

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

April 1, 2021

LEE COUNTY

Mr. Ben Catt Pine Gate Renewables, LLC 130 Roberts Street Asheville, NC 28801

SUBJECT: DRIVEWAY PERMIT- Access to NC Hwy. 42 (Broadway Rd.)

Commercial Permit # 53-82834

Dear Mr. Catt,

Attached for your information and file is an approved copy of the Driveway Permit listed for the above location. In addition, this permit is valid only if the below items are followed completely:

- 1. Driveway Special Provisions, attached.
- 2. Plans by "Civil Design Concepts, PA titled Broadway Road Solar, LLC, 0 Broadway Rd Sanford, NC", attached.
- 3. Driveway Connection and Slope and Grade details, attached. Driveways shall be constructed and maintained to ensure that driveway runoff does not enter onto roadway pavement at any time.
- 4. Driveways shall be constructed to tie-in flush with existing roadway pavement.
- 5. Driveways shall be constructed to tie-in flush with existing roadway pavement.
- 6. This permit is only to grant access to the property. If the land use for this property changes another driveway permit will have to be reviewed and approved by this office.

Prior to commencing any work in the State right-of-way, please contact Mr. Josh Brooks, County Maintenance Engineer, at (919) 775-3122 to schedule inspection.

If this office can be of further assistance, please advise.

Sincerely,

Matthew Littley, P.E.

Matthew W. Kitchen, P.E.

District Engineer

MWK: ram Attachments

CC: Brandon H. Jones, P.E. Josh Brooks, P.E. Mary Helms File

Mailing Address: NC DEPARTMENT OF TRANSPORTATION DIVISION 8 – DISTRICT 2 902 N. SANDHILLS BLVD. ABERDEEN, NC 28315 Telephone: (910) 944-7621 Fax: (910) 944-5623 Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location: 902 N. SANDHILLS BLVD. ABERDEEN, NC 28315

DRIVEWAY SPECIAL PROVISIONS Permit # 53-82834

- A. A copy of this permit shall be on site at all times during construction within State Right of Way.
- B. This permit is for one year from date on coverletter. With a request in writing the permit may be extended once for 90 days. Applicant must provide written notification when construction starts and when it is completed. Final approval by the District Engineer is required prior to opening the access for public use.
- C. The entrance on to NC Hwy. 42 is to be constructed in accordance with the attached detail sheets. At no time shall run-off enter the travel lanes of NC Hwy. 42.
- D. The traveling public shall be warned of construction with complete and proper signing and traffic control devices in accordance with the current <u>Manual on Uniform Traffic Control Devices</u> (<u>MUTCD</u>). No work shall be performed in the Right of Way unless this requirement is satisfied. NCDOT reserves the right to require a written traffic control plan for encroachment operations. Traffic control devices and operations shall include, but are not limited to the following:
 - Adequate and appropriate advance warning signs for any and all work zones closed or obstructed areas.
 - "End Construction" signage beyond the end of all work zones.
 - Adequate and appropriate delineation and control devices for all work zone areas including but not limited to lane closures, disturbed areas, and active work sites.
 - Properly trained and equipped flagmen.
 - Proper maintenance of all traffic control devices, including but not limited to proper signage and controls during periods of inactivity and removal of inappropriate traffic control signage and/or devices.
- E. All soil areas in the right-of-way on NC Hwy. 42 and any other soil areas disturbed during construction shall be seeded and mulched immediately upon completion of driveway construction.
- F. No parking or outdoor advertising signs shall be allowed inside the right-of-way.
- G. Erosion control devices must be in place and functioning during the construction phase.
- H. The Driveway entrance shall require improvements as shown on the approved plans/details. The improvements are to be installed by the owner and inspected by the Department of Transportation at a set rate of \$50.00.
- I. This permit is for access to NC Hwy. 42 only. It is not Certification of Subdivision Plats as stated in General Statute 136-102.6.
- J. It is agreed that the Department of Transportation grants to the owner/applicant the right and privilege to make this driveway connection as shown on attached plan sheets, specifications, and special provisions A. to K. which are made a part hereof.

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OFFICIAL COPY

Sep 26 2022

K. Please contact Mr. Josh Brooks, County Maintenance Engineer, at (919) 775-3122 and Mr. Richard Mabry, Division 8, District 2, at (910) 944-7621 prior to starting construction within the right-of-way and upon completion of the driveway.

	ON IDENTIFICATI	ON		N.C. DEPARTMENT O	F TRANSPORTATION
7 55-87854	Date of 1/4/	21		STREET AND DR	IVEWAY ACCESS
County: LEE	ррновион			PERMIT AP	PLICATION
Development Name: BROADW	AV BOAD SOLAB I	110			
Development Name. BROADVI		CATION OF F	ROPE	RTY:	
Route/Road: 1579					
Exact Distance 1.27	⊠ Miles	NSEV	M		
	Feet				
From the Intersection of Route I	No. SR1579	and Route		US 421Towa	ard SEMINOLE
Property Will Be Used For:	Residential /Subdivision	□ Commercial □	☐ Educ	ational Facilities 🏻 TND 🔲 En	nergency Services Other
Property:	⊠ is	is not		SANFORD	City Zoning Area.
		AGREEM	ENT		
of-way at the above location I agree to construct and may Street and Driveway Access Transportation. I agree that no signs or objeuransportation. I agree that the driveway(s) I agree that the driveway(s) speed change lanes as deed I agree that if any future implicated on public right-of-way will not be entitled to reimbuus agree that this permit beconspecified by the "Policy on Selagree to pay a \$50 construct application is denied. I agree to construct and main the public travel. I agree to provide during and the protection of traffic in conflict the protection of t	intain driveway(s) of to North Carolina is to the respect to the respect to the considered and Driveway ction inspection feet and Indominate the sor Supplements the sor Supplements the sor Supplements the sor Supplement of Twithin the highway ance and Indemnity is State Highway systematically on Driveway is subject to the regular C. Policy on Driveway is constructing and now will be borne by the	Highways" as a sen or over the propostructed as d in this agreer badway become d the property of the checks of the proper significant of the Carolina Department "Manual the Carolina Department of the theory powers of the property owners of the property owners of the theory powers of the theory powers of the theory powers of the theory of the theory of the theory powers of th	ublic rig shown ment in e neces of the N sent ex ay(s) or th Card s payab n a safe ns, sign al on Us ation as partme vill assu- nount se of the N not be of approve er, the a	ght-of-way other than thos on the attached plans. clude any approach tapers ssary, the portion of drivey forth Carolina Department (penditures for driveway of street(s) is not completed plina Highways". This fee we manner so as not to internal lights, flaggers and oth niform Traffic Control Devisor to the above rules and resent of Transportation from a carrying out its construction specified by the Division of the properties of the account of the properties of the properties of the account of the properties of the	se approved by NCDOT. s, storage lanes or way(s) or street(s) t of Transportation, and I or street construction. d within the time will be reimbursed if erfere with or endanger her warning devices for ices for Streets and egulations may be all damages and claims any damages that may on. of Highways for any ortation as provided by coess point. any access connection ees, successors, and
2004-07 NOTE: Submit Four	r Copies of Application	to Local District 6 61-03419	Enginee	r, N.C. Department of Transpo	ortation TEB 65-04rev.

	SI	GNATURES	OF APPLICA	ANT
	PROPERTY OWNER (APPLICANT)			WITNESS
COMPANY	PINE GATE RENEWABLES, LLC		NAME	Hannal Novak
SIGNATURE	166		SIGNATURE	Gannah Torak
ADDRESS	130 ROBERTS STREET	200 777 0450	ADDRESS	130 Roberts St.
	ASHEVILLE, NC 28801 Phone No.	828-777-6152		Asheville, NC 28801
	AUTHORIZED AGENT			WITNESS ETHAN LINER
COMPANY	CIVIL DESIGN CONCEPTS, PA		NAME	EIHAN LINDA
SIGNATURE			SIGNATURE	35 HAMBURG DR. APT. Z
ADDRESS	168 PATTON AVE		ADDRESS	
	ASHEVILLE, NC 28801 Phone No.	828-252-5388	-	WEAVERVILLE, NC 78787
		APPR	OVALS	
APPLICATION I	RECEIVED BY DISTRICT ENGINEER			
	DocuSigned by:			1/4/21
	Matthew kitchen, P.E.			1/4/21 DATE
	SIGNATOR EC74D9			DAIL
	DocuSigned by: APPROVED BY LOCAL GOVERNMENTAL A	NITHODITY (who	n required)	
APPLICATION	• •			2 /21 /2021
	Mary Defina	Civil	Engineer II	3/31/2021
	B9/8009/0022DC4EB		TITLE	DATE
APPLICATION /	APPROVED BY NCDOT			
	DocuSigned by:			4/1/2021
	Matthew Eitchen, P.F.			
	SIGNATUBE BC74D9		TITLE	DATE
INSPECTION B	YNCDOT			
	SIGNATURE		TITLE	DATE
COMMENTS:				

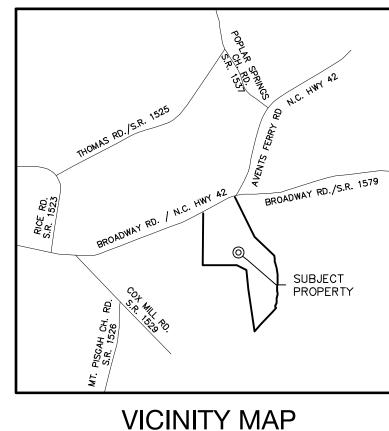
BROADWAY ROAD SOLAR, LLC 0 BROADWAY RD SANFORD, NC

CITY OF SANFORD, NC, NORTH CAROLINA

PREPARED FOR:

PINE GATE RENEWABLES, LLC 130 ROBERTS STREET ASHEVILLE, NC 28801 **BEN CATT** (828) 777-6152

INDEX OF SHEETS				
Sheet No. Title				
C000	COVER			
	SURVEY			
C100	EXISTING CONDITIONS & DEMOLITION PLAN			
C200	MASTER SITE PLAN			
C201	SITE PLAN			
C202	SITE PLAN			
C300	MASTER EROSION CONTROL PLAN			
C301	EROSION CONTROL PLAN			
C302	EROSION CONTROL PLAN			
C400	MASTER GRADING PLAN			
C401	GRADING PLAN			
C402	GRADING PLAN			
C931	EROSION CONTROL DETAILS			
C921	SITE DETAILS			
C932	EROSION CONTROL DETAILS			
C933	EROSION CONTROL DETAILS			
C934	EROSION CONTROL DETAILS			
C935	EROSION CONTROL DETAILS			
C998	NCG01			



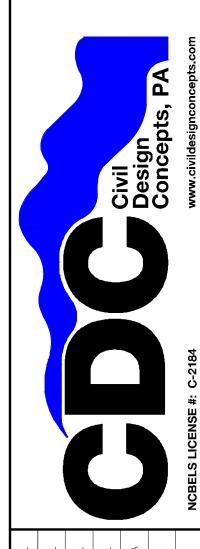




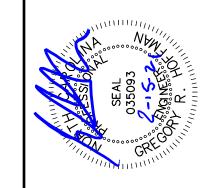
DEVELOPMENT DATA

PINE GATE RENEWABLES, LLC 130 ROBERTS STREET OWNER/DEVELOPER: ASHEVILLE, NC 28801

ASHEVILLE, NC 28801 CONTACT: GREG HOFFMAN, P.E. (828) 252-5388



	12/1//20	ISSUED FOR PERMIIS	EDL
	12/21/20	NCDEQ REVISIONS	EDL
	12/22/20	DEED BOOK/PAGE REVISION	EDL
	01/13/21	SCALE REVISION	EDL
	02/15/21	DRIVEWAY REVISION	JAA
	DATE	DESCRIPTION	ВҮ
l			



CDC PROJECT NO.: XXX PERMIT NO.

SHEET

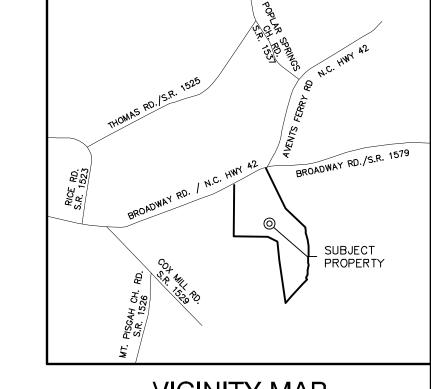
C000

SP-5474 Sub 0 NOTES ALL SITEWORK SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL REGULATORY STANDARDS AND ALL REQUIREMENTS IN THE PROJECT TECHNICAL SPECIFICATIONS. CONTRACTOR TO VERIFY WITH ENGINEER THAT THE REQUIRED GRADING/LAND DISTURBANCE AND DRIVEWAY PERMITS HAVE BEEN OBTAINED PRIOR TO BEGINNING CONSTRUCTION. CONTROL POINT #10002 60 PENNY NAIL NC GRID NAD 83 (2011) N: 623,155,924' E: 1,970,108.886' COMBINED FACTOR = 0.9998643 ELEVATION: 434.52' - NAVD 88 ALL WORK MUST BE PERFORMED BY A NORTH CAROLINA LICENSED CONTRACTOR. EXISTING OVERHEAD UTILITY POLE (TO REMAIN)(TYP) TO SCHEDULE THE REQUIRED INSPECTIONS ON ALL WORK, CALL THE CIVIL DESIGN CONCEPTS INSPECTIONS HOTLINE AT 828-771-4755, OR EMAIL AT INSPECTIONS@CDCGO.COM. EXISTING OVERHEAD UTILITY LINE (TO REMAIN)(TYP) FAILURE TO SCHEDULE INSPECTIONS MAY RESULT IN UNCOVERING OR REDOING WORK INTERNAL PROPERTY LINE (TYP) CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING THE EXACT LOCATION AND ELEVATION FOR ALL UTILITIES PRIOR TO EXISTING NCDOT RIGHT OF WAY (TYP) CONSTRUCTION; AND TO NOTIFY ENGINEER OF ANY CONFLICTS OR DISCREPANCIES. THE LOCATION OF SOME UTILITIES SHOWN ON THE PLANS HAVE BEEN APPROXIMATED. ALL BURIED UTILITIES HAVE NOT BEEN SHOWN ON THE PLANS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR LOCATION PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROTECT EXISTING SITE FEATURES CALLED OUT TO REMAIN DURING CONSTRUCTION. ANY DAMAGE INCURRED DURING OR RESULTING FROM CONSTRUCTION ACTIVITY IS THE RESPONSIBILITY OF THE CONTRACTOR AND IS TO BE REPAIRED IN ACCORDANCE WITH APPLICABLE STANDARDS OF APPROPRIATE AGENCIES AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS TO NOTIFY ALL UTILITY COMPANIES AT LEAST 72 HOURS BEFORE CONSTRUCTION ACTIVITY IS TO BEGIN. THE CONTRACTOR SHALL NOTIFY ULOCO AT 1-800-632-4949 OR 811, 72 HOURS BEFORE CONSTRUCTION BEGINS. LOT 5 10.03 ACS. P.C. 2007, SL. 145 EROSION CONTROL IS FIELD PERFORMANCE BASED AND CONTROL POINT #10001 60 PENNY NAIL NC GRID NAD 83 (2011) N: 623,412,504' E: 1,970,342,098' COMBINED FACTOR = 0.9998643 ELEVATION: 420,76' - NAVD 88 CONTRACTOR SHALL INSTALL AND MAINTAIN ANY EROSION CONTROL MEASURES NECESSARY TO ASSURE MAXIMUM PROTECTION OF THE SITE DURING DEMOLITION AND CLEARING. CONTROL POINT #10003 60 PENNY NAIL NC GRID NAD 83 (2011) N: 621,773.875' E: 1,970,755.587' COMBINED FACTOR = 0.9998643 ELEVATION: 414.04' - NAVD 88 CONTRACTOR TO COORDINATE TIMING OF DEMOLITION AND EXISTING DRIVEWAY (TO BE REMOVED)(TYP) CONSTRUCTION WITH OWNER TO ENSURE EXISTING FACILITIES REMAIN ACCESSIBLE. 10. ALL DEBRIS, STRUCTURES AND UTILITIES TO BE DEMOLISHED AND EXISTING CULVERT (TO BE REMOVED)(TYP) REMOVED FROM THE PROJECT SITE ARE NOT SHOWN ON THIS PLAN. ANY ADDITIONAL DEBRIS, STRUCTURES AND UTILITIES ENCOUNTERED DURING CONSTRUCTION, WHICH IN THE OPINION OF THE ENGINEER SHOULD BE DEMOLISHED AND REMOVED, SHALL BE DISPOSED OF OFF-SITE AT THE CONTRACTORS EXPENSE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY REQUIRED PERMITS. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO ONLY AREAS REQUIRED TO INSTALL ALL EROSION CONTROL MEASURES. CONTROL POINT #10004 60 PENNY NAIL NC GRID NAD 83 (2011) N: 621,568.084' E: 1,971,235.387' COMBINED FACTOR = 0.9998643 ELEVATION: 407.08' - NAVD 88 TOTAL AREA EXISTING PERENNIAL STREAM 'A' (TYP) LOT 6 10.01 ACS. P.C. 2007, SL. 145 EXISTING TREELINE (TO BE REMOVED)(TYP) PROPOSED LIMITS OF DISTURBANCE (TYP) EXISTING CULVERT EXISTING TREELINE (TO REMAIN)(TYP) TO REMAIN (TYP) EXISTING WETLANDS (TYP) EXISTING OVERHEAD UTILITY LINE (TO REMAIN)(TYP) EXISTING OVERHEAD UTILITY LINE (TO BE REMOVED)(TYP EXISTING ZONING BOUNDARY (TYP)

