PROJECT SPECIAL PROVISION

Z-1

(10-18-95)

PERMITS

The Contractor's attention is directed to the following permits, which have been issued to the Department of Transportation by the authority granting the permit.

<u>PERMIT</u>	AUTHORITY GRANTING THE PERMIT		
Dredge and Fill and/or Work in Navigable Waters (404)	U. S. Army Corps of Engineers		
Water Quality (401)	Division of Environmental Management, DENR State of North Carolina		

The Contractor shall comply with all applicable permit conditions during construction of this project. Those conditions marked by * are the responsibility of the department and the Contractor has no responsibility in accomplishing those conditions.

Agents of the permitting authority will periodically inspect the project for adherence to the permits.

The Contractor's attention is also directed to Articles 107-10 and 107-13 of the 2012 Standard Specifications and the following:

Should the Contractor propose to utilize construction methods (such as temporary structures or fill in waters and/or wetlands for haul roads, work platforms, cofferdams, etc.) not specifically identified in the permit (individual, general, or nationwide) authorizing the project it shall be the Contractor's responsibility to coordinate with the Engineer to determine what, if any, additional permit action is required. The Contractor shall also be responsible for initiating the request for the authorization of such construction method by the permitting agency. The request shall be submitted through the Engineer. The Contractor shall not utilize the construction method until it is approved by the permitting agency. The request normally takes approximately 60 days to process; however, no extensions of time or additional compensation will be granted for delays resulting from the Contractor's request for approval of construction methods not specifically identified in the permit.

Where construction moratoriums are contained in a permit condition which restricts the Contractor's activities to certain times of the year, those moratoriums will apply only to the portions of the work taking place in the waters or wetlands provided that activities outside those areas is done in such a manner as to not affect the waters or wetlands.



DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343
October 18, 2012

Regulatory Division

Action ID: SAW-2012-00546, TIP No. I-5402

Dr. Gregory J. Thorpe, Ph.D.
North Carolina Department of Transportation
Project Development and Environmental Analysis
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Dr. Thorpe:

In accordance with your written request of March 12, 2012, and the ensuing administrative record, enclosed are two copies of a permit authorizing you to permanently impact 392 linear feet (lf) of waters of the U.S. to address an eroding streambed that is located adjacent to and south of the east-bound lane of I-40, between Mile Post 35 and Mile Post 36, near Canton in Haywood County, North Carolina (TIP No. I-5402). This permit also authorizes you to conduct work in 615 lf of waters of the U.S. to implement the on-site mitigation plan for this project.

All work will be conducted in accordance with the information submitted by NCDOT and with the general and special conditions of this permit.

You should acknowledge that you accept the terms and conditions of the enclosed permit by signing and dating each copy in the spaces provided ("Permittee" on page 3). Your signature, as permittee, indicates that, as consideration for the issuance of this permit, you voluntarily accept and agree to comply with all of the terms and conditions of this permit. All pages of both copies of the signed permit with drawings should then be returned to this office for final authorization. A self-addressed envelope is enclosed for your convenience.

This correspondence contains an initial proffered permit for the above described activity. If you object to this decision or the enclosed special conditions you may request that the District Commander reconsider his decision. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this decision you must submit a completed RFA form to the Asheville Regulatory Field Office at the following address:

District Engineer, Wilmington Regulatory District Attn: Lori Bethwith 69 Darlington Avenue Wilmington, North Carolina 28403-1343



In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete; that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by December 18, 2012.

It is not necessary to submit an RFA form to the Division Office if you do not object to the decision in contained in this correspondence.

After the permit is authorized in this office, the original copy will be returned to you; the duplicate copy will be permanently retained in this office. Should you have questions or comments, please contact Lori Beckwith, Project Manager, Asheville Regulatory Field Office, at (828) 271-7980 extension 233.

Thank you in advance for completing our Customer Survey Form. This can be accomplished by visiting our web site at http://per2.nwp.usace.army.mil/survey.html and completing the survey on-line. We value your comments and appreciate your taking the time to complete a survey each time you interact with our office.

Sincerely,

Scott McLendon

Chief, Regulatory Division

Enclosures

DEPARTMENT OF THE ARMY PERMIT

Permittee: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ATTN: DR. GREGORY J. THORPE, PH.D.

Permit No: SAW-2012-00546

Issuing Office: <u>USAED</u>, <u>WILMINGTON</u>

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of the office acting under the authority of the commanding officer.

You are authorized to perform work in the accordance with the terms and conditions specified below.

Project Description: Dr. Gregory J. Thorpe, on behalf of the North Carolina Department of Transportation, is hereby authorized to conduct the following activities in waters of the U.S. for TIP No. I-5402: (1) permanently impact 392 linear feet (lf) of waters of the U.S., and (2) conduct work in 615 lf of waters of the U.S. to implement the on-site mitigation plan for this project. These impacts are associated with addressing an eroding streambed that is located adjacent to and south of the east-bound lane of I-40, between Mile Post 35 and Mile Post 36, near Canton in Haywood County, North Carolina.

All work will be conducted in accordance with the information submitted by NCDOT and with the general and special conditions of this permit.

Project Location: The project, known as TIP I-5402, is located adjacent to and south of the east-bound lane of I-40, between Mile Post 35 and Mile Post 36, near Canton in Haywood County, North Carolina within the French Broad River Basin (HUC 06010105). There are five streams in the study area; four are perennial and one is intermittent and all are unnamed tributaries (UTs) to Hominy Creek. The approximate center of the project is at 35.5411 N., and -82.7952 W.

Permit Conditions:

General Conditions:

- 1. The time Limit for completing the work authorized ends on <u>December 31, 2017</u>. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
- 2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Conditions 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
- 3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site eligible for listing in the National Register of Historic Places.

- 4. If you sell the property associate with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
- 5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
- 6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

*SEE ATTACHED SPECIAL CONDITIONS

Further Information:

- 1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - () Section 10 of the Rivers and Harbors Act of 1899 (33 U.S. C. 403).
 - (X) Section 404 of the clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
- 2. Limits of this authorization.
 - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
- 3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United states in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.

- e. Damage claims associated with any future modification, suspension, or revocation of this permit.
- 4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was mad in reliance on the information you provided.
- 5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measure by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

E.L. Lunk for 7	10.18.12
(PERMITTEE) NORTH DEPARTMENT OF TRANSPORTATION ATTN: DR. GREGORY J. THORPE, PH.D.	(DATE)
This permit becomes effective when the Federal official, designated to act for t below.	he Secretary of the Army, has signed
(DISTRICT ENGINEER) STEVEN A. BAKER, COLONEL	(DATE)
When the structures or work authorized by this permit are still in existence at the time the proper permit will continue to be binding on the new owner(s) of the property. To validate the transfer o with compliance with its terms and conditions, have the transferee sign and date below.	ty is transferred, the terms and conditions of this f this permit and the associated liabilities associated
(Transferee)	(DATE)

Failure to institute and carry out the details of the following special conditions will result in a directive to cease all ongoing and permitted work within waters of the U.S. associated with the permitted project, or such other remedies and/or fine as the Wilmington District Engineer, or his authorized representatives, may seek.

Work Limits

- 1) All work authorized by this permit must be performed in strict compliance with the attached plans (Sheets 1-7 of the Permit Drawings and Sheets OSM-1, OSM-2, and RF-1-RF-3 (revised to show 50' buffers) of the on-site mitigation plan) and all project descriptions/details in the application/cover letter dated March 12, 2012, which are now parts of this permit. Any modification to these plans or descriptions/details must be approved by the USACE prior to implementation. Note that Sheets OSM-1, OSM-2, RF-1, RF-2, and RF-3 are not included in this contract.
- 2) Except as authorized by this permit or any USACE approved modification to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area. This prohibition applies to all borrow and fill activities connected with this project.
- 3) Except as specified in the plans attached to this permit and submitted project descriptions/details, or any USACE approved modifications to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within waters or wetlands or to reduce the reach of waters or wetlands.
- 4) The permittee, upon receipt of a notice of revocation of this permit, or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.

Related Laws

5) All mechanized equipment would be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the N.C. Division of Water Quality at (919) 733-5083, Ext. 526 or (800) 662-7956 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act would be followed.

- 6) The North Carolina Division of Water Quality has issued a conditioned Water Quality Certification for this project. The conditions of that certification are hereby incorporated as special conditions of this permit. A copy of this certification is attached.
- 7) This Department of the Army permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.
- 8) The permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).
- 9) If the permittee discovers any previously unknown historic or archaeological sites while accomplishing the authorized work, he shall immediately stop work and notify the Corps of Engineers, Asheville Regulatory Field Office NCDOT Regulatory Project Manager who will initiate the required State/Federal coordination.

