



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

August 10, 2020

Regulatory Division

Action ID. SAW-2016-01337

Ms. Amy Euliss  
North Carolina Department of Transportation (NCDOT),  
Division 9  
375 Silas Creek Parkway  
Winston Salem NC 27127

Dear Ms. Euliss:

In accordance with the written request of May 8, 2020, and the ensuing administrative record, enclosed is a permit to discharge fill material with 0.11 acre permanent wetland impacts, 1,372 linear feet of permanent stream impacts, and 266 linear feet of temporary stream impacts. These impacts are associated with the construction of TIP U-5760, widening and extension of Big Mill Farm Road, and widening of Hopkins Road, from the north end of Harmon Creek Road, to north of West Mountain Street, west of downtown Kernersville, in Forsyth County, North Carolina.

Any deviation in the authorized work will likely require modification of this permit. If any change in the authorized work is necessary, you should promptly submit revised plans to the Corps showing the proposed changes. You may not undertake the proposed changes until the Corps notifies you that your permit has been modified.

Carefully read your permit. The general and special conditions are important. Your failure to comply with these conditions could result in a violation of Federal law. Certain significant general conditions require that:

- a. You must complete construction before December 31, 2025.
- b. You must notify this office in advance as to when you intend to commence and complete work.
- c. You must allow representatives from this office to make periodic visits to your worksite as deemed necessary to assure compliance with permit plans and conditions.

You should address all questions regarding this authorization to Mr. Eric Alsmeyer, Raleigh Regulatory Field Office, at telephone (919) 554-4884, extension 23.

FOR THE DISTRICT ENGINEER

*Monte Matthews* Date: 2020.08.10  
12:27:07 -04'00'

Monte Matthews  
Lead Project Manager

Enclosures:

Department of the Army Permit Special Conditions  
Permit Drawings

Copies Furnished (with enclosures):

Chief, Source Data Unit  
NOAA/National Ocean Service  
1315 East-west Highway, Room 7316  
Silver Spring, Maryland 20910-3282

Copies Furnished with Special Conditions and Plans:

U. S. Fish and Wildlife  
Asheville Ecological Services Field Office  
160 Zillicoa St.  
Asheville, NC 28801

Mr. Todd Bowers  
Wetlands and Marine Regulatory Section  
Water Protection Division – Region IV  
U. S. Environmental Protection Agency  
61 Forsyth St. SW  
Atlanta, Georgia 30303-8931

Division of Water Resources  
Department of Environmental Quality  
1617 Mail Service Center  
Raleigh, North Carolina 27699

## DEPARTMENT OF THE ARMY PERMIT

Permittee **North Carolina Department of Transportation, Division 9, ATTN: Ms. Amy Euliss**

Permit No. **AID SAW-2016-01337**

Issuing Office **CESAW-RG**

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 that office acting under the authority of the commanding officer.

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

Project Description: **TIP U-5760; Big Mill Farm Road and Hopkins Road Widening and Extension; impacting 0.11 acre of wetlands, and 1,638 linear feet of stream.**

Project Location: **Existing Big Mill Farm Road and Hopkins Road corridors, west of downtown Kernersville, in Forsyth County, NC. Latitude and Longitude (near center of project at Woodfield Drive): 36.123 N, -80.110 W.**

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **December 31, 2025.** 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 Condition 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 is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated 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 made in reliance on the information you provided.



**WILMINGTON DISTRICT REGULATORY DIVISION  
PERMIT SPECIAL CONDITIONS  
DA# SAW-2016-01337  
U-5760 Big Mill Farm Road Widening/Extension,**

1. **Work Limits:** All work authorized by this permit shall be performed in strict compliance with the attached permit plans (WETLAND AND STREAM DRAFT PERMIT PACKAGE, dated MAY 4, 2020), which are a part of this permit. The Permittee shall ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Any modification to the attached permit plans must be approved by the US Army Corps of Engineers prior to any active construction in waters or wetlands.

2. **Unauthorized Dredge or Fill:** Except as authorized by this permit or any U.S. Army Corps of Engineers 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, or shall any activities take place that cause the degradation of waters or wetlands. There shall be no excavation from, waste disposal into, or degradation of, jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit, including appropriate compensatory mitigation. This prohibition applies to all borrow and waste activities connected with this project. In addition, except as specified in the plans attached 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, into, or out of waters or wetlands or to reduce the reach of waters or wetlands.

3. **Permit Distribution:** 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, drawings and attachments shall be available at the project site during the construction and maintenance of this project.

4. **Pre-Construction Meeting:** The Permittee shall schedule and attend a preconstruction meeting between its representatives, the contractors representatives, and the U.S. Army Corps of Engineers, NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all the terms and conditions contained with this Department of Army Permit. The Permittee shall provide the Corps, NCDOT Project Manager, with a copy of the final permit plans at least two weeks prior to the preconstruction 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 preconstruction meeting for a time frame when the Corps and NCDWR Project Managers can attend. The Permittee shall invite the Corps and NCDWR Project

Managers a minimum of thirty (30) days in advance of the scheduled meeting in order to provide those individuals with ample opportunity to schedule and participate in the required meeting. The thirty (30) day requirement can be waived with the concurrence of the Corps.

**5. Notification of Construction Commencement and Completion:** The Permittee shall notify the U.S. Army Corps of Engineers in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.

**6. Reporting Address:** All reports, documentation, and correspondence required by the conditions of this permit shall be submitted to the following: U.S. Army Corps of Engineers, Wilmington District Raleigh Regulatory Field Office, Attn: Eric Alsmeyer, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 or [eric.c.alsmeyer@usace.army.mil](mailto:eric.c.alsmeyer@usace.army.mil). The Permittee shall reference the following permit number, SAW-2016-01337, on all submittals.

**7. Permit Revocation:** 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.

**8. Reporting Violations:** Violation of these permit conditions or violation of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act shall be reported to the Corps in writing and by telephone at: 919-554-4844, ext. 23, within 24 hours of the Permittee's discovery of the violation.

**9. Clean Fill:** The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, construction debris, metal and plastic products, and concrete block with exposed reinforcement bars. Soils used for fill shall not be contaminated with any toxic substance in concentrations governed by Section 307 of the Clean Water Act. Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source.

**10. Culverts:**

1) Unless otherwise requested in the application and depicted on the approved permit plans, culverts greater than 48 inches in diameter shall be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter and less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, and every effort shall be made to maintain existing channel slope. The bottom of the culvert shall be placed at a depth below the natural stream bottom to provide for passage during drought or low flow conditions. Culverts shall be designed and constructed in a manner that minimizes destabilization and head cutting.

2) Measures shall be included in the construction/installation that will promote the safe passage of fish and other aquatic organisms. 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 in connection with the construction activity. The width, height, and gradient of a proposed opening shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gauge data, if available. In the absence of such data, bankfull flow can be used as a comparable level.

3) The Permittee shall implement all reasonable and practicable measures to ensure that equipment, structures, fill pads, work, and operations 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 U.S. Army Corps of Engineers.

4) Culverts placed within wetlands must be installed in a manner that does not restrict the flows and circulation patterns of waters of the United States. Culverts placed across wetland fills purely for the purposes of equalizing surface water shall not be buried, but the culverts must be of adequate size and/or number to ensure unrestricted transmission of water.

#### **11. Sediment and Erosion Control:**

1) During the clearing phase of the project, heavy equipment shall not be operated in surface waters or stream channels. Temporary stream crossings will be used to access the opposite sides of stream channels. All temporary diversion channels and stream crossings will be constructed of non-erodible materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.

2) No fill or excavation impacts for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless the impacts are included on the plan drawings and specifically authorized by this permit. This includes, but is not limited to, sediment control fences and other barriers intended to catch sediment losses.

3) The Permittee shall remove all sediment and erosion control measures placed in waters and/or wetlands, and shall restore natural grades on those areas, prior to project completion.

4) The Permittee shall use appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" to ensure compliance with

the appropriate turbidity water quality standard. Erosion and sediment control practices shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to ensure compliance with the appropriate turbidity water quality standards. 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 shall remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A, Article 4). Adequate sedimentation and erosion control measures shall be implemented prior to any ground disturbing activities to minimize impacts to downstream aquatic resources. These measures shall be inspected and maintained regularly, especially following rainfall events. All fill material shall be adequately stabilized at the earliest practicable date to prevent sediment from entering into adjacent waters or wetlands.

