Aldermen of the City of New Bern deems it desirable and in the public interest to adopt the Plan. NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. That the Residential Inspection Program Enforcement Plan be and the same is hereby adopted.

Section 2. That the city's director of development services is hereby authorized and directed to implement the Residential Inspection Program Enforcement Plan through the city's inspection department.

Section 3. That a copy of the Residential Inspection Program Enforcement Plan shall be maintained in the Office of Development Services.

ADOPTED THIS 9th DAY OF MARCH, 2021.

DANA E. OUTLAW, MAYOR

BRENDA E. BLANCO, CITY CLERK

City of New Bern

Residential Inspection Program Enforcement Plan

What is RIPE? RIP stands for Residential Inspection Program Enforcement. It is designed to proactively identify and remediate housing that does not meet the City of New Bern's Minimum Housing Code and related ordinances.

Designated area - On May 15, 2018 the City of New Bern Board of Alderman created the Redevelopment Commission of the City of New Bern to implement a Redevelopment Plan for the Greater Duffyfield/Long Wharf areas of the City (Redevelopment Area).

How does RIPE work? - City of New Bern Minimum Housing Officer will conduct inspections on residential properties that are in the designated redevelopment area. Inspections will be conducted by priority sub areas and when violations of the minimum housing code or related codes are visible from the outside of the property. However, probable cause is not required to conduct an inspection.

When will my property be inspected? - If your property is scheduled for inspection the owner and tenant will be notified 15 days prior to the inspections date. However, any homeowner or tenant may request an inspection at any time.

Can I request an inspection? - Tenants and homeowners can request an inspection at any time.

Is my rental property going to be inspected under the RIP Program? - All rental properties in the Redevelopment Area are subject to RIP inspections.

Is there a cost for an inspection? - There is no charge for the inspection.

Will I know if I fail the minimum Inspection? - The minimum housing officer will provide the tenant and property owner a copy of the Inspection checklist that will detail all failures and areas for concern.

What happens if the property fails inspection? – If a property fails minimum housing inspection the Minimum housing officer will schedule a meeting with the property owner to discuss the deficiencies and establish a reasonable time frame to bring the property up to minimum standards.

What if I can't afford the cost to fix the house? All owner occupants who qualify as low to moderate income individuals will be placed into the City of New Bern CDBG Urgent Repair Program for required repairs at no cost to the homeowner. Income eligibility is determined by HUD guidelines. Non-Owner occupied housing (landlords) will not qualify for the CDBG Urgent Repair Program.

What if I have questions? If you have questions about this program please contact Jeff Ruggieri at 252.639.2146

AGENDA ITEM COVER SHEET

NEW BERN
CITY OF NEW BERN

Agenda Item Title:

Consider Adopting a Resolution Approving an Amendment to the 2020 Annual Action Plan for the Community Development Block Grant (CDBG).

Date of Meeting: 02/23/2021	**Ward # if applicable:** N/A
Department: Development Services	**Person Submitting Item:** Amanda Ohlensehlen, Community and Economic Development Manager
Call for Public Hearing: ☐Yes☒No	**Date of Public Hearing:**

Explanation of Item:	The U.S. Department of Housing and Urban Development (HUD) requires Entitlement Cities to submit an Annual Action Plan detailing the intended use of CDBG funding for the 2020 year. Due to the current pandemic, the City is receiving an additional CDBG-CV allocation. The previously approved plan will be updated to detail how these special funds will be used.
Actions Needed by Board:	Adopt a Resolution
Backup Attached:	Memo, Resolution, Amended CDBG Annual Action Plan

Is item time sensitive? ☒Yes ☐No
Will there be advocates/opponents at the meeting? ☐Yes ☐ No

Cost of Agenda Item:
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? ☐Yes ☐ No

Additional Notes:

NEW BERN
NORTH CAROLINA
303 First Street, P.O. Box 1129
New Bern, NC 28563
(252)639-7587

MEMORANDUM

TO: Mayor Outlaw and Board of Aldermen

FROM: Amanda Ohlensehlen, Community and Economic Development Manager

DATE: February 12, 2021

SUBJECT: Consider Adopting a Resolution Approving an Amendment to the 2020 Annual Action Plan for the Community Development Block Grant Program.

Background Information:
The U.S. Department of Housing and Urban Development (HUD) requires Community Development Block Grant (CDBG) Entitlement Cities submit their Annual Action Plan as an application for funding under the program. The plan summarizes the actions, activities, and the specific federal and non-federal resources that will be used to address the priority needs and specific goals identified in the Strategic Plan section of the Consolidated Plan for the 2020 year. The 2020-2021 Annual Action Plan was approved by the Board of Aldermen on September 22, 2020. Due to the ongoing COVID-19 pandemic, Entitlement Cities received an additional allocation of CDBG-CV funds that were released after HUD approved the City's plan. This amendment includes HUD's third round of CDBG-CV allocations, of which an additional $194,483 has been awarded to the City of New Bern. To-date, the City has received a cumulative amount of $346,735 in CDBG-CV funds. HUD requires that these special funds be used to prevent, prepare for, or respond to the COVID-19 pandemic. Funds will be granted to local nonprofits to provide emergency rent and utility assistance to low-moderate income families who have delinquent bills due to impacts of the pandemic.

Recommendation:
Consider Adopting a Resolution Approving an Amendment to the 2020 Annual Action Plan for the Community Development Block Grant Program.

If you have any questions or need additional information, please contact Amanda Ohlensehlen at 252-639-7580.

RESOLUTION

WHEREAS, the City of New Bern, North Carolina is a recipient of grant funds under the Community Development Block Grant (CDBG) Program and Community Development Block Grant - Coronavirus (CDBG-CV) Program administered by the U.S. Department of Housing and Urban Development (HUD); and

WHEREAS, the City of New Bern had previously approved budgets and Annual Action Plan for the FY 2020 CDBG Program; and

WHEREAS, through the March 27, 2020 passage of the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Public Law 116-136, the City of New Bern will receive an allocation of CDBG-CV Round #1 funds in the amount of $152,252 and $194,483 in CDBG-CV Round # 3 funds; and

WHEREAS, the City of New Bern has to amend its FY 2020 Annual Action Plan to be able to include the FY 2020 CDBG-CV funds in its FY 2020 Annual Action Plan; and

WHEREAS, HUD permits grant recipients to revise and amend its previous budgets and Annual Action Plans; and

WHEREAS, in accordance with the Federal Regulations governing the CDBG Program certain changes and revisions to the Annual Action Plans may be considered a substantial amendment as outlined in the New Bern's Citizen Participation Plan; and

WHEREAS, it has been determined that the proposed changes and revisions to the FY 2020 CDBG Program are a substantial amendment and the City's Citizen Participation Plan has been followed.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

Section 1. The amendment to the FY 2019 Annual Action Plan is hereby approved as presented, which includes the following:

a) CDBG-CV-20-01 CV-CDBG-CV Administration – increase this project/activity budget by $19,448 for a new project/activity budget of $34,673.

b) CDBG-CV-20-02 CV-Rent, Mortgage, and Utility Assistance – increase this project/activity budget by $175,035 for a new project/activity budget of $312,062. In addition, the City has added mortgage assistance to pay for back mortgage payments to this project/activity description. This project/activity will be run by Religious Community Services (RCS) and Catholic Charities. RCS

will receive $185,785 in CDBG-CV funds from the 1st and 3rd rounds of CDBG-CV funds. Catholic Charities will receive $126,277 in CDBG-CV funds from the 3rd round of CDBG-CV funds.

Section 2. That the Mayor is hereby authorized to sign any related documents on behalf of the City and is authorized to submit the amended FY 2020 Annual Actions Plan to the U.S. Department of Housing and Urban Development.

ADOPTED THIS 23rd DAY OR FEBRUARY 2021.

DANA E. OUTLAW, MAYOR

BRENDA E. BLANCO, CITY CLERK

AGENDA ITEM COVER SHEET

NEW BERN
CITY OF NEW BERN

Agenda Item Title:

Consider adopting a resolution authorizing the City Manager to execute on behalf of the City of New Bern all contract documents and change orders within the contract amount for the Hurricane Florence Category A drainage ditch project within the Jimmies Creek drainage basin.

Date of Meeting: 2/23/2021	**Ward # if applicable:** Ward 6
Department: Public Works	**Person Submitting Item:** Matt Montanye, Director of Public Works
Call for Public Hearing: ☐Yes☒No	**Date of Public Hearing:** N/A

Explanation of Item:	Over the past two years the City has been working with FEMA on a project to remove sediment and debris from 66 miles of drainage ditches throughout the City. This project is for the Jimmies Creek Drainage Basin.
Actions Needed by Board:	Adopt attached resolution
Backup Attached:	Memo, Resolution, Bid Tabulation, Advertisement for Bids, Notice of Bid Withdraw, Project Plan

Is item time sensitive? ☐Yes ☒No
Will there be advocates/opponents at the meeting? ☐Yes ☒ No

Cost of Agenda Item: $449,650.00
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? ☒Yes ☐ No

Additional Notes:

NEW BERN
NORTH CAROLINA

Public Works Department
P.O. Box 1129, 1004 S. Glenburnie Road
New Bern, N.C. 28563-1129
Phone: (252) 639-7501
Fax: (252) 636-1848

February 12, 2021

Memo to: Mayor and Board of Aldermen

From: Matt Montanye, Director of Public Works

Re: Consider adopting a resolution authorizing the City Manager to execute on behalf of the City of New Bern all contract documents and change orders within the contract amount for the Jimmies Creek Category A, Hurricane Florence drainage ditch project.

Background Information:
In late 2018 following Hurricane Florence, the City of New Bern began working with FEMA on a project to remove sediment and debris from 66 miles of drainage ditches within the City. This project was obligated by FEMA on January 27, 2020. Since being obligated, the City has been working with Draper Aden and Associates to identify damages, develop construction plans and to obtain state and federal permits for work within ten different drainage basins. On January 11, 2021, the Jimmies Creek drainage basin Category A project was advertised for bids and on February 9, 2021, four bids were received and opened, with the low bidder for this project being Grillot Construction Company LLC, with a bid price of $449,650.00. The Jimmies Creek drainage basin project consist of removing debris from 60 locations, consisting of more than 170 tons of vegetative debris, 535 cubic yards of sediment, 2 tons of miscellaneous debris and the cleaning of 1,600-feet of drainage culverts. The contract time for this project is 120 days.

Recommendation:
Draper Aden and Associates have vetted Grillot Construction Company, LLC and found no issues or concerns. The Public Works Department is recommending and request the Board consider adopting a resolution authorizing the City Manager to execute on behalf of the City of New Bern, all contract documents and any change orders for the Jimmies Creek Category A, Hurricane Florence drainage ditch project within the contract amount.

If you have any questions concerning this matter, please feel free to contact me directly.

cc: George Chiles, Staff Engineer

RESOLUTION

THAT WHEREAS, the Jimmies Creek, Hurricane Florence Category A Drainage Ditch Project was publicly advertised on January 11, 2021 and a pre-bid meeting was held on February 2, 2021; and

WHEREAS, the following qualified bids were received on February 9, 2021:

Grillot Construction Company, LLC	$ 449,650.00
Trader Construction Company, Inc.	$ 451,540.00
Carolina Cleaning and Restoration	$ 526,250.00
NPS Solutions	Bid Withdrawn

WHEREAS, the Director of Public Works of the City of New Bern recommends the City Manager be authorized to execute contract documents with the lowest bidder, Grillot Construction Company, LLC, for the Jimmies Creek Category A, Hurricane Florence Drainage Ditch Project and any change orders within the budgeted amount.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

That the City Manager is hereby authorized to execute on behalf of the City of New Bern all contract documents with Grillot Construction Company, LLC for the Jimmies Creek Category A, Hurricane Florence Drainage Ditch Project, and any change orders within the budgeted amount.

ADOPTED THIS 23rd DAY OF FEBRUARY 2021.

_____
DANA E. OUTLAW, MAYOR

_____
BRENDA E. BLANCO, CITY CLERK

DETAILED BID TABULATION

PROJECT: Hurricane Florence Debris Removal Activities - Jimmies Creek Drainage Basin
PROJECT # 19080319-11
BID DATE: February 9, 2021
BID TIME 1 30 PM
LOCATION: City of New Bern Public Works Department / Microsoft Teams

Draper Aden Associates
Engineering • Surveying • Environmental Services

				Grillot Construction, LLC		Trader Construction Company		Carolina Cleaning and Restoration, LLC			
Item	**Description**	**Units**	**Quantity**	**Unit Cost**	**Extended Cost**	**Unit Cost**	**Extended Cost**	**Unit Cost**	**Extended Cost**	**Unit Cost**	**Extended Cost**
	Base Bid										
1	Mobilization (3% Maximum)	EA	1	$ 13,000 00	$ 13,000 00	$ 13,540 00	$ 13,540 00	$ 12,750 00	$ 12,750 00		$ -
2	Sediment and Erosion Control	EA	1	$ 115,000 00	$ 115,000 00	$ 180,000 00	$ 180,000 00	$ 120,000 00	$ 120,000 00		$ -
3	Traffic Control	EA	1	$ 84,200 00	$ 84,200 00	$ 20,000.00	$ 20,000.00	$ 65,000 00	$ 65,000.00		$ -
4	Install Temporary Construction Access	LF	4,100	$ 12.00	$ 49,200 00	$ 13 00	$ 53,300 00	$ 20 00	$ 82,000 00		$ -
5	Sediment Removal	CY	535	$ 70 00	$ 37,450 00	$ 100 00	$ 53,500 00	$ 100.00	$ 53,500 00		$ -
6	Jet Clean Pipe or Culvert	LF	1,600	$ 22 00	$ 35,200 00	$ 12 00	$ 19,200 00	$ 20 00	$ 32,000 00		$ -
7	Vegetative Debris Removal	Tons	170	$ 295 00	$ 50,150 00	$ 220 00	$ 37,400 00	$ 400 00	$ 68,000 00		$ -
8	In-Place Vegetative Debris Removal	LF	9,200	$ 7 00	$ 64,400 00	$ 8 00	$ 73,600 00	$ 10.00	$ 92,000 00		$ -
9	Miscellaneous Debris Removal	Tons	2	$ 525 00	$ 1,050 00	$ 500 00	$ 1,000 00	$ 500 00	$ 1,000 00		$ -
					$ 449,650.00		**$ 451,540.00**		**$ 526,250.00**		**$ -**
			Cost Included on Bid Form		**$ 449,650.00**		**$ 451,540.00**		**$ 526,250.00**		**$ -**
			CONTRACT AMOUNT BASED ON UNIT BID ITEMS		**$ 449,650.00**		**$ 451,540.00**		**$ 526,250.00**		**$ -**

Matt Montanye

Subject: FW: NPS Solutions, LLC - Bid Withdrawal

From: Matt Burnette <mburnette@daa.com>
Sent: Wednesday, February 10, 2021 3:11 PM
To: Agyemang Adu-Poku <aadupoku@npsmarking.com>
Cc: George Chiles <ChilesG@newbernnc.gov>; Matt Montanye montanyem@newbernnc.gov

Subject: NPS Solutions, LLC - Bid Withdrawal

Mr. Adu-Poku,

We are in receipt of your request to withdraw your bid for the *Hurricane Florence Debris Removal Activities – Jimmies Creek Basin* project due to a technical error in computing the bid.

Thank you for your company's participation in the bidding process for this project. Please contact me should you have any questions.

Best,
Matt

Matthew C. Burnette, PG, PH, CFM
Senior Project Manager
Associate

Draper Aden Associates
Engineering • Surveying • Environmental Services
Lasting Positive Impact®

Phone: 919.827.0864 • Fax: 919.839.8138 • Mobile: 336.648.6980

From: Agyemang Adu-Poku <aadupoku@npsmarking.com>
Sent: Wednesday, February 10, 2021 2:54 PM
To: Matt Burnette <mburnette@daa.com>
Subject: Bid Withdrawal

Hello Matt,

I hereby request to withdraw NPS Solutions LLC bid for City of New Bern Debris Removal in Jimmies Creek Basin. We had a technical error in computing our bid.

Thanks a lot for your help.

Agyemang Adu-Poku
NPS Solutions

ADVERTISEMENT FOR BIDS

City of New Bern
New Bern, North Carolina
Hurricane Florence Debris Removal Activities – Jimmies Creek Drainage Basin

General Notice

The City of New Bern (Owner) is requesting Bids for the construction of the following Project:

Hurricane Florence Debris Removal Activities – Jimmies Creek Drainage Basin
DAA PN: 19080319-110302

Bids for the construction of the Project will be received at the City of New Bern Public Works Department located at 1004 S. Glenburnie Road, until February 9, 2021 at 1:30 PM local time. At that time the Bids received will be publicly opened and read.

In response to the continued State of Emergency declaration and the "Extension of the Modified Stay at Home Order" pursuant Executive Order 188, dated January 6, 2021, the public bid opening shall be made available through online video conference. Access to the online video conference shall be made available to all plan holders at least 24 hours prior to opening of bids.

The Project includes the following Work:

> This project generally involves the removal of previously identified and as encountered sediment, vegetative debris, and miscellaneous debris within open-air stormwater ditches, piping, culverts, and wetlands. Work also includes clearing, grubbing, installation of access roads, necessary traffic control, erosion and sediment control, excavation, reduction, hauling of debris.

Bids are requested for the following Contract: **Hurricane Florence Debris Removal Activities – Jimmies Creek Drainage Basin**

Obtaining the Bidding Documents

Information and Bidding Documents for the Project can be found at the following designated website:

www.daa.com

Bidding Documents may be downloaded from the designated website. Prospective Bidders are urged to register with the designated website as a plan holder, even if Bidding Documents are obtained from a plan room or source other than the designated website in either electronic or paper format. The designated website will be updated periodically with addenda, lists of registered plan holders, reports, and other information relevant to submitting a Bid for the Project. All official notifications, addenda, and other Bidding Documents will be offered only through the designated website. Neither Owner nor Engineer will be responsible for Bidding Documents, including addenda, if any, obtained from sources other than the designated website.

The Issuing Office for the Bidding Documents is:

Draper Aden Associates
114 Edinburgh South Drive, Suite 200, Cary, NC 27511

Due to the ongoing COVID-19 pandemic, bidders are strongly encouraged to register as a plan holder from the aforementioned website. Physical documents will not be available from the Issuing Office. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including addenda, if any, obtained from sources other than the Issuing Office.

The Owner is an Equal Opportunity Employer and encourages bidding by small, minority and female contractors and does not discriminate on the basis of handicapped status. Bids from qualified historically underutilized businesses (HUB's) are encouraged. Bidder must provide 10% of total contract cost to HUB's or demonstrate good faith effort. The Work will be subject to the prevailing wage rates and to the Equal Employment Opportunity requirements established by the U.S. Department of Labor. The project will be funded in whole/part using FEMA funds provided by the U.S. Department of Homeland Security. All Federal laws and regulations will apply to use of FEMA funds.

Digital copies of the Bidding Documents are available free of charge from the designated website. Physical copies of the Bidding Documents may be purchased from the Issuing Office. Cost does not include shipping charges. Upon Issuing Office's receipt of payment, printed Bidding Documents will be sent via the prospective Bidder's delivery service. The shipping charge amount will depend on the shipping method chosen. Bidding Documents are available for purchase in the following formats:

Format	Cost
Physical Bidding Documents (including Full-Size Drawings)	$500

Pre-bid Conference

Pre-bid conference attendance is not required. A virtual pre-bid conference is scheduled, through Microsoft Teams, on February 2, 2021 at 2:00 PM. In response to the continued State of Emergency declaration and the "Extension of the Modified Stay at Home Order" pursuant Executive Order 188, dated January 6, 2021, the pre-bid meeting shall be made available through online video conference. Access to the online video conference shall be made available to all interested parties at least 24 hours prior to the scheduled meeting. Interested parties are required to contact Kim Phillips by email at kphillips@daa.com to request the conference link.

Instructions to Bidders.

For all further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders that are included in the Bidding Documents.

This Advertisement is issued by:

Owner: City of New Bern
By: Matthew L. Montanye
Title: Director of Public Works
Date: January 11, 2021

CERTIFIED BID TABULATION

Draper Aden Associates
Engineering • Surveying • Environmental Services

PROJECT: Hurricane Florence Debris Removal Activities - Jimmies Creek Drainage Basin
PROJECT #: 19080319-11
BID DATE: February 9, 2021
BID TIME: 1 30 PM
LOCATION: City of New Bern Public Works Department / Microsoft Teams

	Grillot Construction, LLC	Trader Construction Company	Carolina Cleaning and Restoration, LLC	NPS Solutions, LLC	
Bid Bond	✓	✓	✓		
Contractor's License Information	#84473	#2943	#82325		
Bidder Qualification Statement	✓	✓	✓		
City's General Provisions and Byrd Anti Lobbying Certification	✓	✓	✓		
Anti-Collusion Affadavit	✓	✓	✓		
MBE / HUB Documentation	✓	✓	✓		
Bid Signed	✓	✓	✓		
Receipt of Addenda	✓	✓	✓		
Base Bid Total	**$449,650.00**	**$451,540.00**	**$526,250.00**	**BID WITHDRAWN**	

This is to certify that the bids tabulated herein were publicly opened and read aloud at 1:30 PM on the Ninth day of February, 2021, at the City of New Bern Public Works Department in New Bern, North Carolina.

NORTH CAROLINA
PROFESSIONAL
SEAL
041595
02/10/2021
ENGINEER
ANDREW P. MERICLE

HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

JANUARY 11, 2021

RELEASED FOR BIDDING- NOT FOR CONSTRUCTION

NAME OF PROJECT: HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES JIMMIES CREEK DRAINAGE BASIN

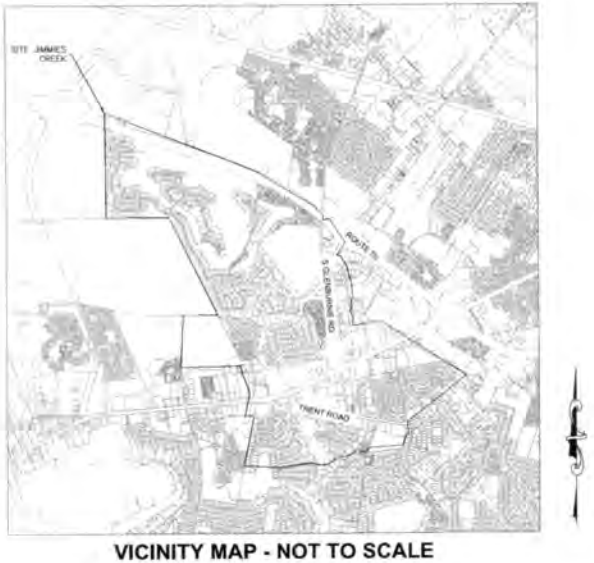
ENGINEER: ANDREW P. MERCLE, P.E.
AMERCLE@DAA.COM
DRAPER ADEN ASSOCIATES
114 EDINBURGH SOUTH DRIVE
SUITE 200, CARY NC 27511

PID: MULTIPLE

DEED REFERENCE: MULTIPLE

WATERSHED CLASSIFICATION: NEUSE RIVER BASIN

DISTURBED AREA: 4.43 ACRES



VICINITY MAP - NOT TO SCALE

Sheet List Table

Sheet Number	Sheet Title
C1.0	COVER SHEET
C2.0	NOTES
C2.1	NCG01 NOTES
C3.0	DRAINAGE BASIN OVERVIEW
C3.1	SITE DETAIL
C3.2	SITE DETAIL
C3.3	SITE DETAIL
C3.4	SITE DETAIL
C3.5	SITE DETAIL
C3.6	SITE DETAIL
C3.7	SITE EXHIBITS
C4.1	JIMMIES CREEK REMEDIATION & ESC PLAN
C4.2	JIMMIES CREEK REMEDIATION & ESC PLAN
C4.3	JIMMIES CREEK REMEDIATION & ESC PLAN
C4.4	JIMMIES CREEK REMEDIATION & ESC PLAN
C4.5	JIMMIES CREEK REMEDIATION & ESC PLAN
C5.0	DETAILS
C5.1	DETAILS

DRAPER ADEN ASSOCIATES REVIEW

THESE PLANS HAVE BEEN SUBJECTED TO TECHNICAL AND QUALITY REVIEWS BY

NAME: SAM FORSYTH — SIGNATURE — 01/11/21
PROJECT DESIGNER — DATE

NAME: MATTHEW C. BURNETTE, PG, CFM — SIGNATURE — 01/11/21
PROJECT MANAGER — DATE

NAME: ANDREW P. MERCLE — SIGNATURE — 01/11/21
QUALITY REVIEWER — DATE

NORTH CAROLINA 811
North Carolina One-Call Center

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Know what's below.
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041595 01.11.21 ANDREW P. MERCLE

Draper Aden Associates
Engineering • Surveying • Environmental Services
• Hampton Roads, VA • Fayetteville, NC • Northern Virginia • Virginia Beach, VA
• Richmond, VA • Blacksburg, VA • Charlottesville, VA

COVER SHEET
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS
01/11/21

DESIGNED BY: SJ
DRAWN BY: SJ
CHECKED BY: APM
SCALE: NONE
DATE: JANUARY 11, 2021
PROJECT NUMBER: 19080319-110302

C1.0

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AS REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH THE CURRENT EDITION OF THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL MANUAL. ALL DEVICES REFERRED TO IN THESE PLANS CAN BE FOUND IN THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL MANUAL.
2. ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDED AND MULCHED PER THE NCDEQ SCHEDULE AFTER REACHING FINAL GRADE. AREAS WHICH HAVE BEEN DISTURBED AND HAVE NOT REACHED FINAL GRADE, BUT WHICH ARE TO REMAIN UNDISTURBED FOR LONGER THAN 14 DAYS ARE TO BE TEMPORARILY SEEDED AND MULCHED PER THE NCDEQ SCHEDULE. AS UPSTREAM AREAS ARE STABILIZED WITH PERMANENT GROUND COVER, DOWNSTREAM TEMPORARY DEVICES ARE TO BE REMOVED. CONTRACTOR SHALL FOLLOW THE STABILIZATION TIME TABLE INCLUDED IN THIS SET OF DRAWINGS.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERIODICALLY INSPECT ALL SEDIMENT AND EROSION CONTROL DEVICES AND ENSURE THAT THEY ARE IN GOOD WORKING ORDER. AT A MINIMUM, ALL DEVICES SHALL BE INSPECTED DAILY AND AFTER MAJOR RAINFALL EVENTS. ANY DEVICE NEEDING REPAIRS SHALL BE REPAIRED WITHIN 24 HOURS.
4. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES IF DURING THE COURSE OF CONSTRUCTION THE ENGINEER OR NCDEQ INSPECTOR DETERMINES THAT THEY ARE REQUIRED.
5. SILT SHALL BE REMOVED FROM SILT FENCES WHEN THE SILT REACHES APPROXIMATELY ONE-THIRD (1/3) THE HEIGHT OF THE BARRIER.
6. THE CONTRACTOR SHALL PERIODICALLY TOP DRESS THE CONSTRUCTION ENTRANCE WITH CLEAN STONE. IF THE CONSTRUCTION ENTRANCE FAILS TO REMOVE DIRT FROM THE TIRES OF VEHICLES ENTERING A PUBLIC RIGHT-OF-WAY A WASH RACK SHALL BE INSTALLED AND THE TIRES WASHED. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ANY REQUIRED WATER FOR THE WASHING OF TIRES. DIRT TRACKED ONTO THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
7. ALL EROSION AND SILTATION MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING.
8. ALL STORM AND UTILITY LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED PER THE NCDEQ SCHEDULE AFTER BACKFILL. NO MORE THAN FIVE HUNDRED FEET OF TRENCH IS TO BE OPEN AT ONE TIME.
9. ALL TEMPORARY EARTH BERMS, DIVERSIONS, AND SILT DAMS ARE TO BE MULCHED AND SEEDED FOR VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. ADDITIONALLY ALL DIVERSION SWALES WILL BE PROTECTED AGAINST HIGH VELOCITY WITH EROSION CONTROL MEASURES AS DENOTED ON THESE PLANS. THE SAME APPLIES TO STOCKPILES ON SITE AS WELL AS SOIL (INTENTIONALLY) TRANSPORTED FROM THE PROJECT SITE.
10. ANY DISTURBED AREA NOT PAVED, SODDED, OR BUILT UPON, IS TO BE SEEDED PER THE TEMPORARY AND PERMANENT SEEDING SCHEDULE INCLUDED IN THESE DRAWINGS. MODIFY AS APPLICABLE DEPENDING ON PROPOSED TIME OF CONSTRUCTION.
11. CONTRACTOR STAGING AREA(S) SHALL BE RETURNED TO BETTER THAN ORIGINAL CONDITIONS AT THE COMPLETION OF THE WORK.
12. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
13. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO ISSUANCE OF A LAND DISTURBANCE PERMIT. THE CONTRACTOR SHALL SCHEDULE THE MEETING WITH THE NCDEQ INSPECTOR ASSIGNED TO THE PROJECT.
14. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF NCDEQ EROSION AND SEDIMENT CONTROL MANUAL AND THE NORTH CAROLINA SEDIMENTATION POLLUTION CONTROL ACT OF 1973.
15. AS A CONDITION OF NPDES PERMIT NO. NCG 010000, PERMANENT GROUNDCOVER SHOULD BE PROVIDED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING THE COMPLETION OF CONSTRUCTION OR DEVELOPMENT.

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF REMOVING HURRICANE FLORENCE-RELATED DEBRIS PRESENT THROUGHOUT THE CITY OF NEW BERN'S DRAINAGE NETWORK WITHIN THE JIMMIES CREEK DRAINAGE BASIN. DEBRIS WILL INCLUDE SEDIMENT, VEGETATIVE DEBRIS, AND MISCELLANEOUS DEBRIS. ALL DEBRIS, UNLESS INDICATED TO REMAIN, SHALL BE DISPOSED OF AT THE TUSCARORA LANDFILL.

EXISTING CONDITIONS
THE PROJECT AREA INCLUDES VARIOUS SITES THROUGHOUT THE JIMMIES CREEK DRAINAGE BASIN. SITES ARE LOCATED THROUGHOUT THE CITY OF NEW BERN'S DRAINAGE NETWORK AND INCLUDE BOTH OPEN CONVEYANCE AND STORMWATER INFRASTRUCTURE.

DEVELOPMENT IMPACTS
THE DEVELOPMENT IMPACTS TO THE TOPOGRAPHY, SOILS, HYDROLOGY, AND GEOLOGY WILL BE MINOR.

SOILS
SOILS THROUGHOUT THE PROJECT AREA INCLUDE ARAPAHOE FINE SANDY LOAM, AUTRYVILLE LOAMY SAND, 0 TO 6 PERCENT SLOPES, BAYBORO MUCKY LOAM, BRAGG SOILS, 0 TO 6 PERCENT SLOPES, CRAVEN SILT LOAM, 1 TO 4 PERCENT SLOPES, GOLDSBORO LOAMY FINE SAND, 0 TO 2 PERCENT SLOPES, LEAF SILT LOAM, LENOIR SILT LOAM, LEON SAND, LYNCHBURG FINE SANDY LOAM 0 TO 2 PERCENT SLOPES, ATLANTIC COAST FLATWOODS, MASONTOWN MUCKY FINE SANDY LOAM AND MUCKALEE SANDY LOAM, FREQUENTLY FLOODED, PANTEGO FINE SANDY LOAM, RAINS FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES, ATLANTIC COAST FLATWOODS, TORHUNTA FINE SANDY LOAM, AND URBAN LAND. HYDROLOGIC SOIL GROUPS INCLUDE A (0.1%), A/D (43.7%), B (2.9%), B/D (4.2%), C (1.2%), C/D (0.6%) AND D (10.4%).

CRITICAL EROSION AREAS
1. CARE MUST BE TAKEN TO PREVENT SEDIMENT FROM BEING TRACKED ONTO ADJACENT ROADWAYS.
2. CARE MUST BE TAKEN TO PREVENT SEDIMENT FROM EXITING THE PROJECT SITE AREA.
3. CARE MUST BE TAKEN TO PREVENT SEDIMENT FROM ENTERING ANY WATER WAY OR DRAINAGE WAYS.

STOCKPILING
TOPSOIL STOCKPILING IS ANTICIPATED ON-SITE.

STRUCTURAL PRACTICES
SILT FENCE
SILT FENCE OUTLETS
CULVERT INLET PROTECTION

VEGETATIVE PRACTICES
TOPSOILING
TEMPORARY SEEDING
PERMANENT SEEDING
MULCHING

MANAGEMENT STRATEGIES
1. THE SILT FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES ONE-THIRD (1/3) THE HEIGHT OF THE BARRIER.
2. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
3. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING.
4. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
5. AFTER ACHIEVING ADEQUATE STABILIZATION AND UPON APPROVAL OF THE NCDEQ INSPECTOR, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED.

PERMANENT STABILIZATION
THE DISTURBED AREAS WILL BE PERMANENTLY STABILIZED THROUGH THE USE OF PERMANENT SEEDING AND RIPRAP.

GENERAL UTILITY NOTES

1. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION AS INDICATED. ALTHOUGH, HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.
2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION SO THAT CONTRACTOR IS FAMILIAR AND UNDERSTANDS EXISTING CONDITIONS.
3. FIELD CHANGES MAY BE NECESSARY DUE TO EXISTING UTILITY LOCATIONS. THE ENGINEER SHALL BE CONTACTED BEFORE MAKING THESE CHANGES.

CONSTRUCTION SEQUENCE

1. SET UP PRE-CONSTRUCTION MEETING.
2. INSTALL SILT FENCE AND OTHER PERIMETER CONTROLS.
3. INSTALL EROSION AND SEDIMENT CONTROL FEATURES AS INDICATED.
4. MINIMIZE DISTURBED AREAS AT ANY GIVEN TIME TO THOSE AREA THAT ARE BEING ACTIVELY EXCAVATED.
5. INSPECT AND ADJUST AS NECESSARY ALL EROSION CONTROL DEVICES IN ORDER TO MAINTAIN PROPER FUNCTION.
6. COMPLETE ANY TEMPORARY SITE ACCESS REQUIREMENTS, INCLUDING CLEARING, ACCESS ROAD INSTALLATION, AND TEMPORARY STREAM CROSSING INSTALLATION.
7. REMOVE AND REDUCE VEGETATIVE DEBRIS BOTH IDENTIFIED AND AS ENCOUNTERED THAT IS NOT EXPLICITLY IDENTIFIED IN THE DESCRIPTION OF ACTIVITY TABLE.
8. REMOVE MISCELLANEOUS DEBRIS BOTH IDENTIFIED AND AS ENCOUNTERED THAT IS NOT EXPLICITLY IDENTIFIED IN THE DESCRIPTION OF ACTIVITY TABLE.
9. INSTALL TEMPORARY DEWATERING AND PUMP AROUND AS NECESSARY. DEWATERING IS REQUIRED TO PERFORM SEDIMENT REMOVAL WHEN MORE THAN 12 INCHES OF WATER IS PRESENT WITHIN THE EXCAVATION AREA. WATER DEPTH MAY FLUCTUATE DUE TO RECENT RAINFALL, GROUNDWATER ELEVATION, WIND AND TIDES.
10. REMOVE SEDIMENT AS IDENTIFIED. GRADE DITCHES TO MATCH EXISTING CULVERTS OR PROVIDE POSITIVE DRAINAGE. STOCKPILE REMOVED SEDIMENT WITHIN EXISTING EASEMENTS OR RIGHT-OF-WAYS. ALLOW MATERIAL TO ADEQUATELY DRY PRIOR TO LOADING AND DISPOSAL. FOR AREAS WITHOUT ADEQUATE SPACE TO STOCKPILE SEDIMENT NEARBY, TRANSPORT SEDIMENT TO IDENTIFIED STOCKPILE AREAS AND ALLOW TO DRY PRIOR TO DISPOSAL.
11. STABILIZE SITES DURING AND AT THE CONCLUSION OF CONSTRUCTION IN ACCORDANCE WITH THE NOTES AND DETAILS IN THESE PLANS AND AS INSPECTOR HAS INSTRUCTED.
12. ONCE ALL AREAS HAVE BEEN STABILIZED, AND ONLY WITH THE APPROVAL OF THE EROSION CONTROL INSPECTOR, REMOVE ALL REMAINING EROSION CONTROL DEVICES.
13. REMOVE AND REPLACE ANY ITEMS DISTURBED AND/OR REMOVED DURING ACCESS OR CONSTRUCTION ACTIVITIES. REMOVE TEMPORARY ACCESS FEATURES UNLESS INDICATED TO REMAIN.

GENERAL NOTES

1. THIS PROJECT, AS CURRENTLY DESIGNED, MAY NOT INLCUDE ALL COMPONENTS ADDRESSED IN THE VARIOUS GENERAL NOTES. REVIEW PLANS FOR APPLICABILITY.
2. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM THE LOCAL AND STATE AGENCIES.
3. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND AT HIS EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
4. ALL PAVING MATERIALS AND DRAINAGE STRUCTURES SHALL BE BUILT AND INSTALLED IN ACCORDANCE WITH NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
5. THE LOCATION OF EXISTING SEWER, WATER OR TELEPHONE LINES, CONDUITS OR OTHER STRUCTURES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND IF SHOWN ARE ONLY APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, IF THERE APPEARS TO BE A CONFLICT, OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS. FOR ASSISTANCE IN LOCATING EXISTING UTILITIES CALL "NC ONE CALL", DIAL 811.
6. WHERE PAVEMENT IS BEING REMOVED, THE CONTRACTOR SHALL REMOVE AGGREGATE BASE MATERIAL TO SUB-GRADE.
7. DAMAGE TO UTILITIES (INCLUDING UNDERGROUND) OR PROPERTY OF OTHERS BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY CONTRACTOR AT NO COST TO OWNER.
8. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO LIKE-NEW CONDITION.
9. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURES IN OPERABLE CONDITION.
10. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY INSPECTORS.
11. THE CONTRACTOR SHALL NOTIFY ALL APPLICABLE REGULATORY AGENCIES AND THE ENGINEER AT LEAST 24 HOURS PRIOR TO STARTING WORK ON THIS PROJECT.
12. UNLESS OTHERWISE NOTED, ALL CONCRETE PIPE SHALL BE REINFORCED CONCRETE PIPE, CLASS III.
13. ALL EXCAVATION FOR UNDERGROUND PIPE INSTALLATION MUST COMPLY WITH OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY (29 CFR PART 1926).
14. VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
15. DEVIATIONS FROM, OR CHANGES TO THESE PLANS WILL NOT BE ALLOWED.
16. MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THE PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT. TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREON AND ANY OTHER EXISTING UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. REPAIR AT YOUR OWN EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. IF A UTILITY IS DAMAGED DURING CONSTRUCTION, STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER AND TOWN.
17. PROPERLY SECURE THE CONSTRUCTION AREA AT ALL TIMES AGAINST UNAUTHORIZED ENTRY AND ADEQUATELY PROTECT EQUIPMENT, MATERIALS, AND COMPLETED WORK FROM THEFT AND VANDALISM. THE OWNER IS NOT RESPONSIBLE FOR THE LOSS OF ANY MATERIAL STORED AT THE SITE.

GENERAL CONSTRUCTION AND GEOTECHNICAL NOTES

ENGINEERED FILL

1. ALL CONTROLLED FILL ZONES ARE TO BE MONITORED BY A FULL TIME GEOTECHNICAL ENGINEERING SERVICES FIRM.
2. ENGINEERED FILLS SHALL BE PROPERLY PLACED ACCORDING TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
3. ALL SUMMARY REPORTS, IF AVAILABLE FROM THE GEOTECHNICAL ENGINEER REPRESENTING THE PROJECT MUST STATE HIS PROFESSIONAL OPINION ON THE SATISFACTORILY COMPLETED PHASES OF CONSTRUCTION SUCH AS; SLOPE CUTS, SUBDRAINAGE SYSTEMS, PREPARATION OF SUBGRADES AND COMPACTION OF EARTH FILLS.
4. NO FILLS SHALL HAVE ZONES THAT EXCEED TWO (2) FEET IN ELEVATION WITHOUT CONDUCTING COMPACTION TEST AND OBTAINING RESULTS OF 95% OR GREATER.
5. THE GEOTECHNICAL ENGINEER MUST SUBMIT A DETAILED ANALYSIS, ITEMIZING THE FIELD DENSITY TEST RESULTS. THIS REPORT SHALL BE ACCOMPANIED WITH A COPY OF THE SITE PLAN SHEET AND INDICATE THE TEST LOCATIONS AND ELEVATIONS. THE GEOTECHNICAL ENGINEER MUST PROVIDE ENOUGH DESIGNATED TESTING IN ALL FILL ZONES TO ADEQUATELY EXAMINE AND CERTIFY THE INTEGRITY OF THE FILL.
6. THE GEOTECHNICAL ENGINEER MUST SUBMIT A CERTIFIED BUILDING PAD REPORT FOR EACH FILL PAD LOCATION. THIS REPORT SHALL PROFILE THE FILL MATERIAL PLACEMENT AND PROVIDE THE COMPACTION TEST RESULTS. ALL REPORTS WILL BE ACCOMPANIED BY THE SITE PLAN, INDICATING THE TEST LOCATIONS AND ELEVATIONS.
7. NO BUILDING PADS IN FILL ZONES WILL HAVE STRATUMS EXCEEDING TWO (2) FEET IN ELEVATION WITHOUT TEST VERIFYING DENSITY.
8. THESE GEOTECHNICAL NOTES SHALL IN NO WAY LESSEN THE REQUIREMENTS OF THE SUBMITTED SOILS REPORT.

ROAD SUBGRADE

1. INSPECTION AND APPROVAL OF THE SUBGRADE WILL BE REQUIRED PRIOR TO THE PLACEMENT OF THE APPROVED PAVEMENT SECTION MATERIAL.
2. ANY CLAY DEPOSITS IN THE TOP TWO FEET OF THE SUBGRADE MUST BE REMOVED OR ADDRESSED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
3. SUBGRADE APPROVAL SHALL BE ACCOMPANIED BY THE SUPPORTING DOCUMENTATION VERIFYING DENSITY TEST RESULTS OF 95% OR GREATER.
4. THE ENTIRE SUBGRADE WILL HAVE BEEN PROOF-ROLLED IN THE PRESENCE OF THE SITE INSPECTOR AND GEOTECHNICAL REPRESENTATIVE. PROOF-ROLLING SHALL BE A RUBBER TIRE VEHICLE SUCH AS A LOADED TEN (10) TON TRUCK OF APPROVED COMPACTION EQUIPMENT.
5. THE FINAL SUBGRADE SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER AND SITE INSPECTOR BEFORE PLACEMENT OF PAVEMENT SECTION MATERIALS.

TEMPORARY SEEDING SCHEDULE FOR LATE WINTER AND EARLY SPRING

DATES	SPECIES	RATE (LB/ACRE)
JAN 1 - MAY 1	RYE (GRAIN)	120

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4000 LB/ACRE SMALL GRAIN STRAW AND TACK WITH ASPHALT.
MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

TEMPORARY SEEDING SCHEDULE FOR FALL

DATES	SPECIES	RATE (LB/ACRE)
AUG 15 - DEC 30	RYE (GRAIN)	120

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1000 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4000 LB/ACRE SMALL GRAIN STRAW AND TACK WITH ASPHALT.
MAINTENANCE
REPAIR AND REFERTILIZE AND RESEED DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 LB/ACRE KOBE LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.

PERMANENT SEEDING SCHEDULE FOR GRASS-LINED CHANNELS

DATES	SPECIES	RATE (LB/ACRE)
AUG 15 - [illegible]	TALL FESCUE	200
	HULLED COMMON BERMUDA	50
FEB 1 - APR 15	TALL FESCUE	200

NURSE PLANTS
PRIOR TO MAY 1 OR AFTER AUG 15, ADD 80 LB/ACRE RYE (GRAIN).
SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OF APPLY 4,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1000 LB/ACRE 10-10-10 FERTILIZER. OPERATE TILLAGE EQUIPMENT ACROSS THE WATERWAY.
MULCH
USE A ROLLED EROSION CONTROL PRODUCT TO COVER THE BOTTOM OF CHANNELS AND DITCHES AND STAPLE SECURELY. THE LINING SHOULD EXTEND ABOVE THE HIGHEST CALCULATED DEPTH OF FLOW.
MAINTENANCE
INSPECT AND REPAIR MULCH FREQUENTLY. REFERTILIZE IN LATE WINTER OF THE FOLLOWING YEAR. FOLLOW RECOMMENDATIONS OF SOIL TESTS OR USE 150 LB/ACRE OF 10-10-10. MOW REGULARLY TO A HEIGHT OF 2-4 INCHES.

TEMPORARY SEEDING SCHEDULE FOR SUMMER

DATES	SPECIES	RATE (LB/ACRE)
MAY 1 - AUG 15	GERMAN MILLET	40

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4000 LB/ACRE SMALL GRAIN STRAW AND TACK WITH ASPHALT.
MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

PERMANENT SEEDING SCHEDULE FOR AREAS OTHER THAN CHANNELS

SPECIES	RATE (LB/ACRE) 3:1 AND STEEPER SLOPES	SLOPES FLATTER THAN 3:1
TALL FESCUE	150	80
HULLED COMMON BERMUDA	25	40

AFTER AUGUST 15 USE UNHULLED BERMUDA SEED.