Project Maintenance

- 10) The permittee shall advise the USACE in writing at least two weeks prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.
- 11) Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source and would be clean and free of any pollutants except in trace quantities. Metal products, organic materials (including debris from land clearing activities), or unsightly debris shall not be used.
- 12) The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions, shall be available at the project site during construction and maintenance of this project.
- 13) If concrete is used during any work in waters of the U.S. on this project, the permittee shall ensure that all necessary measures will be taken to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with streams until the concrete has cured.

- 14) The permittee shall implement all reasonable and practicable measures to ensure that equipment, structures, fill pads, work, and operation associated with this project do not adversely affect upstream and/or downstream reaches. Adverse effects include, but are not limited to, channel instability, flooding, and/or stream bank erosion. The permittee shall routinely monitor for these effects, cease all work when detected, take initial corrective measures to correct actively eroding areas, and notify this office immediately. Permanent corrective measures may require additional authorization by the USACE.
- 15) The permittee shall ensure that all excavation and/or construction areas in the stream are temporarily dewatered during work.
- 16) The permittee shall remove all sediment and erosion control measures placed in wetlands or waters, and shall restore natural grades in those areas, prior to project completion.
- 17) No fill or excavation for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless it is included on the plan drawings and specifically authorized by this permit.
- * 18) The permittee will ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Written verification shall be provided that the final construction drawings comply with the attached permit drawings prior to any active construction in waters of the United States, including wetlands. Any deviation in the construction design plans will be brought to the attention of the Corps of Engineers, Asheville Regulatory Field Office prior to any active construction in waters or wetlands.
- * 19) Prior to commencing construction within jurisdictional waters of the United States for any portion of the proposed project, the permittee shall forward the latest version of project construction drawings to the Corps of Engineers, Asheville Regulatory Field Office NCDOT Regulatory Project Manager. Half-size drawings will be acceptable.
 - 20) During the clearing phase of the project, heavy equipment shall not be operated in surface waters or stream channels. Temporary stream crossings shall be used to access the opposite sides of stream channels. All temporary diversion channels and stream crossings shall be constructed of nonerodable materials. Grubbing of riparian vegetation shall not occur until immediately before construction begins on a given segment of stream channel.

- 21) The permittee shall ensure that all in-stream work is avoided during the trout moratorium of October 15-April 15 of any year, OR, if the permittee chooses to conduct in-stream work during this period, all work is conducted in the dry and well maintained sediment and erosion control measures that meet the Design Standards in Sensitive Watersheds must be used.
- * 22) The permittee shall schedule a pre-construction meeting between their representatives, the contractor, and the USACE, Wilmington District, Asheville Regulatory Field Office, NCDOT Regulatory Project Manager, prior to any work in jurisdictional waters of the U.S. to ensure that there is a mutual understanding of all terms and conditions contained in this DA permit. The permittee shall provide the NCDOT Regulatory Project Manager with a copy of the final plans at least two (2) weeks prior to the pre-construction meeting along with a description of any changes that have been made to the project's design, construction methodology or construction timeframe. The permittee shall schedule the pre-construction meeting for a time when the USACE and the North Carolina Division of Water Quality (NCDWQ) Project Managers can attend. The permittee shall notify the USACE and NCDWQ Project Managers a minimum of thirty (30) days in advance of the meeting.
 - 23) Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in the disequilibrium of wetlands, streambeds or stream banks adjacent to, upstream of or downstream of the structures. For all culvert construction activities, the dimension, pattern, and profile of the stream, (above and below a pipe or culvert), shall not be modified by widening the stream channel or by reducing the depth of the stream. Riprap armoring of streams at culvert inlets and outlets shall be minimized above ordinary high water elevation in favor of bioengineering techniques such as bank sloping, erosion control matting and revegetation with deep-rooted native woody plants.
 - 24) The permittee, upon receipt of a notice of revocation of this permit, or upon its expiration before completion of the work would, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.

Mitigation

* 25) The permittee shall monitor the on-site mitigation areas in accordance with Monitoring Level 2, as outlined in the April 2003 Stream Mitigation Guidelines. Data must be collected each year for five (5) years at the same time of year. No less than two bankfull flow events must be documented during the required five years monitoring period. If less than two bankfull events

occur during the first five years, monitoring will continue until the second bankfull event is documented. The bankfull events must occur in separate monitoring years. Physical measurements of channel stability/morphology will not be performed.

- * 26) The permittee shall submit As Built plans to the USACE within sixty (60) day of completion of the mitigation areas to verify actual mitigation areas constructed and planted.
- * 27) All monitoring activities would be conducted for five years post-construction and documented in an annual report distributed to the regulatory agencies.
- * 28) The permittee shall conduct all mitigation activities in accordance with the mitigation plan titled "Revised On-site Mitigation Plan for I-40 Slope Stabilization Haywood County, North Carolina T.I.P. Number I-5402 WBS No. 46282.1.1 Revised September 28, 2012," along with the monitoring and reporting requirements noted in special condition 25 of this permit.
- * 29) Success of the mitigation areas will be determined by the USACE and will be based upon successful completion of work, in accordance with the Revised On-site Mitigation Plan of September 28, 2012, and meeting success criteria at the end of the monitoring period.
- * 30) If the USACE determines that any part of the relocated channel is not stable (e.g., excessive erosion, aggradation, etc.), or is trending toward instability, and/or if the vegetative planting is not successful at the end of the monitoring period, the permittee shall submit an adaptive plan to this office to correct any stability or planting deficiency. Plan submissions shall specify the scope of work needed to remedy the problem(s), types of equipment to be utilized, construction methodologies, and a timeline for completion.

Enforcement

31) Violations of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act must be reported in writing to the Wilmington District USACE within 24 hours of the permittee's discovery of the violation.

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	olicant: North Carolina Department of	File Number: SAW-2012- 00546	Date: October 18, 2012							
	asportation; Dr. Gregory J. Thorpe, Ph.D., ached is:	See Section below								
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SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

- A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final
 authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature
 on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the
 permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT: You may accept or appeal the permit
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may
 appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and
 sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this
 notice.
- C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

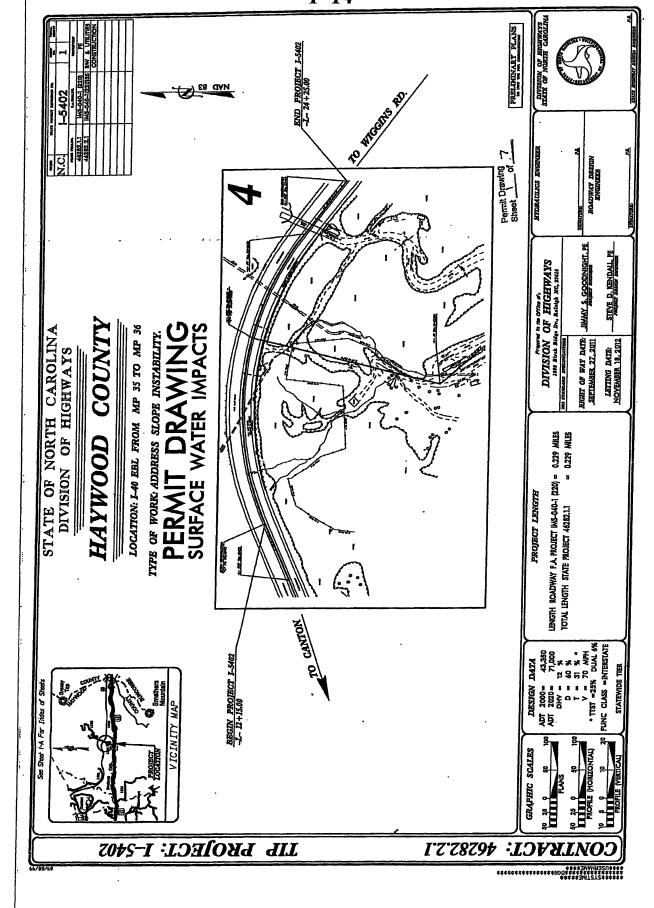
POINT OF CONTACT FOR OUESTIONS OR INFORMATION: If you have questions regarding this decision and/or the appeal If you only have questions regarding the appeal process you may also process you may contact: contact: District Engineer, Wilmington Regulatory Division, Mr. Jason Steele, Administrative Appeals Review Officer, CESAD-PDO U.S. Army Corps of Engineers, South Atlantic Division Attn: Lori Beckwith 151 Patton Ave, Room 208 60 Forsyth Street, Room 10M15 Asheville, NC 28806 Atlanta, GA 30303-8801 (828) 271-7980 Telephone: (404) 562-5137 RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations. Telephone number: Date: Signature of appellant or agent.