**12. Borrow and Waste:** To ensure that all borrow and waste activities occur on high ground and do not result in the degradation of adjacent waters and wetlands, except as authorized by this permit, the Permittee shall require its contractors and/or agents to identify all areas to be used as borrow and/or waste sites associated with this project. The Permittee shall provide the U.S. Army Corps of Engineers with appropriate maps indicating the locations of proposed borrow and/or waste sites as soon as such information is available. The Permittee shall submit to the Corps site-specific information needed to ensure that borrow and/or waste sites comply with all applicable Federal requirements, to include compliance with the Endangered Species Act and the National Historic Preservation Act, such as surveys or correspondence with agencies (e.g., the USFWS, the NC-HPO, etc.). The required information shall also include the location of all aquatic features, if any, out to a distance of 400 feet beyond the nearest boundary of the site. The Permittee shall not approve any borrow and/or waste sites before receiving written confirmation from the Corps that the proposed site meets all Federal requirements, whether or not waters of the U.S. , including wetlands, are located in the proposed borrow and/or waste site. All delineations of aquatic sites on borrow and/or waste sites shall be verified by the U.S. Army Corps of Engineers and shown on the approved reclamation plans. The Permittee shall ensure that all borrow and/or waste sites comply with Special Condition 2. of this permit. Additionally, the Permittee shall produce and maintain documentation of all borrow and waste sites associated with this project. This documentation will include data regarding soils, vegetation, hydrology, any delineation(s) of aquatic sites, and any jurisdictional determinations made by the Corps to clearly demonstrate compliance with Special Condition 2. All information will be available to the U.S. Army Corps of Engineers upon request. The Permittee shall require its contractors to complete and execute reclamation plans for each borrow and/or waste site and provide written documentation that the reclamation plans have been implemented and all work is completed. This documentation will be provided to the U.S. Army Corps of Engineers within 30 days of the completion of the reclamation work.

**13. Compensatory Mitigation:** In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Form. The requirements of this form, including any special conditions listed on this form, are hereby incorporated as special conditions of this permit.

**14. Endangered Species Act:** The Permittees shall implement all necessary measures to ensure the authorized activity does not kill, injure, capture, harass, or otherwise harm any federally-listed threatened or endangered species. While accomplishing the authorized work, if the Permittees discover or observe an injured or dead threatened or endangered species, the U.S. Army Corps of Engineers, Wilmington District Raleigh Field Office, Attn: Eric Alsmeyer at 919-554-4884 Ext. 23 / [Eric.C.Alsmeyer@usace.army.mil](mailto:Eric.C.Alsmeyer@usace.army.mil) will be immediately notified to initiate the required Federal coordination.

**15. Maintain Flows and Circulation Patterns of Waters:** Except as specified in the plans attached 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 and/or wetlands.

**16. Temporary Fills:** Within thirty (30) days of the date of completing the authorized work, the Permittee shall remove all temporary fills in waters of the United States and restore the affected areas to pre-construction contours and elevations. The affected areas shall be re-vegetated with native, non-invasive vegetation as necessary to minimize erosion and ensure site stability.

**17. Water Contamination:** All mechanized equipment shall 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 Permittees shall immediately report it to the N.C. Division of Water Resources at (919) 733-3300 or (800) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act shall be followed.

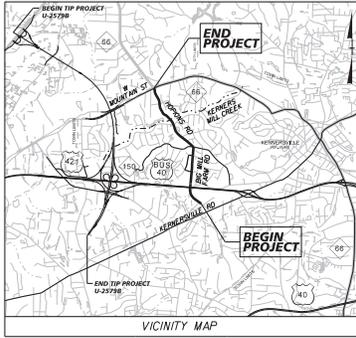
**18. Aquatic Life Movement:** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area. All discharges of dredged or fill material within waters of the United States shall be designed and constructed, except as authorized as indirect impacts, to maintain low flows to sustain the movement of aquatic species.

**19. Prohibitions on Concrete:** The Permittees shall take measures necessary to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with any water in or entering waters of the United States. Water inside coffer dams or casings that has been in contact with concrete shall only be returned to waters

of the United States when it no longer poses a threat to aquatic organisms (concrete is set and cured).

TIP PROJECT: U-5760

See Sheet IB For Conventional Plan Sheet Symbols



PERMIT DRAWING SHEET 1 OF 22

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

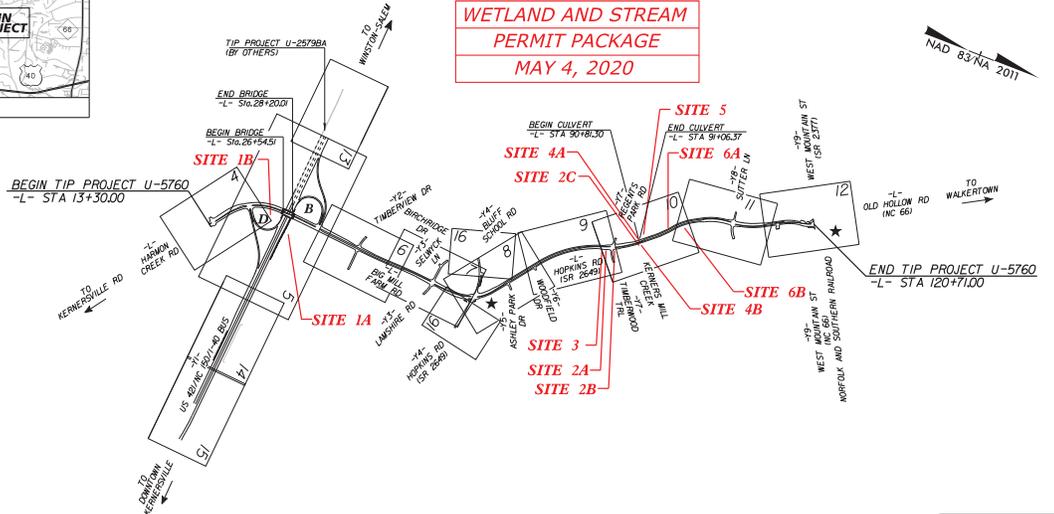
**FORSYTH COUNTY**

LOCATION: HOPKINS ROAD/BIG MILL FARM ROAD IN KERNERSVILLE FROM SOUTH OF US 421/40 BUSNC 150 TO NC 66 (W MOUNTAIN ST)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS, CULVERTS, RETAINING WALLS, AND STRUCTURES

DATE	DATE PREPARED BY	BY	REVISION
N.C.	U-5760	1	
46381.1.1	P.A. PRELIM		P.E.
45721.2.1			R/W
45721.2.1			UTL
45721.3.1			CONST.

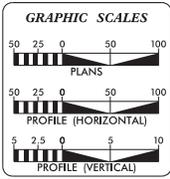
WETLAND AND STREAM  
PERMIT PACKAGE  
MAY 4, 2020



★ TRAFFIC SIGNAL  
THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS LIMITED TO POINTS AS SHOWN ON THE PLANS  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III  
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF KERNERSVILLE

INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION  
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

CONTRACT:



**DESIGN DATA**

AADT 2023 =	10,700
AADT 2040 =	14,900
K =	10%
D =	60%
T =	3%*
V =	50 MPH
* (TTST 1% + DUAL 2%)	
FUNCTIONAL CLASSIFICATION: URBAN COLLECTOR REGIONAL TIER	

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT U-5760	=	1.998 MILES
LENGTH STRUCTURES TIP PROJECT U-5760	=	0.036 MILES
TOTAL LENGTH TIP PROJECT U-5760	=	2.034 MILES

PLANS PREPARED FOR THE NCDOT BY:

