

Major Subdivision Preliminary Plat Submittal

**Briar Chapel – Phase 16 Common Area**

*Date: July 10, 2015*





Major Subdivision  
Preliminary Plat Submittal  
Briar Chapel -  
Phase 16 Common Area

---

*Date: July 10, 2015*

**Prepared for:**  
Chatham County Planning Department  
80-A East Street  
Pittsboro, NC 27312

**Prepared by:**  
McKim & Creed, Inc.  
1730 Varsity Drive  
Suite 500  
Raleigh, NC 27606  
License #F-1222

McKim & Creed Project #02735-0107



1730 VARSITY DRIVE, SUITE 500, RALEIGH, NC 27606  
 TEL (919) 233-8091 • FAX (919) 233-8031

**LETTER OF TRANSMITTAL**

ADDRESS: 80-A East Street Pittsboro, NC 27312-0130
ATTENTION: <b>Lynn Richardson</b> <b>Chatham County Planning</b>

DATE: July 10, 2015
PROJECT #: 2735-0107      TASK #:
RE: Briar Chapel- Phase 16 Common Area Preliminary Plat Submittal
TRANSMITTAL #:      PAGE 1 OF 1

WE ARE SENDING:  Originals       Prints       Shop Drawings       Samples  
 Specifications       Calculations       Other -

Quantity	Drawing No.	Rev.	Description	Status
20	Plat		Site Plans – 24" x 36" (folded)	G
1			Application and checklist	G
1			CUP Stipulation Response Letter	G
1			Supporting permit approval documentation	G
1			CD with digital copies of submittal documents in PDF format	G
1	Set		Erosion Control Plans	G

Issue Status Code:      A. Preliminary      B. Fabrication Only      C. For Information      D. Bid  
                                  E. Construction      F. For Review & Comments      G. For Approval      H. See Remarks

Action Status Code:      1. No Exceptions Taken      2. Make Corrections Noted      3. Other  
                                  4. Amend & Resubmit      5. Rejected - See Remarks

REMARKS:

Lynn,

Enclosed please find the above documents for our Briar Chapel-Phase 16 Common Area preliminary plat submittal. Please let me know if you have any questions. Thank you.

CC:

**McKIM & CREED, INC.**

Signed   
 Chris Seamster, RLA



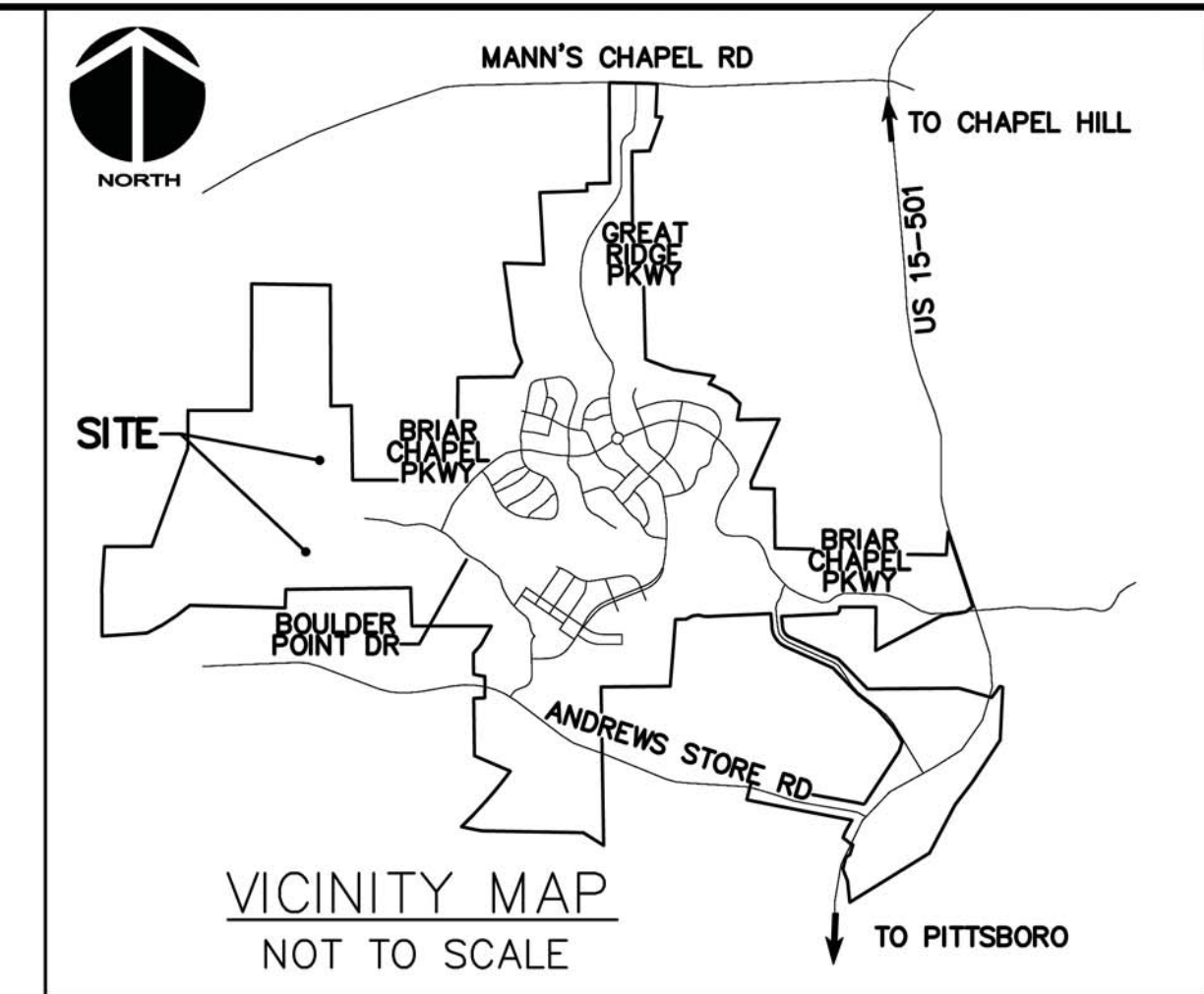
# Briar Chapel - Phase 16 Common Area

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## Index to Documents

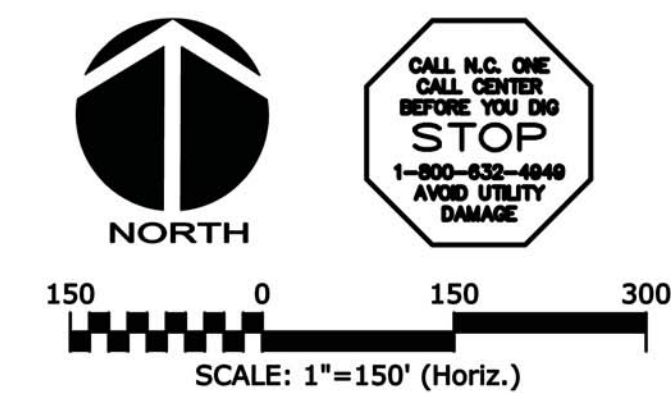
TRC Pre-Submittal Meeting Maps (06/25/2013) .....	1
Overall Site Plan (Sheet 1 of 1) .....	2
Major Subdivision Preliminary Plat Checklist/Application/Adjacent Landowners .....	3
Chatham County Erosion Control Approval (06/08/2015) .....	4
USACOE 404 Permit (8/21/2009) .....	5
USACOE 401 Permit (8/21/2009) .....	6
Historical Structures Statement (from CUP response letter) .....	7
Impervious Surface Summary (07/10/2015) .....	8
Conditional Use Permit Stipulation Response Letter (07/10/2015).....	9





**LEGEND**

- RESIDENTIAL LOTS (QUANTITY TBD)
- COMMON AREA (QUANTITY TBD)
- RESIDENTIAL STREET
- STORMWATER BMP (SIZE AND LOCATION TBD)



REV. NO.	DATE	DESCRIPTIONS	REVISIONS

SEAL

SEAL

**MCKIM & CREED**  
 1730 Varsity Drive, Suite 500  
 Raleigh, North Carolina 27606  
 Phone: (919)233-8091, Fax: (919)233-8031  
 F-1222  
 www.mckimcreed.com

**BRIAR CHAPEL™**  
 by  
**Newland COMMUNITIES**

**BRIAR CHAPEL  
 PHASE 15 & 16  
 CHATHAM COUNTY, NORTH CAROLINA**

**SITE PLAN**

DATE: JUNE 24, 2013	SCALE: N/A	M&C FILE NUMBER:
M&C PROJ. # 02735-0091	HORIZONTAL: 1" = 150'	DRAWING NUMBER:
DRAWN: GCA	VERTICAL: N/A	REVISION:
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: PRELIMINARY		

10/27/2009 11:58 AM C:\Users\mckim\Documents\Projects\Briar Chapel\Phase 15 & 16\15 & 16\_Site Plan.dwg



Certificate of Sedimentation and Erosion Control Plan Approval and  
Land-Disturbing Permit

For

Briar Chapel- Western Storage Pond

Project Name

2014-020

Permit Number

The posting of this certificate certifies that an erosion and sedimentation control plan has been approved for this project by Chatham County, North Carolina in accordance with North Carolina General Statute 113A-57 (4) and 113A-54 (d)(4), the North Carolina Administrative Code, Title 15A, Chapter 4B.0007 (c) and as per applicable sections of the Chatham County Soil Erosion and Sedimentation Control Ordinance. This certificate must be posted at the primary entrance of the job site before construction begins and until establishment of permanent ground cover as required by North Carolina Administrative Code, Title 15A, Chapter 4B.0027 (b) and as per Chatham County's Erosion and Sediment Control Ordinance, Section 5 (i).

Responsible Person: Laurie Ford Phone: (919) 951-0709

This plan was approved with "modifications"  Yes  No and / or  
"performance reservations"  Yes  No.

Reviewer: Rachael Thorn

Date: 6/3/14

THE ORDINANCE REQUIRES THAT A COPY OF  
THE EROSION CONTROL PLAN  
MUST BE KEPT AVAILABLE AT THE JOB SITE  
AT ALL TIMES FOR INSPECTION

# BRIAR CHAPEL

## PHASE 16 EARLY GRADING

### CONSTRUCTION DOCUMENTS

#### U.S. HWY 15-501 and MANN'S CHAPEL ROAD

#### CHATHAM COUNTY, NORTH CAROLINA

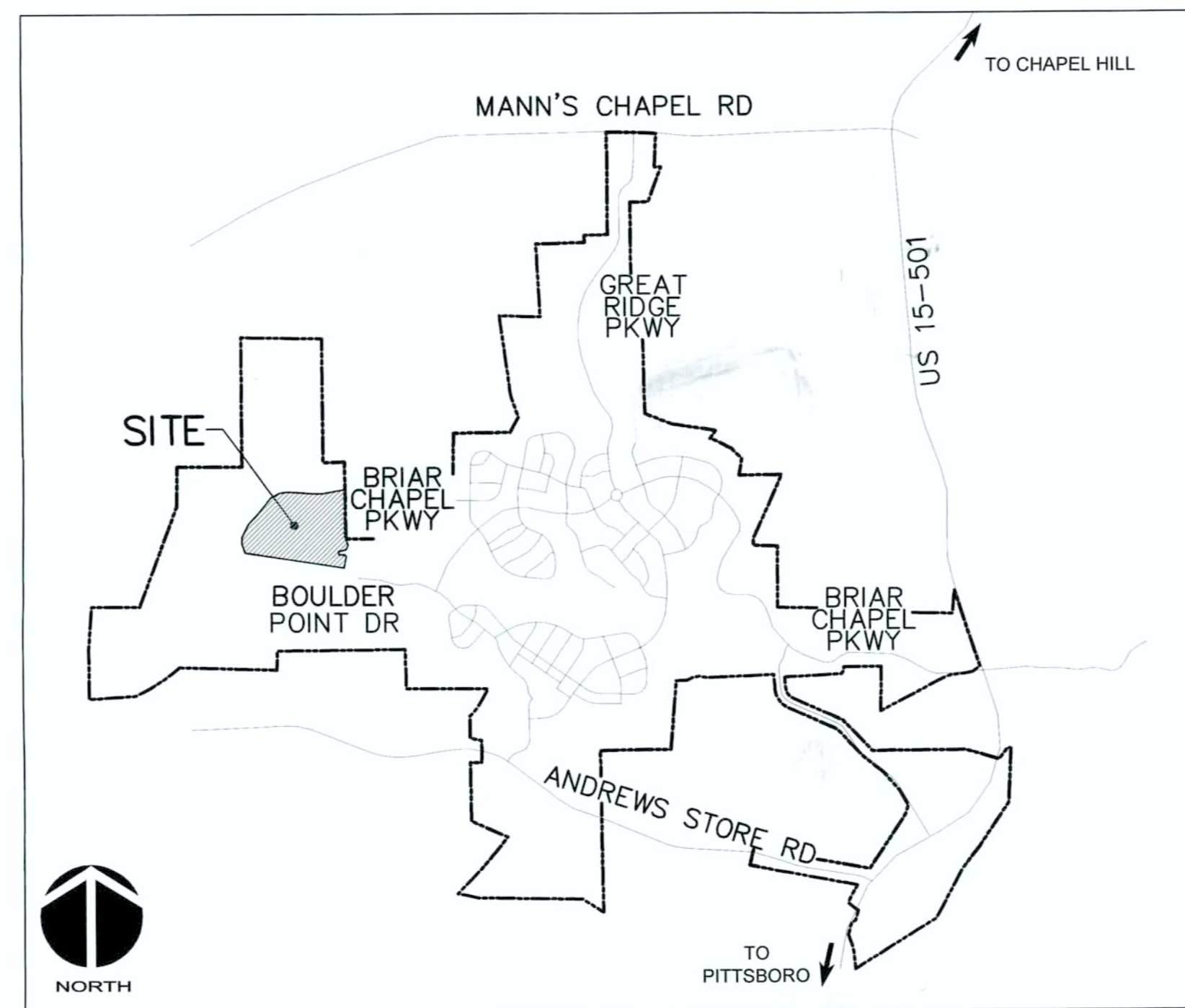
DATE: MAY 13, 2015

Chatham County Sedimentation and Erosion Control Plan  
 [ ] Approved  
 [ ] Approved with Modifications  
 [ ] Approved with Performance Reservations  
 Rachael Thorn 6/8/15  
 Date

**COUNTY AND AGENCY CONTACTS**

A. Chatham County  
 Planning Department  
 Dunlap Building  
 80 East Street  
 Pittsboro, NC 27312  
 (919) 542-8204 phone  
 Contact: Jason Sullivan  
 Email: jason.sullivan@chathamnc.org

B. Chatham County  
 Soil Erosion and Sedimentation Control  
 Dunlap Building  
 80 East Street  
 Pittsboro, NC 27312  
 (919) 545-8339 phone  
 Contact: Rachael Thorn  
 Email: rachael.thorn@chathamnc.org



VICINITY MAP  
 NTS

### PROJECT DATA

NAME OF PROJECT:  
 PHASING 16 EARLY GRADING  
 CHATHAM COUNTY, NORTH CAROLINA

OWNER:  
 NNP BRIAR CHAPEL, LLC  
 16 WINDY KNOLL CIRCLE  
 CHAPEL HILL, NC 27516  
 PHONE: (919) 951-0700  
 FAX: (919) 240-4963  
 CONTACT: LEE BOWMAN  
 EMAIL: lbowman@newlandco.com

PREPARED BY:  
 MCKIM & CREED  
 1730 VARSITY DRIVE, SUITE 500  
 RALEIGH, NORTH CAROLINA 27606  
 PHONE: (919) 233-8091  
 FAX: (919) 233-8031  
 CONTACT: GARETH AVANT, PE  
 EMAIL: gavant@mckimcreed.com

PROJECT AREA: 9.58 AC

These improvements shall be constructed in accordance with the following plans, and the Standard Specifications of NCDOT and Chatham County.

### SHEET INDEX

C0.1	COVER SHEET
C1.0	EXISTING CONDITIONS, DEMOLITION & APPROVED STAGE 1 EROSION CONTROL PLAN
C2.0	OVERALL STAGE 2 EROSION CONTROL PLAN
C2.1	STAGE 2 EROSION CONTROL PLAN
C2.2	STAGE 2 EROSION CONTROL PLAN
C2.3	STAGE 2 EROSION CONTROL PLAN
C2.4	STAGE 2 EROSION CONTROL PLAN
C3.0	OVERALL STAGE 3 EROSION CONTROL PLAN
C3.1	STAGE 3 OVERALL CLEARING AND GRUBBING PLAN
C3.2	STAGE 3 CLEARING AND GRUBBING PLAN
C3.3	STAGE 3 CLEARING AND GRUBBING PLAN
C3.4	STAGE 3 CLEARING AND GRUBBING PLAN
D1.1	DETAILS
D1.2	DETAILS



ISSUED FOR CONSTRUCTION





REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
WILMINGTON DISTRICT, CORPS OF ENGINEERS  
69 DARLINGTON AVENUE  
WILMINGTON, NORTH CAROLINA 28403-1343

August 21, 2009

Regulatory Division

Action ID. 200121252

Mr. William S. Mumford  
NNP – Briar Chapel, LLC  
16 Windy Knoll Circle  
Chapel Hill, North Carolina 27516

Dear Mr. Mumford:

Reference the Department of the Army (DA) permit issued on October 2, 2006, to Mitch Barron of Newland Communities for impacts associated with the Briar Chapel Development. Also reference the modification to this permit approved in December, 2007. This development is approximately 1,589 acres in size and is located west of US Highway 15-501, north of Andrew's Store Road (SR 1528), and south of Mann's Chapel Road (SR 1532), approximately 5 miles south of Chapel Hill, in Chatham County, North Carolina. Coordinates (in decimal degrees) for the site are 35.8251 ° North, 79.1059 ° West. The site contains several unnamed tributaries and adjacent wetlands of Pokeberry Creek and Wilkinson Creek, in the Cape Fear River Basin (8-Digit Cataloging Unit 03030002).

Permanent impacts authorized by this permit and the subsequent 2007 modification totaled 1,666 linear feet of stream channel and 0.4422 acre of wetland, and temporary impacts totaled 359 linear feet of stream channel and 0.156 acre of wetlands. Mitigation was implemented for the unavoidable impacts by: a) Payment into the North Carolina Ecosystem Enhancement Program for the restoration of 0.6655 acre of riparian wetlands; b) Restoration of 2,127 linear feet of stream channel at the Harpers Crossroads Mitigation Site; and c) On-site preservation of 59.3 acres of wetlands and 63,412 linear feet of stream channel.

Also reference your permit modification request received by the Corps on May 8, 2009. This modification was to address impact amounts and location changes associated with roadway crossings in and near the development. Also included within the requested modification were impacts associated with restoration to streams and wetlands as required to satisfy an existing on-site Clean Water Act violation. On May 22, 2009, a Public Notice was issued detailing this modification request which would bring total impacts associated with Briar Chapel to: 2,237 linear feet of permanent stream channel, 634 linear feet of temporary stream channel, 0.4374 acre of permanent wetland impact,

and 0.197 acres of temporary wetland impact. Please note the attached Tables 1, 2, and 3; originally created by your consultant S&EC, which describe the impact history by site number and amount. No additional mitigation was proposed due to the relatively large amount of preservation mitigation required within the original permit.

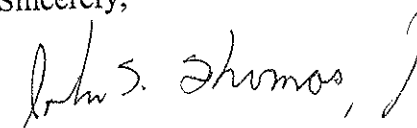
The Corps has completed the evaluation of your request and concurs with your request for a change in impacts associated with your referenced DA permit including the change to plans as requested. No additional mitigation is required for this modification.

Special condition 1 of your permit is hereby modified to read:

“All work authorized by this permit must be performed in strict compliance with the attached plans, Exhibit A, Exhibit E, and/or Exhibit F which are a part of this permit. These plans reflect the original proposal, Exhibit A; and the modifications as depicted within the January 26, and the revised June 7, 2007, proposals as shown in Exhibit E, and the modification request of May 8, 2009, as shown in Exhibit F. Only the attached modification plans reflect approved changes to the original plans, therefore any additional deviations from the original plans are not approved per this modification and any further modification to the plans must be approved by the US Army Corps of Engineers (USACE) prior to implementation. The temporary impacts as identified on Exhibit E shall be removed by May 1, 2008, or the project shall be considered non-compliant with this condition. In addition, the following time deadlines are hereby established for work considered authorized under this 2009 permit modification: all impacts, both temporary and permanent, as shown in the stream repair and stabilization document received with the modification application on May 8, 2009, must be completed prior to April 15, 2010; and all additional temporary impacts, not requested within the stream repair and stabilization document but requested and authorized under this 2009 modification, shall be removed within 30 days of the completion of each respective crossing. Proper documentation of permit compliance for this 2009 modification shall be submitted to the Corps of Engineers Regulatory Representative via email on or before April 15, 2010, or at the time of each temporary impact removal, respectively. ”

Please note that all other permit conditions and exhibits remain in effect as written. Should you have questions, contact Mr. Monte Matthews, Raleigh Regulatory Field Office at telephone (919) 554-4884, Extension 30.

Sincerely,

  
for/ Jefferson M. Ryscavage  
Colonel, U.S. Army  
District Commander

Attachments

Copy Furnished (w/o attachment)

Ms. Cyndi Karoly  
Division of Water Quality  
North Carolina Department of Environment  
and Natural Resources  
2321 Crabtree Boulevard, Suite 250  
Raleigh, NC 27604

Copy Furnished (w/attachment)

---

Ms. Nicole Thomson  
Soil & Environmental Consultants  
11010 Raven Ridge Road  
Raleigh, NC 27614



North Carolina Department of Environment and Natural Resources

Division of Water Quality  
Coleen H. Sullins  
Director

Beverly Eaves Perdue  
Governor

Dee Freeman  
Secretary

August 31, 2009



Mr. William S. Mumford  
NNP – Briar Chapel, LLC  
16 Windy Knoll Circle  
Chapel Hill, NC 27516

Re: Briar Chapel, Chatham County  
DWQ Project # 20050732, Ver. 13; USACE Action ID. No. 200121252  
**APPROVAL of 401 Water Quality Certification with Additional Conditions - MODIFICATION**

Dear Mr. Mumford:

Attached hereto is a copy of Certification No. 3567 issued to Mr. William S. Mumford of NNP- Briar Chapel, LLC, Inc., dated August 31, 2009. **This Certification replaces the Certification issued to you on January 11, 2008, July 21, 2009, and July 24, 2009.** In addition, you should get any other federal, state or local permits before you go ahead with your project including (but not limited to) Solid Waste, Sediment and Erosion Control, Stormwater, Dam Safety, Non-discharge and Water Supply Watershed regulations.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,

Coleen Sullins

CHS/cbk/ijm

Attachments: Certificate of Completion

cc: Becky Fox, EPA, 1307 Firefly Road, Whittier, NC 28789  
U.S. Army Corps of Engineers, Raleigh Regulatory Field Office, Wilmington District  
Lauren Witherspoon, DWQ Raleigh Regional Office  
DLR, Raleigh Regional Office  
File Copy  
Nicole Thomson, S&EC, P.A., 11010 Raven Ridge Road, Raleigh, NC 27614

Filename: 050732Ver13BriarChapel(Chatham)401\_IC\_MOD2\_Revised

**NORTH CAROLINA 401 WATER QUALITY CERTIFICATION**

**THIS CERTIFICATION** is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500 to Mr. William S. Mumford of NNP- Briar Chapel, LLC to fill 0.4374 acres of 404/wetland (permanent impact), 0.197 acres 404/wetland (temporary impact), 2,154 linear feet of perennial stream (permanent impact), 612 linear feet of perennial stream (temporary impact), 83 linear feet of intermittent stream (permanent impact), and 22 linear feet of intermittent stream (temporary impact), in the Cape Fear River Basin, to construct the Briar Chapel residential and mixed use development at the site. The site is located west of U.S. Highway 15-501, and north of Andrew’s Store Road (SR 1528), and south of Mann’s Chapel Road (SR 1532), approximately 5 miles south of Chapel Hill, in Chatham County, North Carolina, pursuant to a permit application dated May 8, 2009, and received by the DWQ on May 8, 2009, by Public Notice issued by the USACE on May 22, 2009, and received by the DWQ on May 22, 2009, and by all additional correspondences received by the DWQ on May 20, 2009 and June 25, 2009.

The application and supporting documentation provides adequate assurance that the proposed work will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application, the supporting documentation, and conditions hereinafter set forth.

This approval is only valid for the purpose and design submitted in the application materials and as described in the Public Notice. If the project is changed, prior to notification a new application for a new Certification is required. If the property is sold, the new owner must be given a copy of the Certification and approval letter and is thereby responsible for complying with all conditions of this Certification. Any new owner must notify the Division and request the Certification be issued in their name. Should wetland or stream fill be requested in the future, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). If any plan revisions from the approved site plan result in a change in stream or wetland impact or an increase in impervious surfaces, the DWQ shall be notified in writing and a new application for 401 Certification may be required. For this approval to be valid, compliance with the conditions listed below is required.

**Conditions of Certification:**

1. Impacts Approved

The following impacts are hereby approved as long as all of the other specific and general conditions of this Certification (or Isolated Wetland Permit) are met. No other impacts are approved including incidental impacts:

<b>Type of Impact</b>	<b>Amount Approved (Units)</b>	<b>Plan Location or Reference</b>
404/401 Wetlands	0.4374 (acres) – permanent impact	Table 2, Application, and Public Notice
404/401 Wetlands	0.197 (acres) – temporary impact	Table 2, Application, and Public Notice
Stream (perennial)	2,154 (linear feet) – permanent impact	Table 2, Application, and Public Notice
Stream (perennial)	612 (linear feet) – temporary impact	Table 2, Application, and Public Notice
Stream (intermittent)	83 (linear feet) – permanent impact	Table 2, Application, and Public Notice
Stream (intermittent)	22 (linear feet) – temporary impact	Table 2, Application, and Public Notice

Sediment and Erosion Control:

2. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:
  - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
  - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
3. No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the 404/401 Permit Application. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur;
4. Sediment and erosion control measures shall not be placed in wetlands or waters without prior approval from the Division. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. All sediment and erosion control devices shall be removed and the natural grade restored within two (2) months of the date that the Division of Land Resources or locally delegated program has released the project.
5. Protective Fencing - The outside buffer, wetland or water boundary and along the construction corridor within these boundaries approved under this authorization shall be clearly marked with orange warning fencing (or similar high visibility material) for the areas that have been approved to infringe within the buffer, wetland or water prior to any land disturbing activities.

Continuing Compliance:

6. Mr. William S. Mumford and NNP- Briar Chapel, LLC shall conduct construction activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with section 303(d) of the Clean Water Act) and any other appropriate requirements of State law and federal law. If the Division determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the Division may reevaluate and modify this Certification to include conditions appropriate to assure compliance with such standards and requirements in accordance with 15A NCAC 2H.0507(d). Before modifying the Certification, the Division shall notify Mr. William S. Mumford and NNP- Briar Chapel, LLC and the US Army Corps of Engineers, provide public notice in accordance with 15A NCAC 2H.0503 and provide opportunity for public hearing in accordance with 15A NCAC 2H.0504. Any new or revised conditions shall be provided to Mr. William S. Mumford and NNP- Briar Chapel, LLC in writing, shall be provided to the United States Army Corps of Engineers for reference in any Permit issued

pursuant to Section 404 of the Clean Water Act, and shall also become conditions of the 404 Permit for the project;

7. Construction Stormwater Permit NCG010000

Upon the approval of an Erosion and Sedimentation Control Plan issued by the Division of Land Resources (DLR) or a DLR delegated local erosion and sedimentation control program, an NPDES General stormwater permit (NCG010000) administered by DWQ is automatically issued to the project. This General Permit allows stormwater to be discharged during land disturbing construction activities as stipulated by conditions in the permit. If your project is covered by this permit [applicable to construction projects that disturb one (1) or more acres], full compliance with permit conditions including the sedimentation control plan, self-monitoring, record keeping and reporting requirements are required. A copy of this permit and monitoring report forms may be found at [http://h2o.enr.state.nc.us/su/Forms\\_Documents.htm](http://h2o.enr.state.nc.us/su/Forms_Documents.htm).