EXISTING PERENNIAL STREAM 'C' (TYP

EXISTING PERENNIAL STREAM 'B' (TYP)

EXISTING STREAM BUFFER (TYP)



VICINITY MAP (NOT TO SCALE)

PINE GATE RENEWABLES, LLC 130 ROBERTS STREET OWNER/DEVELOPER: ASHEVILLE, NC 28801 BEN CATT (828) 777-6152

CIVIL DESIGN CONCEPTS, P.A. CIVIL ENGINEER: 168 PATTON AVENUE ASHEVILLE, NC 28801 GREG HOFFMAN, P.E. CONTACT: (828) 252-5388

STEWART-PROCTOR, PLLC 319 CHAPANOKE ROAD SUITE 106 SURVEYOR: RALEIGH, NC 27603 (919) 779-1855

PROJECT DATA

DISTURBED AREA:

DEVELOPMENT DATA

CONTACT:

9672-12-4540 ADDRESS: O BROADWAY RD, SANFORD, NC 27331 DEED BOOK/PAGE: 01586/0390-0392 SITE ACREÁGE: 75.6 ÁCRES ZONING: R-20 SETBACKS: FRONT: 100' SIDES: 50' REAR:

IMPERVIOUS CALCULATIONS:

PERVIOUS IMPERVIOUS PRE-DEVELOPMENT: 0.00 ACRES (00%) 75.6 ACRES (100%) 0.84 ACRES (1.1%) 74.76 ACRES (98.9%) POST-DEVELOPMENT:

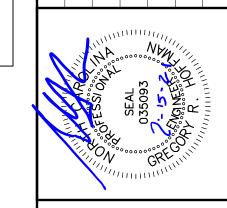
19.6 AC

CfD DuB FuB PaF HYDROLOGIC SOIL GROUP: A C B B

STREAM DATA: STREAM INDEX: 18-20-9 STREAM NAME: DESCRIPTION:

PATCHET CREEK (PACHET CREEK) FROM SOURCE TO UPPER LITTLE RIVER CLASSIFICATION: RIVER BASIN:

CAPE FEAR



CDC INSPECTIONS HOTLINE: 828-771-4755 OR INSPECTION@CDCGO.COM NORTH

EXISTING CONDITIONS & DEMOLITION PLAN

GRAPHIC SCALE

Know what's below.

Call before you dig.

(IN FEET) 1 inch = 150 ft.

DRAWN BY: DNK 12088 CDC PROJECT NO.: XXX PERMIT NO.

SUBJECT

VICINITY MAP

(NOT TO SCALE)

PINE GATE RENEWABLES, LLC 130 ROBERTS STREET

CIVIL DESIGN CONCEPTS, P.A.

STEWART-PROCTOR, PLLC 319 CHAPANOKE ROAD SUITE 106

O BROADWAY RD, SANFORD, NC 27331

PERVIOUS

0.00 ACRES (00%) 75.6 ACRES (100%)

CfD DuB FuB PaF

ASHEVILLE, NC 28801

168 PATTON AVENUE

ASHEVILLE, NC 28801

GREG HOFFMAN, P.E.

RALEIGH, NC 27603

(919) 779-1855

9672-12-4540

75.6 ÁCRES

R-20

100'

50'

19.6 AC

IMPERVIOUS

01586/0390-0392

(828) 252-5388

(828) 777-6152

BEN CATT

PROPERTY

0

DNK 12088

DRAWN BY: CDC PROJECT NO.: XXX PERMIT NO.

SHEET



FAILURE TO SCHEDULE INSPECTIONS MAY RESULT IN UNCOVERING OR REDOING WORK CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING THE EXACT LOCATION AND ELEVATION FOR ALL UTILITIES PRIOR TO CONSTRUCTION; AND TO NOTIFY ENGINEER OF ANY CONFLICTS OR DISCREPANCIES. THE LOCATION OF SOME UTILITIES SHOWN ON THE PLANS HAVE BEEN APPROXIMATED. ALL BURIED UTILITIES HAVE NOT BEEN SHOWN ON THE PLANS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR LOCATION PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROTECT EXISTING SITE FEATURES (SHOWN

1. ALL SITEWORK SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL REGULATORY STANDARDS AND ALL REQUIREMENTS IN THE PROJECT TECHNICAL SPECIFICATIONS.

3. ALL WORK MUST BE PERFORMED BY A NORTH CAROLINA LICENSED

TO SCHEDULE THE REQUIRED INSPECTIONS ON ALL WORK, CALL THE CIVIL DESIGN CONCEPTS INSPECTIONS HOTLINE AT 828-771-4755, OR EMAIL AT INSPECTIONS@CDCGO.COM.

2. SINGLE-PHASE CONSTRUCTION.

TO REMAIN) AND NEWLY COMPLETED WORK DURING CONSTRUCTION. ANY DAMAGE INCURRED DURING OR RESULTING FROM CONSTRUCTION ACTIVITY IS THE RESPONSIBILITY OF THE CONTRACTOR AND IS TO BE REPAIRED IN ACCORDANCE WITH APPLICABLE STANDARDS OF APPROPRIATE AGENCIES AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR IS TO NOTIFY ALL UTILITY COMPANIES AT LEAST 72 HOURS BEFORE CONSTRUCTION ACTIVITY IS TO BEGIN. THE CONTRACTOR SHALL NOTIFY ULOCO AT 1-800-632-4949 OR 811, 72 HOURS BEFORE CONSTRUCTION BEGINS.

CURB END TREATMENT TO BE APPLIED TO ALL CURB ENDS. REFER TO CURB END TREATMENT DETAIL.

PROPOSED ROADS TO BE **PRIVATE**. **NCDOT IS NOT** RESPONSIBLE

LANDSCAPE BUFFER

FOR ANY ROAD MAINTENANCE.

NOTES

TYPE "C", 20' WIDE LANDSCAPE BUFFER YARD PLANT MATERIAL SHALL CONSIST OF ONLY EVERGREEN PLANT MATERIAL THAT HAS A GROWTH HABIT WHICH WILL SCREEN THE DEVELOPMENT AND SHALL BE INSTALLED AROUND THE PERIMETER OF

• SMALL TREES SHALL MEASURE A MINIMUM OF 1.5 TO 2 INCHES IN CALIPER FOR SINGLE STEM TREES AND AT LEAST 6 TO 8 FEET IN

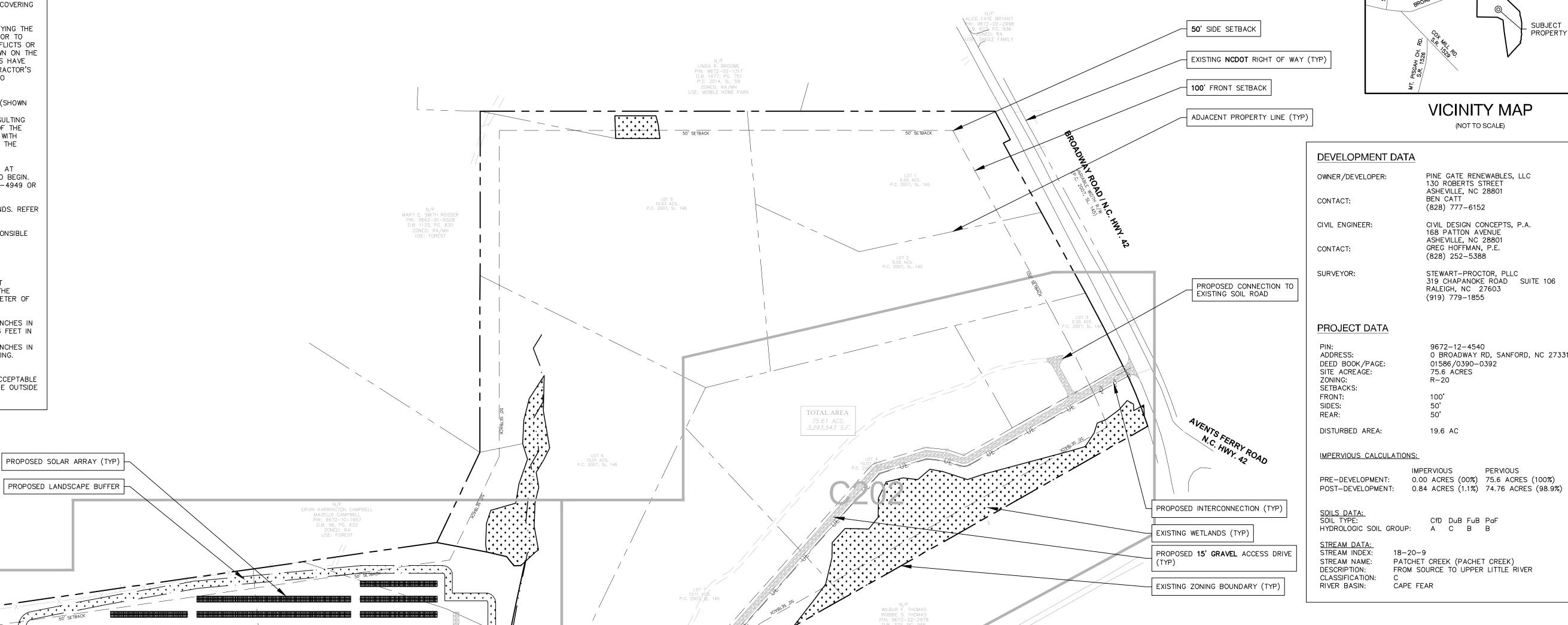
HEIGHT AT THE TIME OF PLANTING. LARGE TREES SHALL MEASURE A MINIMUM OF 1.5 TO 2 INCHES IN CALIPER AND 8 TO 10FEET IN HEIGHT AT TIME OF PLANTING. THIS LANDSCAPE BUFFER SHALL COMPLY WITH ARTICLE 7,

LANDSCAPING & BUFFERING STANDARDS AND APPENDIX C ACCEPTABLE PLANT SPECIES OF THE UDO AND SHALL BE LOCATED ON THE OUTSIDE OF THE FENCED AREA.

50' REAR SETBACK

EXISTING STREAM (TYP)

EXISTING STREAM BUFFER (TYP)



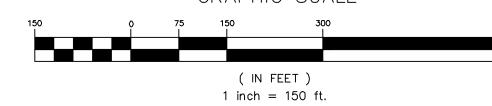
CDC INSPECTIONS HOTLINE:





MASTER SITE PLAN

GRAPHIC SCALE



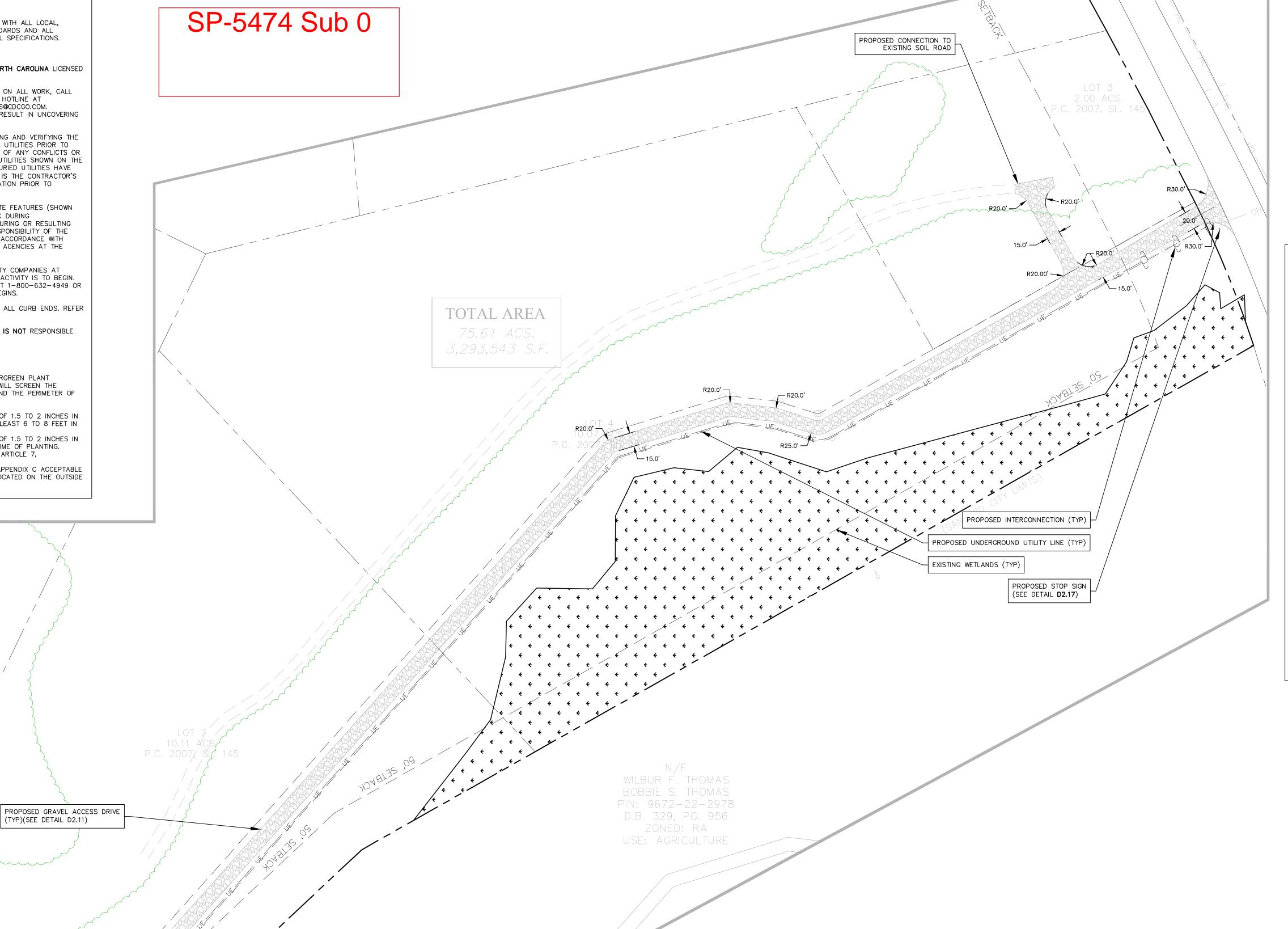
ROADWAY ROAD SOLAR, I BROADWAY RD SANFORD

DNK 12088

DRAWN BY: CDC PROJECT NO.: XXX PERMIT NO.