2011 STANDARD SPECIFICATIONS

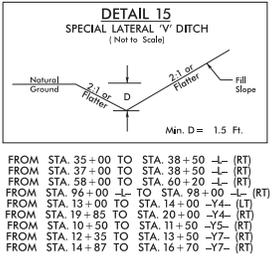
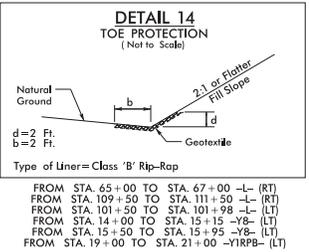
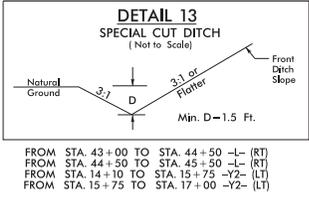
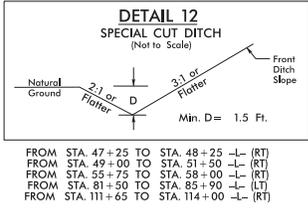
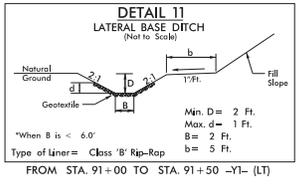
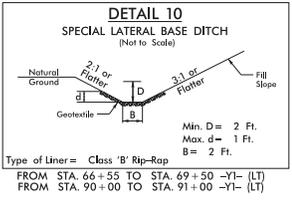
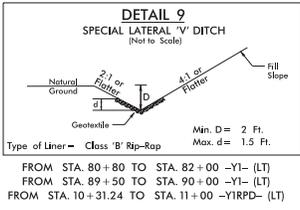
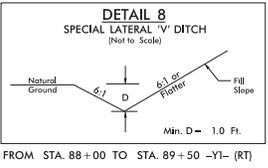
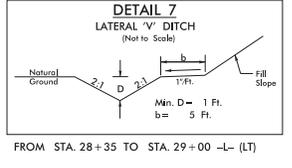
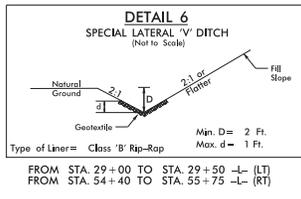
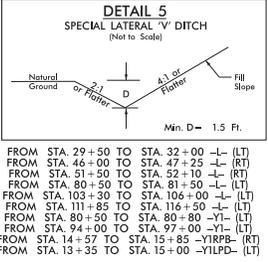
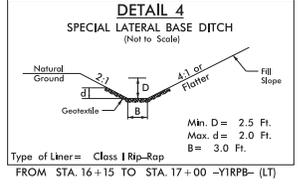
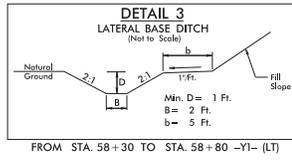
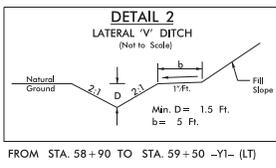
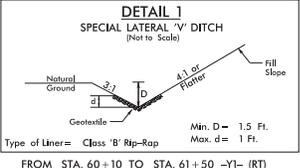
RIGHT OF WAY DATE:	<b>Kimley-Horn</b>
APRIL 16, 2021	PROJECT ENGINEER
LETTING DATE:	JEFFREY H. MOORE, P.E.
APRIL 18, 2023	PROJECT DESIGN ENGINEER
	RHODES S. HUNT, P.E.
	PROJECT DESIGN ENGINEER
	W. AL BLANTON, P.E., P.I.S.
	PROJECT TEAM LEAD
	NCDOT DIVISION 9

**HYDRAULICS ENGINEER**

SIGNATURE:	P.E.
ROADWAY DESIGN ENGINEER	
SIGNATURE:	P.E.



PROJECT REFERENCE NO. U-5760		SHEET NO. 20-1
ROADWAY DESIGN ENGINEER		PAVEMENT DESIGN ENGINEER
421 HAYTTEVILLE STREET, SUITE 400 RALEIGH, NC 27601		
PERMIT DRAWING SHEET 2 OF 22		
<b>INCOMPLETE PLANS</b> DO NOT USE FOR CONSTRUCTION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



5/14/09

REVISIONS

SHEET 20-1

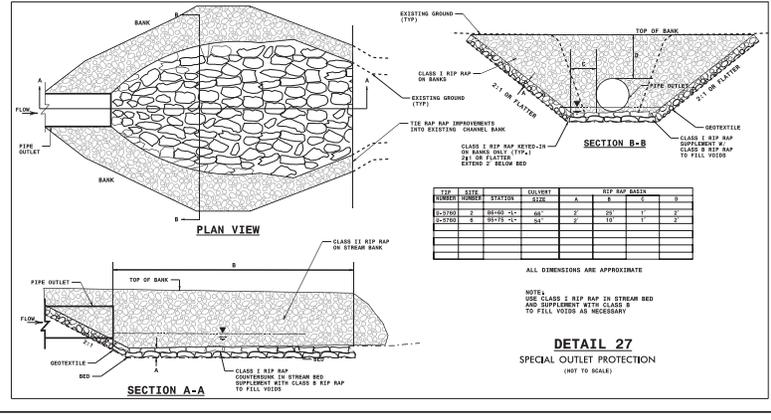
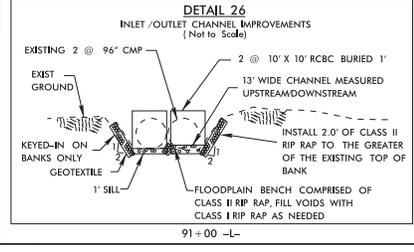
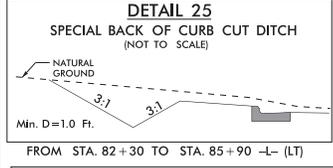
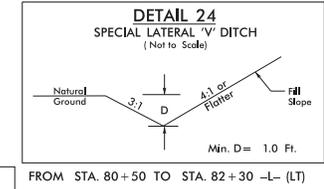
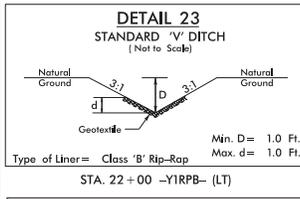
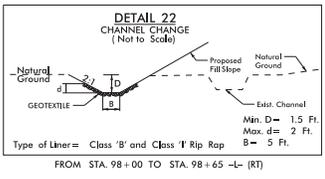
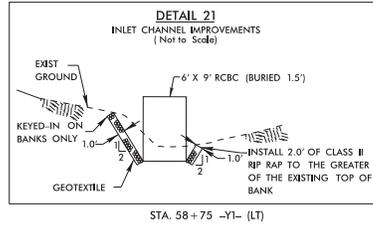
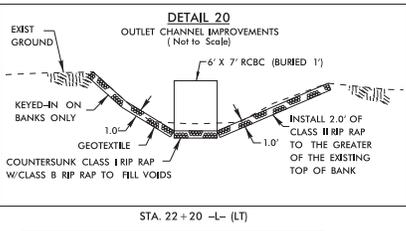
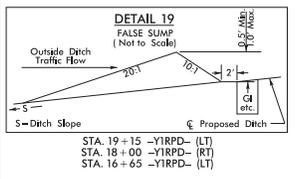
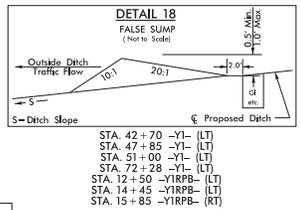
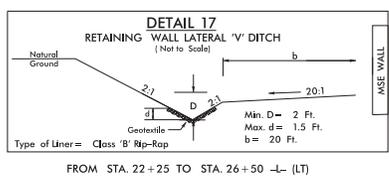
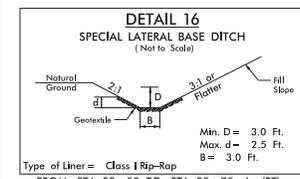
**Kimley-Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601

PROJECT REFERENCE NO. U-5760 SHEET NO. 20-2  
 ROADWAY DESIGN ENGINEER PAVEMENT DESIGN ENGINEER

PERMIT DRAWING SHEET 3 OF 32

**INCOMPLETE PLANS**  
 DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



**LEGEND**

-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES IMPACTS IN SURFACE WATER