NURSE PLANTS
PRIOR TO MAY 1 OR AFTER AUG 15, ADD 40 LB/ACRE RYE (GRAIN).
SEEDING DATES

	BEST	POSSIBLE
FALL	AUG 25 - SEP 15	AUG 20 - OCT 25
LATE WINTER	FEB 15 - MAR 21	FEB 1 - APR 15

FALL IS BEST FOR TALL FESCUE AND LATE WINTER FOR LESPEDEZAS. OVERSEEDING OF KOBE LESPEDEZA OVER FALL-SEEDED TALL FESCUE IS VERY EFFECTIVE.
SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 4,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1000 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4,000-5,000 LB/ACRE GRAIN STRAW. ANCHOR BY TACKING WITH ASPHALT ON SLOPE 3:1 OR STEEPER ANCHOR STRAW WITH NETTING.
MAINTENANCE
REFERTILIZE IN THE SECOND YEAR UNLESS GROWTH IS FULLY ADEQUATE. MAY BE MOWED ONCE OR TWICE A YEAR, BUT MOWING IS NOT NECESSARY. REFERTILIZE, RESEED AND MULCH DAMAGED AREAS IMMEDIATELY.

NOTES
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

Draper Aden Associates
Engineering • Surveying • Environmental Services

REVISIONS

DESIGNED BY: BLT
DRAWN BY: KJ
CHECKED BY: APM
SCALE: NONE
DATE: JANUARY 11, 2021
PROJECT NUMBER: 19080319-110302

C2.0

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

SELF-INSPECTIONS ARE REQUIRED DURING NORMAL BUSINESS HOURS IN ACCORDANCE WITH THE TABLE BELOW. WHEN ADVERSE WEATHER OR SITE CONDITIONS WOULD CAUSE THE SAFETY OF THE INSPECTION PERSONNEL TO BE IN JEOPARDY, THE INSPECTION MAY BE DELAYED UNTIL THE NEXT BUSINESS DAY ON WHICH IT IS SAFE TO PERFORM THE INSPECTION. IN ADDITION, WHEN A STORM EVENT OF EQUAL TO OR GREATER THAN 1.0 INCH OCCURS OUTSIDE OF NORMAL BUSINESS HOURS, THE SELF-INSPECTION SHALL BE PERFORMED UPON THE COMMENCEMENT OF THE NEXT BUSINESS DAY. ANY TIME WHEN INSPECTIONS WERE DELAYED SHALL BE NOTED IN THE INSPECTION RECORD.

INSPECT	FREQUENCY (DURING NORMAL BUSINESS HOURS)	INSPECTION RECORDS MUST INCLUDE:
(1) RAIN GAUGE MAINTAINED IN GOOD WORKING ORDER	DAILY	DAILY RAINFALL AMOUNTS. IF NO DAILY RAIN GAUGE OBSERVATIONS ARE MADE DURING WEEKEND OR HOLIDAY PERIODS, AND NO INDIVIDUAL-DAY RAINFALL INFORMATION IS AVAILABLE, RECORD THE CUMULATIVE RAIN MEASUREMENT FOR THOSE UNATTENDED DAYS (AND THIS WILL DETERMINE IF A SITE INSPECTION IS NEEDED). DAYS ON WHICH NO RAINFALL OCCURRED SHALL BE RECORDED AS "ZERO." THE PERMITTEE MAY USE ANOTHER RAIN-MONITORING DEVICE APPROVED BY THE DIVISION.
(2) E&SC MEASURES	AT LEAST ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT ≥ 1.0 INCH IN 24 HOURS	1. IDENTIFICATION OF THE MEASURES INSPECTED, 2. DATE AND TIME OF THE INSPECTION, 3. NAME OF THE PERSON PERFORMING THE INSPECTION, 4. INDICATION OF WHETHER THE MEASURES WERE OPERATING PROPERLY, 5. DESCRIPTION OF MAINTENANCE NEEDS FOR THE MEASURE, 6. DESCRIPTION, EVIDENCE, AND DATE OF CORRECTIVE ACTIONS TAKEN.
(3) STORMWATER DISCHARGE OUTFALLS (SDOS)	AT LEAST ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT ≥ 1.0 INCH IN 24 HOURS	1. IDENTIFICATION OF THE DISCHARGE OUTFALLS INSPECTED, 2. DATE AND TIME OF THE INSPECTION, 3. NAME OF THE PERSON PERFORMING THE INSPECTION, 4. EVIDENCE OF INDICATORS OF STORMWATER POLLUTION SUCH AS OIL SHEEN, FLOATING OR SUSPENDED SOLIDS OR DISCOLORATION, 5. INDICATION OF VISIBLE SEDIMENT LEAVING THE SITE, 6. DESCRIPTION, EVIDENCE, AND DATE OF CORRECTIVE ACTIONS TAKEN.
(4) PERIMETER OF SITE	[illegible]	[illegible]
(5) STREAMS OR WETLANDS ONSITE OR OFFSITE (WHERE ACCESSIBLE)	[illegible]	[illegible]
(6) GROUND STABILIZATION MEASURES	[illegible]	[illegible]

NOTE: THE RAIN INSPECTION RESETS THE REQUIRED 7 CALENDAR DAY INSPECTION REQUIREMENT.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC PLAN DOCUMENTATION

THE APPROVED E&SC PLAN AS WELL AS ANY APPROVED DEVIATION SHALL BE KEPT ON THE SITE. THE APPROVED E&SC PLAN MUST BE KEPT UP-TO-DATE THROUGHOUT THE COVERAGE UNDER THIS PERMIT. THE FOLLOWING ITEMS PERTAINING TO THE E&SC PLAN SHALL BE KEPT ON SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES DURING NORMAL BUSINESS HOURS.

ITEM TO DOCUMENT	DOCUMENTATION REQUIREMENTS
(A) EACH E&SC MEASURE HAS BEEN INSTALLED AND DOES NOT SIGNIFICANTLY DEVIATE FROM THE LOCATIONS, DIMENSIONS AND RELATIVE ELEVATIONS SHOWN ON THE APPROVED E&SC PLAN.	INITIAL AND DATE EACH E&SC MEASURE ON A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT THAT LISTS EACH E&SC MEASURE SHOWN ON THE APPROVED E&SC PLAN. THIS DOCUMENTATION IS REQUIRED UPON THE INITIAL INSTALLATION OF THE E&SC MEASURES OR IF THE E&SC MEASURES ARE MODIFIED AFTER INITIAL INSTALLATION.
(B) A PHASE OF GRADING HAS BEEN COMPLETED.	INITIAL AND DATE A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT TO INDICATE COMPLETION OF THE CONSTRUCTION PHASE.
(C) GROUND COVER IS LOCATED AND INSTALLED IN ACCORDANCE WITH THE APPROVED E&SC PLAN.	INITIAL AND DATE A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT TO INDICATE COMPLIANCE WITH APPROVED GROUND COVER SPECIFICATIONS.
(D) THE MAINTENANCE AND REPAIR REQUIREMENTS FOR ALL E&SC MEASURES HAVE BEEN PERFORMED.	COMPLETE, DATE AND SIGN AN INSPECTION REPORT.
(E) CORRECTIVE ACTIONS HAVE BEEN TAKEN TO E&SC MEASURES.	INITIAL AND DATE A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT TO INDICATE THE COMPLETION OF THE CORRECTIVE ACTION.

2. DOCUMENTATION TO BE RETAINED FOR THREE YEARS

ALL DATA USED TO COMPLETE THE E-NOI AND ALL INSPECTION RECORDS SHALL BE MAINTAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION AND MADE AVAILABLE UPON REQUEST. [40 CFR 122.41]

3. ADDITIONAL DOCUMENTATION TO BE KEPT ON SITE

IN ADDITION TO THE E&SC PLAN DOCUMENTS ABOVE, THE FOLLOWING ITEMS SHALL BE KEPT ON THE SITE AND AVAILABLE FOR INSPECTORS AT ALL TIMES DURING NORMAL BUSINESS HOURS, UNLESS THE DIVISION PROVIDES A SITE-SPECIFIC EXEMPTION BASED ON UNIQUE SITE CONDITIONS THAT MAKE THIS REQUIREMENT NOT PRACTICAL:

(a) THIS GENERAL PERMIT AS WELL AS THE CERTIFICATE OF COVERAGE, AFTER IT IS RECEIVED.

(b) RECORDS OF INSPECTIONS MADE DURING THE PREVIOUS TWELVE MONTHS. THE PERMITTEE SHALL RECORD THE REQUIRED OBSERVATIONS ON THE INSPECTION RECORD FORM PROVIDED BY THE DIVISION OR A SIMILAR INSPECTION FORM THAT INCLUDES ALL THE REQUIRED ELEMENTS. USE OF ELECTRONICALLY-AVAILABLE RECORDS IN LIEU OF THE REQUIRED PAPER COPIES WILL BE ALLOWED IF SHOWN TO PROVIDE EQUAL ACCESS AND UTILITY AS THE HARD-COPY RECORDS.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. OCCURRENCES THAT MUST BE REPORTED

PERMITTEES SHALL REPORT THE FOLLOWING OCCURRENCES:

(a) VISIBLE SEDIMENT DEPOSITION IN A STREAM OR WETLAND.

(b) OIL SPILLS IF:
- THEY ARE 25 GALLONS OR MORE,
- THEY ARE LESS THAN 25 GALLONS BUT CANNOT BE CLEANED UP WITHIN 24 HOURS,
- THEY CAUSE SHEEN ON SURFACE WATERS (REGARDLESS OF VOLUME), OR
- THEY ARE WITHIN 100 FEET OF SURFACE WATERS (REGARDLESS OF VOLUME).

(c) RELEASES OF HAZARDOUS SUBSTANCES IN EXCESS OF REPORTABLE QUANTITIES UNDER SECTION 311 OF THE CLEAN WATER ACT (REF: 40 CFR 110.3 AND 40 CFR 117.3) OR SECTION 102 OF CERCLA (REF: 40 CFR 302.4) OR G.S. 143-215.85.

(d) ANTICIPATED BYPASSES AND UNANTICIPATED BYPASSES.

(e) NONCOMPLIANCE WITH THE CONDITIONS OF THIS PERMIT THAT MAY ENDANGER HEALTH OR THE ENVIRONMENT.

2. REPORTING TIMEFRAMES AND OTHER REQUIREMENTS

AFTER A PERMITTEE BECOMES AWARE OF AN OCCURRENCE THAT MUST BE REPORTED, HE SHALL CONTACT THE APPROPRIATE DIVISION REGIONAL OFFICE WITHIN THE TIMEFRAMES AND IN ACCORDANCE WITH THE OTHER REQUIREMENTS LISTED BELOW. OCCURRENCES OUTSIDE NORMAL BUSINESS HOURS MAY ALSO BE REPORTED TO THE DEPARTMENT'S ENVIRONMENTAL EMERGENCY CENTER PERSONNEL AT (800) 858-0368.

OCCURRENCE	REPORTING TIMEFRAMES (AFTER DISCOVERY) AND OTHER REQUIREMENT
(A) VISIBLE SEDIMENT DEPOSITION IN A STREAM OR WETLAND	**WITHIN 24 HOURS**, AN ORAL OR ELECTRONIC NOTIFICATION. **WITHIN 7 CALENDAR DAYS**, A REPORT THAT CONTAINS A DESCRIPTION OF THE SEDIMENT AND ACTIONS TAKEN TO ADDRESS THE CAUSE OF THE DEPOSITION. DIVISION STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CASE-BY-CASE BASIS. IF THE STREAM IS NAMED ON THE NC 303(D) LIST AS IMPAIRED FOR SEDIMENT-RELATED CAUSES, THE PERMITTEE MAY BE REQUIRED TO PERFORM ADDITIONAL MONITORING, INSPECTIONS OR APPLY MORE STRINGENT PRACTICES IF STAFF DETERMINE THAT ADDITIONAL REQUIREMENTS ARE NEEDED TO ASSURE COMPLIANCE WITH THE FEDERAL OR STATE IMPAIRED-WATERS CONDITIONS.
(B) OIL SPILLS AND RELEASE OF HAZARDOUS SUBSTANCES PER ITEM 1(B)-(C) ABOVE	**WITHIN 24 HOURS**, AN ORAL OR ELECTRONIC NOTIFICATION. THE NOTIFICATION SHALL INCLUDE INFORMATION ABOUT THE DATE, TIME, NATURE, VOLUME AND LOCATION OF THE SPILL OR RELEASE.
(C) ANTICIPATED BYPASSES [40 CFR 122.41(M)(3)]	**A REPORT AT LEAST TEN DAYS BEFORE THE DATE OF THE BYPASS, IF POSSIBLE.** THE REPORT SHALL INCLUDE AN EVALUATION OF THE ANTICIPATED QUALITY AND EFFECT OF THE BYPASS.
(D) UNANTICIPATED BYPASSES [40 CFR 122.41(M)(3)]	**WITHIN 24 HOURS**, AN ORAL OR ELECTRONIC NOTIFICATION. **WITHIN 7 CALENDAR DAYS**, A REPORT THAT INCLUDES AN EVALUATION OF THE QUALITY AND EFFECT OF THE BYPASS.
(E) NONCOMPLIANCE WITH THE CONDITIONS OF THIS PERMIT THAT MAY ENDANGER HEALTH OR THE ENVIRONMENT [40 CFR 122.41(L)(7)]	**WITHIN 24 HOURS**, AN ORAL OR ELECTRONIC NOTIFICATION. **WITHIN 7 CALENDAR DAYS**, A REPORT THAT CONTAINS A DESCRIPTION OF THE NONCOMPLIANCE, AND ITS CAUSES; THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES, AND IF THE NONCOMPLIANCE HAS NOT BEEN CORRECTED, THE ANTICIPATED TIME NONCOMPLIANCE IS EXPECTED TO CONTINUE; AND STEPS TAKEN OR PLANNED TO REDUCE, ELIMINATE, AND PREVENT REOCCURRENCE OF THE NONCOMPLIANCE. [40 CFR 122.41(L)(6)]. DIVISION STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CASE-BY-CASE BASIS.

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

REQUIRED GROUND STABILIZATION TIMEFRAMES		
SITE AREA DESCRIPTION	STABILIZE WITHIN THIS MANY CALENDAR DAYS AFTER CEASING LAND DISTURBANCE	TIMEFRAME VARIATIONS
(A) PERIMETER DIKES, SWALES, DITCHES, AND PERIMETER SLOPES	7	NONE
(B) HIGH QUALITY WATER (HQW) ZONES	7	NONE
(C) SLOPES STEEPER THAN 3:1	7	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ALLOWED
(D) SLOPES 3:1 TO 4:1	14	-7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH AND WITH SLOPES STEEPER THAN 4:1 -7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND HQW ZONES -10 DAYS FOR FALLS LAKE WATERSHED
(E) AREAS WITH SLOPES FLATTER THAN 4:1	14	-7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND HQW ZONES -10 DAYS FOR FALLS LAKE WATERSHED UNLESS THERE IS ZERO SLOPE

NOTE: AFTER THE PERMANENT CESSATION OF CONSTRUCTION ACTIVITIES, ANY AREAS WITH TEMPORARY GROUND STABILIZATION SHALL BE CONVERTED TO PERMANENT GROUND STABILIZATION AS SOON AS PRACTICABLE BUT IN NO CASE LONGER THAN 90 CALENDAR DAYS AFTER THE LAST LAND DISTURBING ACTIVITY. TEMPORARY GROUND STABILIZATION SHALL BE MAINTAINED IN A MANNER TO RENDER THE SURFACE STABLE AGAINST ACCELERATED EROSION UNTIL PERMANENT GROUND STABILIZATION IS ACHIEVED.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

TEMPORARY SEEDING	PERMANENT STABILIZATION
TEMPORARY GRASS SEED COVERED WITH STRAW OR OTHER MULCHES AND TACKIFIERS HYDROSEEDING ROLLED EROSION CONTROL PRODUCTS WITH OR WITHOUT TEMPORARY GRASS SEED APPROPRIATELY APPLIED STRAW OR OTHER MULCH PLASTIC SHEETING	PERMANENT GRASS SEED COVERED WITH STRAW OR OTHER MULCHES AND TACKIFIERS GEOTEXTILE FABRICS SUCH AS PERMANENT SOIL REINFORCEMENT MATTING HYDROSEEDING SHRUBS OR OTHER PERMANENT PLANTINGS COVERED WITH MULCH UNIFORM AND EVENLY DISTRIBUTED GROUND COVER SUFFICIENT TO RESTRAIN EROSION STRUCTURAL METHODS SUCH AS CONCRETE, ASPHALT OR RETAINING WALLS ROLLED EROSION CONTROL PRODUCTS WITH GRASS SEED

PAINT AND OTHER LIQUID WASTE

1. DO NOT DUMP PAINT AND OTHER LIQUID WASTE INTO STORM DRAINS, STREAMS OR WETLANDS.
2. LOCATE PAINT WASHOUTS AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
3. CONTAIN LIQUID WASTES IN A CONTROLLED AREA.
4. CONTAINMENT MUST BE LABELED, SIZED AND PLACED APPROPRIATELY FOR THE NEEDS OF SITE.
5. PREVENT THE DISCHARGE OF SOAPS, SOLVENTS, DETERGENTS AND OTHER LIQUID WASTES FROM CONSTRUCTION SITES.

EARTHEN STOCKPILE MANAGEMENT

1. SHOW STOCKPILE LOCATIONS ON PLANS. LOCATE EARTHEN-MATERIAL STOCKPILE AREAS AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS, SEDIMENT BASINS, PERIMETER SEDIMENT CONTROLS AND SURFACE WATERS UNLESS IT CAN BE SHOWN NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
2. PROTECT STOCKPILE WITH SILT FENCE INSTALLED ALONG TOE OF SLOPE WITH A MINIMUM OFFSET OF FIVE FEET FROM THE TOE OF STOCKPILE.
3. PROVIDE STABLE STONE ACCESS POINT WHEN FEASIBLE.
4. STABILIZE STOCKPILE WITHIN THE TIMEFRAMES PROVIDED ON THIS SHEET AND IN ACCORDANCE WITH THE APPROVED PLAN AND ANY ADDITIONAL REQUIREMENTS. SOIL STABILIZATION IS DEFINED AS VEGETATIVE, PHYSICAL OR CHEMICAL COVERAGE TECHNIQUES THAT WILL RESTRAIN ACCELERATED EROSION ON DISTURBED SOILS FOR TEMPORARY OR PERMANENT CONTROL NEEDS.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. STORE AND APPLY HERBICIDES, PESTICIDES AND RODENTICIDES IN ACCORDANCE WITH LABEL RESTRICTIONS.
2. STORE HERBICIDES, PESTICIDES AND RODENTICIDES IN THEIR ORIGINAL CONTAINERS WITH THE LABEL, WHICH LISTS DIRECTIONS FOR USE, INGREDIENTS AND FIRST AID STEPS IN CASE OF ACCIDENTAL POISONING.
3. DO NOT STORE HERBICIDES, PESTICIDES AND RODENTICIDES IN AREAS WHERE FLOODING IS POSSIBLE OR WHERE THEY MAY SPILL OR LEAK INTO WELLS, STORMWATER DRAINS, GROUND WATER OR SURFACE WATER. IF A SPILL OCCURS, CLEAN AREA IMMEDIATELY.
4. DO NOT STOCKPILE THESE MATERIALS ONSITE.

PORTABLE TOILETS

1. INSTALL PORTABLE TOILETS ON LEVEL GROUND, AT LEAST 50 FEET AWAY FROM STORM DRAINS, STREAMS OR WETLANDS UNLESS THERE IS NO ALTERNATIVE REASONABLY AVAILABLE. IF 50 FOOT OFFSET IS NOT ATTAINABLE, PROVIDE RELOCATION OF PORTABLE TOILET BEHIND SILT FENCE OR PLACE ON A GRAVEL PAD AND SURROUND WITH SAND BAGS.
2. PROVIDE STAKING OR ANCHORING OF PORTABLE TOILETS DURING PERIODS OF HIGH WINDS OR IN HIGH FOOT TRAFFIC AREAS.
3. MONITOR PORTABLE TOILETS FOR LEAKING AND PROPERLY DISPOSE OF ANY LEAKED MATERIAL. UTILIZE A LICENSED SANITARY WASTE HAULER TO REMOVE LEAKING PORTABLE TOILETS AND REPLACE WITH PROPERLY OPERATING UNIT.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

[illegible]

(d) DEWATERING DISCHARGES ARE TREATED WITH CONTROLS TO MINIMIZE DISCHARGES OF POLLUTANTS FROM STORMWATER THAT IS REMOVED FROM THE SEDIMENT BASIN. EXAMPLES OF APPROPRIATE CONTROLS INCLUDE PROPERLY SITED, DESIGNED AND MAINTAINED DEWATERING TANKS, WEIR TANKS, AND FILTRATION SYSTEMS;

(e) VEGETATED, UPLAND AREAS OF THE SITES OR A PROPERLY DESIGNED STONE PAD IS USED TO THE EXTENT FEASIBLE AT THE OUTLET OF THE DEWATERING TREATMENT DEVICES DESCRIBED IN ITEM (C) ABOVE;

(e) VELOCITY DISSIPATION DEVICES SUCH AS CHECK DAMS, SEDIMENT TRAPS, AND RIPRAP ARE PROVIDED AT THE DISCHARGE POINTS OF ALL DEWATERING DEVICES, AND

(f) SEDIMENT REMOVED FROM THE DEWATERING TREATMENT DEVICES DESCRIBED IN ITEM (C) ABOVE IS DISPOSED OF IN A MANNER THAT DOES NOT CAUSE DEPOSITION OF SEDIMENT INTO WATERS OF THE UNITED STATES.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. NEVER BURY OR BURN WASTE. PLACE LITTER AND DEBRIS IN APPROVED WASTE CONTAINERS.
2. PROVIDE A SUFFICIENT NUMBER AND SIZE OF WASTE CONTAINERS (E.G. DUMPSTER, TRASH RECEPTACLE) ON SITE TO CONTAIN CONSTRUCTION AND DOMESTIC WASTES.
3. LOCATE WASTE CONTAINERS AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
4. LOCATE WASTE CONTAINERS ON AREAS THAT DO NOT RECEIVE SUBSTANTIAL AMOUNTS OF RUNOFF FROM UPLAND AREAS AND DOES NOT DRAIN DIRECTLY TO A STORM DRAIN, STREAM OR WETLAND.
5. COVER WASTE CONTAINERS AT THE END OF EACH WORKDAY AND BEFORE STORM EVENTS OR PROVIDE SECONDARY CONTAINMENT. REPAIR OR REPLACE DAMAGED WASTE CONTAINERS.
6. ANCHOR ALL LIGHTWEIGHT ITEMS IN WASTE CONTAINERS DURING TIMES OF HIGH WINDS.
7. EMPTY WASTE CONTAINERS AS NEEDED TO PREVENT OVERFLOW. CLEAN UP IMMEDIATELY IF CONTAINERS OVERFLOW.
8. DISPOSE WASTE OFF-SITE AT AN APPROVED DISPOSAL FACILITY.
9. ON BUSINESS DAYS, CLEAN UP AND DISPOSE OF WASTE IN DESIGNATED WASTE CONTAINERS.

HAZARDOUS AND TOXIC WASTE

1. CREATE DESIGNATED HAZARDOUS WASTE COLLECTION AREAS ON SITE.
2. PLACE HAZARDOUS WASTE CONTAINERS UNDER COVER OR IN SECONDARY CONTAINMENT.
3. DO NOT STORE HAZARDOUS CHEMICALS, DRUMS OR BAGGED MATERIALS DIRECTLY ON THE GROUND.

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

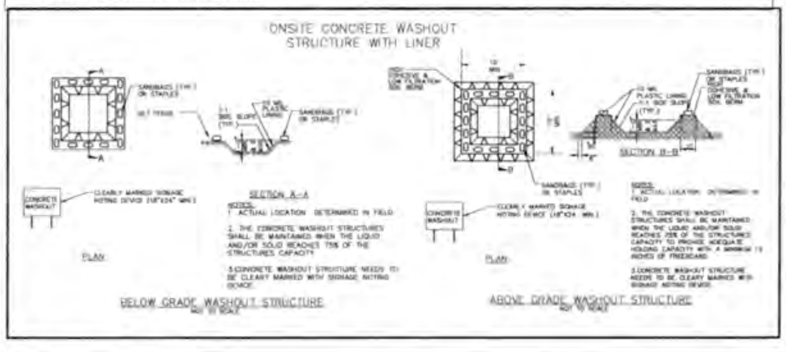
1. SELECT FLOCCULANTS THAT ARE APPROPRIATE FOR THE SOILS BEING EXPOSED DURING CONSTRUCTION, SELECTING FROM THE NC DWR LIST OF APPROVED PAMS/FLOCCULANTS.
2. APPLY FLOCCULANTS AT OR BEFORE THE INLETS TO EROSION AND SEDIMENT CONTROL MEASURES.
3. APPLY FLOCCULANTS AT THE CONCENTRATIONS SPECIFIED IN THE NC DWR LIST OF APPROVED PAMS/FLOCCULANTS AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
4. PROVIDE PONDING AREA FOR CONTAINMENT OF TREATED STORMWATER BEFORE DISCHARGING OFFSITE.
5. STORE FLOCCULANTS IN LEAK-PROOF CONTAINERS THAT ARE KEPT UNDER STORM-RESISTANT COVER OR SURROUNDED BY SECONDARY CONTAINMENT STRUCTURES.

EQUIPMENT AND VEHICLE MAINTENANCE

1. MAINTAIN VEHICLES AND EQUIPMENT TO PREVENT DISCHARGE OF FLUIDS.
2. PROVIDE DRIP PANS UNDER ANY STORED EQUIPMENT.
3. IDENTIFY LEAKS AND REPAIR AS SOON AS FEASIBLE, OR REMOVE LEAKING EQUIPMENT FROM THE PROJECT.
4. COLLECT ALL SPENT FLUIDS, STORE IN SEPARATE CONTAINERS AND PROPERLY DISPOSE AS HAZARDOUS WASTE (RECYCLE WHEN POSSIBLE).
5. REMOVE LEAKING VEHICLES AND CONSTRUCTION EQUIPMENT FROM SERVICE UNTIL THE PROBLEM HAS BEEN CORRECTED.
6. BRING USED FUELS, LUBRICANTS, COOLANTS, HYDRAULIC FLUIDS AND OTHER PETROLEUM PRODUCTS TO A RECYCLING OR DISPOSAL CENTER THAT HANDLES THESE MATERIALS.

CONCRETE WASHOUTS

1. DO NOT DISCHARGE CONCRETE OR CEMENT SLURRY FROM THE SITE.
2. DISPOSE OF, OR RECYCLE SETTLED, HARDENED CONCRETE RESIDUE IN ACCORDANCE WITH LOCAL AND STATE SOLID WASTE REGULATIONS AND AT AN APPROVED FACILITY.
3. MANAGE WASHOUT FROM MORTAR MIXERS IN ACCORDANCE WITH THE ABOVE ITEM AND IN ADDITION PLACE THE MIXER AND ASSOCIATED MATERIALS ON IMPERVIOUS BARRIER AND WITHIN LOT PERIMETER SILT FENCE.
4. INSTALL TEMPORARY CONCRETE WASHOUTS PER LOCAL REQUIREMENTS, WHERE APPLICABLE. IF AN ALTERNATE METHOD OR PRODUCT IS TO BE USED, CONTACT YOUR APPROVAL AUTHORITY FOR REVIEW AND APPROVAL. IF LOCAL STANDARD DETAILS ARE NOT AVAILABLE, USE ONE OF THE TWO TYPES OF TEMPORARY CONCRETE WASHOUTS PROVIDED ON THIS DETAIL.
5. DO NOT USE CONCRETE WASHOUTS FOR DEWATERING OR STORING DEFECTIVE CURB OR SIDEWALK SECTIONS. STORMWATER ACCUMULATED WITHIN THE WASHOUT MAY NOT BE PUMPED INTO OR DISCHARGED TO THE STORM DRAIN SYSTEM OR RECEIVING SURFACE WATERS. LIQUID WASTE MUST BE PUMPED OUT AND REMOVED FROM PROJECT.
6. LOCATE WASHOUTS AT LEAST 50 FEET FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE. AT A MINIMUM, INSTALL PROTECTION OF STORM DRAIN INLET(S) CLOSEST TO THE WASHOUT WHICH COULD RECEIVE SPILLS OR OVERFLOW.
7. LOCATE WASHOUTS IN AN EASILY ACCESSIBLE AREA, ON LEVEL GROUND AND INSTALL A STONE ENTRANCE PAD IN FRONT OF THE WASHOUT. ADDITIONAL CONTROLS MAY BE REQUIRED BY THE APPROVING AUTHORITY.
8. INSTALL AT LEAST ONE SIGN DIRECTING CONCRETE TRUCKS TO THE WASHOUT WITHIN THE PROJECT LIMITS. POST SIGNAGE ON THE WASHOUT ITSELF TO IDENTIFY THIS LOCATION.
9. REMOVE LEAVINGS FROM THE WASHOUT WHEN AT APPROXIMATELY 75% CAPACITY TO LIMIT OVERFLOW EVENTS. REPLACE THE TARP, SAND BAGS OR OTHER TEMPORARY STRUCTURAL COMPONENTS WHEN NO LONGER FUNCTIONAL. WHEN UTILIZING ALTERNATIVE OR PROPRIETARY PRODUCTS, FOLLOW MANUFACTURER'S INSTRUCTIONS.
10. AT THE COMPLETION OF THE CONCRETE WORK, REMOVE REMAINING LEAVINGS AND DISPOSE OF IN AN APPROVED DISPOSAL FACILITY. FILL PIT, IF APPLICABLE, AND STABILIZE ANY DISTURBANCE CAUSED BY REMOVAL OF WASHOUT.



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NCG01 NOTES

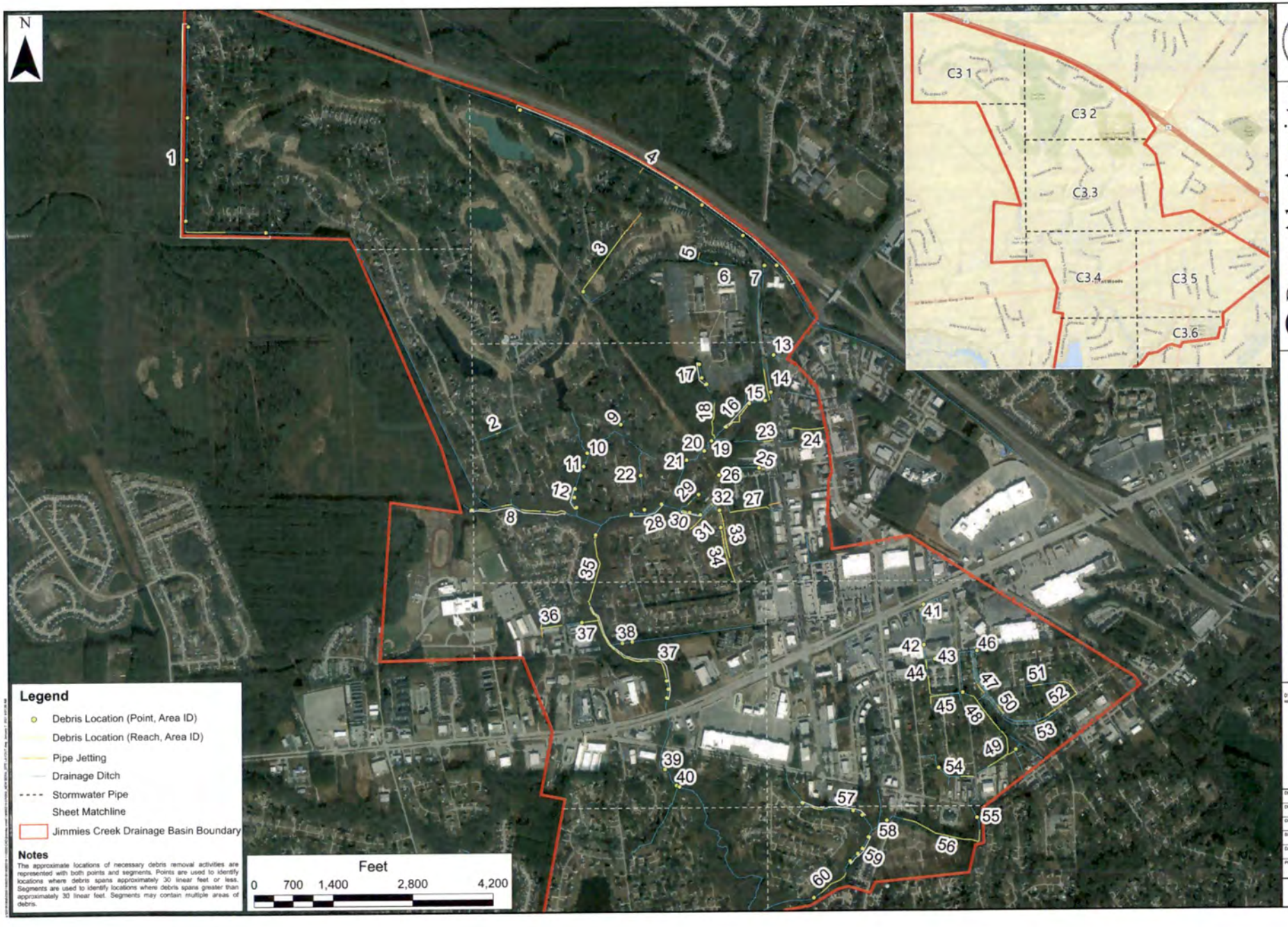
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES

JIMMIES CREEK DRAINAGE BASIN

REVISIONS

DESIGNED BY: APM
DRAWN BY: APM
CHECKED BY: APM
SCALE: NONE
DATE: JANUARY 11, 2021
PROJECT NUMBER: 19080319-110302

C2.1



NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041593 01.11.21 ANDREW P. MERCER

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DRAINAGE BASIN OVERVIEW
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS
01/11/21 RELEASED FOR BIDDING - NOT FOR CONSTRUCTION

DESIGNED BY: SLF
DRAWN BY: SLF
CHECKED BY: APM
SCALE: 1 = 700
DATE: JANUARY 11, 2021
PROJECT NUMBER: 19080319-110302

C3.0

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• Fayetteville, NC
• Northern Virginia
• Virginia Beach, VA
• Richmond, VA
• Blacksburg, VA
• Charlottesville, VA

SITE DETAIL
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS
01/11/21
RELEASED FOR BIDDING - NOT FOR CONSTRUCTION

DESIGNED BY	SLF
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SCALE	1 = 200'
DATE	JANUARY 11, 2021
PROJECT NUMBER	19080319-110302

C3.1

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• Chesterbrook, VA

SITE DETAIL
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS
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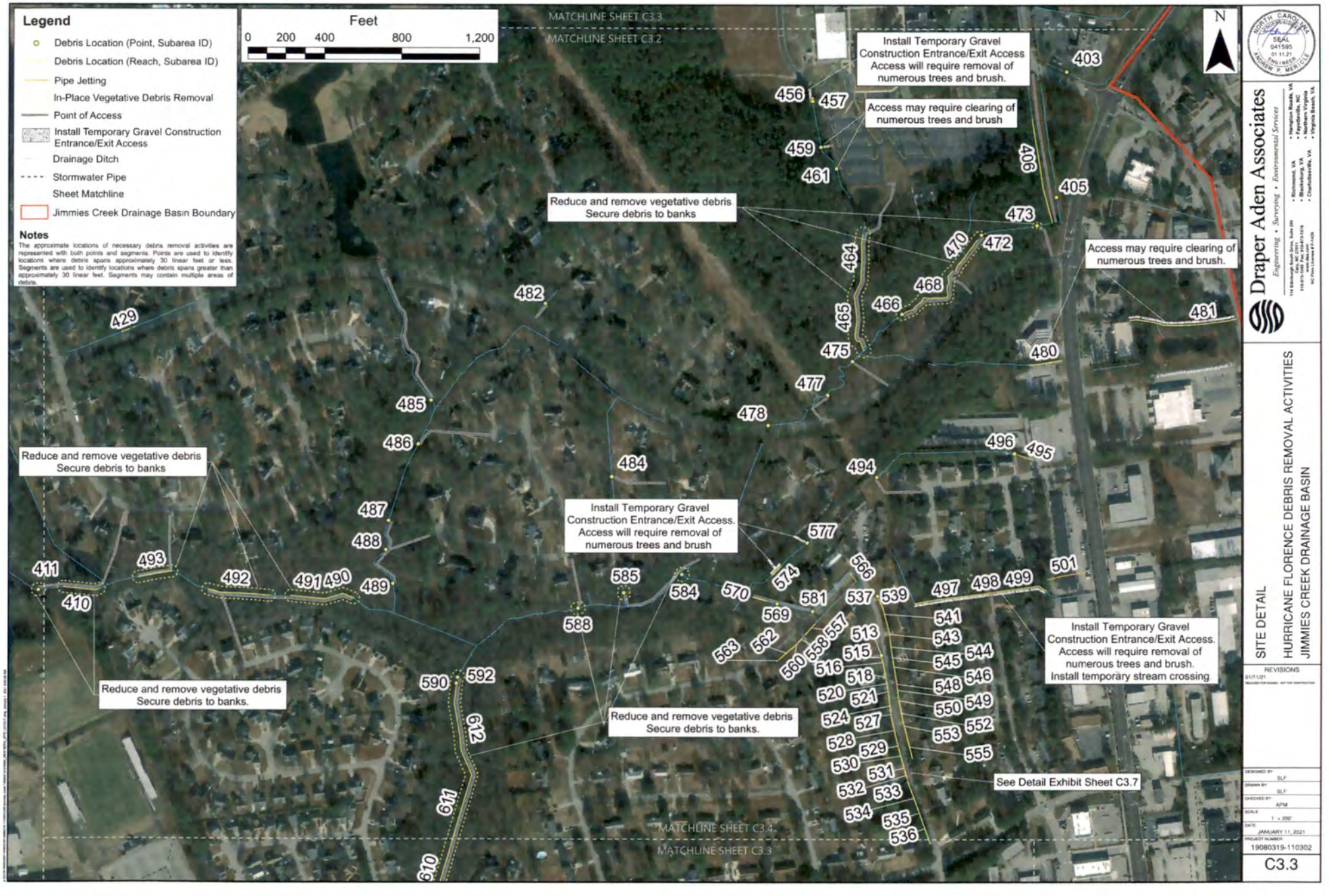
C3.2


Legend
Debris Location (Point, Subarea ID)
Debris Location (Reach, Subarea ID)
Pipe Jetting
In-Place Vegetative Debris Removal
Point of Access
Install Temporary Gravel Construction Entrance/Exit Access
Drainage Ditch
Stormwater Pipe
Sheet Matchline
Jimmies Creek Drainage Basin Boundary
Notes
The approximate locations of necessary debris removal activities are represented with both points and segments. Points are used to identify locations where debris spans approximately 30 linear feet or less. Segments are used to identify locations where debris spans greater than approximately 30 linear feet. Segments may contain multiple areas of debris.
Feet
0 200 400 800 1,200
N
MATCHLINE SHEET C3.3
MATCHLINE SHEET C3.2
MATCHLINE SHEET C3.4
MATCHLINE SHEET C3.3
Install Temporary Gravel Construction Entrance/Exit Access. Access will require removal of numerous trees and brush.
Access may require clearing of numerous trees and brush
Reduce and remove vegetative debris Secure debris to banks
Access may require clearing of numerous trees and brush.
Reduce and remove vegetative debris Secure debris to banks
Install Temporary Gravel Construction Entrance/Exit Access. Access will require removal of numerous trees and brush
Install Temporary Gravel Construction Entrance/Exit Access. Access will require removal of numerous trees and brush. Install temporary stream crossing
Reduce and remove vegetative debris Secure debris to banks.
Reduce and remove vegetative debris Secure debris to banks.
See Detail Exhibit Sheet C3.7
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SITE DETAIL
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN
REVISIONS
01/11/21
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SCALE: 1 = 200'
DATE: JANUARY 11, 2021
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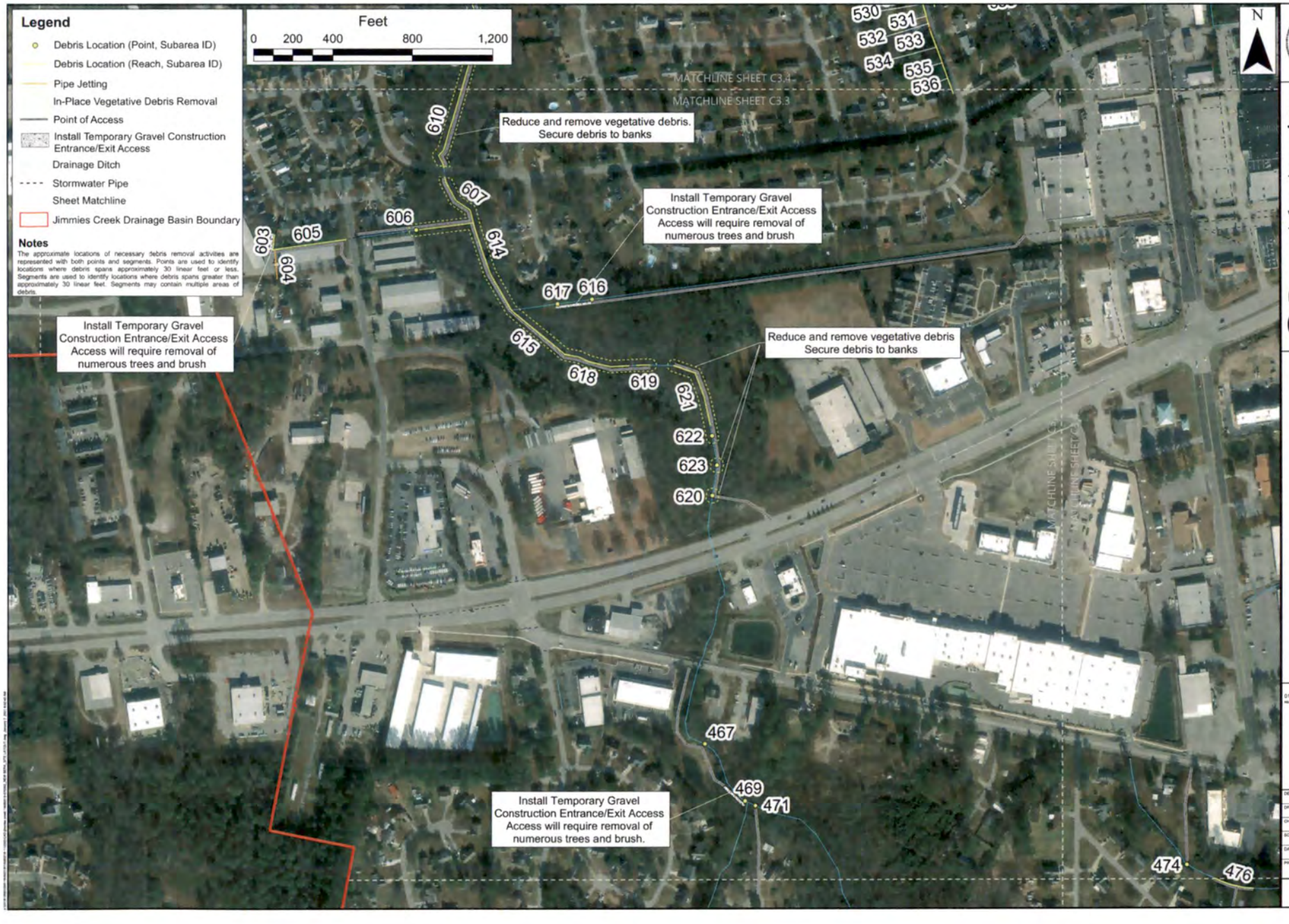
C3.3



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SITE DETAIL
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS
01/11/21
RELEASED FOR BIDDING - NOT FOR CONSTRUCTION

DESIGNED BY	SLF
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CHECKED BY	APM
SCALE	1" = 200'
DATE	JANUARY 11, 2021
PROJECT NUMBER	19080319-110302

C3.4

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SITE DETAIL
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS
01/11/21