SHEET

GRAPHIC SCALE (IN FEET) 1 inch = 60 ft.



NOTES

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FAILURE TO SCHEDULE INSPECTIONS MAY RESULT IN UNCOVERING

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LANDSCAPING & BUFFERING STANDARDS AND APPENDIX C ACCEPTABLE

PLANT SPECIES OF THE UDO AND SHALL BE LOCATED ON THE OUTSIDE

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THIS LANDSCAPE BUFFER SHALL COMPLY WITH ARTICLE 7,

THE CIVIL DESIGN CONCEPTS INSPECTIONS HOTLINE AT 828-771-4755, OR EMAIL AT INSPECTIONS@CDCGO.COM.

2. SINGLE-PHASE CONSTRUCTION.

CONTRACTOR.

OR REDOING WORK

CONSTRUCTION.

CONTRACTOR'S EXPENSE.

TO CURB END TREATMENT DETAIL.

TYPE "C", 20' WIDE LANDSCAPE BUFFER YARD

HEIGHT AT THE TIME OF PLANTING.

FOR ANY ROAD MAINTENANCE.

LANDSCAPE BUFFER

OF THE FENCED AREA.

VICINITY MAP (NOT TO SCALE)

(828) 777-6152

(828) 252-5388

BROADWAY RD./S.R. 1579

SUBJECT

PROPERTY

DEVELOPMENT DATA PINE GATE RENEWABLES, LLC 130 ROBERTS STREET OWNER/DEVELOPER: ASHEVILLE, NC 28801 BEN CATT

CIVIL ENGINEER: CIVIL DESIGN CONCEPTS, P.A. 168 PATTON AVENUE ASHEVILLE, NC 28801 GREG HOFFMAN, P.E. CONTACT:

STEWART-PROCTOR, PLLC 319 CHAPANOKE ROAD SUITE 106 SURVEYOR: RALEIGH, NC 27603 (919) 779-1855

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CfD DuB FuB PaF HYDROLOGIC SOIL GROUP: A C B B

18-20-9 STREAM INDEX:

PATCHET CREEK (PACHET CREEK) FROM SOURCE TO UPPER LITTLE RIVER STREAM NAME: DESCRIPTION: CLASSIFICATION: C RIVER BASIN: CAF CAPE FEAR

SITE LEGEND PROPERTY LINE SETBACK LINE

RIGHT OF WAY LINE PROPOSED PRIVACY FENCE PROPOSED SIGHT TRIANGLE

PROPOSED CONCRETE SIDEWALK

PROPOSED LANDSCAPE AREA

CDC INSPECTIONS HOTLINE: 828-771-4755 OR INSPECTION@CDCGO.COM





SITE PLAN

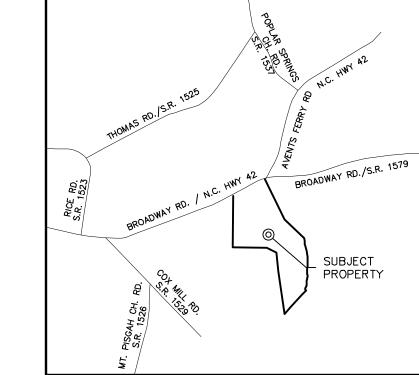
NOTES SEE GRADING, EROSION CONTROL, AND STORM DRAINAGE DETAIL SHEETS FOR ALL GENERAL NOTES. CONTRACTOR RESPONSIBLE

FOR INCLUSION OF DETAILS SHEETS WITH ALL PLANS. NO PORTION OF THIS PROJECT LIES WITHIN THE 100-YR FEMA

FLOODPLAIN.

3. TO SCHEDULE THE REQUIRED INSPECTIONS ON ALL WORK, CALL THE CIVIL DESIGN CONCEPTS INSPECTIONS HOTLINE AT 828-771-4755, OR EMAIL AT INSPECTIONS@CDCGO.COM. FAILURE TO SCHEDULE INSPECTIONS MAY RESULT IN UNCOVERING OR REDOING WORK

SP-5474 Sub 0



VICINITY MAP (NOT TO SCALE)

DEVELOPMENT DATA

PINE GATE RENEWABLES, LLC 130 ROBERTS STREET ASHEVALTE, NC 28801 OWNER/DEVELOPER:

CIVIL ENGINEER:

CIVIL DESIGN CONCEPTS, P.A. 168 PATTON AVENUE ASHEVILLE, NC 28801 GREG HOFFMAN, P.E. (828) 252-5388 CONTACT:

STEWART-PROCTOR, PLLC 319 CHAPANOKE ROAD SUITE 106 RALEIGH, NC 27603 SURVEYOR:

(919) 779-1855

BEN CATT

(828) 777-6152

PROJECT DATA

ADDRESS:
DEED BOOK/PAGE:
SITE ACREAGE:
ZONING:
SETBACKS:

9672-12-4540 O BROADWAY RD, SANFORD, NC 27331 01586/0390-0392 75.6 ÁCRES

R-20 100' 50'

DISTURBED AREA: 19.6 AC

IMPERVIOUS CALCULATIONS:

IMPERVIOUS PERVIOUS PRE-DEVELOPMENT: 0.00 ACRES (00%) 75.6 ACRES (100%) POST-DEVELOPMENT: 0.84 ACRES (1.1%) 74.76 ACRES (98.9%)

SOILS DATA:
SOIL TYPE: CfD DuB FuB Pal
HYDROLOGIC SOIL GROUP: A C B B

STREAM DATA: STREAM INDEX: 18-20-9 STREAM NAME: DESCRIPTION:

PATCHET CREEK (PACHET CREEK) FROM SOURCE TO UPPER LITTLE RIVER CLASSIFICATION: C
RIVER BASIN: CAPE FEAR

> CDC INSPECTIONS HOTLINE: 828-771-4755 OR INSPECTION@CDCGO.COM

MASTER EROSION CONTROL PLAN

GRAPHIC SCALE

(IN FEET) 1 inch = 150 ft.

NORTH

Know what's below.

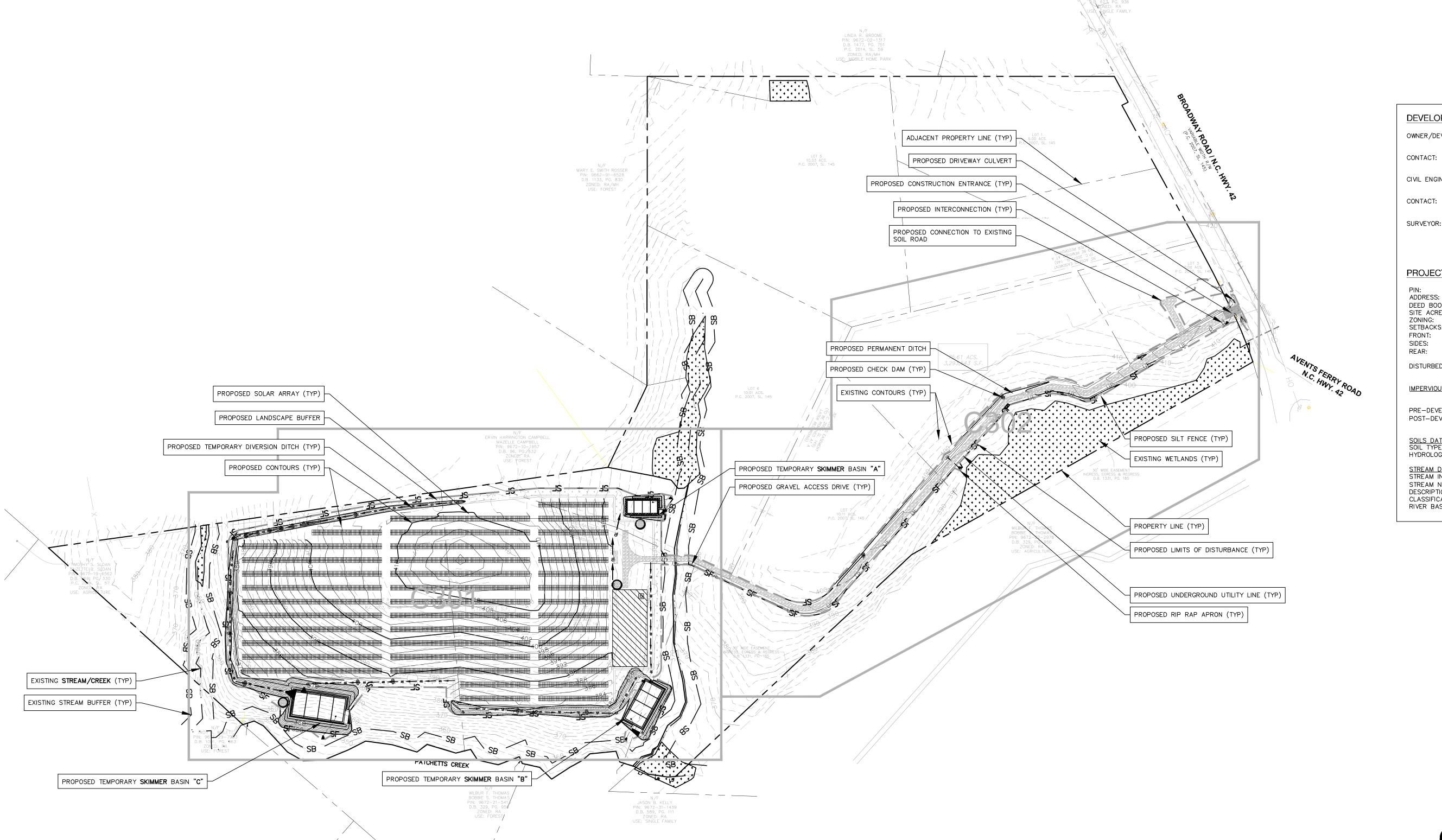
Call before you dig.



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DRAWN BY: DNK 12088 CDC PROJECT NO.:

XXX PERMIT NO.



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Sep 26 200

DNK 12088

DRAWN BY: CDC PROJECT NO.: XXX PERMIT NO.

SHEET

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NOTES

FLOODPLAIN.

OR REDOING WORK

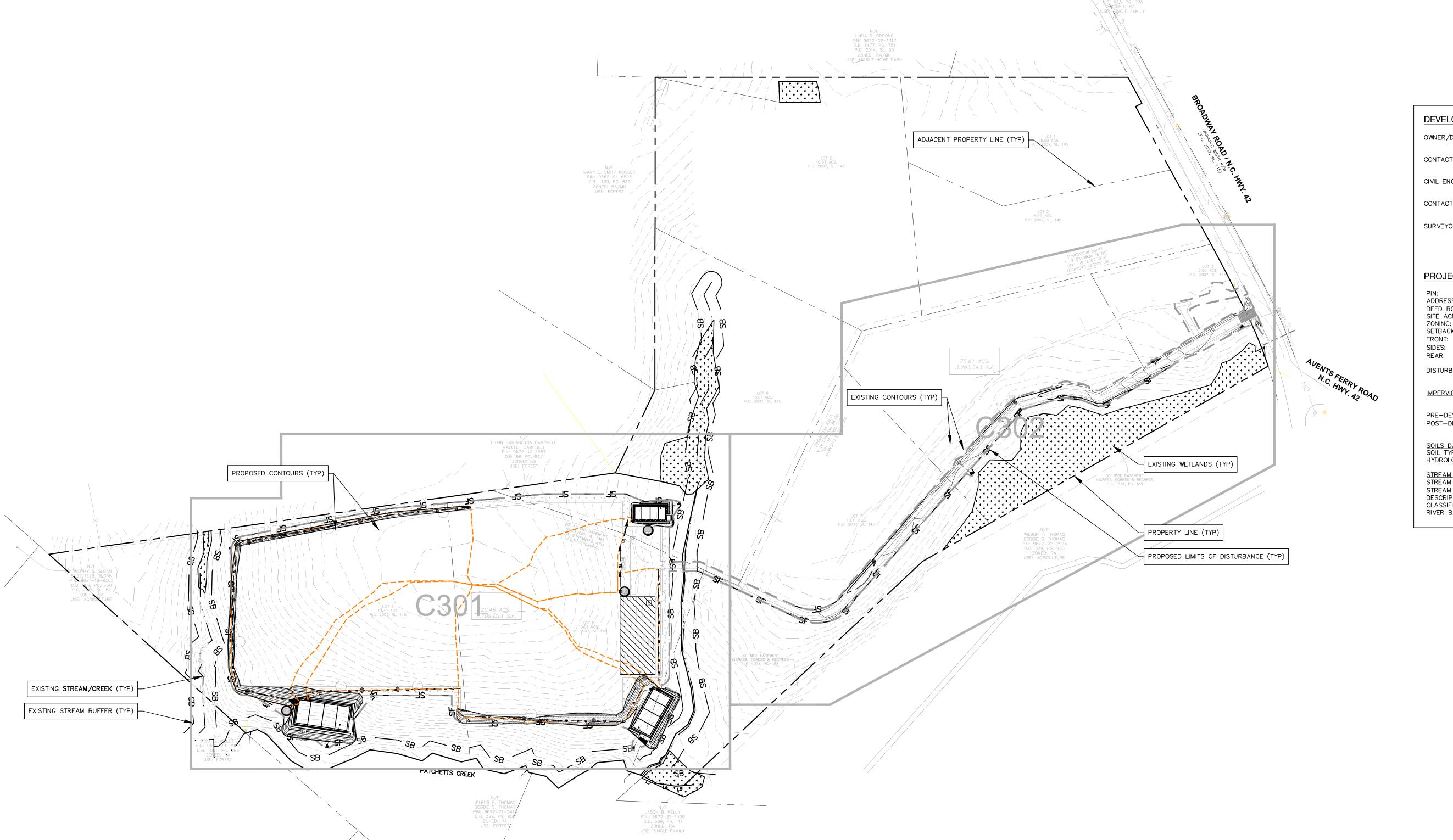
SEE GRADING, EROSION CONTROL, AND STORM DRAINAGE DETAIL SHEETS FOR ALL GENERAL NOTES. CONTRACTOR RESPONSIBLE

NO PORTION OF THIS PROJECT LIES WITHIN THE 100-YR FEMA

3. TO SCHEDULE THE REQUIRED INSPECTIONS ON ALL WORK, CALL

THE CIVIL DESIGN CONCEPTS INSPECTIONS HOTLINE AT 828-771-4755, OR EMAIL AT INSPECTIONS@CDCGO.COM.
FAILURE TO SCHEDULE INSPECTIONS MAY RESULT IN UNCOVERING

FOR INCLUSION OF DETAILS SHEETS WITH ALL PLANS.