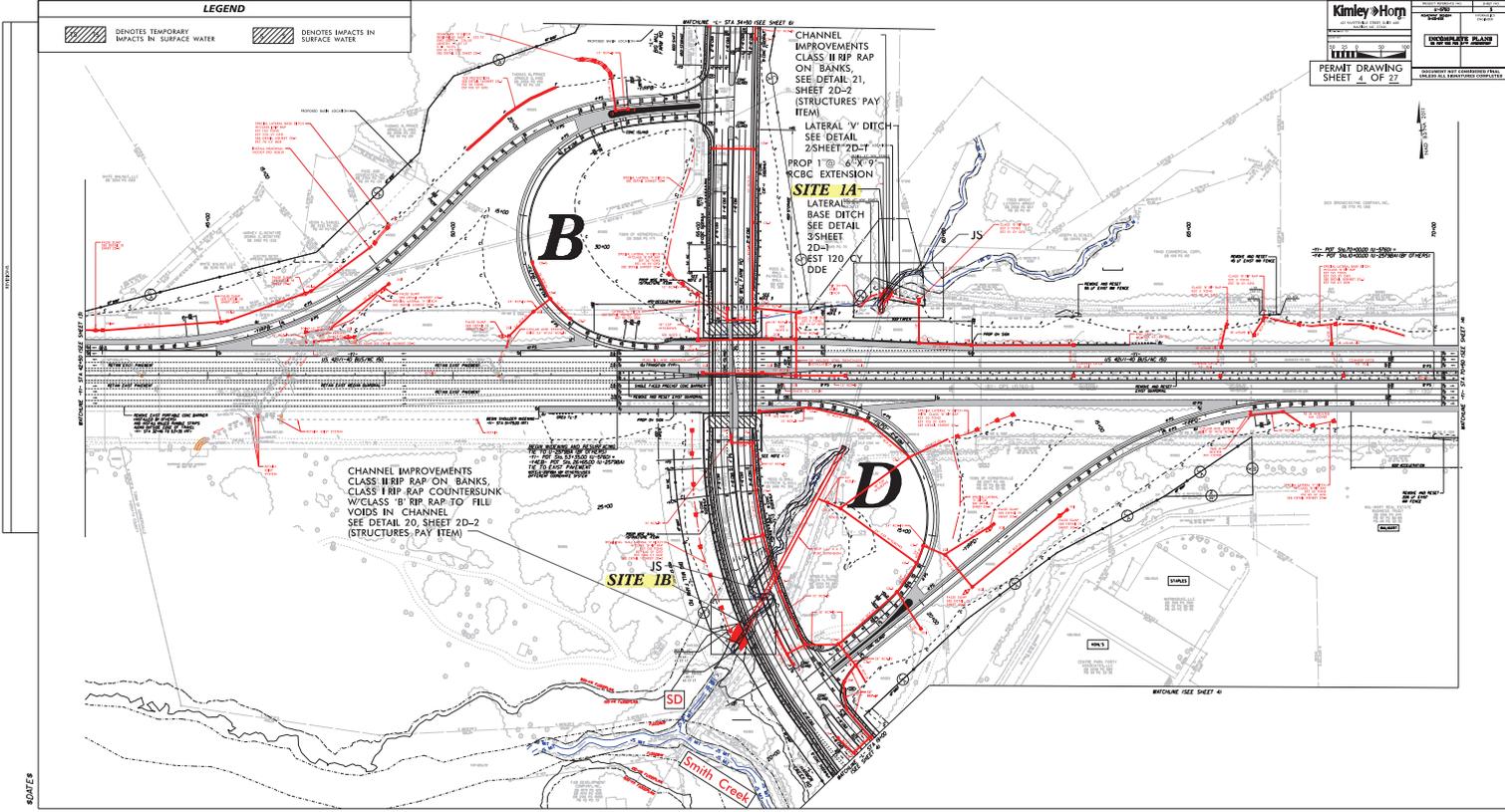
**Kimley-Horn**  
INCORPORATED  
ENGINEERS, ARCHITECTS, PLANNERS  
AND ENVIRONMENTAL SCIENTISTS

**UNIVERSITY BLVD**

PERMIT DRAWING  
SHEET 4 OF 27

REVISIONS

NO.	DATE	DESCRIPTION



**LEGEND**

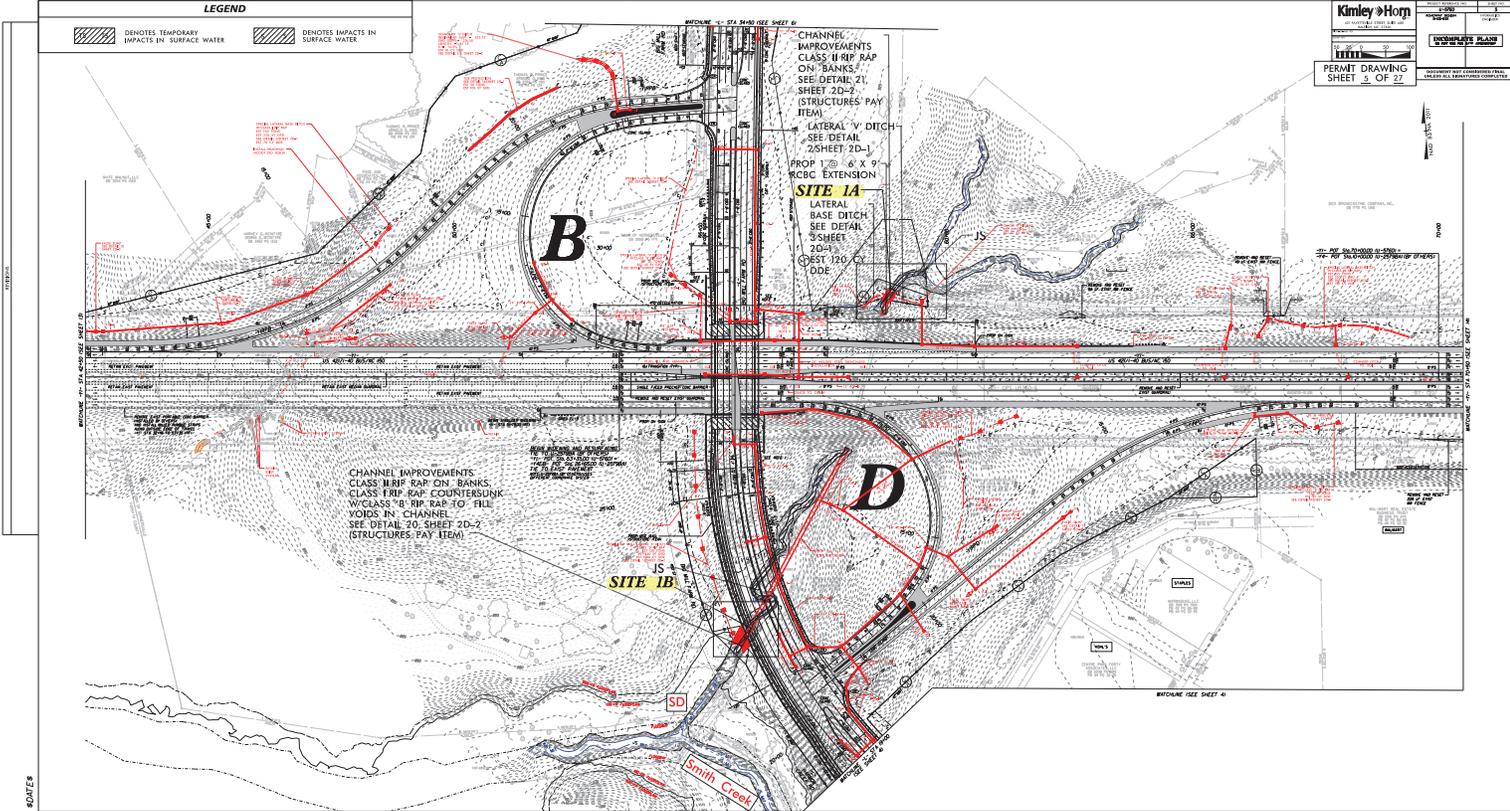
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES IMPACTS IN SURFACE WATER

**Kimley-Horn**  
INCORPORATED  
ENGINEERS, ARCHITECTS, PLANNERS  
PERMIT DRAWING  
SHEET 5 OF 27

DATE	SCALE
PROJECT	PROJECT
CLIENT	CLIENT
DESIGNER	DESIGNER
CHECKER	CHECKER
APPROVER	APPROVER

**UNIVERSITY BLVD**

PERMIT DRAWING SHEET 5 OF 27



5/14/09

**LEGEND**

- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES IMPACTS IN SURFACE WATER

**Kimley»Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601

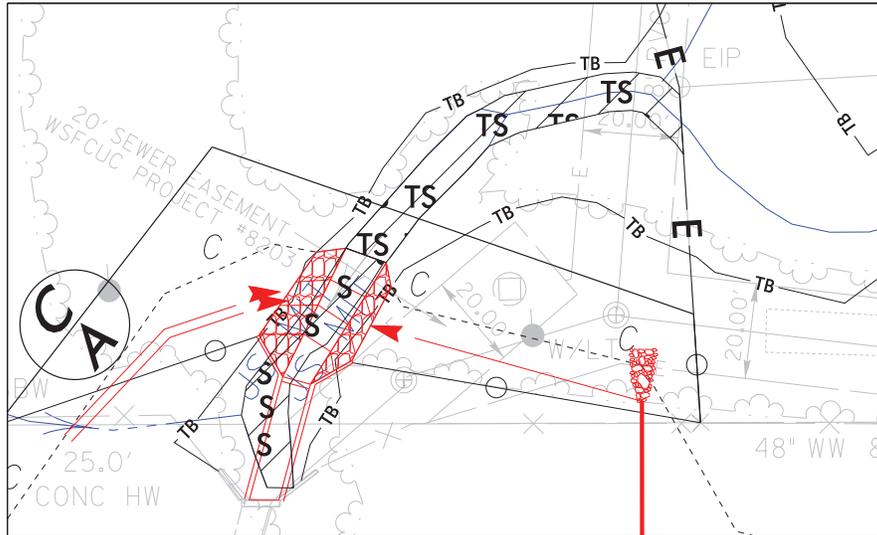
PROJECT REFERENCE NO. U-5760  
 SHEET NO. 5A  
 ROADWAY DESIGN ENGINEER  
 HYDRAULICS ENGINEER