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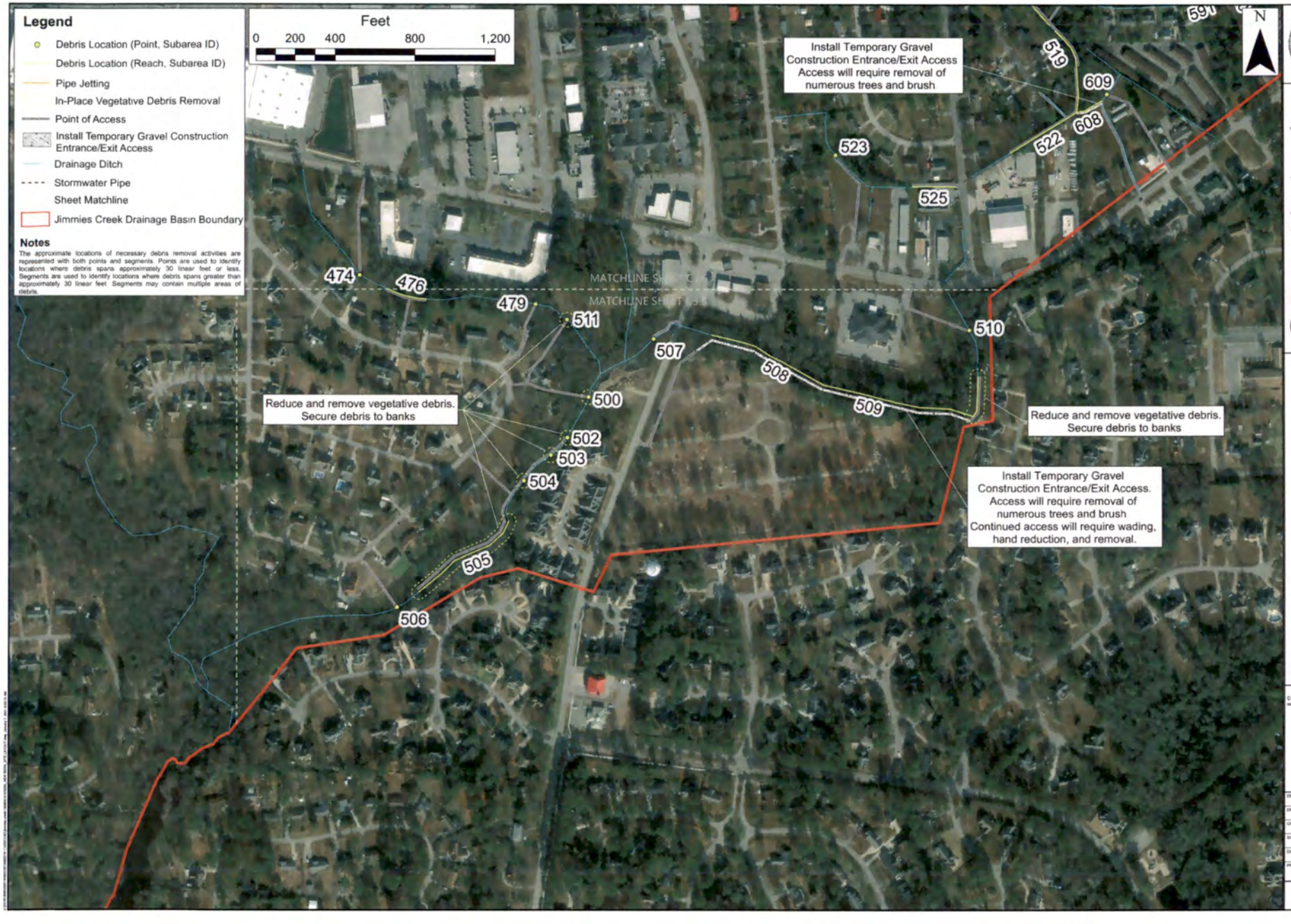
C3.5



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SITE DETAIL
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS
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SCALE: 1" = 200'
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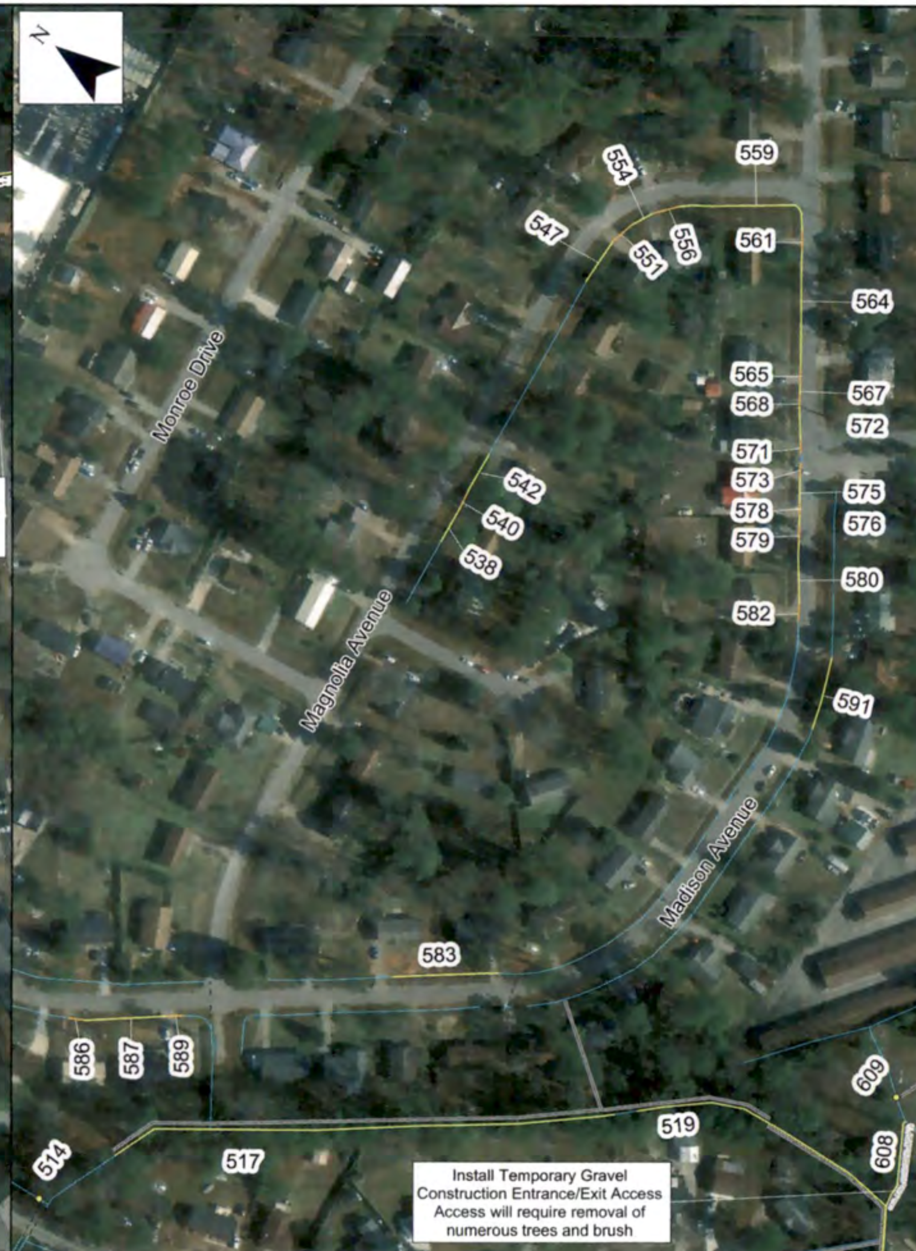
PROJECT NUMBER: 19080319-110302

C3.6

Norwich Road, Thorpe-Abbotts Lane, College Way Exhibit - Areas 27, 31, 32, 33, 34, 35



Magnolia Avenue and Madison Avenue Exhibit - Areas 47, 50, 51, 52

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SITE EXHIBITS

HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES

JIMMIES CREEK DRAINAGE BASIN

REVISIONS

01/11/21

DESIGNED BY	SLF
DRAWN BY	SLF
CHECKED BY	APM
SCALE	1" = 75'
DATE	JANUARY 11, 2021
PROJECT NUMBER	19080319-110302

C3.7

Area ID	Subarea ID	Project Description	ESC Description	Start Latitude	Start Longitude	End Latitude	End Longitude
01	412	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.11528905	-77.12459309		
	414	Remove sediment and vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.11530985	-77.12655679	35.11536871	-77.12844695
	416	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.11576802	-77.12844128		
	418	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.11818889	-77.12838192		
	420	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation	35.11986216	-77.12833950		
	423	Remove sediment and vegetative (miscellaneous) debris accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the RCP flowing into the ditch	35.12347735	-77.12826486		
02	429	Remove sediment and vegetative (miscellaneous) debris accumulated in bottom of ditch, grade to match invert.	Place rock pipe inlet protection at RCP inlet the ditch is flowing into	35.10734005	-77.11342664	35.10728168	-77.11360957
03	595	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the CMP flowing into the ditch	35.11288492	-77.10935350		
	597	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structure at the CMP flowing into the ditch, Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation	35.11293777	-77.10939708	35.11391390	-77.10851791
	599	Remove 12" of sediment accumulated in an undetermined length of 36" CMP, assumed 300 LF.	Place outlet stabilization structure at the 36" CMP flowing into the ditch	35.11530215	-77.10722808	35.11596577	-77.10655593
	600	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation	35.11530215	-77.10722808	35.11391390	-77.10851791
04	442	Remove vegetative (large woody) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.12008898	-77.11232868		
	445	Remove 6" of sediment accumulated in 85 LF of 24" CMP. Remove vegetative (miscellaneous) debris accumulated in bottom of ditch.	Place outlet stabilization structure at the 24" CMP flowing into the ditch	35.11776532	-77.10643884	35.11757674	-77.10660835
	447	Remove vegetative (large woody) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.11698133	-77.10485234		
	449	Remove sediment and vegetative (large woody) debris accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the CMP flowing into the ditch, Place 1 check dam immediately downstream of the debris	35.11628720	-77.10363148		
	451	Remove vegetative (large woody) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.11505760	-77.10167131		
	453	Remove sediment and vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.11387563	-77.10005230		
	454	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the RCP flowing into the ditch, Place 1 check dam immediately downstream of the debris	35.11346816	-77.09957236	35.11323855	-77.09941002
05	434	Remove 12" of sediment accumulated in 87 LF of 18" CMP.	Place outlet stabilization structure at the 18" CMP flowing into the ditch	35.11415831	-77.10384419	35.11439321	-77.10377162
06	432	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.11395881	-77.10296775		
07	402	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the RCP flowing into the ditch, Place 1 check dam at the midway point of the ditch	35.11387989	-77.10062890		
08	410	Remove vegetative (large woody) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-6" diameter large woody debris, 2-8" diameter large woody debris, 1-15" diameter large woody debris, 1-18" diameter large woody debris, 1-24" diameter large woody debris, 3-4" diameter trees, 1-6" diameter tree, 1-24" diameter tree, and 1-48" diameter tree.	n/a	35.10429409	-77.11392961	35.10431669	-77.11444578
	411	Remove vegetative (large woody) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-4" diameter large woody debris, 2-6" diameter large woody debris, 3-2" diameter trees, 1-4" diameter tree, and 1-6" diameter tree.	n/a	35.10427970	-77.11480031		
	490	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 3-2" diameter large woody debris, 2-3" diameter large woody debris, 5-4" diameter large woody debris, 3-6" diameter large woody debris, 1-8" diameter large woody debris, 1-12" diameter large woody debris, 1-26" diameter large woody debris, 1-8" diameter tree, and approximately 0.25 cubic yards of miscellaneous vegetative debris.	n/a	35.10418773	-77.11031244	35.10417398	-77.11071905
	491	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 3-4" diameter large woody debris, 3-6" diameter large woody debris, 2-4" diameter trees, 1-6" diameter trees, 1-12" diameter trees, 1-24" diameter trees, and approximately 0.5 cubic yards of miscellaneous vegetative debris.	n/a	35.10417398	-77.11071905	35.10421365	-77.11119785
	492	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-2" diameter large woody debris, 1-4" diameter large woody debris, 1-5" diameter large woody debris, 1-6" diameter large woody debris, 2-8" diameter large woody debris, 1-12" diameter large woody debris, 1-18" diameter large woody debris, 1-8" diameter tree, 1-10" diameter tree, 1-15" diameter tree, 1-24" diameter tree, and approximately 4.25 cubic yards of miscellaneous vegetative debris.	n/a	35.10421580	-77.11150380	35.10428964	-77.11238364
	493	Remove vegetative (large woody and miscellaneous) debris, uprooted trees, and construction debris accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-4" diameter large woody debris, 1-6" diameter large woody debris, 2-8" diameter large woody debris, 3-12" diameter large woody debris, 1-18" diameter large woody debris, 5-4" diameter trees, 3-6" diameter trees, 1-8" diameter trees, 1-12" diameter trees, and approximately 0.25 cubic yards of miscellaneous vegetative debris.	n/a	35.10449805	-77.11289292	35.10443044	-77.11337650
09	482	Remove uprooted trees.	n/a	35.10761961	-77.10760753		
10	485	Remove sediment and vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation	35.10649393	-77.10921753		
11	486	Remove sediment and vegetative (miscellaneous) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.10598403	-77.10939853		
12	487	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.10509178	-77.10981594		
	488	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10475467	-77.10985266		
	489	Remove uprooted trees.	n/a	35.10435663	-77.10975409		
13	403	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the RCP flowing into the ditch, Place rock pipe inlet protection at RCP inlet the ditch is flowing into	35.11032934	-77.10022898		
14	405	Remove sediment accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.10886352	-77.10037491		
	406	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.10856669	-77.10043418	35.10977411	-77.10071741
15	473	Remove vegetative (large woody) debris accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-4" diameter large woody debris, 1-6" diameter large woody debris, 1-8" diameter large woody debris, and 1-15" diameter large woody debris.	n/a	35.10853043	-77.10065122		

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JIMMIES CREEK REMEDIATION & ESC PLAN
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS

JANUARY 11, 2021

19080319-110302

C4.1

Area ID	Subarea ID	Project Description	ESC Description	Start Latitude	Start Longitude	End Latitude	End Longitude
16	470	Remove vegetative (large woody and miscellaneous) debris, and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the bank. Vegetative debris observed but is not limited to, 1-2" diameter large woody debris, 1-4" diameter large woody debris, 1-6" diameter large woody debris, 1-8" diameter large woody debris, 1-12" diameter large woody debris, 1-4" diameter tree, and approximately 1.25 cy of miscellaneous vegetative debris.	n/a	35.10800453	-77.10180751	35.10836608	77.10148844
	472	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch. Secure vegetative debris to the bank. Vegetative debris observed, but is not limited to, 1-4" diameter large woody debris, 1-6" diameter large woody debris, 1-8" diameter large woody debris, 1-10" diameter large woody debris, 1-12" diameter large woody debris, and approximately 0.5 cy of miscellaneous vegetative debris.	n/a	35.10841948	-77.10143564		
17	456	Remove vegetative (large woody) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.11001260	-77.10383029		
	457	Remove sediment and vegetative (large woody) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.10998455	-77.10382493		
	459	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.10944437	-77.10370874		
	461	Remove uprooted tree	Place 1 check dam immediately downstream of the uprooted tree	35.10919469	-77.10348819		
18	464	Remove vegetative (large woody) debris and uprooted trees accumulated in bottom of ditch.	n/a	35.10843374	-77.10311253	35.10771509	-77.10323840
	465	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	n/a	35.10771509	-77.10323840	35.10707841	-77.10310457
19	475	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10694768	-77.10326484		
20	477	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.10655686	-77.10361718		
21	478	Remove sediment accumulated in bottom of ditch at culvert inlet and concrete flume.	Place 1 check dam immediately downstream of the flume	35.10620164	-77.10445367		
22	484	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10560492	-77.10666438		
23	480	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the RCP flowing into the ditch. Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation.	35.10696200	-77.10030303	35.10691126	-77.10076358
24	481	Remove sediment and vegetative (miscellaneous) debris accumulated in bottom of ditch, grade to match invert or provide positive drainage.	Place outlet stabilization structure at the RCP flowing into the ditch. Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation.	35.10744371	-77.09784406	35.10742826	-77.09933956
25	495	Remove 6" of sediment accumulated in 65 LF of 24" RCP. Remove vegetative (large woody) debris accumulated in bottom of ditch.	Place outlet stabilization structure at the RCP flowing into the ditch.	35.10587142	-77.10095264	35.10581029	-77.10074896
	496	Remove sediment accumulated in bottom of ditch upstream of culvert inlet, grade to match invert.	Place outlet stabilization structure at the RCP flowing into the ditch. Place 1 check dam at the midway point of the ditch.	35.10587550	-77.10097617		
26	494	Remove vegetative (miscellaneous) debris accumulated at culvert inlet.	Place 1 check dam immediately downstream of the debris	35.10559846	-77.10292091		
27	497	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structure at the CMP flowing into the ditch. Place 1 check dam at the midway point of the ditch.	35.10412616	-77.10238762	35.10423610	-77.10143769
	498	Remove 6" of sediment accumulated in 58 LF of 24" CMP, 24" HDPE, and drop inlet.	n/a	35.10425918	-77.10123959	35.10423610	-77.10143769
	499	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structure at the HDPE flowing into the ditch. Place rock pipe inlet protection at RCP inlet the ditch is flowing into. Place 1 check dam at the midway point of the ditch.	35.10425918	-77.10123959	35.10427833	-77.10053356
	501	Remove 18" of sediment accumulated in 164 LF of 30" RCP and drop inlet.	Place outlet stabilization structure at the 30" RCP flowing into the ditch.	35.10449136	-77.09996794	35.10440291	-77.10050684
28	584	Remove uprooted trees.	n/a	35.10446598	-77.10567654		
	585	Remove uprooted tree	Place 1 check dam immediately downstream of uprooted trees	35.10425130	-77.10648880		
	588	Remove vegetative (large woody and miscellaneous) debris and construction debris accumulated in bottom of ditch.	n/a	35.10407042	-77.10713752		
29	574	Remove vegetative (large woody and miscellaneous) debris, uprooted trees, and miscellaneous debris accumulated in bottom of ditch.	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation.	35.10445999	-77.10439577	35.10456852	-77.10426870
	577	Remove vegetative (miscellaneous) debris, uprooted trees and construction debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.10483700	-77.10390493		
30	569	Remove sediment and vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.10412573	-77.10432408		
	570	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10416049	-77.10448261	35.10420322	-77.10467068
	581	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structures at each of the HDPE culverts flowing into the ditch.	35.10403395	-77.10382751		
31	557	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structure at the RCP flowing into the ditch. Place rock pipe inlet protection at RCP inlet the ditch is flowing into.	35.10376431	-77.10393186	35.10388962	-77.10379365
	558	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structure at the RCP flowing into the ditch. Place rock pipe inlet protection at RCP inlet the ditch is flowing into.	35.10367150	-77.10403391	35.10372724	-77.10397275
	560	Remove 12" of sediment accumulated in 20 LF of 15" RCP.	Place outlet stabilization structure at the 15" RCP flowing into the ditch.	35.10367150	-77.10403391	35.10363675	-77.10407598
	562	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structure at the RCP flowing into the ditch. Place rock pipe inlet protection at RCP inlet the ditch is flowing into.	35.10349482	-77.10427170	35.10363675	-77.10407598
	563	Remove 6" of sediment and miscellaneous debris accumulated in 20 LF of 15" RCP.	Place outlet stabilization structure at the 15" RCP flowing into the ditch.	35.10349482	-77.10427170	35.10345691	-77.10432896
32	566	Remove 6" of sediment accumulated in 42 LF of 24" RCP.	Place outlet stabilization structure at the 24" RCP flowing into the ditch.	35.10448870	-77.10330479	35.10439937	-77.10321970
33	537	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place outlet stabilization structure at the 15" RCP flowing into the ditch. Place 1 check dam immediately downstream of sediment deposits	35.10421211	-77.10290869		
	539	Remove 6" of sediment accumulated in 20 LF of 15" RCP.	n/a	35.10419218	-77.10290118	35.10414160	-77.10287490
	541	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place outlet stabilization structure at the 15" RCP flowing into the ditch. Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into. Place 1 check dam at the midway point of the ditch.	35.10414160	-77.10287490	35.10377953	-77.10274079
	543	Remove 6" of sediment accumulated in 20 LF of 15" RCP.	n/a	35.10377953	-77.10274079	35.10371922	-77.10273321
	544	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place outlet stabilization structure at the 15" RCP flowing into the ditch. Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into. Place 1 check dam at the midway point of the ditch.	35.10350944	-77.10269819	35.10371922	-77.10273321
	545	Remove 12" of sediment accumulated in 20 LF of 15" RCP.	n/a	35.10350944	-77.10269819	35.10347380	-77.10269249
	546	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place outlet stabilization structure at the 15" RCP flowing into the ditch. Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into. Place 1 check dam at the midway point of the ditch.	35.10347380	-77.10269249	35.10321296	-77.10263899
	548	Remove 12" of sediment accumulated in 20 LF of 15" RCP.	n/a	35.10321296	-77.10263899	35.10315996	-77.10263042

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JIMMIES CREEK REMEDIATION & ESC PLAN
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS

DESIGNED BY: SLC
DRAWN BY: SLC
CHECKED BY: KPM
SCALE: NONE
DATE: JANUARY 11, 2021
PROJECT NUMBER: 19080319-110302

C4.2

Area ID	Subarea ID	Project Description	ESC Description	Start Latitude	Start Longitude	End Latitude	End Longitude
33	549	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place outlet stabilization structure at the 15" RCP flowing into the ditch, Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into, Place 1 check dam at the midway point of the ditch	35.10303145	-77.10261291	35.10315996	-77.10263042
	550	Remove 12" of sediment accumulated in 20 LF of 15" RCP	n/a	35.10303145	-77.10261291	35.10297996	-77.10260006
	552	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place outlet stabilization structure at the 15" RCP flowing into the ditch, Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into, Place 1 check dam at the midway point of the ditch	35.10273026	-77.10254084	35.10297996	-77.10260006
	553	Remove 12" of sediment accumulated in 20 LF of 15" RCP	n/a	35.10273026	-77.10254084	35.10268427	-77.10252191
	555	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into	35.10232753	-77.10241542	35.10268427	-77.10252191
34	513	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into	35.10352389	-77.10285169		
	515	Remove 6" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.10347646	-77.10284131	35.10351081	-77.10284950
	516	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into. Place 1 check dam at the midway point of the ditch	35.10347646	-77.10284131	35.10328715	-77.10279346
	518	Remove 12" of sediment accumulated in 21 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.10328715	-77.10279346	35.10322802	-77.10278283
	520	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into, Place 1 check dam at the midway point of the ditch	35.10313770	-77.10276320	35.10322802	-77.10278283
	521	Remove 12" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.10313770	-77.10276320	35.10308521	-77.10275324
	524	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into, Place 1 check dam at the midway point of the ditch	35.10308521	-77.10275324	35.10287253	-77.10272054
	527	Remove 12" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.10287253	-77.10272054	35.10281643	-77.10271444
	528	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into, Place 1 check dam at the midway point of the ditch	35.10281643	-77.10271444	35.10249362	-77.10262448
	529	Remove 12" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.10249362	-77.10262448	35.10244017	-77.10260678
	530	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into, Place 1 check dam at the midway point of the ditch	35.10244017	-77.10260678	35.10222769	-77.10253342
	531	Remove 12" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.10222769	-77.10253342	35.10218924	-77.10252161
	532	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into, Place 1 check dam at the midway point of the ditch	35.10211021	-77.10249458	35.10218924	-77.10252161
	533	Remove 6" of sediment accumulated in 20LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.10211021	-77.10249458	35.10205786	-77.10247917
	534	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into, Place 1 check dam at the midway point of the ditch	35.10171017	-77.10232429	35.10205786	-77.10247917
	535	Remove 6" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.10171017	-77.10232429	35.10166605	-77.10230627
	536	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	n/a	35.10166605	-77.10230627	35.10133818	-77.10216256
35	590	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-4" diameter large woody debris, 2-6" diameter large woody debris, 2-8" diameter large woody debris, 2-12" diameter large woody debris, 2-6" diameter trees, 1-8" diameter tree, and approximately 1 cubic yards of miscellaneous vegetative debris.	n/a	35.10319479	-77.10885559		
	592	Remove vegetative (large woody) debris and leaning tree. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-6" diameter tree, and 1-24" diameter tree.	n/a	35.10326393	-77.10883845		
	610	Remove vegetative (miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 2-2" diameter trees, 1-6" diameter tree, and approximately 1.5 cubic yards of miscellaneous vegetative debris.	n/a	35.10050215	-77.10914024	35.10136394	-77.10890735
	611	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 3-2" diameter large woody debris, 1-4" diameter large woody debris, 4-8" diameter large woody debris, 1-12" diameter large woody debris, 1-15" diameter large woody debris, 1-24" diameter large woody debris, 5-2" diameter trees, 1-4" diameter trees, 1-6" diameter tree, and 1-18" diameter trees.	n/a	35.10136394	-77.10890735	35.10231212	-77.10873048
	612	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to 5-6" diameter large woody debris, 4-8" diameter large woody debris, 1-10" diameter large woody debris, 2-12" diameter large woody debris, 3-2" diameter trees, 1-4" diameter tree, 1-6" diameter tree, 1-8" diameter tree, 5-12" diameter trees, and 1-24" diameter tree	n/a	35.10231212	-77.10873048	35.10316922	-77.10885868
36	603	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structure at the 36" HDPE flowing into the ditch, Place 1 check dam at the midway point of the ditch	35.09974320	-77.11146950	35.09957187	-77.11149611
	604	Remove 18" of sediment accumulated in 128 LF of 36" HDPE	Place outlet stabilization structure at the 36" HDPE flowing into the ditch	35.09924673	-77.11143104	35.09957553	-77.11146419
	605	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place 1 check dam at the midway point of the ditch. Place rock pipe inlet protection at RCP inlet the ditch is flowing into	35.09968733	-77.11048908	35.09957187	-77.11149611
37	606	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-4" diameter large woody debris, 1-6" diameter large woody debris, 1-8" diameter large woody debris, and approximately 3.5 cubic yards of miscellaneous vegetative debris.	n/a	35.09979497	-77.10951664		
	607	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-2" diameter large woody debris, 1-4" diameter large woody debris, 1-6" diameter large woody debris, 1-8" diameter large woody debris, 1-12" diameter large woody debris, 1-15" diameter large woody, 3-6" diameter trees, 5-8" diameter trees, 1-10" diameter tree, 3-12" diameter trees, and 1-15" diameter tree	n/a	35.09979934	-77.10947419	35.10038809	-77.10911982

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JIMMIES CREEK REMEDIATION & ESC PLAN
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS

DESIGNED BY: SLT
DRAWN BY: SLT
CHECKED BY: APM
SCALE: NONE
DATE: JANUARY 11, 2021
PROJECT NUMBER: 10080319-110302

C4.3

Area ID	Subarea ID	Project Description	ESC Description	Start Latitude	Start Longitude	End Latitude	End Longitude
37	614	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 5-4" diameter large woody debris, 6-6" diameter large woody debris, 1-8" diameter large woody debris, 2-10" diameter large woody debris, 13-12" diameter large woody debris, 1-12" diameter tree, 3-15" diameter trees, and 1-24" diameter tree	n/a	35.09987508	-77.10873823	35.09888992	-77.10822231
	615	Remove vegetative (large woody and miscellaneous) debris, uprooted trees, and miscellaneous debris accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 4-2" diameter large woody debris, 2-3" diameter large woody debris, 4-4" diameter large woody debris, 6-6" diameter large woody debris, 5-12" diameter large woody debris, 2-15" diameter large woody debris, 2-24" diameter large woody debris, and approximately 1.5 cubic yards of miscellaneous vegetative debris.	n/a	35.09888992	-77.10822231	35.09839054	-77.10749177
	618	Remove vegetative (large woody and miscellaneous) debris, uprooted trees, and miscellaneous debris accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 6-4" diameter large woody debris, 6-6" diameter large woody debris, 3-8" diameter large woody debris, 5-12" diameter large woody, 4-2" diameter trees, 1-3" diameter tree, 2-6" diameter trees, 2-12" diameter trees, 1-18" diameter tree, and approximately 1.5 cubic yards of miscellaneous vegetative debris.	n/a	35.09839054	-77.10749177	35.09826228	-77.10661277
	619	Remove vegetative (large woody) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed includes, but is not limited to: 1-10" diameter large woody debris, 1-8" diameter tree, 2-12" diameter trees, and 1-15" diameter tree	n/a	35.09826692	-77.10650490	35.09826919	-77.10631432
	620	Remove uprooted tree. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-8" diameter tree	n/a	35.09679567	-77.10546990		
	621	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-2" diameter large woody debris, 1-4" diameter large woody debris, 2-6" diameter large woody debris, 3-8" diameter large woody debris, 3-12" diameter large woody debris, 1-15" diameter large woody debris, 2-18" diameter large woody debris, 1-8" diameter tree, 1-18" diameter tree, and approximately 4 cubic yards of miscellaneous vegetative debris.	n/a	35.09826418	-77.10599476	35.09758750	-77.10549914
	622	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-4" diameter large woody debris, 1-12" diameter large woody debris, 1-4" diameter tree, and approximately 1.5 cubic yards of miscellaneous vegetative debris.	n/a	35.09746672	-77.10547330		
	623	Remove vegetative (large woody) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to: 1-5" diameter tree, 1-6" diameter tree, 1-8" diameter tree, and 2-10" diameter trees.	n/a	35.09713826	-77.10540624		
38	616	Remove uprooted tree	Place 1 check dam immediately downstream of the uprooted tree	35.09900927	-77.10711468		
	617	Remove uprooted tree	Place 1 check dam immediately downstream of the uprooted tree	35.09895843	-77.10758650		
39	467	Remove uprooted tree	Place 1 check dam immediately downstream of uprooted tree	35.09398733	-77.10557016		
40	469	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.09334630	-77.10502160		
	471	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	n/a	35.09329118	-77.10487786		
41	593	Remove sediment accumulated in bottom of ditch, grade to match invert.	n/a	35.10041923	-77.09314488		
	594	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the inlet flowing into the ditch	35.10025166	-77.09332077	35.10016494	-77.09331966
42	596	Remove miscellaneous debris accumulated in bottom of ditch.	n/a	35.09881511	-77.09313083		
43	512	Remove miscellaneous (3 shopping carts) debris accumulated in bottom of ditch.	n/a	35.09826261	-77.09260963		
44	598	Remove sediment, construction debris, and miscellaneous debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of debris	35.09822639	-77.09306100	35.09787481	-77.09299631
44	602	Remove vegetative (large woody and miscellaneous) debris and miscellaneous debris accumulated in bottom of ditch.	n/a	35.09689804	-77.09284546	35.09758449	-77.09294675
45	601	Remove vegetative (large woody and miscellaneous) debris, uprooted trees, and miscellaneous debris accumulated in bottom of ditch.	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation	35.09685621	-77.09197820	35.09648303	-77.09281445
46	613	Remove uprooted tree	n/a	35.09856996	-77.09059742		
47	586	Remove 6" of sediment accumulated in 20 LF of 15" RCP culvert.	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.09724080	-77.09057843	35.09719406	-77.09054729
	587	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into	35.09695956	-77.09031992	35.09719406	-77.09054729
	589	Remove 6" of sediment accumulated in 20 LF of 15" RCP culvert.	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.09695956	-77.09031992	35.09691374	-77.09027638
48	514	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of debris	35.09694185	-77.09129462		
	517	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	n/a	35.09681559	-77.09094735	35.09545468	-77.08952130
	519	Remove vegetative (large woody and miscellaneous) debris and miscellaneous debris accumulated in bottom of ditch.	n/a	35.09500084	-77.08915784	35.09539341	-77.08944767
49	522	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	n/a	35.09400567	-77.09006384	35.09500084	-77.08915784
	608	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	Place 1 check dam immediately downstream of debris	35.09459355	-77.08880116	35.09446852	-77.08915189
	609	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.09467194	-77.08873695		
50	583	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structure at the RCP flowing into the ditch. Place rock pipe inlet protection at RCP inlet the ditch is flowing into	35.09609266	-77.08932022	35.09639052	-77.08960320
51	538	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structure at the RCP flowing into the ditch. Place rock pipe inlet protection at RCP inlet the ditch is flowing into	35.09717548	-77.08792471	35.09719116	-77.08775497
	540	Remove 6" of sediment accumulated in 20 LF of 15" RCP	n/a	35.09719116	-77.08775497	35.09720216	-77.08768030
	542	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structure at the RCP flowing into the ditch	35.09720216	-77.08768030	35.09722000	-77.08749314
52	547	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into	35.09730601	-77.08662841	35.09731266	-77.08641195
	551	Remove 6" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.09729312	-77.08630791	35.09731266	-77.08641195
	554	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into	35.09729312	-77.08630791	35.09725343	-77.08621160
	556	Remove 6" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.09725343	-77.08621160	35.09719477	-77.08612300
	559	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at inlet the ditch is flowing into	35.09719477	-77.08612300	35.09678410	-77.08589651
	561	Remove 6" of sediment accumulated in 20 LF of 12" RCP	Place outlet stabilization structure at the 12" RCP flowing into the ditch	35.09678410	-77.08589651	35.09674898	-77.08595815
	564	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into. Place 1 check dam at the midway point of the ditch	35.09674898	-77.08595815	35.09649969	-77.08638808

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Draper Aden Associates
Engineering • Surveying • Environmental Services

JIMMIES CREEK REMEDIATION & ESC PLAN

HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS

DESIGNED BY	SLF
DRAWN BY	SLF
CHECKED BY	APM
SCALE	NONE
DATE	JANUARY 11, 2021
PROJECT NUMBER	19080319-110302

C4.4

Area ID	Subarea ID	Project Description	ESC Description	Start Latitude	Start Longitude	End Latitude	End Longitude
52	565	Remove 6" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.09649969	-77.08638808	35.09646945	-77.08644162
	567	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into	35.09646945	-77.08644162	35.09644387	-77.08648688
	568	Remove 6" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.09644387	-77.08648688	35.09642233	-77.08652501
	571	Remove 6" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.09634784	-77.08664398	35.09631536	-77.08669525
	572	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into	35.09642233	-77.08652501	35.09634784	-77.08664398
	573	Remove 6" of sediment accumulated in 20 LF of 15" HDPE	Place rock pipe inlet protection at 15" HDPE inlet the ditch is flowing into	35.09627068	-77.08677708	35.09629841	-77.08672567
	575	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into	35.09627068	-77.08677708	35.09621540	-77.08687331
	576	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into	35.09619365	-77.08691096	35.09616955	-77.08695348
	578	Remove 6" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.09621540	-77.08687331	35.09619365	-77.08691096
	579	Remove 6" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.09616955	-77.08695348	35.09614055	-77.08700525
	580	Remove sediment accumulated in bottom of ditch, grade to provide positive drainage along entire reach.	Place rock pipe inlet protection at 15" RCP inlet the ditch is flowing into	35.09614055	-77.08700525	35.09600213	-77.08723652
	582	Remove 6" of sediment accumulated in 20 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.09600213	-77.08723652	35.09597046	-77.08729681
53	591	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place rock pipe inlet protection at RCP inlet the ditch is flowing into	35.09570229	-77.08764170	35.09579526	-77.08734166
54	523	Remove uprooted tree	Place 1 check dam immediately downstream of uprooted tree	35.09397800	-77.09245600		
	525	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place rock pipe inlet protection at CMP the ditch is flowing into, Place 1 check dam at the midway point of the ditch	35.09361944	-77.09079046	35.09362124	-77.09139835
55	510	Remove uprooted trees.	n/a	35.09200115	-77.09063068		
56	508	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation and have the lower of the two be immediately downstream of the debris	35.09194639	-77.09415830	35.09148156	-77.09283353
	509	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks that cannot be accessed from proposed temporary access road	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation and have the lower of the two be immediately downstream of the debris	35.09148156	-77.09283353	35.09148624	-77.09051598
57	474	Remove uprooted tree	n/a	35.09261998	-77.09897080		
	476	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.09234869	-77.09805393	35.09246557	-77.09859572
	479	Remove uprooted trees	n/a	35.09229244	-77.09656814		
	511	Remove vegetative (large woody) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-20" diameter large woody debris, 1-4" diameter tree, 1-6" diameter tree, and 1-16" diameter tree	n/a	35.09211800	-77.09613823		
58	507	Remove vegetative (large woody) debris and uprooted tree accumulated in bottom of ditch.	n/a	35.09189936	-77.09494538		
59	500	Remove vegetative (large woody) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 5-6" diameter trees, 2-10" diameter trees, 4-12" diameter trees, and 2-24" diameter trees.	n/a	35.09124539	-77.09584151		
	502	Remove vegetative (large woody) debris accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-4" diameter large woody debris, 2-7" diameter large woody debris, and 1-8" diameter large woody debris	n/a	35.09078590	-77.09613223		
	503	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-6" diameter large woody debris and approximately 1 cubic yard of miscellaneous vegetative debris.	n/a	35.09059103	-77.09636078		
	504	Remove vegetative (miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-8" diameter tree, 1-18" diameter tree, and approximately 0.5 cubic yards of miscellaneous vegetative debris.	n/a	35.09030260	-77.09672538		
60	505	Remove vegetative (large woody) debris and uprooted trees accumulated in bottom of ditch	n/a	35.08984736	-77.09693342	35.08904474	-77.09815449
	506	Remove uprooted trees	n/a	35.08887238	-77.09845672		

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• Charlottesville, VA

JIMMIES CREEK REMEDIATION & ESC PLAN
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

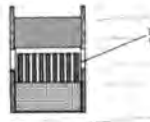
REVISIONS

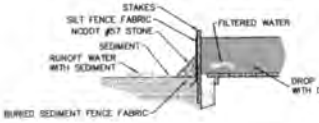
DESIGNED BY: SLS
DRAWN BY: SLS
CHECKED BY: APM
SCALE: NONE
DATE: JANUARY 11, 2021
PROJECT NUMBER: 19080319-110302

C4.5

CONSTRUCTION SPECIFICATIONS

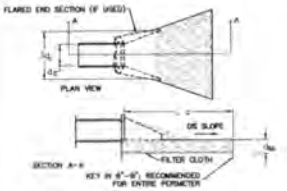
1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 3-4 FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET A MINIMUM OF 4 FEET APART.
3. SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP MIDDLE AND BOTTOM. PLACING A 6-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NO DIRT IN OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 18 INCHES AROUND THE WIRE AND SMOOTH TO AN EVEN GRADE.
5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUNDCOVER.



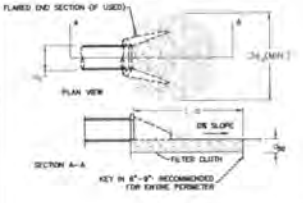


INLET PROTECTION
NOT TO SCALE

PIPE OUTLET CONDITION – PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL



PIPE OUTLET CONDITION – PIPE OUTLET TO WELL-DEFINED CHANNEL



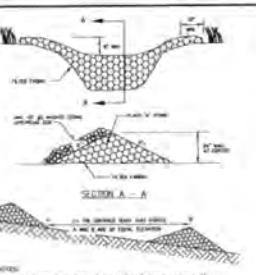
SPECIFICATIONS

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
3. FILTER CLOTH, WHEN USED, MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.
4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
6. RIPRAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HARD, ANGULAR, HIGHLY WEATHER-RESISTANT AND WELL GRADED.
7. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON IMMEDIATELY AFTER CONSTRUCTION. STABILIZE ALL DISTURBED AREAS WITH VEGETATION.

MAINTENANCE

1. INSPECT RIP-RAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIP-RAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. PROMPTLY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

OUTLET STABILIZATION STRUCTURE
NOT TO SCALE



NOTES:
(1) STONE SHOULD BE PLACED OVER THE DOWNHILL BANKS TO KEEP WATER FROM CUTTING AROUND THE DAM.
(2) STONE CHECK DAMS SHOULD BE SPACED IN A CHANNEL SO THAT THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF UPSTREAM DAM.

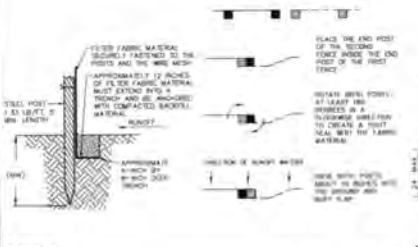
CONSTRUCTION SPECIFICATIONS

1. PLACE STONE TO THE LINES AND DIMENSIONS SHOWN IN THE PLAN ON A FILTER FABRIC FOUNDATION.
2. KEEP THE CENTER STONE SECTION AT LEAST 6 INCHES BELOW NATURAL GROUND LEVEL WHERE THE DAM ADJUTS THE CHANNEL BANKS.
3. EXTEND STONE AT LEAST 1.5 FEET BEYOND THE DITCH BANK TO KEEP WATER FROM CUTTING AROUND THE ENDS OF THE CHECK DAM.
4. SET SPACING BETWEEN DAMS TO ASSURE THAT THE ELEVATION AT THE TOP OF THE LOWER DAM IS THE SAM AS THE TOE ELEVATION OF THE UPPER DAM
5. PROTECT THE CHANNEL AFTER THE LOWEST CHECK DAM FROM HEAVY FLOW THAT COULD CAUSE EROSION.
6. MAKE SURE THAT THE CHANNEL REACH ABOVE THE MOST UPSTREAM DAM IS STABLE
7. ENSURE THAT OTHER AREAS OF THE CHANNEL, SUCH AS CULVERT ENTRANCES BELOW THE CHECK DAMS, ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

MAINTENANCE

INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (.5" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS THAT COULD CLOG THE CHANNEL WHEN NEEDED, ANTICIPATE SUBMERGENCE AND DEPOSITION ABOVE THE CHECK DAM AND EROSION FROM HIGH FLOWS AROUND THE EDGES OF THE DAM. CORRECT ALL DAMAGE IMMEDIATELY. IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, ADDITIONAL MEASURES CAN BE TAKEN SUCH AS, INSTALLING A PROTECTIVE RIPRAP LINER IN THAT PORTION OF THE CHANNEL. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION. ALLOW THE CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

CHECK DAM
NOT TO SCALE



MATERIALS

1. USE A SYNTHETIC FILTER FABRIC OF AT LEAST 85% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461 WHICH IS SHOWN IN PART IN TABLE 6.62A. SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120°F.
2. ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1.33 LB/LINEAR FT STEEL WITH A MINIMUM LENGTH OF 5 FEET. MAKE SURE THAT STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.
3. FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

CONSTRUCTION

1. CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS.
2. ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 24 INCHES ABOVE THE GROUND SURFACE. (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.)
3. CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT A SUPPORT POST WITH 4 FEET MINIMUM OVERLAP TO THE NEXT POST.
4. SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS. EXTEND THE WIRE MESH SUPPORT TO THE BOTTOM OF THE TRENCH. FASTEN THE WIRE REINFORCEMENT, THEN FABRIC ON THE UPHILL SIDE OF THE FENCE POST. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH.
5. WHEN A WIRE MESH SUPPORT FENCE IS USED, SPACE POSTS A MAXIMUM OF 8 FEET APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24 INCHES.
6. FOR EXTRA STRENGTH FILTER FABRIC WITH 6 FEET POST SPACING DOES NOT REQUIRE WIRE MESH SUPPORT FENCE. SECURELY FASTEN THE FILTER FABRIC DIRECTLY TO POSTS. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH.
7. EXCAVATE A TRENCH APPROXIMATELY 8 INCHES WIDE AND 8 INCHES DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER (FIGURE 6.62A).
8. PLACE 16 INCHES OF THE FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
9. BACKFILL THE TRENCH WITH COMPACTED SOIL PLACED OVER THE FILTER FABRIC. THOROUGH COMPACTION OF THE BACKFILL IS CRITICAL TO SILT FENCE PERFORMANCE.
10. DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.

SEDIMENT FENCE DETAIL
NOT TO SCALE

SEDIMENT FENCE INSTALLATION USING THE SLICING METHOD

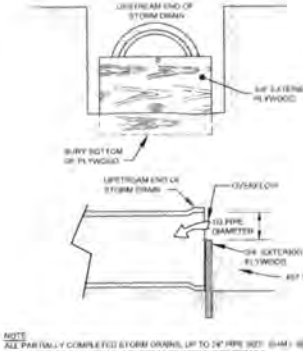
INSTEAD OF EXCAVATING A TRENCH, PLACING FABRIC AND THEN BACKFILLING TRENCH, SEDIMENT FENCE MAY BE INSTALLED USING SPECIALLY DESIGNED EQUIPMENT THAT INSERTS THE FABRIC INTO A CUT SLICED IN THE GROUND WITH A DISC.

INSTALLATION SPECIFICATIONS

1. THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ONE FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.
2. INSTALL POSTS 4 FEET APART IN CRITICAL AREAS AND 8 FEET APART ON STANDARD APPLICATIONS.
3. INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
4. INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.
5. ATTACH THE FABRIC TO EACH POST WITH THREE TIES. ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
6. WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
7. NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE GROUND LEVEL.
8. THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION.
9. COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 85 POUNDS PER SQUARE INCH. COMPACT THE UPSTREAM SIDE FIRST AND THEN EACH SIDE TWICE FOR A TOTAL OF 4 TRIPS.

MAINTENANCE

1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.



NOTE
ALL PARTIALLY COMPLETED STORM DRAINS, UP TO 24" PIPE SIZE (DIAM.), BE PROTECTED AT THE END OF EACH DAY IN ACCORDANCE WITH THESE DETAILS.

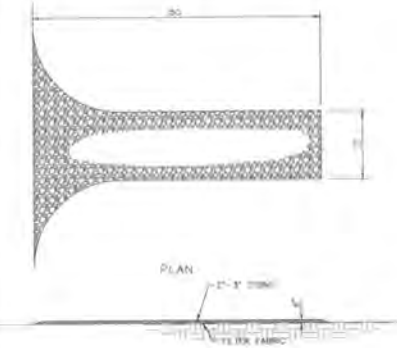
SPECIFICATIONS

1) STORM DRAIN INLETS MUST BE PROTECTED DURING ALL PHASES OF CONSTRUCTION EVEN WHILE THE PIPE IS BEING LAID AND BEFORE THE JUNCTION BOXES AND INLET STRUCTURES ARE IN PLACE.
2) THESE DEVICES SHALL BE INSTALLED ACROSS THE UPSTREAM PIPE OPENING AT THE END OF EACH WORK SESSION AND REMOVED AT THE BEGINNING OF THE NEXT.
3) IF THE PIPE WILL NOT BE EXTENDED FOR A PROLONGED TIME PERIOD (DRAVEL AND RIP RAP HORSESHOE INLET PROTECTION WITH APPROPRIATE STORAGE SHALL BE INSTALLED TO REPLACE THE PLYWOOD STRUCTURE.
4) THESE DEVICES ARE TO BE USED ON THE PIPE IN SMALL STORM DRAIN SYSTEMS THAT ARE NOT LOCATED IN LIVE STREAMS WITH LARGE WATERSHEDS OR WATERCOURSES WHERE THEIR USE COULD CAUSE UPSTREAM FLOODING.
5) THESE DEVICES ARE MADE OF PLYWOOD OR STEEL FENCE POSTS, HARDWARE CLOTH, AND WASHED STONE. PROTECTION FOR THE OPEN END OF STORM DRAINS SHALL BE INSTALLED ACCORDING TO THE STANDARD DETAIL AND THE APPROVED EROSION CONTROL PLAN.