(828) 777-6152

9672-12-4540 O BROADWAY RD, SANFORD, NC 27331 01586/0390-0392

SUBJECT PROPERTY

DEVELOPMENT DATA

PINE GATE RENEWABLES, LLC 130 ROBERTS STREET ASHEVILLE, NC 28801 BEN CATT OWNER/DEVELOPER:

CONTACT: CIVIL ENGINEER:

CIVIL DESIGN CONCEPTS, P.A. 168 PATTON AVENUE ASHEVILLE, NC 28801 GREG HOFFMAN, P.E. (828) 252-5388 CONTACT:

STEWART-PROCTOR, PLLC 319 CHAPANOKE ROAD SUITE 106 RALEIGH, NC 27603 SURVEYOR: (919) 779-1855

PROJECT DATA

PIN:
ADDRESS:
DEED BOOK/PAGE:
SITE ACREAGE:
ZONING:
SETBACKS:

75.6 ÁCRES R-20 100' 50'

REAR: DISTURBED AREA: 19.6 AC

IMPERVIOUS CALCULATIONS:

IMPERVIOUS PERVIOUS
PRE-DEVELOPMENT: 0.00 ACRES (00%) 75.6 ACRES (100%)
POST-DEVELOPMENT: 0.84 ACRES (1.1%) 74.76 ACRES (98.9%)

SOILS DATA:
SOIL TYPE: CfD DuB FuB PaF
HYDROLOGIC SOIL GROUP: A C B B CfD DuB FuB PaF

STREAM DATA:
STREAM INDEX: 18-20-9
STREAM NAME: PATCHET CRE
DESCRIPTION: FROM SOURCE
CLASSIFICATION: C
RIVER BASIN: CAPE FEAR

18-20-9
PATCHET CREEK (PACHET CREEK)
FROM SOURCE TO UPPER LITTLE RIVER

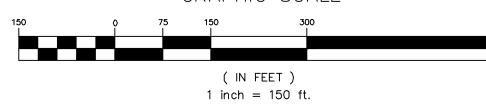
CDC INSPECTIONS HOTLINE:



NORTH

MASTER GRADING PLAN

GRAPHIC SCALE



SUBJECT PROPERTY

DNK 12088

DRAWN BY: CDC PROJECT NO.: XXX PERMIT NO.

SHEET

GRAPHIC SCALE

(IN FEET) 1 inch = 60 ft.

SP-5474 Sub 0

NOTES

FLOODPLAIN.

OR REDOING WORK

1. SEE GRADING, EROSION CONTROL, AND STORM DRAINAGE DETAIL SHEETS FOR ALL GENERAL NOTES. CONTRACTOR RESPONSIBLE

NO PORTION OF THIS PROJECT LIES WITHIN THE 100-YR FEMA

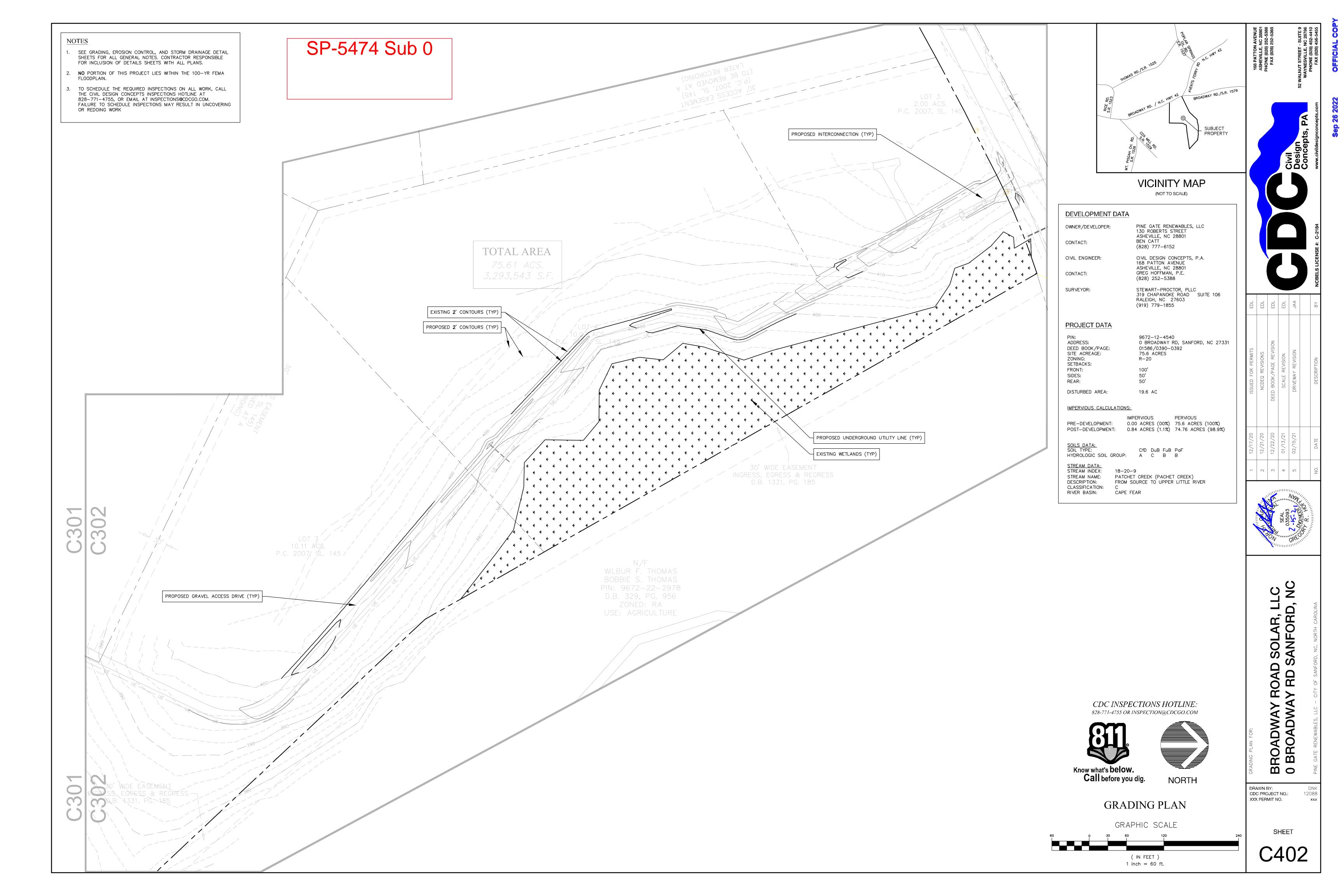
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FAILURE TO SCHEDULE INSPECTIONS MAY RESULT IN UNCOVERING

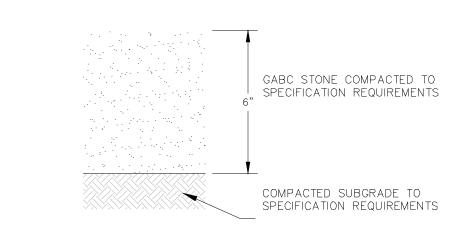
FOR INCLUSION OF DETAILS SHEETS WITH ALL PLANS.

EXISTING STREAM (TYP)



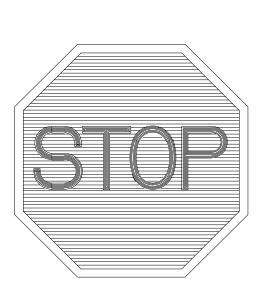






D2.11 TYPICAL GRAVEL CROSS SECTION

NOT TO SCALE



NOTES:

1. SIGN SHALL HAVE WHITE LETTERS ON A RED REFLECTIVE BACKGROUND.

2. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION AND THE NORTH CAROLINA SUPPLEMENT TO THE MUTCD.

→ SMALL SHRUB (TYP)



<u>type a buffer yard</u> 1 large tree(s) required per 50 linear feet

2 SMALL TREE(S) REQUIRED PER 75 LINEAR FEET
1 POINT REQUIRED PER LINEAR FEET:
POINTS FOR INDIVIDUAL PLANT TYPES

LARGE TREE 12

SMALL TREE

LARGE SHRUB MEDIUM SHRUB SMALL SHRUB

LANDSCAPE BUFFER.

TYPE OF PLANT POINTS PER PLANT QTY

ALTERNATIVE QUANTITIES OF PLANTS MAY BE USED PROVIDED THE SUM OF THE POINTS ACHIEVED BY THE QUANTITIES EQUALS OR EXCEEDS THE MINIMUM REQUIESES RATE OF POINTS PER LINEAR FEET FOR THE TYPE C

TYPE C LANDSCAPE BUFFER

NOT TO SCALE

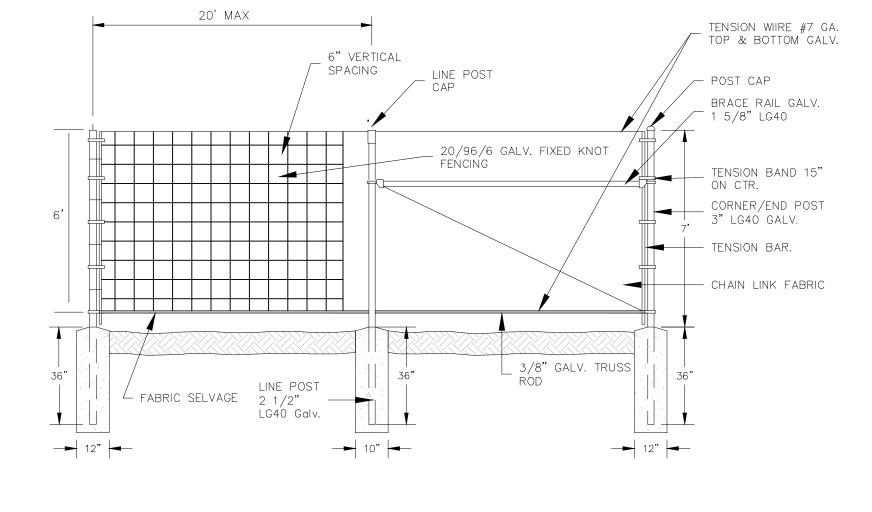
2 (MIN)

1 (MIN)

LARGE SHRUB (TYP) —

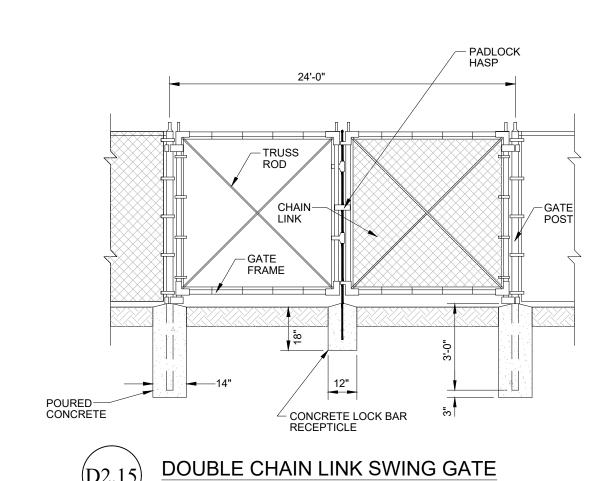
LARGE TREE (TYP) -

MEDIUM SHRUB (TYP) -



	HEIGHT	MESH	GAGE	SELVAGE	FINISH	NOTES
FABRIC	8'	F.K.			GALV	
FRAME	EWORK	O.D.	WALL	WT. PER FT.	LENGTH	
END/CORI	NER POST	3"	0.160	4.64	11'	
LINE	POST	2 1/2"	0.130	3.12	10.5'	
RA	ILS	1 5/8"	0.111	1.84	21'	
GATE	FRAME	1 5/8"	0.111	1.84	VARIES	
GATE	POST	4"	0.160	6.56	11'	

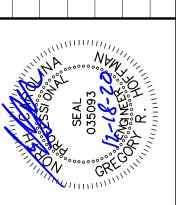




SITE DETAILS

Civil Design Concepts, PA Concepts, PA www.civildesignconcepts.co

EDL			ВҮ	
ISSUED FOR PERMITS			DESCRIPTION	
12/17/20			DATE	
_			NO.	



SADWAY ROAD SOLAR, LLC ROADWAY RD SANFORD, NC

DRAWN BY:
CDC PROJECT NO.:
12088
XXX PERMIT NO.
xxx

C92

CONSTRUCTION NOTES:

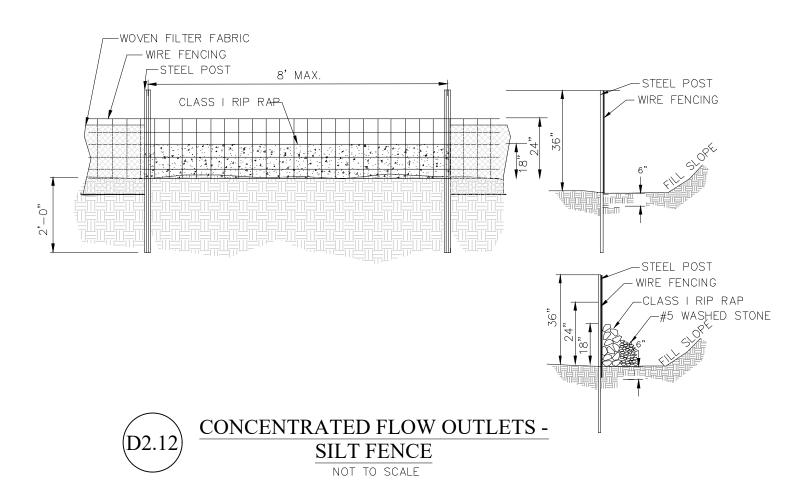
- 1. CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER
- 2. ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 24" ABOVE THE GROUND SURFACE. (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.)
- 3. CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS, WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT A SUPPORT POST WITH 4' MIN. OVERLAP TO THE NEXT POST.
- 4. SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS. EXTEND THE WIRE MESH SUPPORT TO THE BOTTOM OF THE TRENCH. FASTEN THE WIRE RENFORCEMENT, THEN THE FABRIC ON THE UPSLOPE SIDE OF THE FENCE POST. WIRE OR PLASTIC TIES SHOULD HAVE A MIN. 50 Ib TENSILE STRENGTH.
- 5. EXCAVATE A TRENCH APPROXIMATELY 4" WIDE AND 8" DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
- 6. PLACE 12" OF THE FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
- 7. BACKFILL THE TRENCH WITH SOIL PLACED OVER THE FILTER FABRIC AND COMPACT. THOROUGH COMPACTION OF THE BACKFILL IS CRITICAL TO SILT FENCE PERFORMANCE.
- 8. DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.

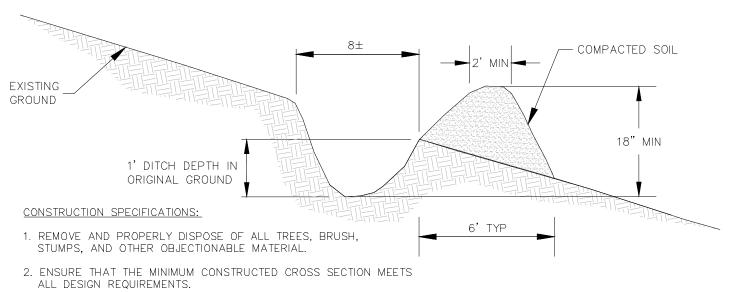
MATERIALS NOTES:

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

- USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW
- * FOR REPAIR OF SILT FENCE FAILURES, USE No. 57 WASHED STONE. AS AN ANCHOR WHEN SILT FENCE IS PROTECTING CATCH BASIN.