Mitigation:

8. Compensatory Mitigation

Compensatory stream mitigation shall be accomplished by using 2,127 linear feet of stream mitigation credit at the Harpers Crossroads stream mitigation site and the remaining 27 linear feet of required stream credit (10:1 ratio = 270 linear feet) from the 63,412 linear feet of available onsite stream preservation. These mitigation efforts shall be protected through use of conservation easement written to satisfy the US Army Corps of Engineers. Uses which may be allowable in the protected stream buffers include water dependent activities and greenway trails upon additional written approval of the Division of Water quality and the US Army Corps of Engineers. These provisions should be explicitly reflected in the conservation easements, or similar mechanisms, written to satisfy the USACE.

The Permittee shall provide stream restoration in accordance with the plan entitled 'Harpers Crossroads Stream Restoration Plan,' dated September 2005. The restoration site, which was authorized with a separate DA nationwide permit (USACE Action Id No. 200420489) has already been constructed. The as-built report dated June 12, 2006 states the total stream restoration generated by the project as 2,127 linear feet. Within 90 days of the USACE's determination that the Harpers Crossroads Stream Restoration Project has met the success criteria outlined in the 'Harpers Crossroads Stream Restoration Plan,' the permittee shall arrange for the transfer of the existing conservation easements to a third-party grantee, subject to approval by the USACE.

Type of Impact	Compensatory Mitigation Required	River and Sub-basin Number
Stream (perennial)	2,154 (linear feet)	Cape Fear/03030002

9. Stormwater Management Plan Implementation Procedures (No Further Approval Needed)

- The approved SMP must be constructed and operational before any permanent building or other structure is occupied at the site. If a development is phased, then the approved SMP for each future phase must be constructed and operational before any permanent building or other structure associated with that phase is occupied.
- The approved SMP as well as drainage patterns must be maintained in perpetuity.
- The SMP may not be modified without prior written authorization from the SMP approval authority. If the SMP falls under another state stormwater program, then a copy of the approval letter and the modified SMP must be submitted to the 401 Oversight/Express Unit prior to the commencement of the modifications.

## 10. Culvert Installation

All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual ([http://www.ncdot.org/doh/operations/BMP\\_manual/download/BMP\\_Manual.pdf](http://www.ncdot.org/doh/operations/BMP_manual/download/BMP_Manual.pdf)) such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.

Culverts required for this project shall be installed in such a manner that the original stream profiles are not altered. Existing stream dimensions (including the cross section dimensions, pattern, and longitudinal profile) must be maintained above and below locations of each culvert. Culverts shall be designed and installed to allow for aquatic life movement as well as to prevent head cutting of the streams. If any of the existing pipes are or become perched, the appropriate stream grade shall be re-established or, if the pipes installed in a perched manner, the pipes shall be removed and re-installed correctly.

Culvert(s) shall not be installed in such a manner that will cause aggradation or erosion of the stream up or down stream of the culvert(s). Existing stream dimensions (including the cross section dimensions, pattern and longitudinal profile) shall be maintained above and below locations of each culvert.

Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in disequilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium shall be maintained if requested in writing by DWQ.

The establishment of native, woody vegetation and other soft stream bank stabilization techniques must be used where practicable instead of rip rap or other bank hardening methods. If rip-rap is necessary, it shall not be placed in the stream bed, unless specifically approved by the Division of Water Quality.

Installation of culverts in wetlands must ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions.

Upon completion of the project, the Applicant shall complete and return the enclosed "Certificate of Completion" form to notify NCDWQ when all work included in the §401 Certification has been completed. The responsible party shall complete the attached form and return it to the 401/Wetlands Unit of the NC Division of Water Quality upon completion of the project. *Please send photographs upstream and downstream of each culvert site to document correct installation along with the Certificate of Completion form.*

## 11. Certificate of Completion

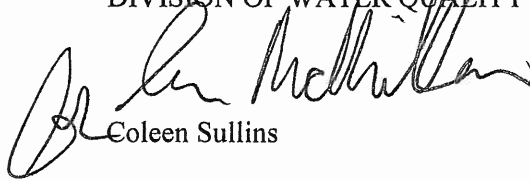
Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return the attached certificate of completion to the 401/Wetlands Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650.

**Also, this approval to proceed with your proposed impacts or to conduct impacts to waters as depicted in your application shall expire upon expiration of the 404 or CAMA Permit.**



If this Certification is unacceptable to you, you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 31<sup>st</sup> day of August 2009  
DIVISION OF WATER QUALITY



Coleen Sullins

CHS/cbk/ijm

3567

## Briar Chapel-Phase 16 Common Area

---

Statement regarding historical structure(s) and/or features

### 1. Archaeological Survey

- a. Based on the August 2006 report by ESI (entitled "An Intensive Cultural Resource Investigation: Briar Chapel, Chatham County, NC"), there are no cemeteries or structures eligible for the National Register within the project area of Phase 16 Common Area.

SUMMARY OF IMPERVIOUS SURFACE CALCULATIONS  
BRIAR CHAPEL DEVELOPMENT

July 10, 2015

**OVERALL IMPERVIOUS SUMMARY**

Total Site Area		1,589.36 ac
	TOTAL PHASE IMPERVIOUS (SF)	TOTAL PHASE IMPERVIOUS (AC)
Total Phase 2	230,840	5.30 ac
Total Phase 4	2,645,299	60.73 ac
Total Phase 5S	167,420	3.84 ac
Total Phase 5N	801,283	18.39 ac
Total Phase 6S	821,992	18.87 ac
Total Phase 6N	588,450	13.51 ac
Total Phase 7	1,099,106	25.23 ac
Total Phase 8	506,074	11.62 ac
Total Phase 9	575,904	13.22 ac
Total Phase 10	470,400	10.80 ac
Total Phase 11	809,359	18.58 ac
Total Phase 12	1,124,323	25.81 ac
Total Phase 13	278,524	6.39 ac
Total Phase 14	243,632	5.59 ac
Phase 15S	794,230	18.23 ac
Phase 15N	240,950	5.53 ac
Phase 16S	645,900	14.83 ac
Phase 16N	424,901	9.75 ac
County Park	76,314	1.75 ac
County School	318,823	7.32 ac
Woods Charter School	180,911	4.15 ac
Water Tank Site	13,755	0.32 ac
Water Treatment Plant	38,590	0.89 ac
BC Civic Building	41,274	0.95 ac
BC SD North	153,103	3.51 ac
BC Tennis Center	122,625	2.82 ac
Andrews Store Connector	41,968	0.96 ac
BC Town Center (SD East)	1,353,948	31.08 ac
<b>Total Impervious</b>	<b>14,809,898</b>	<b>339.99</b>
<b>Total Impervious Percent</b>	<b>21.39%</b>	

July 10, 2015

Lynn Richardson  
Chatham County Planning  
80-A East Street  
Pittsboro, NC 27312-0107

Re: Briar Chapel Phase 16 Common Area-Conditional Use Permit Stipulations

Dear Ms. Richardson:

The following are our responses to the Conditional Use Permit Stipulations for Briar Chapel Phase 16 Common Area.

1. Construction Deadlines
  - a. Estimated Start Date: September 1, 2015
  - b. Estimated Completion Date: December 1, 2015
  
2. Land Use Intensity
  - a. Overall Briar Chapel
    - i. Gross land area (acres) = 1,589
    - ii. Maximum impervious surface area = 24%
    - iii. Maximum number of dwelling units = 2,500
  
  - b. Phase 16 Common Area
    - i. Gross land area (acres) = 5.55
    - ii. Impervious surface area (acres) = 0
    - iii. Number of dwelling units = 0
    - iv. Maximum impervious surface (relative to overall) = 0%
    - v. \*Cumulative impervious surface = 21.39%

Venture IV Building

Suite 500

1730 Varsity Drive

Raleigh, NC 27606

919.233.8091

Fax 919.233.8031

www.mckimcreed.com

\*Cumulative percentage is based on actual phase design for phases platted prior to Phase 16 Common Area and projected for future phases.

3. Watershed Management
  - a. Updated impervious surface calculations are included with this submittal.

4. Stormwater Management
  - a. Not applicable for this phase.
5. Commercial Use
  - a. Commercial use is not proposed in this phase.
6. Lighting Plan
  - a. There is no lighting proposed in this phase.
7. Utility and Access Easements
  - a. Not applicable for this phase.
8. Unity of Development
  - a. Not applicable for this phase.
9. Permits
  - a. Applicable permits required for Preliminary Plat have been obtained and are included within this submittal.
10. Improvements
  - a. No off-site improvements are necessary for this phase.
11. Parking and off-street loading areas
  - a. No parking or off-street loading areas are proposed for this phase.
12. Streets
  - a. No streets are proposed for this phase.
13. Utilities
  - a. No utilities are proposed for this phase.
14. Public Facilities
  - a. The public facilities listed in the Conditional Use Permit are not proposed within this phase.
15. Landscaping/Screening
  - a. Not applicable in this phase.
16. Archaeological Survey
  - a. Based on the August 2006 report by ESI (entitled "An Intensive Cultural Resource Investigation: Briar Chapel, Chatham County, NC"), there are no cemeteries or structures eligible for the National Register within the project area of Phase 16 Common Area.
17. Solid Waste Management Plan
  - a. A solid waste management plan has been previously submitted and no changes are proposed for this phase.

18. Detailed site plan
  - a. Not applicable in this phase.
19. Stages
  - a. Phase 16 Common Area will be constructed as a phase of the overall Briar Chapel development.
20. Moderate Income Housing
  - a. Not applicable in this phase.
21. Environment
  - a. This stipulation involves the Bennett Mountain area of the development. Phase 16 Common Area is not located in or near the Bennett Mountain area.
22. Erosion Control
  - a. The approved erosion control plan and permit are included with this submittal.
23. Silt Control
  - a. Silt control is part of the approved erosion control plan. See response to Erosion Control above.
24. Items #24-#29 in the CUP Stipulation List
  - a. Items #24-#29 are duly noted.

If you have any questions during your review, please do not hesitate to call me at (919) 233-8091. Thank you for your assistance.

Sincerely,  
McKim & Creed, Inc.



Chris Seamster, PLA  
Project Manager

Cc: Mr. Lee Bowman

# BRIAR CHAPEL

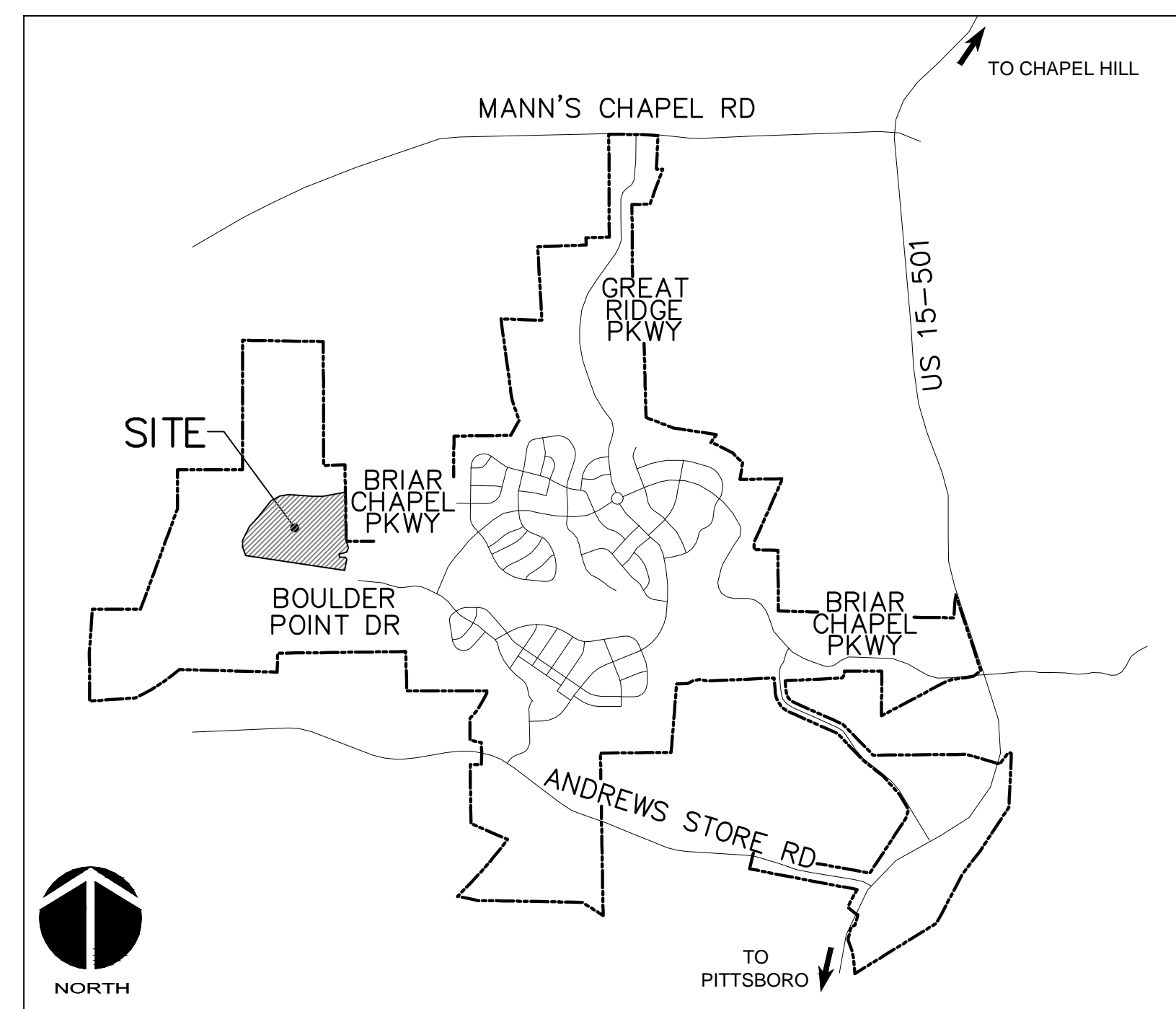
## PHASE 16 EARLY GRADING

## CONSTRUCTION DOCUMENTS

U.S. HWY 15-501 and MANN'S CHAPEL ROAD  
CHATHAM COUNTY, NORTH CAROLINA

DATE: MAY 13, 2015

COUNTY AND AGENCY CONTACTS	
A. Chatham County Planning Department Dunlap Building 80 East Street Pittsboro, NC 27312 (919) 542-8204 phone Contact: Jason Sullivan Email: jason.sullivan@chathamnc.org	B. Chatham County Soil Erosion and Sedimentation Control Dunlap Building 80 East Street Pittsboro, NC 27312 (919) 545-8339 phone Contact: Rachael Thorn Email: rachael.thorn@chathamnc.org



VICINITY MAP  
NTS

### PROJECT DATA

NAME OF PROJECT:  
PHASING 16 EARLY GRADING  
CHATHAM COUNTY, NORTH CAROLINA

OWNER:  
NNP BRIAR CHAPEL, LLC  
16 WINDY KNOLL CIRCLE  
CHAPEL HILL, NC 27516  
PHONE: (919) 951-0700  
FAX: (919) 240-4963  
CONTACT: LEE BOWMAN  
EMAIL: lbowman@newlandco.com

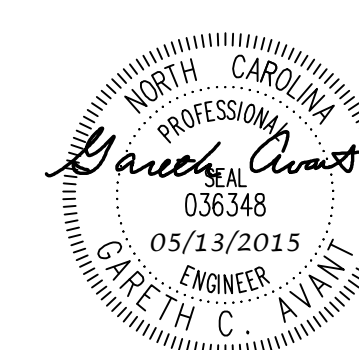
PREPARED BY:  
McKIM & CREED  
1730 VARSITY DRIVE, SUITE 500  
RALEIGH, NORTH CAROLINA 27606  
PHONE: (919) 233-8091  
FAX: (919) 233-8031  
CONTACT: GARETH AVANT, PE  
EMAIL: gavant@mckimcreed.com

PROJECT AREA: 9.58 AC

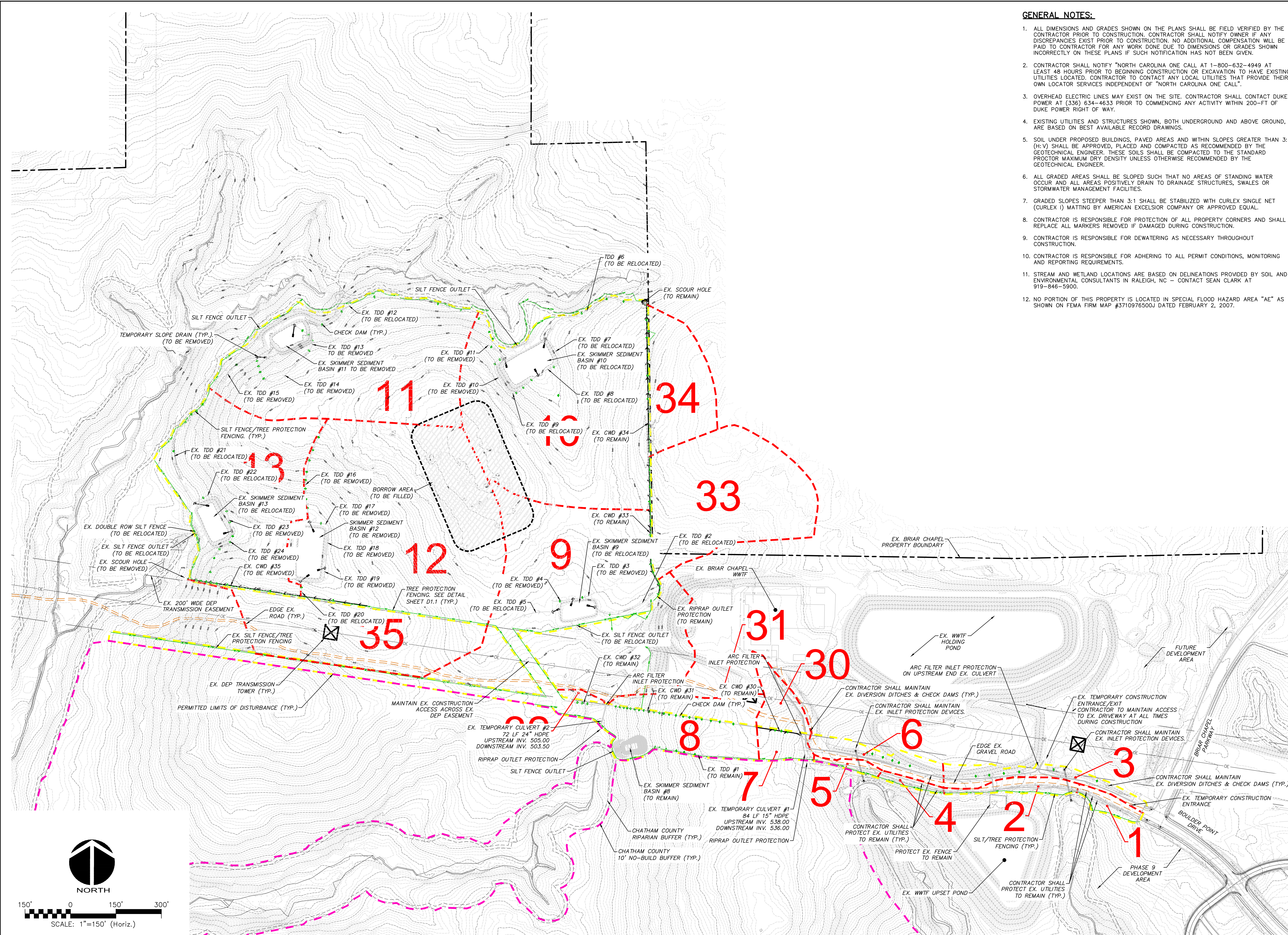
These improvements shall be constructed in accordance with the following plans, and the Standard Specifications of NCDOT and Chatham County.

### SHEET INDEX

C0.1	COVER SHEET
C1.0	EXISTING CONDITIONS, DEMOLITION & APPROVED STAGE 1 EROSION CONTROL PLAN
C2.0	OVERALL STAGE 2 EROSION CONTROL PLAN
C2.1	STAGE 2 EROSION CONTROL PLAN
C2.2	STAGE 2 EROSION CONTROL PLAN
C2.3	STAGE 2 EROSION CONTROL PLAN
C2.4	STAGE 2 EROSION CONTROL PLAN
C3.0	OVERALL STAGE 3 EROSION CONTROL PLAN
C3.1	STAGE 3 OVERALL CLEARING AND GRUBBING PLAN
C3.2	STAGE 3 CLEARING AND GRUBBING PLAN
C3.3	STAGE 3 CLEARING AND GRUBBING PLAN
C3.4	STAGE 3 CLEARING AND GRUBBING PLAN
D1.1	DETAILS
D1.2	DETAILS

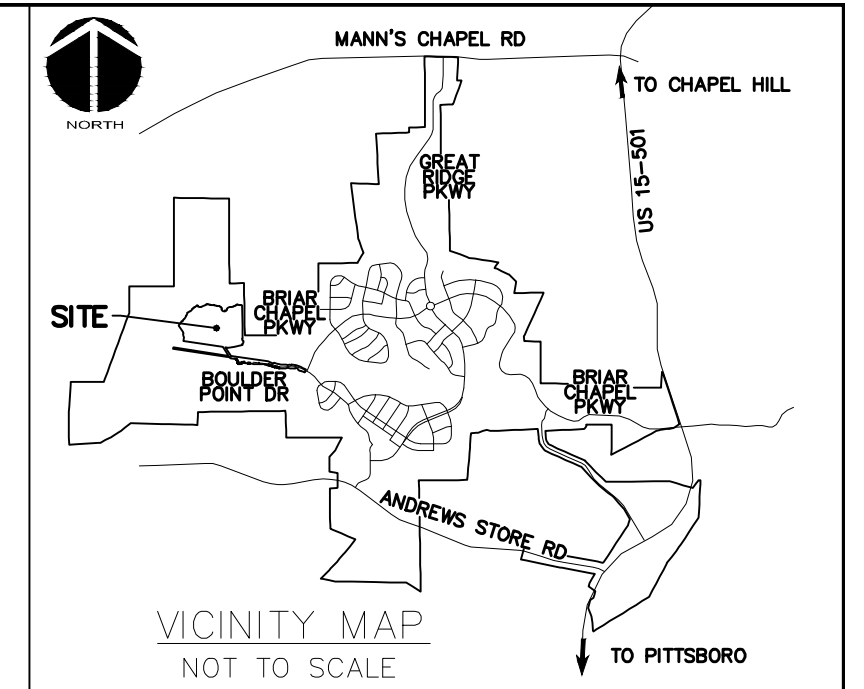


ISSUED FOR  
CONSTRUCTION



**GENERAL NOTES:**

- ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER IF ANY DISCREPANCIES EXIST PRIOR TO CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE PAID TO CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- CONTRACTOR SHALL NOTIFY "NORTH CAROLINA ONE CALL" AT 1-800-632-4949 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR TO CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NORTH CAROLINA ONE CALL".
- OVERHEAD ELECTRIC LINES MAY EXIST ON THE SITE. CONTRACTOR SHALL CONTACT DUKE POWER AT (336) 634-4633 PRIOR TO COMMENCING ANY ACTIVITY WITHIN 200'-FT OF DUKE POWER RIGHT OF WAY.
- EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON BEST AVAILABLE RECORD DRAWINGS.
- SOIL UNDER PROPOSED BUILDINGS, PAVED AREAS AND WITHIN SLOPES GREATER THAN 3:1 (H:V) SHALL BE APPROVED, PLACED AND COMPACTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. THESE SOILS SHALL BE COMPACTED TO THE STANDARD PROCTOR MAXIMUM DRY DENSITY UNLESS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- ALL GRADED AREAS SHALL BE SLOPED SUCH THAT NO AREAS OF STANDING WATER OCCUR AND ALL AREAS POSITIVELY DRAIN TO DRAINAGE STRUCTURES, SWALES OR STORMWATER MANAGEMENT FACILITIES.
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- CONTRACTOR IS RESPONSIBLE FOR DEWATERING AS NECESSARY THROUGHOUT CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL PERMIT CONDITIONS, MONITORING AND REPORTING REQUIREMENTS.
- STREAM AND WETLAND LOCATIONS ARE BASED ON DELINEATIONS PROVIDED BY SOIL AND ENVIRONMENTAL CONSULTANTS IN RALEIGH, NC - CONTACT SEAN CLARK AT 919-846-5900.
- NO PORTION OF THIS PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD AREA "AE" AS SHOWN ON FEMA FIRM MAP #3710976500J DATED FEBRUARY 2, 2007.



**LIMITS OF DISTURBANCE NOTES:**

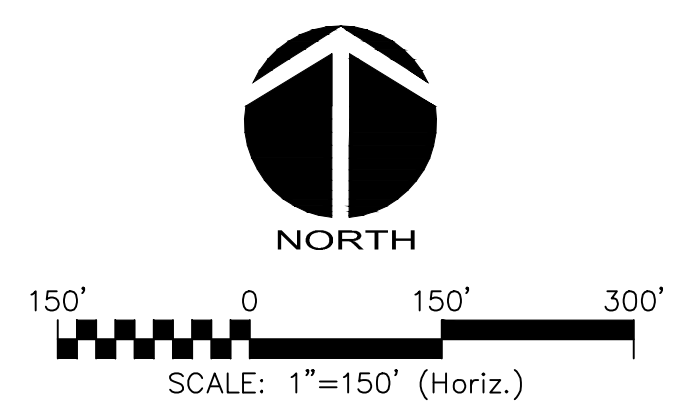
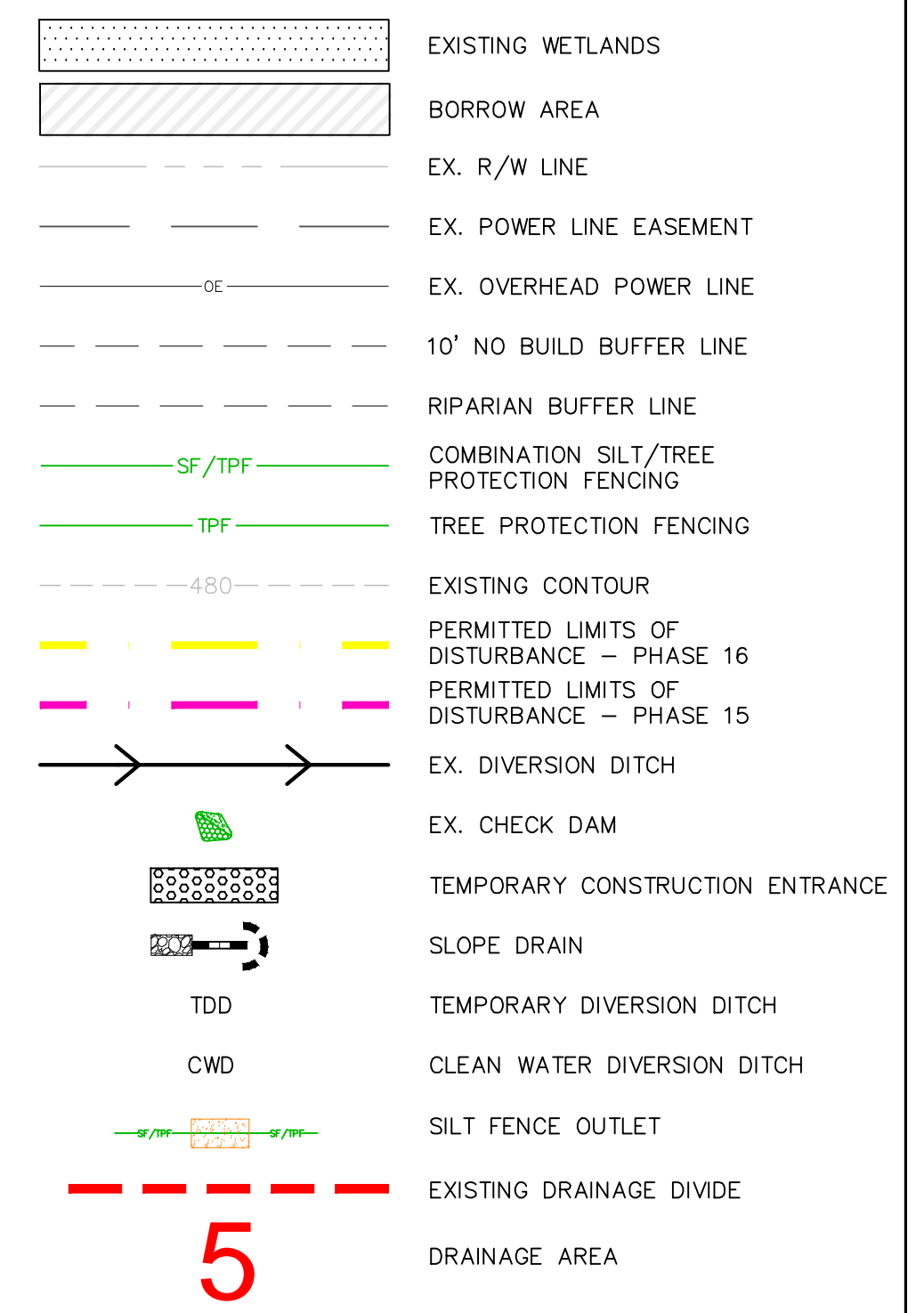
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- SILT FENCE AND TREE PROTECTION FENCE LINES ALSO DELINEATE THE LIMITS OF DISTURBANCE. ALL SILT FENCING OR TREE PROTECTION FENCING SHALL BE INSTALLED INSIDE LIMITS OF DISTURBANCE.
- TOTAL DISTURBED AREA: 9.58

**SELF INSPECTION NOTICE:**

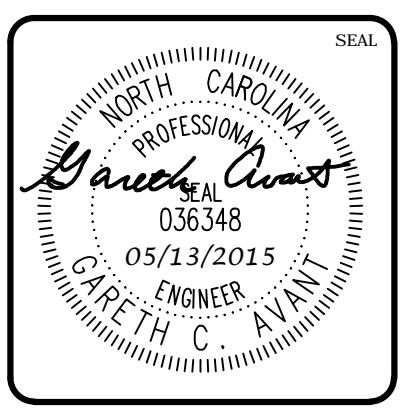
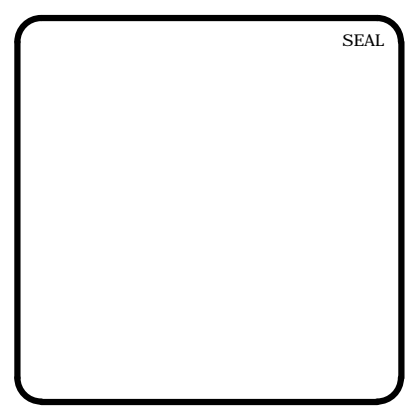
**NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM:**  
 THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH STAGE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010. THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS MUST BE CONDUCTED AFTER EACH STAGE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCGS 113A-54.1 AND 15A NCA 48.031. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM [HTTP://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION\\_NEW.HTML](http://www.dlr.enr.state.nc.us/PAGES/SEDIMENTATION_NEW.HTML). IF YOU HAVE QUESTIONS OR CANNOT ACCESS THE FORM, PLEASE CONTACT THIS OFFICE AT (919) 791-4200.