MAINTENANCE

1. INSPECT INLET PROTECTION AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A INLET PROTECTION COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE INLET PROTECTION. TAKE CARE TO AVOID UNDERMINING THE INLET PROTECTION DURING CLEANOUTS.

ROCK PIPE INLET PROTECTION
NOT TO SCALE



CONSTRUCTION

1. CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
2. PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS AND SMOOTH IT.
3. PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
4. USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN AREAS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.

MAINTENANCE

MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE TOPDRESSING WITH 1-3 INCH STONE. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED OR TRACKED ONTO PUBLIC ROADWAYS.

TEMPORARY CONSTRUCTION ENTRANCE/EXIT
SCALE 1" = 10'

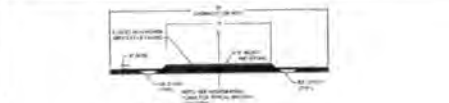
Draper Aden Associates
Engineering • Surveying • Environmental Services
Richmond, VA
Blacksburg, VA
Charlottesville, VA
Hampton Roads, VA
Fayetteville, NC
Northern Virginia
Virginia Beach, VA

DETAILS
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

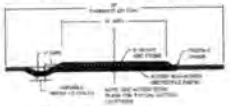
REVISIONS

DESIGNED BY: SLF
DRAWN BY: SLF
CHECKED BY: APM
SCALE: NONE
DATE: JANUARY 11, 2021
PROJECT NUMBER: 19086319-110302

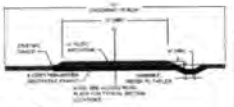
C5.0



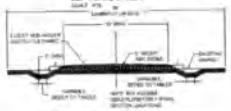
6 TYPICAL SECTION A
NO SCALE
ACCESS ROAD - NO GRADING



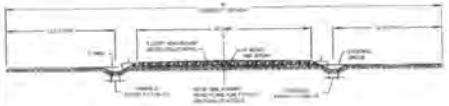
7 TYPICAL SECTION B
NO SCALE
ACCESS ROAD MINOR GRADING
LEFT SIDE DITCH



8 TYPICAL SECTION C
NO SCALE
ACCESS ROAD MINOR GRADING
RIGHT SIDE DITCH



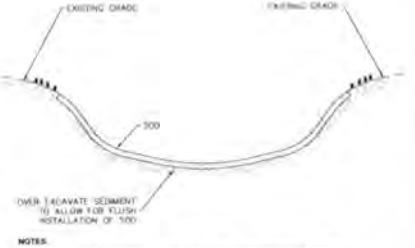
9 TYPICAL SECTION D
NO SCALE
ACCESS ROAD MINOR GRADING
BOTH SIDES DITCH



10 TYPICAL SECTION E
NO SCALE
ACCESS ROAD PULL-OFF AREAS

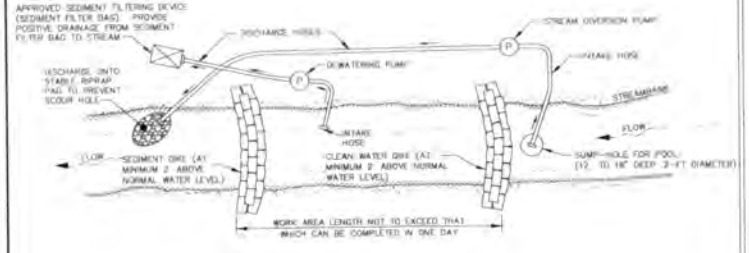
NOTES:
1. AN ON-SITE DRAINAGE SWALE SHALL BE LOCATED BETWEEN THE STOCKPILE AND OFF-SITE PROPERTY.
2. REFERENCE IS MADE TO THE SILT FENCE DETAIL FOR MATERIALS AND INSTALLATION METHODS.
3. IF THE STOCKPILE IS TO REMAIN FOR MORE THAT 14 DAYS, IT SHALL BE STABILIZED WITH BURLAP MATTING OR SEEDED WITHIN 7 DAYS OF COMPLETION TO MINIMIZE EROSION.
4. INSPECTION OF SILT FENCES SHALL BE AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF ½" REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. SEDIMENT TRAPPED BY THE FENCES SHALL BE REMOVED AND PROPERLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
6. SILT FENCES SHALL BE MAINTAINED IN PLACE UNTIL THE STOCKPILE HAS BEEN ELIMINATED AND SHALL BE REMOVED ONLY WHEN DIRECTED BY THE CITY

STOCK PILE
NOT TO SCALE



NOTES:
1. INSTALL SOD PER SODDING DETAIL AT ALL DISTURBED LOCATIONS WITHIN RESIDENTIAL AREAS

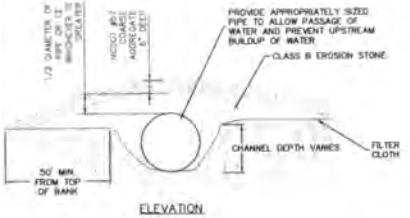
RESIDENTIAL DITCH RECLAMATION
NOT TO SCALE



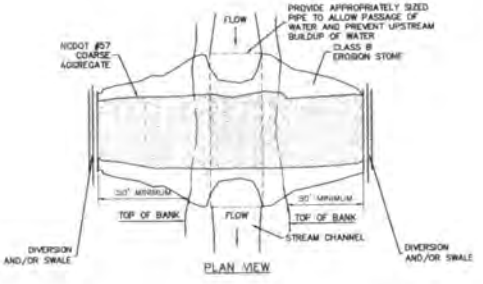
TEMPORARY PUMP AROUND SEQUENCE
1. SET UP PUMP WITH SUCTION AND DISCHARGE HOSE.
2. INSTALL UP-STREAM SANDBAG DAM.
3. INSTALL DOWN-STREAM SANDBAG DAM.
4. THE PUMP MUST RUN CONTINUOUSLY WHILE WORKING IN THE STREAM.
5. STREAMBANKS MUST BE STABILIZED AT THE END OF EACH DAY.

NOTES:
1. SANDBAG DIKES SHALL BE SITUATED AT THE UPSTREAM AND DOWNSTREAM ENDS OF THE WORK AREA, AND STREAM FLOW SHALL BE PUMPED AROUND THE WORK AREA. THE PUMP SHOULD DISCHARGE ONTO A STABLE VELOCITY DISSIPATER CONSTRUCTED OF RIPRAP OR SANDBAGS.
2. WATER FROM THE WORK AREA SHALL BE PUMPED TO A SEDIMENT FILTERING MEASURE SUCH AS A SEDIMENT BAG OR OTHER APPROVED DEVICE. THE MEASURE SHALL BE LOCATED SUCH THAT THE WATER DRAINS BACK INTO THE CHANNEL BELOW THE DOWNSTREAM SANDBAG DIKE WITHOUT CAUSING FURTHER EROSION BETWEEN THE SEDIMENT FILTER BAG AND THE STREAMBANK

TEMPORARY PUMP AROUND
NOT TO SCALE



ELEVATION



PLAN VIEW

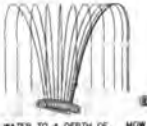
TEMPORARY STREAM CROSSING
NOT TO SCALE

LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

INCORRECT / CORRECT

CUTTING – ANGLED ENDS CAUSED BY THE AUTO-MATIC SOD CUTTER MUST BE MATCHED CORRECTLY

ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL.



WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.

MOW WHEN THE SOD IS ESTABLISHED – IN 2–3 WEEKS, SET THE MOWER HIGH (2"–3").

APPEARANCE OF GOOD SOD

SHOOTS OR GRASS BLADES. GRASS SHOULD BE GREEN AND HEALTHY, MOWED AT A 2"–3" CUTTING HEIGHT

THATCH – GRASS CLIPPINGS AND DEAD LEAVES, UP TO 1/2" THICK.

ROOT ZONE – SOIL AND ROOTS. SHOULD BE 1/2"–3/4" THICK, WITH DENSE ROOT MAT FOR STRENGTH.

SODDING DETAIL
NOT TO SCALE

Draper Aden Associates
Engineering • Surveying • Environmental Services
• Hampton Roads, VA • Richmond, VA • Fayetteville, NC • Blacksburg, VA • Northern Virginia • Charlottesville, VA • Virginia Beach, VA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041598 01.11.21 ENGINEER ANDREW P. MERCIER

DETAILS
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
JIMMIES CREEK DRAINAGE BASIN

REVISIONS
ENTITY

DESIGNED BY: SLC
DRAWN BY: SLC
CHECKED BY: APM
SCALE: NONE
DATE: JANUARY 11, 2021
PROJECT NUMBER: 19080319-110302

C5.1

AGENDA ITEM COVER SHEET

NEW BERN
CITY OF NEW BERN

Agenda Item Title:

Consider adopting a resolution authorizing the City Manager to execute on behalf of the City of New Bern all contract documents and change orders within the contract amount for the Hurricane Florence Category A drainage ditch project within the Trent River drainage basin.

Date of Meeting: 2/23/2021	**Ward # if applicable:** Ward 2
Department: Public Works	**Person Submitting Item:** Matt Montanye, Director of Public Works
Call for Public Hearing: ☐Yes☒No	**Date of Public Hearing:** N/A

Explanation of Item:	Over the past two years the City has been working with FEMA on a project to remove sediment and debris from 66 miles of drainage ditches throughout the City. This project is for the Trent River Drainage Basin.
Actions Needed by Board:	Adopt attached resolution
Backup Attached:	Memo, Resolution, Bid Tabulation, Advertisement for Bids, Notice to withdraw bid, Project Plan

Is item time sensitive? ☐Yes ☒No
Will there be advocates/opponents at the meeting? ☐Yes ☒ No

Cost of Agenda Item: $469,830.00
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? ☒Yes ☐ No

Additional Notes:

NEW BERN
NORTH CAROLINA

Public Works Department
P.O. Box 1129, 1004 S. Glenburnie Road
New Bern, N.C. 28563-1129
Phone: (252) 639-7501
Fax: (252) 636-1848

February 12, 2021

Memo to: Mayor and Board of Aldermen

From: Matt Montanye, Director of Public Works

Re: Consider adopting a resolution authorizing the City Manager to execute on behalf of the City of New Bern all contract documents and change orders within the contract amount for the Trent River Category A, Hurricane Florence drainage ditch project.

Background Information

In late 2018 following Hurricane Florence, the City of New Bern began working with FEMA on a project to remove sediment and debris from 66 miles of drainage ditches within the City. This project was obligated by FEMA on January 27, 2020. Since being obligated, the City has been working with Draper Aden and Associates to identify damages, develop construction plans and to obtain state and federal permits for work within ten different drainage basins. On January 4, 2021, the Trent River drainage basin Category A project was advertised for bids and on February 2, 2021, three bids were received and opened, with the low bidder for this project being Grillot Construction Company LLC, with a bid price of $469,830.00. The Trent River drainage basin project consist of removing debris from 74 locations, consisting of more than 152 tons of vegetative debris, 1200 cubic yards of sediment, 8 tons of miscellaneous debris and the cleaning of 1,650-feet of drainage culverts. The contract time for this project is 120 days.

Recommendation

Draper Aden and Associates have vetted Grillot Construction Company, LLC and found no issues or concerns. The Public Works Department is recommending and request the Board consider adopting a resolution authorizing the City Manager to execute on behalf of the City of New Bern, all contract documents and any change orders for the Trent River Category A, Hurricane Florence drainage ditch project within the contract amount.

If you have any questions concerning this matter, please feel free to contact me directly.

cc: George Chiles, Staff Engineer

RESOLUTION

THAT WHEREAS, the Trent River, Hurricane Florence Category A Drainage Ditch Project was publicly advertised on January 4, 2021 and a pre-bid meeting was held on January 26, 2021; and

WHEREAS, the following two qualified bids were received on February 2, 2021:

Grillot Construction Company, LLC	$ 469,830.00
Trader Construction Company, Inc.	$ 681,810.00
Carolina Cleaning and Restoration	Bid Withdrawn

WHEREAS, the Director of Public Works of the City of New Bern recommends the City Manager be authorized to execute contract documents with the lowest bidder, Grillot Construction Company, LLC, for the Trent River Category A, Hurricane Florence Drainage Ditch Project and any change orders within the budgeted amount.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

That the City Manager is hereby authorized to execute on behalf of the City of New Bern all contract documents with Grillot Construction Company, LLC for the Trent River Category A, Hurricane Florence Drainage Ditch Project, and any change orders within the budgeted amount.

ADOPTED THIS 23rd DAY OF FEBRUARY 2021.

_____
DANA E. OUTLAW, MAYOR

_____
BRENDA E. BLANCO, CITY CLERK

CERTIFIED BID TABULATION

Draper Aden Associates
Engineering • Surveying • Environmental Services

PROJECT: Hurricane Florence Debris Removal Activities - Trent RIver Drainage Basin
PROJECT #: 19080319-11
BID DATE: February 2, 2021
BID TIME: 1 30 PM
LOCATION: City of New Bern Public Works Department / Microsoft Teams

	Grillot Construction, LLC	Trader Construction Company	Carolina Cleaning and Restoration, LLC		
Bid Bond	✓	✓			
Contractor's License Information	#84473	#2943			
Bidder Qualification Statement	✓	✓			
City's General Provisions and Byrd Anti Lobbying Certification	✓	✓			
Anti-Collusion Affadavit	✓	✓			
MBE / HUB Documentation	✓	✓			
Bid Signed	✓	✓			
Receipt of Addenda	✓	✓			
Base Bid Total	**$469,830.00**	**$681,810.00**	**BID WITHDRAWN**		

This is to certify that the bids tabulated herein were publicly opened and read aloud at 1:30 PM on the Second day of February, 2021, at the City of New Bern Public Works Department in New Bern, North Carolina

DETAILED BID TABULATION

PROJECT: Hurricane Florence Debris Removal Activities - Trent RIver Drainage Basin
PROJECT #: 19080319-11
BID DATE: February 2, 2021
BID TIME: 1:30 PM
LOCATION: City of New Bern Public Works Department / Microsoft Teams

Draper Aden Associates
Engineering • Surveying • Environmental Services

				Grillot Construction, LLC		Trader Construction Company			
Item	Description	Units	Quantity	Unit Cost	Extended Cost	Unit Cost	Extended Cost	Unit Cost	Extended Cost
	Base Bid								
1	Mobilization (3% Maximum)	EA	1	$ 13,200 00	$ 13,200 00	$ 20,000.00	$ 20,000.00		$ -
2	Sediment and Erosion Control	EA	1	$ 96,900 00	$ 96,900.00	$ 212,880.00	$ 212,880.00		$ -
3	Traffic Control	EA	1	$ 44,200 00	$ 44,200 00	$ 50,000 00	$ 50,000 00		$ -
4	Install Temporary Construction Access	LF	6,250	$ 11 00	$ 68,750 00	$ 17.00	$ 106,250.00		$ -
5	Sediment Removal	CY	1,200	$ 56.50	$ 67,800 00	$ 122.00	$ 146,400.00		$ -
6	Jet Clean Pipe or Culvert	LF	1650	$ 22 00	$ 36,300.00	$ 12 00	$ 19,800.00		$ -
7	Vegetative Debris Removal	Tons	152	$ 628 00	$ 95,456 00	$ 370.00	$ 56,240.00		$ -
8	In-Place Vegetative Debris Removal	LF	5,520	$ 8.00	$ 44,160.00	$ 12 00	$ 66,240 00		$ -
9	Miscellaneous Debris Removal	Tons	8	$ 383 00	$ 3,064 00	$ 500.00	$ 4,000.00		$ -
					$ 469,830.00		**$ 681,810.00**		**$ -**
				Cost Included on Bid Form	**$ 469,830.00**		**$ 681,810.00**		**$ -**
				CONTRACT AMOUNT BASED ON UNIT BID ITEMS	**$ 469,830.00**		**$ 681,810.00**		**$ -**

Matt Montanye

Subject: FW. Trent river drainage basin debris removal

From: George Chiles <ChilesG@newbernnc.gov>
Sent: Thursday, February 4, 2021 2:20 PM
To: Carolina Cleaning and Restoration <carolinacleaningandrestoration@yahoo.com>
Cc: Matt Montanye <montanyem@newbernnc.gov>; Matt Burnette <mburnette@daa.com>
Subject: RE: Trent river drainage basin debris removal

Ryan,

The City of New Bern is in receipt of your request to withdraw your bid for the *Hurricane Florence Debris Removal Activities- Trent River Basin Project* due to a mathematical error.

Thank you for your company's participation in the bidding process for this project. Please contact me should you have any questions.

Regards,

NEW BERN
NORTH CAROLINA

George Chiles
Staff Engineer

City of New Bern • Public Works Dept.
Mailing Address. P.O. Box 1129, New Bern, NC 28563
Shipping Address: 1004 S Glenburnie Road, New Bern, NC 28562
252-639-7522

From: Carolina Cleaning and Restoration <carolinacleaningandrestoration@yahoo.com>
Sent: Thursday, February 4, 2021 2:13 PM
To: George Chiles <ChilesG@newbernnc.gov>
Subject: Trent river drainage basin debris removal

Good afternoon,

Due to a mathematical error on our bid price-sheet, we would like to be removed from the bid. We apologize for the inconvenience and if you have any questions feel free to call Ryan Bell at 252-944-8440
Please acknowledge that you have received email for our request.

Thank you,

Ryan Bell
Carolina Cleaning and Restoration

ADVERTISEMENT FOR BIDS

City of New Bern
New Bern, North Carolina
Hurricane Florence Debris Removal Activities – Trent River Drainage Basin

General Notice

The City of New Bern (Owner) is requesting Bids for the construction of the following Project:

Hurricane Florence Debris Removal Activities – Trent River Drainage Basin
DAA PN: 19080319-110302

Bids for the construction of the Project will be received at the City of New Bern Public Works Department located at 1004 S. Glenburnie Road, until February 2, 2021 at 1:30 PM local time. At that time the Bids received will be publicly opened and read.

In response to the current State of Emergency and "Stay at Home" order pursuant of Executive Order 121, dated March 27, 2020, the public bid opening shall be made available through online video conference. Access to the online video conference shall be made available to all plan holders at least 24 hours prior to opening of bids.

The Project includes the following Work:

> This project generally involves the removal of previously identified and as encountered sediment, vegetative debris, and miscellaneous debris within open-air stormwater ditches, piping, culverts, and wetlands. Work also includes clearing, grubbing, installation of access roads, necessary traffic control, erosion and sediment control, excavation, reduction, hauling of debris.

Bids are requested for the following Contract: **Hurricane Florence Debris Removal Activities – Trent River Drainage Basin**

Obtaining the Bidding Documents

Information and Bidding Documents for the Project can be found at the following designated website:

www.daa.com

Bidding Documents may be downloaded from the designated website. Prospective Bidders are urged to register with the designated website as a plan holder, even if Bidding Documents are obtained from a plan room or source other than the designated website in either electronic or paper format. The designated website will be updated periodically with addenda, lists of registered plan holders, reports, and other information relevant to submitting a Bid for the Project. All official notifications, addenda, and other Bidding Documents will be offered only through the designated website. Neither Owner nor Engineer will be responsible for Bidding Documents, including addenda, if any, obtained from sources other than the designated website.

The Issuing Office for the Bidding Documents is:

> **Draper Aden Associates**
> **114 Edinburgh South Drive, Suite 200, Cary, NC 27511**

Due to the ongoing COVID-19 pandemic, bidders are strongly encouraged to register as a plan holder from the aforementioned website. Physical documents will not be available from the Issuing Office. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including addenda, if any, obtained from sources other than the Issuing Office.

The Owner is an Equal Opportunity Employer and encourages bidding by small, minority and female contractors and does not discriminate on the basis of handicapped status. Bids from qualified historically underutilized businesses (HUB's) are encouraged. Bidder must provide 10% of total contract cost to HUB's or demonstrate good faith effort. The Work will be subject to the prevailing wage rates and to the Equal Employment Opportunity requirements established by the U.S. Department of Labor. The project will be funded in whole/part using FEMA funds provided by the U.S. Department of Homeland Security. All Federal laws and regulations will apply to use of FEMA funds.

Digital copies of the Bidding Documents are available free of charge from the designated website. Physical copies of the Bidding Documents may be purchased from the Issuing Office. Cost does not include shipping charges. Upon Issuing Office's receipt of payment, printed Bidding Documents will be sent via the prospective Bidder's delivery service. The shipping charge amount will depend on the shipping method chosen. Bidding Documents are available for purchase in the following formats:

Format	Cost
Physical Bidding Documents (including Full-Size Drawings)	$500

Pre-bid Conference

Pre-bid conference attendance is not required. A virtual pre-bid conference is scheduled, through Microsoft Teams, on January 26, 2021 at 1:30 PM. In response to the current State of Emergency and "Stay at Home" order pursuant of Executive Order 121, dated March 27, 2020, the pre-bid meeting shall be made available through online video conference. Access to the online video conference shall be made available to all interested parties at least 24 hours prior to the scheduled meeting. Interested parties are required to contact Kim Phillips by email at kphillips@daa.com to request the conference link.

Instructions to Bidders.

For all further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders that are included in the Bidding Documents.

This Advertisement is issued by:

Owner: City of New Bern
By: Matthew L. Montanye
Title: Director of Public Works
Date: January 4, 2021

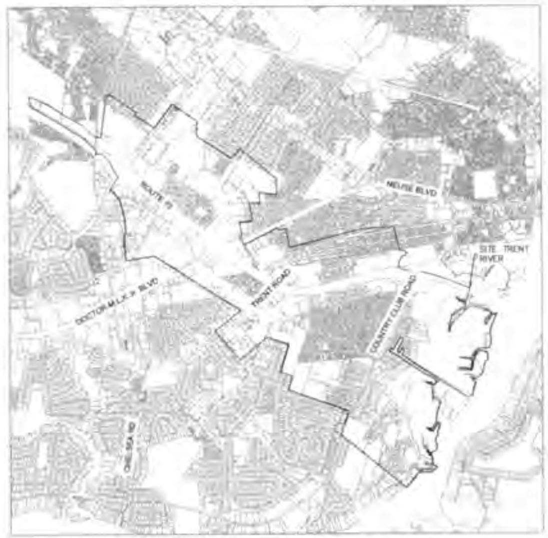
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

DECEMBER 30, 2020

RELEASED FOR BIDDING - NOT FOR CONSTRUCTION

NAME OF PROJECT: HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES TRENT RIVER DRAINAGE BASIN

ENGINEER	ANDREW P. MERICLE, P.E. AMERICLE@DAA.COM DRAPER ADEN ASSOCIATES 114 EDINBURGH SOUTH DRIVE SUITE 200, CARY, NC 27511
PID	MULTIPLE
DEED REFERENCE	MULTIPLE
WATERSHED CLASSIFICATION	NEUSE RIVER BASIN
DISTURBED AREA	5.97 ACRES



VICINITY MAP - NOT TO SCALE

Sheet List Table

Sheet Number	Sheet Title
C1.0	COVER SHEET
C2.0	NOTES
C2.1	[illegible] NOTES
C3.0	SITE LAYOUT
C3.1	SITE DETAIL
C3.2	SITE DETAIL
C3.3	SITE DETAIL
C3.4	SITE DETAIL
C3.5	SITE DETAIL
C3.6	SITE DETAIL
C3.7	SITE DETAIL
C3.8	SITE DETAIL
C4.1	TRENT RIVER REMEDIATION & ESC PLAN
C4.2	TRENT RIVER REMEDIATION & ESC PLAN
C4.3	TRENT RIVER REMEDIATION & ESC PLAN
C4.4	TRENT RIVER REMEDIATION & ESC PLAN
C5.0	DETAILS
C5.1	DETAILS

DRAPER ADEN ASSOCIATES REVIEW

THESE PLANS HAVE BEEN SUBJECTED TO TECHNICAL AND QUALITY REVIEWS BY

NAME: SAM FORSYTH PROJECT DESIGNER	SIGNATURE	12/30/20 DATE
NAME: MATTHEW C. BURNETTE, PG, CFM PROJECT MANAGER	SIGNATURE	12/30/20 DATE
NAME: ANDREW P. MERICLE QUALITY REVIEWER	SIGNATURE	12/30/20 DATE

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Draper Aden Associates
Engineering • Surveying • Environmental Services

COVER SHEET
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

REVISIONS

DESIGNED BY	SLF
DRAWN BY	SLF
CHECKED BY	APM
SCALE	NONE
DATE	DECEMBER 30, 2020
PROJECT NUMBER	19080319-110302

C1.0

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AS REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH THE CURRENT EDITION OF THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL MANUAL. ALL DEVICES REFERRED TO IN THESE PLANS CAN BE FOUND IN THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL MANUAL.
2. ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDED AND MULCHED PER THE NCDEQ SCHEDULE AFTER REACHING FINAL GRADE. AREAS WHICH HAVE BEEN DISTURBED AND HAVE NOT REACHED FINAL GRADE, BUT WHICH ARE TO REMAIN UNDISTURBED FOR LONGER THAN 14 DAYS ARE TO BE TEMPORARILY SEEDED AND MULCHED PER THE NCDEQ SCHEDULE. AS UPSTREAM AREAS ARE STABILIZED WITH PERMANENT GROUND COVER, DOWNSTREAM TEMPORARY DEVICES ARE TO BE REMOVED. CONTRACTOR SHALL FOLLOW THE STABILIZATION TIME TABLE INCLUDED IN THIS SET OF DRAWINGS.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERIODICALLY INSPECT ALL SEDIMENT AND EROSION CONTROL DEVICES AND ENSURE THAT THEY ARE IN GOOD WORKING ORDER. AT A MINIMUM, ALL DEVICES SHALL BE INSPECTED DAILY AND AFTER MAJOR RAINFALL EVENTS. ANY DEVICE NEEDING REPAIRS SHALL BE REPAIRED WITHIN 24 HOURS.
4. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES IF DURING THE COURSE OF CONSTRUCTION THE ENGINEER OR NCDEQ INSPECTOR DETERMINES THAT THEY ARE REQUIRED.
5. SILT SHALL BE REMOVED FROM SILT FENCES WHEN THE SILT REACHES APPROXIMATELY ONE-THIRD (1/3) THE HEIGHT OF THE BARRIER.
6. THE CONTRACTOR SHALL PERIODICALLY TOP DRESS THE CONSTRUCTION ENTRANCE WITH CLEAN STONE. IF THE CONSTRUCTION ENTRANCE FAILS TO REMOVE DIRT FROM THE TIRES OF VEHICLES ENTERING A PUBLIC RIGHT-OF-WAY A WASH RACK SHALL BE INSTALLED AND THE TIRES WASHED. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ANY REQUIRED WATER FOR THE WASHING OF TIRES. DIRT TRACKED ONTO THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
7. ALL EROSION AND SILTATION MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING.
8. ALL STORM AND UTILITY LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED PER THE NCDEQ SCHEDULE AFTER BACKFILL. NO MORE THAN FIVE HUNDRED FEET OF TRENCH IS TO BE OPEN AT ONE TIME.
9. ALL TEMPORARY EARTH BERMS, DIVERSIONS, AND SILT DAMS ARE TO BE MULCHED AND SEEDED FOR VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. ADDITIONALLY ALL DIVERSION SWALES WILL BE PROTECTED AGAINST HIGH VELOCITY WITH EROSION CONTROL MEASURES AS DENOTED ON THESE PLANS. THE SAME APPLIES TO STOCKPILES ON SITE AS WELL AS SOIL (INTENTIONALLY) TRANSPORTED FROM THE PROJECT SITE.
10. ANY DISTURBED AREA NOT PAVED, SODDED, OR BUILT UPON, IS TO BE SEEDED PER THE TEMPORARY AND PERMANENT SEEDING SCHEDULE INCLUDED IN THESE DRAWINGS. MODIFY AS APPLICABLE DEPENDING ON PROPOSED TIME OF CONSTRUCTION.
11. CONTRACTOR STAGING AREA(S) SHALL BE RETURNED TO BETTER THAN ORIGINAL CONDITIONS AT THE COMPLETION OF THE WORK.
12. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
13. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO ISSUANCE OF A LAND DISTURBANCE PERMIT. THE CONTRACTOR SHALL SCHEDULE THE MEETING WITH THE NCDEQ INSPECTOR ASSIGNED TO THE PROJECT.
14. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF NCDEQ EROSION AND SEDIMENT CONTROL MANUAL AND THE NORTH CAROLINA SEDIMENTATION POLLUTION CONTROL ACT OF 1973.
15. AS A CONDITION OF NPDES PERMIT NO. NCG 010000, PERMANENT GROUNDCOVER SHOULD BE PROVIDED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING THE COMPLETION OF CONSTRUCTION OR DEVELOPMENT.

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF REMOVING HURRICANE FLORENCE-RELATED DEBRIS PRESENT THROUGHOUT THE CITY OF NEW BERN'S DRAINAGE NETWORK WITHIN THE TRENT RIVER DRAINAGE BASIN. DEBRIS WILL INCLUDE SEDIMENT, VEGETATIVE DEBRIS, AND MISCELLANEOUS DEBRIS. ALL DEBRIS WILL BE DISPOSED OF AT THE TUSCARORA LANDFILL.

EXISTING CONDITIONS
THE PROJECT AREA INCLUDES VARIOUS SITES THROUGHOUT THE TRENT RIVER DRAINAGE BASIN. SITES ARE LOCATED THROUGHOUT THE CITY OF NEW BERN'S DRAINAGE NETWORK AND INCLUDE BOTH OPEN CONVEYANCE AND STORMWATER INFRASTRUCTURE.

DEVELOPMENT IMPACTS
THE DEVELOPMENT IMPACTS TO THE TOPOGRAPHY, SOILS, HYDROLOGY AND GEOLOGY WILL BE MINOR.

SOILS
SOILS THROUGHOUT THE PROJECT AREA INCLUDE AUGUSTA FINE SANDY LOAM, ARAPAHOE FINE SANDY LOAM, BRAGG SOILS, 0 TO 8 PERCENT SLOPES, CONETOE LOAMY SAND, 0 TO 5 PERCENT SLOPES, LEAF SILT LOAM, LENOIR SILT LOAM, LEON SAND, MASONTOWN MUCKY FINE SANDY LOAM AND MUCKALEE SANDY LOAM, FREQUENTLY FLOODED, PANTEGO FINE SANDY LOAM, RAINS FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES, ATLANTIC COAST FLATWOODS, RAINS-URBAN LAND COMPLEX, SEABROOK LOAMY SAND, TARBORO SAND, 0 TO 6 PERCENT SLOPES, TOMAHAWK-URBAN LAND COMPLEX, AND TORHUNTA FINE SANDY LOAM. HYDROLOGIC SOIL GROUPS INCLUDE A (6.8%), A/D (60.8%), B/D (17.1%), C (3.2%), C/D (1.8%) AND D (10.4%).

CRITICAL EROSION AREAS
1. CARE MUST BE TAKEN TO PREVENT SEDIMENT FROM BEING TRACKED ONTO ADJACENT ROADWAYS.
2. CARE MUST BE TAKEN TO PREVENT SEDIMENT FROM EXITING THE PROJECT SITE AREA.
3. CARE MUST BE TAKEN TO PREVENT SEDIMENT FROM ENTERING ANY WATER WAY OR DRAINAGE WAYS.

STOCKPILING
TOPSOIL STOCKPILING IS ANTICIPATED ON-SITE.

STRUCTURAL PRACTICES
SILT FENCE
SILT FENCE OUTLETS
CULVERT INLET PROTECTION

VEGETATIVE PRACTICES
TOPSOILING
TEMPORARY SEEDING
PERMANENT SEEDING
MULCHING

MANAGEMENT STRATEGIES
1. THE SILT FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES ONE-THIRD (1/3) THE HEIGHT OF THE BARRIER.
2. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
3. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING.
4. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
5. AFTER ACHIEVING ADEQUATE STABILIZATION AND UPON APPROVAL OF THE NCDEQ INSPECTOR, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED.

PERMANENT STABILIZATION
THE DISTURBED AREAS WILL BE PERMANENTLY STABILIZED THROUGH THE USE OF PERMANENT SEEDING AND RIPRAP.

GENERAL UTILITY NOTES

1. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION AS INDICATED. ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.
2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION SO THAT CONTRACTOR IS FAMILIAR AND UNDERSTANDS EXISTING CONDITIONS.
3. FIELD CHANGES MAY BE NECESSARY DUE TO EXISTING UTILITY LOCATIONS. THE ENGINEER SHALL BE CONTACTED BEFORE MAKING THESE CHANGES.

CONSTRUCTION SEQUENCE

1. SET UP PRE-CONSTRUCTION MEETING.
2. INSTALL SILT FENCE AND OTHER PERIMETER CONTROLS.
3. INSTALL EROSION AND SEDIMENT CONTROL FEATURES AS INDICATED.
4. MINIMIZE DISTURBED AREAS AT ANY GIVEN TIME TO THOSE AREA THAT ARE BEING ACTIVELY EXCAVATED.
5. INSPECT AND ADJUST AS NECESSARY ALL EROSION CONTROL DEVICES IN ORDER TO MAINTAIN PROPER FUNCTION.
6. COMPLETE ANY TEMPORARY SITE ACCESS REQUIREMENTS, INCLUDING CLEARING, ACCESS ROAD INSTALLATION, AND TEMPORARY STREAM CROSSING INSTALLATION.
7. REMOVE AND REDUCE VEGETATIVE DEBRIS BOTH IDENTIFIED AND AS ENCOUNTERED THAT IS NOT EXPLICITLY IDENTIFIED IN THE DESCRIPTION OF ACTIVITY TABLE.
8. REMOVE MISCELLANEOUS DEBRIS BOTH IDENTIFIED AND AS ENCOUNTERED THAT IS NOT EXPLICITLY IDENTIFIED IN THE DESCRIPTION OF ACTIVITY TABLE.
9. INSTALL TEMPORARY DEWATERING AND PUMP AROUND AS NECESSARY. DEWATERING IS REQUIRED TO PERFORM SEDIMENT REMOVAL WHEN MORE THAN 12 INCHES OF WATER IS PRESENT WITHIN THE EXCAVATION AREA. WATER DEPTH MAY FLUCTUATE DUE TO RECENT RAINFALL, GROUNDWATER ELEVATION, WIND AND TIDES.
10. REMOVE SEDIMENT AS IDENTIFIED. GRADE DITCHES TO MATCH EXISTING CULVERTS OR PROVIDE POSITIVE DRAINAGE. STOCKPILE REMOVED SEDIMENT WITHIN EXISTING EASEMENTS OR RIGHT-OF-WAYS. ALLOW MATERIAL TO ADEQUATELY DRY PRIOR TO LOADING AND DISPOSAL. FOR AREAS WITHOUT ADEQUATE SPACE TO STOCKPILE SEDIMENT NEARBY, TRANSPORT SEDIMENT TO IDENTIFIED STOCKPILE AREAS AND ALLOW TO DRY PRIOR TO DISPOSAL.
11. STABILIZE SITES DURING AND AT THE CONCLUSION OF CONSTRUCTION IN ACCORDANCE WITH THE NOTES AND DETAILS IN THESE PLANS AND AS INSPECTOR HAS INSTRUCTED.
12. ONCE ALL AREAS HAVE BEEN STABILIZED, AND ONLY WITH THE APPROVAL OF THE EROSION CONTROL INSPECTOR, REMOVE ALL REMAINING EROSION CONTROL DEVICES.
13. REMOVE AND REPLACE ANY ITEMS DISTURBED AND/OR REMOVED DURING ACCESS OR CONSTRUCTION ACTIVITIES. REMOVE TEMPORARY ACCESS FEATURES UNLESS INDICATED TO REMAIN.

GENERAL NOTES

1. THIS PROJECT AS CURRENTLY DESIGNED, MAY NOT INCLUDE ALL COMPONENTS ADDRESSED IN THE VARIOUS GENERAL NOTES. REVIEW PLANS FOR APPLICABILITY.
2. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM THE LOCAL AND STATE AGENCIES.
3. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND AT HIS EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
4. ALL PAVING MATERIALS AND DRAINAGE STRUCTURES SHALL BE BUILT AND INSTALLED IN ACCORDANCE WITH NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
5. THE LOCATION OF EXISTING SEWER, WATER OR TELEPHONE LINES, CONDUITS OR OTHER STRUCTURES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND IF SHOWN ARE ONLY APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, IF THERE APPEARS TO BE A CONFLICT, OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS. FOR ASSISTANCE IN LOCATING EXISTING UTILITIES CALL "NC ONE CALL", DIAL 811.
6. WHERE PAVEMENT IS BEING REMOVED, THE CONTRACTOR SHALL REMOVE AGGREGATE BASE MATERIAL TO SUB-GRADE.
7. DAMAGE TO UTILITIES (INCLUDING UNDERGROUND) OR PROPERTY OF OTHERS BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY CONTRACTOR AT NO COST TO OWNER.
8. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO LIKE-NEW CONDITION.
9. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURES IN OPERABLE CONDITION.
10. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY INSPECTORS.
11. THE CONTRACTOR SHALL NOTIFY ALL APPLICABLE REGULATORY AGENCIES AND THE ENGINEER AT LEAST 24 HOURS PRIOR TO STARTING WORK ON THIS PROJECT.
12. UNLESS OTHERWISE NOTED, ALL CONCRETE PIPE SHALL BE REINFORCED CONCRETE PIPE, CLASS III.
13. ALL EXCAVATION FOR UNDERGROUND PIPE INSTALLATION MUST COMPLY WITH OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY (29 CFR PART 1926).
14. VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
15. DEVIATIONS FROM, OR CHANGES TO THESE PLANS WILL NOT BE ALLOWED.
16. MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THE PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT. TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREON AND ANY OTHER EXISTING UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. REPAIR AT YOUR OWN EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. IF A UTILITY IS DAMAGED DURING CONSTRUCTION, STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER AND TOWN.
17. PROPERLY SECURE THE CONSTRUCTION AREA AT ALL TIMES AGAINST UNAUTHORIZED ENTRY AND ADEQUATELY PROTECT EQUIPMENT, MATERIALS, AND COMPLETED WORK FROM THEFT AND VANDALISM. THE OWNER IS NOT RESPONSIBLE FOR THE LOSS OF ANY MATERIAL STORED AT THE SITE.

GENERAL CONSTRUCTION AND GEOTECHNICAL NOTES

ENGINEERED FILL

1. ALL CONTROLLED FILL ZONES ARE TO BE MONITORED BY A FULL TIME GEOTECHNICAL ENGINEERING SERVICES FIRM.
2. ENGINEERED FILLS SHALL BE PROPERLY PLACED ACCORDING TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
3. ALL SUMMARY REPORTS, IF AVAILABLE FROM THE GEOTECHNICAL ENGINEER REPRESENTING THE PROJECT MUST STATE HIS PROFESSIONAL OPINION ON THE SATISFACTORILY COMPLETED PHASES OF CONSTRUCTION SUCH AS; SLOPE CUTS, SUBDRAINAGE SYSTEMS, PREPARATION OF SUBGRADES AND COMPACTION OF EARTH FILLS.
4. NO FILLS SHALL HAVE ZONES THAT EXCEED TWO (2) FEET IN ELEVATION WITHOUT CONDUCTING COMPACTION TEST AND OBTAINING RESULTS OF 95% OR GREATER.
5. THE GEOTECHNICAL ENGINEER MUST SUBMIT A DETAILED ANALYSIS, ITEMIZING THE FIELD DENSITY TEST RESULTS. THIS REPORT SHALL BE ACCOMPANIED WITH A COPY OF THE SITE PLAN SHEET AND INDICATE THE TEST LOCATIONS AND ELEVATIONS. THE GEOTECHNICAL ENGINEER MUST PROVIDE ENOUGH DESIGNATED TESTING IN ALL FILL ZONES TO ADEQUATELY EXAMINE AND CERTIFY THE INTEGRITY OF THE FILL.
6. THE GEOTECHNICAL ENGINEER MUST SUBMIT A CERTIFIED BUILDING PAD REPORT FOR EACH FILL PAD LOCATION. THIS REPORT SHALL PROFILE THE FILL MATERIAL PLACEMENT AND PROVIDE THE COMPACTION TEST RESULTS. ALL REPORTS WILL BE ACCOMPANIED BY THE SITE PLAN, INDICATING THE TEST LOCATIONS AND ELEVATIONS.
7. NO BUILDING PADS IN FILL ZONES WILL HAVE STRATUMS EXCEEDING TWO (2) FEET IN ELEVATION WITHOUT TEST VERIFYING DENSITY.
8. THESE GEOTECHNICAL NOTES SHALL IN NO WAY LESSEN THE REQUIREMENTS OF THE SUBMITTED SOILS REPORT.

ROAD SUBGRADE

1. INSPECTION AND APPROVAL OF THE SUBGRADE WILL BE REQUIRED PRIOR TO THE PLACEMENT OF THE APPROVED PAVEMENT SECTION MATERIAL.
2. ANY CLAY DEPOSITS IN THE TOP TWO FEET OF THE SUBGRADE MUST BE REMOVED OR ADDRESSED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
3. SUBGRADE APPROVAL SHALL BE ACCOMPANIED BY THE SUPPORTING DOCUMENTATION VERIFYING DENSITY TEST RESULTS OF 95% OR GREATER.
4. THE ENTIRE SUBGRADE WILL HAVE BEEN PROOF-ROLLED IN THE PRESENCE OF THE SITE INSPECTOR AND GEOTECHNICAL REPRESENTATIVE. PROOF-ROLLING SHALL BE A RUBBER TIRE VEHICLE SUCH AS A LOADED TEN (10) TON TRUCK OF APPROVED COMPACTION EQUIPMENT.
5. THE FINAL SUBGRADE SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER AND SITE INSPECTOR BEFORE PLACEMENT OF PAVEMENT SECTION MATERIALS.

TEMPORARY SEEDING SCHEDULE FOR LATE WINTER AND EARLY SPRING

DATES	SPECIES	RATE (LB/ACRE)
JAN 1 - MAY 1	RYE (GRAIN)	120

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4000 LB/ACRE SMALL GRAIN STRAW AND TACK WITH ASPHALT.
MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

TEMPORARY SEEDING SCHEDULE FOR FALL

DATES	SPECIES	RATE (LB/ACRE)
AUG 15 - DEC 30	RYE (GRAIN)	120

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1000 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4000 LB/ACRE SMALL GRAIN STRAW AND TACK WITH ASPHALT.
MAINTENANCE
REPAIR AND REFERTILIZE AND RESEED DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 LB/ACRE KOBE LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.

PERMANENT SEEDING SCHEDULE FOR GRASS-LINED CHANNELS

DATES	SPECIES	RATE (LB/ACRE)
AUG 15 - SEP 1	TALL FESCUE	200
	HULLED COMMON BERMUDA	50
FEB 1 - APR 15	TALL FESCUE	200

NURSE PLANTS
PRIOR TO MAY 1 OR AFTER AUG 15, ADD 40 LB/ACRE RYE (GRAIN).
SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 4,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1000 LB/ACRE 10-10-10 FERTILIZER. OPERATE TILLAGE EQUIPMENT ACROSS THE WATERWAY.
MULCH
USE A ROLLED EROSION CONTROL PRODUCT TO COVER THE BOTTOM OF CHANNELS AND DITCHES AND STAPLE SECURELY. THE LINING SHOULD EXTEND ABOVE THE HIGHEST CALCULATED DEPTH OF FLOW.
MAINTENANCE
INSPECT AND REPAIR MULCH FREQUENTLY. REFERTILIZE IN LATE WINTER OF THE FOLLOWING YEAR. FOLLOW RECOMMENDATIONS OF SOIL TESTS OR USE 150 LB/ACRE OF 10-10-10. MOW REGULARLY TO A HEIGHT OF 3-4 INCHES.

TEMPORARY SEEDING SCHEDULE FOR SUMMER

DATES	SPECIES	RATE (LB/ACRE)
MAY 1 - AUG 15	GERMAN MILLET	40

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4000 LB/ACRE SMALL GRAIN STRAW AND TACK WITH ASPHALT.
MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

PERMANENT SEEDING SCHEDULE FOR AREAS OTHER THAN CHANNELS

SPECIES	RATE (LB/ACRE) 3:1 AND STEEPER SLOPES	SLOPES FLATTER THAN 3:1
TALL FESCUE	100	80
HULLED COMMON BERMUDA	40	40

AFTER AUGUST 15 USE UNHULLED BERMUDA SEED.