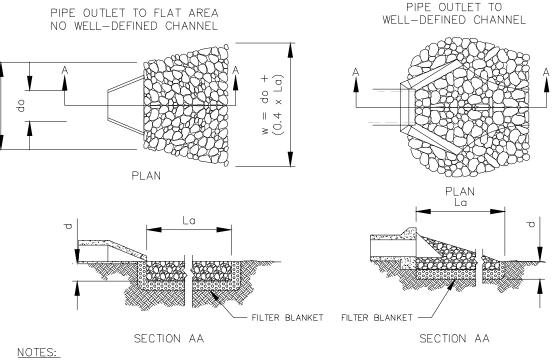






- 3. ENSURE THAT THE TOP OF THE DIKE IS NOT LOWER AT ANY POINT THAN THE DESIGN ELEVATION PLUS THE SPECIFIED SETTLEMENT.
- 4. PROVIDE SUFFICIENT ROOM AROUND DIVERSIONS TO PERMIT MACHINE RE-GRADING AND CLEAN OUT.
- 5. CONSTRUCT ALL TEMPORARY DIVERSION DITCHES WITH A MINIMUM
- 5. VEGETATE THE RIDGE IMMEDIATELY AFTER CONSTRUCTION, UNLESS IT WILL REMAIN IN PLACE LESS THAN 30 WORKING DAYS.

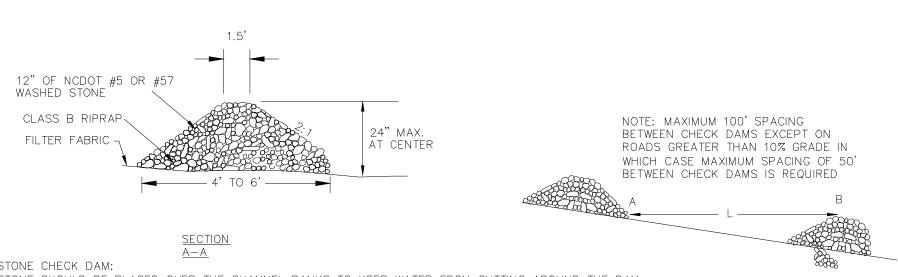
TEMPORARY DIVERSION DITCH



1. La IS THE LENGTH OF THE RIP RAP APRON. 2. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6" (MINIMUM IS 24" DEEP IF STONE IS CLASS II) 3. IN A WELL-DEFINED CHANNEL, ÉXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS. 4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIP RAP AND SOIL FOUNDATION. 5. COMPACT ANY REQUIRED FILL TO DENSITY OF SURROUNDING UNDISTURBED MATERIAL. 6. RIP RAP MAY BE FIELDSTONE OR ROUGH QUARRY STONE AND SHALL BE HARD. ANGULAR AND WELL-GRADED. 7. CONSTRUCT APRON AT ZERO GRADE. TOP OF RIP RAP SHALL BE LEVEL WITH THE RECEIVING CHANNEL OR SLIGHTLY LOWER. 8. ALIGN APRON WITH RECEIVING CHANNEL OR STREAM. ASSURE APRON IS STRAIGHT THROUGHOUT ITS LENGTH.



9. END WIDTH OF APRON TO BE EQUAL TO WIDTH OF RECEIVING CHANNEL.



FILTER FABRIC -

<u>FACE VIEW</u>

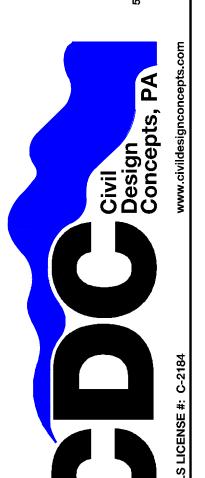
STONE SHOULD BE PLACED OVER THE CHANNEL BANKS TO KEEP WATER FROM CUTTING AROUND THE DAM. L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

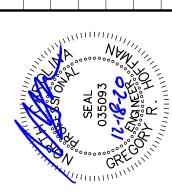
THE FOLLOWING CRITERIA SHOULD BE USED WHEN DESIGNING A CHECK DAM: - ENSURE THAT THE DRAINAGE AREA ABOVE THE CHECK DAM DOES NOT EXCEED 0.5 ACRES.

- KEEP THE MAXIMUM HEIGHT AT 2 FT AT THE CENTER OF THE DAM. - KEEP THE CENTER OF THE CHECK DAM AT LEAST 9 INCHES LOWER THAN THE OUTER EDGES AT NATURAL GROUND ELEVATION. - KEEP THE SIDE SLOPES OF THE DAM AT 2:1 OR FLATTER.
- ENSURE THAT THE MAXIMUM SPACING BETWEEN DAMS PLACES THE TOE OF THE UPSTREAM DAM AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
- STABILIZE OVERFLOW AREAS ALONG THE CHANNEL TO RESIST EROSION CAUSED BY CHECK DAMS. - USE NCDOT CLASS B STONE AND LINE THE UPSTREAM SIDE OF THE
- DAM WITH NCDOT #5 OR #57 STONE. - KEY THE STONE INTO THE DITCH BANKS AND EXTEND IT BEYOND THE ABUTMENTS A



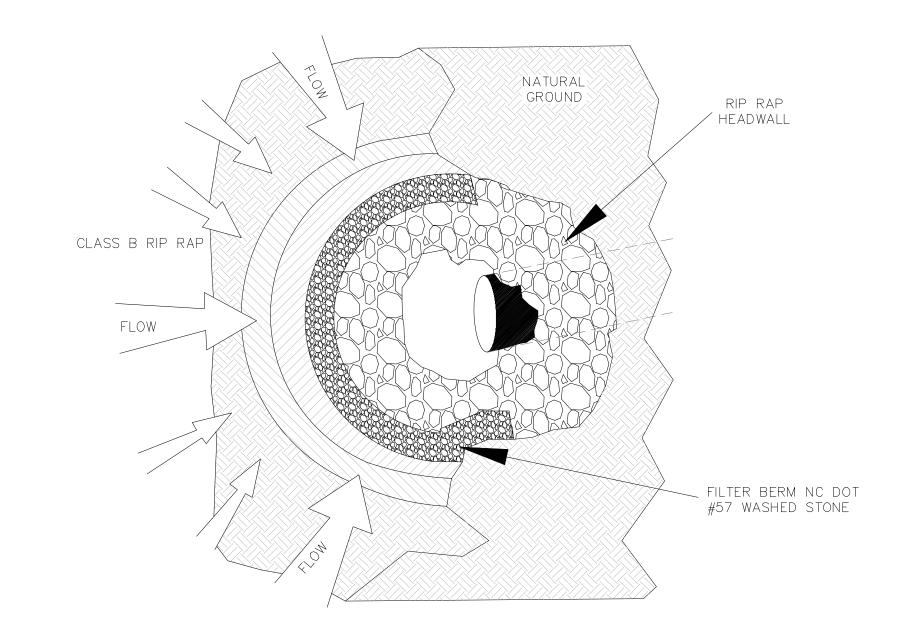
EROSION CONTROL DETAILS

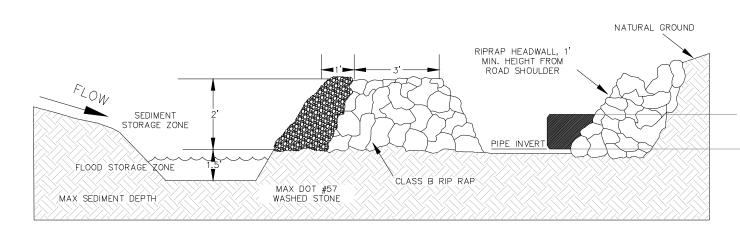




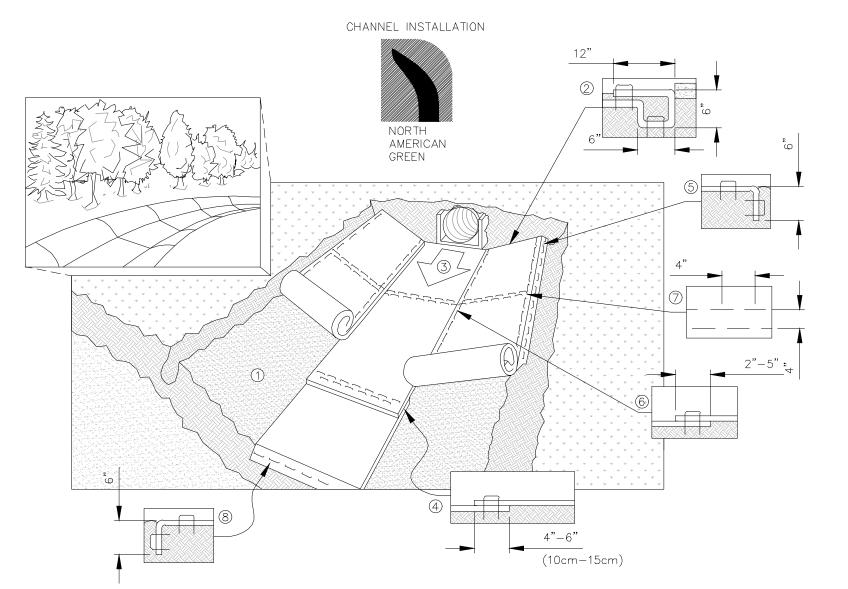
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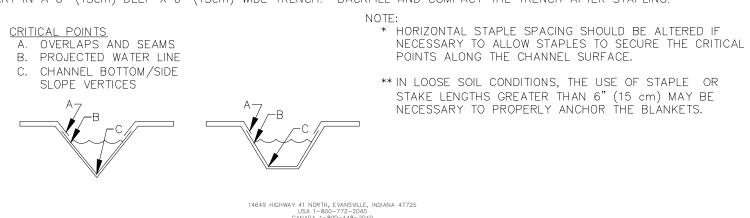




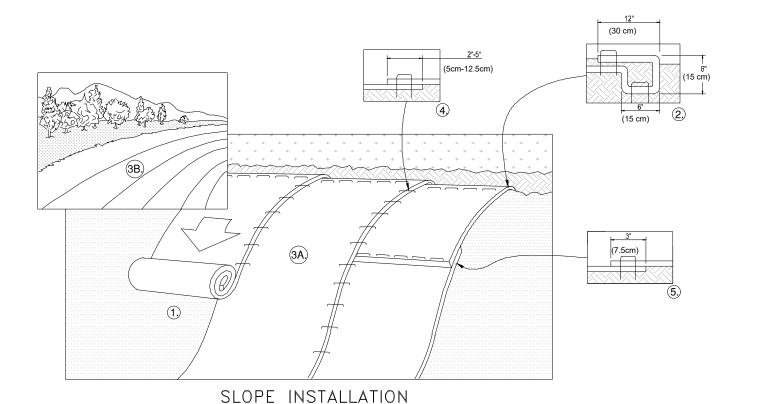
- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.

 NOTE: WHEN USING CELL—O—SEED DO NOT SEED PREPARED AREA. CELL—O—SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
- 3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10cm-15cm) OVERLAP. USE A DOUBLE ROW
 OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER TO SECURE BLANKETS.
- 5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- 6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5cm-12.5cm) (DEPENDING ON BLANKET TYPE) AND STAPLED. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED
- 7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9m-12m) INTERVALS.

 USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10cm) APART AND 4" (10cm) ON CENTER OVER ENTIRE WIDTH OF THE
- 8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



D2.16 CHANNEL LINER INSTALLATION NOT TO SCALE



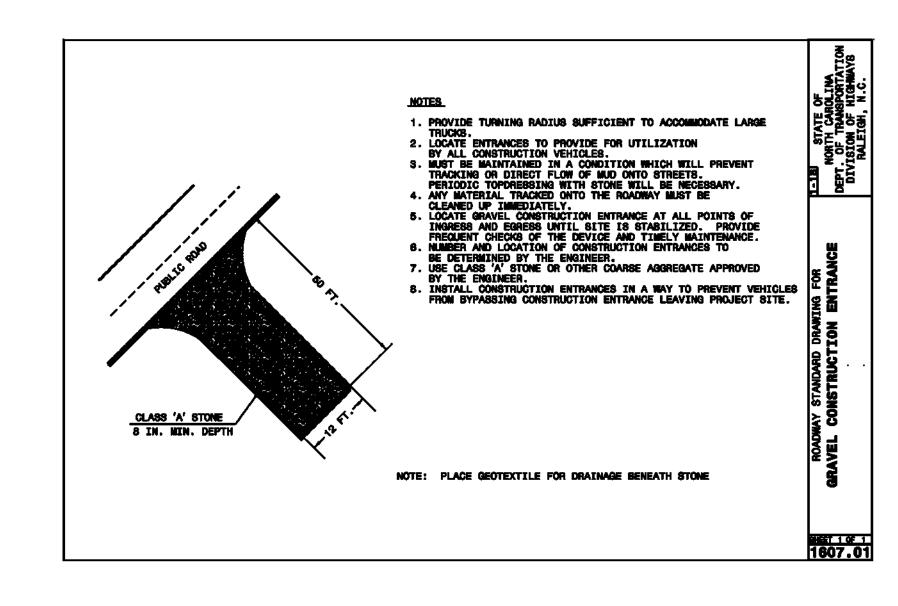
- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.

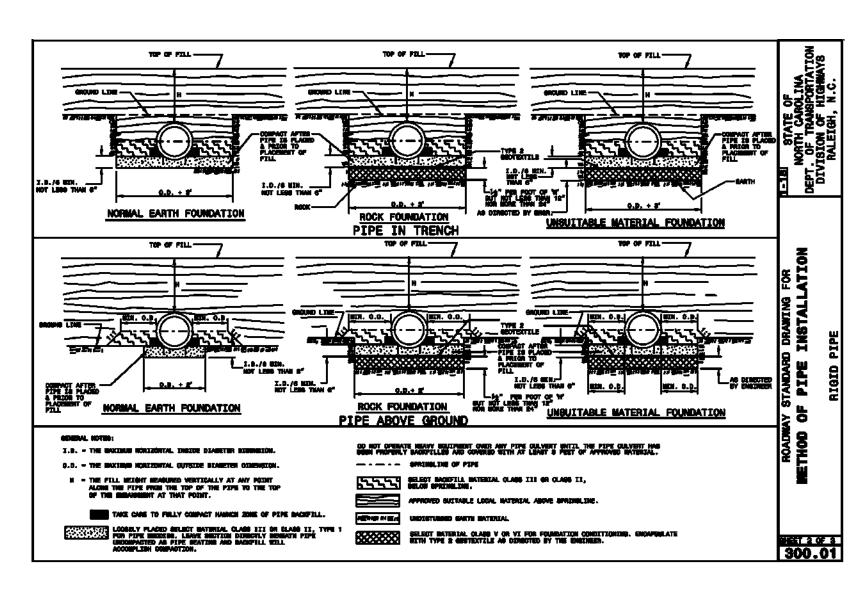
 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH
 WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE
 BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH.
 BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm)
 PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF
- STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.