NPDES GROUNDCOVER STABILIZATION TIMEFRAMES		
SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	14 DAYS FOR SLOPES 10' OR LESS IN LENGTH AND NOT STEEPER THAN 2:1
SLOPES 3:1 OR FLATTER	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 HOW ZONES

**LEGEND:**



REV. NO.	ISSUED FOR CONSTRUCTION	DESCRIPTIONS	DATE
1	ISSUED FOR CONSTRUCTION		2015.05.13



**MCKIM & CREED**  
 1730 Varsity Drive, Suite 500  
 Raleigh, North Carolina 27606  
 Phone: (919)233-8091, Fax: (919)233-8031  
 F-1222  
[www.mckimcreed.com](http://www.mckimcreed.com)

**BRIAR CHAPEL™**  
 by  
**Newland COMMUNITIES**

**BRIAR CHAPEL  
 PHASE 16 EARLY GRADING  
 CHATHAM COUNTY, NORTH CAROLINA  
 EXISTING CONDITIONS, DEMOLITION &  
 APPROVED STAGE 1 EROSION  
 CONTROL PLAN**

DATE: MARCH 26, 2015	SCALE: HORIZONTAL: 1" = 150'	PROJECT NUMBER: C1.1
MCE PROJ. #: 02735-0101	VERTICAL: N/A	DRAWING NUMBER: C1.0
DRAWN: GCA		
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS ISSUED FOR CONSTRUCTION	REVISION: A	

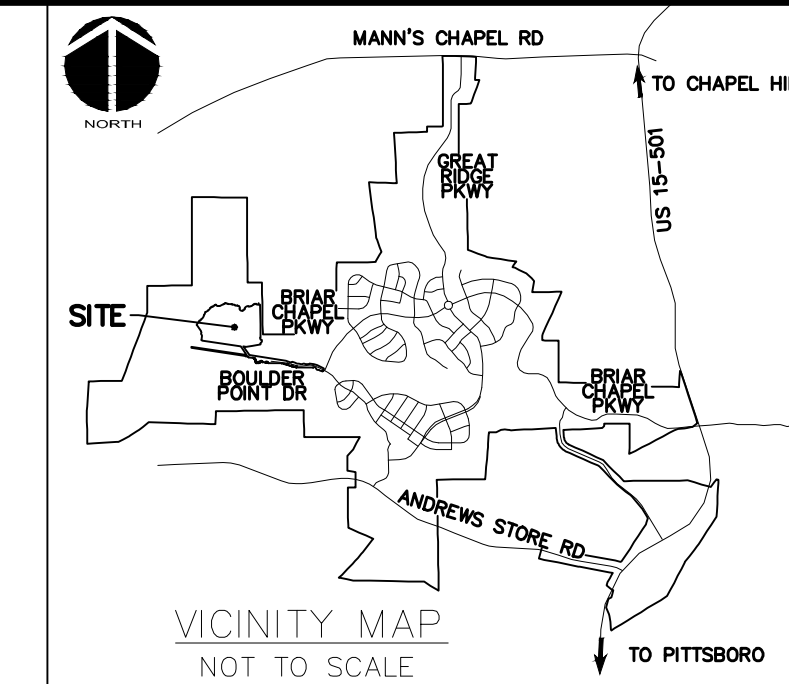


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- NO PORTION OF THIS PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD AREA "AE" AS SHOWN ON FEMA FIRM MAP #3710976500J DATED FEBRUARY 2, 2007.

**STAGE 2 CONSTRUCTION SEQUENCE:**

- THE INTENT OF THE CONSTRUCTION SEQUENCE IS TO PROVIDE THE CONTRACTOR WITH A GENERAL GUIDE FOR CONSTRUCTION PURPOSES. THIS SEQUENCE IS NOT INTENDED TO OUTLINE ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.
- ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER RAINFALL EVENTS. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY.
- IF IT IS DETERMINED DURING CONSTRUCTION THAT SIGNIFICANT SEDIMENT IS LEAVING THE SITE, DESPITE PROPER IMPLEMENTATION AND MAINTENANCE, THE CONTRACTOR IS OBLIGATED TO TAKE ADDITIONAL CORRECTIVE ACTION. CONTACT CHATHAM COUNTY ENVIRONMENTAL QUALITY DEPARTMENT, OWNER'S REPRESENTATIVE AND ENGINEER WITH ANY ADDITIONAL MEASURES NEEDED.
- CONTRACTOR SHALL ESTABLISH GROUNDCOVER ON DISTURBED AREAS WITHIN THE NUMBER OF CALENDAR DAYS AFTER COMPLETION OF GRADING PER THE SCHEDULE BELOW:  
 GRADUAL SLOPES: (14) CALENDAR DAYS  
 MODERATE SLOPES: (10) CALENDAR DAYS  
 STEEP SLOPES: (7) CALENDAR DAYS  
 SLOPES ARE AS DEFINED IN THE CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.
- CONTRACTOR SHALL ARRANGE PRE-CONSTRUCTION MEETING WITH THE OWNER'S REPRESENTATIVE, ENGINEER AND CHATHAM COUNTY.
- OBTAIN LETTER OF PLAN APPROVAL FOR SEDIMENTATION AND EROSION CONTROL FROM CHATHAM COUNTY SOIL EROSION & SEDIMENTATION CONTROL.
- CONTRACTOR TO POST EROSION CONTROL PERMIT PROMINENTLY ON SITE AT ALL TIMES.
- CONTRACTOR TO VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES TO AVOID CONFLICT DURING INSTALLATION OF EROSION CONTROL MEASURES AND STORM DRAINAGE. CONTRACTOR IS TO CALL 1-800-632-4949 FOR "NC ONE CALL" TO HAVE UTILITIES LOCATED.
- CONTRACTOR TO HAVE A PROFESSIONAL LAND SURVEYOR FLAG PROPERTY LINES, EASEMENTS, LANDSCAPE BUFFERS, STREAM BUFFERS, TREE PROTECTION AREAS AND LIMITS OF DISTURBANCE.
- CONTRACTOR SHALL MAINTAIN ALL EXISTING STAGE 1 EROSION CONTROL MEASURES UNTIL NEW DOWNSTREAM MEASURES HAVE BEEN INSTALLED AND ARE OPERATIONAL.
- INSTALL ADDITIONAL TREE PROTECTION FENCING AND SILT FENCING AS SHOWN AND DETAILED ON PLAN. TIMBER ONLY AS NECESSARY TO INSTALL THESE DEVICES.
- INSTALL SKIMMER SEDIMENT BASIN #9 & #10 AND RISER BARREL SEDIMENT BASIN #13 TO THE REQUIRED DIMENSIONS AND ELEVATIONS AS DETAILED IN THESE PLANS. GRUB ONLY AS NECESSARY TO INSTALL THE BASINS. MATERIAL EXCAVATED DURING THE CONSTRUCTION OF SEDIMENT BASINS SHALL BE TEMPORARILY STOCKPILED ADJACENT TO BASINS. ONCE ROUGH GRADING OPERATIONS BEGIN, THESE MATERIALS SHALL BE PLACED AS NEEDED IN AREAS OF FILL OR MOVED TO LARGER STOCKPILE AREAS.
- INSTALL BARRIERS PER PLAN. SEED AND MULCH SIDE SLOPES OF SEDIMENT BASINS UPON COMPLETION. INSTALL BIODEGRADABLE MATTING ON SIDE SLOPES OF BASINS IF NECESSARY TO ESTABLISH COVER.
- EXISTING BASINS SHOULD ONLY BE REMOVED AS STORM DRAINAGE SYSTEM, EMBANKMENTS AND GRADING RENDER THEM NO LONGER USEFUL. BASIN #13 TO BE FULLY CONSTRUCTED AND OPERATIONAL BEFORE RECEIVING DRAINAGE FROM OTHER BASINS.
- ADJUST TEMPORARY DIVERSION DITCH ROUTING TO DIRECT RUNOFF INTO THESE NEW BASINS AS SHOWN IN THESE PLANS. THE CONTRACTOR SHALL FILL EXISTING SEDIMENT BASINS #9, #10 & #11 AS NECESSARY TO PROVIDE POSITIVE DRAINAGE INTO THE NEW BASINS.
- CONTACT CHATHAM COUNTY SOIL EROSION & SEDIMENTATION AT 919-545-8339 AND ENGINEER UPON COMPLETION OF INITIAL EROSION CONTROL MEASURES.
- ONLY AFTER RELOCATED DIVERSIONS HAVE BEEN INSTALLED, APPROVED BY CHATHAM COUNTY AND ARE FUNCTIONING AS INTENDED SHALL THE CONTRACTOR REMOVE THE REMAINDER OF THE TEMPORARY SEDIMENT BASINS.
- CONTRACTOR SHALL STRIP TOPSOIL IN NEWLY DENUDED AREAS AND STORE AT DESIGNATED LOCATION. PROVIDE SILT FENCE AROUND PERIMETER OF SLOPE OF ANY STOCKPILE LOCATIONS. CONTRACTOR SHALL REMOVE ALL ROOT MATTER AND ORGANICS FROM WITHIN THE CLEARING LIMITS.
- AFTER COMPLETION OF CLEARING AND GRUBBING, THE SITE SHALL BE TEMPORARILY STABILIZED EXCEPT IN AREAS OF ACTIVE CUT/FILL. ACTIVE AREAS SHOULD NOT EXCEED 25 ACRES AT ONE TIME.
- BEGIN ROUGH GRADING WITHIN CLEARING LIMITS.
- MAINTAIN AND PROTECT EXISTING UTILITIES AT ALL TIMES. MAINTAIN DIVERSION DITCHES, BASINS, SILT FENCE AND OTHER EROSION CONTROL MEASURES UNTIL THEY ARE APPROVED TO BE REMOVED.
- PERFORM SEEDING AND MULCHING AS REQUIRED IN ACCORDANCE WITH THE PLANS.



**LIMITS OF DISTURBANCE NOTES:**

- LIMITS OF DISTURBANCE LINES ARE CLEARING LIMIT LINES WHICH WILL BE FLAGGED FOR A MINIMUM OF ONE PER 50-FT OR CLOSER DEPENDING ON VISIBILITY.
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**TOTAL DISTURBED AREA: 9.58 ACRES**

**SELF INSPECTION NOTICE:**

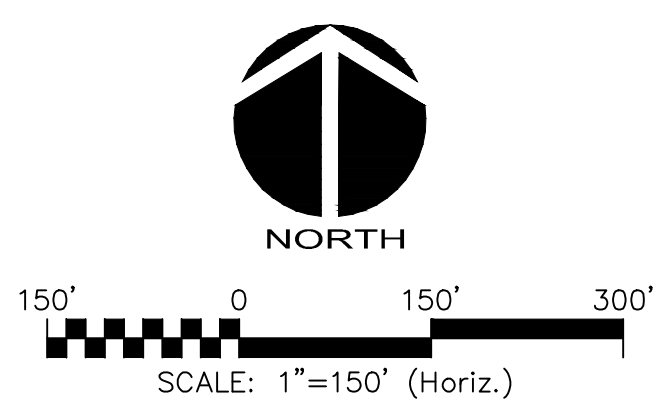
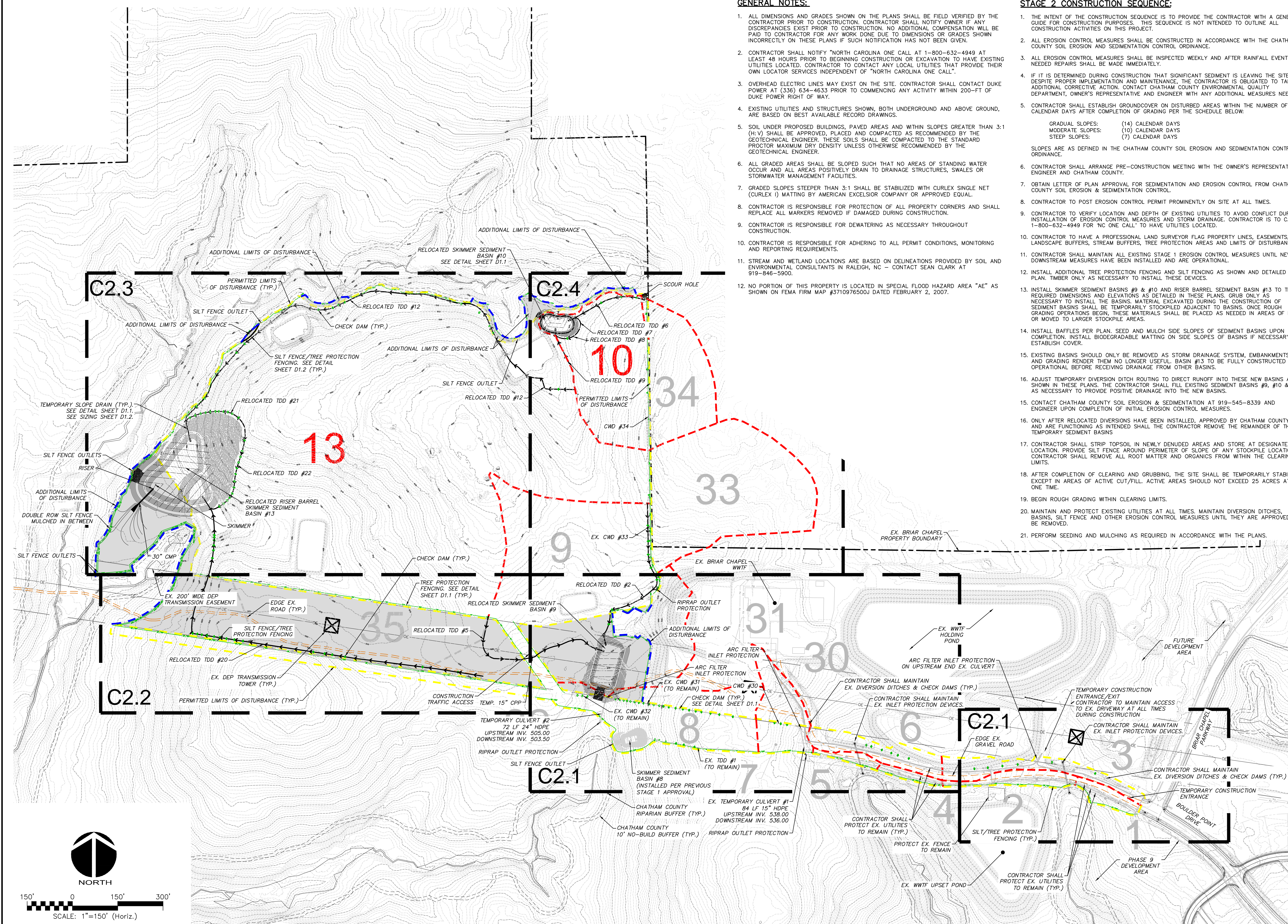
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**NPDES GROUNDCOVER STABILIZATION TIMEFRAMES**

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	14 DAYS FOR SLOPES 1:1 OR LESS IN LENGTH AND NOT STEEPER THAN 2:1
SLOPES 3:1 OR FLATTER	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 PERIMETER AND HQW ZONES

**LEGEND:**

- EXISTING WETLANDS
- ADDITIONAL DISTURBED AREA
- EX. R/W LINE
- EX. POWER LINE EASEMENT
- EX. OVERHEAD POWER LINE
- 10' NO-BUILD BUFFER LINE
- RIPARIAN BUFFER LINE
- COMBINATION SILT/TREE PROTECTION FENCING
- TREE PROTECTION FENCING
- EXISTING CONTOUR
- PERMITTED LIMITS OF DISTURBANCE - PHASE 16
- ADDITIONAL LIMITS OF DISTURBANCE
- EXISTING DIVERSION DITCH
- NEW DIVERSION DITCH
- NEW CHECK DAM
- TEMPORARY CONSTRUCTION ENTRANCE
- SLOPE DRAIN
- TEMPORARY DIVERSION DITCH
- CLEAN WATER DIVERSION DITCH
- SILT FENCE OUTLET
- REVISED DRAINAGE DIVIDE
- EXISTING DRAINAGE AREA
- DRAINAGE AREA



REV. NO.	ISSUED FOR CONSTRUCTION	DESCRIPTIONS	REVISIONS	DATE
A	ISSUED FOR CONSTRUCTION			2015.05.13

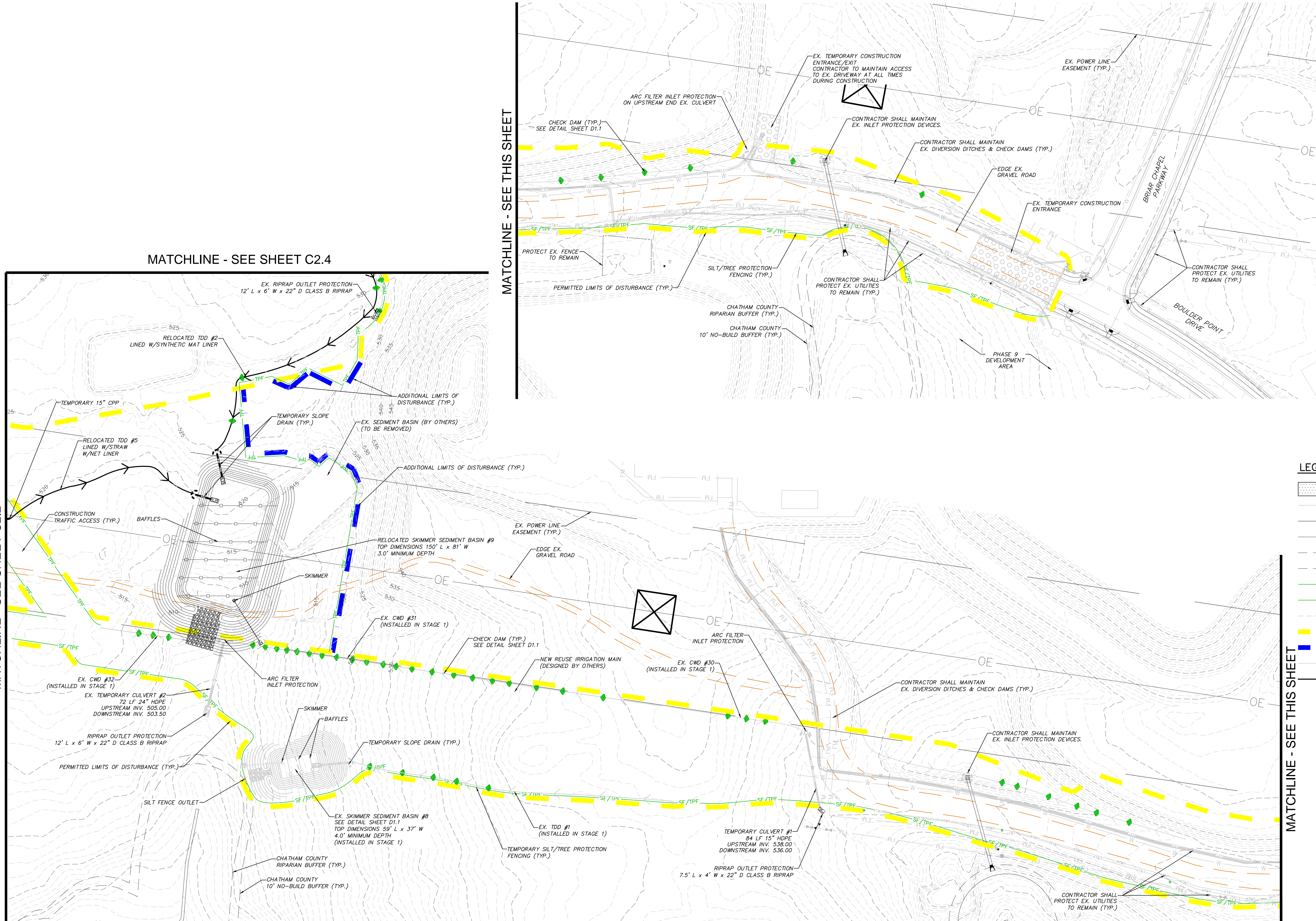
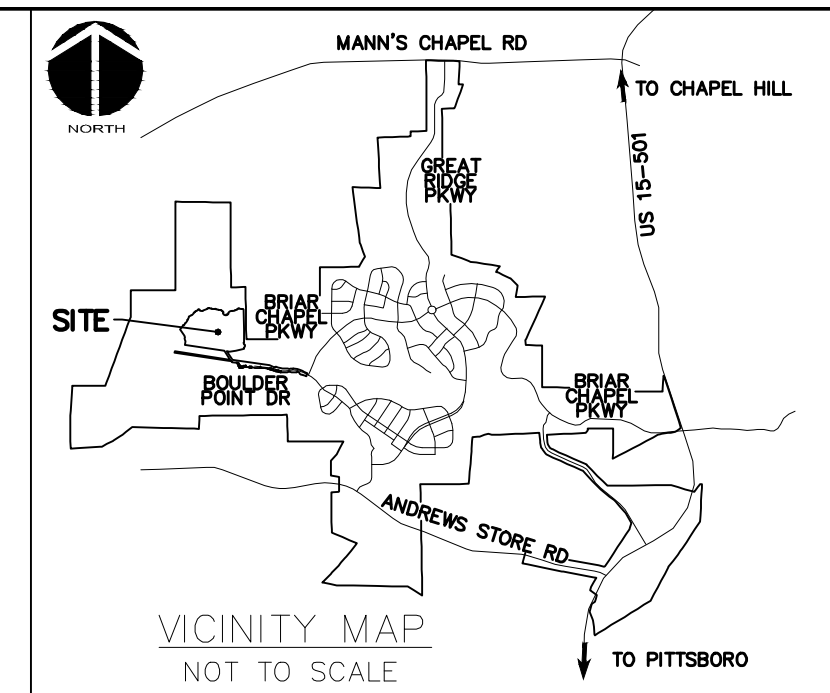
SEAL  
 NORTH CAROLINA PROFESSIONAL ENGINEER  
 G. BREATH C. AVANT  
 05/13/2015  
 ENGINEER

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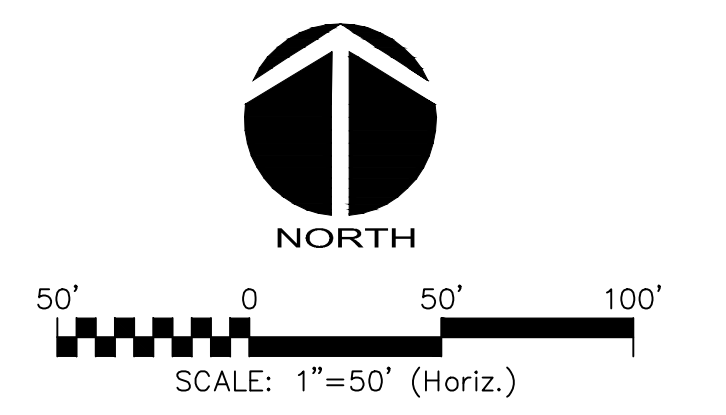
**BRIAR CHAPEL  
 PHASE 16 EARLY GRADING  
 CHATHAM COUNTY, NORTH CAROLINA**  
**OVERALL STAGE 2 EROSION CONTROL PLAN**

DATE: MARCH 26, 2015	SCALE: HORIZONTAL: 1" = 150'	N&C FILE NUMBER: C1.1
MCE PROJ. #: 02735-0101	VERTICAL: N/A	DRAWING NUMBER: C2.0
DRAWN: GCA		
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS ISSUED FOR CONSTRUCTION	REVISION: A	



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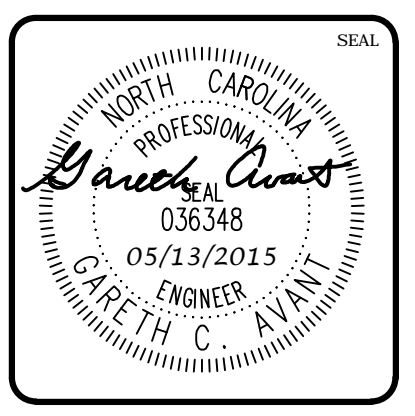
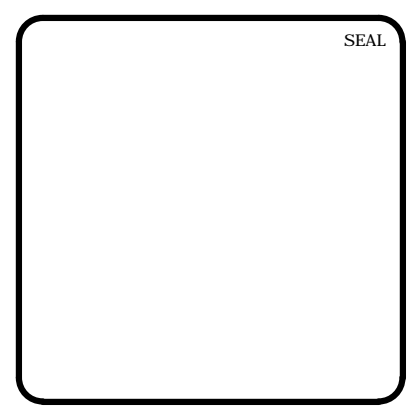
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[Symbol]	EX. R/W LINE
[Symbol]	EX. POWER LINE EASEMENT
[Symbol]	EX. OVERHEAD POWER LINE
[Symbol]	10' NO BUILD BUFFER LINE
[Symbol]	RIPARIAN BUFFER LINE
[Symbol]	COMBINATION SILT/TREE PROTECTION FENCING
[Symbol]	TREE PROTECTION FENCING
[Symbol]	EXISTING CONTOUR
[Symbol]	PERMITTED LIMITS OF DISTURBANCE - PHASE 16
[Symbol]	ADDITIONAL LIMITS OF DISTURBANCE
[Symbol]	STAGE 1 DIVERSION DITCH
[Symbol]	STAGE 2 DIVERSION DITCH
[Symbol]	NEW CHECK DAM
[Symbol]	TEMPORARY CONSTRUCTION ENTRANCE
[Symbol]	SLOPE DRAIN
[Symbol]	TEMPORARY DIVERSION DITCH
[Symbol]	CWD
[Symbol]	CLEAN WATER DIVERSION DITCH
[Symbol]	SILT FENCE OUTLET