NURSE PLANTS
PRIOR TO MAY 1 OR AFTER AUG 15, ADD 40 LB/ACRE RYE (GRAIN).
SEEDING DATES

	BEST	POSSIBLE
FALL	AUG 25 - SEP 15	AUG 20 - OCT 25
LATE WINTER	FEB 15 - MAR 31	FEB 1 - APR 15

FALL IS BEST FOR TALL FESCUE AND LATE WINTER FOR LESPEDEZAS. OVERSEEDING OF KOBE LESPEDEZA OVER FALL-SEEDED TALL FESCUE IS VERY EFFECTIVE.
SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 4,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1000 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4,000-5,000 LB/ACRE GRAIN STRAW. ANCHOR BY TACKING WITH ASPHALT. ON SLOPE 3:1 OR STEEPER ANCHOR STRAW WITH NETTING.
MAINTENANCE
REFERTILIZE IN THE SECOND YEAR UNLESS GROWTH IS FULLY ADEQUATE. MAY BE MOWED ONCE OR TWICE A YEAR, BUT MOWING IS NOT NECESSARY. REFERTILIZE, RESEED AND MULCH DAMAGED AREAS IMMEDIATELY.

NORTH CAROLINA PROFESSIONAL SEAL 041595 ENGINEER F. MERICLE

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NOTES
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

REVISIONS

DESIGNED BY: SCP
DRAWN BY: WJT
CHECKED BY: APM
SCALE: NONE
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C2.0

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

SELF-INSPECTIONS ARE REQUIRED DURING NORMAL BUSINESS HOURS IN ACCORDANCE WITH THE TABLE BELOW. WHEN ADVERSE WEATHER OR SITE CONDITIONS WOULD CAUSE THE SAFETY OF THE INSPECTION PERSONNEL TO BE IN JEOPARDY, THE INSPECTION MAY BE DELAYED UNTIL THE NEXT BUSINESS DAY ON WHICH IT IS SAFE TO PERFORM THE INSPECTION. IN ADDITION, WHEN A STORM EVENT OF EQUAL TO OR GREATER THAN 1.0 INCH OCCURS OUTSIDE OF NORMAL BUSINESS HOURS, THE SELF-INSPECTION SHALL BE PERFORMED UPON THE COMMENCEMENT OF THE NEXT BUSINESS DAY. ANY TIME WHEN INSPECTIONS WERE DELAYED SHALL BE NOTED IN THE INSPECTION RECORD.

INSPECT	FREQUENCY (DURING NORMAL BUSINESS HOURS)	INSPECTION RECORDS MUST INCLUDE:
(1) RAIN GAUGE MAINTAINED IN GOOD WORKING ORDER	DAILY	DAILY RAINFALL AMOUNTS. IF NO DAILY RAIN GAUGE OBSERVATIONS ARE MADE DURING WEEKEND OR HOLIDAY PERIODS, AND NO INDIVIDUAL-DAY RAINFALL INFORMATION IS AVAILABLE, RECORD THE CUMULATIVE RAIN MEASUREMENT FOR THOSE UN-ATTENDED DAYS (AND THIS WILL DETERMINE IF A SITE INSPECTION IS NEEDED). DAYS ON WHICH NO RAINFALL OCCURRED SHALL BE RECORDED AS "ZERO." THE PERMITTEE MAY USE ANOTHER RAIN-MONITORING DEVICE APPROVED BY THE DIVISION.
(2) E&SC MEASURES	AT LEAST ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT ≥ 1.0 INCH IN 24 HOURS	1. IDENTIFICATION OF THE MEASURES INSPECTED, 2. DATE AND TIME OF THE INSPECTION, 3. NAME OF THE PERSON PERFORMING THE INSPECTION, 4. INDICATION OF WHETHER THE MEASURES WERE OPERATING PROPERLY, 5. DESCRIPTION OF MAINTENANCE NEEDS FOR THE MEASURE, 6. DESCRIPTION, EVIDENCE, AND DATE OF CORRECTIVE ACTIONS TAKEN.
(3) STORMWATER DISCHARGE OUTFALLS (SDOs)	AT LEAST ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT ≥ 1.0 INCH IN 24 HOURS	1. IDENTIFICATION OF THE DISCHARGE OUTFALLS INSPECTED, 2. DATE AND TIME OF THE INSPECTION, 3. NAME OF THE PERSON PERFORMING THE INSPECTION, 4. EVIDENCE OF INDICATORS OF STORMWATER POLLUTION SUCH AS OIL SHEEN, FLOATING OR SUSPENDED SOLIDS OR DISCOLORATION, 5. INDICATION OF VISIBLE SEDIMENT LEAVING THE SITE, 6. DESCRIPTION, EVIDENCE, AND DATE OF CORRECTIVE ACTIONS TAKEN.
(4) PERIMETER OF SITE	AT LEAST ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT ≥ 1.0 INCH IN 24 HOURS	IF VISIBLE SEDIMENT IS FOUND OUTSIDE SITE LIMITS, THEN A RECORD OF THE FOLLOWING SHALL BE MADE: 1. ACTIONS TAKEN TO CLEAN UP OR STABILIZE THE SEDIMENT THAT HAS LEFT THE SITE LIMITS, 2. DESCRIPTION, EVIDENCE, AND DATE OF CORRECTIVE ACTIONS TAKEN, AND 3. AN EXPLANATION AS TO THE ACTIONS TAKEN TO CONTROL FUTURE RELEASES.
(5) STREAMS OR WETLANDS ONSITE OR OFFSITE (WHERE ACCESSIBLE)	AT LEAST ONCE PER 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT ≥ 1.0 INCH IN 24 HOURS	IF THE STREAM OR WETLAND HAS INCREASED VISIBLE SEDIMENTATION OR A STREAM HAS VISIBLE INCREASED TURBIDITY FROM THE CONSTRUCTION ACTIVITY, THEN A RECORD OF THE FOLLOWING SHALL BE MADE: 1. DESCRIPTION, EVIDENCE AND DATE OF CORRECTIVE ACTIONS TAKEN, AND 2. RECORDS OF THE REQUIRED REPORTS TO THE APPROPRIATE DIVISION REGIONAL OFFICE PER PART III, SECTION C, ITEM (2)(A) OF THIS PERMIT.
(6) GROUND STABILIZATION MEASURES	AFTER EACH PHASE OF GRADING	1. THE PHASE OF GRADING (INSTALLATION OF PERIMETER E&SC MEASURES, CLEARING AND GRUBBING, INSTALLATION OF STORM DRAINAGE FACILITIES, COMPLETION OF ALL LAND-DISTURBING ACTIVITY, CONSTRUCTION OR REDEVELOPMENT, PERMANENT GROUND COVER). 2. DOCUMENTATION THAT THE REQUIRED GROUND STABILIZATION MEASURES HAVE BEEN PROVIDED WITHIN THE REQUIRED TIMEFRAME OR AN ASSURANCE THAT THEY WILL BE PROVIDED AS SOON AS POSSIBLE.

NOTE: THE RAIN INSPECTION RESETS THE REQUIRED 7 CALENDAR DAY INSPECTION REQUIREMENT.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC PLAN DOCUMENTATION

THE APPROVED E&SC PLAN AS WELL AS ANY APPROVED DEVIATION SHALL BE KEPT ON THE SITE. THE APPROVED E&SC PLAN MUST BE KEPT UP-TO-DATE THROUGHOUT THE COVERAGE UNDER THIS PERMIT. THE FOLLOWING ITEMS PERTAINING TO THE E&SC PLAN SHALL BE KEPT ON SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES DURING NORMAL BUSINESS HOURS.

ITEM TO DOCUMENT	DOCUMENTATION REQUIREMENTS
(A) EACH E&SC MEASURE HAS BEEN INSTALLED AND DOES NOT SIGNIFICANTLY DEVIATE FROM THE LOCATIONS, DIMENSIONS AND RELATIVE ELEVATIONS SHOWN ON THE APPROVED E&SC PLAN.	INITIAL AND DATE EACH E&SC MEASURE ON A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT THAT LISTS EACH E&SC MEASURE SHOWN ON THE APPROVED E&SC PLAN. THIS DOCUMENTATION IS REQUIRED UPON THE INITIAL INSTALLATION OF THE E&SC MEASURES OR IF THE E&SC MEASURES ARE MODIFIED AFTER INITIAL INSTALLATION.
(B) A PHASE OF GRADING HAS BEEN COMPLETED.	INITIAL AND DATE A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT TO INDICATE COMPLETION OF THE CONSTRUCTION PHASE.
(C) GROUND COVER IS LOCATED AND INSTALLED IN ACCORDANCE WITH THE APPROVED E&SC PLAN.	INITIAL AND DATE A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT TO INDICATE COMPLIANCE WITH APPROVED GROUND COVER SPECIFICATIONS.
(D) THE MAINTENANCE AND REPAIR REQUIREMENTS FOR ALL E&SC MEASURES HAVE BEEN PERFORMED.	COMPLETE, DATE AND SIGN AN INSPECTION REPORT.
(E) CORRECTIVE ACTIONS HAVE BEEN TAKEN TO E&SC MEASURES.	INITIAL AND DATE A COPY OF THE APPROVED E&SC PLAN OR COMPLETE, DATE AND SIGN AN INSPECTION REPORT TO INDICATE THE COMPLETION OF THE CORRECTIVE ACTION.

2. DOCUMENTATION TO BE RETAINED FOR THREE YEARS

ALL DATA USED TO COMPLETE THE E-NOI AND ALL INSPECTION RECORDS SHALL BE MAINTAINED FOR A PERIOD OF THREE YEARS AFTER PROJECT COMPLETION AND MADE AVAILABLE UPON REQUEST. [40 CFR 122.41]

3. ADDITIONAL DOCUMENTATION TO BE KEPT ON SITE

IN ADDITION TO THE E&SC PLAN DOCUMENTS ABOVE, THE FOLLOWING ITEMS SHALL BE KEPT ON THE SITE AND AVAILABLE FOR INSPECTORS AT ALL TIMES DURING NORMAL BUSINESS HOURS, UNLESS THE DIVISION PROVIDES A SITE-SPECIFIC EXEMPTION BASED ON UNIQUE SITE CONDITIONS THAT MAKE THIS REQUIREMENT NOT PRACTICAL:

(A) THIS GENERAL PERMIT AS WELL AS THE CERTIFICATE OF COVERAGE, AFTER IT IS RECEIVED.

(B) RECORDS OF INSPECTIONS MADE DURING THE PREVIOUS TWELVE MONTHS. THE PERMITTEE SHALL RECORD THE REQUIRED OBSERVATIONS ON THE INSPECTION RECORD FORM PROVIDED BY THE DIVISION OR A SIMILAR INSPECTION FORM THAT INCLUDES ALL THE REQUIRED ELEMENTS. USE OF ELECTRONICALLY-AVAILABLE RECORDS IN LIEU OF THE REQUIRED PAPER COPIES WILL BE ALLOWED IF SHOWN TO PROVIDE EQUAL ACCESS AND UTILITY AS THE HARD-COPY RECORDS.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. OCCURRENCES THAT MUST BE REPORTED

PERMITTEES SHALL REPORT THE FOLLOWING OCCURRENCES:

(A) VISIBLE SEDIMENT DEPOSITION IN A STREAM OR WETLAND.

(B) OIL SPILLS IF:

- THEY ARE 25 GALLONS OR MORE,
- THEY ARE LESS THAN 25 GALLONS BUT CANNOT BE CLEANED UP WITHIN 24 HOURS,
- THEY CAUSE SHEEN ON SURFACE WATERS (REGARDLESS OF VOLUME), OR
- THEY ARE WITHIN 100 FEET OF SURFACE WATERS (REGARDLESS OF VOLUME).

(C) RELEASES OF HAZARDOUS SUBSTANCES IN EXCESS OF REPORTABLE QUANTITIES UNDER SECTION 311 OF THE CLEAN WATER ACT (REF: 40 CFR 110.3 AND 40 CFR 117.3) OR SECTION 102 OF CERCLA (REF: 40 CFR 302.4) OR G.S. 143-215.85.

(D) ANTICIPATED BYPASSES AND UNANTICIPATED BYPASSES.

(E) NONCOMPLIANCE WITH THE CONDITIONS OF THIS PERMIT THAT MAY ENDANGER HEALTH OR THE ENVIRONMENT.

2. REPORTING TIMEFRAMES AND OTHER REQUIREMENTS

AFTER A PERMITTEE BECOMES AWARE OF AN OCCURRENCE THAT MUST BE REPORTED, HE SHALL CONTACT THE APPROPRIATE DIVISION REGIONAL OFFICE WITHIN THE TIMEFRAMES AND IN ACCORDANCE WITH THE OTHER REQUIREMENTS LISTED BELOW. OCCURRENCES OUTSIDE NORMAL BUSINESS HOURS MAY ALSO BE REPORTED TO THE DEPARTMENT'S ENVIRONMENTAL EMERGENCY CENTER PERSONNEL AT (800) 858-0368.

OCCURRENCE	REPORTING TIMEFRAMES (AFTER DISCOVERY) AND OTHER REQUIREMENT
(A) VISIBLE SEDIMENT DEPOSITION IN A STREAM OR WETLAND	**WITHIN 24 HOURS**, AN ORAL OR ELECTRONIC NOTIFICATION. **WITHIN 7 CALENDAR DAYS**, A REPORT THAT CONTAINS A DESCRIPTION OF THE SEDIMENT AND ACTIONS TAKEN TO ADDRESS THE CAUSE OF THE DEPOSITION. DIVISION STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CASE-BY-CASE BASIS. IF THE STREAM IS NAMED ON THE NC 303(D) LIST AS IMPAIRED FOR SEDIMENT-RELATED CAUSES, THE PERMITTEE MAY BE REQUIRED TO PERFORM ADDITIONAL MONITORING, INSPECTIONS OR APPLY MORE STRINGENT PRACTICES IF STAFF DETERMINE THAT ADDITIONAL REQUIREMENTS ARE NEEDED TO ASSURE COMPLIANCE WITH THE FEDERAL OR STATE IMPAIRED-WATERS CONDITIONS.
(B) OIL SPILLS AND RELEASE OF HAZARDOUS SUBSTANCES PER ITEM 1(B)-(C) ABOVE	**WITHIN 24 HOURS**, AN ORAL OR ELECTRONIC NOTIFICATION. THE NOTIFICATION SHALL INCLUDE INFORMATION ABOUT THE DATE, TIME, NATURE, VOLUME AND LOCATION OF THE SPILL OR RELEASE.
(C) ANTICIPATED BYPASSES (40 CFR 122.41(M)(3))	***A REPORT AT LEAST TEN DAYS BEFORE THE DATE OF THE BYPASS, IF POSSIBLE.*** THE REPORT SHALL INCLUDE AN EVALUATION OF THE ANTICIPATED QUALITY AND EFFECT OF THE BYPASS.
(D) UNANTICIPATED BYPASSES (40 CFR 122.41(M)(3))	**WITHIN 24 HOURS**, AN ORAL OR ELECTRONIC NOTIFICATION. **WITHIN 7 CALENDAR DAYS**, A REPORT THAT INCLUDES AN EVALUATION OF THE QUALITY AND EFFECT OF THE BYPASS.
(E) NONCOMPLIANCE WITH THE CONDITIONS OF THIS PERMIT THAT MAY ENDANGER HEALTH OR THE ENVIRONMENT (40 CFR 122.41(L)(7))	**WITHIN 24 HOURS**, AN ORAL OR ELECTRONIC NOTIFICATION. **WITHIN 7 CALENDAR DAYS**, A REPORT THAT CONTAINS A DESCRIPTION OF THE NONCOMPLIANCE, AND ITS CAUSES; THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES, AND IF THE NONCOMPLIANCE HAS NOT BEEN CORRECTED, THE ANTICIPATED TIME NONCOMPLIANCE IS EXPECTED TO CONTINUE; AND STEPS TAKEN OR PLANNED TO REDUCE, ELIMINATE, AND PREVENT REOCCURRENCE OF THE NONCOMPLIANCE. [40 CFR 122.41(L)(6)]. DIVISION STAFF MAY WAIVE THE REQUIREMENT FOR A WRITTEN REPORT ON A CASE-BY-CASE BASIS.

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

REQUIRED GROUND STABILIZATION TIMEFRAMES		
SITE AREA DESCRIPTION	STABILIZE WITHIN THIS MANY CALENDAR DAYS AFTER CEASING LAND DISTURBANCE	TIMEFRAME VARIATIONS
(A) PERIMETER DIKES, SWALES, DITCHES, AND PERIMETER SLOPES	7	NONE
(B) HIGH QUALITY WATER (HQW) ZONES	7	NONE
(C) SLOPES STEEPER THAN 3:1	7	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ALLOWED
(D) SLOPES 3:1 TO 4:1	14	-7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH AND WITH SLOPES STEEPER THAN 4:1 -7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND HQW ZONES -10 DAYS FOR FALLS LAKE WATERSHED
(E) AREAS WITH SLOPES FLATTER THAN 4:1	14	-7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND HQW ZONES -10 DAYS FOR FALLS LAKE WATERSHED UNLESS THERE IS ZERO SLOPE

NOTE: AFTER THE PERMANENT CESSATION OF CONSTRUCTION ACTIVITIES, ANY AREAS WITH TEMPORARY GROUND STABILIZATION SHALL BE CONVERTED TO PERMANENT GROUND STABILIZATION AS SOON AS PRACTICABLE BUT IN NO CASE LONGER THAN 90 CALENDAR DAYS AFTER THE LAST LAND DISTURBING ACTIVITY. TEMPORARY GROUND STABILIZATION SHALL BE MAINTAINED IN A MANNER TO RENDER THE SURFACE STABLE AGAINST ACCELERATED EROSION UNTIL PERMANENT GROUND STABILIZATION IS ACHIEVED.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

TEMPORARY SEEDING	PERMANENT STABILIZATION
TEMPORARY GRASS SEED COVERED WITH STRAW OR OTHER MULCHES AND TACKIFIERS HYDROSEEDING ROLLED EROSION CONTROL PRODUCTS WITH OR WITHOUT TEMPORARY GRASS SEED APPROPRIATELY APPLIED STRAW OR OTHER MULCH PLASTIC SHEETING	PERMANENT GRASS SEED COVERED WITH STRAW OR OTHER MULCHES AND TACKIFIERS GEOTEXTILE FABRICS SUCH AS PERMANENT SOIL REINFORCEMENT MATTING HYDROSEEDING SHRUBS OR OTHER PERMANENT PLANTINGS COVERED WITH MULCH UNIFORM AND EVENLY DISTRIBUTED GROUND COVER SUFFICIENT TO RESTRAIN EROSION STRUCTURAL METHODS SUCH AS CONCRETE, ASPHALT OR RETAINING WALLS ROLLED EROSION CONTROL PRODUCTS WITH GRASS SEED

PAINT AND OTHER LIQUID WASTE

1. DO NOT DUMP PAINT AND OTHER LIQUID WASTE INTO STORM DRAINS, STREAMS OR WETLANDS.
2. LOCATE PAINT WASHOUTS AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
3. CONTAIN LIQUID WASTES IN A CONTROLLED AREA.
4. CONTAINMENT MUST BE LABELED, SIZED AND PLACED APPROPRIATELY FOR THE NEEDS OF SITE.
5. PREVENT THE DISCHARGE OF SOAPS, SOLVENTS, DETERGENTS AND OTHER LIQUID WASTES FROM CONSTRUCTION SITES.

EARTHEN STOCKPILE MANAGEMENT

1. SHOW STOCKPILE LOCATIONS ON PLANS. LOCATE EARTHEN-MATERIAL STOCKPILE AREAS AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS, SEDIMENT BASINS, PERIMETER SEDIMENT CONTROLS AND SURFACE WATERS UNLESS IT CAN BE SHOWN NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
2. PROTECT STOCKPILE WITH SILT FENCE INSTALLED ALONG TOE OF SLOPE WITH A MINIMUM OFFSET OF FIVE FEET FROM THE TOE OF STOCKPILE.
3. PROVIDE STABLE STONE ACCESS POINT WHEN FEASIBLE.
4. STABILIZE STOCKPILE WITHIN THE TIMEFRAMES PROVIDED ON THIS SHEET AND IN ACCORDANCE WITH THE APPROVED PLAN AND ANY ADDITIONAL REQUIREMENTS. SOIL STABILIZATION IS DEFINED AS VEGETATIVE, PHYSICAL OR CHEMICAL COVERAGE TECHNIQUES THAT WILL RESTRAIN ACCELERATED EROSION ON DISTURBED SOILS FOR TEMPORARY OR PERMANENT CONTROL NEEDS.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. STORE AND APPLY HERBICIDES, PESTICIDES AND RODENTICIDES IN ACCORDANCE WITH LABEL RESTRICTIONS.
2. STORE HERBICIDES, PESTICIDES AND RODENTICIDES IN THEIR ORIGINAL CONTAINERS WITH THE LABEL, WHICH LISTS DIRECTIONS FOR USE, INGREDIENTS AND FIRST AID STEPS IN CASE OF ACCIDENTAL POISONING.
3. DO NOT STORE HERBICIDES, PESTICIDES AND RODENTICIDES IN AREAS WHERE FLOODING IS POSSIBLE OR WHERE THEY MAY SPILL OR LEAK INTO WELLS, STORMWATER DRAINS, GROUND WATER OR SURFACE WATER. IF A SPILL OCCURS, CLEAN AREA IMMEDIATELY.
4. DO NOT STOCKPILE THESE MATERIALS ONSITE.

PORTABLE TOILETS

1. INSTALL PORTABLE TOILETS ON LEVEL GROUND, AT LEAST 50 FEET AWAY FROM STORM DRAINS, STREAMS OR WETLANDS UNLESS THERE IS NO ALTERNATIVE REASONABLY AVAILABLE. IF 50 FOOT OFFSET IS NOT ATTAINABLE, PROVIDE RELOCATION OF PORTABLE TOILET BEHIND SILT FENCE OR PLACE ON A GRAVEL PAD AND SURROUND WITH SAND BAGS.
2. PROVIDE STAKING OR ANCHORING OF PORTABLE TOILETS DURING PERIODS OF HIGH WINDS OR IN HIGH FOOT TRAFFIC AREAS.
3. MONITOR PORTABLE TOILETS FOR LEAKING AND PROPERLY DISPOSE OF ANY LEAKED MATERIAL. UTILIZE A LICENSED SANITARY WASTE HAULER TO REMOVE LEAKING PORTABLE TOILETS AND REPLACE WITH PROPERLY OPERATING UNIT.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

SEDIMENT BASINS AND TRAPS THAT RECEIVE RUNOFF FROM DRAINAGE AREAS OF ONE ACRE OR MORE SHALL USE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE WHEN THESE DEVICES NEED TO BE DRAWN DOWN FOR MAINTENANCE OR CLOSE OUT UNLESS THIS IS INFEASIBLE. THE CIRCUMSTANCES IN WHICH IT IS NOT FEASIBLE TO WITHDRAW WATER FROM THE SURFACE SHALL BE RARE (FOR EXAMPLE, TIMES WITH EXTENDED COLD WEATHER). NON-SURFACE WITHDRAWALS FROM SEDIMENT BASINS SHALL BE ALLOWED ONLY WHEN ALL OF THE FOLLOWING CRITERIA HAVE BEEN MET:

(A) THE E&SC PLAN AUTHORITY HAS BEEN PROVIDED WITH DOCUMENTATION OF THE NON-SURFACE WITHDRAWAL AND THE SPECIFIC TIME PERIODS OR CONDITIONS IN WHICH IT WILL OCCUR. THE NON-SURFACE WITHDRAWAL SHALL NOT COMMENCE UNTIL THE E&SC PLAN AUTHORITY HAS APPROVED THESE ITEMS,

(B) THE NON-SURFACE WITHDRAWAL HAS BEEN REPORTED AS AN ANTICIPATED BYPASS IN ACCORDANCE WITH PART III, SECTION C, ITEM (2)(C) AND (D) OF THIS PERMIT,

(C) DEWATERING DISCHARGES ARE TREATED WITH CONTROLS TO MINIMIZE DISCHARGES OF POLLUTANTS FROM STORMWATER THAT IS REMOVED FROM THE SEDIMENT BASIN. EXAMPLES OF APPROPRIATE CONTROLS INCLUDE PROPERLY SITED, DESIGNED AND MAINTAINED DEWATERING TANKS, WEIR TANKS, AND FILTRATION SYSTEMS,

(D) VEGETATED, UPLAND AREAS OF THE SITES OR A PROPERLY DESIGNED STONE PAD IS USED TO THE EXTENT FEASIBLE AT THE OUTLET OF THE DEWATERING TREATMENT DEVICES DESCRIBED IN ITEM (C) ABOVE,

(E) VELOCITY DISSIPATION DEVICES SUCH AS CHECK DAMS, SEDIMENT TRAPS, AND RIPRAP ARE PROVIDED AT THE DISCHARGE POINTS OF ALL DEWATERING DEVICES, AND

(F) SEDIMENT REMOVED FROM THE DEWATERING TREATMENT DEVICES DESCRIBED IN ITEM (C) ABOVE IS DISPOSED OF IN A MANNER THAT DOES NOT CAUSE DEPOSITION OF SEDIMENT INTO WATERS OF THE UNITED STATES.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. NEVER BURY OR BURN WASTE. PLACE LITTER AND DEBRIS IN APPROVED WASTE CONTAINERS.
2. PROVIDE A SUFFICIENT NUMBER AND SIZE OF WASTE CONTAINERS (E.G. DUMPSTER, TRASH RECEPTACLE) ON SITE TO CONTAIN CONSTRUCTION AND DOMESTIC WASTES.
3. LOCATE WASTE CONTAINERS AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
4. LOCATE WASTE CONTAINERS ON AREAS THAT DO NOT RECEIVE SUBSTANTIAL AMOUNTS OF RUNOFF FROM UPLAND AREAS AND DOES NOT DRAIN DIRECTLY TO A STORM DRAIN, STREAM OR WETLAND.
5. COVER WASTE CONTAINERS AT THE END OF EACH WORKDAY AND BEFORE STORM EVENTS OR PROVIDE SECONDARY CONTAINMENT. REPAIR OR REPLACE DAMAGED WASTE CONTAINERS.
6. ANCHOR ALL LIGHTWEIGHT ITEMS IN WASTE CONTAINERS DURING TIMES OF HIGH WINDS.
7. EMPTY WASTE CONTAINERS AS NEEDED TO PREVENT OVERFLOW. CLEAN UP IMMEDIATELY IF CONTAINERS OVERFLOW.
8. DISPOSE WASTE OFF-SITE AT AN APPROVED DISPOSAL FACILITY.
9. ON BUSINESS DAYS, CLEAN UP AND DISPOSE OF WASTE IN DESIGNATED WASTE CONTAINERS.

HAZARDOUS AND TOXIC WASTE

1. CREATE DESIGNATED HAZARDOUS WASTE COLLECTION AREAS ON-SITE.
2. PLACE HAZARDOUS WASTE CONTAINERS UNDER COVER OR IN SECONDARY CONTAINMENT.
3. DO NOT STORE HAZARDOUS CHEMICALS, DRUMS OR BAGGED MATERIALS DIRECTLY ON THE GROUND.

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. SELECT FLOCCULANTS THAT ARE APPROPRIATE FOR THE SOILS BEING EXPOSED DURING CONSTRUCTION, SELECTING FROM THE *NC DWR LIST OF APPROVED PAMS/FLOCCULANTS*.
2. APPLY FLOCCULANTS AT OR BEFORE THE INLETS TO EROSION AND SEDIMENT CONTROL MEASURES.
3. APPLY FLOCCULANTS AT THE CONCENTRATIONS SPECIFIED IN THE NC DWR LIST OF APPROVED PAMS/FLOCCULANTS AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
4. PROVIDE PONDING AREA FOR CONTAINMENT OF TREATED STORMWATER BEFORE DISCHARGING OFFSITE.
5. STORE FLOCCULANTS IN LEAK-PROOF CONTAINERS THAT ARE KEPT UNDER STORM-RESISTANT COVER OR SURROUNDED BY SECONDARY CONTAINMENT STRUCTURES.

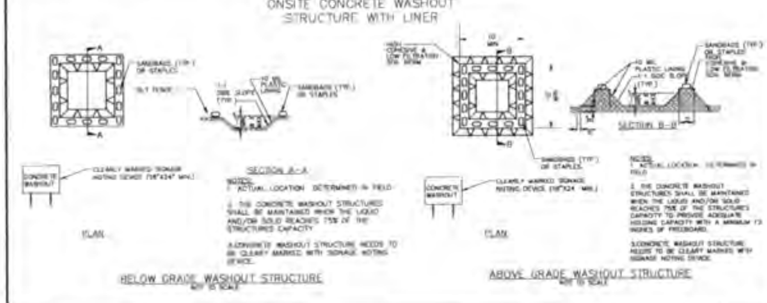
EQUIPMENT AND VEHICLE MAINTENANCE

1. MAINTAIN VEHICLES AND EQUIPMENT TO PREVENT DISCHARGE OF FLUIDS.
2. PROVIDE DRIP PANS UNDER ANY STORED EQUIPMENT.
3. IDENTIFY LEAKS AND REPAIR AS SOON AS FEASIBLE, OR REMOVE LEAKING EQUIPMENT FROM THE PROJECT.
4. COLLECT ALL SPENT FLUIDS, STORE IN SEPARATE CONTAINERS AND PROPERLY DISPOSE AS HAZARDOUS WASTE (RECYCLE WHEN POSSIBLE).
5. REMOVE LEAKING VEHICLES AND CONSTRUCTION EQUIPMENT FROM SERVICE UNTIL THE PROBLEM HAS BEEN CORRECTED.
6. BRING USED FUELS, LUBRICANTS, COOLANTS, HYDRAULIC FLUIDS AND OTHER PETROLEUM PRODUCTS TO A RECYCLING OR DISPOSAL CENTER THAT HANDLES THESE MATERIALS.

CONCRETE WASHOUTS

1. DO NOT DISCHARGE CONCRETE OR CEMENT SLURRY FROM THE SITE.
2. DISPOSE OF, OR RECYCLE SETTLED, HARDENED CONCRETE RESIDUE IN ACCORDANCE WITH LOCAL AND STATE SOLID WASTE REGULATIONS AND AT AN APPROVED FACILITY.
3. MANAGE WASHOUT FROM MORTAR MIXERS IN ACCORDANCE WITH THE ABOVE ITEM AND IN ADDITION PLACE THE MIXER AND ASSOCIATED MATERIALS ON IMPERVIOUS BARRIER AND WITHIN LOT PERIMETER SILT FENCE.
4. INSTALL TEMPORARY CONCRETE WASHOUTS PER LOCAL REQUIREMENTS, WHERE APPLICABLE. IF AN ALTERNATE METHOD OR PRODUCT IS TO BE USED, CONTACT YOUR APPROVAL AUTHORITY FOR REVIEW AND APPROVAL. IF LOCAL STANDARD DETAILS ARE NOT AVAILABLE, USE ONE OF THE TWO TYPES OF TEMPORARY CONCRETE WASHOUTS PROVIDED ON THIS DETAIL.
5. DO NOT USE CONCRETE WASHOUTS FOR DEWATERING OR STORING DEFECTIVE CURB OR SIDEWALK SECTIONS. STORMWATER ACCUMULATED WITHIN THE WASHOUT MAY NOT BE PUMPED INTO OR DISCHARGED TO THE STORM DRAIN SYSTEM OR RECEIVING SURFACE WATERS. LIQUID WASTE MUST BE PUMPED OUT AND REMOVED FROM PROJECT.
6. LOCATE WASHOUTS AT LEAST 50 FEET FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE. AT A MINIMUM, INSTALL PROTECTION OF STORM DRAIN INLET(S) CLOSEST TO THE WASHOUT WHICH COULD RECEIVE SPILLS OR OVERFLOW.
7. LOCATE WASHOUTS IN AN EASILY ACCESSIBLE AREA, ON LEVEL GROUND AND INSTALL A STONE ENTRANCE PAD IN FRONT OF THE WASHOUT. ADDITIONAL CONTROLS MAY BE REQUIRED BY THE APPROVING AUTHORITY.
8. INSTALL AT LEAST ONE SIGN DIRECTING CONCRETE TRUCKS TO THE WASHOUT WITHIN THE PROJECT LIMITS. POST SIGNAGE ON THE WASHOUT ITSELF TO IDENTIFY THIS LOCATION.
9. REMOVE LEAVINGS FROM THE WASHOUT WHEN AT APPROXIMATELY 75% CAPACITY TO LIMIT OVERFLOW EVENTS. REPLACE THE TARP, SAND BAGS OR OTHER TEMPORARY STRUCTURAL COMPONENTS WHEN NO LONGER FUNCTIONAL. WHEN UTILIZING ALTERNATIVE OR PROPRIETARY PRODUCTS, FOLLOW MANUFACTURER'S INSTRUCTIONS.
10. AT THE COMPLETION OF THE CONCRETE WORK, REMOVE REMAINING LEAVINGS AND DISPOSE OF IN AN APPROVED DISPOSAL FACILITY. FILL PIT, IF APPLICABLE, AND STABILIZE ANY DISTURBANCE CAUSED BY REMOVAL OF WASHOUT.

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



NORTH CAROLINA PROFESSIONAL SEAL 041595 12.30.20 ENGINEER ANDREW P. MERICLE

Draper Aden Associates
Engineering • Surveying • Environmental Services
[illegible]
• Richmond, VA • Blacksburg, VA • Charlottesville, VA • Hampton Roads, VA • Fayetteville, NC • Northern Virginia • Virginia Beach, VA

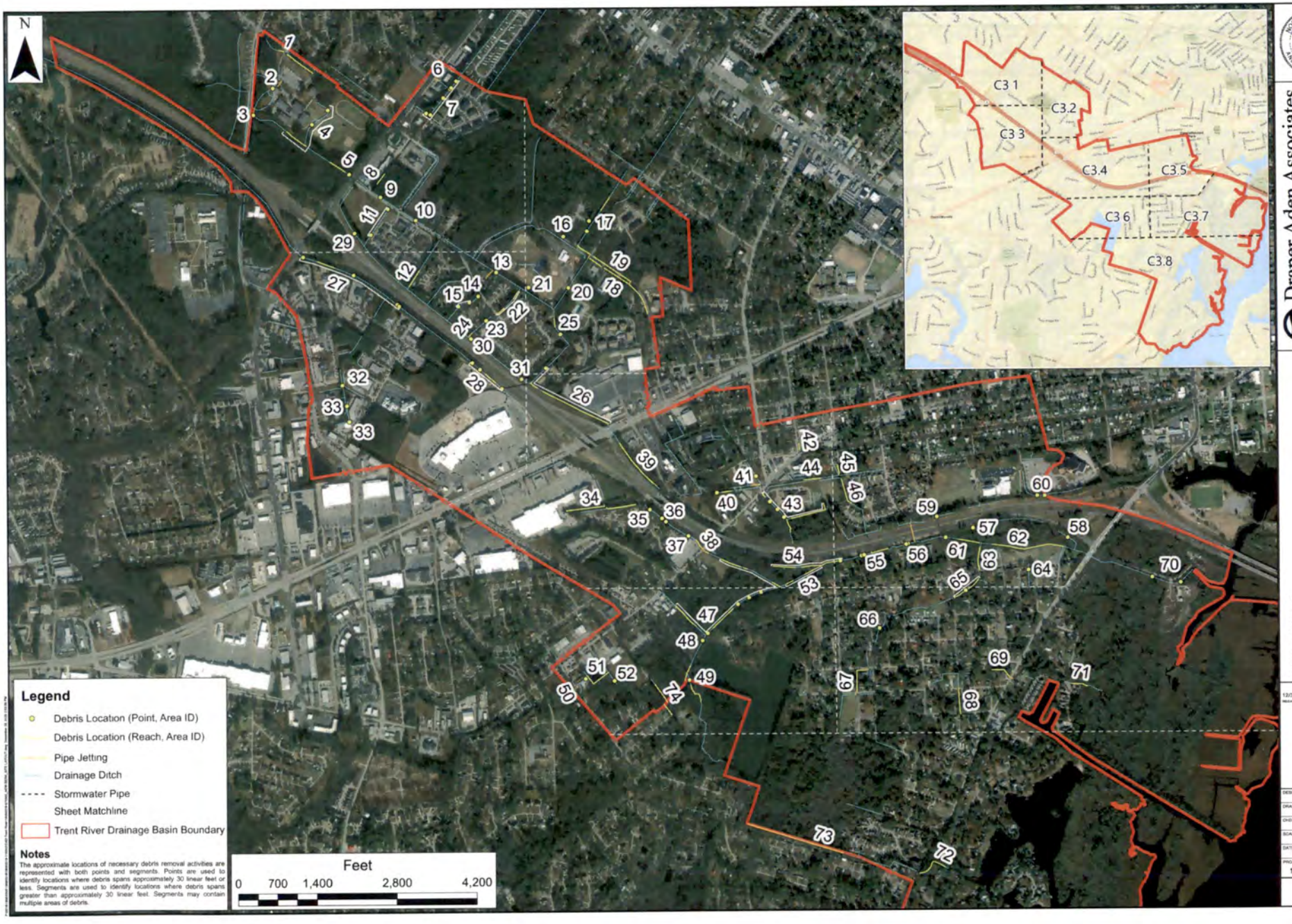
NCG01 NOTES

HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

REVISIONS
[illegible]

DESIGNED BY	APM
DRAWN BY	APM
CHECKED BY	APM
SCALE	NONE
DATE	DECEMBER 30, 2020
PROJECT NUMBER	19080319-110302

C2.1



NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041595 12.30.20 ANDREW P. MERCIER

Draper Aden Associates
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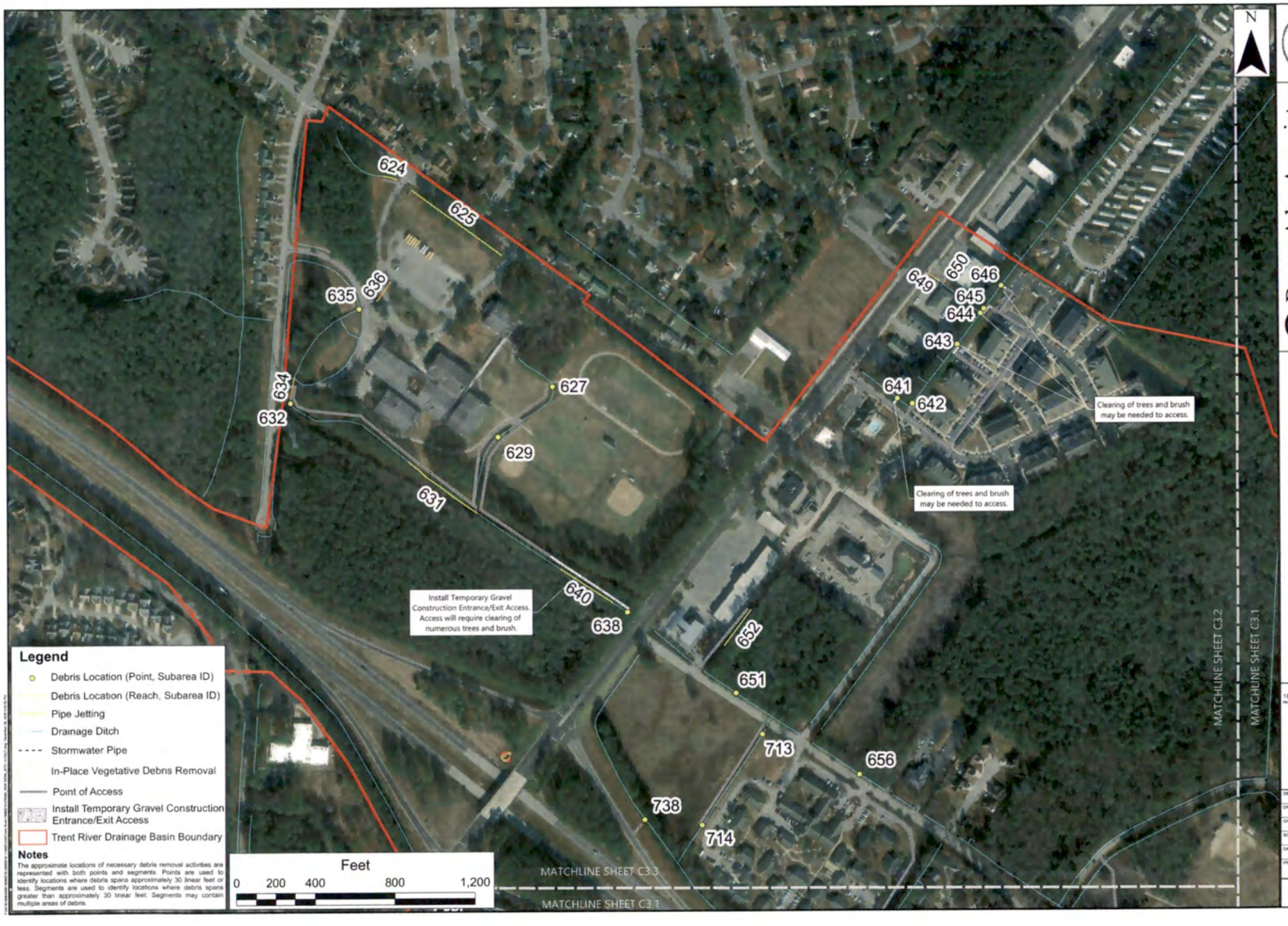
SITE LAYOUT
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

REVISIONS
12/30/20
RELEASED FOR BIDDING NOT FOR CONSTRUCTION

DESIGNED BY: SLF
DRAWN BY: SLF
CHECKED BY: APM
SCALE: 1" = 700'
DATE: DECEMBER 30, 2020
PROJECT NUMBER: 19080319-110302

C3.0



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SITE DETAIL
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

REVISIONS
12/30/20
RELEASED FOR BIDDING NOT FOR CONSTRUCTION

DESIGNED BY: SLF
DRAWN BY: SLF
CHECKED BY: APM
SCALE: 1 = 200'
DATE: DECEMBER 30, 2020
PROJECT NUMBER: 19080319-110302

C3 1

Pinetree Drive and Laura Lane - Area 18 and 19 Exhibit

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041595 12.30.20 ENGINEER ANDREW P. MERCER

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• Hampton Roads, VA
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• Virginia Beach, VA

SITE DETAIL

HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

REVISIONS
12/30/20
RELEASED FOR BIDDING NOT FOR CONSTRUCTION

DESIGNED BY: SLF
DRAWN BY: SLF
CHECKED BY: APM
SCALE: 1 = 200
DATE: DECEMBER 30, 2020
PROJECT NUMBER: 19080319-110302

C3.2

NORTH CAROLINA SEAL 041595 12.30.20 ENGINEER ANDREW P. MERICLE

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SITE DETAIL
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

REVISIONS
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DESIGNED BY	SLF
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SCALE	1" = 200'
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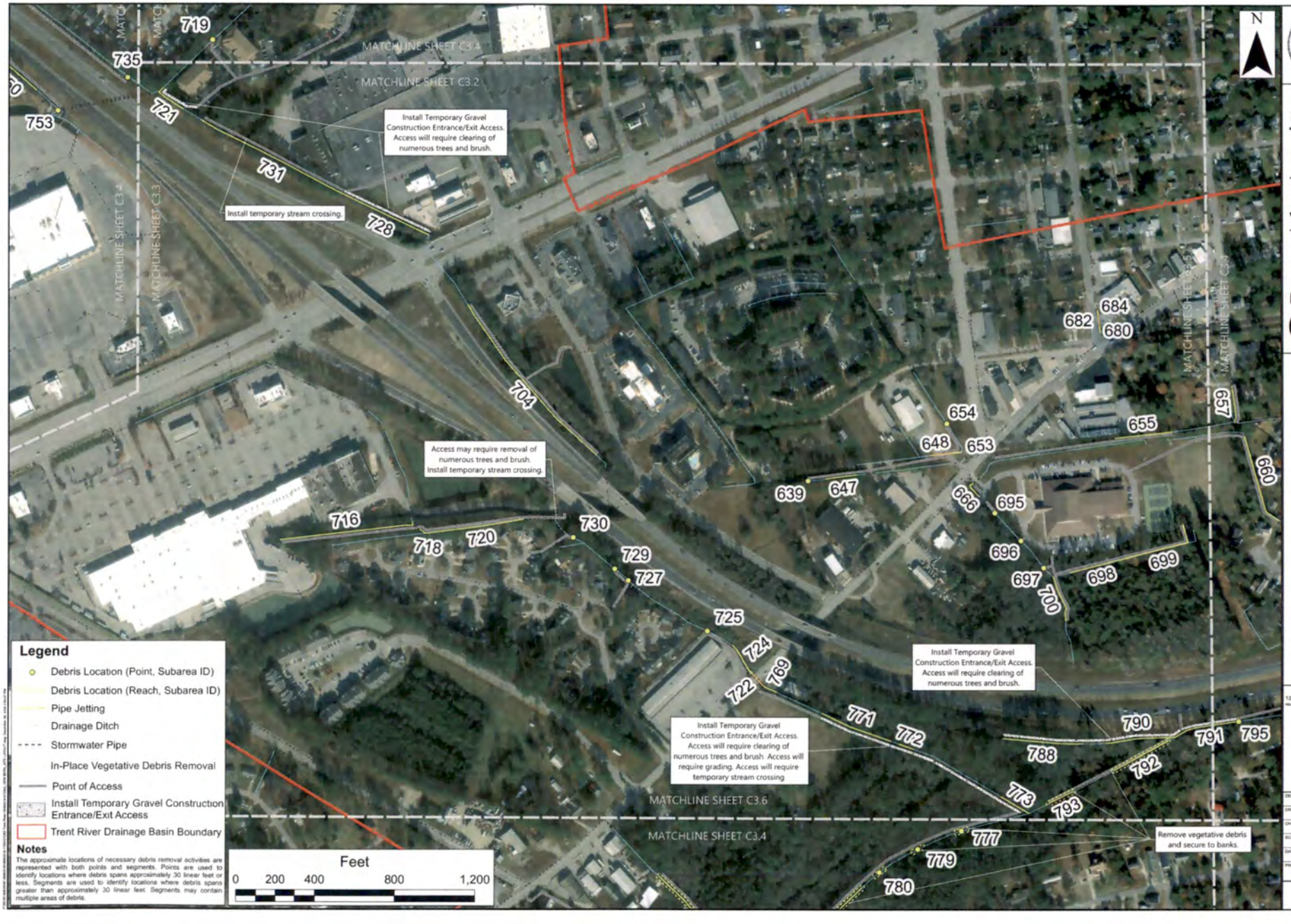
C3.3