**INCOMPLETE PLANS**  
 DO NOT USE FOR U/F OR ADJUSTMENT

PERMIT DRAWING  
 SHEET 5 OF 22

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

# SITE IMPACT ZOOM: 1"=20'



# DETAIL SHEET FOR SITE 1A

EXTENSIONS

802125

5/14/09

**LEGEND**

- DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES IMPACTS IN SURFACE WATER

**Kimley»Horn**

421 FAYETTEVILLE STREET, SUITE 600  
RALEIGH, NC 27601

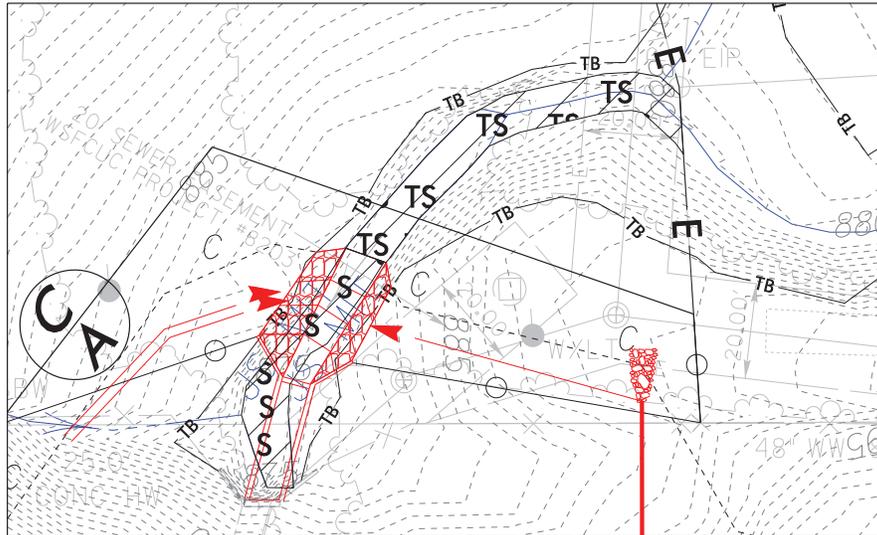
PERMIT DRAWING  
SHEET 7 OF 27

PROJECT REFERENCE NO. U-5760	SHEET NO. 5A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**INCOMPLETE PLANS**  
DO NOT USE FOR U/F ACQUISITION

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

# SITE IMPACT ZOOM: 1"=20'



## DETAIL SHEET FOR SITE 1A

NAD 83 (NA 2011)

EXTENSIONS

607125

5/14/09

**LEGEND**

-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES IMPACTS IN SURFACE WATER

**Kimley»Horn**  
INC.  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601

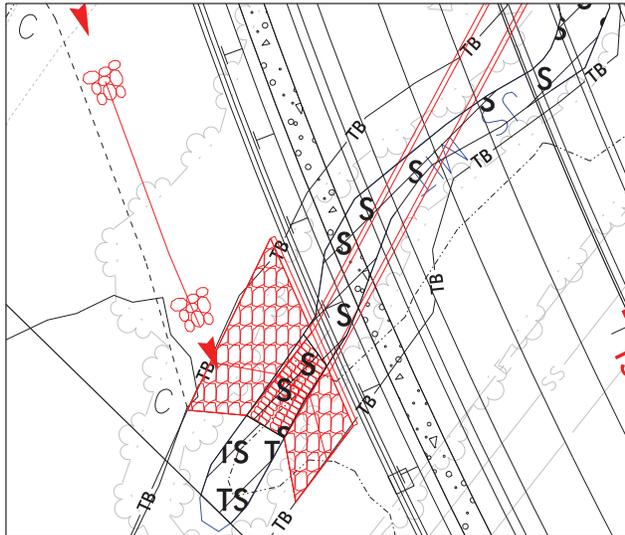
PROJECT REFERENCE NO. **U-5760** SHEET NO. **5B**  
 ROADWAY DESIGN ENGINEER PHYSICIAN'S ENGINEER

PERMIT DRAWING  
 SHEET 3 OF 22

**INCOMPLETE PLANS**  
 DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

***SITE IMPACT ZOOM: 1"=20'***



***DETAIL SHEET FOR SITE 1B***

EXTENSIONS

NOTES

5/14/09

**LEGEND**

-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES IMPACTS IN SURFACE WATER

**Kimley»Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601

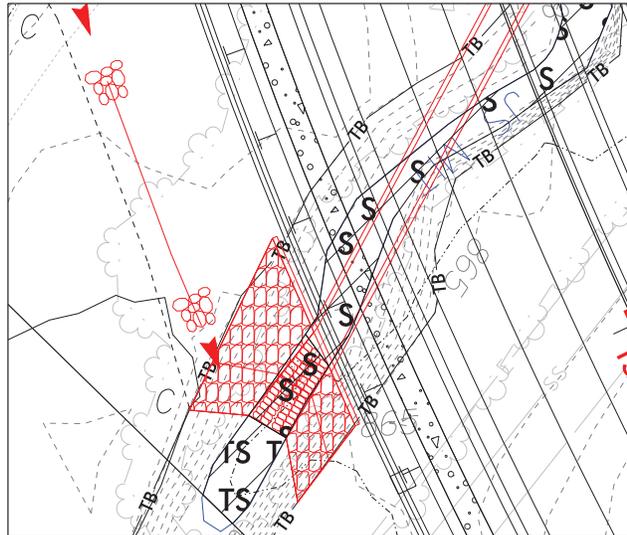
PROJECT REFERENCE NO. **U-5760**  
 SHEET NO. **5B**  
 ROADWAY DESIGN ENGINEER  
 HYDRAULICS ENGINEER

PERMIT DRAWING  
 SHEET 3 OF 22

**INCOMPLETE PLANS**  
 DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

**SITE IMPACT ZOOM: 1"=20'**



NAD 83 (NA 2011)

**DETAIL SHEET FOR SITE 1B**

EXTENSIONS

ADJUSTS



**Kimley»Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601  
 PERMIT DRAWING  
 SHEET 11 OF 22

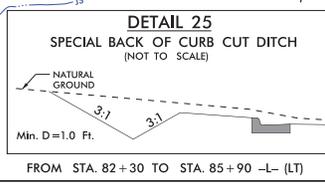
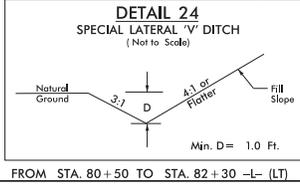
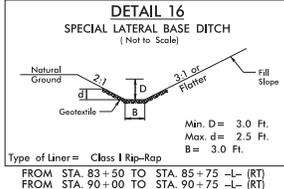
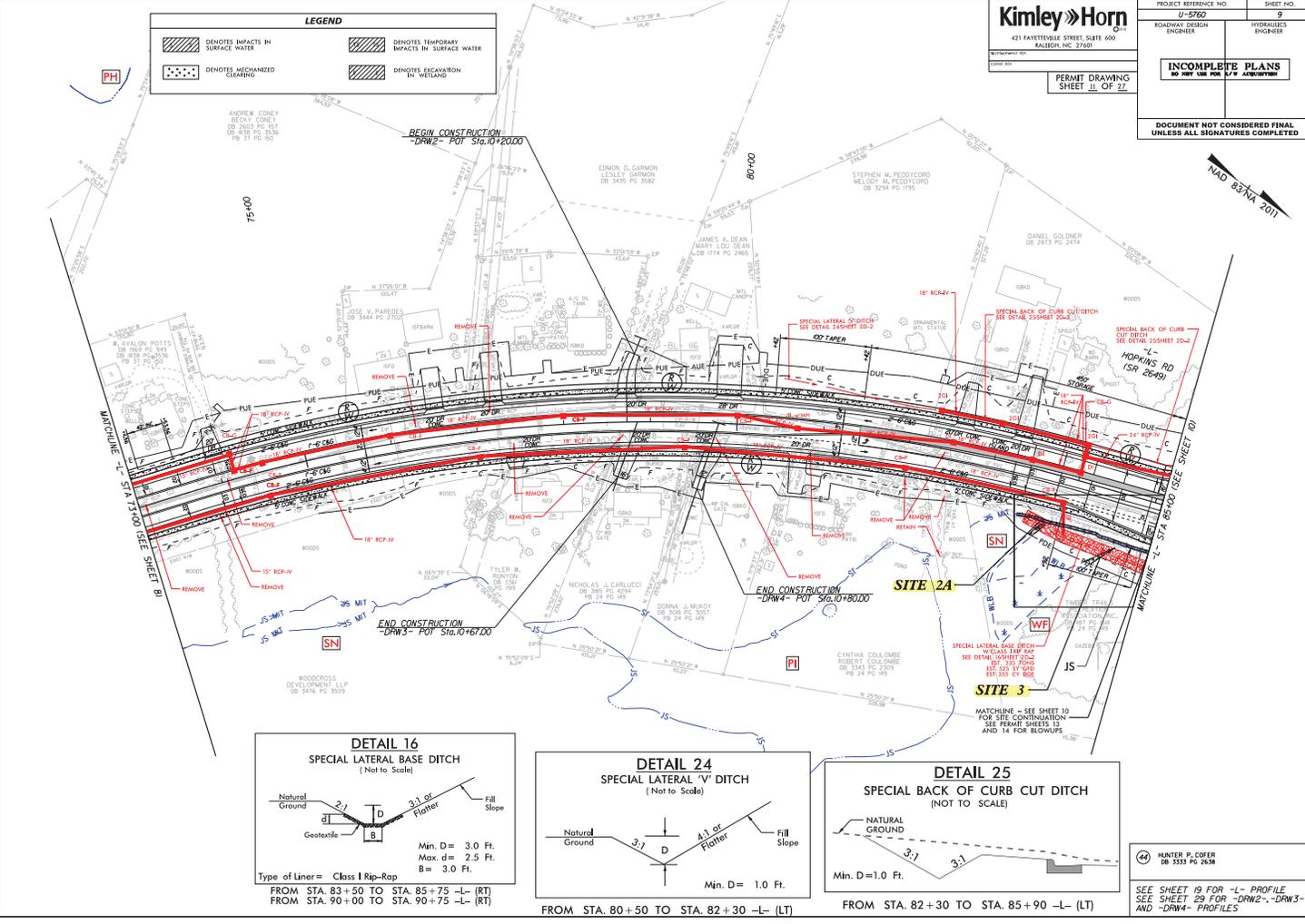
PROJECT REFERENCE NO. U-5760	SHEET NO. 9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**INCOMPLETE PLANS**  
 DO NOT USE FOR R/F ADJUSTMENT