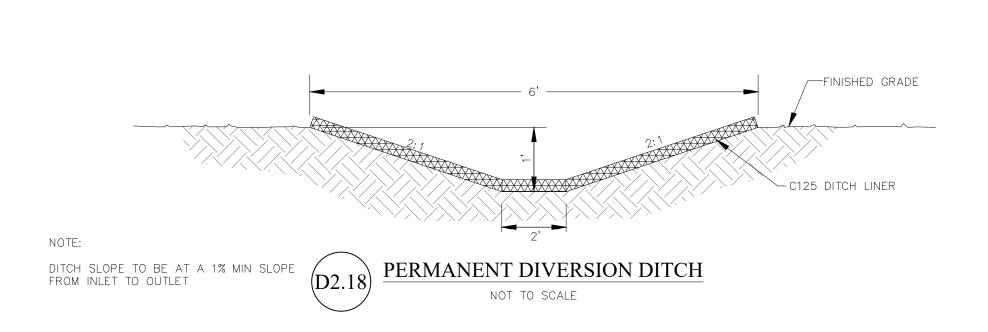
 3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM", STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING
 ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING
 INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE
 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE
- NOTE

NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL SLOPE MATTING INSTALLATION

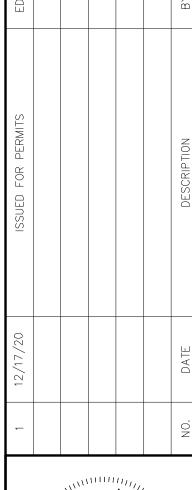






EROSION CONTROL DETAILS

Civil Design Concepts, PA Concepts, PA Concepts, PA





WAY ROAD SOLAR, LLC ADWAY RD SANFORD, NC

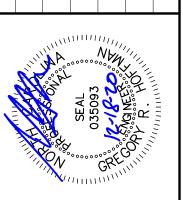
BROADWAY

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DRAWN BY: DNK
CDC PROJECT NO.: 12088
XXX PERMIT NO. xxx

SHEET

C932



12088

CDC INSPECTIONS HOTLINE: 828-771-4755 OR INSPECTION@CDCGO.COM Know what's **below. Call** before you dig.



EROSION CONTROL DETAILS

BROADWAY ROAD SOLAR, I 0 BROADWAY RD SANFORD

DRAWN BY: CDC PROJECT NO.: XXX PERMIT NO. DNK 12088

SHEET

SKIMMER BASIN INSTALLATION

- 1. CLEAR, GRUB, AND STRIP THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION AND ROOT MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSE.
- 2. ENSURE THAT FILL MATERIAL FOR THE EMBANKMENT IS FREE OF ROOTS, WOODY VEGETAION, ORGANINC MATTER, AND OTHER OBJECTIONABOLE MATERIAL.
- 3. SHAPE THE BASIN TO THE SPECIFIED DIMENSIONS.
- 4. PLACE THE BARREL ON A FIRM, SMOOTH FOUNDATION OF IMPERVIOUS SOIL.
- 5. ASSEMBLE THE SKIMMER FOLLOWING THE MANUFACTURER INSTRUCTIONS, OR AS DESIGNED.
- 6. LAY THE ASSEMBLED SKIMMER ON THE BOTTOM OF THE BASIN WITH THE FLEXIBLE JOINT INLET OF I'HE BARREL PIPE. ATTACH THE FLEXIBLE JOINT TO THE BARREL PIPE AND POSITION THE SKIMMER OVER THE EXCAVATED PIT OR SUPPORT. BE SURE TO ATTACH THE ROPE TO THE SKIMMER AND ANCHOR IT TO THE SIDE OF THE BASIN.
- 7. EARTHEN SPILLWAYS INSTALL THE SPILLWAY IN UNDISTURBED SOIL TO THE GREATEST EXTENT
- 8. INLETS DISCHARGE WATER INTO THE BASIN IN A MANNER TO PREVENT EROSION.
- 9. EROSION CONTROL CONSTRUCT THE STRUCTURE SO THAT THE DISTURBED AREA IS MINIMIZED.
- 10. INSTALL POROUS BAFFLES TO REDUCE THE VELOCITY AND TURBULENCE OF THE WATER.
- 11. AFTER ALL THE SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE STRUCTURE AND ALL THE UNSTABLE SEDIMENT.

SKIMMER CONSTRUCTION NOTES

1. CONTRACTOR SHALL CLEAR, GRUB, AND STRIP THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION OND ROOT MAT. CONRACTOR SHALL REMOVE ALL SURFACE SOILS CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSE OF IT PROPERLY. CONTRACTOR SHALL HAUL ALL OBJECTIONABLE MATERIAL TO THE DESIGNATED DISPOSAL AREA. TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE PLACED BELOW BASIN AS NEEDED.

2. CONTRACTOR SHALL ENSURE THAT FILL MATERIAL FOR THE EMBANKMENT IS FREE OF ROOTS, WOODY VEGETATION, ORGANIC MATTER, AND OTHER OBJECTIONABLE MATERIAL. FILL SHALL BE PLACED IN LIFTS NOT TO EXCEED 9 INCHES, AND BE MACHINE COMPACTED. CONTRACTOR SHALL ENSURE THE EMBANKMENT IS OVER FILLED 6 INCHES TO ALLOW FOR SETTLEMENT.

3. SHAPE THE BASIN TO THE SPECIFIED DIMENSIONS, PREVENT THE SKIMMING DEVICE FROM SETTLING INTO THE MUD BY EXCAVATING A SHALLOW PIT UNDER THE SKIMMER OR PROVIDING A LOW SUPPORT UNDER THE SKIMMER OF STONE OR TIMBER.

4. CONTRACTOR SHALL PLACE THE BARREL PIPE ON A FIRM, SMOOTH FOUNDATION OF IMPERVIOUS SOIL PERVIOUS MATERIAL SUCH AS SAND, GRAVEL, OR CRUSHED STONE SHALL NOT BE USED AS BACKFILL AROUND PIPE. CONTRACTOR SHALL PLACE THE FILL MATERIAL AROUND THE PIPE SPILLWAY IN 4-INCH LAYERS AND COMPACT IT UNDER AND AROUND THE PIPE TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. CARE MUST BE TAKEN NOT TO RAISE THE PIPE FROM FIRM CONTACT WITH ITS FOUNDATION WHEN COMPACTING UNDER THE PIPE HAUNCHES. CONTRACTOR SHALL PLACE A MINIMUM DEPTH OF 2 FEET OF COMPACTED BACKFILL OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT. IN NO CAS SHOULD THE PIPE CONDUIT BE INSTALLED BY CUTTING A TRENCH THROUGH THE DAM AFTER THE EMBANKMENT IS

5. CONTRACTOR SHALL ASSEMBLE THE SKIMMER FOLLOWING THE MANUFACTURERS INSTRUCTIONS, OR AS DESIGNED.

6. CONTRATOR SHALL LAY THE ASSEMBLED SKIMMER ON THE BOTTOM OF THE BASIN WITH THE FLEXIBLE JOINT AT THE INLET OF THE BARREL PIPE, ATTACH THE FLEXIBLE JOINT TO THE BARREL PIPE AND POSITION THE SKIMMER OVER THE EXCAVATED PIT OR SUPPORT. A ROPE SHALL BE ATTACHED TO THE SKIMMER AND ANCHORED TO THE SIDE OF THE BASIN. ROPE SHALL BE USED TO PULL THE SKIMMER TO THE SIDE FOR MAINTENANCE.

EXCAVATION & EMBANKMENT CONSTRUCTION

- 1. CLEAR THE AREA OF ALL DEBRIS THAT MIGHT HINDER EXCAVATION AND DISPOSAL OF SPOIL.
- 2. WHERE SEDIMENT POOLS ARE FORMED OR ENLARGED BY EXCAVATION, KEEP SIDE SLOPES AT 2:1 FOR
- 3. ENSURE THAT EMBANKMENTS FOR SKIMMER SEDIMENT BASINS SO NOT EXCEED 5 FEET IN HEIGHT (MEASURED AT THE CENTER LINE FROM THE ORIGINAL GROUND SURFACE TO THE TOP OF THE EMBANKMENT).
- 4. KEEP THE CREST OF THE SPILLWAY OUTLET A MINIMUM OF 1.5 FEET BELOW THE TOP OF THE EMBANKMENT.
- 5. ADDITIONAL FREEBOARD MAY BE ADDED TO THE EMBANKMENT HEIGHT WHICH ALLOWS FLOW THROUGH A DESIGNATED BYPASS LOCATION.
- 6. CONSTRUCT EMBANKMENTS WITH A MINIMUM TOP WIDTH OF 5 FFET AND SIDE SLOPES OF 2:1 OR
- 7. EMBANKMENTS SHOULD BE MACHINE COMPACTED.
- 8. ALL FILL SLOPES SHALL BE COMPACTED FULL DEPTH TO NOT LESS THAN 95% MAXIMUM DENSITY (STANDARD PROCTOR), SHALL BE PLACED ON A SURFACE CLEARED OF GROWTH AND DEBRIS, AND BE PROPERLY BENCHED AND DRAINED.

NRCS SEEDBED PREPARATION NOTES

GRASSES SHOULD BE SEEDED WHEN SOIL MOISTURE AND TEMPERATURE ARE OPTIMUM FOR GERMINATION. COOL-SEASON GRASSES CAN BE PLANTED WHEN TEMPERATURES ARE COOLER AND THE DAYS ARE SHORTER. WARM-SEASON GRASSES NEED WARMER TEMPERATURES AND LONGER DAYS TO GROW.

COOL-SEASON GRASSES:	WARM-SEASON GRASSES:
SPRING (APRIL-MAY)	LATE SPRING (MID MAY—LATE JUNE)
LATE SUMMER (JULY-AUGUST)	LATE SUMMER IS NOT RECOMMENDED
LATE FALL AS A DORMANT PLANTING (END OF OCTOBER OR LATER)	LATE FALL/ DORMANT IS NOT OPTIMUM

2. SEEDBED: A PROPER SEEDBED IS FIRM AND FREE OF COMPETING VEGETATION. IF NEEDED, THE SEEDBED CAN BE FIRMED BY PULLING A COMMERCIAL OR HOMEMADE PACKER OR ROLLER. MOST SPECIES SHOULD BE PLANTED AT A SHALLOW DEPTH OF 1/4 TO 1/2 INCH. LARGER SEEDS CAN BE PLANTED UP TO 1 INCH DEEP. MOST SEEDINGS ARE TOO DEEP IF YOU CAN NOT SEE A FEW SEEDS ON THE SOIL SURFACE. WEEDS CAN BE CONTROLLED WITH TILLAGE AND/OR HERBICIDES APPLIED BEFORE OR AFTER SEEDING.

- 3. SEED PLACEMENT: THE SEEDING EQUIPMENT SHOULD PROVIDE PROPER SEED DEPTH, UNIFORM SEEDING RATE, AND GOOD SEED TO SOIL CONTACT. GRASS SEEDS CAN BE CATEGORIZED INTO THREE TYPES; FLUFFY, SMOOTH SMALL SEED, AND SMOOTH LARGE SEED. GRASS DRILLS PROPERLY PLACE AND METER EACH SEED TYPE. PICKER WHEELS AND AGITATORS KEEP ROUGH COATED SEEDS FLOWING EVENLY. DEPTH BANDS ON GRASS DRILLS ARE ESSENTIAL FOR PLANTING DEPTH CONTROL. PRESS/PACKER WHEELS CONTRIBUTE TO CLOSE SEED/SOIL CONTACT. FREE FLOWING GRASS SEED CAN BE PLANTED WITH A SMALL GRAIN DRILL.
- 4. SEED QUALITY: ALL SEED MUST MEET THE REQUIREMENTS OF THE STATES' SEED LAWS. THE SEED SHOULD BE TESTED FOR PURITY AND GERMINATION PURITY SPECIFIES ANY WEEDS AND INFRT MATTER IN A SEED LOT GERMINATION IS AN INDICATION OF THE PERCENTAGE OF SEED THAT WILL GROW. YOUR LOCAL NRCS OFFICE CAN PROVIDE INFORMATION ON ADAPTED SPECIES, VARIETIES, AND SEEDING RATES.
- WEED CONTROL WEEDS COMPETE WITH YOUNG SEEDLINGS FOR MOISTURE AND LIGHT. WEEDS CAN BE CONTROLLED MECHANICALLY BY CLIPPING OR CHEMICALLY. DENSE RESIDUE CLIPPINGS SHOULD BE REMOVED FORM SEEDED AREA. WEEDS SHOULD BE CONTROLLED WITH HERBICIDES BEFORE THEY REACH 4" TALL.

CONSTRUCTION SEQUENCE

- 1. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR. THE COC CAN BE OBTAINED BY FILLING OUT THE ELECTRONIC NOTICE OF INTENT (E-NOI) FORM AT DEQ.NC.GOV/NCG01. PLEASE NOTE, THE E-NOI FORM MAY ONLY BE FILLED OUT ONCE THE PLANS HAVE BEEN ÁPPROVED. A COPY OF THE E&SC PERMIT. THE COC. AND A HARD COPY OF THE PLAN MUST BE KEPT ON SITE, PREFERABLY IN A PERMITS BOX, AND ACCESSIBLE DURING INSPECTION.
- 2. CONTACT THE DEMLR RALEIGH REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO COMMENCING THE LAND-DISTURBING ACTIVITY. THE CONTACT NUMBER IS (919) 791-4200.
- 3. INSTALL SITE CONSTRUCTION ENTRANCE, STONE STAGING, AND MOBILIZATION AREA.
- 4. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO ONLY AREAS AS REQUIRED TO INSTALL ALL EROSION CONTROL MEASURES
- 5. INSTALL ALL EROSION CONTROL MEASURES AS REQUIRED BY NCDEQ. INCLUDING SEDIMENT TRAPS, SILT FENCES, BARRIERS AND DIVERSION DITCHES AS NEEDED.
- 6. STABILIZE BANKS AS EARLY AS POSSIBLE.
- 7. PROCEED WITH GRADING, CLEARING AND GRUBBING
- 8. CONSTRUCT PROPOSED STORM DRAINAGE SYSTEM.
- 9. APPLY TEMPORARY AND PERMANENT SEEDING, RIP RAP AND STABILIZATION MEASURES.
- 10. ALL BASINS SHALL BE MARKED WITH PERMANENT SIGNAGE THAT CORRESPONDS TO THE BASIN LABELS IN THE APPROVED PLAN.
- 11. SILT FENCE OUTLETS SHALL BE MARKED WITH SIGNAGE (SUCH AS PAINT ON THE ADJACENT SILT
- FENCE) THAT CORRESPONDS TO THE SILT FENCE OUTLET LABELS IN THE APPROVED PLAN. 12. THE CURRENT VERSION OF THE DEMLR MONITORING FORM IS TO BE USED FOR SELF INSPECTION OF THIS PROJECT.
- 13. PERIMETER MEASURES MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED, AFTER SITE IS PERMANENTLY STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND PROVIDE PERMANENT SEEDING WHERE TEMPORARY MEASURES HAVE BEEN REMOVED AND GROUND COVER IS NOT ADEQUATE. SEDIMENT BASINS MAY NOT BE REMOVED OR CONVERTED TO PERMANENT BMPS UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. ALL EROSIONS CONTROL MEASURES INCLUDING SEDIMENT BASINS MUST BE REMOVED. IF DEWATERING IS NECESSARY TO ABANDON SEDIMENT BASINS, USE PUMP AND DEWATERING BAG. SEE C933 FOR DETAILS.
- 14. PER NPDES REQUIREMENTS, A RAIN GAUGE, SELF-INSPECTIONS RECORDS, PERMIT, CERTIFICATE OF COVERAGE. AND S&E PLAN ARE REQUIRED TO BE MAINTAINED ON SITE AND ACCESSIBLE DURING INSPECTION. IT IS RECOMMENDED THAT THESE ITEMS BE PLACED IN A PERMITS BOX AT THE BEGINNING OR ENTRANCE OF PROJECT.
- 15. THE CONTRACTOR SHALL CONDUCT SELF-INSPECTIONS OF THE EROSION AND SEDIMENT CONTROL MEASURES AND COMPLETE THE FOLLOWING COMBINED SELF-INSPECTION FORM FOUND ON THE DEMLR HTTPS: //FILES.NC.GOV/NCDEQ/ENERGY%20MINERAL%20AND%20LAND%20RESOURCES/STORMWATER/ NPDES%20GENERAL%20PERMITS/DEMLR-CSW-MONITORING-FORM-REV-AUGUST-8-2019.PDF. TWELVE MONTHS OF COMPLETE INSPECTION FORMS SHALL BE KEPT ON-SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS RECOMMENDED A COPY BE KEPT IN A PERMITS BOX.
- 16. SELF INSPECTIONS FOR EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PERFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF GREATER THAN 1 INCH. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. ALL ESC MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN. A RAIN GAUGE SHALL BE INSTALLED AT THE PROJECT SITE FOR MONITORING.
- 17. PERMANENT GROUND COVER SHALL BE ESTABLISHED IN 90 CALENDAR DAYS. HOWEVER, NPDES GROUNDCOVER REQUIREMENTS TAKE PRECEDENCE.
- 18. ALL BARE SOILS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT OR, IF IT A CRITICAL AREA, BY THE END OF THE DAY.
- 19. TREES OUTSIDE THE LIMITS OF DISTURBANCE MAY NOT BE REMOVED SO AS TO ALLOW ADDITIONAL SUNLIGHT TO HIT THE SOLAR PANELS.
- 20. REMAINING MEASURES MUST BE REMOVED AND RESULTING BARE AREAS STABILIZED BEFORE PERMIT
- CAN BE CLOSED. 21. WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT DEMLR TO CLOSE OUT THE E&SC PLAN. AFTER DEMLR INFORMS THE PERMITTEE OF THE PROJECT CLOSE OUT, VIA INSPECTION REPORT, THE PERMITTEE SHALL VISITDEQ.NC.GOV/NCG01 TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). A \$100 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOT HAS BEEN
- 22. MAINTENANCE INSPECTIONS SHALL BE PERFORMED WEEKLY AND AFTER EACH RAINFALL. ALL REPAIRS NECESSARY SHOULD BE MADE IMMEDIATELY AND IN STRICT ACCORDANCE WITH NCDEQ STANDARDS AND NPDES PERMIT