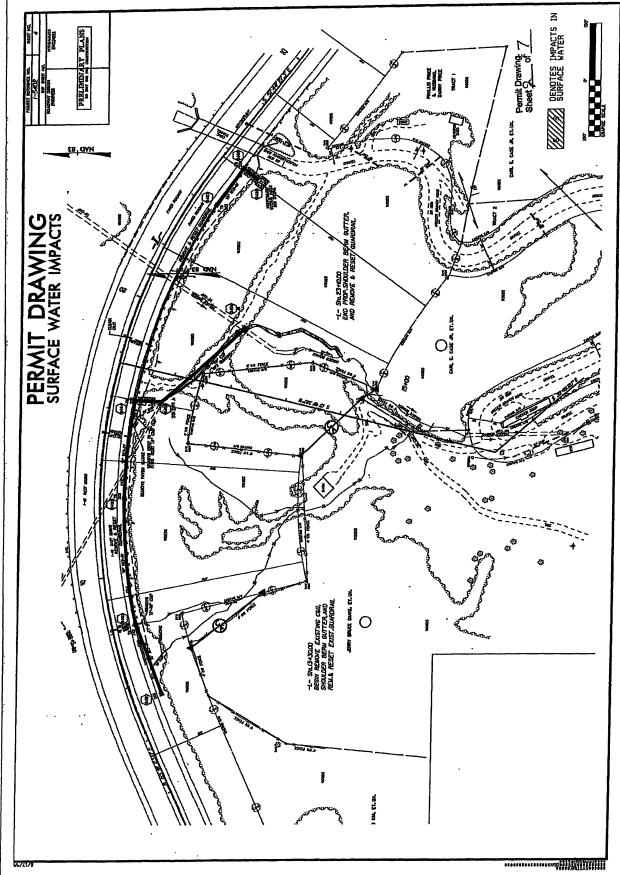
For appeals on Initial Proffered Permits and approved Jurisdictional Determinations send this form to:

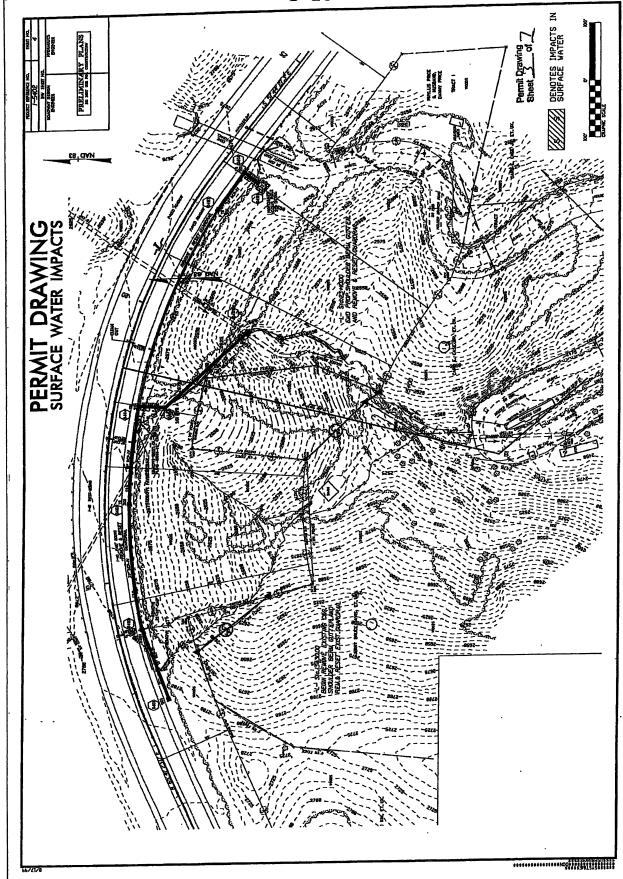
District Engineer, Wilmington Regulatory Division, Attn: Lori Beckwith, Project Manager, Asheville Regulatory Field Office, 151 Patton Avenue, Room 208, Asheville, NC 28801.

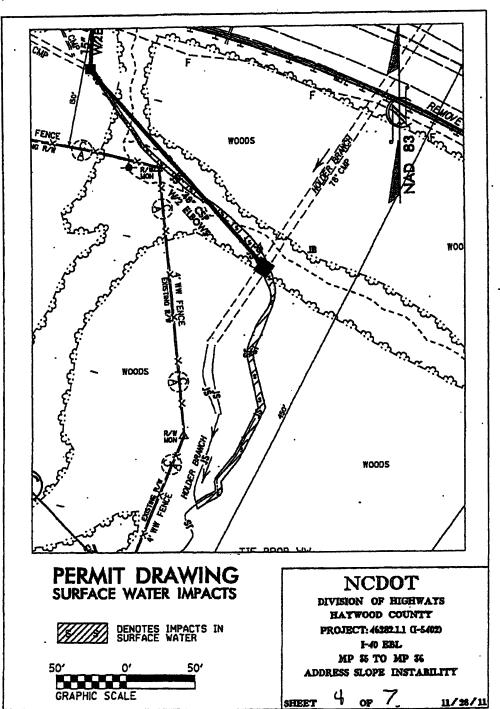
For Permit denials and Proffered Permits send this form to:

Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: Administrative Appeal Officer, CESAD-ET-CO-R, 60 Forsyth Street, Room 9M15, Atlanta, Georgia 30303-8801