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

**LEGEND**

	DENOTES IMPACTS IN SURFACE WATER		DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES MECHANIZED CLEARING		DENOTES DEGRAVATION IN WETLAND



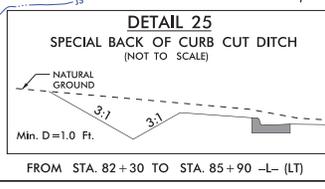
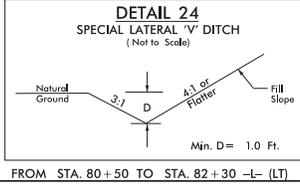
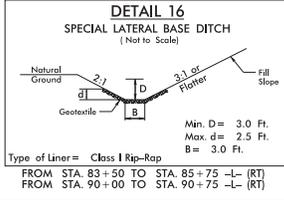
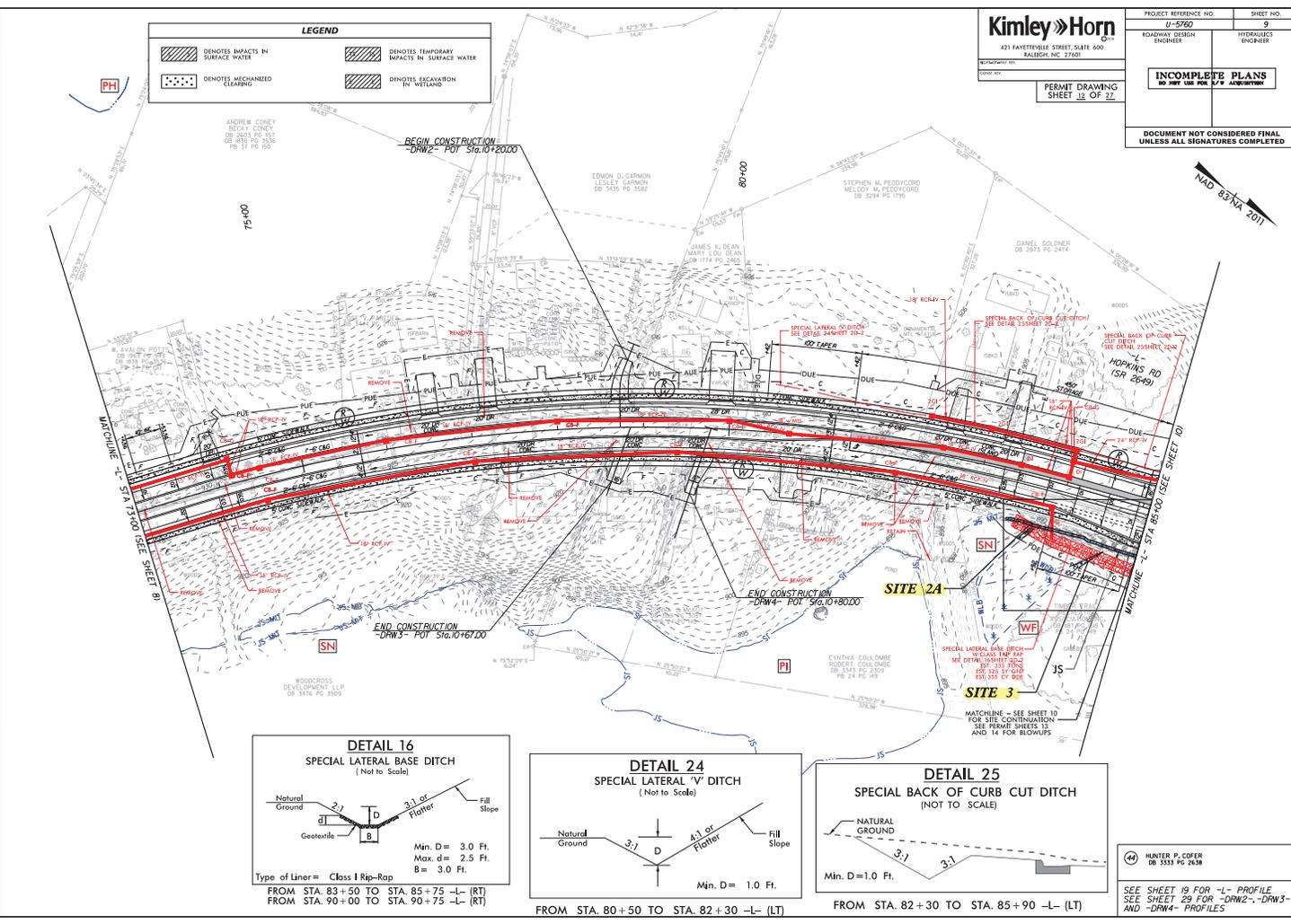
SEE SHEET 19 FOR -L- PROFILE  
 SEE SHEET 29 FOR -DRAW2-, -DRAW3- AND -DRAW4- PROFILES

**Kimley»Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601

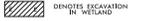
PROJECT REFERENCE NO. U-5760	SHEET NO. 9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/F ADJUSTMENT	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**LEGEND**

	DENOTES IMPACTS IN SURFACE WATER		DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES MECHANIZED CLEARING		DENOTES DEGRADATION IN WETLAND



SEE SHEET 19 FOR -L- PROFILE  
 SEE SHEET 29 FOR -DRAW2-, -DRAW3- AND -DRAW4- PROFILES

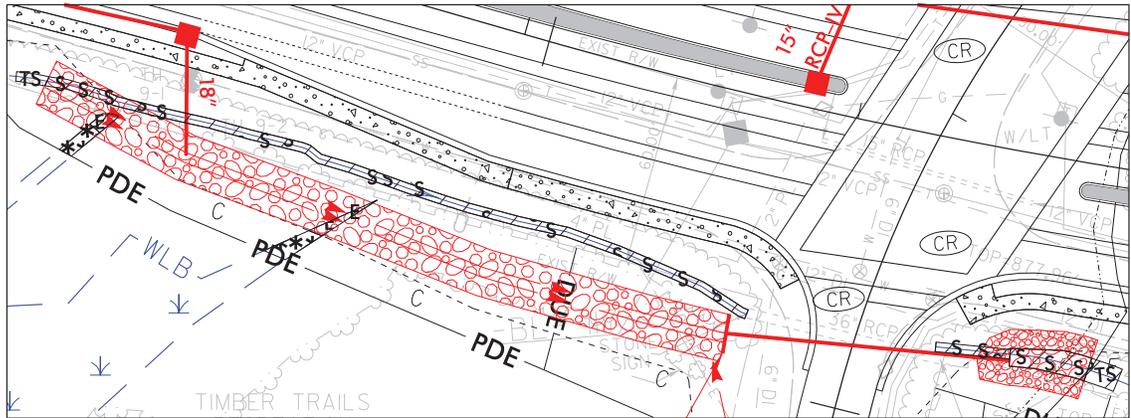
LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES MECHANIZED CLEARING
	DENOTES TEMPORARY IMPACT IN SURFACE WATER
	DENOTES EXCAVATION IN WETLAND