NCDEQ EROSION CONTROL AND TEMPORARY **SEEDING NOTES**

GENERAL: ALL EROSION CONTROL MEASURES ARE TO BE PERFORMED IN STRICT ACCORDANCE WITH REQUIREMENTS OF NCDEQ. THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE COMPLIED WITH FOR ALL WORK.

- 1. OBTAIN EROSION AND SEDIMENTATION CONTROL PERMIT.
- 2. INSTALL ALL EROSION CONTROL MEASURES AS REQUIRED.
- 3. OBTAIN GRADING PERMIT THROUGH ON-SITE INSPECTION BY A REPRESENTATIVE OF NCDEQ.
- 4. PROCEED WITH GRADING, CLEARING, AND GRUBBING.
- 5. SEED AND MULCH DENUDED AREA WITHIN EITHER 7 CALENDAR DAYS (SLOPES GREATER THAN 3:1) OR 14 CALENDAR DAYS (3:1 OR FLATTER), AFTER FINISHED GRADE ARE ESTABLISHED, TEMPORARY SEEDING AND SOIL AMENDMENTS SHALL BE PLACED ON A PREPARED SEEDBED AT THE FOLLOWING

RATES PER ACRE.	SAME BE FERRED ON A FREI MILES GEESEES AT THE FOLL
LIME	4,000 LBS (6,000 LBS/ACRE FOR CLAY SOILS)
FERTILIZER (10—10—10)	1,000 LBS
STRAW MULCH	4,000 LBS

FOR LATE WINTER/EARLY SPRING SEEDING ADD TO THE ABOVE: RYF GRAIN 120 LBS

120 LBS

ANNUAL LESPEDEZA 50 LBS (OMIT IF COVER IS NOT TO EXTEND BEYOND JUNE)

FOR SUMMER SEEDING ADD: GERMAN MILLET 40 LBS FOR FALL ADD:

IF HYDROSEEDING IS USED, WOOD CELLULOSE MAY BE SUBSTITUTED FOR STRAW MULCH AT THE RATE OF 1,000 LBS PER ACRE.

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS OR APPLY 4,000 LB/ACRE (6,000 LBS/ACRE FOR CLAY SOILS) GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 5-10-10 FERTILIZER.

APPLY 4,000-5,000 LB/ACRE GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCHING MATERIAL. ANCHOR MULCH USING MULCH ANCHORING TOOL OR NETTING. NETTING IS THE PREFERRED ANCHORING METHOD ON STEEP SLOPES. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL. IF DISK BLADE/CRIMPING IS TO BE USED, APPLY 1/2 OF THE MULCH, THEN CRIMP, AND INSTALL THE OTHER HALF.

- 6. MAINTAIN SOIL EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- 7. REMOVE SOIL EROSION CONTROL MEASURES AND STABILIZE THESE AREA.
- 8. REQUEST FINAL APPROVAL BY NCDEQ.

RYE GRAIN

PERMANENT SEEDING MEASURES

ALL PERMANENT MEASURES ARE TO BE PERFORMED IN STRICT ACCORDANCE WITH REQUIREMENTS OF NCDENR. SEEDING MIXTURE:

RATE (LB/ACRE) SPECIES PURPLETOP SWITCHGRASS PARTRIDGE PEA

NURSE PLANTS: BETWEEN MAY 1 AND AUG. 15, ADD 10 LB/ACRE GERMAN MILLET OR 10 LB/ACRE LITTLE BLUESTEM. PRIOR TO MAY 1 OR AFTER AUG. 15, ADD 40 LB/ACRE RYE (GRAIN). IT MAY BE BENEFICIAL TO PLANT THE GRASSES IN LATE SUMMER.

SEEDING DATES:

	BEST	POSSIBLE
BELOW 2500 FT:	AUG. 15 — SEPT. 1 MAR. 1 — APR. 1	JULY 25 - SEPT 15 MAR. 1 - MAY 10
ABOVE 2500 FT:	JULY 25 — AUG. 15 MAR. 20 — APR. 20	JULY 15 — AUG. 30 MAR. 5 — MAY 15

COMPLETE SEEDING EARLIER IN FALL, AND START LATER IN SPRING ON NORTH- AND EAST-FACING SLOPES.

SOIL AMENDMENTS: APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS OR APPLY 4,000 LB/ACRE (6,000

LBS/ACRE FOR CLAY SOILS) GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 5-10-10 FERTILIZER. MULCH:

APPLY 4,000-5,000 LB/ACRE GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCHING MATERIAL. ANCHOR MULCH USING MULCH ANCHORING TOOL OR NETTING. NETTING IS THE PREFERRED ANCHORING METHOD ON STEEP SLOPES. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MOW NO MORE THAN ONCE A YEAR. REFERTILIZE IN THE SECOND YEAR UNLESS GROWTH IS FULLY ADEQUATE. RESEED, FERTILIZE, AND MULCH DAMAGED AREAS IMMEDIATELY.

1) GROUND STABILIZATION

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES GREATER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAT 50' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)
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*EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE. (SECTION II.B(2)(B))

2) BUILDING WASTE HANDLING

- NO PAINT OR LIQUID WASTE IN STREAM OR STORM DRAINS. DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION AND OTHER
- WASTES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE EARTHEN-MATERIAL STOCKPILES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE
- ALTERNATIVES AVAILABLE. CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS, OR BUFFERS.

3) DISCHARGES TO FEDERALLY-LISTED WATERS

REQUIREMENTS ARE THE SAME AS IN PREVIOUS PERMIT. THE PERMIT ALLOWS REDUCTION FROM THE 20 ACRE MINIMUM IF THE DIRECTOR OF DWQ DETERMINES THAT OTHER BMPS PROVIDE EQUIVALENT PROTECTION.

4) SELF-INSPECTION REQUIREMENTS

- SAME WEEKLY INSPECTION REQUIREMENTS.
- SAME RAIN GAUGE & INSPECTIONS AFTER 0.5" RAIN EVENT.
- INSPECTIONS ARE ONLY REQUIRED DURING "NORMAL BUSINESS" RECORDS MUST BE KEPT FOR 3 YEARS AND AVAILABLE ON-SITE
- DURING BUSINESS HOURS UNLESS A SITE-SPECIFIC EXEMPTION IS RECORDS MUST BE KEPT FOR 3 YEARS AND AVAILABLE UPON
- REQUEST. ELECTRONICALLY-AVAILABLE RECORDS MAY BE SUBSTITUTED UNDER CERTAIN CONDITIONS.

ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AND

CONDITIONS RECORDED ON NCDEQ SELF-INSPECTION AND SELF-MONITORING COMBINED FORM LOCATED AT HTTPS: //DEQ.NC.GOV/ABOUT/DIVISIONS/ ENERGY-MINERAL-LAND-RESOURCES/EROSION-SEDIMENT-CONTROL/FORMS

5) IMPLEMENTATION OF NEW PERMIT CONDITIONS

- PROJECTS PERMITTED UNDER THE PREVIOUS PERMIT CAN CONTINUE TO FOLLOW THE PREVIOUSLY-PERMITTED CONDITIONS.
- COMPLETE APPLICATIONS RECEIVED PRIOR TO AUGUST 3, 2011 CAN
- FOLLOW CONDITIONS OF APPROVED APPLICATION. APPLICATIONS RECEIVED AFTER AUGUST 2, 2011 MUST COMPLY
- WITH NEW PERMIT CONDITIONS.

6) CONDITIONS IN EROSION & SEDIMENTATION CONTROL PLANS

DESIGNATION ON THE PLANS WHERE 7 AND 14-DAY GROUND STABILIZATION REQUIREMENTS ON THE NPDES PERMIT APPLY. DESIGNATION ON THE PLANS WHERE BASINS THAT COMPLY WITH THE SURFACE-WITHDRAWAL REQUIREMENTS OF THE NPDES PERMIT

7) SEDIMENT BASINS

ARE LOCATED.

- OUTLET STRUCTURES MUST WITHDRAW FROM BASIN SURFACE
- UNLESS DRAINAGE AREA IS LESS THAN 1 ACRE. USE ONLY DWQ-APPROVED FLOCCULANTS.

GENERAL CONSTRUCTION NOTES

AND BACKFILLING AT THE CONTRACTOR'S EXPENSE.

- 1. ALL GRADING, STORM INSTALLATION, AND SOIL EROSION CONTROL MEASURES ON THIS SITE MUST BE AUTHORIZED BY PERMITS ISSUED BY NCDEQ. ALL SITEWORK SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL REGULATORY STANDARDS AND ALL REQUIREMENTS IN THE PROJECT TECHNICAL SPECIFICATIONS.
- 2. CONTRACTOR TO VERIFY WITH ENGINEER THAT THE REQUIRED GRADING, EROSION CONTROL, STORM WATER, LAND DISTURBANCE, AND ASSOCIATED NON-GRADING PERMITS HAVE BEEN OBTAINED PRIOR TO BEGINNING CONSTRUCTION.
- ALL CONSTRUCTION SHALL BE UNDER THE INSPECTION OF THE ENGINEER, THE OWNER, AND NCDEQ. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 72 HOURS PRIOR TO BEGINNING WORK. ANY WORK COVERED PRIOR TO ENGINEER'S INSPECTION IS SUBJECT TO UNCOVERING
- 4. ALL WORK MUST BE PERFORMED BY A NORTH CAROLINA LICENSED CONTRACTOR.
- 5. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND VERIFYING THE EXACT LOCATION AND ELEVATION FOR ALL UTILITIES PRIOR TO CONSTRUCTION: AND TO NOTIFY ENGINEER OF ANY CONFLICTS OR DISCREPANCIES. THE LOCATION OF SOME UTILITIES SHOWN ON THE PLANS HAVE BEEN APPROXIMATED. ALL BURIED UTILITIES HAVE NOT BEEN SHOWN ON THE PLANS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR LOCATION PRIOR TO CONSTRUCTION.
- PROTECT EXISTING SITE FEATURES (SHOWN TO REMAIN) AND NEWLY COMPLETED WORK DURING CONSTRUCTION. ANY DAMAGE INCURRED DURING OR RESULTING FROM CONSTRUCTION ACTIVITY IS THE RESPONSIBILITY OF THE CONTRACTOR AND IS TO BE REPAIRED IN ACCORDANCE WITH APPLICABLE STANDARDS OF APPROPRIATE AGENCIES, AS WELL AS THE PROJECT PLANS AND SPECIFICATIONS, AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR IS TO NOTIFY ALL UTILITY COMPANIES AT LEAST 72 HOURS BEFORE CONSTRUCTION ACTIVITY IS TO BEGIN. THE CONTRACTOR SHALL NOTIFY NC ONE CALL AT 811. 48 HOURS BEFORE CONSTRUCTION BEGINS. NOTIFY THE ENGINEER AT LEAST 72 HOURS BEFORE STARTING CONSTRUCTION ACTIVITIES.
 - EROSION CONTROL IS A FIELD PERFORMANCE BASED ACTIVITY; AND ADDITIONAL SILT FENCES, TEMPORARY SEDIMENT BASINS, AND ALL OTHER MEASURES MAY NEED TO BE ADDED IN ADDITION TO THE APPROVED PLAN AS NECESSARY, MEASURES SHOWN CAN AND SHOULD BE ADJUSTED TO ASSURE MAXIMUM PROTECTION ON SITE. CONTRACTOR SHALL ADD ADDITIONAL MEASURES AS NEEDED IN ENVIRONMENTALLY SENSITIVE AREAS.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MAINTAINING, AND REMOVING ALL NECESSARY EROSION AND SEDIMENTATION CONTROL MEASURES.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ADJUSTMENT OF ALL UTILITY SURFACE ACCESSES WHETHER THE CONTRACTOR PERFORMS THE WORK OR A UTILITY COMPANY PERFORMS THE WORK.
- 11. ALL AREAS WHERE THERE IS EXPOSED DIRT SHALL BE SEEDED, FERTILIZED AND MULCHED ACCORDING TO THE SPECIFICATIONS NOTES IN THE PLANS. SITE STABILIZATION IS A PERFORMANCE BASED REQUIREMENT, AND THE SITE WILL NOT BE ACCEPTED UNTIL PERMANENT VEGETATION IS ESTABLISHED TO THE SATISFACTION OF THE ENGINEER.
- 12. ALL HIGH DENSITY POLYETHYLENE (HDPE) CORRUGATED STORM SEWER DETENTION PIPE SHALL BE TYPE "S" HANCOR SURELOK ADSN12 OR APPROVED EQUIVALENT WITH WATER TIGHT JOINTS MEETING AASHTO M252, M294 OR MP7. ALL HDPE PIPE IS TO BE INSTALLED ACCORDINGLY TO MANUFACTURERS SPECIFICATIONS AND IN ACCORDANCE WITH ASTM D2321 WITH THE EXCEPTION THAT MINIMUM COVER IN TRAFFIC LOAD AREA SHALL BE 24" FOR 4"-48" AND 18" FOR 60". PIPE MATERIAL SHALL MEET THE PRODUCT SPECIFICATIONS OF ASTM F667 AND SHALL HAVE A SMOOTH WALL INTERIOR. FOR ALL STORM SYSTEMS, WORK MUST BEGIN AT THE LOW POINT OF THE SYSTEMS. NOTIFY THE ENGINEER IMMEDIATELY OF ANY VARIANCES FROM EXPECTED CONDITIONS.
- 13. CONCRETE AND MASONRY SHALL MEET THE REQUIREMENTS OF APPROPRIATE SECTION OF NCDOT STANDARD SPECIFICATIONS FOR ROAD AND STRUCTURES (LATEST EDITION). CONCRETE SHALL BE CLASS A OR B, 4000 PSI MINIMUM, MEETING THE REQUIREMENTS OF SECTION 900, CONSTRUCTED IN ACCORDANCE WITH SECTION 825. MASONRY SHALL MEET THE REQUIREMENTS OF SECTION 940, CONSTRUCTED IN ACCORDANCE WITH SECTION 830
- 14. TRENCH BACKFILL AND COMPACTION TESTING SHALL BE PERFORMED BY A CERTIFIED SOILS LABORATORY UNDER ALL PAVED AREAS.
- 15. CONTRACTOR RESPONSIBLE FOR KEEPING ACCURATE LOG OF SITE CONDITIONS IN ACCORDANCE WITH NPDES PERMIT, MAINTENANCE INSPECTIONS SHALL BE PERFORMED WEEKLY AND AFTER EACH RAINFALL. ALL REPAIRS NECESSARY SHOULD BE MADE IMMEDIATELY AND IN STRICT ACCORDANCE WITH NCDEO STANDARDS AND NPDES PERMIT CONTRACTOR SHALL SUPPLY THE ENGINEER WITH RECORD OF DEVIATIONS FROM PLANS FOR PREPARATION OF FINAL RECORD DRAWINGS.
- 16. ALL SLOPES GREATER THAN 2:1 SLOPE AND OVER 5' IN HEIGHT SHALL BE CERTIFIED BY A LICENSED PROFESSIONAL AS REQUIRED BY NCDEQ.
- 17. CONTRACTOR IS REQUIRED TO OBTAIN AND PROVIDE A COPY OF THE EROSION CONTROL PERMIT FOR ANY OFFSITE BORROW/ SPOIL AREA. CONTRACTOR MUST PROVIDE COPY OF PERMIT TO NCDEQ INSPECTOR PRIOR TO CONSTRUCTION.
- 18. IF BORROWED OR WASTE FILL MATERIAL IS GENERATED, AN APPROVED GRADING PERMIT MUST BE SECURED FOR THE BORROW OR WASTE MATERIAL SITE PRIOR TO INITIATION OF
- ANY LAND DISTURBING ACTIVITY 19. ALL FILL SLOPES SHALL BE COMPACTED FULL DEPTH TO NOT LESS THAN 95% MAXIMUM DENSITY (STANDARD PROCTOR), SHALL BE PLACED ON A SURFACE CLEARED OF GROWTH
- 20. COMPACTION REPORTS MUST BE PROVIDED TO THE OWNER.