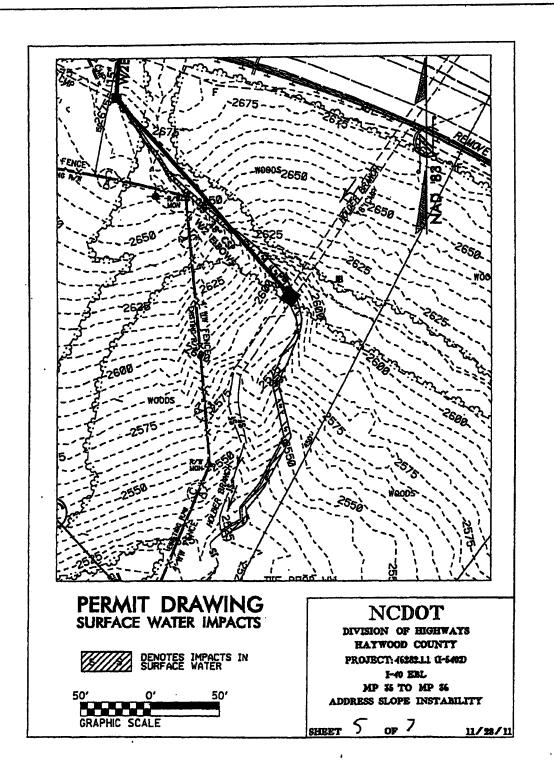






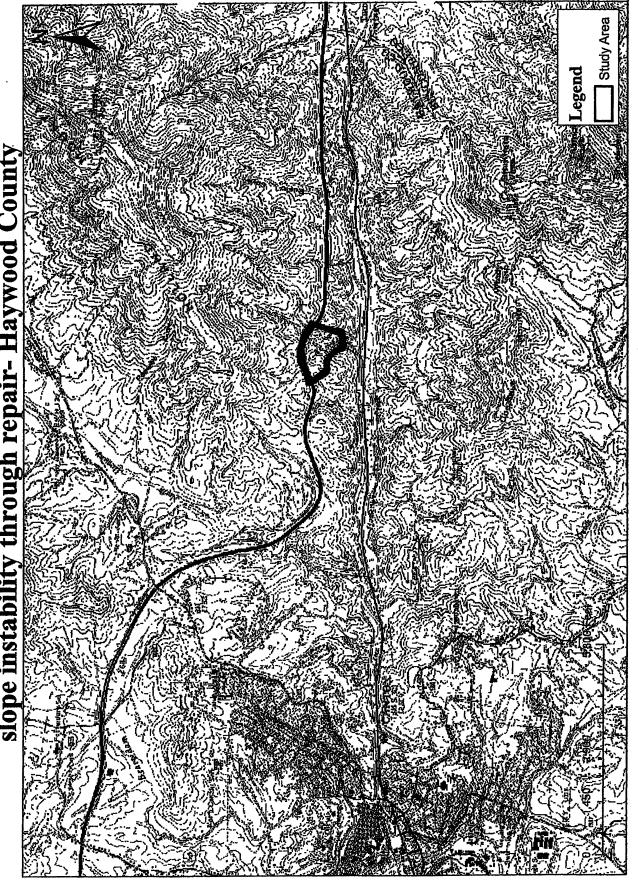


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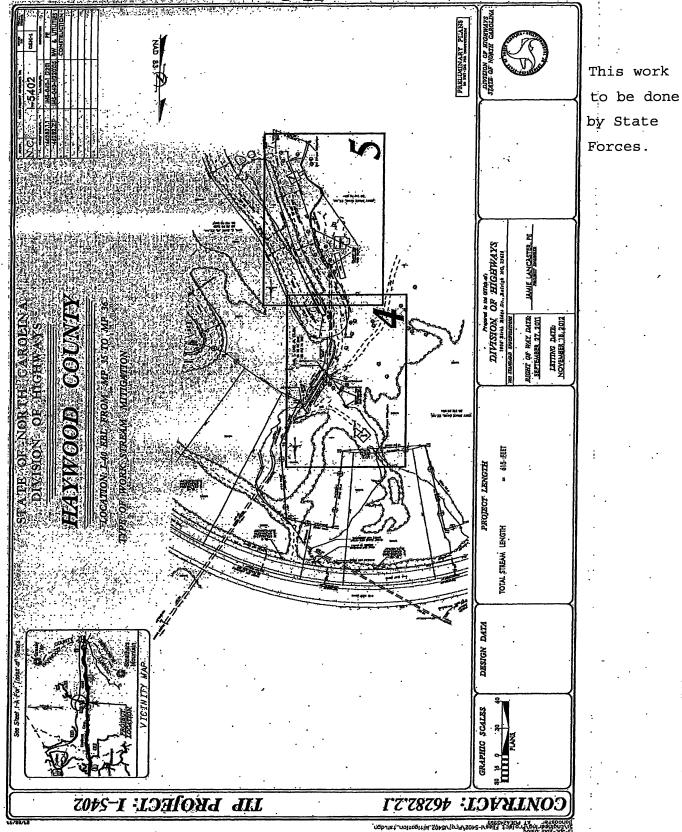


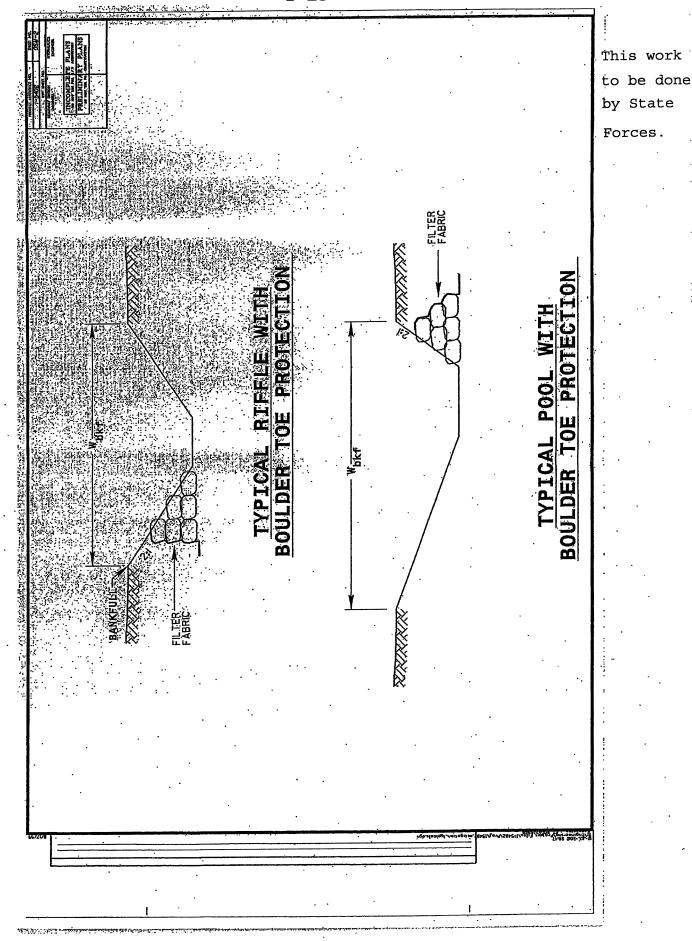
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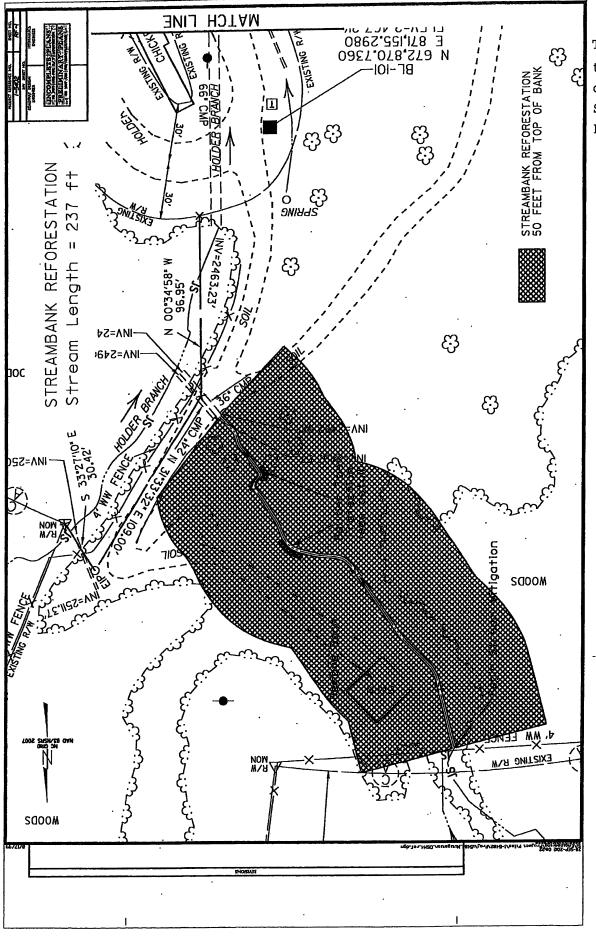
11/28/2011 NC DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS HAYWOOD COUNTY WBS - 46282.1.1. (1-5402) PROPERTY OWNERS Carl E. Case, Jr., et. Ux. 258 Alvany Grey Rd. Canton NC 28716 Jerry and Carol Davis 235 Holder Branch Rd. Canton NC 28716 Phylis and Danny Price 91 Star Ridge Rd. Canton NC 28716



slope instability through repair- Haywood County Figure 1: I-5402 Project Study Region: Address



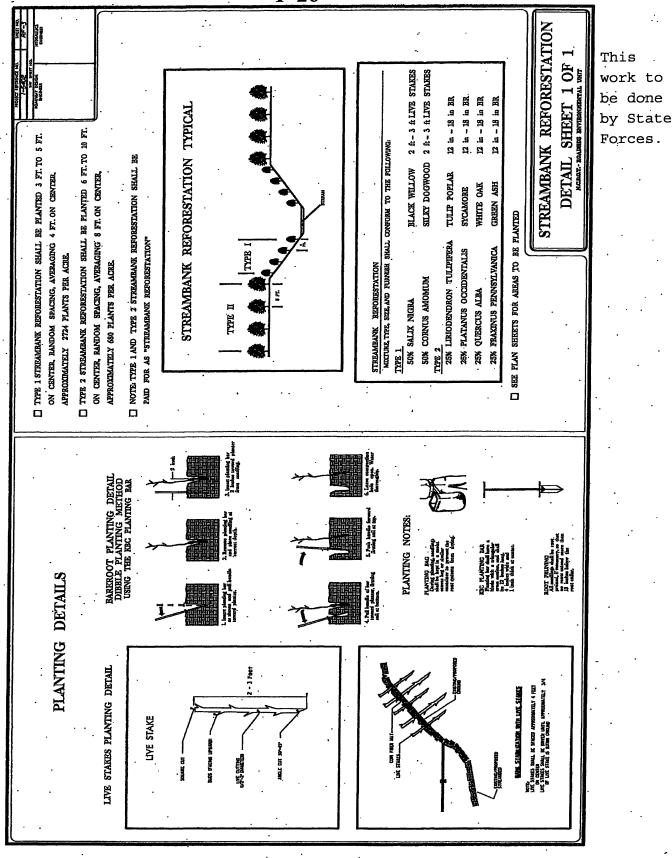




This work to be done by State Forces.