**Kimley»Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601

PROJECT REFERENCE NO. U-5760	SHEET NO. 9A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR U/F ADJUSTMENT	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING  
SHEET 13 OF 22

## SITE IMPACT ZOOM: 1"=30'

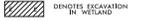


## DETAIL SHEET FOR SITES 2A, 2B, 3



EXTENSIONS

REVISED

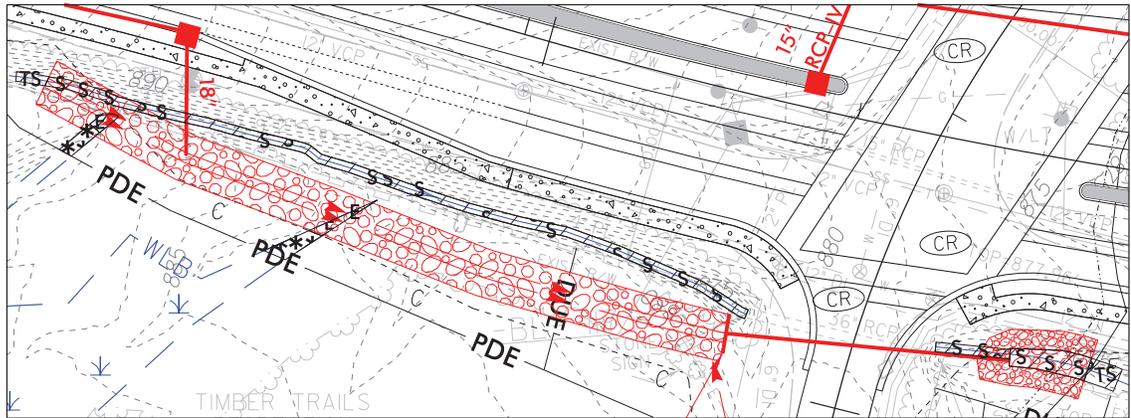
LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES MECHANIZED CLEARING
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES EXCAVATION IN WETLAND

**Kimley»Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601

PROJECT REFERENCE NO. U-5760	SHEET NO. 9A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR U/F ADJUSTMENT	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING  
SHEET 14 OF 22

## SITE IMPACT ZOOM: 1"=30'

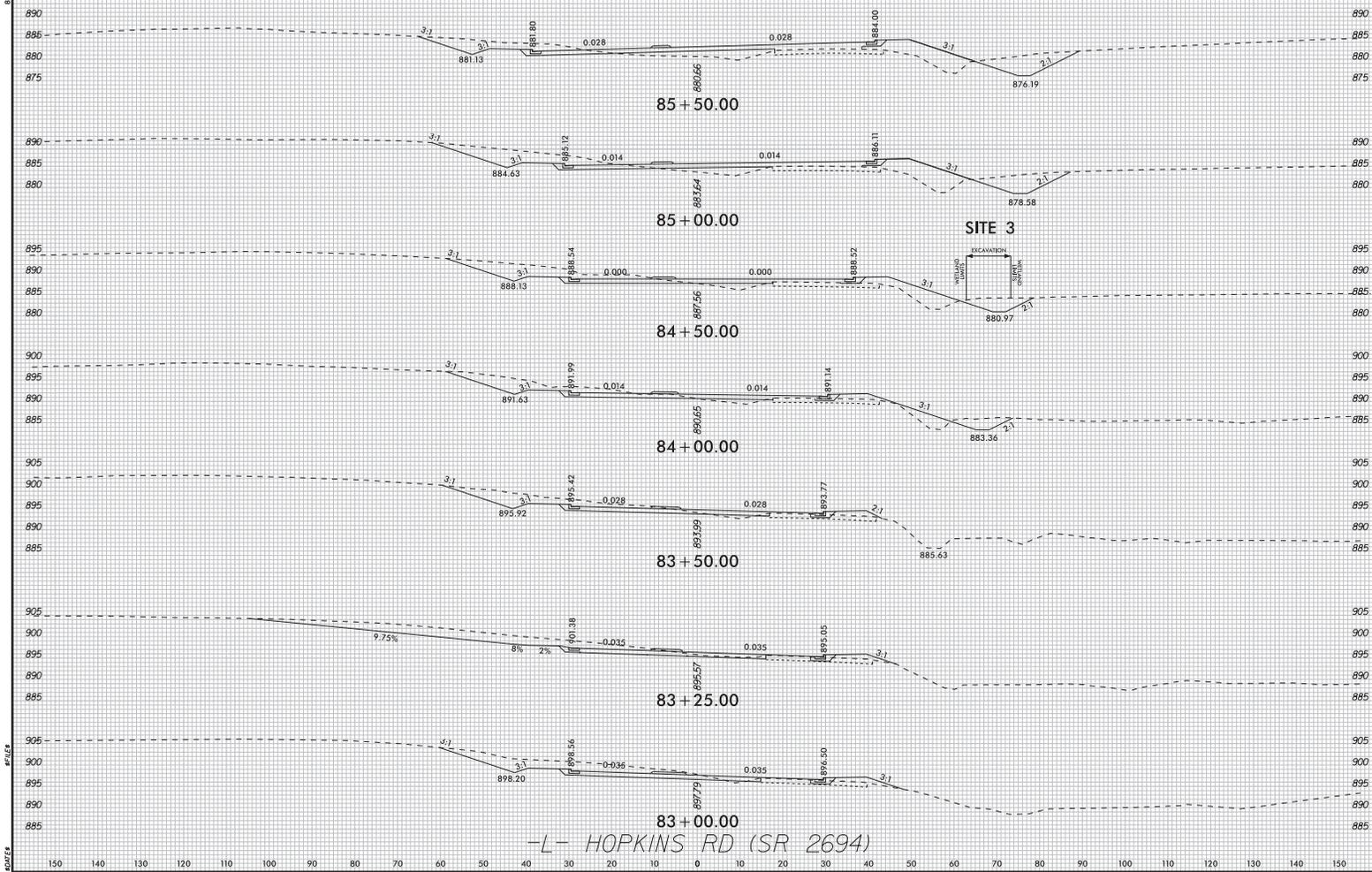


## DETAIL SHEET FOR SITES 2A, 2B, 3

5/14/09

REVISIONS

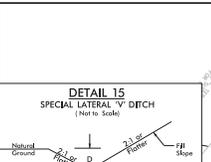
604765



5/14/09  
804265

**LEGEND**

	INDICATES IMPACTS IN SURFACE WATER		INDICATES TEMPORARY IMPACTS BY SURFACE WATER
	INDICATES HIL IN WETLAND		INDICATES MECHANIZED CLEARING