AND DEBRIS, AND BE PROPERLY BENCHED AND DRAINED.

21. ALL FILL MATERIAL, UNLESS A PERMIT FROM NCDEQ DIVISION OF WASTE MANAGEMENT TO OPERATE A LANDFILL IS ON FILE FOR THE OFFICAL SITE, SHALL BE FREE OF ORGANIC OR OTHER DEGRADABLE MATERIALS, MASONRY, CONCRETE AND BRICK SIZES EXCEEDING 12 INCHES, AND ANY MATERIALS WHICH COULD CAUSE THE SITE TO BE REGULATED AS A LANDFILL BY THE STATE OF NORTH CAROLINA.

EROSION CONTROL MAINTENANCE NOTES:

INSPECT EROSION CONTROL MEASURES ONCE A WEEK AND AFTER EVERY SIGNIFICANT RAINFALL. CONTRACTOR TO INSPECT MEASURES FOR COMPLIANCE WITH PLANS AND DETAILS; INCLUDING SEDIMENT ACCUMULATION BEYOND DETAIL ALLOWANCE, AND ALSO DAMAGE OR FAILURE OF

AS NEEDED TO ENSURE SEDIMENT REMAINS CONTROLLED ONSITE AS REQUIRED.

- WHEN SEDIMENT ACCUMULATION EXCEEDS DETAIL ALLOWANCE, CONTRACTOR TO REMOVE SEDIMENT AND/OR DEBRIS, AND RELOCATE TO ANOTHER AREA WITH SEDIMENT CONTROLS.
- WHEN MEASURES ARE FOUND TO BE DAMAGED, CONTRACTOR TO REPAIR IMMEDIATELY TO BRING MEASURE BACK INTO COMPLIANCE WITH PLANS AND DETAILS. 4. IF MEASURES ARE FOUND TO BE INSUFFICIENT, CONTRACTOR TO INSTALL ADDITIONAL MEASURES
- CONTRACTOR TO REMOVE MEASURES AND BRING AREA TO GRADE ONCE CONFORMATION OF SITE STABILIZATION HAS BEEN REQUESTED AND RECEIVED FROM PROJECT ENGINEER.

EROSION CONTROL DETAILS

12088 XXX PERMIT NO.

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

Required Ground Stabilization Timeframes						
Site Area Description		Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations			
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7.	None			
(b)	High Quality Water (HQW) Zones	7	None			
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed			
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed			
(e)	Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope			

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

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

Temporary Stabilization	Permanent Stabilization
 Temporary grass seed covered with straw or	Permanent grass seed covered with straw or
other mulches and tackifiers Hydroseeding	other mulches and tackifiers Geotextile fabrics such as permanent soil

Plastic sheeting

- Rolled erosion control products with or
- Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Appropriately applied straw or other mulch
 Shrubs or other permanent plantings covered with mulch Uniform and evenly distributed ground cover sufficient to restrain erosion

retaining walls

Structural methods such as concrete, asphalt or

Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures. Apply flocculants at the concentrations specified in the NC DWR List of Approved
- PAMS/Flocculants and in accordance with the manufacturer's instructions. Provide ponding area for containment of treated Stormwater before discharging
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

Maintain vehicles and equipment to prevent discharge of fluids.

Provide drip pans under any stored equipment. Identify leaks and repair as soon as feasible, or remove leaking equipment from the

Remove leaking vehicles and construction equipment from service until the problem

- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- has been corrected. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

TTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes. Locate waste containers at least 50 feet away from storm drain inlets and surface
- waters unless no other alternatives are reasonably available. Locate waste containers on areas that do not receive substantial amounts of runoff
- from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds. 7. Empty waste containers as needed to prevent overflow. Clean up immediately if
- containers overflow.

Dispose waste off-site at an approved disposal facility.

PAINT AND OTHER LIQUID WASTE Do not dump paint and other liquid waste into storm drains, streams or wetlands. Locate paint washouts at least 50 feet away from storm drain inlets and surface

On business days, clean up and dispose of waste in designated waste containers.

- waters unless no other alternatives are reasonably available. Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from

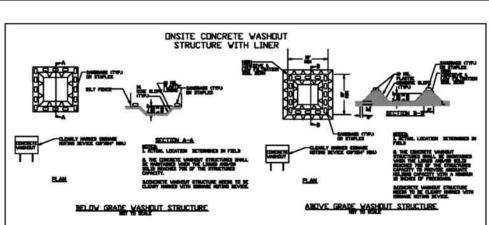
- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace

SECTION B: RECORDKEEPING

with properly operating unit.

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.





Do not discharge concrete or cement slurry from the site.

- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the
- approving authority. Install at least one sign directing concrete trucks to the washout within the project
- limits. Post signage on the washout itself to identify this location. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary
- products, follow manufacturer's instructions. 10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

- HERBICIDES, PESTICIDES AND RODENTICIDES . Store and apply herbicides, pesticides and rodenticides in accordance with label
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.

- 3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend of holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero," The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	Identification of the measures inspected, Date and time of the inspection, Name of the person performing the inspection, Indication of whether the measures were operating properly, Description of maintenance needs for the measure, Description, evidence, and date of corrective actions taken.
(3) Stormwa:er discharge outfalls (SDCs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of gracing (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

SELF-INSPECTION, RECORDKEEPING AND REPORTING

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements	
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.	
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.	
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.	
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.	
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.	

2. Additional Documentation to be Kept on Site In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This General Permit as well as the Certificate of Coverage, after it is received.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

- (b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records. . Documentation to be Retained for Three Years
- All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

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

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- (a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items, (b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
- (c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems, (d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
- (e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- (f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING 1. Occurrences that Must be Reported

Permittees shall report the following occurrences: (a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:

- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).
- (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (d) Anticipated bypasses and unanticipated bypasses.
- (e) Noncompliance with the conditions of this permit that may endanger health or the

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800)

Occurrence deposition in a stream or wetland

(b) Oil spills and

substances per Iten

1(b)-(c) above

(c) Anticipated

122.41(m)(3)]

bypasses [40 CFR

(d) Unanticipated

(e) Noncompliance

with the conditions

of this permit that

bypasses [40 CFR

122.41(m)(3)]

may endanger

health or the

environment 40

CFR 122.41(I)(7)]

release of

hazardous

- Reporting Timeframes (After Discovery) and Other Requirements (a) Visible sediment • Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition.
 - Division staff may waive the requirement for a written report on a If the stream is named on the NC 303(d) list as impaired for sedimentrelated causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff
 - determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions. • Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
 - A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
 - Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass. Within 24 hours, an oral or electronic notification
 - Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6).

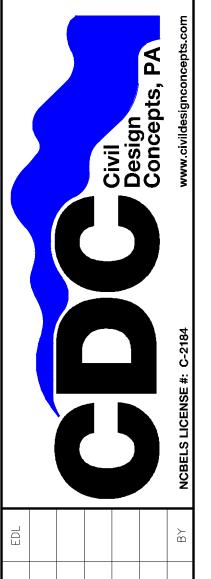
· Division staff may waive the requirement for a written report on a

case-by-case basis.

NORTH CAROLINA

EFFECTIVE: 04/01/19

Environmental Quality



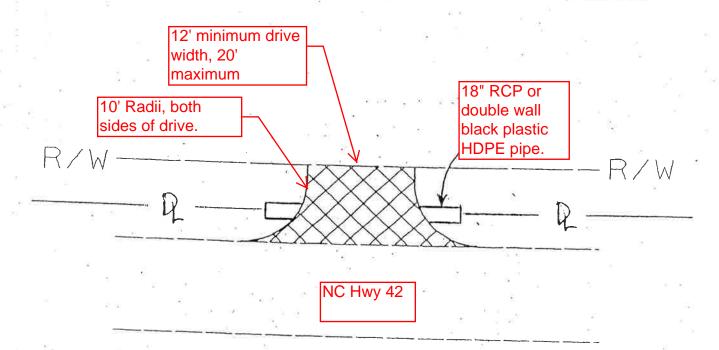


CDC PROJECT NO.: XXX PERMIT NO.

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12088

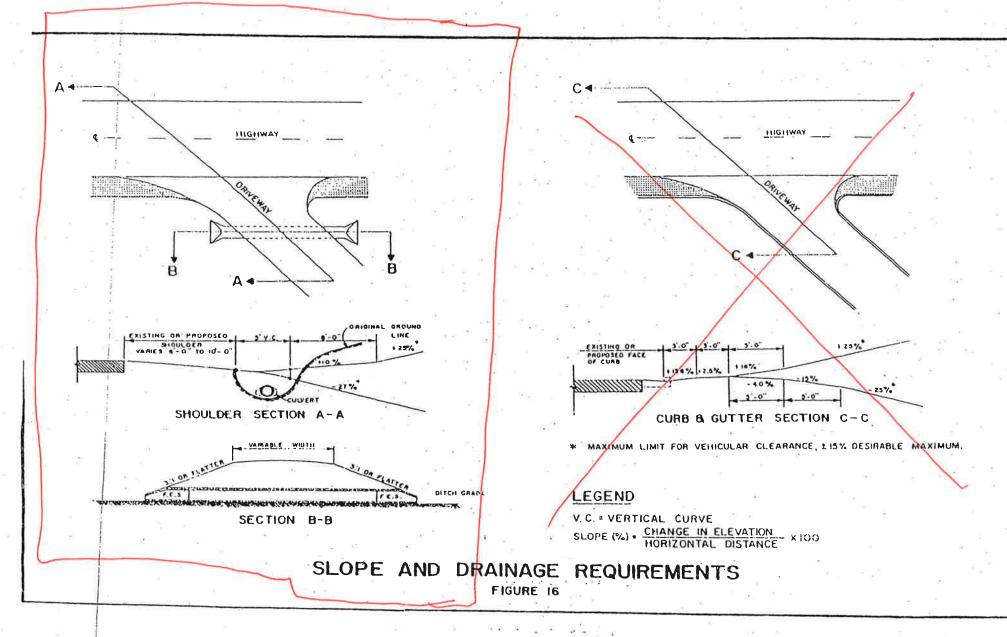
STREET TYPE DRIVEWAY CONNECTION





with compacted ABC

SP-5474 Sub 0



SP-5474 Sub 0

Driveway Pipes

Driveway pipes must be laid properly to provide positive drainage. If the pipe is installed incorrectly then water will accumulate and not fall to its natural discharge. The inverts should be placed at the flow line of the ditch and should be an adequate size (minimum 15 inch) to convey drainage from upstream pipes including crosslines. When connected to pipe frontage material changes should be done within a NCDOT approved structure.

Driveway Material	Min. Cover over RCP	Min. Cover over HDPE or CMP
Typ. 4 Inch Concrete	0 in.	4 in.
Asphalt or Non-paved	8 in.	12 in.

Minimum cover required for the type of pipe and driveway material.

Driveway pipes should not be blocked more than 20% of the opening. (i.e. 15 inch pipe could be blocked up to 3 inches on the inlet and outlet.) Any blockage has the potential to put excess strain on the pipe and result in failure. Damaged pipes should be assessed and if structurally deficient should be replaced prior to addition.

SP-5474 Sub 0



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

April 1, 2021

COUNTY: LEE COUNTY

MEMORANDUM TO: Mr. David Tyeryar, Fiscal Section – NCDOT, Raleigh, NC

FROM: Matthew W. Kitchen, P.E.

District Engineer

ns Mk

SUBJECT: DRIVEWAY PERMIT – Commercial

Attached herewith is a check in the amount of \$50.00 to cover the construction inspection fee for the Driveway Permit #53-82834 in Lee County (Access to NC Hwy 42). Fund # 150362-47900024-8.105311-2716.

If this office can be of further assistance, please advise.

MWK/ram

Cc: Mr. Josh Brooks, P.E.

File

Mailing Address: NC DEPARTMENT OF TRANSPORTATION DIVISION 8 – DISTRICT 2 902 N. SANDHILLS BLVD. ABERDEEN, NC 28315 Telephone: (910) 944-7621 Fax: (910) 944-5623 Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location: 902 N. SANDHILLS BLVD. ABERDEEN, NC 28315