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done



P-27

NCDENR

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North Carolina Department of Environment and Natural Resources

3 .J

JUN 18 2012

Beverly Eaves Perdue Governor Division of Water Quality Charles Wakild, P.E Director

June 13, 2012

DIVISION OF HIGHWAYS Freemar PDEA-OFFICE OF HATURAL ENGINEEMENT

Dr. Greg Thorpe, PhD., Manager Project Development and Environmental Analysis North Carolina Department of Transportation 1548 Mail Service Center Raleigh, North Carolina, 27699-1548

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water with ADDITIONAL CONDITIONS for Proposed Slope Stabilization Measures Adjacent to I -40 between Mile Posts 35 and 36 in Haywood County, Federal Aid Project No. IMS-040-1(220)35, State Project No. WBS 46282.1.1, TIP

1-5402

NCDWO Project No. 20120309

Dear Dr. Thorpe:

Attached hereto is a copy of Certification No. 3917 issued to The North Carolina Department of Transportation (NCDOT) dated June 13, 2012

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

Sincerel

Charles Wakild

Attachments

cc: Lori Beckwith, US Army Corps of Engineers, Asheville Field Office (electronic copy only) Mark Davis, Division 14 Environmental Officer Chris Militscher, Environmental Protection Agency (electronic copy only) Marella Buncick US Fish and Wildlife Service (electronic copy only) Marla Chambers, NC Wildlife Resources Commission Jason Elliott, NCDOT, Roadside Environmental Unit Mike Parker,, NCDWQ Asheville Regional Office File Copy

Transportation and Permitting Unit 1650 Mail Service Center, Raleigh, North Carolina 27699-1617 Location: 512 N. Salisbury St. Raleigh, North Carolina 27604 Phone: 919-807-6300 \ FAX: 919-807-6492 Internet: www.ncwaterquality.org



401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS

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 (NCDWQ) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact 392 linear feet of jurisdictional streams in Haywood County. The project shall be constructed pursuant to the application dated received March 27, 2012. The authorized impacts are as described below:

Stream Impacts in the French Broad River Basin

Site	Permanent Fill in	Temporary Fill	Permanent	Temporary	Total Stream	Stream
	Intermittent Stream	in Intermittent	Fill in	Fill in	Impact	Impacts
	(linear ft)	Stream (linear	Perennial	Perennial	(linear ft)	Requiring
		ft)	Stream	Stream (linear		Mitigation
			(linear ft)	ft)		(linear ft)
1	0	0	392	0	392	392
Total	0	0	392	0	392	392

Total Stream Impact for Project: 392 linear feet

The application provides adequate assurance that the discharge of fill material into the waters of the French Broad River Basin in conjunction with the proposed development 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 and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application dated received March 12, 2012. Should your project change, you are required to notify the NCDWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

Conditions of Certification:

- The NCDOT Division Environmental Officer, Environmental Specialist will conduct a pre-construction
 meeting with all appropriate staff to ensure that the project supervisor and essential staff understand the
 potential issues with stream and piping alignment at the permitted site(s). NCDWQ staff shall be invited to
 the pre-construction meeting.
- * 2. NCDOT will provide functional restoration of the site by removing all of the degrading factors including removal of the mobile home, storage building, structures, trash and debris from the stream and livestock from the property. Within 50' of stream (see Oct 11, 2012 email, attacked)
- * 3. Compensatory mitigation for impacts to 392 linear feet of streams at a replacement ratio of 1:1 is required. Compensatory mitigation shall be supplied as detailed in the table below:

Mitigation Type	Mitigation Credits
On-site - Stream SA and SE	392

* 4 Compensatory mitigation for impacts to jurisdictional streams shall be provided by on-site stream restoration of 584 linear feet of two (2) unnamed tributaries (Stream SA and SE) to Hominy Creek. The

on-site stream restoration shall be constructed in accordance with the design submitted in the mitigation plan dated April 26, 2012. All on-site mitigation sites shall be protected in perpetuity by a conservation easement or through NCDOT fee simple acquisition and recorded in the NCDOT Natural Environment Unit mitigation geodatabase. Please be reminded that as-builts for the completed streams shall be submitted to the North Carolina Division of Water Quality 401 Wetlands Unit with the as-builts for the rest of the project. If the parameters of this condition are not met, then the permittee shall supply additional stream mitigation for the 392 linear feet of impacts. All channel restoration work will be constructed in a dry work area, will be completed and stabilized with rolled erosion control product (RECP). The stream restoration shall have a 30-foot wide native wooded buffer planted on both sides of the stream unless otherwise authorized by this Certification. (See Oct 11, 2012 Small), attached

* 5. The permittee shall visually monitor the vegetative plantings to assess and ensure complete stabilization of the mitigation stream segments. The monitoring shall be conducted annually for a minimum of five (5) years after final planting. Photo documentation shall be utilized to document the success of the riparian vegetation and submitted to NCDWQ in a final report within sixty (60) days after completing monitoring. After five (5) years the NCDOT shall contact the NCDWQ to schedule a site visit to "close out" the mitigation site.

General Conditions

- There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this
 permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites,
 be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road
 construction activities.
- 2. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored upon completion of the project.
- 3. 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.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the North Carolina Surface Mining Manual.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
- 4. Unless otherwise approved in this certification, placement of culverts and other structures in open waters and streams shall 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 dis-equilibrium 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 is being maintained if requested in writing by NCDWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.
- NCDOT will need to adhere to all appropriate in-water work moratoria (including the use of pile driving or vibration techniques) prescribed by the North Carolina Wildlife Resources Commission.

- 6. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
- 7. 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 such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
- 8. The stream channel shall be excavated no deeper than the natural bed material of the stream, to the maximum extent practicable. Efforts must be made to minimize impacts to the stream banks, as well as to vegetation responsible for maintaining stream bank stability. Any applicable riparian buffer impact for access to stream channel shall be temporary and be revegetated with native riparian species.
- 9. The dimension, pattern and profile of the stream, above and below the crossing, shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions.
- 10. Native riparian vegetation (e.g. rhododendron, dog hobble, willows, alders, sycamores, dogwoods, black walnut and red maple) must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
- 11. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage.
- 12. Rip-rap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.
- 13. Heavy equipment shall be operated from the banks rather than in the stream channels in order to minimize sedimentation and reduce the introduction of other pollutants into the stream.
- 14. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
- * 15. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval.
 - 16. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
 - 17. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
 - 18. No rock, sand or other materials shall be dredged from the stream channel, except where authorized by this certification.
 - 19. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.
 - 20. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification.
- 21. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers.
- 22. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
- 23. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If NCDWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State of Federal law is being violated, or that further conditions are necessary to assure compliance, NCDWQ may reevaluate and modify this certification.
- 24. The issuance of this certification does not exempt the Permittee form complying with any and all statutes, rules, regulations or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
- The Permittee shall report any violations of this certification to the Division of Water Quality within 24-hours of discovery.

* 26. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify NCDWQ when all work included in the §401 Certification has been completed.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit.

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission. The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings 6714 Mail Service Center Raleigh, NC 27699-6714

Telephone: (919)-733-2698, Facsimile: (919)-733-3478

A copy of the petition must also be served on DENR as follows:

Ms. Mary Penny Thompson, General Counsel Department of Environment and Natural Resources 1601 Mail Service Center Raleigh, NC 27699-1601

This the 13th day of June 2012

DIVISION OF WATER QUALITY

Vellega

Charles Wakild
Director

WQC No. 3917

Feulner, Brett M

From:

Parker, Mike

Sent:

Thursday, October 11, 2012 8:06 AM

To:

Feulner, Brett M

Subject:

RE: I-5402-401 Permit conditions

Brett, I have received your e-mail and am aware of the differences in the 30 foot buffer and NCDWQ would not require NCDOT to remove trash and buildings greater than 50 feet of any stream channel on the property. Mike

Mike Parker - Mike.Parker@ncdenr.gov
North Carolina Dept. of Environment and Natural Resources
Asheville Regional Office
Division of Water Quality - Surface Water Protection
2090 U.S. 70 Highway
Swannanoa, NC 28778
Tal. 828, 206, 4500

Tel: 828-296-4500 Fax: 828-299-7043

From: Feulner, Brett M

Sent: Thursday, October 11, 2012 8:02 AM

To: Parker, Mike

Subject: I-5402-401 Permit conditions

Mike,

This email is a follow up of our previous email conversation regarding some of the conditions on the 401 issued June 13, 2012 for TIP I-5402.