MATCHLINE - SEE SHEET C2.2

MATCHLINE - SEE THIS SHEET

REV. NO.	ISSUED FOR CONSTRUCTION	DESCRIPTIONS	DATE
A	ISSUED FOR CONSTRUCTION		2015.05.13



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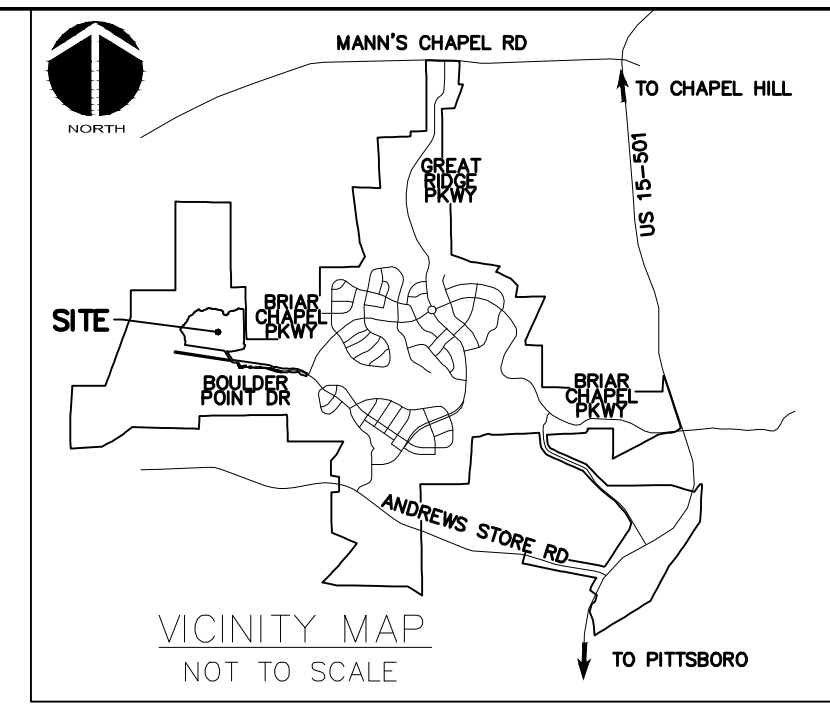
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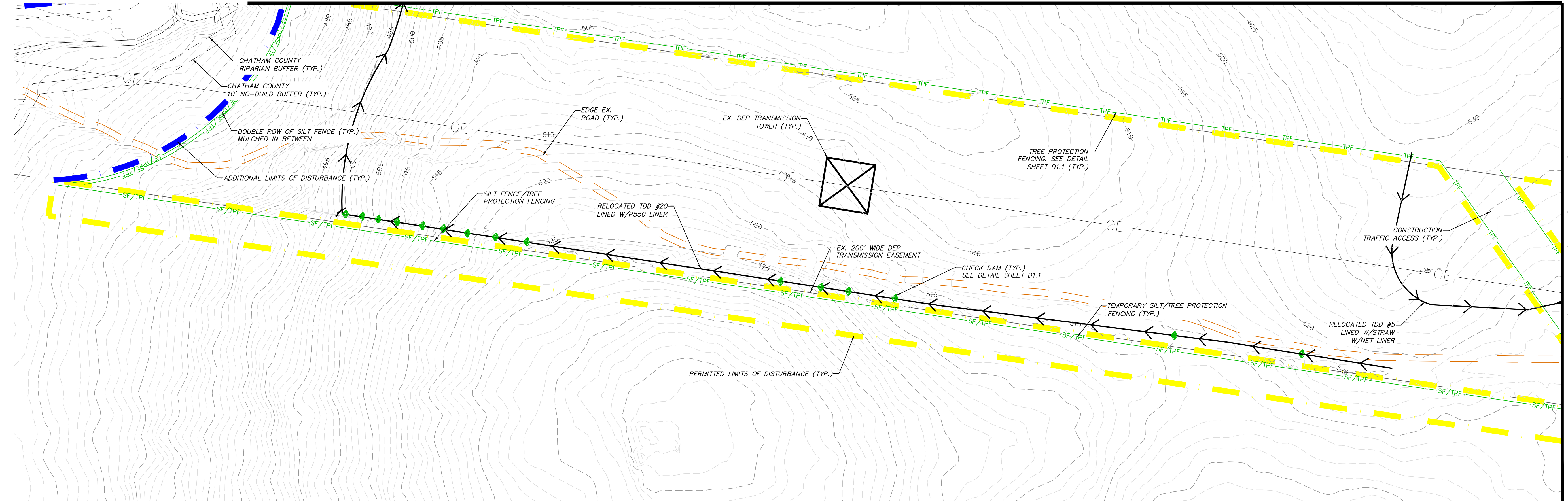
**BRIAR CHAPEL  
 PHASE 16 EARLY GRADING  
 CHATHAM COUNTY, NORTH CAROLINA**

**STAGE 2 EROSION CONTROL PLAN**

DATE: MARCH 26, 2015	SCALE: HORIZONTAL: 1" = 50'	MBC FILE NUMBER: C1.1
MCE PROJ. # 02735-0101	DESIGNED: GCA	DRAWING NUMBER: C2.1
CHECKED: CHS	PROJ. MGR: CHS	REVISION: A
STATUS: FINAL DRAWINGS ISSUED FOR CONSTRUCTION		



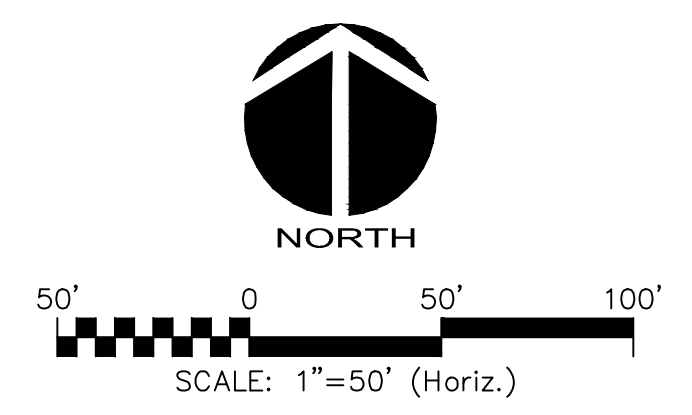
MATCHLINE - SEE SHEET C2.3



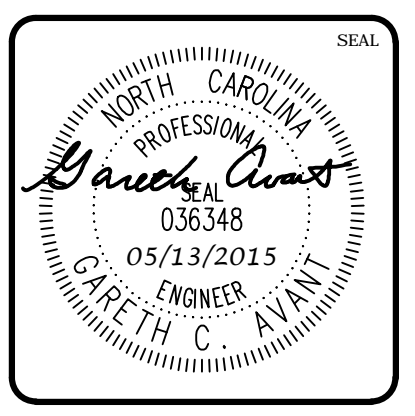
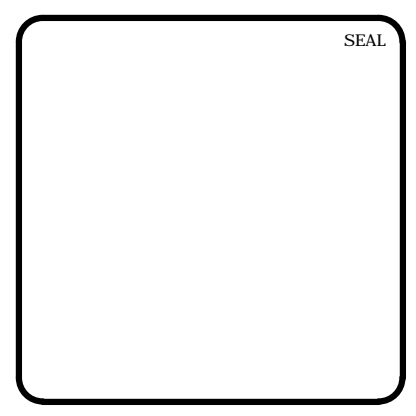
MATCHLINE - SEE SHEET C2.1

LEGEND:

- EXISTING WETLANDS
- EX. R/W LINE
- EX. POWER LINE EASEMENT
- EX. OVERHEAD POWER LINE
- 10' NO BUILD BUFFER LINE
- RIPARIAN BUFFER LINE
- COMBINATION SILT/TREE PROTECTION FENCING
- TREE PROTECTION FENCING
- EXISTING CONTOUR
- PERMITTED LIMITS OF DISTURBANCE - PHASE 16
- ADDITIONAL LIMITS OF DISTURBANCE
- STAGE 1 DIVERSION DITCH
- STAGE 2 DIVERSION DITCH
- NEW CHECK DAM
- TEMPORARY CONSTRUCTION ENTRANCE
- SLOPE DRAIN
- TDD
- CWD
- SILT FENCE OUTLET



REV. NO.	ISSUED FOR CONSTRUCTION	DATE
A	ISSUED FOR CONSTRUCTION	2015.05.13

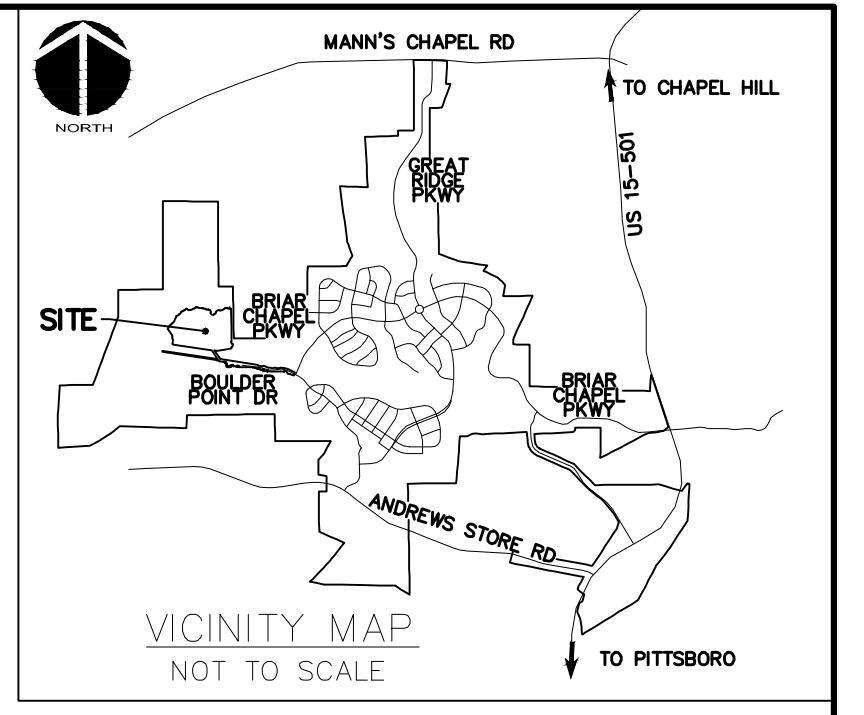
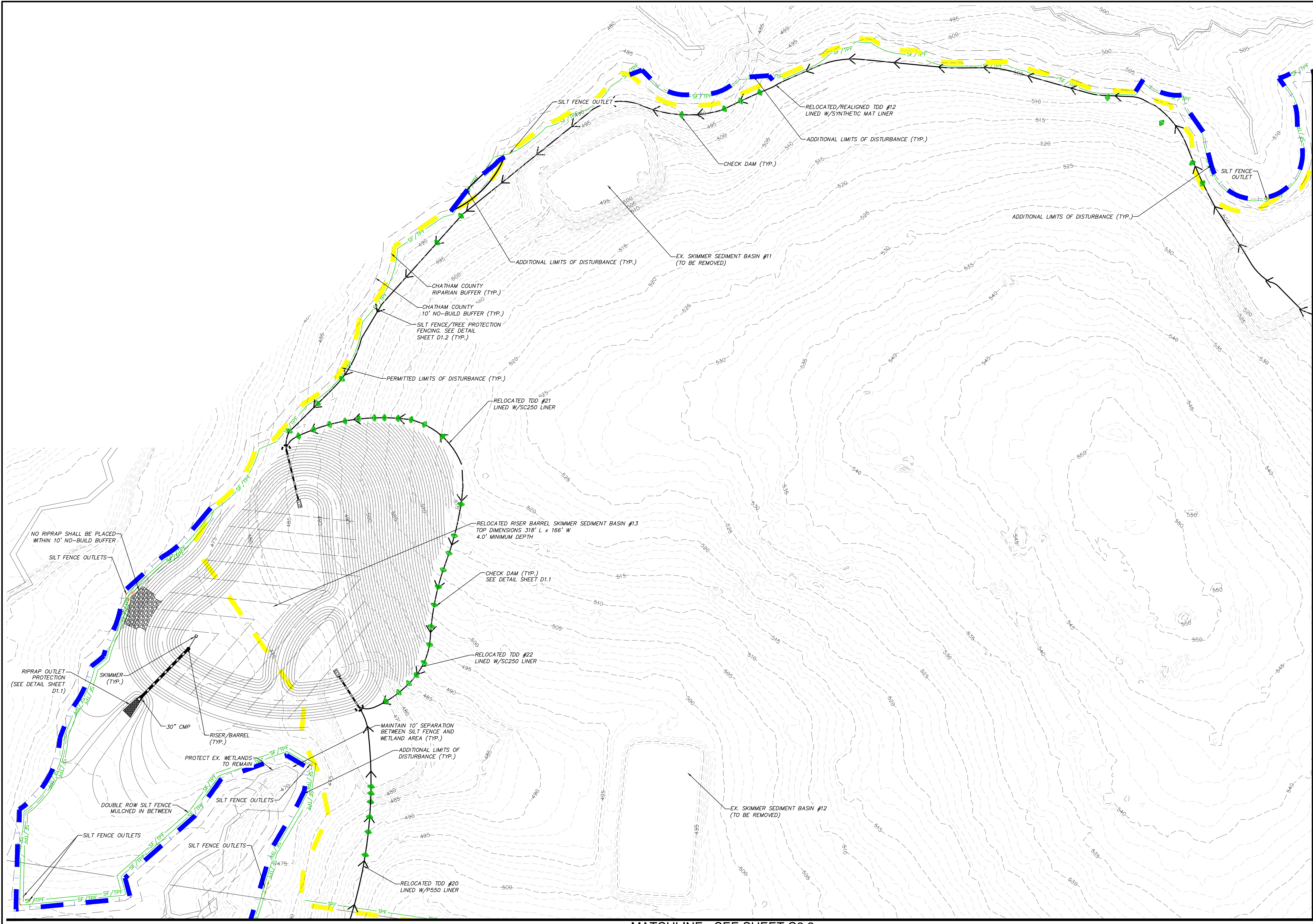


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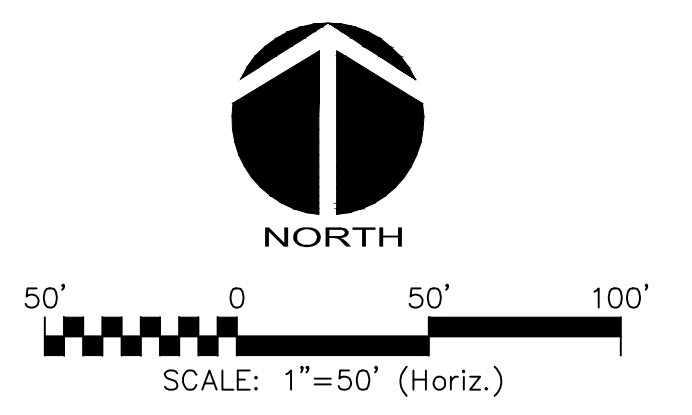
**BRIAR CHAPEL  
 PHASE 16 EARLY GRADING  
 CHATHAM COUNTY, NORTH CAROLINA**  
**STAGE 2 EROSION CONTROL PLAN**

DATE: MARCH 26, 2015	SCALE: HORIZONTAL: 1" = 50'	M&C FILE NUMBER: C1.1
M&C PROJ. #: 02735-0101	VERTICAL: N/A	DRAWING NUMBER: C2.2
DRAWN: GCA		
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS ISSUED FOR CONSTRUCTION	REVISION: A	



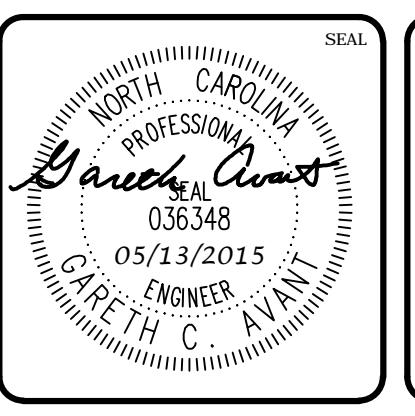
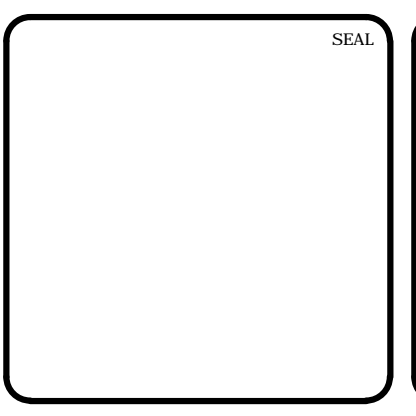
MATCHLINE - SEE SHEET C2.4

- LEGEND:**
- EXISTING WETLANDS
  - EX. R/W LINE
  - EX. POWER LINE EASEMENT
  - EX. OVERHEAD POWER LINE
  - 10' NO-BUILD BUFFER LINE
  - RIPARIAN BUFFER LINE
  - COMBINATION SILT/TREE PROTECTION FENCING
  - TREE PROTECTION FENCING
  - EXISTING CONTOUR
  - PERMITTED LIMITS OF DISTURBANCE - PHASE 16
  - ADDITIONAL LIMITS OF DISTURBANCE
  - STAGE 1 DIVERSION DITCH
  - STAGE 2 DIVERSION DITCH
  - NEW CHECK DAM
  - TEMPORARY CONSTRUCTION ENTRANCE
  - SLOPE DRAIN
  - TDD
  - CWD
  - SILT FENCE OUTLET



MATCHLINE - SEE SHEET C2.2

REV. NO.	DESCRIPTIONS	DATE
A	ISSUED FOR CONSTRUCTION	2015.05.13
REVISIONS		



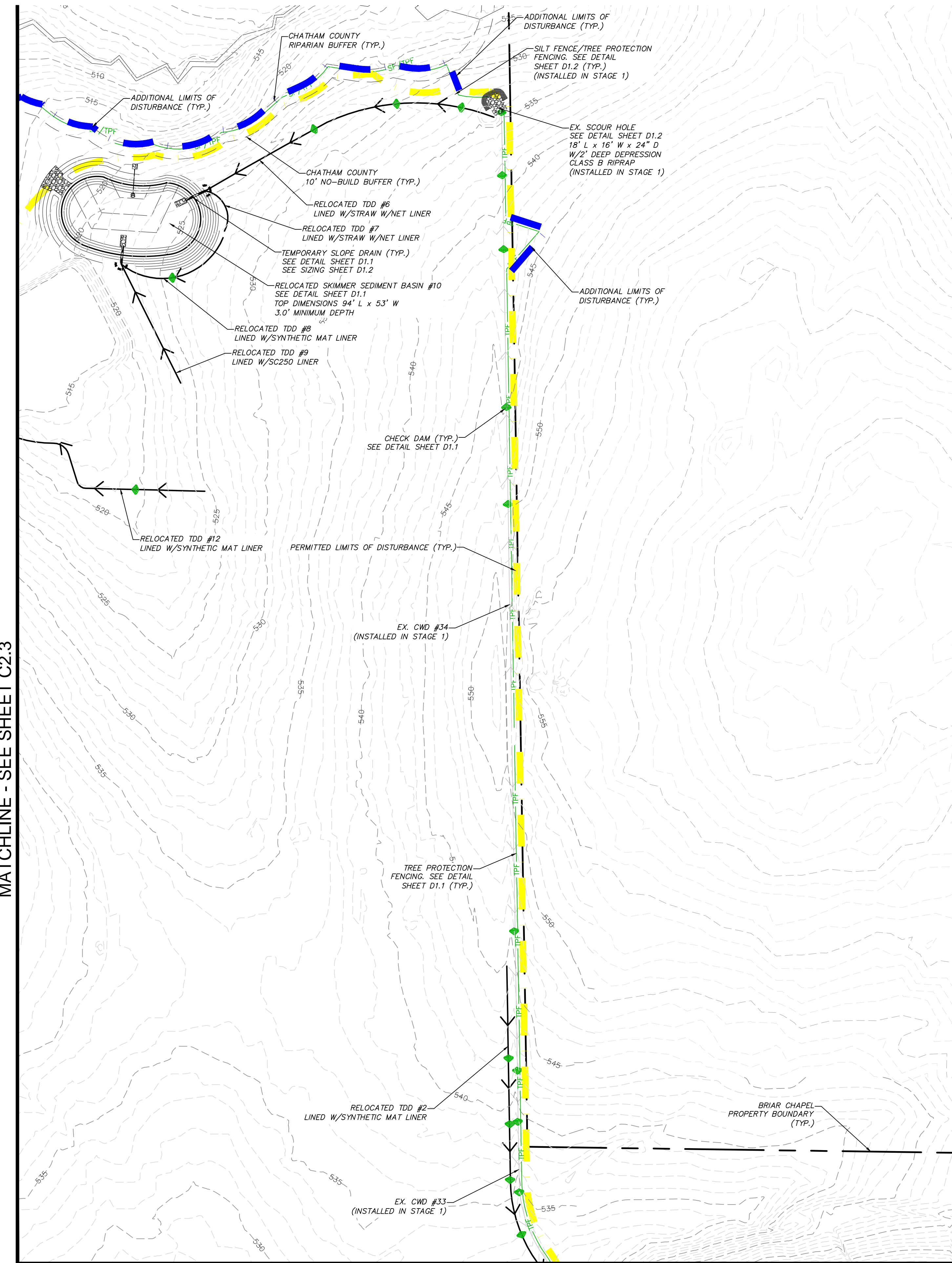
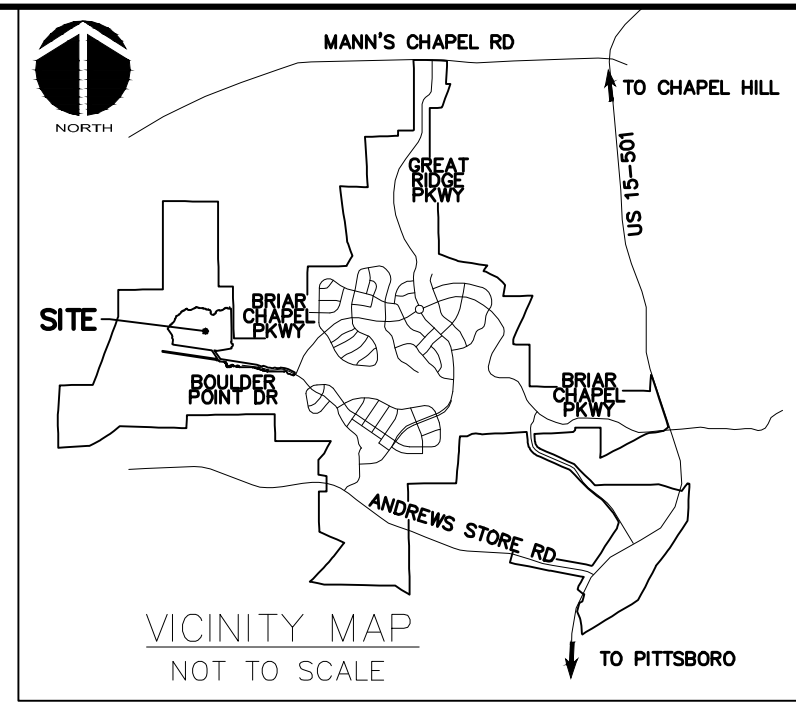
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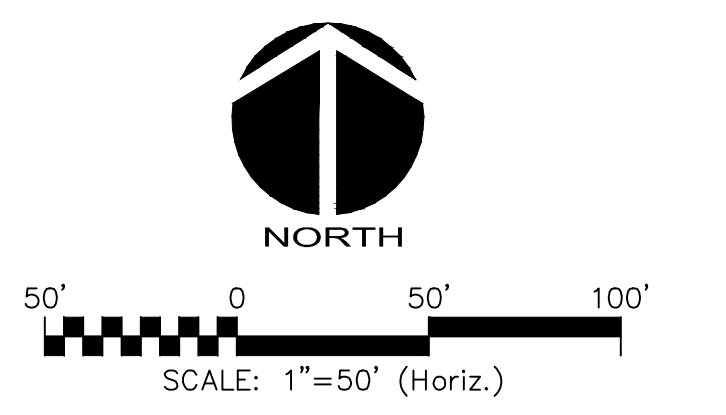
**STAGE 2 EROSION CONTROL PLAN**

DATE: MARCH 26, 2015	SCALE: C1.1
MCE PROJ. #: 02735-0101	HORIZONTAL: 1" = 50'
DRAWN: GCA	VERTICAL: N/A
DESIGNED: GCA	REVISION: A
CHECKED: CHS	STATUS: FINAL DRAWINGS ISSUED FOR CONSTRUCTION
PROJ. MGR.: CHS	

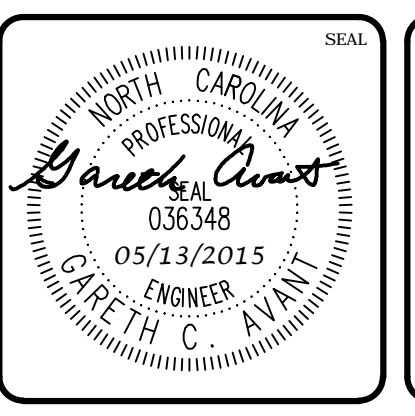
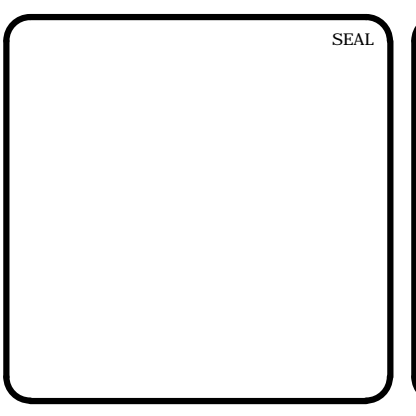


**LEGEND:**

	EXISTING WETLANDS
	EX. R/W LINE
	EX. POWER LINE EASEMENT
	EX. OVERHEAD POWER LINE
	10' NO BUILD BUFFER LINE
	RIPARIAN BUFFER LINE
	COMBINATION SILT/TREE PROTECTION FENCING
	TREE PROTECTION FENCING
	EXISTING CONTOUR
	PERMITTED LIMITS OF DISTURBANCE - PHASE 16
	ADDITIONAL LIMITS OF DISTURBANCE
	STAGE 1 DIVERSION DITCH
	STAGE 2 DIVERSION DITCH
	NEW CHECK DAM
	TEMPORARY CONSTRUCTION ENTRANCE
	SLOPE DRAIN
	TEMPORARY DIVERSION DITCH
	CLEAN WATER DIVERSION DITCH
	SILT FENCE OUTLET