NORTH CAROLINA ENGINEER SEAL 041595 12.30.20 ENGINEER ANDREW P. MERCLE

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C3.4

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114 Edinburgh South Drive, Suite 200, Cary, NC 27511

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SITE DETAIL

HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

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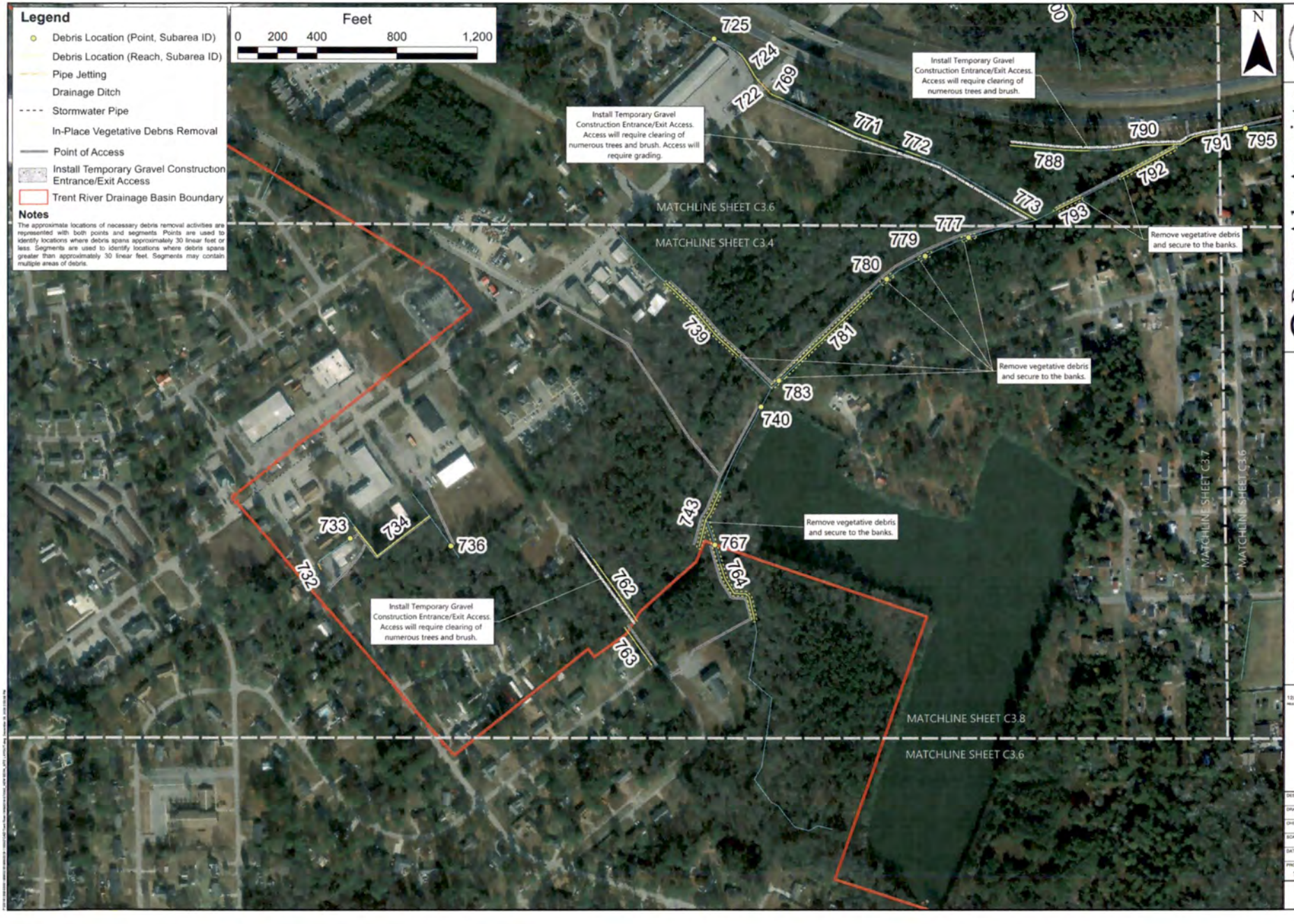

NORTH CAROLINA PROFESSIONAL ENGINEER ANDREW P. MERCER SEAL 041595 12.30.20

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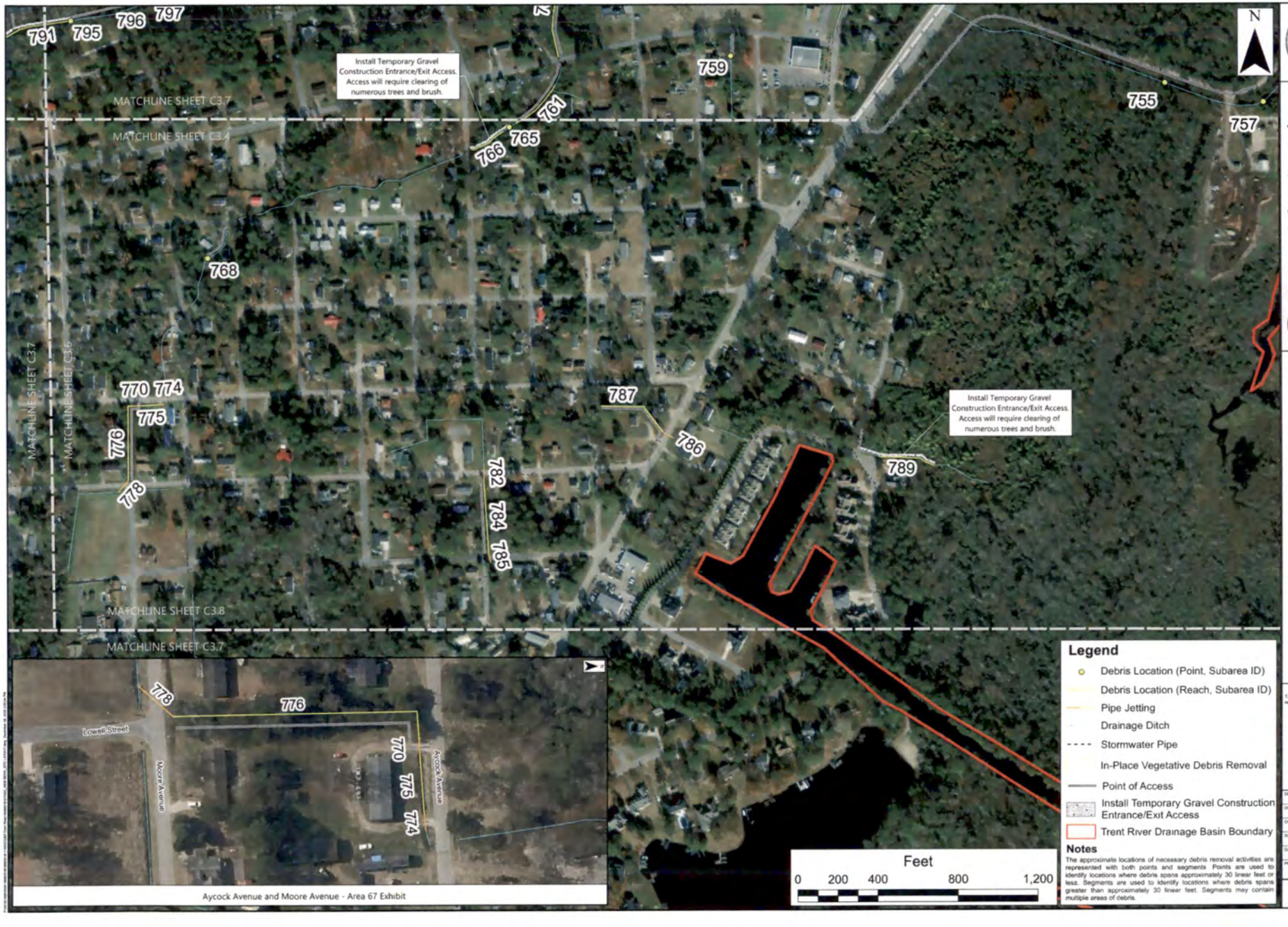
C3.6



NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 041595 12.30.20 SIGNED ANDREW P. MERCER

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SITE DETAIL
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

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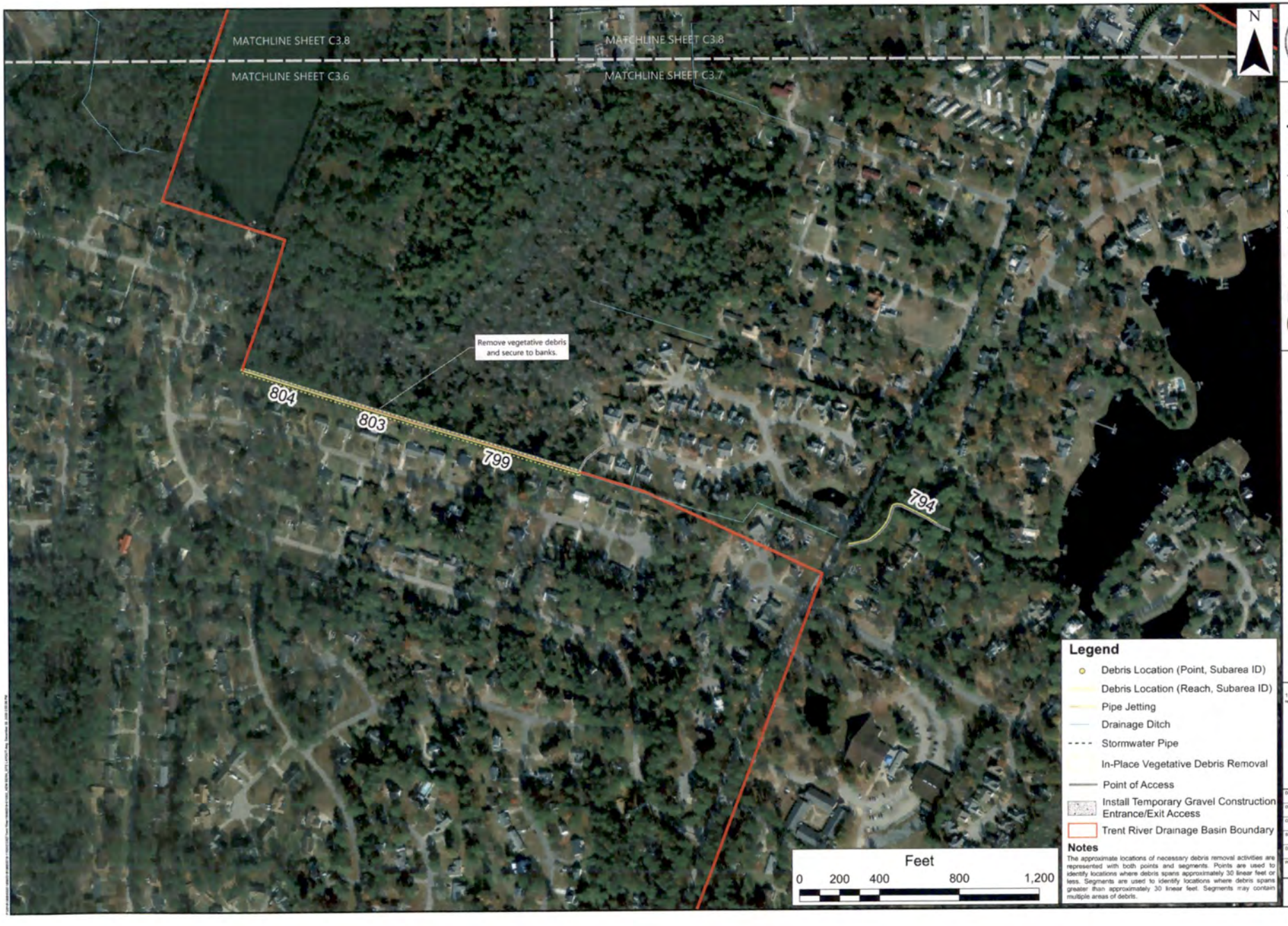
C3.7



NORTH CAROLINA SEAL 041585 ENGINEER ANDREW P. MERRICK 12.30.20

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SITE DETAIL
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PROJECT NUMBER: 19080319-110302

C3.8

Area ID	Subarea ID	Project Description	ESC Description	Start Latitude	Start Longitude	End Latitude	End Longitude
001	624	Remove sediment accumulated in bottom of ditch upstream of 18" RCP, grade to match invert.	Place 1 check dam at the midway point of the ditch, Place rock pipe inlet protection at inlet of the 18" RCP	35.11956736	-77.09873094	35.11960946	-77.09892661
	625	Remove sediment, vegetative (large woody) debris, and uprooted root balls accumulated in bottom of ditch, grade to match inverts.	Place rock pipe inlet protection at RCP inlet the ditch is flowing into, Place outlet stabilization structure at the 18" RCP flowing into the ditch, Place 2 check dams in the ditch. Space check dams so that the crest of the	35.11870683	-77.09731008	35.11945202	-77.09853625
002	635	Remove sediment accumulated in bottom of ditch upstream of 24" RCP, grade to match invert.	Place 1 check dam at the midway point of the ditch, Place rock pipe inlet protection at inlet of the 24" RCP	35.11810376	-77.09926386		
	636.1	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place an outlet stabilization structure at the lower end of the 24" RCP	35.11819790	-77.09902351	35.11841101	-77.09882782
	636.2	Remove 12" of sediment accumulated in approximately 90 LF of 24" RCP	n/a	35.11819790	-77.09902351	35.11841101	-77.09882782
003	632	Remove sediment and miscellaneous debris accumulated in bottom of ditch.	Place 1 check dam at the midway point of the ditch	35.11704212	-77.10021314		
	634	Remove 12" of sediment accumulated in 84 LF of 36" RCP	Place rock pipe inlet protection at 36"RCP inlet the ditch is flowing into, Place outlet stabilization structure at the 36" RCP flowing into the ditch	35.11710657	-77.10021068	35.11732815	-77.10015984
004	627	Remove miscellaneous debris (tires) accumulated in bottom of ditch.	n/a	35.11721802	-77.09661827		
	629	Remove miscellaneous debris (tires) accumulated in bottom of ditch.	n/a	35.11665023	-77.09736968		
	631	Remove sediment, vegetative (large woody), construction, and miscellaneous debris accumulated in bottom of ditch.	n/a	35.11579770	-77.09766719	35.11637939	-77.09859743
005	638	Remove vegetative (large woody and miscellaneous) debris and miscellaneous debris accumulated in bottom of ditch.	n/a	35.11466671	-77.09560482		
	640	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.11477515	-77.09580799	35.11516056	-77.09652179
006	649.1	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place 1 check dam at the midway point of the ditch, Place outlet stabilization structure at the 24" RCP flowing into the ditch	35.11843416	-77.09136826	35.11839645	-77.09130852
	649.2	Remove sediment accumulated in 30 LF of assumed 24" RCP	Place rock pipe inlet protection at inlet of the 24" RCP culvert	35.11843416	-77.09136826	35.11839645	-77.09130852
	650.1	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place 1 check dam at the midway point of the ditch, Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.1184028	-77.09122386	35.11837003	-77.09125121
	650.2	Remove 6" of sediment accumulated in 12 LF of 15" RCP	Place rock pipe inlet protection at inlet of the 15" RCP culvert	35.1184028	-77.09122386	35.11837003	-77.09125121
007	641	Remove sediment and vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.11707233	-77.09188819		
	642	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.1170119	-77.09168496		
	643	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in	Place 1 check dam immediately downstream of the debris	35.1176771	-77.09106362		
	644	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.11803066	-77.09074331		
	645	Remove mattress.	n/a	35.11808301	-77.09069459		
	646	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.11834282	-77.09045279		
008	652	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.1142878	-77.0942727	35.11468931	-77.0939106
009	651	Remove sediment accumulated in bottom of ditch.	Place 1 check dam at the midway point of the ditch	35.11374763	-77.09411712		
010	656	Remove sediment and vegetative (large woody) debris accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the culvert flowing into the ditch	35.11282483	-77.09242731		
011	713	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.1132813	-77.09375347		
	714	Remove construction debris accumulated in bottom of ditch.	n/a	35.11225756	-77.09458568		
012	710	Remove sediment and vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch	Place 1 check dam immediately downstream of the debris	35.1108428	-77.09227232	35.11049419	-77.09254506
	712	Remove vegetative (large woody and miscellaneous) debris and miscellaneous debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.11049419	-77.09254506	35.11021398	-77.09276429
013	671	Remove 6" of sediment and vegetative (miscellaneous) debris accumulated in 133 LF of 18" RCP	Place rock pipe inlet protection at 18"RCP inlet the ditch is flowing into, Place outlet stabilization structure at the 18" RCP flowing into the ditch	35.11082317	-77.08876837	35.11055609	-77.0890757
	672	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.11074886	-77.08858507		
014	706	Remove sediment accumulated in bottom of ditch upstream of 24" RCP culvert, grade to match invert.	Place rock pipe inlet protection at 24"RCP inlet the ditch is flowing into	35.10979715	-77.08946032		
	707	Remove 6" of sediment accumulated in 16 LF of 24" RCP	Place outlet stabilization structure at the 24" RCP flowing into the ditch	35.10983764	-77.08940904	35.10986376	-77.08937284
015	703	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10956283	-77.0898916		
	705	Remove sediment and vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.10940321	-77.09041436		
016	658	Remove construction debris accumulated in bottom of ditch.	n/a	35.11214698	-77.08534467		
017	659	Remove sediment, miscellaneous vegetative debris, and riprap accumulated in bottom of ditch, grade to match invert.	n/a	35.11276369	-77.08409305		
	661	Remove sediment and vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch along reach.	Place 1 check dam immediately downstream of the debris	35.11318754	-77.08352764	35.11369461	-77.08311862
	665	Remove vegetative (miscellaneous) debris accumulated in bottom of ditch.	n/a	35.11235647	-77.08420257		
018	668	Remove 12" of sediment accumulated in 51 LF of 48" CMP	Place outlet stabilization structure at the 48" RCP flowing into the ditch	35.11142321	-77.08405748	35.11131112	-77.08414791
	673	Remove sediment accumulated in bottom of ditch between 15" RCP culverts, grade to match inverts.	Place 1 check dam at the midway point of the ditch, Place rock pipe inlet protection at 15"RCP inlet the ditch is flowing into	35.1108955	-77.08337386	35.11083856	-77.08326619
	674	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation, Place rock pipe inlet protection at 18"RCP inlet the ditch is flowing into	35.11128892	-77.08407243	35.11095847	-77.08352392
	675	Remove 6" of sediment accumulated in 33 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.11083856	-77.08326619	35.1107891	-77.0831771
	676	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation, Place rock pipe inlet protection at 18"RCP inlet the ditch is flowing into	35.1104806	-77.08261578	35.1107891	-77.0831771
	677	Remove 6" of sediment accumulated in 47 LF of 18" HDPE	Place outlet stabilization structure at the 18" RCP flowing into the ditch	35.1104806	-77.08261578	35.11040746	-77.08248414
	678	Remove sediment accumulated in bottom of ditch, grade to match invert	Place 1 check dam at the midway point of the ditch, Place rock pipe inlet protection at 18"HDPE inlet the ditch is flowing into	35.11040746	-77.08248414	35.11025097	-77.08221007
	679	Remove 12" of sediment accumulated in 48 LF of 15" HDPE/RCP	Place outlet stabilization structure at the 18" HDPE flowing into the ditch	35.11036092	-77.08213692	35.11025097	-77.08221007
	681	Remove sediment and vegetative (large woody) debris accumulated in bottom of ditch, grade to match inverts.	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation, Place rock pipe inlet protection at 15"RCP inlet the ditch is flowing into	35.11025097	-77.08221007	35.10952141	-77.08149261
	683	Remove 12" of sediment accumulated in 48 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.10952141	-77.08149261	35.1093933	-77.0814424
	685	Remove sediment accumulated in bottom of ditch, grade to match invert	Place 1 check dam at the midway point of the ditch, Place rock pipe inlet protection at inlet the ditch is flowing into	35.1093933	-77.0814424	35.10906636	-77.08132975

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TRENT RIVER REMEDIATION & ESC PLAN
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

REVISIONS

DESIGNED BY: SLT
DRAWN BY: SLT
CHECKED BY: APM
SCALE: NONE
DATE: DECEMBER 31, 2018
PROJECT NUMBER: 19080319-110002

C4.1

Area ID	Subarea ID	Project Description	ESC Description	Start Latitude	Start Longitude	End Latitude	End Longitude
019	667	Remove sediment and vegetative (miscellaneous) debris accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the HDPE flowing into the ditch, Place rock pipe inlet protection at inlet the ditch is flowing into, Place 1 check dam at the midway point of the ditch	35.11144407	-77.08405619	35.111788	-77.08465107
	686	Remove sediment and vegetative (large woody) debris accumulated in bottom of ditch, grade to match inverts.	Place outlet stabilization structure at the culvert flowing into the ditch, Place rock pipe inlet protection at RCP inlet the ditch is flowing into, Place 1 check dam at the midway point of the ditch	35.11034509	-77.08210913	35.11060808	-77.08256821
	687	Remove 6" of sediment accumulated in 42 LF of 36" RCP	Place outlet stabilization structure at the RCP culvert flowing into the ditch	35.11060808	-77.08256821	35.11066432	-77.08266832
	689	Remove sediment accumulated in bottom of ditch between 36" RCP culverts, grade to match inverts.	Place 1 check dam at the midway point of the ditch, Place rock pipe inlet protection at inlet the ditch is flowing into	35.11066432	-77.08266832	35.11136195	-77.08390527
020	669	Remove sediment and vegetative (miscellaneous) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.11011835	-77.08511188		
021	670	Remove sediment, miscellaneous vegetative debris, and riprap accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.11014494	-77.08701527		
022	692	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the RCP culvert flowing into the ditch, Place 1 check dam at the midway point of the ditch	35.10913196	-77.08849718	35.10932495	-77.08823032
	693	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10997173	-77.08753773	35.10969624	-77.08775408
	694	Remove 6" of sediment accumulated in 16 LF of 18" RCP	Place outlet stabilization structure at the RCP culvert flowing into the ditch	35.10913196	-77.0884971B	35.10911118	-77.08855409
023	701	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.10883488	-77.08908909		
024	702	Remove sediment, vegetative (miscellaneous) debris, and riprap accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris, Place rock pipe inlet protection at RCP inlet the ditch is flowing into	35.10817874	-77.08993706	35.10834945	-77.08977474
025	717	Remove uprooted tree stump on slope of ditch.	Place 1 check dam immediately downstream of tree root	35.10827519	-77.08551241		
	723	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the HDPE culvert flowing into the ditch, Place 1 check dam at the midpoint of the ditch	35.10891075	77.08580725	35.10856507	-77.08577262
026	719	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.10694478	-77.08622556		
	721	Remove vegetative (large woody and miscellaneous) debris and uprooted tree accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.10639837	-77.0869064	35.1061638	-77.08663271
	728	Remove sediment and vegetative (large woody) accumulated in bottom of ditch, grade to match invert.	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation	35.10473964	-77.08325016	35.10519572	-77.08441178
	731	Remove sediment, riprap, and vegetative (miscellaneous) debris accumulated in bottom of ditch.	Place 3 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation, Place outlet stabilization structure at the RCP culvert flowing into the ditch	35.10519572	-77.08441178	35.10603769	-77.08638258
027	741	Remove sediment and vegetative (large woody and miscellaneous) debris accumulated in	Place 1 check dam immediately downstream of the debris	35.11138906	-77.09783915		
	742	Remove vegetative (large woody) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.1112259	-77.09716051	35.11097119	-77.09635346
	744	Remove vegetative (large woody) debris and miscellaneous debris (tires) accumulated in bottom of ditch.	n/a	35.11066764	-77.09543418		
	745	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.1094896	-77.093339		
	746	Remove sediment accumulated in bottom of ditch downstream of 18" CMP culvert, grade to match invert.	Place outlet stabilization structure at the 18" CMP culvert flowing into the ditch	35.10942498	-77.09324127		
028	747	Remove sediment and vegetative (large woody) debris accumulated in bottom of ditch, grade	n/a	35.10717144	-77.08977801		
	748	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.10690941	-77.08940604		
	750	Remove vegetative (large woody) debris and uprooted trees accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.10637994	-77.08865836	35.10672385	-77.08914261
	753	Remove sediment accumulated on concrete apron.	Place rock pipe inlet protection at culverts the concrete apron is flowing into	35.10614364	-77.08835843		
029	738	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.11232112	-77.09536909		
030	737	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.10810953	-77.08982592		
031	735	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.1065199	-77.0873939		
032	758	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.1063107	-77.0960188		
033	754	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the HDPE culvert flowing into the ditch	35.10486478	-77.09569016		
	756	Remove sediment and uprooted tree accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.10549572	-77.09580783		
034	716	Remove sediment and uprooted trees accumulated in bottom of ditch, grade to match invert.	Place 3 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation	35.10129508	-77.08528334	35.10149044	-77.08347051
	718	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10138855	-77.08313348	35.10141719	-77.08336544
	720	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10153281	-77.08195706	35.10138855	-77.08313348
035	730	Remove vegetative (miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10132488	-77.08126979		
036	727	Remove vegetative (miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10084148	-77.0805136		
	729	Remove vegetative (miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10097271	-77.08070073		
037	725	Remove vegetative (miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10026884	-77.07943183		
038	722	Remove 12" of sediment accumulated in 72 LF of dual 24" RCP culverts.	Place outlet stabilization structure at the 24" RCP flowing into the ditch	35.09979049	-77.07881527	35.09964683	-77.07865304
	724	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place rock pipe inlet protection at RCP inlet the ditch is flowing into, Place 1 check dam at the midpoint of the ditch	35.09979049	-77.07881527	35.1001085	-77.07908617
	769	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place 1 check dam at the midpoint of the ditch	35.09964683	-77.07865304	35.09958237	-77.07847821
039	704	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10225839	-77.08095505	35.10394996	-77.08271754
040	639	Remove uprooted tree.	n/a	35.10196944	-77.07805238		
	647	Remove uprooted trees.	n/a	35.10204062	-77.07738579	35.10199439	-77.07781394
041	648	Remove 6" of sediment accumulated in 88 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.10226541	-77.0760918	35.10225692	-77.07638911
	653	Remove sediment and vegetative (miscellaneous) debris accumulated in bottom of ditch, grade to match invert.	n/a	35.10229513	-77.07596613	35.10228541	-77.0760918
	654	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.10261762	-77.07616148		
042	680	Remove sediment and riprap accumulated in bottom of ditch between 15" RCP culverts, grade to match inverts.	Place rock pipe inlet protection at 15"RCP inlet the ditch is flowing into	35.10372591	-77.07406544	35.10364984	-77.07405658
	682	Remove 12" of sediment accumulated in 42 LF of 15" RCP	Place outlet stabilization structure at the 15" RCP flowing into the ditch	35.10372591	-77.07406544	35.10383991	-77.07408226
	684	Remove sediment accumulated in bottom of ditch between 15" RCP culverts, grade to match inverts.	Place 1 check dam at the midpoint of the ditch	35.10389987	-77.07409327	35.10383991	-77.07408226

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HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
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REVISIONS

DESIGNED BY: SLF
DRAWN BY: SLF
CHECKED BY: APM
SCALE: NONE
DATE: DECEMBER 20, 2018
PROJECT NUMBER: 19080319-110302

C4.2

Area ID	Subarea ID	Project Description	ESC Description	Start Latitude	Start Longitude	End Latitude	End Longitude
043	666	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place 1 check dam at the midpoint of the ditch	35.10194261	-77.07580039	35.10179865	-77.07571255
	695	Remove vegetative (miscellaneous) debris and uprooted tree accumulated in bottom of ditch.	n/a	35.10161037	-77.07549963		
	696	Remove uprooted trees.	n/a	35.10129633	-77.07513964		
	697	Remove vegetative (miscellaneous) debris and uprooted trees accumulated in bottom of ditch	n/a	35.10098945	-77.07482642		
	698	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	n/a	35.10093638	-77.07447479	35.10110422	-77.07367441
	699	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10110422	-77.07367441	35.10148218	-77.072928
	700	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.10088934	-77.07469911	35.10039179	-77.07452323
044	655	Remove vegetative (large woody) debris and uprooted tree accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris.	35.10245476	-77.07385534	35.10252704	-77.07306972
045	657	Remove sediment accumulated in bottom of ditch.	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation	35.10304198	-77.07225535	35.10264032	-77.07221408
046	660	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	n/a	35.10247484	-77.07207819	35.10152494	-77.07161354
047	739	Remove vegetative (large woody and miscellaneous) debris, construction debris, and miscellaneous debris accumulated in bottom of ditch. Secure vegetative debris to banks.	n/a	35.09750426	-77.08007943	35.09668649	-77.07910228
	771	Remove sediment, vegetative (large woody and miscellaneous) debris, uprooted trees, and miscellaneous debris accumulated in bottom of ditch.	Place outlet stabilization structure at the RCP flowing into the ditch. Place 1 check dam immediately downstream of the debris.	35.09934297	-77.07785499	35.09903019	-77.07691809
	772	Remove sediment, vegetative (large woody and miscellaneous) debris, and miscellaneous debris	Place 1 check dam immediately downstream of the debris.	35.09899648	-77.07680201	35.09894035	-77.07660877
	773	Remove sediment and uprooted trees accumulated in bottom of ditch.	Place 1 check dam downstream of the debris.	35.09840911	-77.07540622	35.09822136	-77.07502133
	777	Remove vegetative (large woody) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 2-2" diameter large woody debris, 1-4" diameter large woody debris, 1-12" diameter large woody debris, 1-4" diameter tree, and 1-6" diameter tree.	n/a	35.09801804	-77.0759496		
	779	Remove vegetative (large woody) debris and uprooted tree accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-6" diameter large woody debris, 1-8" diameter large woody debris, and 1-20" diameter tree.	n/a	35.09781054	-77.07654187		
	780	Remove vegetative (large woody and miscellaneous) debris and uprooted tree accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-12" diameter large woody debris, 1-24" diameter tree , and approximately 1.5 cy of miscellaneous debris.	n/a	35.09755215	-77.0770665		
	781	Remove vegetative (large woody and miscellaneous) debris, uprooted trees, and construction debris accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris	n/a	35.09737956	-77.07730534	35.09660952	-77.07828414
	783	Remove uprooted tree. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 1-15" diameter tree.	n/a	35.09640754	-77.07854113		
048	740	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.09611083	-77.07878686		
049	743	Remove vegetative (large woody) debris and uprooted trees accumulated in bottom of ditch.	n/a	35.09513014	-77.07937576	35.09453868	-77.07963752
	764	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	n/a	35.09371606	-77.07888119	35.09434637	-77.07934942
	767	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.09455541	-77.07942246		
050	732.1	Remove 6" of sediment accumulated in 24 LF of 15" RCP.	Place outlet stabilization structure at the 15" RCP flowing into the ditch.	35.09427989	-77.08480246	35.09434051	-77.08483993
	732.2	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place rock pipe inlet protection at culvert the ditch is flowing into	35.09427989	-77.08480246	35.09434051	-77.08483993
051	733	Remove vegetative (miscellaneous) debris accumulated in bottom of ditch.	n/a	35.09462882	-77.08440276		
	734	Remove vegetative (large woody and miscellaneous) debris and uprooted tree accumulated in bottom of ditch.	n/a	35.09476091	-77.08434487	35.09488191	-77.08331881
052	736	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.09454151	-77.08302577		
053	792	Remove sediment, vegetative (large woody and miscellaneous) debris, and miscellaneous debris (tires) accumulated in bottom of ditch.	n/a	35.09903048	-77.07313028	35.09870688	-77.07386426
	793	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	n/a	35.09846545	-77.07442347	35.098331	-77.07475279
054	788	Remove sediment, vegetative (large woody) debris, and uprooted trees accumulated in bottom of ditch.	Place outlet stabilization structure at the RCP flowing into the ditch, Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation	35.09906255	-77.07537779	35.09900392	-77.07429638
	790	Remove sediment, vegetative (large woody and miscellaneous) debris, and uprooted trees accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris.	35.0990112	-77.07397798	35.09907781	-77.07302383
	791	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the RCP flowing into the ditch, Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation	35.09907781	-77.07302383	35.09925551	-77.07217266
	795	Remove sediment, vegetative (large woody and miscellaneous) debris, uprooted tree, and miscellaneous debris (tires) accumulated in bottom of ditch	Place 1 check dam immediately downstream of the debris.	35.09925491	-77.07215658		
055	796	Remove sediment, vegetative (large woody and miscellaneous) debris and uprooted tree accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris.	35.0994409	-77.0711403		
	797	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.09947382	-77.07101692		
	798	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place outlet stabilization structure at the RCP flowing into the ditch. Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation	35.09957164	-77.07066822	35.09972134	-77.0698633
056	800	Remove vegetative (miscellaneous) debris, uprooted trees, and miscellaneous debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris.	35.09989984	-77.06888033		
	801	Remove debris dam, vegetative (large woody) debris, and miscellaneous debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris.	35.09988067	-77.06896972		

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TRENT RIVER REMEDIATION & ESC PLAN
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

REVISIONS

DESIGNED BY: BLF
DRAWN BY: BLF
CHECKED BY: APM
SCALE: NONE
DATE: DECEMBER 30, 2020
PROJECT NUMBER: 19080319.110302

C4.3

Area ID	Subarea ID	Project Description	ESC Description	Start Latitude	Start Longitude	End Latitude	End Longitude
056	802	Remove 24" of sediment and miscellaneous vegetative debris accumulated in 285 LF of 30" RCP	Place outlet stabilization structure at the 30" RCP flowing into the ditch	35.09998017	-77.06856669	35 10072086	-77.06878465
057	749	Remove uprooted tree	n/a	35 10051569	-77.06576563		
058	751	Remove uprooted tree	n/a	35 10010589	-77.06122027		
059	691	Remove uprooted tree	n/a	35 10097271	-77.0675047		
060	688	Remove uprooted tree	n/a	35 10178375	-77.0626676		
	690	Remove sediment and riprap accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35 10177778	-77.0623063		
061	805	Remove vegetative (large woody) debris accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris, observed but is not limited to, 1-2" diameter large woody debris, 1-4" diameter large woody debris, 1-6" diameter large woody debris, 1-8" diameter large woody debris.	n/a	35 1001361	-77.06708189		
	806	Remove vegetative (large woody and miscellaneous) debris, and miscellaneous debris (tires) accumulated in bottom of ditch. Secure vegetative debris to the bank. Vegetative debris	n/a	35 1000643	-77.06646101	35.09996793	-77.06581554
	807	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 2-6" diameter large woody debris, 1-8" diameter large woody debris, 2-12" diameter large woody debris, 1-6" diameter tree, 1-8" diameter tree, 1-10" diameter tree, and approximately 1 cy of miscellaneous vegetative debris.	n/a	35.09996793	-77.06581554	35.09991652	-77.06547314
062	752	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.09973871	-77.06145774	35.09984885	-77.06483076
063	760	Remove sediment and vegetative (large woody) debris accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.09883811	-77.06546403	35.09974071	-77.06543477
064	759	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.09884175	-77.06310587		
	761	Remove vegetative (large woody and miscellaneous) debris accumulated in bottom of ditch.	n/a	35.09850773	-77.06551243	35.09808444	-77.06603385
065	765	Remove uprooted tree	n/a	35.09803559	-77.06613393		
	766	Remove vegetative debris, miscellaneous debris, and uprooted trees accumulated in bottom of	n/a	35.09778032	-77.06665086	35.09798629	-77.06622408
066	768	Remove vegetative (large woody) debris accumulated in bottom of ditch.	n/a	35.09656007	-77.07027907		
067	770	Remove 6" of sediment accumulated in 20 LF of 18" HDPE	Place outlet stabilization structure at the 18"HDPE flowing into the ditch	35.09490106	-77.07120321	35.09489918	-77.07127333
	774	Remove 6" of sediment accumulated in 20 LF of 18" HDPE	Place outlet stabilization structure at the 18"HDPE flowing into the ditch	35.09491244	-77.07096011	35.09491686	-77.07088975
	775	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place rock pipe inlet protection at culvert the ditch is flowing into.	35.09491244	-77.07096011	35.09490106	-77.07120321
	776	Remove sediment accumulated in bottom of ditch, grade to match invert.	Place 1 check dam at the midpoint of the ditch, Place rock pipe inlet protection at the culvert the ditch is flowing into	35.09489918	-77 07127333	35.09405254	-77 0713908
	778	Remove 6" of sediment accumulated in 60 LF of 24" RCP	Place outlet stabilization structure at the 24" RCP flowing into the ditch	35.09393329	-77 07152156	35.09405254	-77 0713908
068	782	Remove 6" of sediment accumulated in 42 LF of 18" RCP	Place outlet stabilization structure at the 18" RCP flowing into the ditch	35.09417991	-77 06650082	35.09406685	-77 06650286
	784	Remove sediment accumulated in bottom of ditch, grade to match inverts.	Place 2 check dams in the ditch. Space check dams so that the crest of the downstream dam is at the same elevation. Place rock pipe inlet protection at culvert the ditch is flowing into	35.09406685	-77.06650286	35.0932139	-77 06643662
	785	Remove 6" of sediment accumulated in 36 LF of 18" RCP	Place outlet stabilization structure at the 18" RCP flowing into the ditch	35.0932139	-77 06643662	35.09312583	-77 06641028
069	786	Remove 6" of sediment accumulated in 46 LF of 24" RCP	Place outlet stabilization structure at the 24" RCP flowing into the ditch	35.09452079	-77.06390447	35.09458386	-77.06403696
	787	Remove vegetative (miscellaneous) debris accumulated in bottom of ditch.	n/a	35.09458386	-77 06403696	35.09488578	-77 06489272
070	755	Remove uprooted tree	n/a	35.09852549	-77.05715877		
	757	Remove uprooted tree	n/a	35.09830733	-77.05580645		
071	789	Remove vegetative (large woody and miscellaneous) debris and uprooted tree accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.09431006	-77.06108698	35.09420998	-77.0603445
072	794	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	n/a	35.08687229	-77.06839049	35.08709794	-77.06718434
073	799	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks. Vegetative debris observed, but is not limited to, 2-4" diameter large woody debris, 2-6" diameter trees, 1-16" diameter tree and approximately 3 75 cy of miscellaneous vegetative debris	n/a	35.08768721	-77.0720911	35.08823277	-77 07424178
	803	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks, Vegetative debris observed, but is not limited to, 1-3" diameter large woody debris, 1-10" diameter large woody debris, 1-12" diameter large woody, 6-2" diameter trees, 2-5" diameter trees, 1-18" tree and approximately 1 5 cy of miscellaneous vegetative debris	n/a	35.08855374	77.07549123	35.08823277	-77 07424178
	804	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch. Secure vegetative debris to the banks, Vegetative debris observed, but is not limited to, 1-3" diameter large woody debris. 1-5" diameter large woody debris, 1-6" diameter large woody debris, 1-24" diameter large woody debris, 3-12" diameter trees, and 1-18" diameter tree	n/a	35.08855374	-77.07549123	35.08886148	-77 07667797
074	762	Remove vegetative (large woody and miscellaneous) debris and uprooted trees accumulated in bottom of ditch.	Place 1 check dam immediately downstream of the debris	35.094399	77.0810823	35.0936967	77.0804774
	763	Remove sediment accumulated in bottom of ditch between 24" RCP and 15" RCP, grade to match inverts.	Place outlet stabilization structure at the 24" RCP flowing into the ditch, Place rock pipe inlet protection at culvert the ditch is flowing into, Place 1 check dam at the midpoint of the ditch	35.0936229	-77.0806541	35.0932021	-77.0802826

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HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

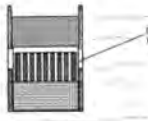
REVISIONS

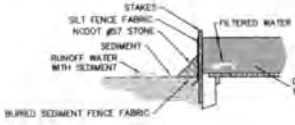
19080319-110302

C4.4

CONSTRUCTION SPECIFICATIONS

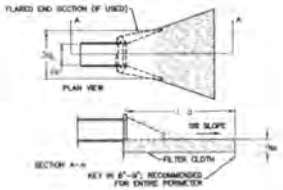
1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 4-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 4 FEET APART.
3. SURROUND THE POSTS WITH WIRE MESH (HARDWARE CLOTH) SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 8-INCH FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANTICHOKE (8 RECOMMENDED).
4. PLACE CLEAN GRAVEL (NC DOT #5 OR #57 STONE) ON A 3:1 SLOPE, WITH A HEIGHT OF 16 INCHES AROUND THE WIRE (AND SHOULD TO BE EVEN) DRAIN.
5. ONCE THE CONSTRUCTION DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUNDCOVER.



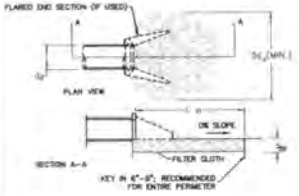


INLET PROTECTION
NOT TO SCALE

PIPE OUTLET CONDITION – PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL



PIPE OUTLET CONDITION – PIPE OUTLET TO WELL-DEFINED CHANNEL



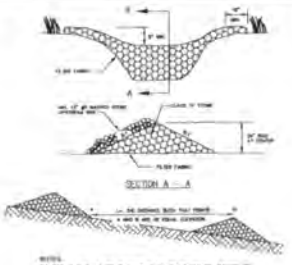
OUTLET STABILIZATION STRUCTURE
NOT TO SCALE

SPECIFICATIONS

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
3. FILTER CLOTH, WHEN USED, MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.
4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
6. RIPRAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HARD, ANGULAR, HIGHLY WEATHER-RESISTANT AND WELL GRADED.
7. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.

MAINTENANCE

1. INSPECT RIP-RAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIP-RAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. PROMPTLY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.



NOTES:
(1) STONE SHOULD BE PLACED OVER THE CHANNEL BANKS TO KEEP WATER FROM CUTTING AROUND THE DAM.
(2) STONE CHECK DAMS SHOULD BE SPACED IN A CHANNEL SO THAT THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF UPSTREAM DAM.

CONSTRUCTION SPECIFICATIONS

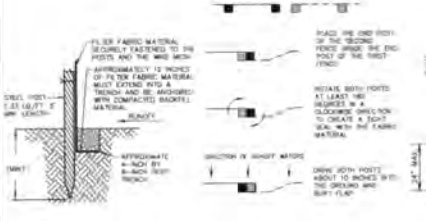
1. PLACE STONE TO THE LINES AND DIMENSIONS SHOWN IN THE PLAN ON A FILTER FABRIC FOUNDATION.
2. KEEP THE CENTER STONE SECTION AT LEAST 9 INCHES BELOW NATURAL GROUND LEVEL WHERE THE DAM ABUTS THE CHANNEL BANKS.
3. EXTEND STONE AT LEAST 1.5 FEET BEYOND THE DITCH BANK TO KEEP WATER FROM CUTTING AROUND THE ENDS OF THE CHECK DAM.
4. SET SPACING BETWEEN DAMS TO ASSURE THAT THE ELEVATION AT THE TOP OF THE LOWER DAM IS THE SAME AS THE TOE ELEVATION OF THE UPPER DAM.
5. PROTECT THE CHANNEL AFTER THE LOWEST CHECK DAM FROM HEAVY FLOW THAT COULD CAUSE EROSION.
6. MAKE SURE THAT THE CHANNEL REACH ABOVE THE MOST UPSTREAM DAM IS STABLE.
7. ENSURE THAT OTHER AREAS OF THE CHANNEL, SUCH AS CULVERT ENTRANCES BELOW THE CHECK DAMS, ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

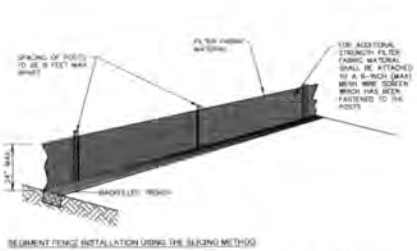
MAINTENANCE

INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (.5" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS THAT COULD CLOG THE CHANNEL WHEN NEEDED. ANTICIPATE SUBMERGENCE AND DEPOSITION ABOVE THE CHECK DAM AND EROSION FROM HIGH FLOWS AROUND THE EDGES OF THE DAM. CORRECT ALL DAMAGE IMMEDIATELY. IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, ADDITIONAL MEASURES CAN BE TAKEN SUCH AS, INSTALLING A PROTECTIVE RIPRAP LINER IN THAT PORTION OF THE CHANNEL, REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION, ALLOW THE CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

CHECK DAM
NOT TO SCALE

ATTACHING TWO SEDIMENT FENCES





MATERIALS

1. USE A SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461 (WHICH IS SHOWN IN PART #2 TABLE 6.62B). SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120°F.
2. ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1.33 LBS./LINEAR FT STEEL WITH A MINIMUM LENGTH OF 5 FEET. MAKE SURE THAT STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.
3. FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE MESH WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

CONSTRUCTION

1. CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS.
2. ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 24 INCHES ABOVE THE GROUND SURFACE. (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.)
3. CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT A SUPPORT POST WITH A FEET MINIMUM OVERLAP TO THE NEXT POST.
4. SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS (EXTEND THE WIRE MESH SUPPORT TO THE BOTTOM OF THE TRENCH. FASTEN THE WIRE REINFORCEMENT FROM FABRIC ON THE UPSLOPE SIDE OF THE FENCE POST. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH.
5. WHEN A WIRE MESH SUPPORT FENCE IS USED, SPACE POSTS A MAXIMUM OF 8 FEET APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24 INCHES.
6. EXTRA STRENGTH FILTER FABRIC WITH 6 FEET POST SPACING DOES NOT REQUIRE WIRE MESH SUPPORT FENCE. SECURELY FASTEN THE FILTER FABRIC DIRECTLY TO POSTS. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH.
7. EXCAVATE A TRENCH APPROXIMATELY 4 INCHES WIDE AND 8 INCHES DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER (FIGURE 6.62A).
8. PLACE 12 INCHES OF THE FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
9. BACKFILL THE TRENCH WITH COMPACTED SOIL PLACED OVER THE 12 INCH FABRIC THOROUGH COMPACTION OF THE BACKFILL IS CRITICAL TO GET FENCE PERFORMANCE.
10. DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.