On Condition 4, there are portions of the lower stream included in the mitigation plan that we will not be able to plant a 30 foot buffer due to the proximity of the road.

In condition 2 we only intend to remove the trash and buildings within 50 feet of the stream channel due to limited access on portions of the property.

Can you please confirm that you received this email and are aware of the above mentioned.

Thanks

Brett

919-707-6116

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

Revised On-site Mitigation Plan for I-40 Slope Stabilization Haywood County, North Carolina T.I.P. Number I-5402 WBS No. 46282.1.1 Revised September 28, 2012 On-site Mitigation will be completed by State Forces.

OBJECTIVES

The proposed mitigation site will provide mitigation for unavoidable impacts due to TIP I-5402. NCDOT will be enhancing two UTs to Hominy Creek for a total of 615 linear feet of stream mitigation. NCDOT previously stated that up to 584 feet of stream enhancement was available onsite, however after the enclosed design was completed 615 linear feet of stream enhancement is available onsite. The functional enhancement of the site will occur through the removal of all of the degrading factors including removal of the mobile home residence, storage buildings, livestock, and trash from the stream. Additional measures taken will be stabilizing the banks, and reestablishing a buffer along the stream. Enhancement of the streams will address the watershed needs, including reducing sediment discharging into Hominy Creek.

SITE SELECTION

The proposed mitigation site was chosen because the streams are extremely degraded and the proximity to the resources impacted. The majority of the vegetation along both streams have either been removed or over grazed, leaving no effective riparian buffer. The streams are currently degraded due to direct access to the stream by livestock resulting in no riparian buffer and no bank vegetation to filter containments and sediment before entering the stream. There are also portions of the streams that are experiencing bank failures, due to the lack of buffer and the presence of livestock accessing the stream. There are portions of the streams and stream banks that contain trash including tires and appliances. Downstream of the project, Hominy Creek is listed by the NCDWQ as a 303(d) impaired stream due to sedimentation. Therefore, the mitigation site will help address needs within the watershed to decrease turbidity in Hominy Creek.

SITE PROTECTION INSTRUMENT

The mitigation areas are presently located within the NCDOT Right-of-Way for the project. They will be managed to prohibit all use inconsistent with its use as mitigation property, including any activity that would materially alter the biological integrity or functional and educational value of the site, consistent with the mitigation plan.

The site is designated on the plan sheets as a mitigation area and will placed on the Natural Environment Section's Mitigation GeoDatabase. This database is provided to all NCDOT personnel as a record of mitigation sites and their attributes, including prohibited activities. NCDOT is held by virtue of the permit associated with this mitigation site and the associated roadway impacts to protect the site in perpetuity.

BASELINE INFORMATION

NCDOT proposes to perform on-site mitigation for unavoidable stream impacts associated with Transportation Improvement Program (TIP) I-5402. The primary purpose of TIP I-5402 is to address slope instabilities adjacent to I-40 related to an eroding reach of an Unnamed Tributary (UT) to Hominy Creek. The project boundary is within the Southern Mountains physiographic province. Land use within the watershed is primarily agriculture and forestry. The project is located within USGS Hydrologic Cataloging Unit 06010105, and NC Division of Water Quality (NCDWQ) sub-basin 06-01-01 within the French Broad River Basin.

The proposed mitigation site contains two UT's to Hominy Creek which is currently used as a watering source for livestock, and also contains a residence. Hominy Creek and its tributaries have been assigned a best usage classification of C by NCDWQ. There is currently no wooded buffer along the streams and only portions of the streams have grass buffers, with portions of the stream buffer containing no vegetation. The livestock are currently grazing the buffer area and have direct access to the streams. Stream names (SA and SE) used in this plan reflect the names that are used in the NRTR dated April 2011 as well as the Categorical Exclusion (CE) dated August 2011.

Stream SA

This stream currently flows adjacent to the mobile home and an older home that is currently used for storage. The stream then flows adjacent to the area that is used to house poultry and goats and eventually flows to Hominy Creek after leaving the property. Approximately 378 feet of Stream SA is located within the proposed mitigation area. Downstream of the project, Hominy Creek is listed by the NCDWQ as a 303(d) impaired stream due to sedimentation.

The majority of the vegetation along stream SA has either been removed or over grazed, leaving no effective riparian buffer. Stream SA is currently degraded due to direct access to the stream by livestock resulting in no riparian buffer to filter containments and sediment before entering the stream. There are also portions of the stream that are experiencing bank failures, due to the lack of buffer and the presence of livestock accessing the stream.

Stream SE

Stream SE is located upstream of Stream SA in an area that is currently used as pasture land for goats. Approximately 237 feet of stream SE is located within the proposed mitigation area. The majority of the vegetation on stream SE has been removed and therefore there is no effective riparian buffer. There are portions of the channel and banks that have been impacted and degraded due to the goats having direct access to the stream channel. There are portions of the stream and stream bank that contain trash including tires and appliances. Stream SE is currently degraded because the animals are directly accessing the channel and there is no buffer to filter contaminants before entering the stream.

DETERMINATION OF CREDITS

NCDOT proposes the following types of mitigation and ratios for each site.

Table 1: Stream Credits

Stream Description	Total Stream Length (feet)	Stream Length Adjustment	Enhancement Credits(1:1.5)	Credit Increase Allowance (+9%)	Total Credits
50 foot buffer on one side	160	80*	53	7	60
50 foot buffer on both sides	455	455	303	41	344
Total Mitiga	tion Credits		356	48	404

^{*}Adjustment determined by the following; 160/2=80

NCDOT and the USACE has agreed to a 1.5:1 mitigation ratio because the factors contributing to degradation of streams SA and SE including the lack of a riparian buffer, eroding banks and the use of the streams and land immediately adjacent to the streams as pasture land for livestock will be addressed. Addressing the degrading factors will improve the overall quality of streams SA and SE including stability of the stream, wildlife habitat and biological diversity within and surrounding the streams. Stream enhancement will also address water quality needs within the watershed, including decreasing sediment discharging into Hominy Creek.

Stream SA includes 160 feet that will only include a wooded buffer of 10 feet on one side of the stream, and therefore subject to a reduction of stream credits. Credits received for the 160 foot portion of Stream SA will be reduced by half due to the reduced buffer width on one side of the stream. However, there will be a minimum of a 50 foot wooded buffer on the opposite side of the stream.

The remainder of Stream SA (218 feet) and all of Stream SE (237 feet) will include a wooded buffer of at least 50 feet on both stream banks, for a total of 455 feet. The 455 feet on Streams SA and SE are therefore subject to an increase of 9% of stream credits and is reflected above in Table 1. The 160 foot portion of Stream SA with a 50 foot wooded buffer will also receive a 9% increase in stream credits. The USACE determined that the 9% increase is appropriate for this project based on surrounding land use, site conditions, and the proposed work.

An as-built report will be submitted within 60 days of completion of the mitigation site to verify actual mitigation areas constructed and planted. The success of the mitigation areas and determination of final credits will be based upon successful completion and closeout of the monitoring period.

MITIGATION WORK PLAN

The mitigation site will be constructed concurrently with the roadway project. Enhancement of the streams will include removal of all of the livestock from the property and all structures, debris and trash within 50 feet of the streams. Following removal of the livestock and structures, channel work will commence. Stream work will include construction of a minimum of five areas of boulder toe protection. Areas proposed for boulder toe protection are shown in the attached mitigation plans. It is anticipated that during construction that there will be portions of the stream

banks that will require grading. The portions of the stream bank that are graded and any other changes to the planned stream work during construction will be reflected in the as-builts provided to the USACE and NCDWQ following the completion of construction. After construction work on the streams is completed, the stream banks and the buffer will be replanted with a mixture of native hardwood species according to the standard procedures of NCDOT's Roadside Environmental Unit. A copy of the planting plan has been included with the attached mitigation plan sheets.

MAINTENANCE PLAN

The site will be held by NCDOT and placed on the NES mitigation Geodatabase. If an appropriate third party recipient is identified in the future, then the transfer of the property will include a conservation easement or other measure to protect the natural features and mitigation value of the site in perpetuity.