REV. NO.	DESCRIPTION	DATE
A	ISSUED FOR CONSTRUCTION	2015.05.13

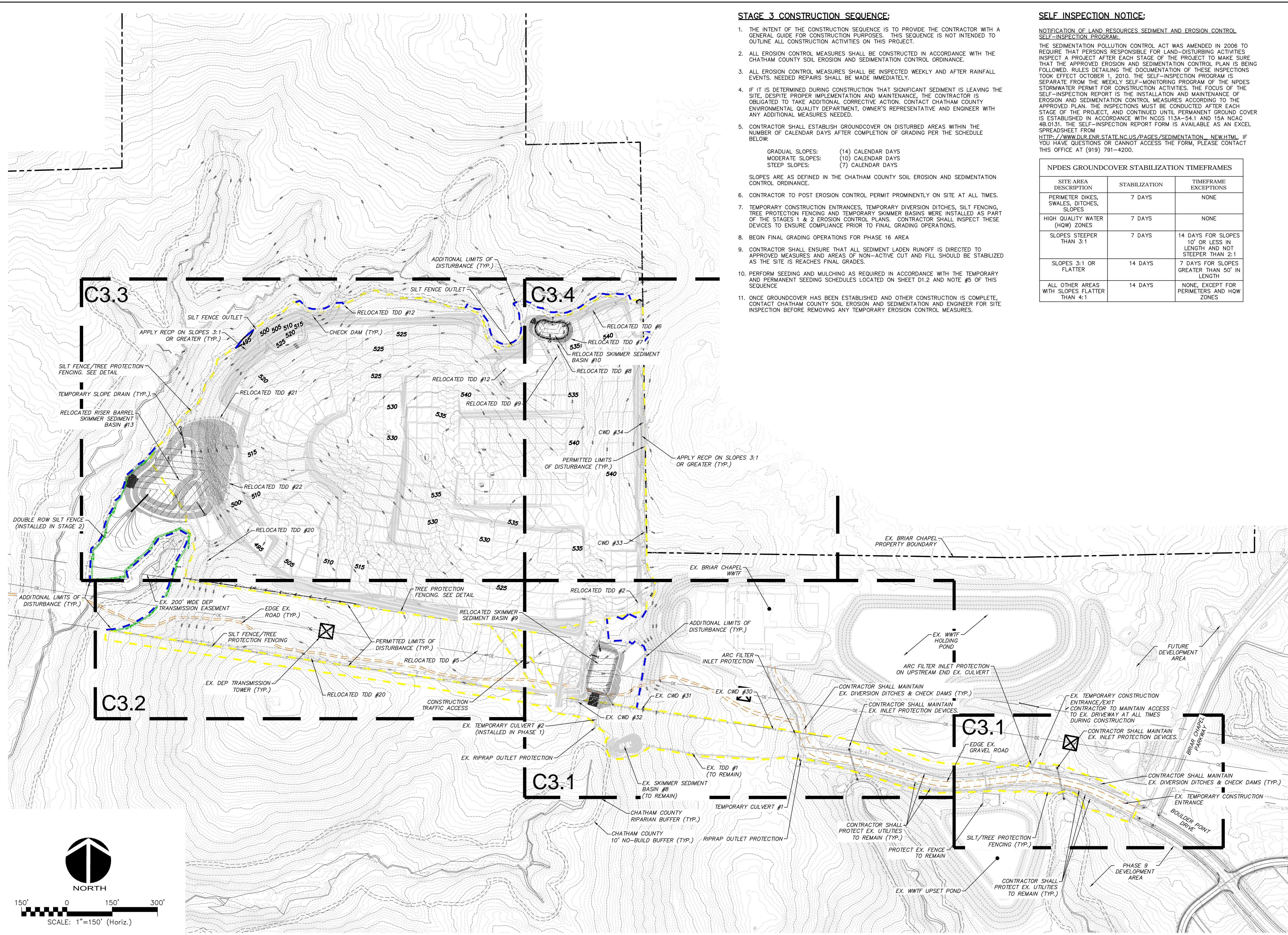


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BRIAR CHAPEL  
PHASE 16 EARLY GRADING  
CHATHAM COUNTY, NORTH CAROLINA  
STAGE 2 EROSION CONTROL PLAN

DATE: MARCH 26, 2015	SCALE: HORIZONTAL: 1" = 50'	P&C FILE NUMBER: C1.0
MCE PROJ. #: 02735-0101	VERTICAL: N/A	DRAWING NUMBER: C2.4
DRAWN: GCA		
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS ISSUED FOR CONSTRUCTION		REVISION: A



**STAGE 3 CONSTRUCTION SEQUENCE:**

1. THE INTENT OF THE CONSTRUCTION SEQUENCE IS TO PROVIDE THE CONTRACTOR WITH A GENERAL GUIDE FOR CONSTRUCTION PURPOSES. THIS SEQUENCE IS NOT INTENDED TO OUTLINE ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
2. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE.
3. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER RAINFALL EVENTS. NEEDED REPAIRS SHALL BE MADE IMMEDIATELY.
4. IF IT IS DETERMINED DURING CONSTRUCTION THAT SIGNIFICANT SEDIMENT IS LEAVING THE SITE, DESPITE PROPER IMPLEMENTATION AND MAINTENANCE, THE CONTRACTOR IS OBLIGATED TO TAKE ADDITIONAL CORRECTIVE ACTION. CONTACT CHATHAM COUNTY ENVIRONMENTAL QUALITY DEPARTMENT, OWNER'S REPRESENTATIVE AND ENGINEER WITH ANY ADDITIONAL MEASURES NEEDED.
5. CONTRACTOR SHALL ESTABLISH GROUNDCOVER ON DISTURBED AREAS WITHIN THE NUMBER OF CALENDAR DAYS AFTER COMPLETION OF GRADING PER THE SCHEDULE BELOW:
 

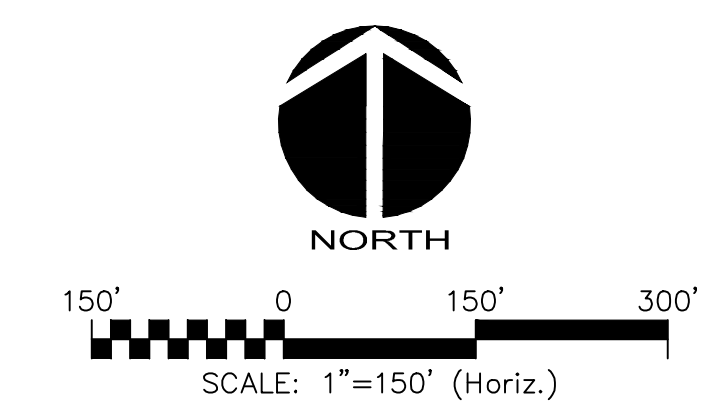
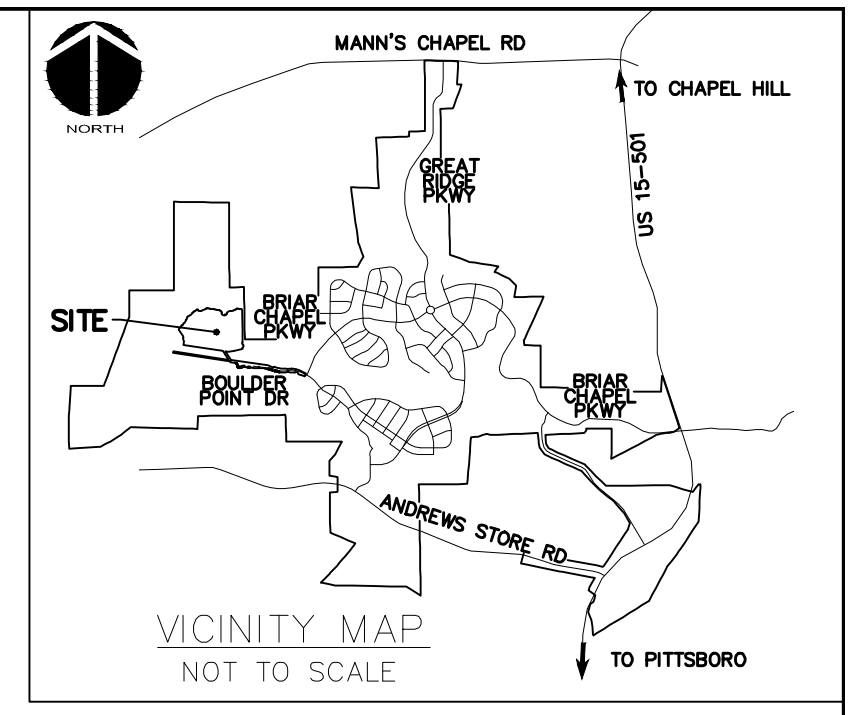
GRADUAL SLOPES:	(14) CALENDAR DAYS
MODERATE SLOPES:	(10) CALENDAR DAYS
STEEP SLOPES:	(7) CALENDAR DAYS
6. CONTRACTOR TO POST EROSION CONTROL PERMIT PROMINENTLY ON SITE AT ALL TIMES.
7. TEMPORARY CONSTRUCTION ENTRANCES, TEMPORARY DIVERSION DITCHES, SILT FENCING, TREE PROTECTION FENCING AND TEMPORARY SKIMMER BASINS WERE INSTALLED AS PART OF THE STAGES 1 & 2 EROSION CONTROL PLANS. CONTRACTOR SHALL INSPECT THESE DEVICES TO ENSURE COMPLIANCE PRIOR TO FINAL GRADING OPERATIONS.
8. BEGIN FINAL GRADING OPERATIONS FOR PHASE 16 AREA
9. CONTRACTOR SHALL ENSURE THAT ALL SEDIMENT LADEN RUNOFF IS DIRECTED TO APPROVED MEASURES AND AREAS OF NON-ACTIVE CUT AND FILL SHOULD BE STABILIZED AS THE SITE IS REACHES FINAL GRADES.
10. PERFORM SEEDING AND MULCHING AS REQUIRED IN ACCORDANCE WITH THE TEMPORARY AND PERMANENT SEEDING SCHEDULES LOCATED ON SHEET D1.2 AND NOTE #5 OF THIS SEQUENCE
11. ONCE GROUNDCOVER HAS BEEN ESTABLISHED AND OTHER CONSTRUCTION IS COMPLETE, CONTACT CHATHAM COUNTY SOIL EROSION AND SEDIMENTATION AND ENGINEER FOR SITE INSPECTION BEFORE REMOVING ANY TEMPORARY EROSION CONTROL MEASURES.

**SELF INSPECTION NOTICE:**

NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM:  
 THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH STAGE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010. THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS MUST BE CONDUCTED AFTER EACH STAGE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCGS 113A-54.1 AND 15A NCAC 48.0131. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM [HTTP://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION\\_NEW.HTML](http://www.dlr.enr.state.nc.us/pages/sedimentation_new.html). IF YOU HAVE QUESTIONS OR CANNOT ACCESS THE FORM, PLEASE CONTACT THIS OFFICE AT (919) 791-4200.

**NPDES GROUNDCOVER STABILIZATION TIMEFRAMES**

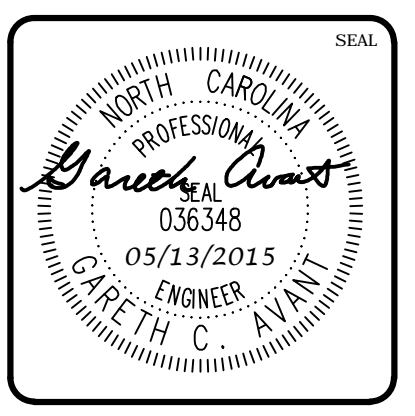
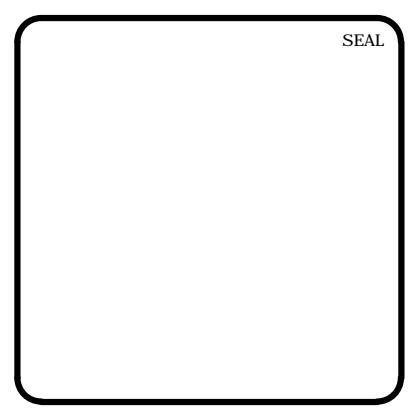
SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	14 DAYS FOR SLOPES 10' OR LESS IN LENGTH AND NOT STEEPER THAN 2:1
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES



**LEGEND:**

- EXISTING WETLANDS
- ADDITIONAL DISTURBED AREA
- EX. R/W LINE
- EX. POWER LINE EASEMENT
- EX. OVERHEAD POWER LINE
- 10' NO BUILD BUFFER LINE
- RIPARIAN BUFFER LINE
- COMBINATION SILT/TREE PROTECTION FENCING
- TREE PROTECTION FENCING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PERMITTED LIMITS OF DISTURBANCE - PHASE 16
- NEW LIMITS OF DISTURBANCE
- STAGE 1 DIVERSION DITCH
- STAGE 1 CHECK DAM
- STAGE 1 CONSTRUCTION ENTRANCE
- STAGE 1 SLOPE DRAIN
- TDD
- CWD
- STAGE 1 SILT FENCE OUTLET

REV. NO.	ISSUED FOR CONSTRUCTION	DESCRIPTIONS	DATE

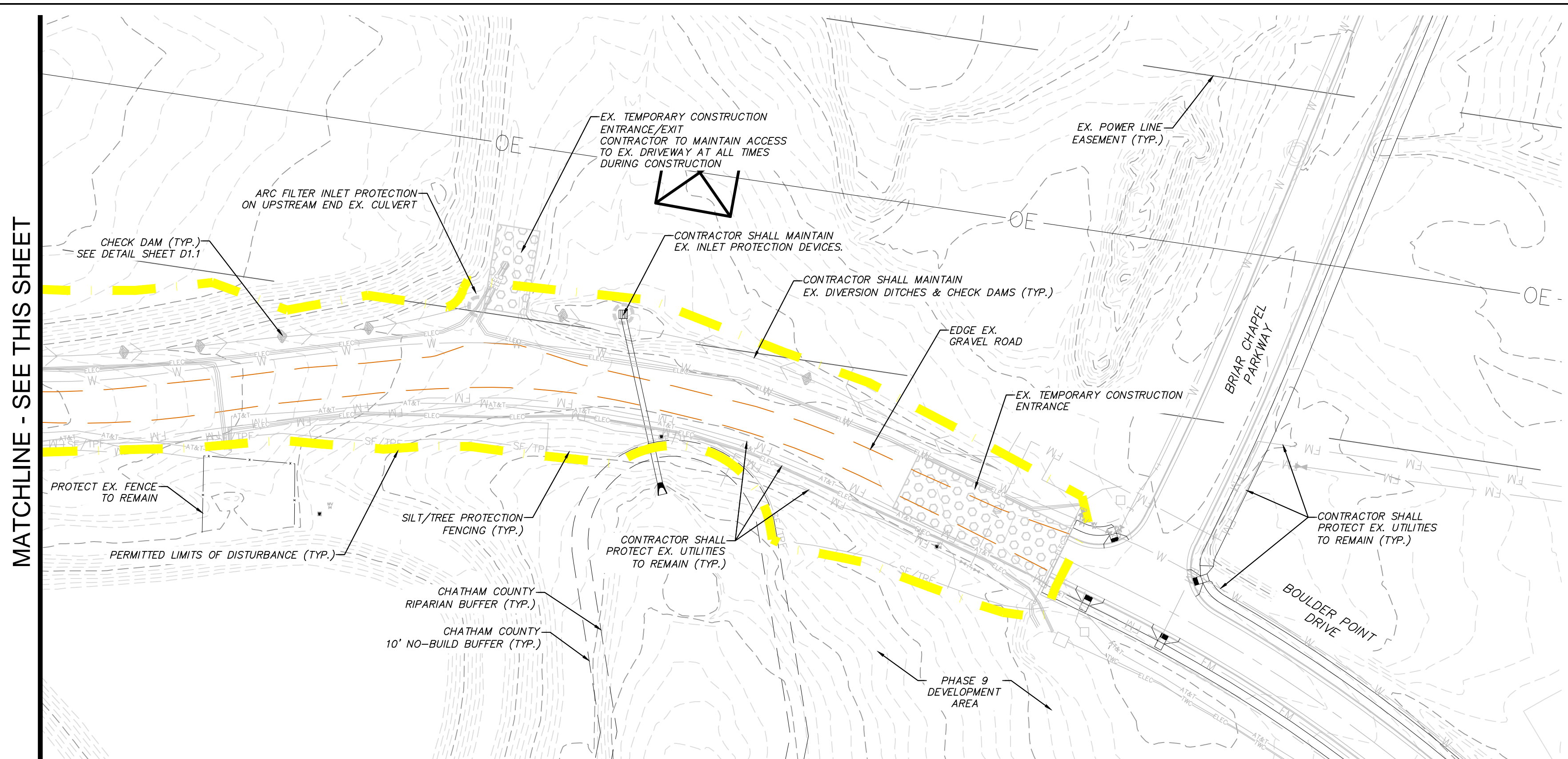
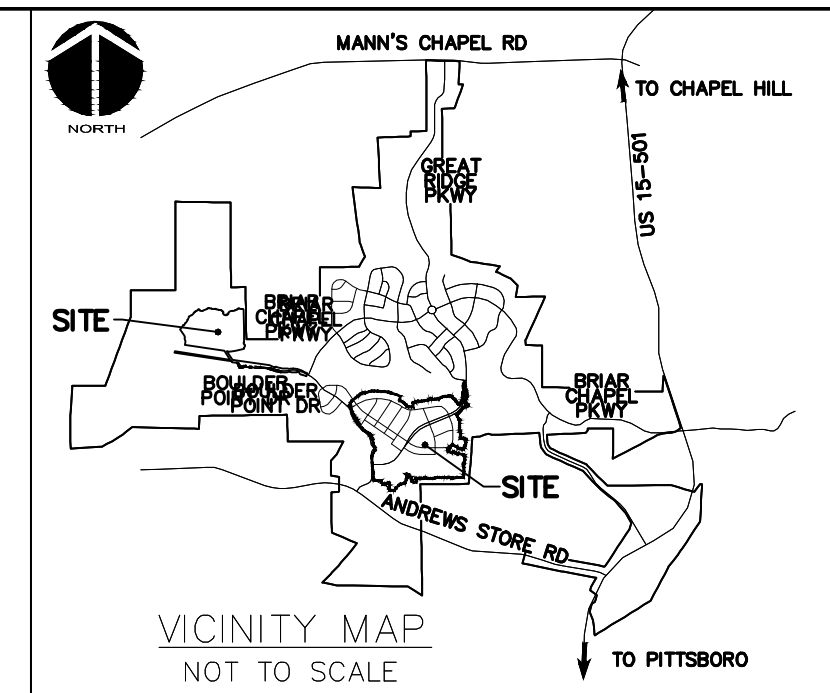


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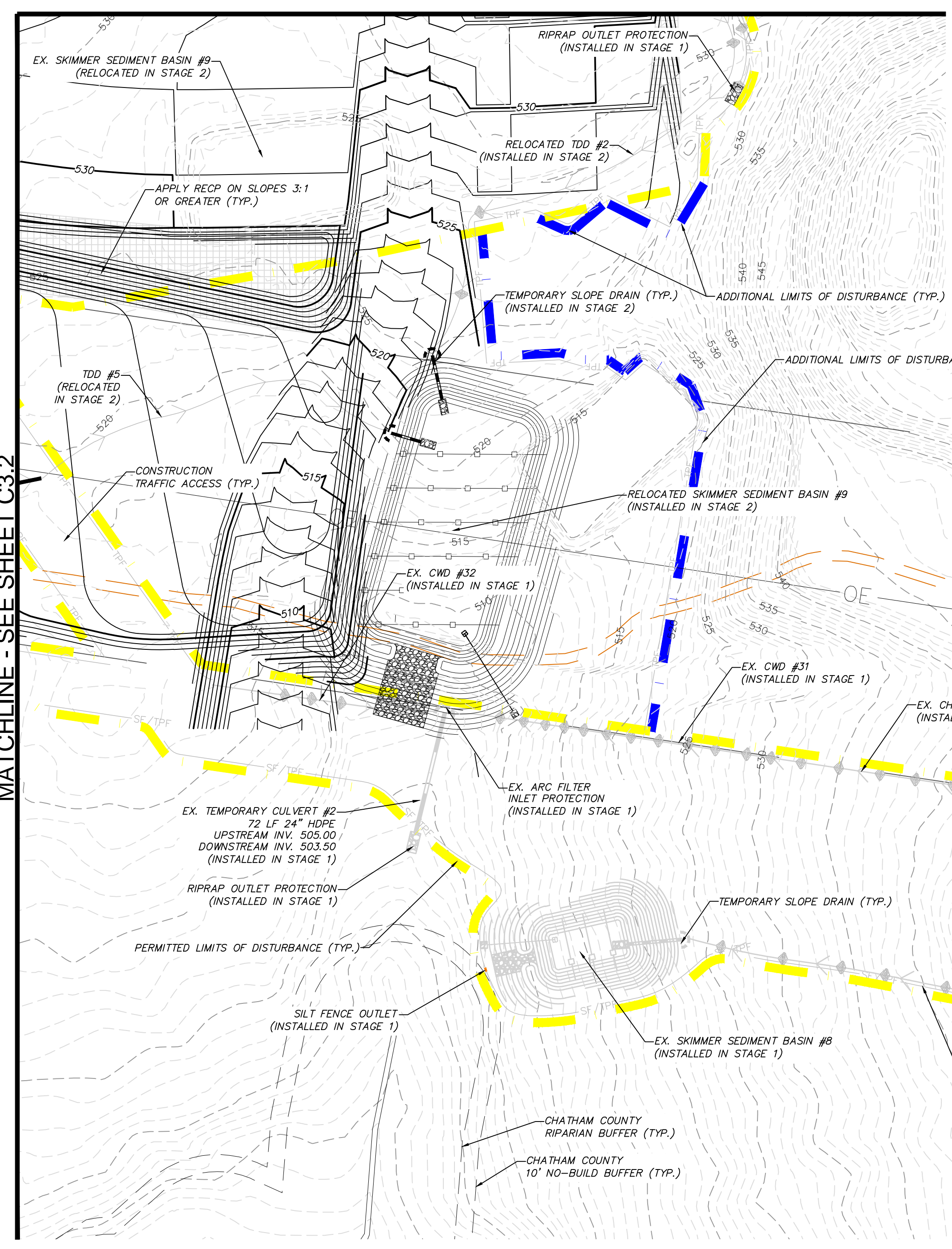
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 PHASE 16 EARLY GRADING  
 CHATHAM COUNTY, NORTH CAROLINA**  
**OVERALL STAGE 3 EROSION CONTROL PLAN**

DATE: MARCH 26, 2015	SCALE: HORIZONTAL: 1" = 150'	PMF FILE NUMBER: C2.X
MCE PROJ. # 02735-0101	VERTICAL: N/A	DRAWING NUMBER: C3.0
DRAWN: GCA		
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR: CHS		
STATUS: FINAL DRAWINGS ISSUED FOR CONSTRUCTION	REVISION: A	



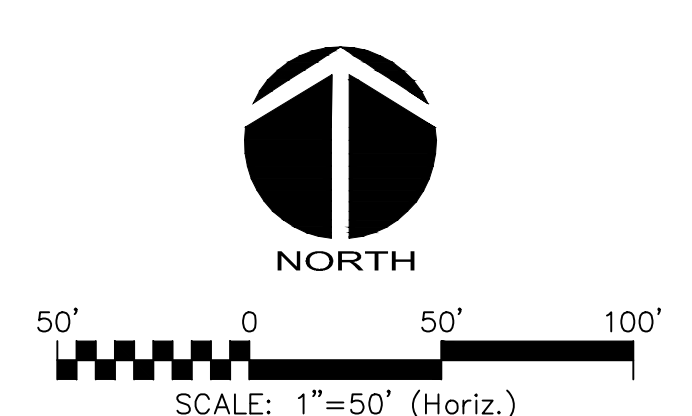
MATCHLINE - SEE SHEET C3.4



MATCHLINE - SEE THIS SHEET

**LEGEND:**

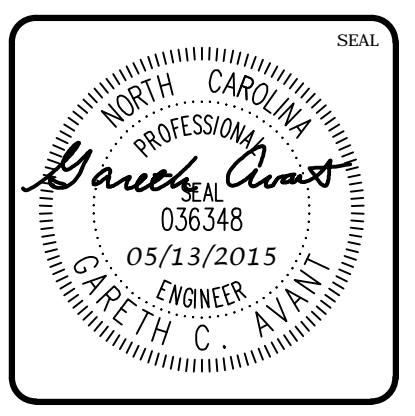
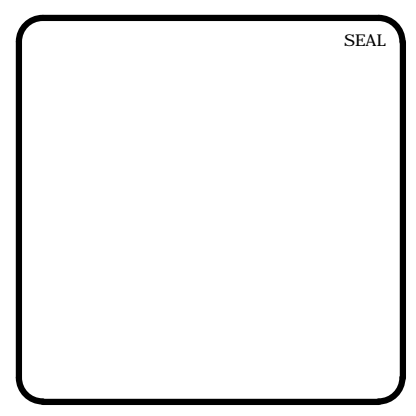
	EXISTING WETLANDS
	EX. R/W LINE
	EX. POWER LINE EASEMENT
	EX. OVERHEAD POWER LINE
	10' NO BUILD BUFFER LINE
	RIPARIAN BUFFER LINE
	COMBINATION SILT/TREE PROTECTION FENCING
	TREE PROTECTION FENCING
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PERMITTED LIMITS OF DISTURBANCE - PHASE 16
	ADDITIONAL LIMITS OF DISTURBANCE
	DIVERSION DITCH
	CHECK DAM
	STAGE 1 CONSTRUCTION ENTRANCE
	SLOPE DRAIN
	TEMPORARY DIVERSION DITCH
	CLEAN WATER DIVERSION DITCH
	STAGE 1 SILT FENCE OUTLET



MATCHLINE - SEE SHEET C3.2

MATCHLINE - SEE THIS SHEET

REV. NO.	ISSUED FOR CONSTRUCTION	DESCRIPTIONS	DATE
A	ISSUED FOR CONSTRUCTION		2015.05.13
		REVISIONS	



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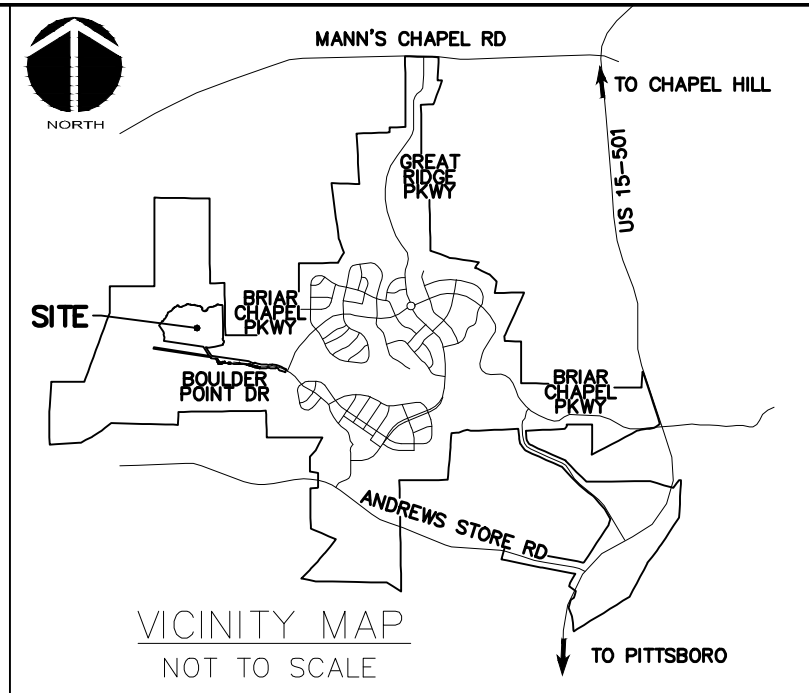
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CHATHAM COUNTY, NORTH CAROLINA**

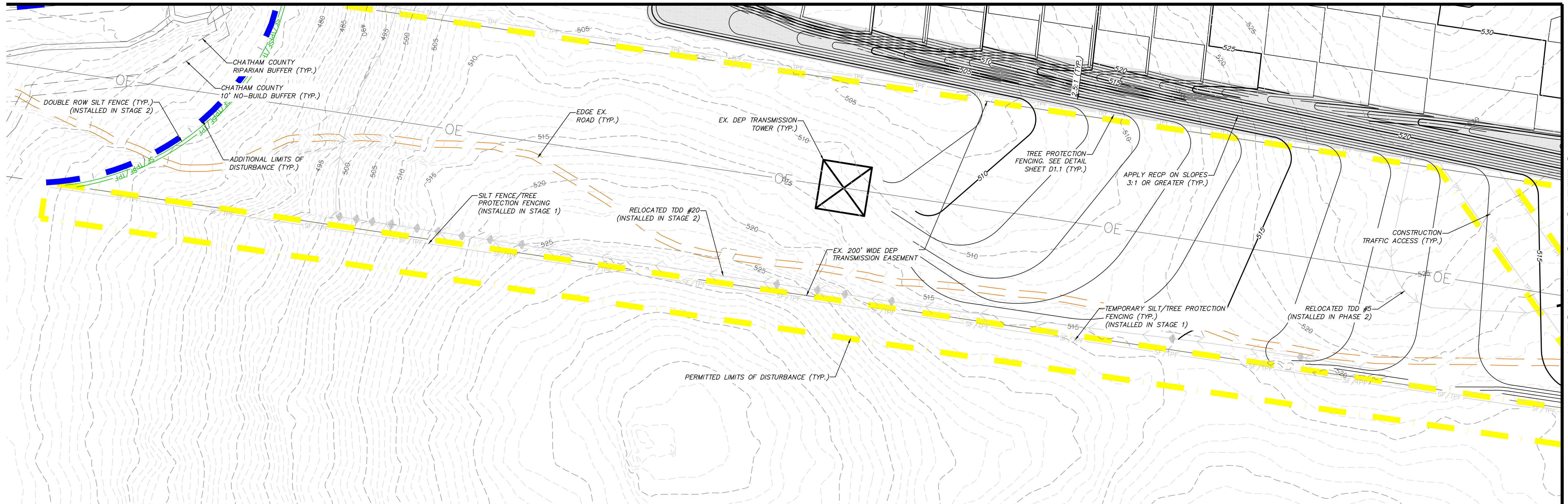
**STAGE 3  
OVERALL CLEARING AND GRUBBING PLAN**