SEDIMENT FENCE DETAIL
NOT TO SCALE

SEDIMENT FENCE INSTALLATION USING THE SLICING METHOD

INSTEAD OF EXCAVATING A TRENCH, PLACING FABRIC AND THEN BACKFILLING TRENCH, SEDIMENT FENCE MAY BE INSTALLED USING SPECIALLY DESIGNED EQUIPMENT THAT INSERTS THE FABRIC INTO A CUT SLICED IN THE GROUND WITH A DISC.

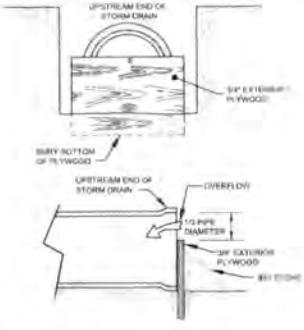
INSTALLATION SPECIFICATIONS

THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ONE FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.

1. INSTALL POSTS AT 6 FEET APART IN CRITICAL AREAS AND 8 FEET APART ON STANDARD APPLICATIONS.
2. INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
3. INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.
4. ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
5. WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
6. NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE GROUND LEVEL.
7. THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION.
8. COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH. COMPACT THE UPSTREAM SIDE FIRST AND THEN EACH SIDE TWICE FOR A TOTAL OF 4 TIMES.

MAINTENANCE

1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND RRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.



NOTE:
ALL PARTIALLY COMPLETED STORM DRAINS UP TO 24" PIPE SIZE, SHALL BE PROTECTED AT THE END OF EACH DAY IN ACCORDANCE WITH THESE DETAILS.

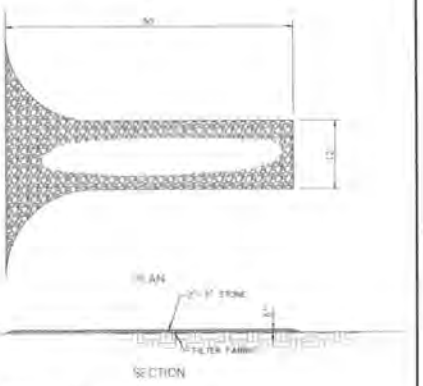
SPECIFICATIONS

1) STORM DRAIN INLETS MUST BE PROTECTED DURING ALL PHASES OF CONSTRUCTION EVEN WHILE THE PIPE IS BEING LAID AND BETWEEN THE JUNCTION BOXES AND INLET STRUCTURES ARE IN PLACE.
2) THESE DEVICES SHALL BE INSTALLED ACROSS THE UPSTREAM PIPE OPENING AT THE END OF EACH WORK SESSION AND REMOVED AT THE BEGINNING OF THE NEXT.
3) IF THE PIPE WILL NOT BE EXTENDED FOR A PROLONGED TIME PERIOD GRAVEL AND #57 RAP HORSESHOE INLET PROTECTION WITH APPROPRIATE STORAGE SHALL BE INSTALLED TO REPLACE THE PLYWOOD STRUCTURE.
4) THESE DEVICES ARE TO BE USED ON THE PIPE IN SMALL STORM DRAIN SYSTEMS THAT ARE NOT LOCATED IN LIVE STREAMS WITH LARGE WATERSHEDS OR WATERCOURSES WHERE THEIR USE COULD CAUSE UPSTREAM FLOODING.
5) THESE DEVICES ARE MADE OF PLYWOOD OR STEEL FENCE POSTS, HARDWARE CLOTH, AND WASHED STONE. PROTECTION FOR THE OPEN END OF STORM DRAINS SHALL BE INSTALLED ACCORDING TO THE STANDARD DETAIL AND THE APPROVED EROSION CONTROL PLAN.

MAINTENANCE

1. INSPECT INLET PROTECTION AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A INLET PROTECTION COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE INLET PROTECTION. TAKE CARE TO AVOID UNDERMINING THE INLET PROTECTION DURING CLEANOUTS.

ROCK PIPE INLET PROTECTION
NOT TO SCALE



CONSTRUCTION

1. CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
2. PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS AND SMOOTH IT.
3. PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
4. USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN AREAS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.

MAINTENANCE

MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE TOPDRESSING WITH 2-3 INCH STONE, AS NEEDED. IF REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED OR TRACKED ONTO PUBLIC ROADWAYS.

TEMPORARY CONSTRUCTION ENTRANCE/EXIT
SCALE: 1" = 10'

NORTH CAROLINA SEAL 041595 12.30.20 ENGINEER

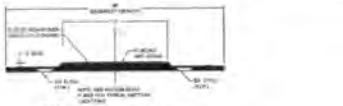
Draper Aden Associates
Engineering • Surveying • Environmental Services
• Hampton Roads, VA • Fayetteville, NC • Northern Virginia • Virginia Beach, VA
• Richmond, VA • Blacksburg, VA • Charlottesville, VA

DETAILS
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

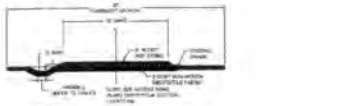
REVISIONS
NO. DESCRIPTION DATE

DESIGNED BY: SLF
DRAWN BY: SLF
CHECKED BY: AFM
SCALE: NONE
DATE: OCTOBER 30, 2020
PROJECT NUMBER: 19080319-110302

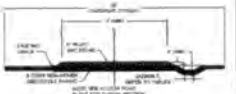
C5.0



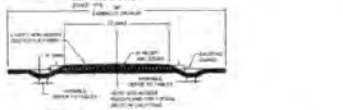
6 TYPICAL SECTION A
10.00' ACCESS ROAD NO GRADING



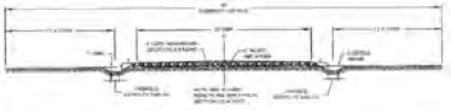
7 TYPICAL SECTION B
10.00' ACCESS ROAD MINOR GRADING LEFT SIDE DITCH



8 TYPICAL SECTION C
10.00' ACCESS ROAD MINOR GRADING RIGHT SIDE DITCH



9 TYPICAL SECTION D
10.00' ACCESS ROAD MINOR GRADING BOTH SIDES DITCH

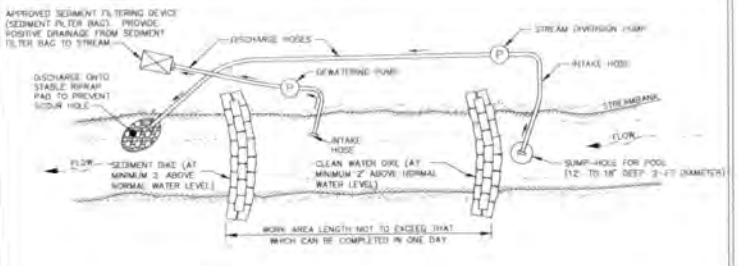


9 TYPICAL SECTION E
10.00' ACCESS ROAD PULL-OFF AREAS

NOTES:

1. AN ON-SITE DRAINAGE SWALE SHALL BE LOCATED BETWEEN THE STOCKPILE AND OFF-SITE PROPERTY.
2. REFERENCE IS MADE TO THE SILT FENCE DETAIL FOR MATERIALS AND INSTALLATION METHODS.
3. IF THE STOCKPILE IS TO REMAIN FOR MORE THAT 14 DAYS, IT SHALL BE STABILIZED WITH BURLAP MATTING OR SEEDED WITHIN 7 DAYS OF COMPLETION TO MINIMIZE EROSION.
4. INSPECTION OF SILT FENCES SHALL BE AT LEAST ONCE PER WEEK AND AFTER RAIN EVENTS IN EXCESS OF ½" REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. SEDIMENT TRAPPED BY THE FENCES SHALL BE REMOVED AND PROPERLY DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.
6. SILT FENCES SHALL BE MAINTAINED IN PLACE UNTIL THE STOCKPILE HAS BEEN ELIMINATED AND SHALL BE REMOVED ONLY WHEN DIRECTED BY THE CITY.

STOCK PILE
NOT TO SCALE



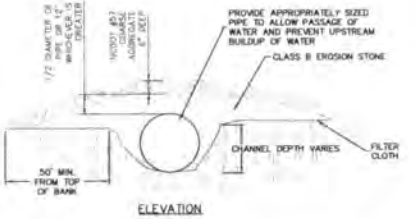
TEMPORARY PUMP AROUND SEQUENCE

1. SET UP PUMP WITH SUCTION AND DISCHARGE HOSE
2. INSTALL UP-STREAM SANDBAG DAM
3. INSTALL DOWN-STREAM SANDBAG DAM
4. THE PUMP MUST RUN CONTINUOUSLY WHILE WORKING IN THE STREAM
5. STREAMBANKS MUST BE STABILIZED AT THE END OF EACH DAY

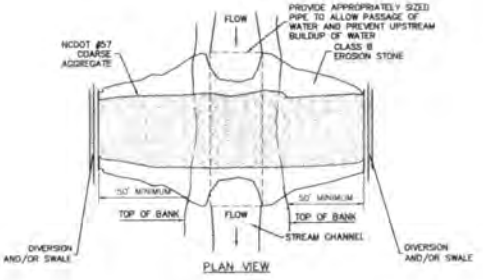
NOTES:

1. SANDBAG DIKES SHALL BE SITUATED AT THE UPSTREAM AND DOWNSTREAM ENDS OF THE WORK AREA, AND STREAM FLOW SHALL BE PUMPED AROUND THE WORK AREA. THE PUMP SHOULD DISCHARGE ONTO A STABLE VELOCITY DISSIPATER CONSTRUCTED OF RIPRAP OR SANDBAGS.
2. WATER FROM THE WORK AREA SHALL BE PUMPED TO A SEDIMENT FILTERING MEASURE SUCH AS A SEDIMENT BAG OR OTHER APPROVED DEVICE. THE MEASURE SHALL BE LOCATED SUCH THAT THE WATER DRAINS BACK INTO THE CHANNEL BELOW THE DOWNSTREAM SANDBAG DIKE WITHOUT CAUSING FURTHER EROSION BETWEEN THE SEDIMENT FILTER BAG AND THE STREAMBANK.

TEMPORARY PUMP AROUND
NOT TO SCALE



ELEVATION



PLAN VIEW

TEMPORARY STREAM CROSSING
NOT TO SCALE

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• Fayetteville, NC
• Virginia Beach, VA

DETAILS
HURRICANE FLORENCE DEBRIS REMOVAL ACTIVITIES
TRENT RIVER DRAINAGE BASIN

REVISIONS

19080319-110302

C5.1

AGENDA ITEM COVER SHEET

NEW BERN
CITY OF NEW BERN

Agenda Item Title:

Consider adopting a resolution authorizing the City Manager to execute on behalf of the City of New Bern all contract documents and change orders within the contract amount for the Hurricane Florence Category D project within the Trent Village drainage basin.

Date of Meeting: 2/23/2021	**Ward # if applicable:** Ward 2
Department: Public Works	**Person Submitting Item:** Matt Montanye, Director of Public Works
Call for Public Hearing: ☐Yes☒No	**Date of Public Hearing:** N/A

Explanation of Item:	Over the past two years the City has been working with FEMA on a project to remove sediment and debris from 66 miles of drainage ditches and to make repairs to permanent structures damaged during Hurricane Florence. This project is to replace the damaged retaining wall located along the Trent Village neighborhood near Richmond Court.
Actions Needed by Board:	Adopt attached resolution
Backup Attached:	Memo, Resolution, Bid Tabulation, Advertisement for Bids, Project Plan

Is item time sensitive? ☐Yes ☒No
Will there be advocates/opponents at the meeting? ☐Yes ☒ No

Cost of Agenda Item: $609,900.00
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? ☒Yes ☐ No

Additional Notes:

NEW BERN
NORTH CAROLINA

Public Works Department
P.O. Box 1129, 1004 S. Glenburnie Road
New Bern, N.C. 28563-1129
Phone: (252) 639-7501
Fax: (252) 636-1848

February 12, 2021

Memo to: Mayor and Board of Aldermen

From: Matt Montanye, Director of Public Works

Re: Consider adopting a resolution authorizing the City Manager to execute on behalf of the City of New Bern all contract documents and change orders within the contract amount for the Trent Village, Hurricane Florence Category D, permanent repairs.

Background Information:
In late 2018 following Hurricane Florence, the City of New Bern began working with FEMA on a project to remove sediment and debris from 66 miles of drainage ditches (Category A projects) and the repair of permanent work (Category D) within the City's ten drainage basins. The Category A projects was obligated by FEMA on January 27, 2020 with the Category D projects yet to be completely funded. Over the past two years City staff and contracted engineers have completed the design and bidding for all the Category A project and have completed the design and bidding for three of the Category D projects. Since being bid out the Category D project have been placed on hold pending the final funding obligation from FEMA.

Since hurricane Florence these permanent structures have remained damaged and, in some cases, additional damages have occurred. In the case of the Trent Village retaining wall project the conditions surround this project have continued to deteriorate to the point where the residential structures are in danger of being compromised as well. After reviewing this project with the project engineers as well as our FEMA consultants we have been advised that this project should move forward immediately as an emergency repair.

Therefore, the Public Works Department is requesting that the Board of Aldermen authorize the City Manager to execute a contract with Trader Construction Company Inc. for the Trent Village, Hurricane Florence Category D project.

On September 9, 2020 and October 20, 2020, the Trent Village Category D project was advertised for bids and on October 30, 2020, two bids were received and opened, with

the low bidder for this project being Trader Construction Company Inc. with a bid price of $609,900.00. The Trent Village project consist of removing the damaged wood retaining wall and the installation of 117-feet of steel sheet pile retaining wall. The contract time for this project is 120 days.

Recommendation:
Draper Aden and Associates have vetted Trader Construction Company Inc. and found no issues or concerns. The Public Works Department is recommending and request the Board consider adopting a resolution authorizing the City Manager to execute on behalf of the City of New Bern, all contract documents and any change orders for the Trent Village, Hurricane Florence Category D permanent repairs.

If you have any questions concerning this matter, please feel free to contact me directly.

cc: George Chiles, Staff Engineer

RESOLUTION

THAT WHEREAS, the Trent Village, Hurricane Florence Category D Project was publicly advertised on September 9, 2020 and again on October 6, 2020 after only two bids were received. A pre-bid meeting for this project was held on September 28, 2020; and

WHEREAS, the following two qualified bids were received on October 30, 2020:

Trader Construction Company, Inc.	$ 609,900.00
T.A. Loving Company	$ 946,350.00

WHEREAS, the Director of Public Works of the City of New Bern recommends the City Manager be authorized to execute contract documents with the lowest bidder, Trader Construction Company Inc., for the Trent Village Category D, Hurricane Florence Project and any change orders within the budgeted amount.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

That the City Manager is hereby authorized to execute on behalf of the City of New Bern all contract documents with Trader Construction Company Inc., for the Trent Village Category D, Hurricane Florence Project, and any change orders within the budgeted amount.

ADOPTED THIS 23rd DAY OF FEBRUARY 2021.

_____
DANA E. OUTLAW, MAYOR

_____
BRENDA E. BLANCO, CITY CLERK

DETAILED BID TABULATION

Draper Aden Associates
Engineering • Surveying • Environmental Services

PROJECT Trent Village Hurricane Florence Damage Repairs
PROJECT #: 19080319-04
BID DATE: October 30, 2020
BID TIME: 10 00 AM
LOCATION. City of New Bern Public Works Department / Microsoft Teams

				Trader Construction		TA Loving							
Item	Description	Quantity	Units	Unit Cost	Extended Cost	Unit Cost	Extended Cost	Unit Cost	Extended Cost	Unit Cost	Extended Cost	Unit Cost	Extended Cost
	Base Bid												
1	Mobilization (3% Maximum)	1	EA	$ 18,300.00	$ 18,300.00	$ 25,000.00	$ 25,000.00		$ -		$ -		$ -
2	Sediment and Erosion Control, Dewatering	1	EA	$ 15,000.00	$ 15,000.00	$ 100,000.00	$ 100,000.00		$ -		$ -		$ -
3	Temporary Construction Entrance	1	EA	$ 3,500.00	$ 3,500.00	$ 65,000.00	$ 65,000.00		$ -		$ -		$ -
4	Clearing	1	EA	$ 15,000.00	$ 15,000.00	$ 80,500.00	$ 80,500.00		$ -		$ -		$ -
5	Strip and Replace Topsoil	1	EA	$ 5,000.00	$ 5,000.00	$ 28,000.00	$ 28,000.00		$ -		$ -		$ -
6	Remove Existing Wooden Decks	2	EA	$ 4,500.00	$ 9,000.00	$ 10,000.00	$ 20,000.00		$ -		$ -		$ -
7	Remove Existing Landscape Timber Border	70	LF	$ 15.00	$ 1,050.00	$ 10.00	$ 700.00		$ -		$ -		$ -
8	Install Steel Sheet Pile Retaining Wall	117	LF	$ 3,875.00	$ 453,375.00	$ 2,700.00	$ 315,900.00		$ -		$ -		$ -
9	Demolish Wooden Retaining Wall and Supports	125	LF	$ 125.00	$ 15,625.00	$ 850.00	$ 106,250.00		$ -		$ -		$ -
10	Excess Soil Removal	40	CY	$ 25.00	$ 1,000.00	$ 25.00	$ 1,000.00		$ -		$ -		$ -
11	NCDOT Class A Riprap	0.5	Tons	$ 800.00	$ 400.00	$ 50.00	$ 25.00		$ -		$ -		$ -
12	NCDOT Class B Riprap	1	Tons	$ 500.00	$ 500.00	$ 50.00	$ 50.00		$ -		$ -		$ -
13	4" Roof Drain	180	LF	$ 40.00	$ 7,200.00	$ 10.00	$ 1,800.00		$ -		$ -		$ -
14	Site Grading	1	EA	$ 5,000.00	$ 5,000.00	$ 110,000.00	$ 110,000.00		$ -		$ -		$ -
15	Replace Eroded Soils with Select Material	175	CY	$ 28.00	$ 4,900.00	$ 25.00	$ 4,375.00		$ -		$ -		$ -
16	Replace Eroded Topsoil with Offsite Topsoil	50	CY	$ 42.00	$ 2,100.00	$ 50.00	$ 2,500.00		$ -		$ -		$ -
17	Replace Landscape Timber Border	70	LF	$ 50.00	$ 3,500.00	$ 50.00	$ 3,500.00		$ -		$ -		$ -
18	Install 6' Wooden Privacy Fence	120	LF	$ 35.00	$ 4,200.00	$ 150.00	$ 18,000.00		$ -		$ -		$ -
19	Install Wooden Decks	2	EA	$ 7,500.00	$ 15,000.00	$ 15,000.00	$ 30,000.00		$ -		$ -		$ -
20	Permanent Seeding/Sod	875	SY	$ 6.00	$ 5,250.00	$ 10.00	$ 8,750.00		$ -		$ -		$ -
21	Asphalt/Concrete Paving Repair Allowance	50	SY	$ 200.00	$ 10,000.00	$ 200.00	$ 10,000.00		$ -		$ -		$ -
22	Property Damage Allowance	-	-	$ 15,000.00	$ 15,000.00	$ 15,000.00	$ 15,000.00		$ -		$ -		$ -
					$ 609,900.00		$ 946,350.00		$ -		$ -		$ -
			Cost Included on Bid Form		$ 609,900.00		$ 946,350.00		$ -		$ -		$ -
	CONTRACT AMOUNT BASED ON UNIT BID ITEMS				$ 609,900.00		$ 946,350.00		$ -		$ -		$ -

ADVERTISEMENT FOR BIDS

City of New Bern
New Bern, North Carolina
Trent Village Hurricane Florence Damage Repairs

General Notice

The City of New Bern (Owner) is requesting Bids for the construction of the following Project:

Trent Village Hurricane Florence Damage Repairs
DAA PN: 19080319-040302

Bids for the construction of the Project were received at the City of New Bern Public Works Department located at 1004 S. Glenburnie Road, until October 20, 2020 at 2:00 PM local time. At this time, only two bids were received in response to the solicitation. The bids were returned un-opened and the Project is being readvertised.

Bids for the construction of the Project will be received at the City of New Bern Public Works Department located at 1004 S. Glenburnie Road, until October 30, 2020 at 10:00 AM local time. At that time, the Bids received will be publicly opened and read.

In response to the current State of Emergency and "Stay at Home" order pursuant of Executive Order 121, dated March 27, 2020, the public bid opening shall be made available through online video conference. Access to the online video conference shall be made available to all plan holders at least 24 hours prior to opening of bids.

The Project includes the following Work:

> This project generally involves the repair of previously identified damages within an open-air stormwater conveyance channel. Work is generally described as the installation of a new steel sheet pile retaining wall and the selective demolition of a wooden retaining wall. Work includes removal and replacement of wooden decks, erosion control, dewatering, clearing, protection of nearby homes, site seeding/sodding, and installation of a wooden privacy fence.

Bids are requested for the following Contract: **Trent Village Hurricane Florence Damage Repairs**

Obtaining the Bidding Documents

Information and Bidding Documents for the Project can be found at the following designated website:

www.daa.com

Bidding Documents may be downloaded from the designated website. Prospective Bidders are urged to register with the designated website as a plan holder, even if Bidding Documents are obtained from a plan room or source other than the designated website in either electronic or paper format. The designated website will be updated periodically with addenda, lists of registered plan holders, reports, and other information relevant to submitting a Bid for the Project. All official notifications, addenda, and other Bidding Documents will be offered only through the designated website. Neither Owner nor Engineer will be responsible for Bidding Documents, including addenda, if any, obtained from sources other than the designated website.

The Issuing Office for the Bidding Documents is:

Draper Aden Associates
114 Edinburgh South Drive, Suite 200
Cary, NC 27511

Due to the ongoing COVID-19 pandemic, bidders are strongly encouraged to register as a plan holder from the aforementioned website. Physical documents will not be available from the Issuing Office. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including addenda, if any, obtained from sources other than the Issuing Office.

The Owner is an Equal Opportunity Employer and encourages bidding by small, minority and female contractors and does not discriminate on the basis of handicapped status. Bids from qualified historically underutilized businesses (HUB's) are encouraged. Bidder must provide 10% of total contract cost to HUB's or demonstrate good faith effort. The Work will be subject to the prevailing wage rates and to the Equal Employment Opportunity requirements established by the U.S. Department of Labor. The project will be funded in whole/part using FEMA funds provided by the U.S. Department of Homeland Security. All Federal laws and regulations will apply to use of FEMA funds.

Digital copies of the Bidding Documents are available free of charge from the designated website. Physical copies of the Bidding Documents may be purchased from the Issuing Office. Cost does not include shipping charges. Upon Issuing Office's receipt of payment, printed Bidding Documents will be sent via the prospective Bidder's delivery service. The shipping charge amount will depend on the shipping method chosen. Bidding Documents are available for purchase in the following formats:

Format	Cost
Physical Bidding Documents (including Full-Size Drawings)	$100

Instructions to Bidders.

For all further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders that are included in the Bidding Documents.

This Advertisement is issued by:

Owner: City of New Bern
By: Matthew L. Montanye
Title: Director of Public Works
Date: October 20, 2020

TRENT VILLAGE HURRICANE FLORENCE DAMAGE REPAIRS

AUGUST 31, 2020

RELEASE FOR BIDDING - NOT CONSTRUCTION

NAME OF PROJECT	TRENT VILLAGE HURRICANE FLORENCE DAMAGE REPAIRS
ENGINEER	C. TYRUS CLAYTON JR. P.E. TCLAYTON@DAA.COM DRAPER ADEN ASSOCIATES 114 EDINBURGH SOUTH DRIVE CARY, NC 27511
PID	8-043-1-005, 8-043-1-006, 8-043-1-007, 8-043-1-008, 8-043-1-032
DEED REFERENCE	DB 1172 PG 1047, DB 3515 PG 2028, DB 3464 PG 2180, DB 3512 PG 0617, DB 3572 PG 1495
FLOODPLAIN	ZONE X, FIRM 3720547900K EFF 08/19/2020
WATERSHED CLASSIFICATION	NEUSE RIVER DRAINAGE BASIN
SITE AREA	0.16 ACRES

VICINITY MAP - NO SCALE

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DRAPER ADEN ASSOCIATES REVIEW

THESE PLANS HAVE BEEN SUBJECTED TO TECHNICAL AND QUALITY REVIEWS BY

NAME: LAURA AYERS, P.E. PROJECT DESIGNER	SIGNATURE	8/31/20 DATE
NAME: MATTHEW C. BURNETTE PG, CFM PROJECT MANAGER	SIGNATURE	8/31/20 DATE
NAME: C. TYRUS CLAYTON JR., P.E. QUALITY REVIEWER	SIGNATURE	8/31/20 DATE

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COVER

TRENT VILLAGE HURRICANE FLORENCE DAMAGE REPAIRS

CITY OF NEW BERN, NORTH CAROLINA

REVISIONS

8/31/20 RELEASED FOR BIDDING - NOT CONSTRUCTION

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE: NOT TO SCALE
DATE: AUGUST 31, 2020
PROJECT NUMBER: 19080319-040302

C1.0

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AS REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH THE CURRENT EDITION OF THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL MANUAL. ALL DEVICES REFERRED TO IN THESE PLANS CAN BE FOUND IN THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL MANUAL.
2. ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDED AND MULCHED PER THE NCDEQ SCHEDULE AFTER REACHING FINAL GRADE. AREAS WHICH HAVE BEEN DISTURBED AND HAVE NOT REACHED FINAL GRADE, BUT WHICH ARE TO REMAIN UNDISTURBED FOR LONGER THAN 14 DAYS ARE TO BE TEMPORARILY SEEDED AND MULCHED PER THE NCDEQ SCHEDULE. AS UPSTREAM AREAS ARE STABILIZED WITH PERMANENT GROUND COVER, DOWNSTREAM TEMPORARY DEVICES ARE TO BE REMOVED. CONTRACTOR SHALL FOLLOW THE STABILIZATION TIME TABLE INCLUDED IN THIS SET OF DRAWINGS.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERIODICALLY INSPECT ALL SEDIMENT AND EROSION CONTROL DEVICES AND ENSURE THAT THEY ARE IN GOOD WORKING ORDER. AT A MINIMUM, ALL DEVICES SHALL BE INSPECTED DAILY AND AFTER MAJOR RAINFALL EVENTS. ANY DEVICE NEEDING REPAIRS SHALL BE REPAIRED WITHIN 24 HOURS.
4. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES IF DURING THE COURSE OF CONSTRUCTION THE ENGINEER OR NCDEQ INSPECTOR DETERMINES THAT THEY ARE REQUIRED.
5. SILT SHALL BE REMOVED FROM SILT FENCES WHEN THE SILT REACHES APPROXIMATELY ONE-THIRD (1/3) THE HEIGHT OF THE BARRIER.
6. THE CONTRACTOR SHALL PERIODICALLY TOP DRESS THE CONSTRUCTION ENTRANCE WITH CLEAN STONE. IF THE CONSTRUCTION ENTRANCE FAILS TO REMOVE DIRT FROM THE TIRES OF VEHICLES ENTERING A PUBLIC RIGHT-OF-WAY A WASH RACK SHALL BE INSTALLED AND THE TIRES WASHED. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ANY REQUIRED WATER FOR THE WASHING OF TIRES. DIRT TRACKED ONTO THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
7. ALL EROSION AND SILTATION MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING.
8. ALL STORM AND UTILITY LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED PER THE NCDEQ SCHEDULE AFTER BACKFILL. NO MORE THAN FIVE HUNDRED FEET OF TRENCH IS TO BE OPEN AT ONE TIME.
9. ALL TEMPORARY EARTH BERMS, DIVERSIONS, AND SILT DAMS ARE TO BE MULCHED AND SEEDED FOR VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. ADDITIONALLY ALL DIVERSION SWALES WILL BE PROTECTED AGAINST HIGH VELOCITY WITH EROSION CONTROL MEASURES AS DENOTED ON THESE PLANS. THE SAME APPLIES TO STOCKPILES ON SITE AS WELL AS SOIL (INTENTIONALLY) TRANSPORTED FROM THE PROJECT SITE.
10. ANY DISTURBED AREA NOT PAVED, SODDED, OR BUILT UPON, IS TO BE SEEDED PER THE TEMPORARY AND PERMANENT SEEDING SCHEDULE INCLUDED IN THESE DRAWINGS. MODIFY AS APPLICABLE DEPENDING ON PROPOSED TIME OF CONSTRUCTION.
11. CONTRACTOR STAGING AREA(S) SHALL BE RETURNED TO BETTER THAN ORIGINAL CONDITIONS AT THE COMPLETION OF THE WORK.
12. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
13. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO ISSUANCE OF A LAND DISTURBANCE PERMIT. THE CONTRACTOR SHALL SCHEDULE THE MEETING WITH THE NCDEQ INSPECTOR ASSIGNED TO THE PROJECT.
14. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF NCDEQ EROSION AND SEDIMENT CONTROL MANUAL AND THE NORTH CAROLINA SEDIMENTATION POLLUTION CONTROL ACT OF 1973.
15. AS A CONDITION OF NPDES PERMIT NO. NCG 010000, PERMANENT GROUNDCOVER SHOULD BE PROVIDED FOR ALL DISTURBED AREAS WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING THE COMPLETION OF CONSTRUCTION OR DEVELOPMENT.

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF REPAIRS BASED ON THE CITY OF NEW BERN FEMA CATEGORY D DAMAGE ASSESSMENT REPORTS FOR FEATURE 006. THESE REPAIRS INCLUDE REMOVING THE EXISTING TIMBER WALL AND REPLACING WITH A SHEET PILE RETAINING WALL. THE SHEET PILE RETAINING WALL WILL BE CONSTRUCTED AT A HIGHER ELEVATION THAT WILL ALLOW GRADING OF THE AREA SOUTH OF THE WALL TO BE MORE LEVEL. WORK ALSO INCLUDES THE REMOVAL AND REPLACEMENT OF RESIDENTIAL DECKS THAT WERE IMPACTED BY DAMAGE TO THE EXISTING TIMBER RETAINING WALL.

EXISTING CONDITIONS
THE EXISTING SITE IS A STREAM THAT RUNS NORTHWEST TO SOUTHEAST AND 4 RESIDENTIAL LOTS. THE SITE IS MOSTLY OPENSPACE. THE SITE DRAINS EAST TO THE STREAM. THE SITE BECOMES STEEPER TO THE EAST TOWARDS THE STREAM WITH SOME AREAS STEEPER THAN 1:1.

DEVELOPMENT IMPACTS
THE DEVELOPMENT IMPACTS TO THE TOPOGRAPHY, SOILS, HYDROLOGY, AND GEOLOGY WILL BE MINOR.

SOILS
THE SITE IS RAINS FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES, ATLANTIC COAST FLATWOODS. HYDROLOGIC SOIL GROUP: B/D.

CRITICAL EROSION AREAS
1. CARE MUST BE TAKEN TO PREVENT SEDIMENT FROM BEING TRACKED ONTO ADJACENT ROADWAYS.
2. CARE MUST BE TAKEN TO PREVENT SEDIMENT FROM EXITING THE PROJECT SITE AREA.
3. CARE MUST BE TAKEN TO PREVENT SEDIMENT FROM ENTERING ANY WATER WAY OR DRAINAGE WAYS.

STOCKPILING
TOPSOIL STOCKPILING IS ANTICIPATED ON-SITE.

STRUCTURAL PRACTICES
SILT FENCE
SILT FENCE OUTLETS

VEGETATIVE PRACTICES
TOPSOILING
TEMPORARY SEEDING
PERMANENT SEEDING
MULCHING
SODDING

MANAGEMENT STRATEGIES
1. THE SILT FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES ONE-THIRD (1/3) THE HEIGHT OF THE BARRIER.
2. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
3. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING.
4. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
5. AFTER ACHIEVING ADEQUATE STABILIZATION AND UPON APPROVAL OF THE NCDEQ INSPECTOR, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED.

PERMANENT STABILIZATION
THE DISTURBED AREAS WILL BE PERMANENTLY STABILIZED THROUGH THE USE OF PERMANENT SEEDING AND SODDING.

GENERAL UTILITY NOTES

1. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION AS INDICATED. ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.
2. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION SO THAT CONTRACTOR IS FAMILIAR AND UNDERSTANDS EXISTING CONDITIONS.
3. FIELD CHANGES MAY BE NECESSARY DUE TO EXISTING UTILITY LOCATIONS. THE ENGINEER SHALL BE CONTACTED BEFORE MAKING THESE CHANGES.

CONSTRUCTION SEQUENCE

1. SET UP PRE-CONSTRUCTION MEETING.
2. INSTALL SILT FENCE AND OTHER PERIMETER CONTROLS.
3. PERFORM DECK DEMOLITION AS INDICATED.
4. INSTALL SHEET PILE RETAINING WALL.
5. INSTALL BACKFILL TO LINES AND GRADES.
6. INSTALL LIKE KIND DECKS AND FINAL GRADING.
7. MINIMIZE DISTURBED AREAS AT ANY GIVEN TIME TO THOSE AREAS THAT ARE BEING ACTIVELY EXCAVATED. BACKFILL DISTURBED AREAS AS INDICATED ON PLANS.
8. INSPECT AND ADJUST AS NECESSARY ALL EROSION CONTROL DEVICES IN ORDER TO MAINTAIN PROPER FUNCTION.
9. STABILIZE SITE DURING AND AT THE CONCLUSION OF CONSTRUCTION IN ACCORDANCE WITH THE NOTES AND DETAILS IN THESE PLANS AND AS INSPECTOR HAS INSTRUCTED.
10. ONCE ALL AREAS HAVE BEEN STABILIZED, AND ONLY WITH THE APPROVAL OF THE EROSION CONTROL INSPECTOR, REMOVE ALL REMAINING EROSION CONTROL DEVICES.

GENERAL NOTES

1. THIS PROJECT, AS CURRENTLY DESIGNED, MAY NOT INCLUDE ALL COMPONENTS ADDRESSED IN THE VARIOUS GENERAL NOTES. REVIEW PLANS FOR APPLICABILITY.
2. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM THE LOCAL AND STATE AGENCIES.
3. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND AT HIS EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
4. ALL PAVING MATERIALS AND DRAINAGE STRUCTURES SHALL BE BUILT AND INSTALLED IN ACCORDANCE WITH NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
5. THE LOCATION OF EXISTING SEWER, WATER OR TELEPHONE LINES, CONDUITS OR OTHER STRUCTURES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND IF SHOWN ARE ONLY APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, IF THERE APPEARS TO BE A CONFLICT, OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS. FOR ASSISTANCE IN LOCATING EXISTING UTILITIES CALL "NC ONE CALL" DIAL 811.
6. WHERE PAVEMENT IS BEING REMOVED, THE CONTRACTOR SHALL REMOVE AGGREGATE BASE MATERIAL TO SUB-GRADE.
7. DAMAGE TO UTILITIES (INCLUDING UNDERGROUND) OR PROPERTY OF OTHERS BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY CONTRACTOR AT NO COST TO OWNER.
8. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO LIKE-NEW CONDITION.
9. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURES IN OPERABLE CONDITION.
10. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY INSPECTORS.
11. THE CONTRACTOR SHALL NOTIFY ALL APPLICABLE REGULATORY AGENCIES AND THE ENGINEER AT LEAST 24 HOURS PRIOR TO STARTING WORK ON THIS PROJECT.
12. UNLESS OTHERWISE NOTED, ALL CONCRETE PIPE SHALL BE REINFORCED CONCRETE PIPE, CLASS III.
13. ALL EXCAVATION FOR UNDERGROUND PIPE INSTALLATION MUST COMPLY WITH OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY (29 CFR PART 1926).
14. VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
15. DEVIATIONS FROM, OR CHANGES TO THESE PLANS WILL NOT BE ALLOWED.
16. MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THE PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT. TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREON AND ANY OTHER EXISTING UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. REPAIR AT YOUR OWN EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. IF A UTILITY IS DAMAGED DURING CONSTRUCTION, STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER AND TOWN.
17. PROPERLY SECURE THE CONSTRUCTION AREA AT ALL TIMES AGAINST UNAUTHORIZED ENTRY AND ADEQUATELY PROTECT EQUIPMENT, MATERIALS, AND COMPLETED WORK FROM THEFT AND VANDALISM. THE OWNER IS NOT RESPONSIBLE FOR THE LOSS OF ANY MATERIAL STORED AT THE SITE.

GENERAL CONSTRUCTION AND GEOTECHNICAL NOTES

ENGINEERED FILL

1. ALL CONTROLLED FILL ZONES ARE TO BE MONITORED BY A FULL TIME GEOTECHNICAL ENGINEERING SERVICES FIRM.
2. ENGINEERED FILLS SHALL BE PROPERLY PLACED ACCORDING TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
3. ALL SUMMARY REPORTS, IF AVAILABLE FROM THE GEOTECHNICAL ENGINEER REPRESENTING THE PROJECT MUST STATE HIS PROFESSIONAL OPINION ON THE SATISFACTORILY COMPLETED PHASES OF CONSTRUCTION SUCH AS, SLOPE CUTS, SUBDRAINAGE SYSTEMS, PREPARATION OF SUBGRADES AND COMPACTION OF EARTH FILLS.
4. NO FILLS SHALL HAVE ZONES THAT EXCEED TWO (2) FEET IN ELEVATION WITHOUT CONDUCTING COMPACTION TEST AND OBTAINING RESULTS OF 95% OR GREATER PER ASTM D698 STANDARD PROCTOR TEST RESULT.
5. THE GEOTECHNICAL ENGINEER MUST SUBMIT A DETAILED ANALYSIS, ITEMIZING THE FIELD DENSITY TEST RESULTS. THIS REPORT SHALL BE ACCOMPANIED WITH A COPY OF THE SITE PLAN SHEET AND INDICATE THE TEST LOCATIONS AND ELEVATIONS. THE GEOTECHNICAL ENGINEER MUST PROVIDE ENOUGH DESIGNATED TESTING IN ALL FILL ZONES TO ADEQUATELY EXAMINE AND CERTIFY THE INTEGRITY OF THE FILL.
6. BASED ON PROJECT BASELINE AND OFFSET THIS REPORT SHALL PROFILE THE FILL MATERIAL PLACEMENT AND PROVIDE THE COMPACTION TEST RESULTS. ALL REPORTS WILL BE ACCOMPANIED BY THE SITE PLAN, INDICATING THE TEST LOCATIONS AND ELEVATIONS.
7. THESE GEOTECHNICAL NOTES SHALL IN NO WAY LESSEN THE REQUIREMENTS OF THE SUBMITTED SOILS REPORT.

NEW STABILIZATION TIMEFRAMES

Site Area Description	Stabilization	Timeframe Exceptions
Perimeter dikes, swales, ditches, slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
Slopes 3:1 to 4:1	14 days	7 days for slopes greater than 50' in length
All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HQW Zones

TEMPORARY SEEDING SCHEDULE FOR LATE WINTER AND EARLY SPRING

DATES	SPECIES	RATE (LB/ACRE)
JAN 1 – MAY 1	RYE (GRAIN)	120

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4000 LB/ACRE SMALL GRAIN STRAW AND TACK WITH ASPHALT.
MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

TEMPORARY SEEDING SCHEDULE FOR FALL

DATES	SPECIES	RATE (LB/ACRE)
AUG 15 – DEC 30	RYE (GRAIN)	120

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1000 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4000 LB/ACRE SMALL GRAIN STRAW AND TACK WITH ASPHALT.
MAINTENANCE
REPAIR AND REFERTILIZE AND RESEED DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 LB/ACRE KOBE LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.

PERMANENT SEEDING SCHEDULE FOR GRASS-LINED CHANNELS

DATES	SPECIES	RATE (LB/ACRE)
AUG 15 – OCT 31	TALL FESCUE	200
	HULLED COMMON BERMUDA	50
FEB 1 – APR 15	TALL FESCUE	200

NURSE PLANTS
PRIOR TO MAY 1 OR AFTER AUG 15, ADD 40 LB/ACRE RYE (GRAIN).
SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 4,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1000 LB/ACRE 10-10-10 FERTILIZER. OPERATE TILLING EQUIPMENT ACROSS THE WATERWAY.
MULCH
USE A ROLLED EROSION CONTROL PRODUCT TO COVER THE BOTTOM OF CHANNELS AND DITCHES AND STAPLE SECURELY. THE LINING SHOULD EXTEND ABOVE THE HIGHEST CALCULATED DEPTH OF FLOW.
MAINTENANCE
INSPECT AND REPAIR MULCH FREQUENTLY. REFERTILIZE IN LATE WINTER OF THE FOLLOWING YEAR. FOLLOW RECOMMENDATIONS OF SOIL TESTS OR USE 150 LB/ACRE OF 10-10-10. MOW REGULARLY TO A HEIGHT OF 3-4 INCHES.
[illegible]

DATES	SPECIES	RATE (LB/ACRE)
MAY 1 – APR 15	GERMAN MILLET	40

SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4000 LB/ACRE SMALL GRAIN STRAW AND TACK WITH ASPHALT.
MAINTENANCE
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

PERMANENT SEEDING SCHEDULE FOR AREAS OTHER THAN CHANNELS

SPECIES	RATE (LB/ACRE) 3:1 AND STEEPER SLOPES	SLOPES FLATTER THAN 3:1
TALL FESCUE	100	100
HULLED COMMON BERMUDA	40	40

AFTER AUGUST 15 USE UNSCARIFIED SERICEA SEED.

NURSE PLANTS
PRIOR TO MAY 1 OR AFTER AUG 15, ADD 40 LB/ACRE RYE (GRAIN).
SEEDING DATES

	BEST	POSSIBLE
FALL	AUG 25 – SEP 15	AUG 20 – OCT 25
LATE WINTER	FEB 15 – MAR 21	FEB 1 – APR 15

FALL IS BEST FOR TALL FESCUE AND LATE WINTER FOR LESPEDEZAS. OVERSEEDING OF KOBE LESPEDEZA OVER FALL-SEEDED TALL FESCUE IS VERY EFFECTIVE.
SOIL AMENDMENTS
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 4,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1000 LB/ACRE 10-10-10 FERTILIZER.
MULCH
APPLY 4,000-5,000 LB/ACRE GRAIN STRAW. ANCHOR BY TACKING WITH ASPHALT. ON SLOPES 3:1 OR STEEPER ANCHOR STRAW WITH NETTING.
MAINTENANCE
REFERTILIZE IN THE SECOND YEAR UNLESS GROWTH IS FULLY ADEQUATE. MAY BE MOWED ONCE OR TWICE A YEAR, BUT MOWING IS NOT NECESSARY. REFERTILIZE, RESEED AND MULCH DAMAGED AREAS IMMEDIATELY.