PERFORMANCE STANDARDS

Success will be based on the completion of the removal of the degrading factors that are decreasing the stream function. Success for vegetation monitoring within the riparian buffer are based on the survival of at least 260 stems of five year old trees at year five. Assessment of channel stability will be based on the survival of riparian vegetation and lack of significant bank erosion, channel widening or down-cutting. Additional performance standards include evaluating stream SA and SE using the USACE Stream Quality Assessment Worksheet at the completion of the monitoring period to demonstrate an improvement in stream function.

MONITORING REQUIREMENTS

Photo points will be located within the stream mitigation areas at equal intervals along the channel with upstream and downstream views. Vegetation monitoring will consist of visual monitoring within the riparian buffer areas. The entire reach will be visually inspected for channel stability and vegetation survival. NCDOT will also conduct surveys for macro benthos once a year for five years following completion of construction on the streams.

These monitoring activities will be conducted for five years and documented in an annual report distributed to the regulatory agencies. Once monitoring is completed and the site is closed out, it will be placed in the NCDOT Stewardship Program for long term maintenance and protection.

LONG TERM ADAPTIVE MANAGEMENT PLAN

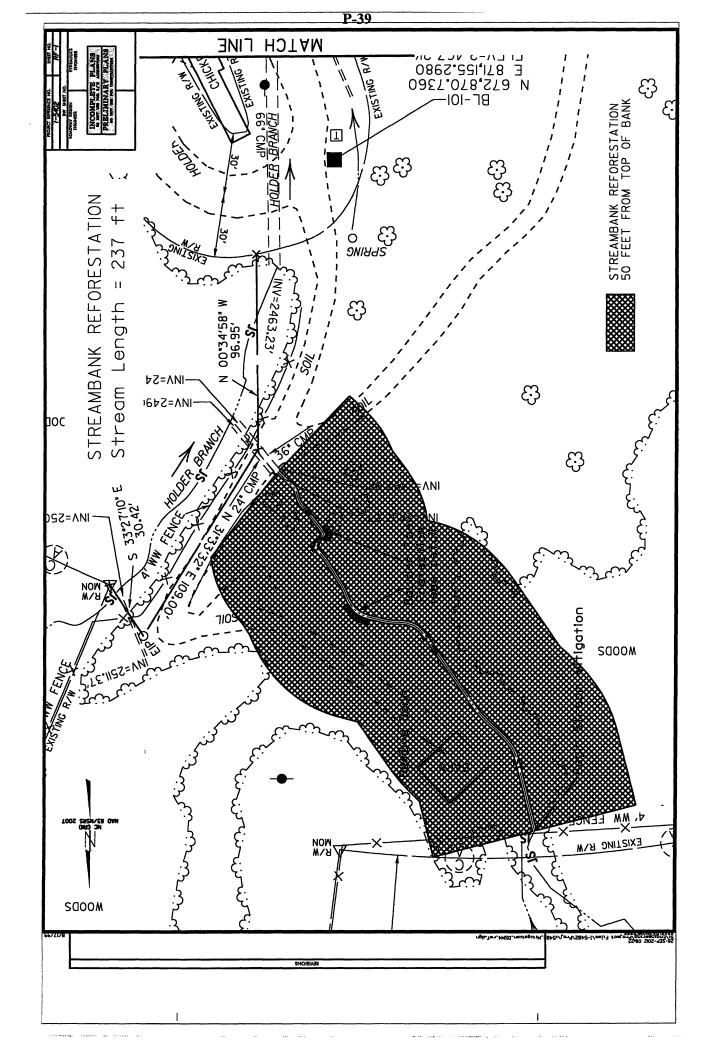
The site will be managed by the NCDOT according to the mitigation plan. In the event that unforeseen issues arise that affect the management of the site, any remediation will be addressed by NCDOT in coordination with the Interagency Review Team.

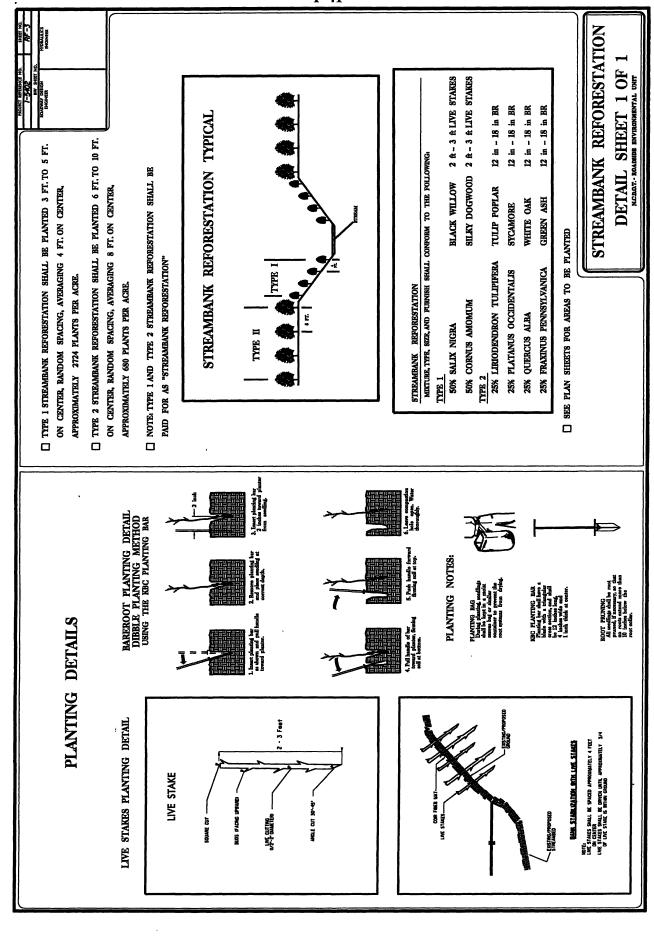
FINANCIAL ASSURANCES

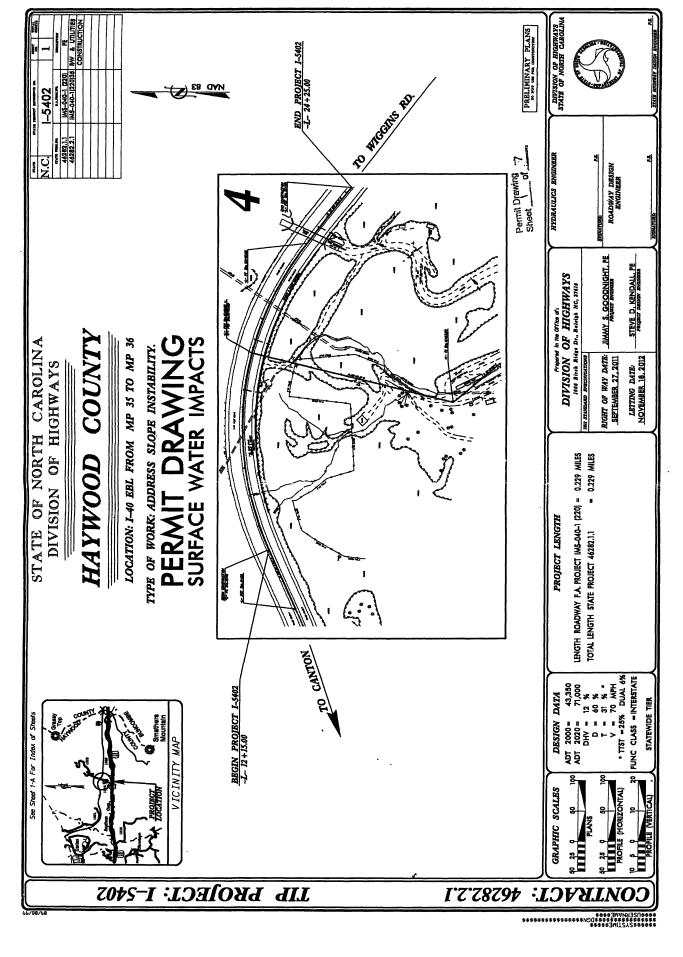
NCDOT is held by permit conditions associated with I-5402 to preserve the stream mitigation area. NCDOT has established funds for each project and within each Division to monitor the mitigation site and to protect it in perpetuity.