DATE: MARCH 26, 2015	SCALE: C1.X	REVISION: A
MCE PROJ. # 02735-0101	HORIZONTAL: 1" = 50'	REVISION: A
DRAWN: GCA	VERTICAL: N/A	
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR: CHS		



KEY MAP  
NOT TO SCALE

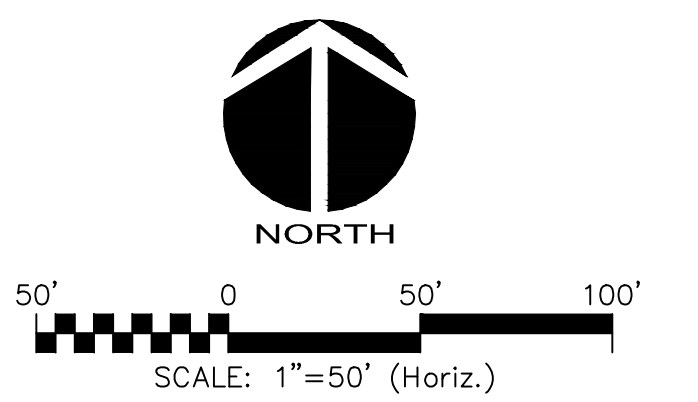
MATCHLINE - SEE SHEET C3.3



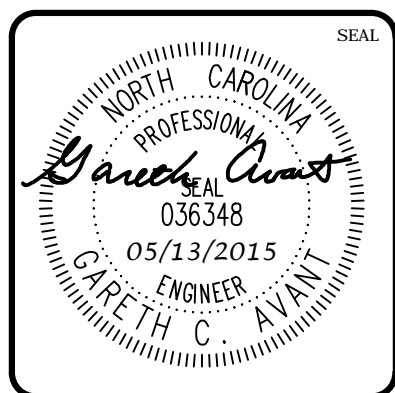
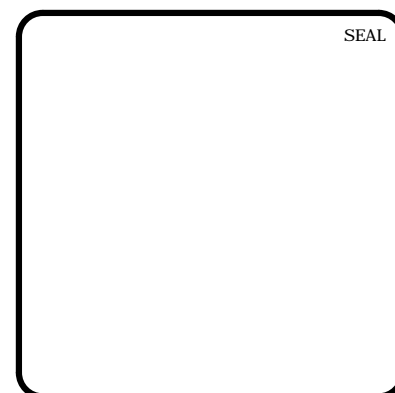
MATCHLINE - SEE SHEET C3.1

LEGEND:

- |  |  |  |  |
|--|--|--|--|
|  | EXISTING WETLANDS                        |  | PERMITTED LIMITS OF DISTURBANCE - PHASE 16 |
|  | EX. R/W LINE                             |  | ADDITIONAL LIMITS OF DISTURBANCE           |
|  | EX. POWER LINE EASEMENT                  |  | DIVERSION DITCH                            |
|  | EX. OVERHEAD POWER LINE                  |  | CHECK DAM                                  |
|  | 10' NO BUILD BUFFER LINE                 |  | STAGE 1 CONSTRUCTION ENTRANCE              |
|  | RIPARIAN BUFFER LINE                     |  | SLOPE DRAIN                                |
|  | COMBINATION SILT/TREE PROTECTION FENCING |  | TEMPORARY DIVERSION DITCH                  |
|  | TREE PROTECTION FENCING                  |  | CLEAN WATER DIVERSION DITCH                |
|  | EXISTING CONTOUR                         |  | STAGE 1 SILT FENCE OUTLET                  |
|  | PROPOSED CONTOUR                         |  |  |



REV. NO.	ISSUED FOR CONSTRUCTION	DESCRIPTIONS REVISIONS	DATE
A	ISSUED FOR CONSTRUCTION		2015.05.13



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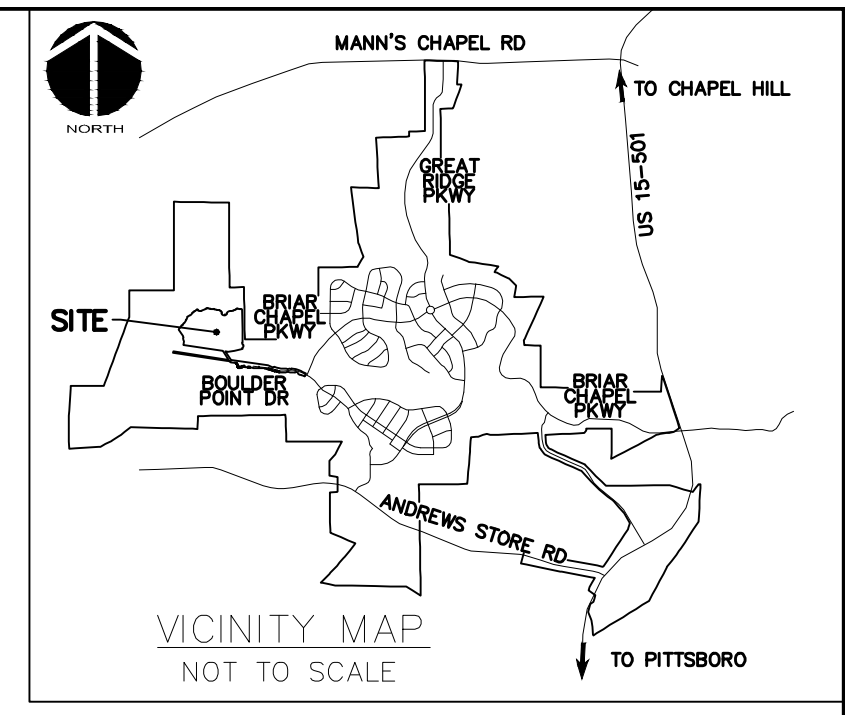
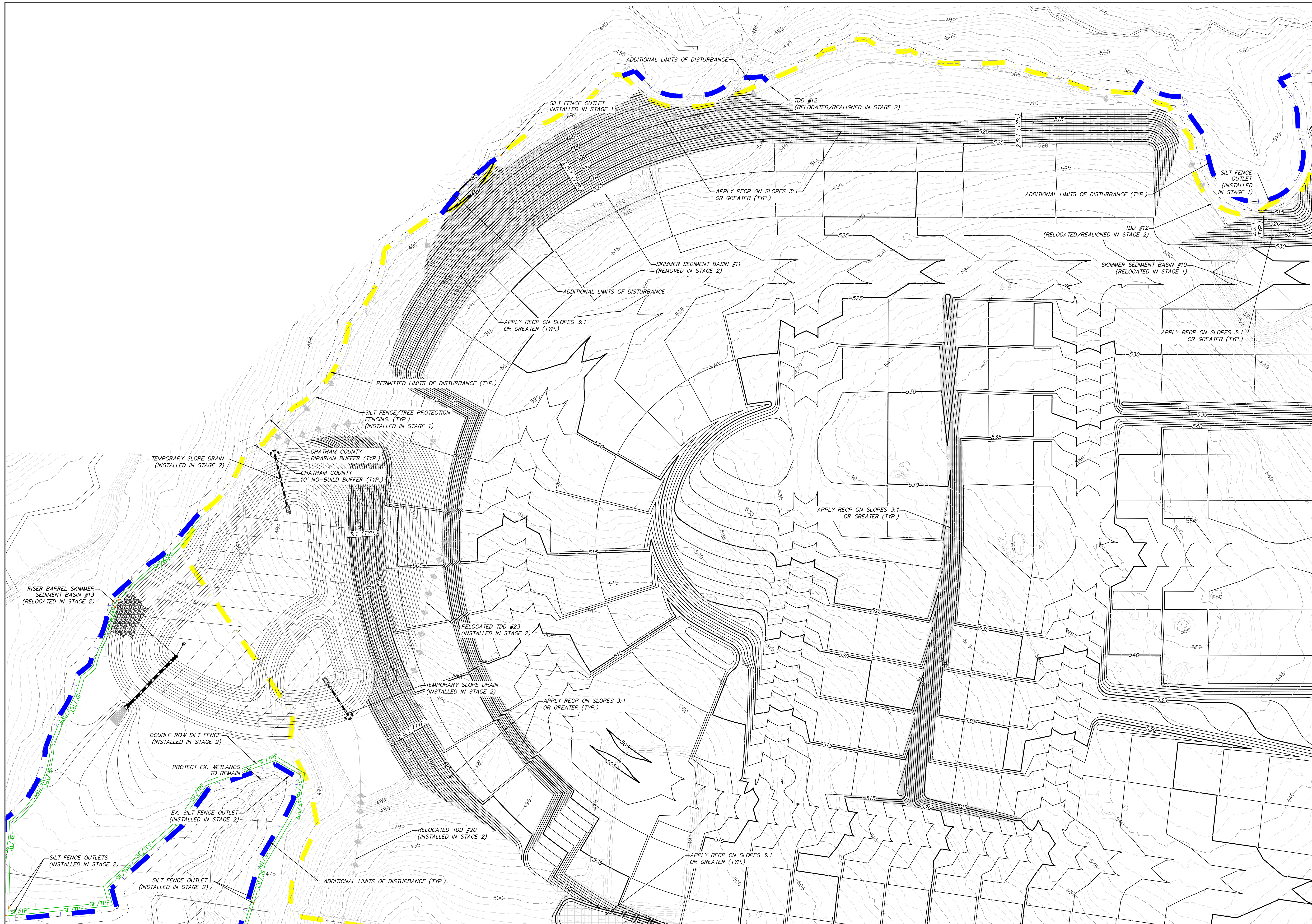
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 PHASE 16 EARLY GRADING  
 CHATHAM COUNTY, NORTH CAROLINA**

**STAGE 3  
 CLEARING AND GRUBBING PLAN**

DATE: MARCH 26, 2015	SCALE: HORIZONTAL: 1" = 50'	MFC FILE NUMBER: C1.X
MCE PROJ. #: 02735-0101	DESIGNED: GCA	DRAWING NUMBER: C3.2
CHECKED: CHS	PROJ. MGR.: CHS	
STATUS: FINAL DRAWINGS ISSUED FOR CONSTRUCTION		REVISION: A

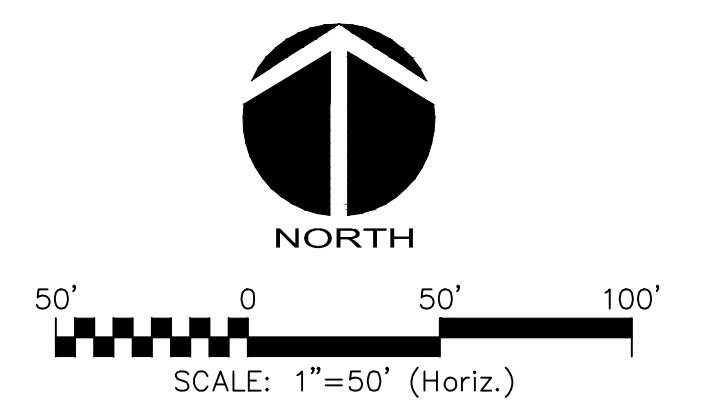




MATCHLINE - SEE SHEET C3.4

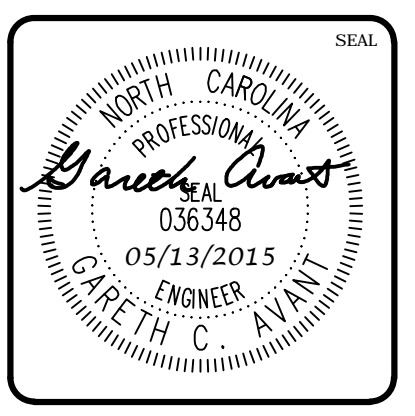
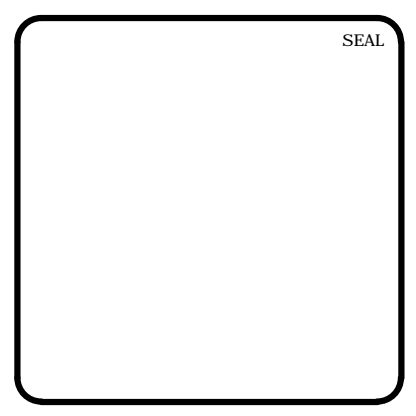
**LEGEND:**

	EXISTING WETLANDS
	EX. R/W LINE
	EX. POWER LINE EASEMENT
	EX. OVERHEAD POWER LINE
	10' NO BUILD BUFFER LINE
	RIPARIAN BUFFER LINE
	COMBINATION SILT/TREE PROTECTION FENCING
	TREE PROTECTION FENCING
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PERMITTED LIMITS OF DISTURBANCE - PHASE 16
	ADDITIONAL LIMITS OF DISTURBANCE
	DIVERSION DITCH
	CHECK DAM
	STAGE 1 CONSTRUCTION ENTRANCE
	SLOPE DRAIN
	TEMPORARY DIVERSION DITCH
	CLEAN WATER DIVERSION DITCH
	STAGE 1 SILT FENCE OUTLET



MATCHLINE - SEE SHEET C3.2

REV. NO.	ISSUED FOR CONSTRUCTION	DESCRIPTIONS	DATE
A	ISSUED FOR CONSTRUCTION		2015.05.13
		REVISIONS	



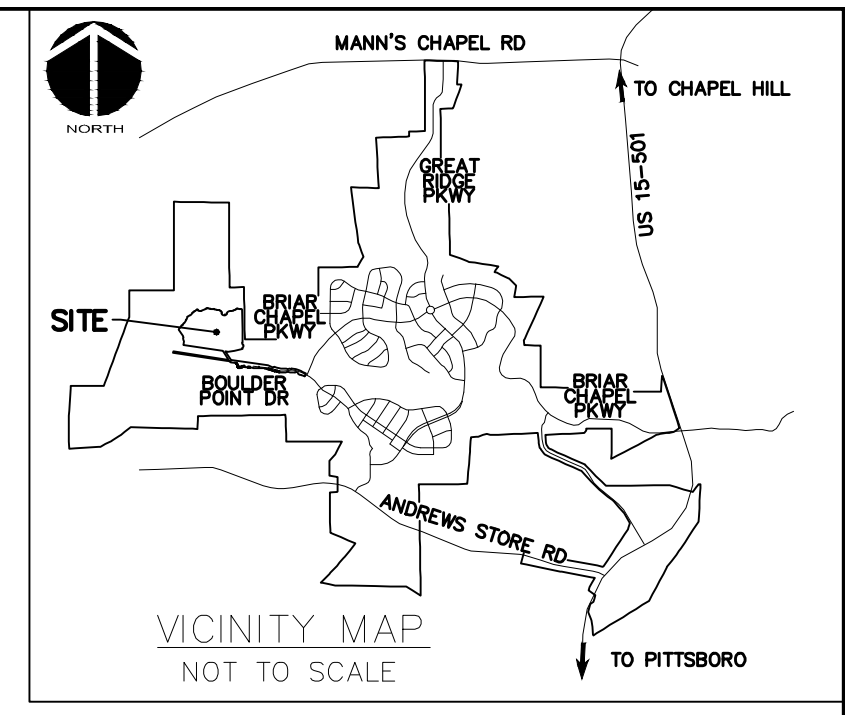
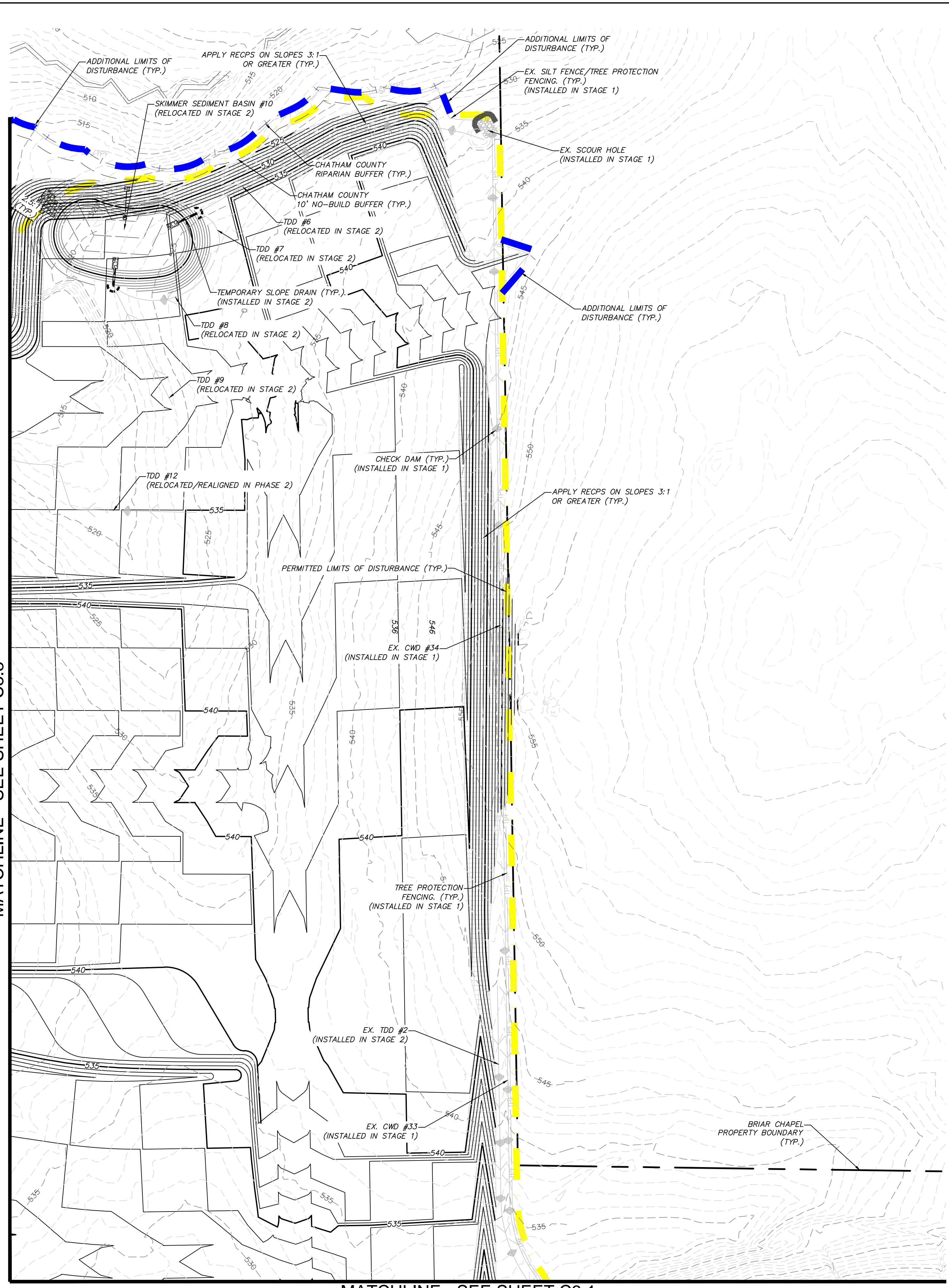
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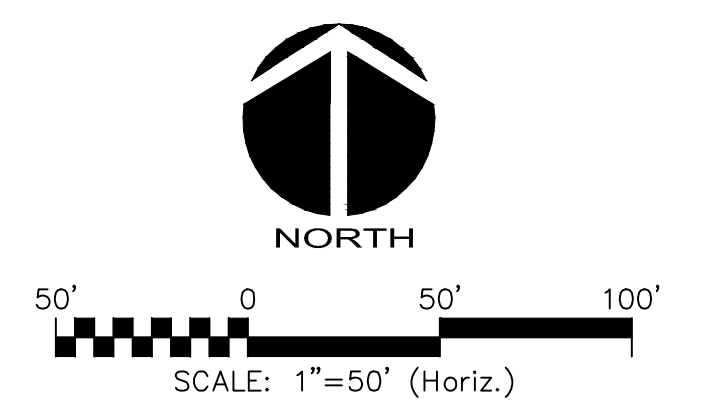
**STAGE 3  
 CLEARING AND GRUBBING PLAN**

DATE: MARCH 26, 2015	SCALE: C1.X	PMR FILE NUMBER: C1.X
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DRAWN: GCA	VERTICAL: N/A	
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
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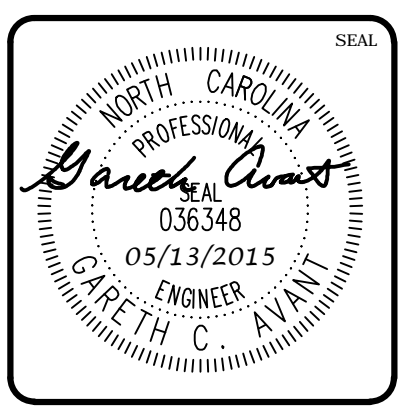
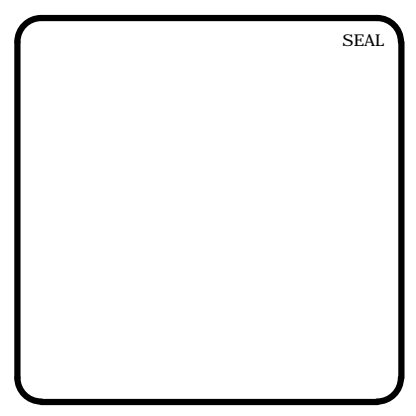


**LEGEND:**

	EXISTING WETLANDS
	EX. R/W LINE
	EX. POWER LINE EASEMENT
	EX. OVERHEAD POWER LINE
	10' NO BUILD BUFFER LINE
	RIPARIAN BUFFER LINE
	COMBINATION SILT/TREE PROTECTION FENCING
	TREE PROTECTION FENCING
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PERMITTED LIMITS OF DISTURBANCE - PHASE 16
	ADDITIONAL LIMITS OF DISTURBANCE
	DIVERSION DITCH
	CHECK DAM
	STAGE 1 CONSTRUCTION ENTRANCE
	SLOPE DRAIN
	TDD
	CWD
	STAGE 1 SILT FENCE OUTLET



REV. NO.	DESCRIPTION	DATE
1	ISSUED FOR CONSTRUCTION	2015.05.13
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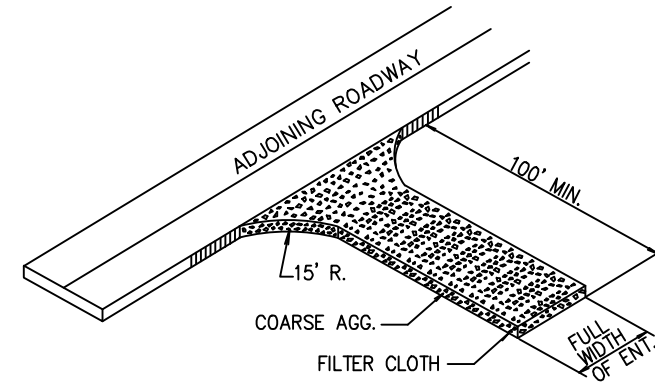
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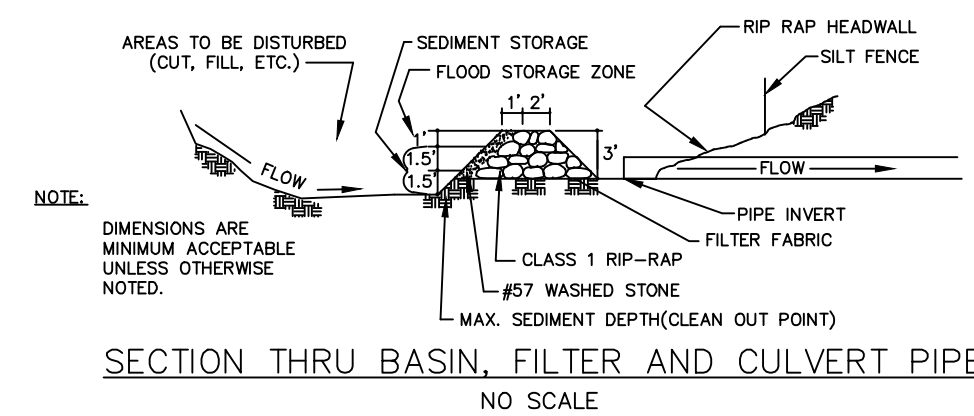
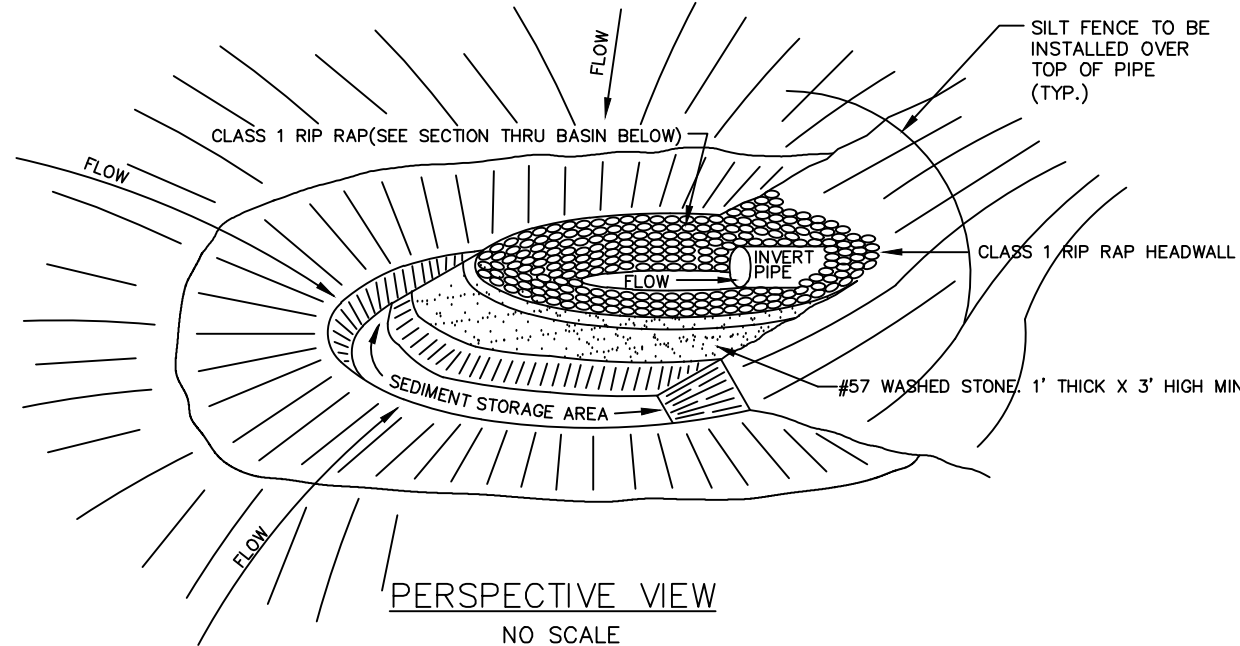
**STAGE 3  
 CLEARING AND GRUBBING PLAN**

DATE: MARCH 26, 2015	SCALE: C1.X	PMSC FILE NUMBER: C1.X
MCE PROJ. # 02735-0101	HORIZONTAL: 1" = 50'	DRAWING NUMBER: C3.4
DRAWN: GCA	VERTICAL: N/A	
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR.: CHS		
STATUS: FINAL DRAWINGS ISSUED FOR CONSTRUCTION	REVISION: A	

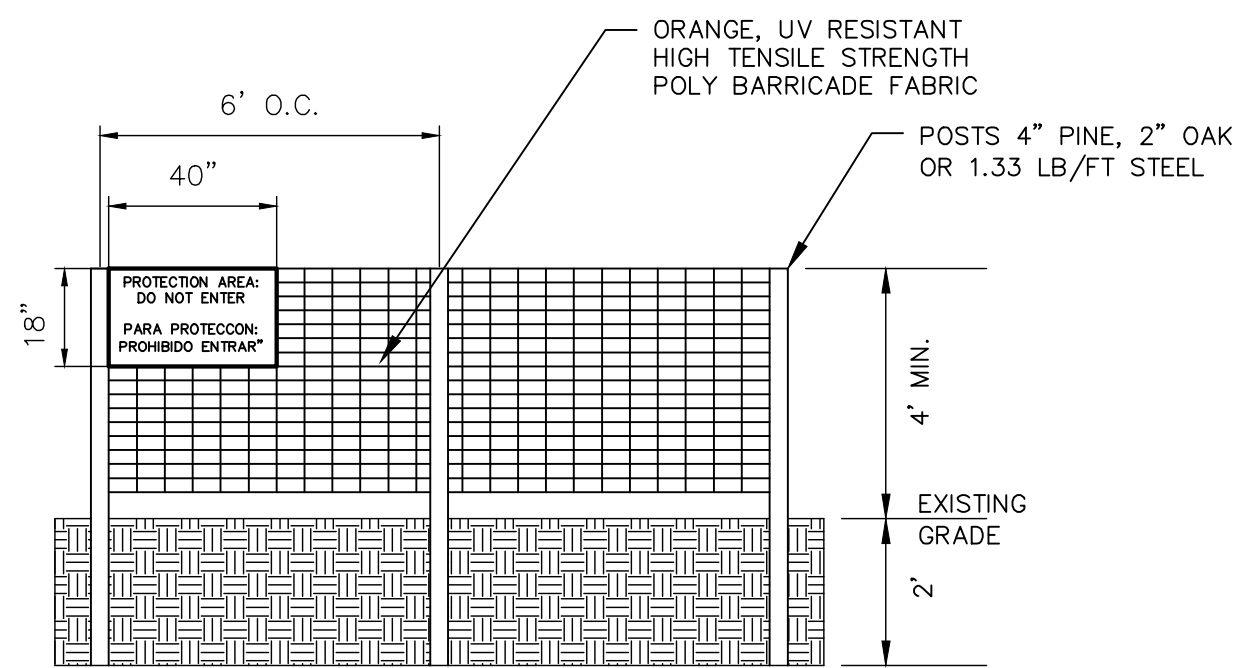


- A. COARSE AGGREGATE (2"-3" STONE) SHALL BE USED. PAD TO BE 100'L X 25'W X 6"D MIN. PLACE A MINIMUM OF 3" OF STONE IN A CUT SECTION TO HELP SECURE FILTER CLOTH.
- B. TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS IS TO BE PROVIDED.
- C. ENTRANCES SHOULD BE LOCATED TO PROVIDE FOR MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.
- D. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOP DRESSING MAY BE NECESSARY. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.
- E. TEMPORARY PADS MUST BE LOCATED ON EACH SIDE OF ADJOINING ROADWAY.