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NOTES
TRENT VILLAGE HURRICANE FLORENCE DAMAGE REPAIRS
CITY OF NEW BERN, NORTH CAROLINA

REVISIONS

NOT TO SCALE
AUGUST 31, 2020
19080319-040302
C2.0

NOTE: SURVEY SHOWN IN BLACK ON THIS SHEET. INFORMATION PROVIDED BY GIS OR AERIAL PHOTOGRAPHY SHOWN IN GRAY ON THIS SHEET

C3.0

DESIGNED BY	
DRAWN BY	
CHECKED BY	
SCALE	1 = 20'
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PROJECT NUMBER	19080319-040302

NO.	REVISIONS	BY	DATE

EXISTING CONDITIONS

TRENT VILLAGE HURRICANE FLORENCE DAMAGE REPAIRS

CITY OF NEW BERN, NORTH CAROLINA

Draper Aden Associates

Engineering • Surveying • Environmental Services

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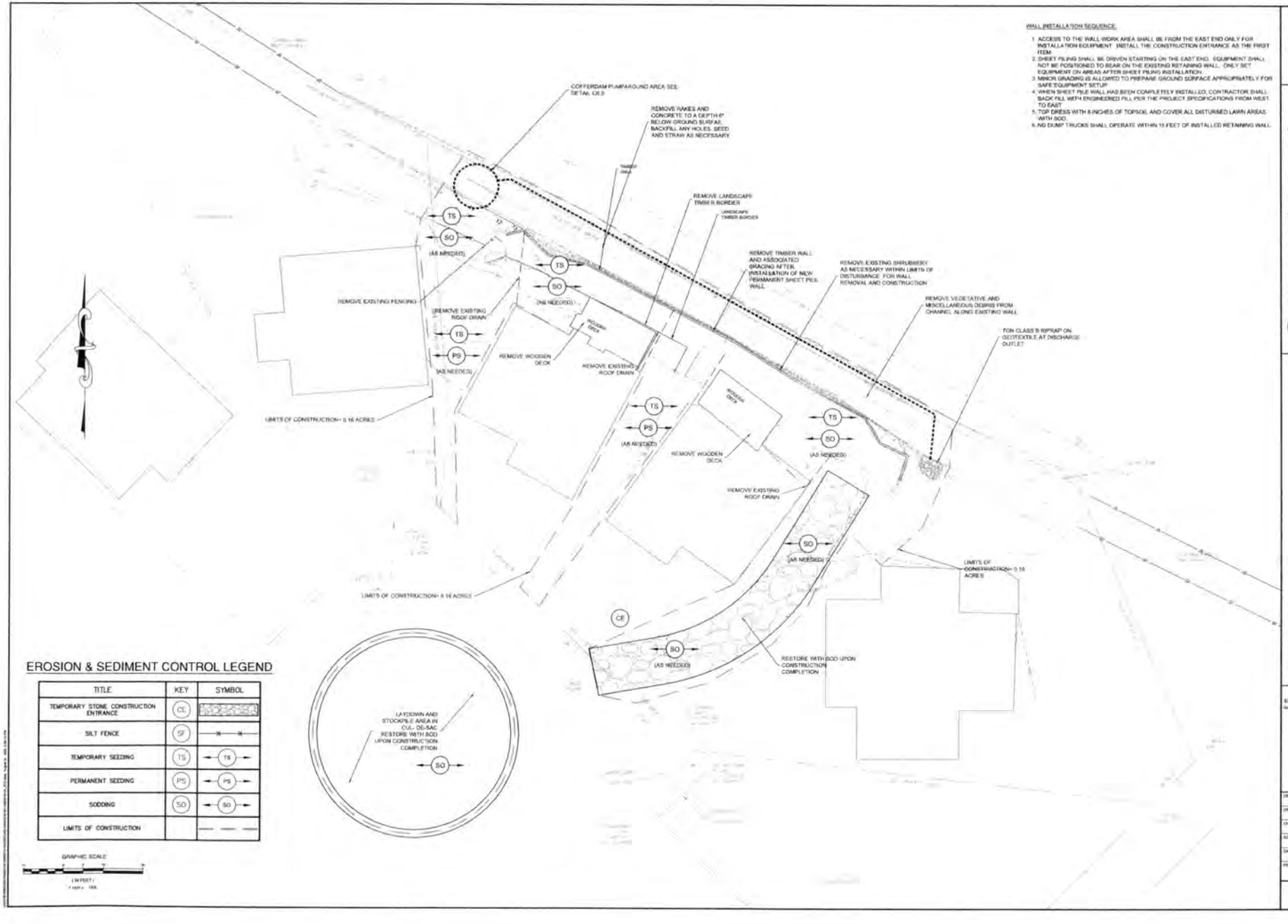

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DEMO & ESC PLAN

TRENT VILLAGE HURRICANE FLORENCE DAMAGE REPAIRS

CITY OF NEW BERN, NORTH CAROLINA

REVISIONS

6/21/20

DESIGNED BY:

DRAWN BY:

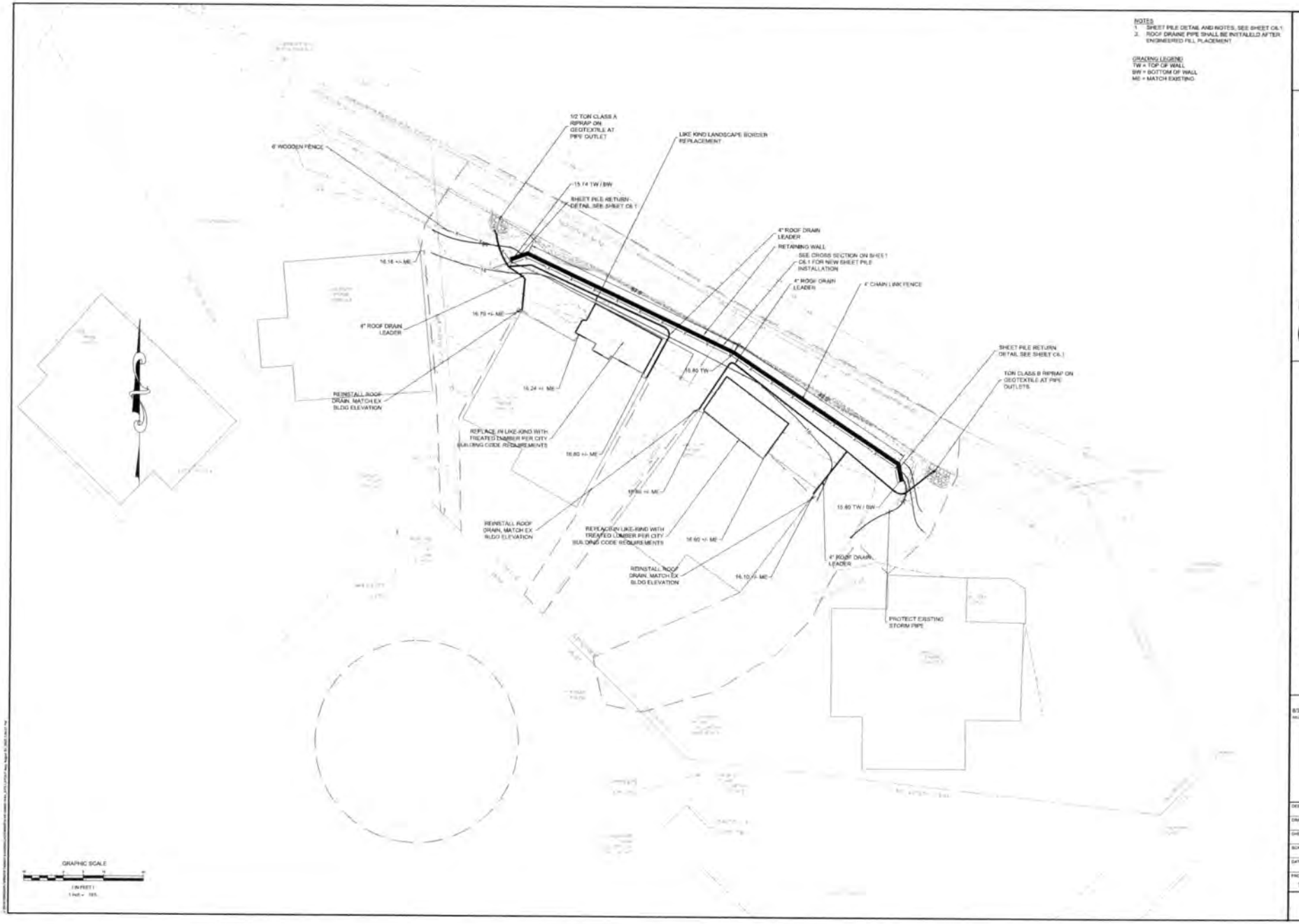
CHECKED BY:

SCALE: 1" = 10'

DATE: AUGUST 31, 2020

PROJECT NUMBER: 19080319-040302

C4.0



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SITE LAYOUT & GRADING PLAN

TRENT VILLAGE HURRICANE FLORENCE DAMAGE REPAIRS

CITY OF NEW BERN, NORTH CAROLINA

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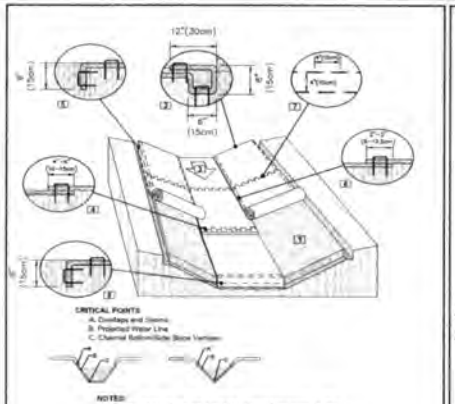
C5.0



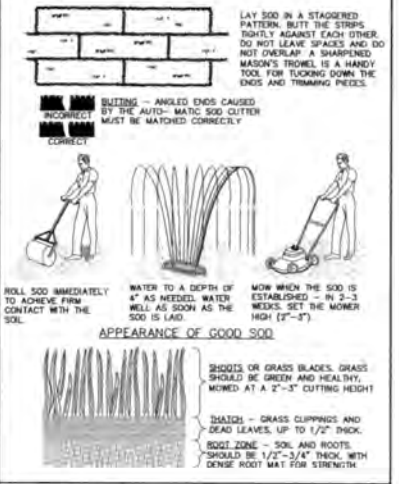
NOTES

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPS), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECPS IN A 6"(15CM) DEEP X 6"(15CM) WIDE TRENCH WITH APPROXIMATELY 12"(30CM) OF RECPS EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPS WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12"(30CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12"(30CM) PORTION OF RECPS BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPS OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPS.
3. ROLL CENTER RECPS IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECPS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. PLACE CONSECUTIVE RECPS END-OVER-END (SHINGLE STYLE) WITH A 6"-8" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECPS.
5. FULL LENGTH EDGE OF RECPS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12"(30CM) APART IN A 6"(15CM) DEEP X 6"(15CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECPS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5-12.5CM) (DEPENDING ON RECPS TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS A STAPLE CHECK SLOT IS RECOMMENDED AT 15' TO 40' FOOT (5-12M) INTERVALS. USE A DOUBLE ROW OF STAPLES (STAGGERED 6"(15CM) APART AND 4"(10CM) ON CENTER) OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECPS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30CM) APART IN A 6"(15CM) DEEP X 6"(15CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

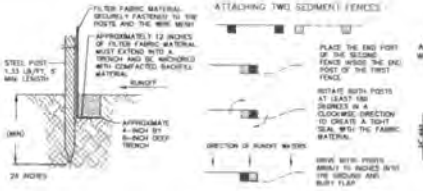
MAINTENANCE

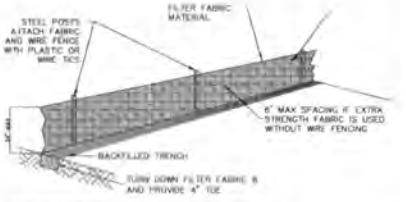
1. INSPECT ROLLED EROSION CONTROL PRODUCTS AT LEAST WEEKLY AND AFTER EACH 1/2-INCH (13 MM OR GREATER) RAINFALL EVENT. REPAIR IMMEDIATELY.
2. GOOD CONTACT WITH THE GROUND MUST BE MAINTAINED, AND EROSION MUST NOT occur BENEATH THE RECP.
3. ANY AREAS OF THE RECP THAT ARE DAMAGED OR NOT IN CLOSE CONTACT WITH THE GROUND SHALL BE REPAIRED AND STAPLED.
4. IF EROSION OCCURS DUE TO POORLY CONTROLLED DRAINAGE, THE PROBLEM SHALL BE FIXED, AND THE ERODED AREA PROTECTED.
5. MONITOR AND REPAIR THE RECP AS NECESSARY UNTIL GROUND COVER IS ESTABLISHED.

RECP INSTALLATION
NOT TO SCALE



SODDING
NOT TO SCALE





MATERIALS

1. USE A SYNTHETIC FILTER FABRIC OF AT LEAST 85% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN ASTM D 6461 WHICH IS SHOWN IN PART IN TABLE 6.62B. SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF 6 MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120° F.
2. ENSURE THAT POSTS FOR SEDIMENT FENCES ARE 1.33 LB/LINEAR FT STEEL WITH A MINIMUM LENGTH OF 5 FEET. MAKE SURE THAT STEEL POSTS HAVE PROJECTIONS TO FACILITATE FASTENING THE FABRIC.
3. FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM 14 GAUGE AND A MAXIMUM MESH SPACING OF 6 INCHES.

CONSTRUCTION

1. CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS.
2. ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 24 INCHES ABOVE THE GROUND SURFACE. (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.)
3. CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT A SUPPORT POST WITH 6 FEET MINIMUM OVERLAP TO THE NEXT POST.
4. SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS. EXTEND THE WIRE MESH SUPPORT TO THE BOTTOM OF THE TRENCH. FASTEN THE WIRE REINFORCEMENT AND THEN FABRIC ON THE UPSLOPE SIDE OF THE FENCE POST. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH.
5. WHEN A WIRE MESH SUPPORT FENCE IS USED, SPACE POSTS A MAXIMUM OF 8 FEET APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24 INCHES.
6. EXTRA STRENGTH FILTER FABRIC WITH 6 FEET POST SPACING DOES NOT REQUIRE WIRE MESH SUPPORT FENCE. SECURELY FASTEN THE FILTER FABRIC DIRECTLY TO POSTS. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM 50 POUND TENSILE STRENGTH.
7. EXCAVATE A TRENCH APPROXIMATELY 4 INCHES WIDE AND 8 INCHES DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER (FIGURE 6.62A).
8. PLACE 12 INCHES OF THE FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
9. BACKFILL THE TRENCH WITH COMPACTED SOIL PLACED OVER THE FILTER FABRIC. THOROUGH COMPACTION OF THE BACKFILL IS CRITICAL TO SILT FENCE PERFORMANCE.
10. DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.

SEDIMENT FENCE DETAIL
NOT TO SCALE

SEDIMENT FENCE INSTALLATION USING THE SLICING METHOD

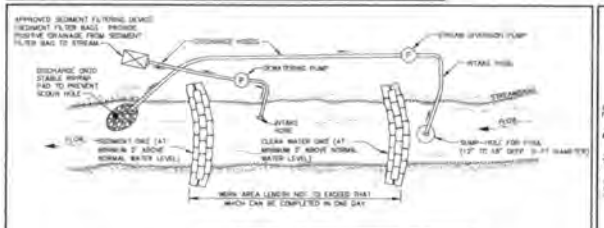
INSTEAD OF EXCAVATING A TRENCH, PLACING FABRIC AND THEN BACKFILLING TRENCH, SEDIMENT FENCE MAY BE INSTALLED USING SPECIALLY DESIGNED EQUIPMENT THAT INSERTS THE FABRIC INTO A CUT SLICED IN THE GROUND WITH A DISC.

INSTALLATION SPECIFICATIONS

1. THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ONE FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.
2. INSTALL POSTS 4 FEET APART IN CRITICAL AREAS AND 6 FEET APART ON STANDARD APPLICATIONS.
3. INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
4. INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.
5. ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY AT 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
6. WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
7. NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE GROUND LEVEL.
8. THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION.
9. COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH. COMPACT THE UPSTREAM SIDE FIRST AND THEN EACH SIDE TWICE FOR A TOTAL OF 4 TRIPS.

MAINTENANCE

1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS ONCE THEY HAVE REACHED ONE-THIRD (1/3) HEIGHT OF SILT FENCE TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.



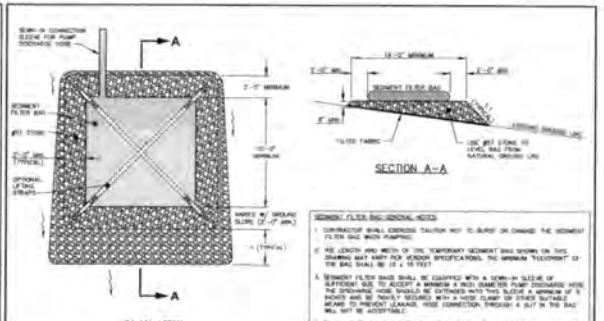
TEMPORARY PUMP AROUND SEQUENCE

1. SET UP PUMP WITH SUCTION AND DISCHARGE HOSE.
2. INSTALL UP-STREAM SANDBAG DAM.
3. INSTALL DOWN-STREAM SANDBAG DAM.
4. THE PUMP MUST RUN CONTINUOUSLY WHILE WORKING IN THE STREAM.
5. STREAMBANKS MUST BE STABILIZED AT THE END OF EACH DAY.

NOTES

1. SANDBAG DIKES SHALL BE SITUATED AT THE UPSTREAM AND DOWNSTREAM ENDS OF THE WORK AREA, AND STREAM FLOW SHALL BE PUMPED AROUND THE WORK AREA. THE PUMP SHOULD DISCHARGE ONTO A STABLE VELOCITY DISSIPATER CONSTRUCTED OF RIPRAP OR SANDBAGS.
2. WATER FROM THE WORK AREA SHALL BE PUMPED TO A SEDIMENT FILTERING MEASURE, SUCH AS A SEDIMENT BAG OR OTHER APPROVED DEVICE. THE MEASURE SHALL BE LOCATED SUCH THAT THE WATER DRAINS BACK INTO THE CHANNEL BELOW THE DOWNSTREAM SANDBAG DIKE WITHOUT CAUSING FURTHER EROSION BETWEEN THE SEDIMENT FILTER BAG AND THE STREAMBANK.

TEMPORARY PUMP AROUND
NOT TO SCALE



SEDIMENT FILTER BAG WITH GRAVEL PAD

CONSTRUCTION

1. CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
2. PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS AND SMOOTH IT.
3. PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
4. USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN AREAS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.

MAINTENANCE

MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY PERIODIC TOPDRESSING WITH 2–3 INCH STONE. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED OR TRACKED ONTO PUBLIC ROADWAYS.

CONSTRUCTION ENTRANCE
NOT TO SCALE

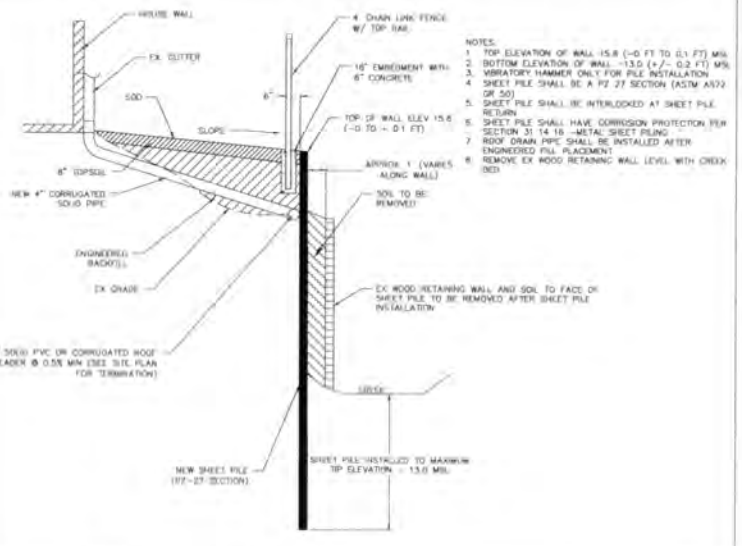
Draper Aden Associates
Engineering • Surveying • Environmental Services
• Blacksburg, VA
• Fayetteville, NC
• Gloucester, VA
• Hampton Roads, VA
• Northern Virginia
• Virginia Beach, VA

ESC DETAILS
TRENT VILLAGE HURRICANE FLORENCE DAMAGE REPAIRS
CITY OF NEW BERN, NORTH CAROLINA

REVISIONS
6/21/20

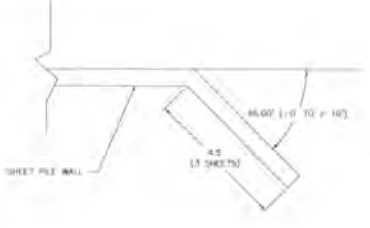
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:
DATE: AUGUST 21, 2020
PROJECT NUMBER: 19080319-040302

C6.0



NOTES:
1. TOP ELEVATION OF WALL 15.8 (+0 FT TO 0.1 FT) MSL
2. BOTTOM ELEVATION OF WALL -13.0 (+/- 0.2 FT) MSL
3. VIBRATORY HAMMER ONLY FOR PILE INSTALLATION
4. SHEET PILE SHALL BE A PZ 27 SECTION (ASTM A572 GR 50)
5. SHEET PILE SHALL BE INTERLOCKED AT SHEET PILE RETURN
6. SHEET PILE SHALL HAVE CORROSION PROTECTION PER SECTION 31 14 16 - METAL SHEET PILING
7. ROOF DRAIN PIPE SHALL BE INSTALLED AFTER ENGINEERED FILL PLACEMENT
8. REMOVE EX WOOD RETAINING WALL LEVEL WITH CREEK BED

TYPICAL SHEET PILE CROSS-SECTION
NOT TO SCALE



SHEET PILE RETURN DETAIL
NOT TO SCALE

Draper Aden Associates
Engineering • Surveying • Environmental Services

SHEET PILE WALL DETAILS

TRENT VILLAGE HURRICANE FLORENCE DAMAGE REPAIRS

CITY OF NEW BERN, NORTH CAROLINA

REVISIONS

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:
DATE: AUGUST 31, 2020
PROJECT NUMBER: 19080319-040302

C6.1

AGENDA ITEM COVER SHEET

NEW BERN
CITY OF NEW BERN

Agenda Item Title:

Consider Adopting a Resolution for Street Lighting Request for Waters Street.

Date of Meeting: February 23, 2021	**Ward # if applicable:** 2
Department: Public Utilities	**Person Submitting Item:** Charles Bauschard
Call for Public Hearing: ☐Yes☒No	**Date of Public Hearing:** N/A

Explanation of Item:	Customer has requested street lights on Waters Street
Actions Needed by Board:	Approval of Request
Backup Attached:	Memo, Resolution, Street Lighting Request Form, Cost Analysis and location map

Is item time sensitive? ☐Yes ☒No
Will there be advocates/opponents at the meeting? ☐Yes ☒ No

Cost of Agenda Item: Electric $1166.67 Public Works $16.88/mo
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? ☒Yes ☐ No

Additional Notes: N/A

NEW BERN
CITY OF NEW BERN

300 Pollock Street, P.O. Box 1129
New Bern, NC 28563-1129
(252) 636-4000

TO: Mark Stephens, City Manager
FROM: Charles Bauschard, Director of Public Utilities
DATE: February 11, 2021
SUBJECT: Request for Additional Street Lighting from Resident

Background Information:

In August of 2010, the Board of Aldermen adopted a procedure for addressing requests for additional street lighting from residents. This procedure requires Electric Utilities to evaluate the area of the request. The existing lighting must also comply with or be brought up to the American National Standard Practice for Roadway Lighting.

The Department of Public Utilities has received a request from a resident for additional street lighting infrastructures in the area of Waters Street. This area was evaluated, and it was determined that it does not meet the City's light standard. The recommendation and cost estimate is included.

Recommendation:

Upon completion of the staff's evaluation, I recommend the Board of Aldermen approve the resolution for the addition of a streetlights on Waters Street.

RESOLUTION

THAT WHEREAS, the City of New Bern has adopted the American National Standard Practice for Roadway Lighting as the design standard for new street lighting installations within the City of New Bern; and

WHEREAS, the standard outlines the level of lighting necessary for the safe interaction of pedestrians and vehicles along municipal roadways; and

THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF NEW BERN:

That the Mayor and the City Clerk be and they are hereby authorized and directed to accept the installation and costs to the Department of Public Utilities and Public Works for additional street lighting infrastructures in the area of Waters Street.

ADOPTED THIS 23rd DAY OF FEBRUARY 2021.

_____

DANA E. OUTLAW, MAYOR

_____

BRENDA E. BLANCO, CITY CLERK

Street Lighting Request Form

REQ # 112

Customer Name: Ms. Sharon

Customer Address: 2011 Waters St

Phone Number of Requestor: Unknown

Area of Request:

Waters Street

(Street address, intersection, general description, etc)

Pole # (if known):

Sent to Police Department Date:

Police Recommendations:

All items below this must be filled out by an Electric Department Engineer

Electric Department Engineer: Dustin Cayton

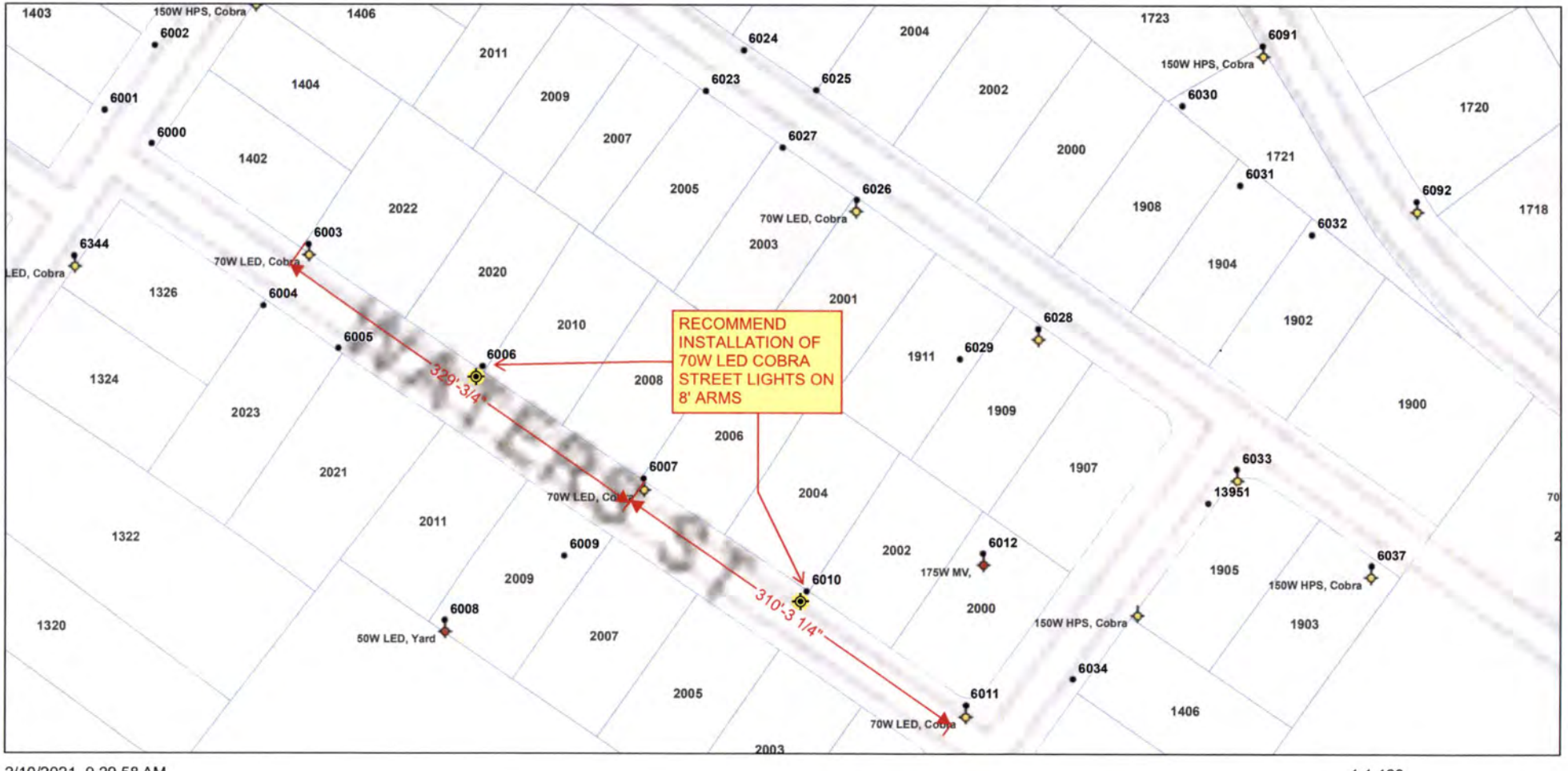
Evaluations Results/Recommendation:

This area does not meet the City of New Bern's street lighting standard. I recommend installing a 70W LED cobra fixture on an eight foot arm on pole #6006 and pole #6010.

Estimated Cost to Electric Department: $1166.67

Estimated Cost to Public Works: $16.88/month

SL REQ 112



2/10/2021, 9 29 58 AM

1:1,128

0 60 120 240 ft

0 15 30 60 m

Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

NEW BERN ELECTRIC

DATE:2/10/21 **REQ #112**

CUSTOMER:Ms. Sharon **LOCATION:** Waters St

LABOR	QUANTITY	REG. HRS	OT HRS	RATE*	TOTALS
Crew Leader	1	3	0	$ 52.00	$ 156.00
2nd Class	1	3	0	$ 40.74	$ 122.22
				TOTAL	**$ 278.22**

EQUIPMENT	QUANTITY	HOURS	RATE*	TOTALS
Bucket Truck/Service Truck 55'	1	3	$ 74.72	$ 224.16
			TOTAL	**$ 224.16**

MATERIAL	QUANTITY	PRICE	TOTAL
70W LED Fixture	2	$166.43	$ 332.86
8' Arm	2	$119.32	$ 238.64
#6 ACSR TPX	10	$0.40	$ 4.00
Photocell	2	$14.20	$ 28.40
		TOTAL	$ 603.90
		SUB TOTAL	$ 1,106.28
		10%TAX	$ 60.39
		TOTAL JOB	$ 1,166.67

*Labor Rates are based on hourly rates + benefits.

*Equipment rates are based on FEMA's 2019 Schedule of Equipment Rates

AGENDA ITEM COVER SHEET

NEW BERN
CITY OF NEW BERN

Agenda Item Title:

Discussion of Elections

Date of Meeting: 2/23/2021	**Ward # if applicable:** N/A
Department: Administration	**Person Submitting Item:** Mark A. Stephens, City Manager
Call for Public Hearing: ☐Yes☒No	**Date of Public Hearing:**

Explanation of Item:	Discuss election process
Actions Needed by Board:	
Backup Attached:	Letter from Craven County Board of Elections regarding 2021 elections

Is item time sensitive? ☒Yes ☐No
Will there be advocates/opponents at the meeting? ☐Yes ☒ No

Cost of Agenda Item:
If this requires an expenditure, has it been budgeted and are funds available and certified by the Finance Director? ☐Yes ☐ No

Additional Notes:

Craven County
Board of Elections

Meloni Wray, Director
Edward R Dzioba, Democrat Secretary
Brian J. Gatchel, Republican Member
Zeda B Trice, Democrat Chair
Ronnie D. Lovick, Democrat Member
Matthew P Schwob, Republican Member

February 11, 2021

Mr Mark Stephens, City Manager
City of New Bern
Post Office Box 1129
New Bern, North Carolina 28563

Dear Mr Stephens

The estimated expenses for the October 5, 2021 and possible runoff for the November 2, 2021 elections are provided below

The actual cost for 2009, 2013, 2017 and the estimated cost for both 2021 elections (if needed) are:

Cost Description	2009 Oct/Nov	2013 Oct/Nov	2017 Oct	Estimate 2021 Oct/Nov
TOTAL EXPENSE	$ 37,452 25	$ 41,360 34	$ 36,634 20	$ 55,186
TOTAL ABSENTEE EXPENSE	$ 4,380 00	$ 14,472.94	$ 9141.72	$ 18,194
Candidate Filing Fees	$ (220 00)	$ (305 00)	$ (180 00)	
TOTAL PAID/DUE	$ 41,612 25	$ 55,528 28	$ 36,454 20	**$ 73,380**
Estimated even yr (1 election)		$ 5,000	$ 5,300	**$ 5,300**

Breakdown:
The previous year's actual costs and the estimate of expense by the Craven County Board of Elections in the administration of the **City of New Bern Election on October 5, 2021 are as follows:**

Cost Description	2009 October	2013 October	2017 OCTOBER	**2021 Estimate October**
One Stop Assistance	$ 2,600 00	$ 10,595 00	*$ 7,975 00*	*$ 9,000.00*
OS Fica/Medicare tax		$ 810.52	*$ 634.01*	*$ 688.50*
Board Members Absentee Mtgs	$ 840 00	$ 840 00	*$ 350 00*	*$ 1,400.00*
Fica/Medicare tax		$ 68 00	*$ 27 83*	*$ 107.10*
Absentee supplies, postage	$ 150 00	$ 266 00	*$ 154 88*	*$ 650.00*
Absentee Voting Totals:	***$ 3,590.00***	***$ 12,579.52***	***$ 9,141.72***	*$ 11,846*
Election Day officials	$ 5 ,555 00	$ 9,360 00	*$ 14,575 00*	*$ 13,175.00*
Recount officials (if Needed)	$ 600 00		*$*	*$*
Board Members	$ 795 00	$ 650 00	*$ 340 00*	*$ 1,550.00*
Fica/Medicare tax		$ 45 99	*$ 27.03*	*$ 118.58*
Part-Time Assistance	$ 800.00	$ 4,362 20	*$ 2,068.96*	*$ 3,750.00*
Fica/Medicare tax		$ 340 84	*$ 164.68*	*$ 286.88*
Election Programming	$ 2,780 70	$ 3,004 68	*$ 4,320 77*	*$ 8,500.00*
Supplies/Postage/misc	$ 3,882.60	$ 2,474 54	*$ 1,156.99*	*$ 1,200.00*
Legal Advertising	$ 1,001 14	$ 699 53	*$ 934 99*	*$ 1,200.00*
Election Travel	$ 93 83	$ 127.70	*$ 152 94*	*$ 300.00*
Election Day Delivery/site rental	$ 196 06	$ 428 55	*$ 100 00*	*$ 100.00*
Ballots	$ 5,792.63	$ 5,036 25	*$ 3,420.44*	*$ 4,500.00*
sales tax		$ 339 95	*$ 230.88*	*$ 283.50*
TOTAL EXPENSE	$ 21,496 96	$ 26,870 23	$ 36,634 40	**$ 34,964**
ABSENTEE EXPENSE	$ 3,590.00	$ 12,579.52	$ 9,141.72	**$ 11,846**
FILLING FEES	$ -220 00	$ -305.00	$ -180.00	
OVERALL TOTAL	$ 24,866 96	$ 39,144 75	$ 36,454 40	**$ 46,810**

The previous year's actual costs and the estimate of expense by the Craven County Board of Elections in the administration of the **City of New Bern Runoff Election (if needed) on November 2, 2021 are as follows:**

Cost Description	2009 November RUNOFF	2013 November RUNOFF	**2021 estimated NOVEMBER RUNOFF**
One Stop Assistance	$ 650.00	$ 1,653 85	$ 4,500.00
OS Fica/Medicare tax		$ 126 53	$ 344.25
Board Members Absentee Mtgs	$ 140 00	$ 105 00	$ 700.00
Fica/Medicare tax		$ 8.04	$ 53.55
Absentee supplies, etc		$ -	$ 750.00
Absentee Voting Totals:	*$ 790.00*	*$ 1,893.42*	*$ 6,348*
Election Day officials	$ 4,457.50	$ 7,380 00	$ 9,925 .00
Recount officials (if Needed)	$ 600.00		$
Fica/Medicare tax			$
Board Members	$ 113 57	$ 102 85	$ 225.00
Fica/Medicare tax		$ 7 87	$ 17.21
Part-Time Assistance	$ 337.50	$ 370 83	$ 425.00
Fica/Medicare tax		$ 17 39	$ 32.51
Election Programming	$ 528.40	$ 1,758 07	$ 3,800.00
sales tax		$ 5 09	$ -
Supplies/Postage/misc	$ 3,364 40	$ 707.13	$ 550.00
Legal Advertising	$ 186 52	$ 41.09	$ 300.00
Election Travel	$ 275 04	$ 22.86	$ 43.00
Election Day Delivery	$ 292.36	$ 61 42	$ 100.00
Ballots	$ 5,800 00	$ 3,761 60	$ 4,500.00
sales tax		$ 253.91	$ 303.75
TOTAL EXPENSE	$ 15,955 26	$ 14,460.11	**$ 20,222**
ABSENTEE EXPENSE	*$ 790.00*	*$ 1,893.42*	*$ 6,348*
OVERALL ESTIMATED TOTAL	$ 16,745 29	$ 16,383 53	**$ 26,570**

The cost analysis enclosed also shows the actual charges for conducting the 2009, 2013, 2017 elections and the estimate for the 2021 elections. Currently, the City of New Bern operates on a nonpartisan election and runoff election method for the municipality This method is largely the same as the nonpartisan plurality method, with one important distinction If a winner in these elections does not receive a majority (50%+1) of the votes, the candidate who came in second place may request a runoff. In these runoff elections, all candidates are eliminated except the plurality winner and the runner-up Those two then run head-to-head in the runoff, with the winner being given the seat The election is held in October, and any runoff elections are held in November.

If the City of New Bern operated its elections under the nonpartisan plurality method (election in November only) the savings would have been approximately $35,000 in 2013 and a savings of possibly $45,000 for the 2021 elections The only expenses would be for a November Election that has shared expenses with the other municipalities on the ballot

Please take note that the City of New Bern allows absentee voting in your city elections and you do have the option to "opt-out" of this expense, by adopting a resolution If you analyze the expenses, the City of New Bern could have saved approximately $14,500 in 2013, $9,150 in 2017 if the City of New Bern had "opted out" of absentee voting and possibly could save approximately $18,194 of absentee expenses in 2021 Note: currently the only other municipality to allow absentee voting is the City of Havelock which if the City of New Bern has a runoff and absentee voting is allowed the absentee cost will be shared with the City of Havelock

Another option for voting would be to go to even years where the only costs would be to program your races and any other municipality specific expenses like ballots or supplies which would be estimated to be $5,000 or less with savings estimated to be $50,000 or more The reason for the lower estimated cost is because we have to do the other functions associated with an election in all Federal and State elections and cannot bill you for these costs To go to an even-year election cycle, you would need to get your municipal attorney involved, a resolution would need to be made, your charter would need to be updated, and there would need to be a legislative bill

passed for this to take place. If there are any resolutions adopted, the municipal agreement would need to be updated to reflect any changes if needed and signed

Filing Periods (see G.S. 163-291(2) and G.S. 163-294.2(c):

Because the 2021 municipal elections occur in the year following a federal decennial census, there is different filing periods for municipal offices this year

Contests for municipal offices in cities that do NOT elect any office by district The filing period for cities that do not elect any office by district begins at noon on the first Friday in July and ends at noon on the third Friday in July (Friday, July 2, 2021 until noon Friday, July 16, 2021).

(City of New Bern) Contests for municipal or district offices in cities that DO elect any office by district. The filing period for contests in cities that elect any office by district begins at noon on the fourth Monday in July and ends at noon on the second Friday in August (**Monday, July 26, 2021 until noon Friday, August 13, 2021**). The later filing period applies to all municipal contests in that jurisdiction, if any office is elected by electoral district or by residency district For example, even if the city's mayor is elected citywide, if the city council is elected by district, the statute applies to the filing period for the mayor contest as well as city council contests

2021 City of New Bern Municipal Elections Dates

- Tuesday, October 5, 2021
- Tuesday, November 2, 2021 (if runoff)

Please take note: Municipal redistricting must be completed by the third business day before the opening of the filing period (Wednesday, July 21, 2021). If the city or town determines that it will not be possible to adopt the redistricting changes by July 21, 2021, the municipality may adopt a resolution delaying the election. The election can be postponed until March 2022 If the city or town postpones the election, then the filing period for these offices will be held from noon Monday, December 6, 2021 through noon Friday, December 17, 2021

If you have any questions, please feel free to contact me, 252-636-6610 or mwray@cravencountync.gov.

Sincerely,

Meloni M. Wray, CNCED, CERA
Director of Elections

Enclosures
Cc Director of Finance, City Clerk; Mayor and Aldermen

CITY OF NEW BERN COST ANALYSIS

Cost Description	2009 October	2013 October	2017 OCTOBER	2021 October est
One Stop Assistance	$ 2,600 00	$ 10,595 00	$ 7,975 00	$ 9,000.00
OS Fica/Medicare tax		$ 810 52	$ 634 01	$ 688.50
Board Members Absentee Mtgs	$ 840 00	$ 840 00	$ 350 00	$ 1,400.00
Fica/Medicare tax		$ 68 00	$ 27 83	$ 107.10
Absentee supplies, postage	$ 150 00	$ 266 00	$ 154 88	$ 650 00
Absentee Voting Totals:	***$ 3,590 00***	***$ 12,579 52***	***$ 9,141 72***	***$ 11,845.60***
Election Day officials	$ 5,555 00	$ 9,360 00	$ 14,575 00	$ 13,175.00
Recount officials (if Needed)	$ 600 00			
Fica/Medicare tax			$ -	
Board Members	$ 795 00	$ 650 00	$ 340 00	$ 1,550.00
Fica/Medicare tax		$ 45 99	$ 27 03	$ 118.58
Part-Time Assistance	$ 800 00	$ 4,362 20	$ 2,068 96	$ 3,750 00
Fica/Medicare tax		$ 340 84	$ 164 68	$ 286 88
Election Programming	$ 2,780 70	$ 3,004 68	$ 4,320 77	$ 8,500 00
Supplies/Postage/misc	$ 3,882 60	$ 2,474 54	$ 1,156 99	$ 1,200.00
Legal Advertising	$ 1,001 14	$ 699 53	$ 934 99	$ 1,200.00
Election Travel	$ 93 83	$ 127 70	$ 152 94	$ 300.00
Election Day polling site rental/delivery	$ 196 06	$ 428 55	$ 100 00	$ 100 00
Ballots	$ 5,792 63	$ 5,036 25	$ 3,420 44	$ 4,500 00
sales tax		$ 339 95	$ 230 88	$ 283 50
TOTAL EXPENSE	$ 21,496 96	$ 26,870 23	$ 27,492.68	$ 34,963 96
TOTAL ABSENTEE EXPENSE	**$ 3,590.00**	**$ 12,579 52**	**$ 9,141.72**	**$ 11,845.60**
	$ 25,086.96	$ 39,449 75	$ 36,634 40	**$ 46,809.56**
Candidate Filing Fees	$ (220 00)	$ (305 00)	$ (180 00)	
TOTAL DUE	$ 24,866 96	$ 39,144 75	$ 36,454 40	

Cost Description	2009 ACTUAL November RUNOFF	2013 ACTUAL NOVEMBER RUNOFF	2021 estimated NOVEMBER RUNOFF (with Mayor and 1 ward)
One Stop Assistance	$ 650 00	$ 1,653 85	$ 4,500.00
OS Fica/Medicare tax		$ 126 53	$ 344.25
Board Members Absentee Mtgs	$ 140 00	$ 105 00	$ 700.00
Fica/Medicare tax		$ 8 04	$ 53.55
Ballots			
Absentee supplies, etc		$ -	$ 750.00
Absentee Voting Totals:	***$ 790 00***	***$ 1,893 42***	***$ 6,347.80***
Election Day officials	$ 4,457 50	$ 7,380 00	$ 9,925.00
Recount officials (if Needed)	$ 600 00		
Fica/Medicare tax			
Board Members	$ 113.57	$ 102 85	$ 225.00
Fica/Medicare tax		$ 7 87	$ 17.21
Part-Time Assistance	$ 337 50	$ 370 83	$ 425.00
Fica/Medicare tax		$ 17 39	$ 32.51
Election Programming	$ 528.40	$ 1,758 07	$ 3,800.00
sales tax		$ 5 09	$ -
Supplies/Postage/misc	$ 3,364.40	$ 707 13	$ 550.00
Legal Advertising	$ 186 52	$ 41 09	$ 300.00
Election Travel	$ 275 04	$ 22 86	$ 43.00
Election Day polling site rental/delivery	$ 292 36	$ 61 42	$ 100 00
Ballots	$ 5,800 00	$ 3,761 60	$ 4,500.00
sales tax		$ 253 91	$ 303 75
TOTAL EXPENSE	$ 15,955 29	$ 14,490 11	$ 20,221.47
TOTAL ABSENTEE EXPENSE	$ 790 00	$ 1,893.42	$ 6,347.80
TOTAL DUE	$ 16,745 29	$ 16,383 53	**$ 26,569.27**

Cost Description	2009 Oct/Nov Actual	2013 Oct/Nov Actual	2017 Actual OCT	2021 est w/runoff
TOTAL EXPENSE	$ 37,452 25	$ 41,360 34	$ 27,492 68	$ 55,185 43
TOTAL ABSENTEE EXPENSE	**$ 4,380.00**	**$ 14,472 94**	**$ 9,141 72**	**$ 18,193.40**
Candidate Filing Fees	$ (220 00)	$ (305 00)	$ (180 00)	
TOTAL DUE	$ 41,612 25	$ 55,528 28	$ 36,454 40	**$ 73,378.83**

Election	Registered Voters	Overall cost	total voted	cost per voter
October 2013 Absentee	21575	$ 12,579 52	2788	$ 4.51
October 2013 Overall	21575	$ 39,144 75	5437	$ 7 20
October 2017 Absentee	20629	$ 9,141.72	1765	$ 5 18
October 2017Overall	20629	$ 36,454 40	3769	$ 9 67
November 2013 Absentee	21575	$ 1,893 42	2395	$ 0.79
November 2013 Overall	21575	$ 16,383 53	7762	$ 2 11

THE ABOVE COST ESTIMATE IS PREPARED TO THE BEST OF OUR KNOWLEDGE AT THE TIME CCBOE

NEW BERN
CITY OF NEW BERN
300 Pollock Street, P.O. Box 1129
New Bern, NC 28563-1129
(252) 636-4000

Memorandum

TO: Mayor Dana Outlaw

FROM: Brenda Blanco, City Clerk BEB

DATE: October 22, 2020

SUBJECT: Appointment to Appearance Commission

On June 11, 2019, you appointed Martha "Molly" Ingram to the Appearance Commission. Ms. Ingram recently resigned from her seat, as she will be relocating to another state in November. You are asked to make a new appointment to serve the remainder of Ms. Ingram's term.

When possible, appointees to this Commission should have special training or experience in a design field, such as architecture, landscape design, horticulture, city planning, or a closely-related field.

/beb