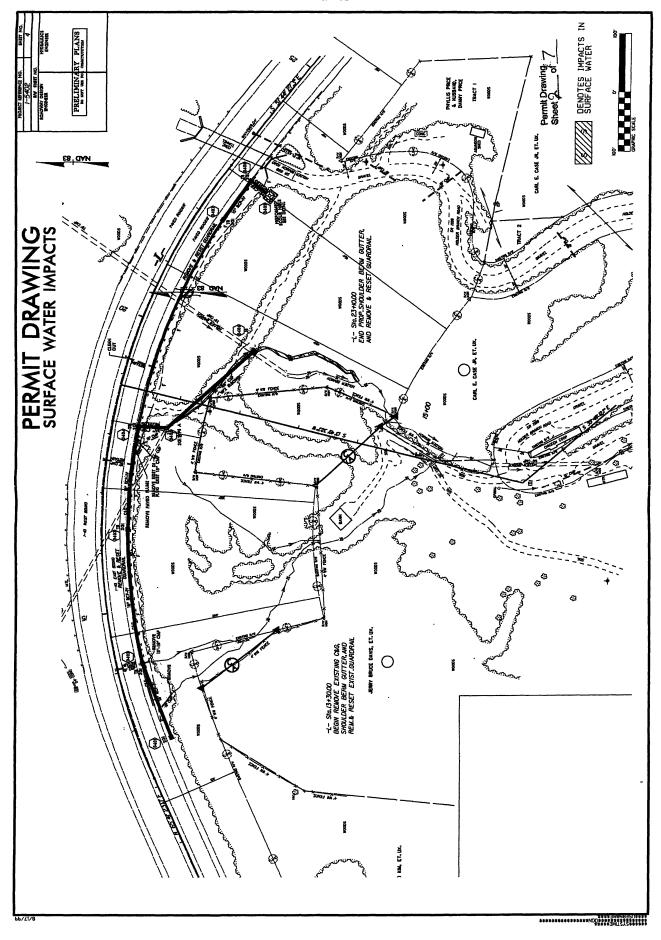


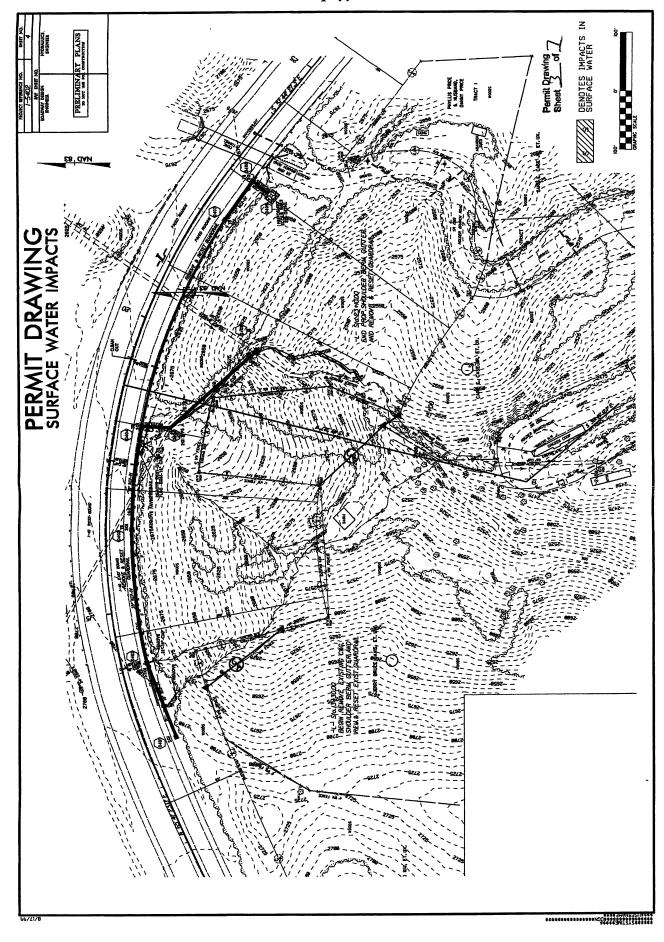
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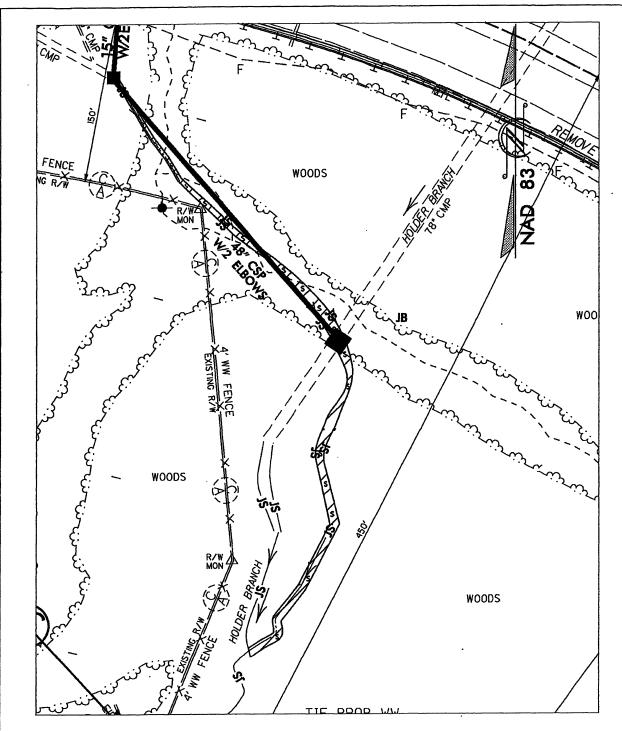






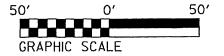






PERMIT DRAWING SURFACE WATER IMPACTS



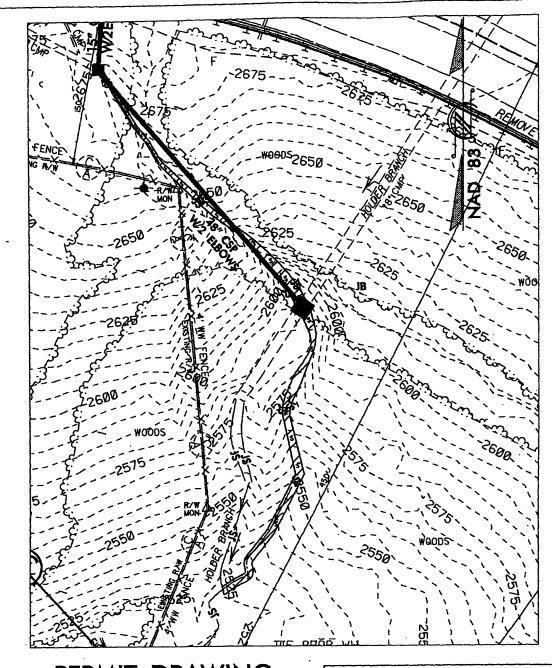


NCDOT

DIVISION OF HIGHWAYS
HAYWOOD COUNTY
PROJECT: 46282.1.1 (I-5402)
I-40 EBL
MP 35 TO MP 36
ADDRESS SLOPE INSTABILITY

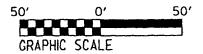
SHEET 4 OF 7

11/28/11



PERMIT DRAWING SURFACE WATER IMPACTS





NCDOT

DIVISION OF HIGHWAYS
HAYWOOD COUNTY
PROJECT: 46282.1.1 (I-5402)
I-40 EBL
MP 36 TO MP 36
ADDRESS SLOPE INSTABILITY

SHEET 5 OF 7

11/28/11

				WET	W LAND IMPA	ETLAND PE	RMIT IMP.	WETLAND PERMIT IMPACT SUMMARY WETLAND IMPACTS TO SUMMARY	SURFAC	.RY SURFACE WATER IMPACTS	APACTS	
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands	Tem Fill I	Excavation in Wetlands	Excavation Mechanized in Clearing Wetlands in Verlands	Hand Clearing in Wetlands	Permanent SW impacts	Temp. SW impacts	Existing Channel Impacts Permanent	Existing Channel Impacts Temp.	Natural Stream Design
-	18+29/20+11 -L-	48" CSP W/2 ELBS	(25)	(40)	(ap)	(40)	(ac)	0.04	(90)	392	(11)	(11)
TOTALS:	;ÿ:							0.04		392		
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PROPERTY OWNERS

Jerry and Carol Davis 235 Holder Branch Rd. Canton NC 28716

Carl E. Case, Jr., et. Ux. 258 Alvany Grey Rd. Canton NC 28716

Phyllis and Danny Price 91 Star Ridge Rd. Canton NC 28716

NC DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

HAYWOOD COUNTY WBS - 46282.1.1. (I-5402) 11/28/2011