**TEMPORARY CONSTRUCTION ENTRANCE**  
NTS

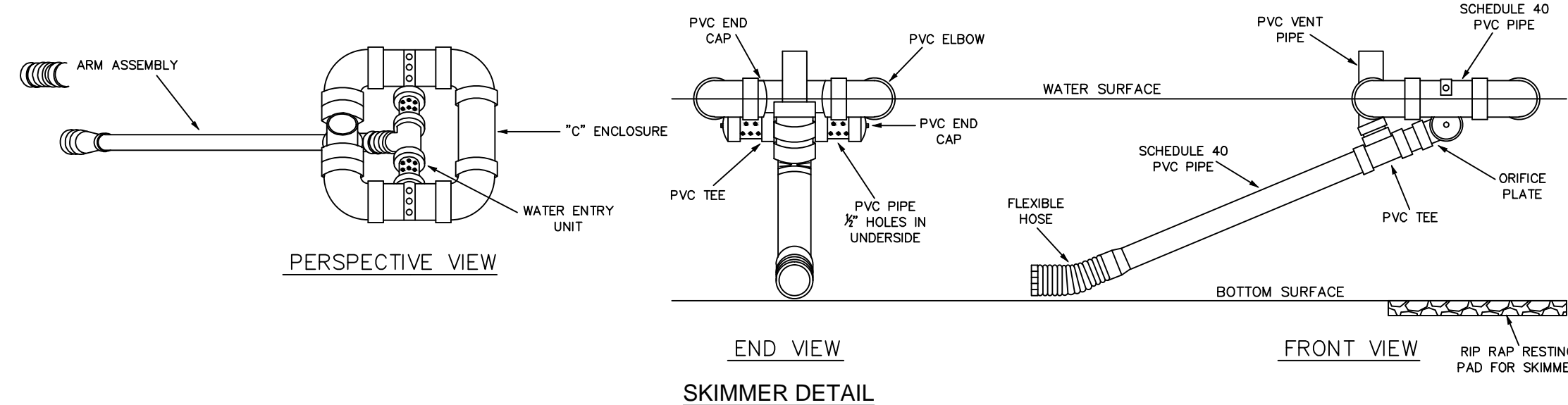


**ARC FILTER INLET PROTECTION**  
NTS

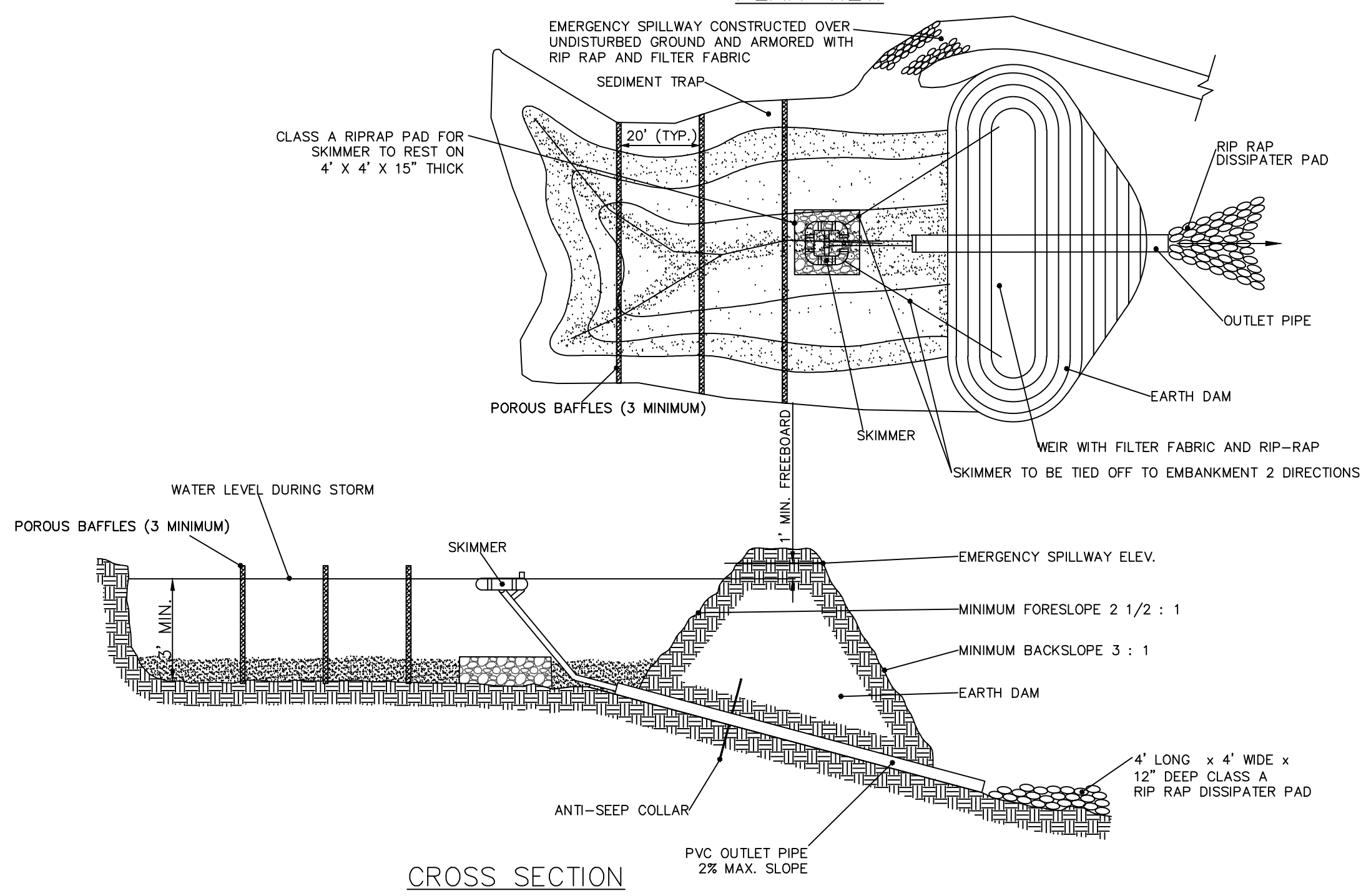


1. WARNING SIGNS TO BE MADE OF DURABLE WATERPROOF PLASTIC.
2. ALL LETTERS TO BE AT LEAST 3" HIGH, CLEARLY LEGIBLE AND SPACED APPROPRIATELY.
3. SIGNS TO BE PLACED AT EACH END OF LINER PROTECTION AREA AND 200' ON CENTER (MAX.) THEREAFTER FOR PROTECTION AREA LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA AND/OR SIDE.
4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. FABRIC MUST BE ATTACHED TO APPROVED POSTS ONLY. DO NOT ATTACH TO TREES.
5. ADDITIONAL FENCING MAY BE REQUIRED BASED ON FIELD CONDITIONS.
6. FAILURE TO MAINTAIN PROTECTION FENCING MAY RESULT IN CIVIL PENALTIES.

**TREE PROTECTION FENCE**  
NTS

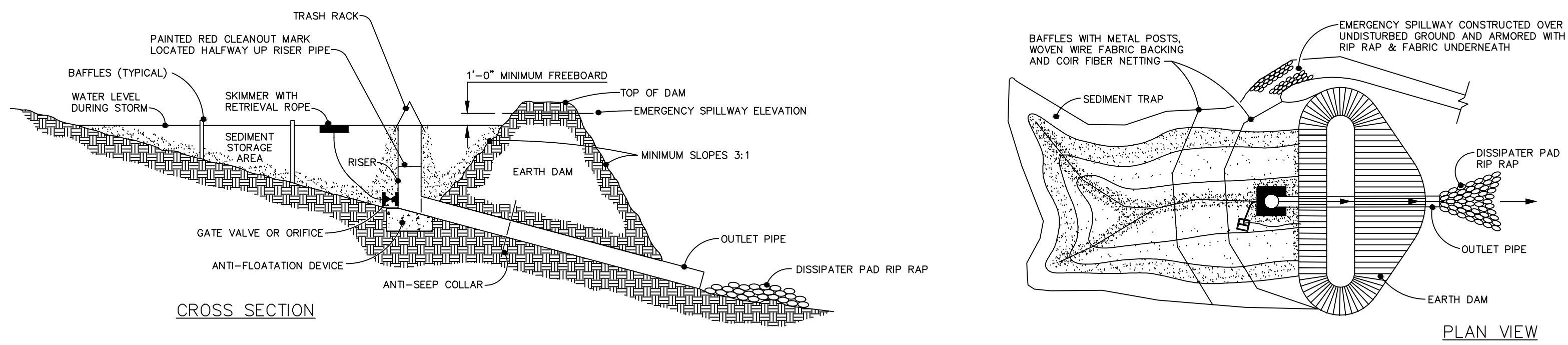


**SKIMMER DETAIL**



BASIN #	DISTURBED AREA (ac)	TOTAL DRAINAGE AREA (ac)	REQUIRED STORAGE	REQUIRED SURFACE AREA	MINIMUM DEPTH	BOTTOM ELEVATION	TOP WIDTH	TOP LENGTH	PROVIDED STORAGE	PROVIDED SURFACE AREA	STORAGE/SPILLWAY ELEVATION	SPILLWAY WIDTH	TOP OF DAM ELEVATION	SKIMMER SIZE	SKIMMER ORIFICE DIAMETER
9	6.76	6.76	24,340 CF	11,920 SF	3.0'	515.0'	81'	150'	28,566 CF	12,150 SF	518.0'	28.0'	520.0'	3.0"	3.0"
10	2.70	2.70	9,720 CF	4,760 SF	3.0'	516.0'	53'	94'	10,086 CF	4,982 SF	519.0'	12.0'	521.0'	2.5"	1.8"

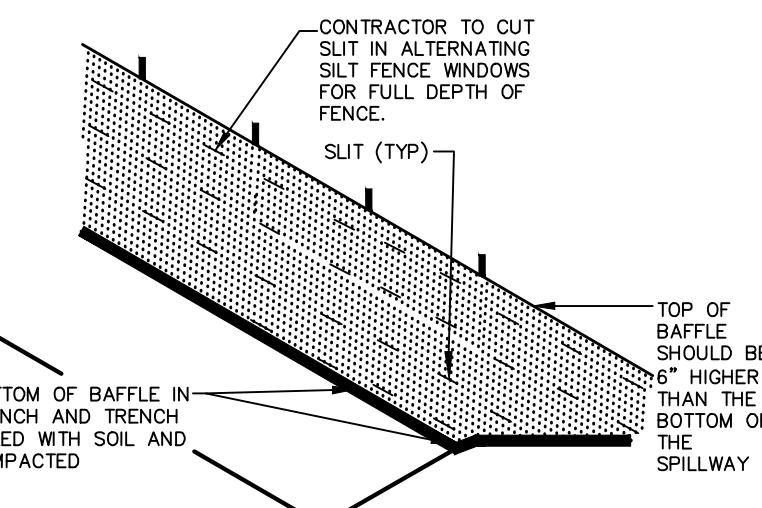
**SKIMMER SEDIMENT BASIN**  
NTS



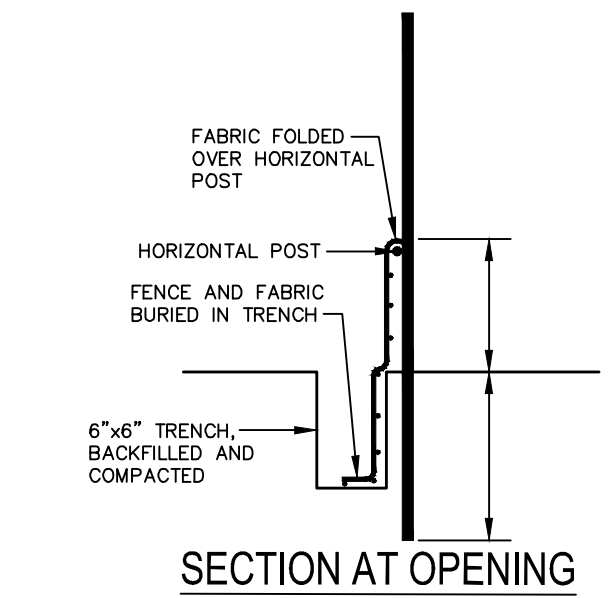
BASIN #	DISTURBED AREA (ac)	TOTAL DRAINAGE AREA (ac)	TRAP SIZE FOR AREA (sq ft)	REQUIRED STORAGE	MINIMUM DEPTH	AVERAGE LENGTH	AVERAGE WIDTH	BOTTOM LENGTH	BOTTOM WIDTH	BOTTOM ELEVATION	TOP LENGTH	TOP WIDTH	PROVIDED STORAGE	STORAGE ELEVATION	SPILLWAY WIDTH	SPILLWAY ELEVATION	TOP OF BERM ELEVATION	SKIMMER SIZE	SKIMMER ORIFICE SIZE
13	29.67	29.67	29.67	108,810 CF	5.5'	152'	304'	144'	296'	466.0'	186'	318'	344,832 CF	471.5'	43.0'	475.0'	477.0'	9"	6.5"

**RISER BARREL SKIMMER SEDIMENT BASIN**  
NTS

**BAFFLE INSTALLATION - STEP 1**

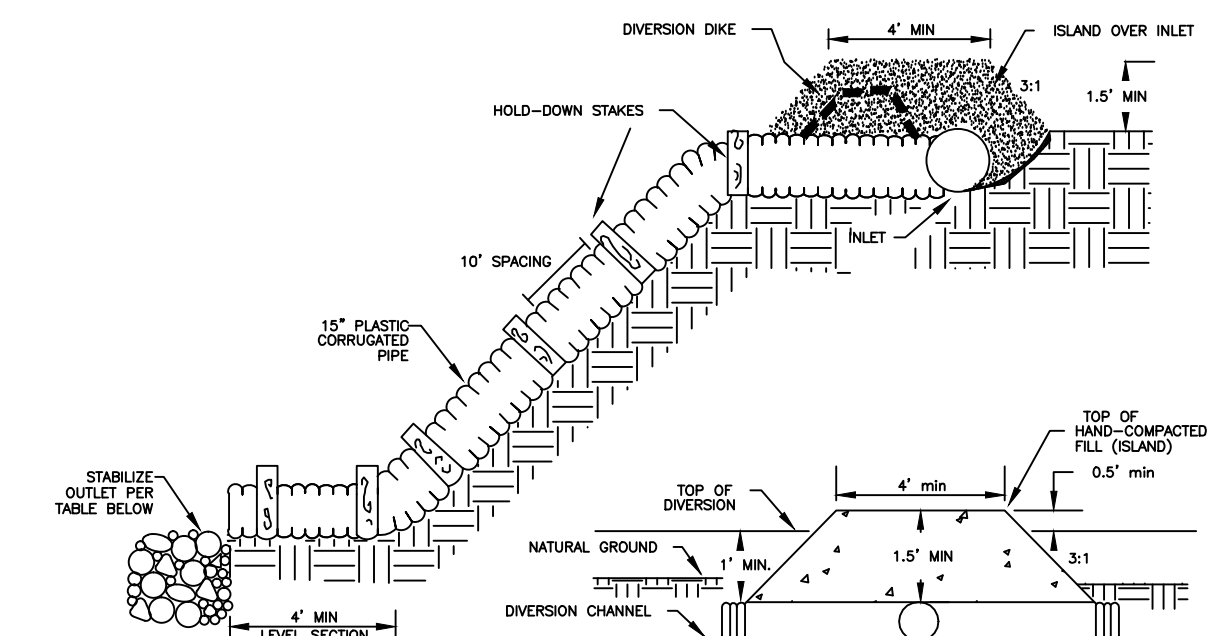


**BAFFLE INSTALLATION - STEP 2**



- NOTES:**
1. DRIVE STEEL FENCE POST AT LEAST 18" INTO SOLID GROUND.
  2. WOOD POSTS ARE NOT ACCEPTABLE.
  3. USE STAPLES 1" APART TO ATTACH FABRIC TO "HOG WIRE".
  4. BAFFLE SPACED AS PER APPROVED PLAN.

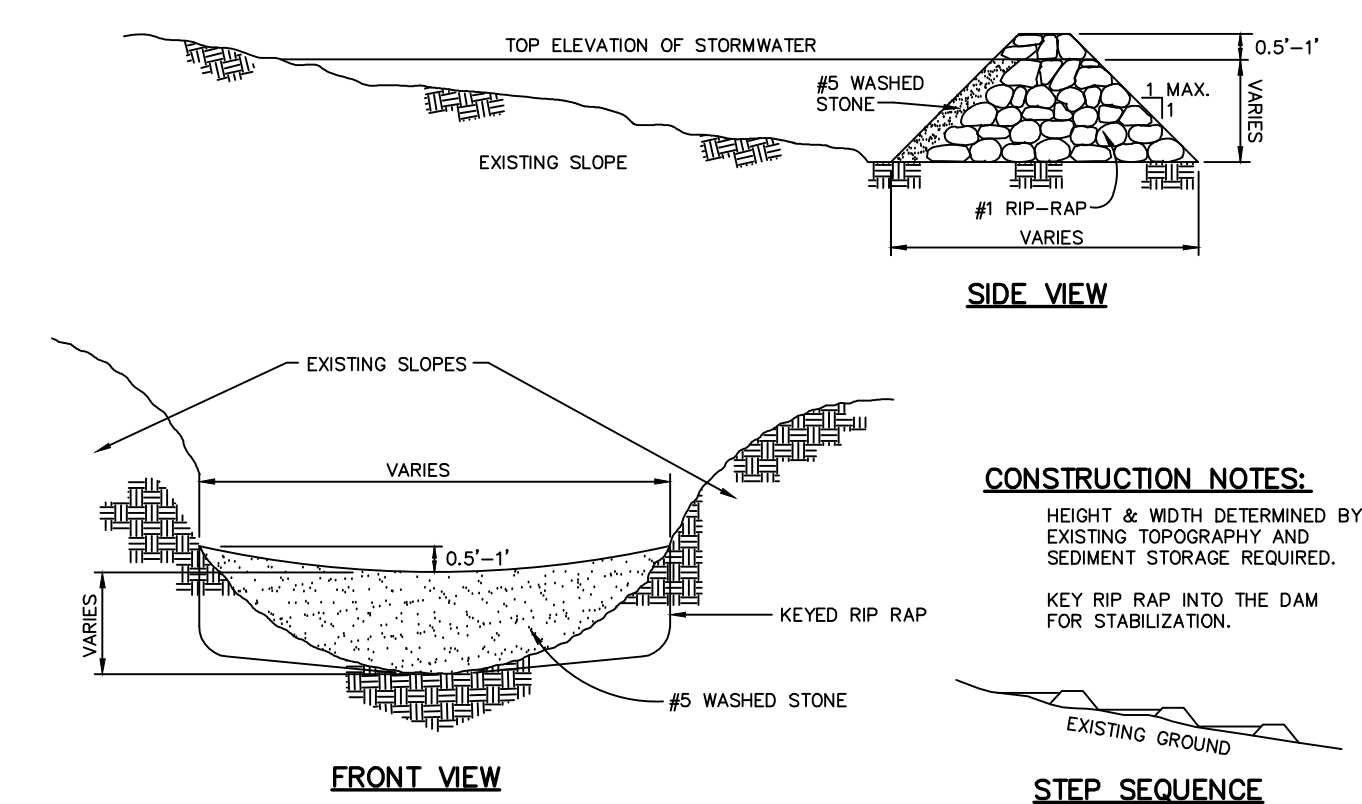
**BAFFLE INSTALLATION DETAIL**



**OUTLET PROTECTION SIZING**

OUTLET SIZE	L <sub>0</sub> (FT.)	W (FT.)	DEPTH (IN.)	LINING CLASSIFICATION
12"	6.0	3.0	22	CLASS B
15"	7.5	3.75	22	CLASS B
18"	9.0	4.5	22	CLASS B
24"	12.0	6.0	22	CLASS B
30"	15.0	7.5	22	CLASS B

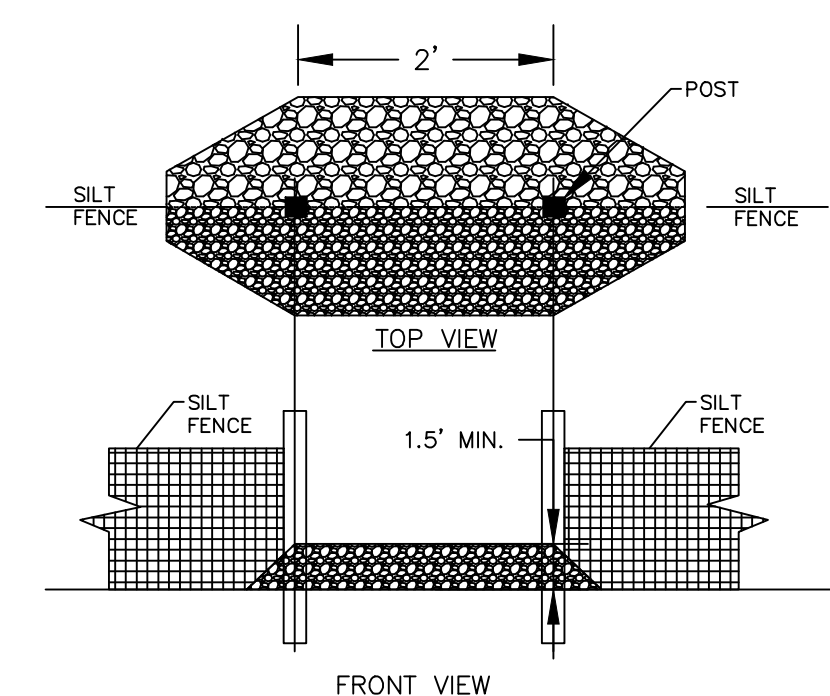
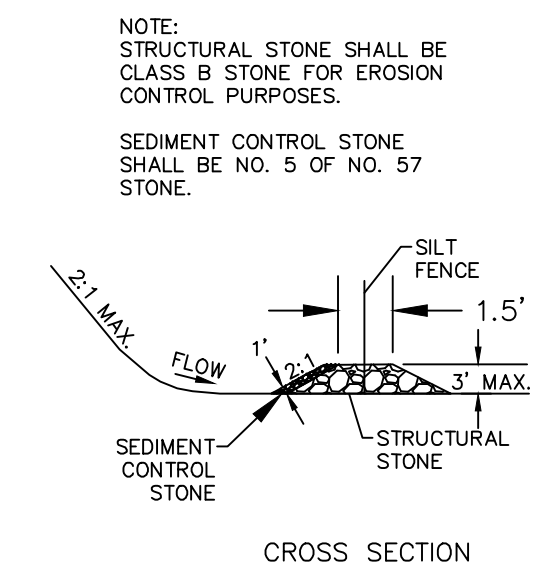
**TEMPORARY SEDIMENT DRAIN**  
NTS



- CONSTRUCTION NOTES:**
- HEIGHT & WIDTH DETERMINED BY EXISTING TOPOGRAPHY AND SEDIMENT STORAGE REQUIRED.
  - KEY RIP-RAP INTO THE DAM FOR STABILIZATION.

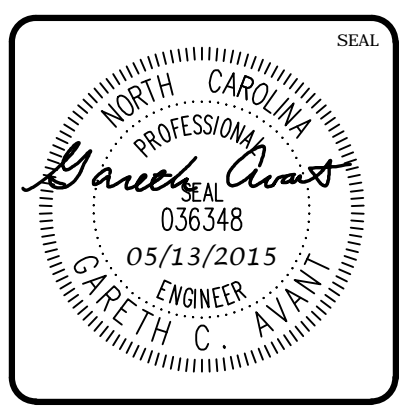
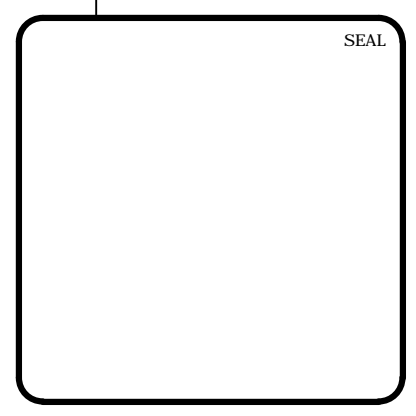
- NOTE:** REMOVE SEDIMENT ACCUMULATION FROM BEHIND CHECK DAMS TO PREVENT DAMAGE TO CHANNEL VEGETATION. FLOW SHOULD BE MAINTAINED THROUGH THE DAM.

**CHECK DAM**  
NTS



**SILT FENCE OUTLET**  
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PHASE 16 EARLY GRADING  
CHATHAM COUNTY, NORTH CAROLINA**

DATE: MARCH 26, 2015	SCALE: HORIZONTAL	RBC FILE NUMBER: D1.X
MCE PROJ. # 02735-0101	AS NOTED	DRAWING NUMBER: D1.1
DRAWN: GCA	VERTICAL: N/A	
DESIGNED: GCA		
CHECKED: CHS		
PROJ. MGR: CHS		
STATUS: FINAL DRAWINGS ISSUED FOR CONSTRUCTION	REVISION: A	

**RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING**

SEEDING MIXTURE  
SPECIES RATE (lb./acre)  
TALL FESCUE 80  
KOBÉ LESPEDEZA 40

NURSE PLANTS:  
BETWEEN MAY 1 AND AUG. 15, ADD 10 lb/acre GERMAN MILLET OR 15 lb/acre SUDANGRASS. PRIOR TO MAY 1 OR AFTER AUG. 15, ADD 40 lb/ac RYE (GRAIN)

SEEDING DATES:  
BEST AUG. 15 - SEPT. 15 POSSIBLE AUG. 20 - OCT. 25  
FALL FEB. 15 - MAR. 21 LATE WINTER FEB. 1 - APR. 15.

FALL IS BEST FOR TALL FESCUE AND LATER WINTER FOR LESPEDEZAS. OVERSEEDING OF KOBÉ LESPEDEZA OVER FALL-SEEDED TALL FESCUE IS VERY EFFECTIVE.

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 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:  
REFERTILIZE IN THE SECOND YEAR UNLESS GROWTH IS FULLY ADEQUATE. MAY BE MOWED ONCE OR TWICE A YEAR, BUT MOWING IS NOT NECESSARY. RESEED, FERTILIZE AND MULCH DAMAGED AREAS IMMEDIATELY.

**RECOMMENDATIONS FOR GRASS-LINED CHANNELS**

SEEDING MIXTURE  
SPECIES RATE (lb./acre)  
TALL FESCUE 200

NURSE PLANTS:  
BETWEEN MAY 1 AND AUG. 15, ADD 10 lb/acre SUDANGRASS OR 15 lb/acre GERMAN MILLET. PRIOR TO MAY 1 OR AFTER AUG. 15, ADD 40 lb/ac RYE (GRAIN)

SEEDING DATES:  
BEST AUG. 25 - OCT. POSSIBLE FEB. - APR. 15

AVOID SEEDING FROM NOV. TO JAN. IF SEEDING MUST BE DONE AT THIS TIME, ADD 40 lb/acre RYE GRAIN AND USE A CHANNEL LINING THAT OFFERS MAXIMUM PROTECTION

SOIL AMENDMENTS:  
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 4,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 1,000 lb/acre 10-10-10 FERTILIZER

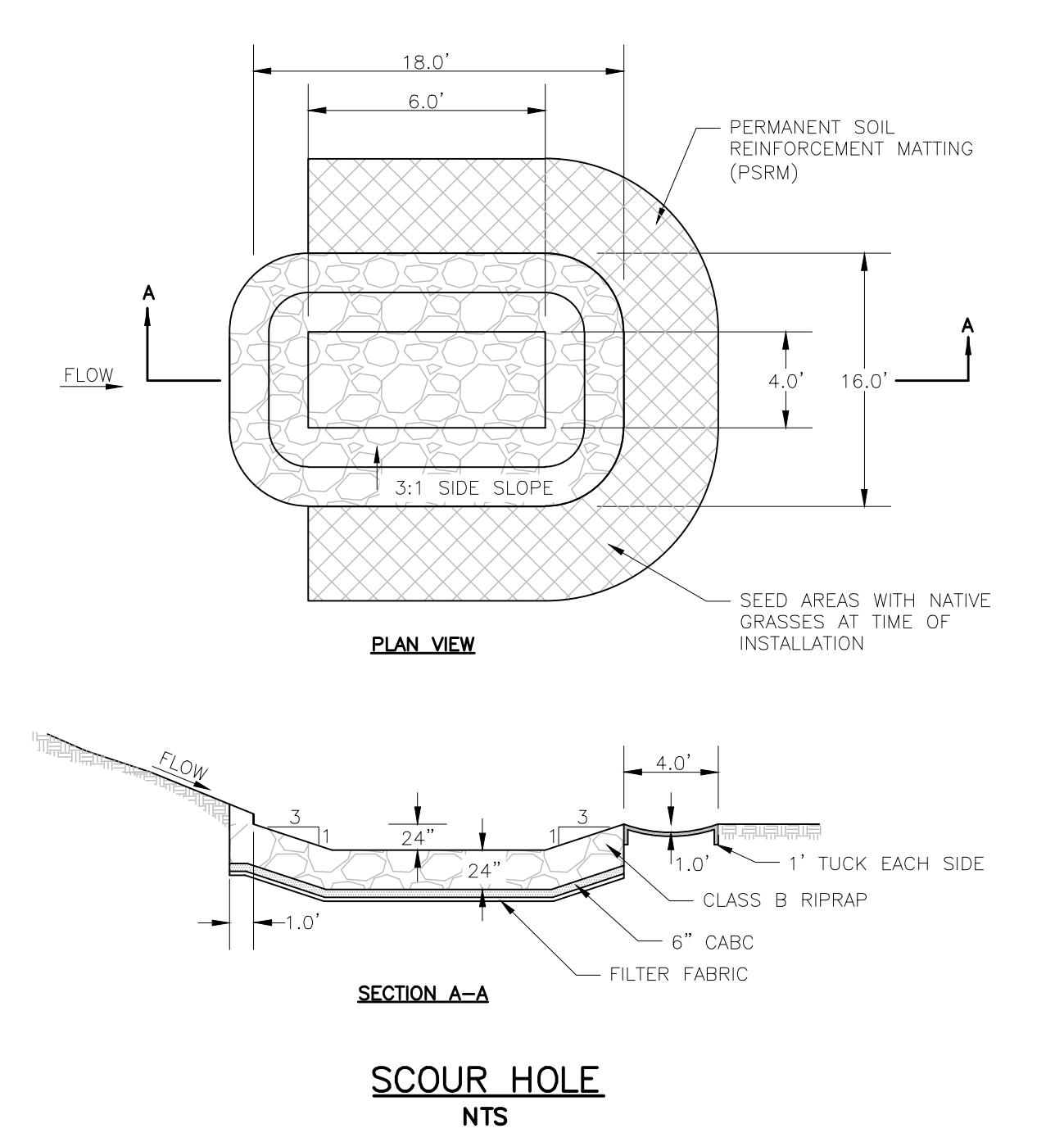
MULCH:  
USE ROLLED EROSION CONTROL PRODUCT TO COVER THE BOTTOM OF THE CHANNELS AND DITCHES, AND STAPLE SECURELY. THE LINING SHOULD EXTEND ABOVE THE HIGHEST CALCULATED DEPTH OF FLOW. ON CHANNEL SIDE SLOPES ABOVE THIS HEIGHT, AND IN DRAINAGES NOT REQUIRING TEMPORARY LININGS, APPLY 4,000 lb/acre GRAIN STRAW, AND ANCHOR STRAW BY STAPLING NETTING OVER THE TOP.

MULCH AND ANCHORING MATERIALS MUST NOT BE ALLOWED TO WASH DOWN SLOPES WHERE THEY CAN CLOG DRAINAGE DEVICES.

MAINTENANCE:  
INSPECT AND REPAIR MULCH FREQUENTLY. REFERTILIZE IN LATE WINTER OF THE FOLLOWING YEAR; USE SOIL TESTS OR APPLY 150 lb/acre 10-10-10. MOW REGULARLY TO A HEIGHT OF 2-4 INCHES.

**NOTE:**  
SEE NCDENR'S EROSION AND SEDIMENT CONTROL PLANNING DESIGN MANUAL SECTION 6.11 FOR ADDITIONAL PERMANENT SEEDING OPTIONS.

**PERMANENT SEEDING SCHEDULE**  
NTS



**SCOUR HOLE**  
NTS

**RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING**

SEEDING MIXTURE  
SPECIES RATE (lb./acre)  
RYE (GRAIN) 120  
ANNUAL LESPEDEZA (KOBÉ IN PIEDMONT & COASTAL PLAIN, KOREAN IN MOUNTAINS)

OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE

SEEDING DATES:  
MOUNTAINS (ABOVE 2,500'): FEB. 15 - MAY 15  
(BELOW 2,500'): FEB. 1 - MAY 1  
PIEDMONT: JAN. 1 - MAY 1  
COASTAL PLAIN: DEC. 1 - APR. 15

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 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:  
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

**RECOMMENDATIONS FOR SUMMER**

SEEDING MIXTURE  
SPECIES RATE (lb./acre)  
GERMAN MILLET 40

IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUDANGRASS MAY BE SUBSTITUTED AT A RATE OF 50 lb/acre.

SEEDING DATES:  
MOUNTAINS: MAY 15 - AUG. 15  
PIEDMONT: MAY 1 - AUG. 15  
COASTAL PLAIN: APR. 15 - AUG. 15

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 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:  
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

**RECOMMENDATIONS FOR FALL**

SEEDING MIXTURE  
SPECIES RATE (lb./acre)  
RYE (GRAIN) 120

SEEDING DATES:  
MOUNTAINS: AUG. 15 - DEC. 15  
COASTAL PLAIN AND PIEDMONT: AUG. 15 - DEC. 30

SOIL AMENDMENTS:  
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 lb/acre GROUND AGRICULTURAL LIMESTONE AND 750 lb/acre 10-10-10 FERTILIZER

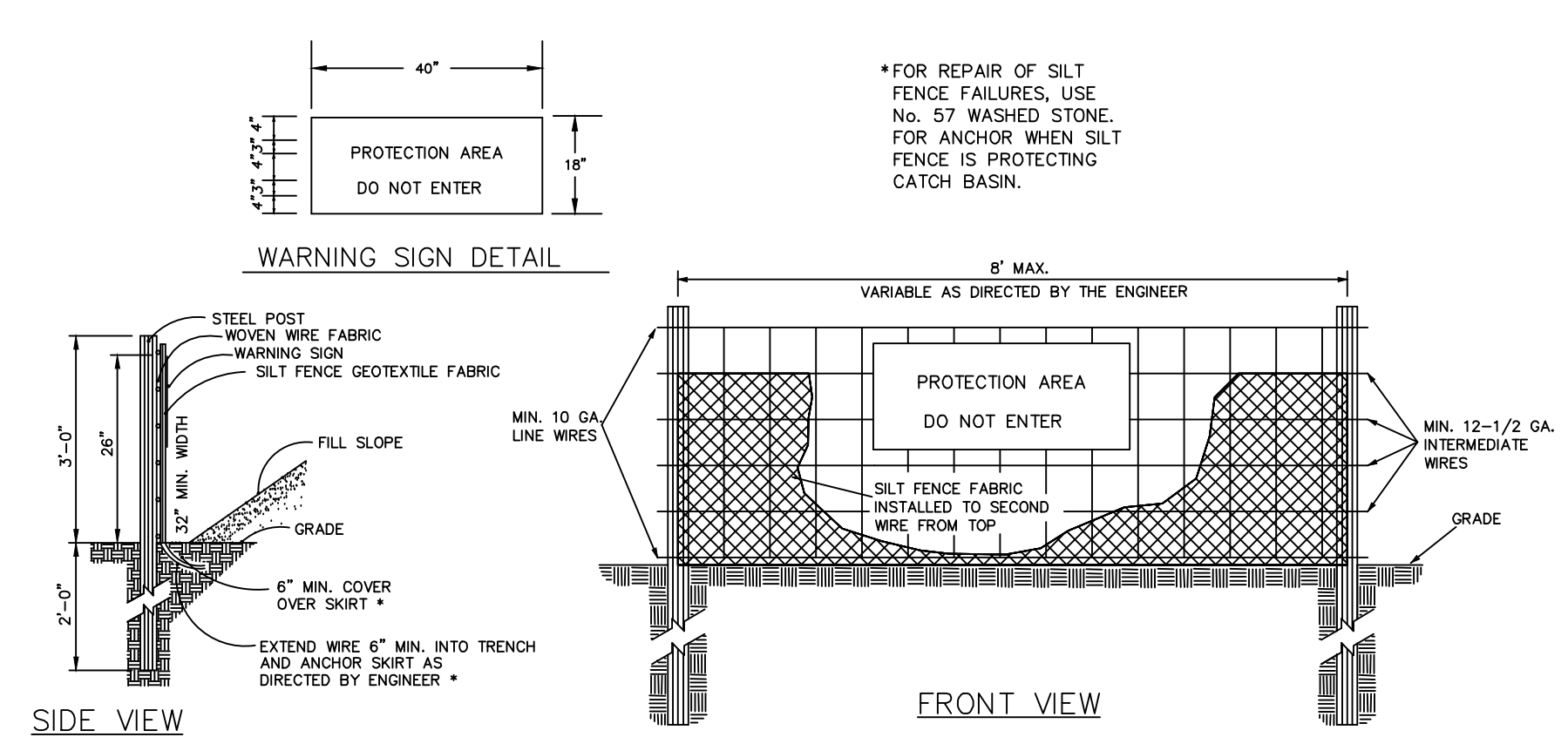
MULCH:  
APPLY 4,000 lb/acre STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE:  
REPAIR AND REFERTILIZE 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 KOBÉ (PIEDMONT AND COASTAL PLAIN) OR KOREAN (MOUNTAINS) LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.

**TEMPORARY SEEDING SCHEDULE**  
NTS

- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
  - RIP THE ENTIRE AREA TO 6 INCHES DEPTH.
  - REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
  - APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW\*).
  - CONTINUE TILLAGE UNTIL A WELL - PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
  - SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
  - MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
  - INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
  - CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
- \* APPLY: AGRICULTURAL LIMESTONE - 2 TONS/ACRE OR 3 TONS/ACRE IN CLAY SOILS  
FERTILIZER - 1000 LBS/ACRE (10-10-10)  
SUPERPHOSPHATE - 500 LBS/ACRE (20R)  
MULCH - 2 TONS/ACRE (SMALL GRAIN STRAW)ANCHOR - ASPHALT EMULSION AT 450 GAL./ACRE

**SEEDBED PREPARATION**  
NTS



**COMBINATION SILT/TREE PROTECTION FENCE**  
NTS

**NOTES:**  
1. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.  
2. LETTERS TO BE 3" HIGH MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.  
3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS.  
4. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER.  
5. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.  
6. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.  
7. MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.  
8. ADDITIONAL SIGNS MAY BE REQUIRED BY CHATHAM COUNTY BASED ON ACTUAL FIELD CONDITIONS.  
9. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER.  
10. FLOW SHALL NOT RUN PARALLEL WITH THE FENCE.  
11. END OF SILT FENCE NEEDS TO BE TURNED UPHILL.  
12. SEE NCDENR PRACTICE & SPECIFICATIONS MANUAL, SEDIMENTS FENCE SECTION FOR CONDITIONS WHERE PRACTICE APPLIES AND DESIGN CRITERIA.

POSITIVE GRADE MUST BE PROVIDED TO ASSURE DRAINAGE. IF SLOPE EXCEEDS 2% SEED AND MULCH DIVERSION, TRY NOT TO EXCEED 5% MAXIMUM D.A. = 5 ACRES WITHOUT SUPPORTING CALLOS. DIVERSIONS AT THE TOP OF SLOPES MUST EMPTY INTO AN APPROVED SLOPE DRAIN. BERM/DITCH IS MOST COMMONLY USED.

a. MACHINE COMPACTION OF ALL FILL IS REQUIRED. DIVERSIONS SUFFICIENT TO DIRECT ALL SEDIMENT- LADEN STORMWATER INTO A SEDIMENT CONTROL DEVICE MUST BE INSTALLED PRIOR TO CLEARING AND GRUBBING OF THE AREA (OR IN CONJUNCTION WITH THIS OPERATION) IF SEDIMENT CONTROLS AND DIVERSIONS ARE INSTALLED AS EACH CRITICAL POINT IS REACHED).

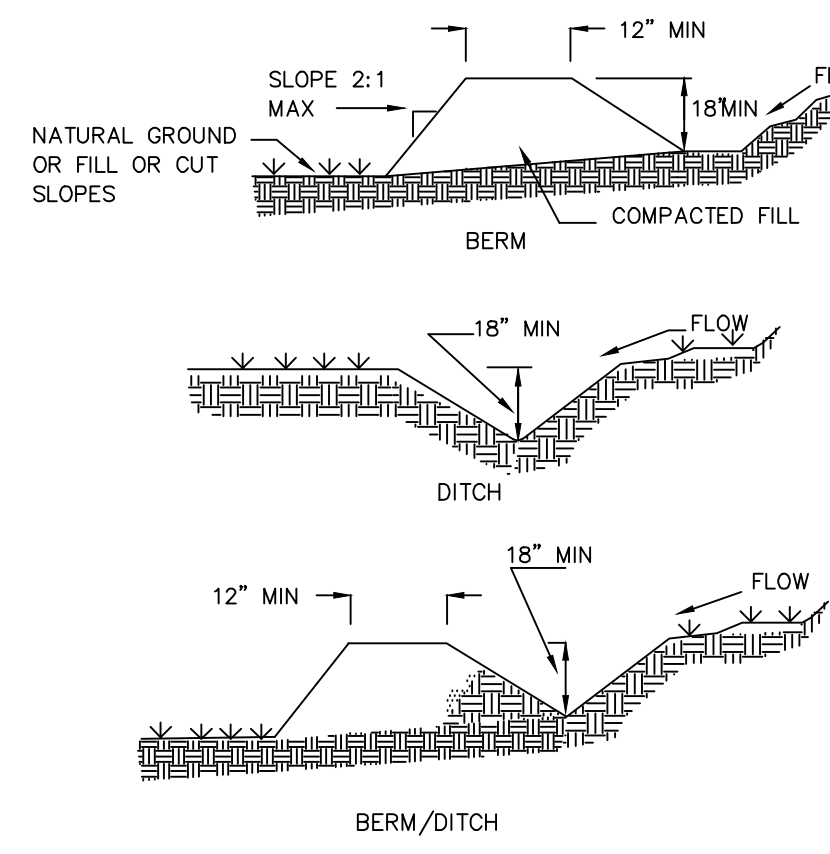
b. DIVERSIONS SHOULD BE LOCATED TO MINIMIZE DAMAGES BY CONSTRUCTION OPERATIONS.

c. DIVERSIONS SHOULD BE SEEDED AND MULCHED IF THEY ARE TO REMAIN IN PLACE OVER 30 DAYS.

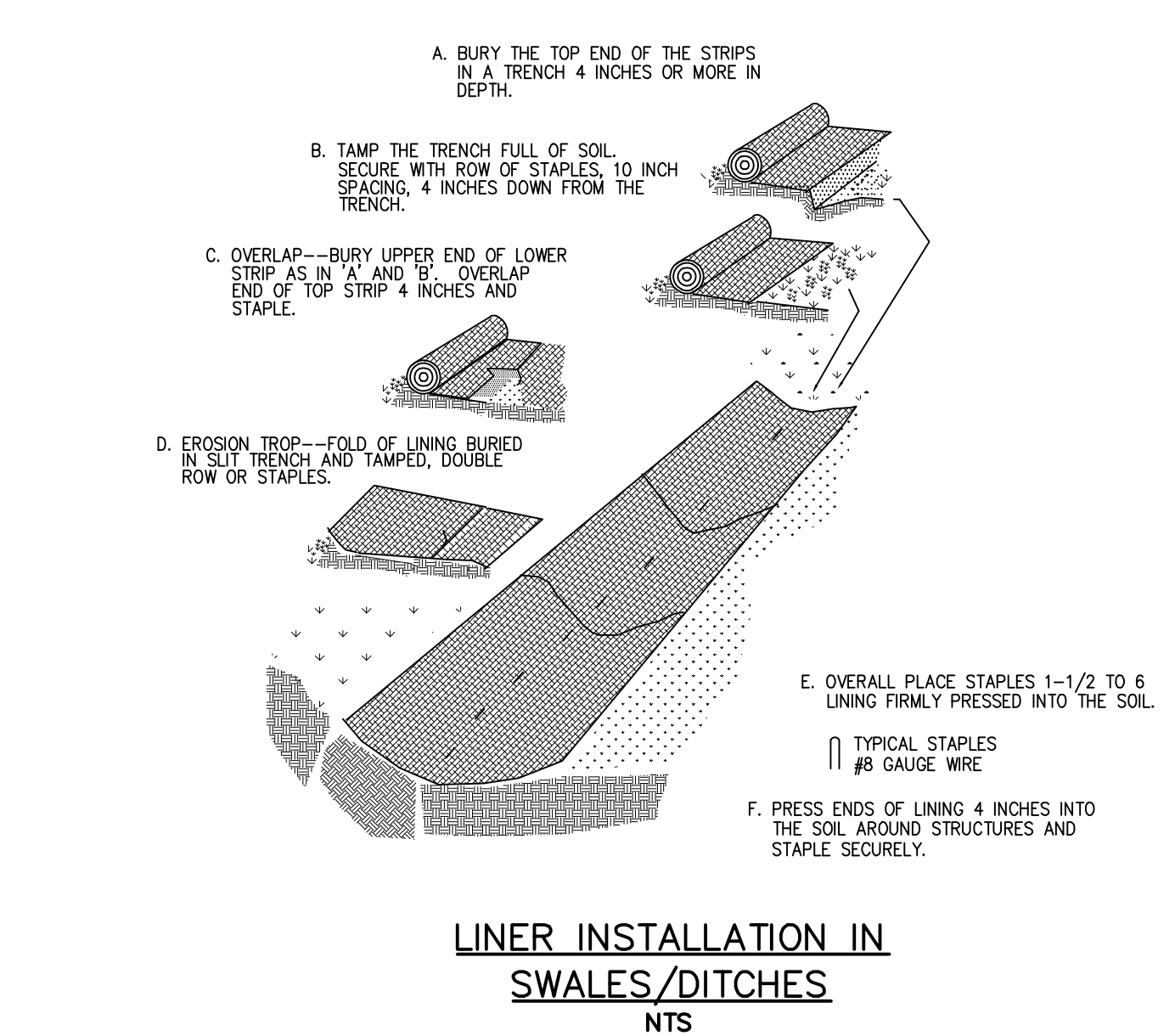
d. CHECK DEVICE AFTER EACH RAIN, BUT ONCE A WEEK REGARDLESS. REPAIR AS NECESSARY.

**MAINTENANCE**  
1. INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.

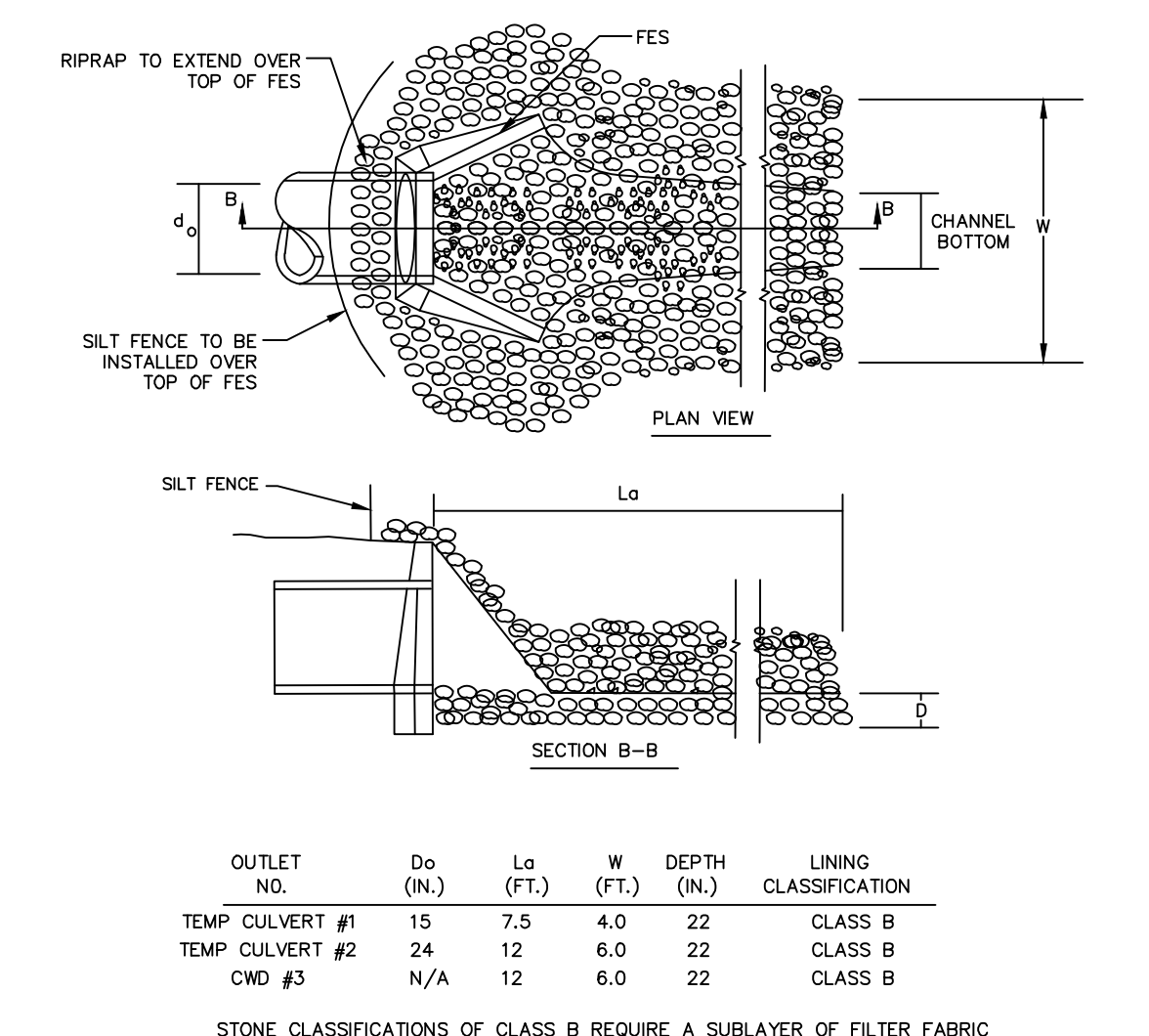
**LINER SPECIFICATIONS:**  
INSTALLED LINERS MUST MEET THE FOLLOWING MINIMUM PERMISSIBLE SHEAR SPECIFICATIONS:  
STRAW W/NET - 1.45 LB/FT<sup>2</sup>  
SYNTHETIC MAT - 2.00 LB/FT<sup>2</sup>  
SC250 - MIN. SPECIFICATIONS PER TENSAR NORTH AMERICAN  
GREEN Wmax C350 TURF REINFORCEMENT MAT  
GREEN Wmax P550 TURF REINFORCEMENT MAT  
P550 - MIN. SPECIFICATIONS PER TENSAR NORTH AMERICAN  
GREEN Wmax P550 TURF REINFORCEMENT MAT



**TEMPORARY DIVERSION DITCH**  
NTS



**LINER INSTALLATION IN SWALES/DITCHES**  
NTS

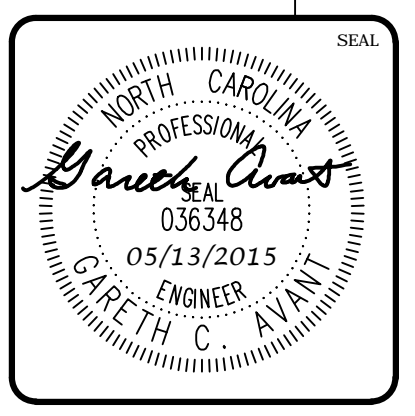
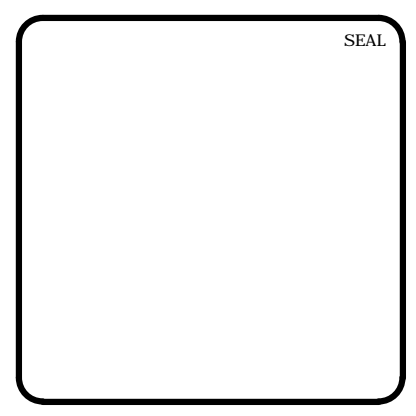


**RIPRAP OUTLET PROTECTION**  
NTS

OUTLET NO.	Do (IN.)	Lo (FT.)	W (FT.)	DEPTH (IN.)	LINING CLASSIFICATION
TEMP CULVERT #1	15	7.5	4.0	22	CLASS B
TEMP CULVERT #2	24	12	6.0	22	CLASS B
CWD #3	N/A	12	6.0	22	CLASS B

STONE CLASSIFICATIONS OF CLASS B REQUIRE A SUBLAYER OF FILTER FABRIC OR FS-2 FILTER STONE WITH A BEDDING THICKNESS OF 6".

REV. NO.	ISSUED FOR CONSTRUCTION	DATE
A	ISSUED FOR CONSTRUCTION	2015.05.13



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**Newland COMMUNITIES**

**BRIAR CHAPEL**  
PHASE 16 EARLY GRADING  
CHATHAM COUNTY, NORTH CAROLINA

**DETAILS**

DATE: MARCH 26, 2015  
MCE PROJ. #: 02735-0101  
DRAWN: GCA  
DESIGNED: GCA  
CHECKED: CHS  
PROJ. MGR.: CHS

SCALE: HORIZONTAL: AS NOTED  
VERTICAL: N/A

RHC FILE NUMBER: D1.X  
DRAWING NUMBER: D1.2

STATUS: FINAL DRAWINGS ISSUED FOR CONSTRUCTION  
REVISION: A