**Kimley Horn**  
421 FAYETTEVILLE STREET, SUITE 600  
RALEIGH, NC 27601

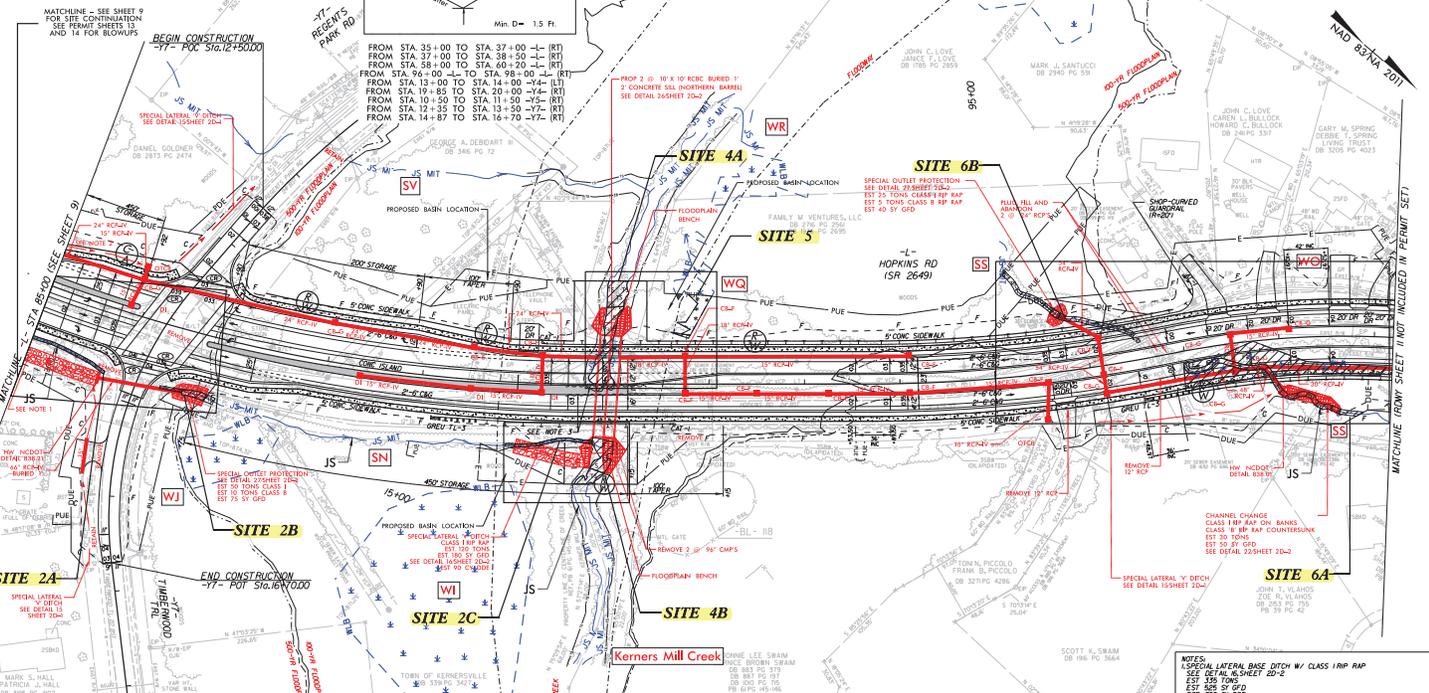
PROJECT REFERENCE NO. U-5760  
SHEET NO. 10

ROADWAY DESIGN ENGINEER  
HYDRAULICS ENGINEER

**INCOMPLETE PLANS**  
DO NOT USE FOR R/W ADJUSTMENT

PERMIT DRAWING SHEET 16 OF 27

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



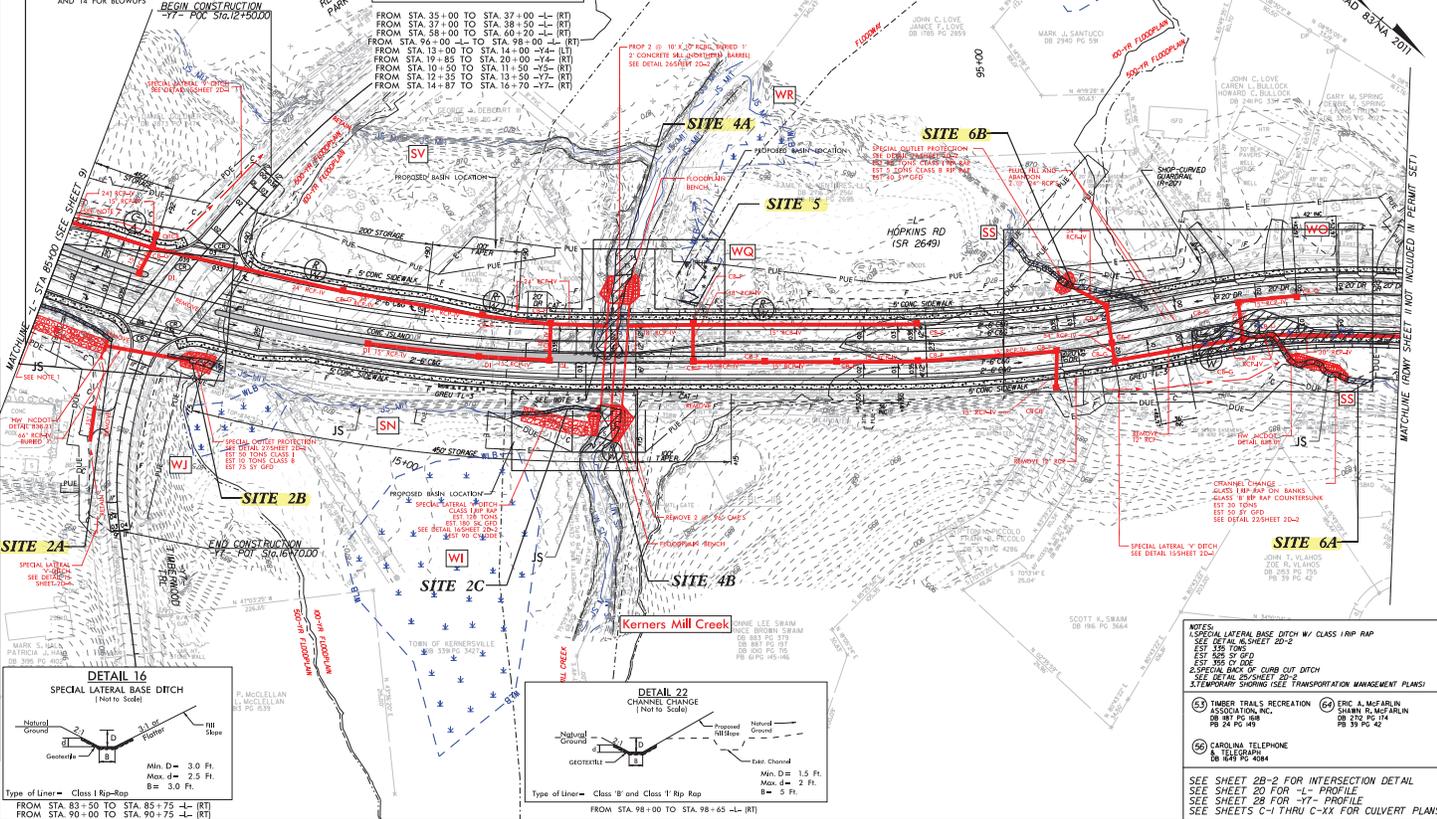
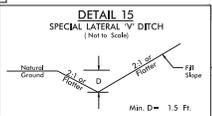
- NOTES:**
- SPECIAL LATERAL BASE DITCH W/ CLASS I RIP RAP SEE DETAIL 16/SHEET 20-2 EST. 25 TONS EST. 5' OF GFD
  - SPECIAL BACK OF CURB OUT DITCH SEE DETAIL 22/SHEET 20-2
  - TEMPORARY SHORING (SEE TRANSPORTATION MANAGEMENT PLANS)
- 33 TIMBER TRAILS RECREATION ASSOCIATION, INC. 08 087 PG. 408 PG. 24 PG. 41
- 34 ERIC A. MCFARLIN SHAWN S. MCFARLIN 08 070 PG. 174 PG. 33 PG. 42
- 36 CAROLINA TELEPHONE & TELEGRAPH 08 049 PG. 404
- SEE SHEET 20-2 FOR INTERSECTION DETAIL  
SEE SHEET 20 FOR -L- PROFILE  
SEE SHEET 28 FOR -Y7- PROFILE  
SEE SHEETS C-1 THRU C-XX FOR CULVERT PLANS

**Kimley Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601

PROJECT REFERENCE NO. U-5760	SHEET NO. 10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR B/F W/ ADJUSTMENT	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**LEGEND**

	INDICATES IMPACTS IN SURFACE WATER		INDICATES TEMPORARY IMPACTS IN SURFACE WATER
	INDICATES FILL IN WETLAND		INDICATES MECHANIZED CLEARING



5/14/20  
 4042EES  
 MATCHLINE - SEE SHEET 9 FOR SITE CONTINUATION  
 SEE PERMIT SHEETS 13 AND 14 FOR BLOWUPS  
 BEGIN CONSTRUCTION -77- POC STA. 62+50.00  
 END CONSTRUCTION -77- POC STA. 90+00.00  
 MATCHLINE FROM SHEET 11 NOT INCLUDED IN PERMIT SET 1

5/14/09

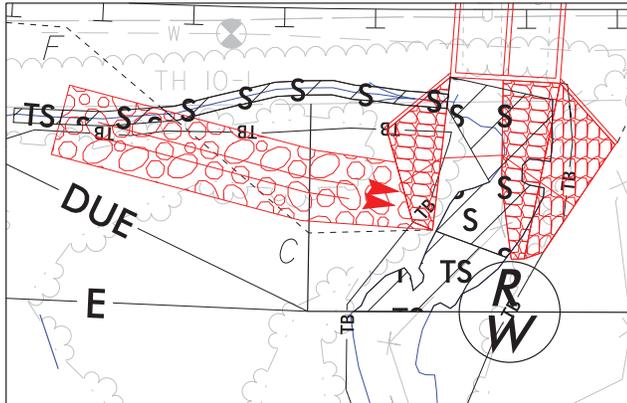
LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING

**Kimley»Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601

PROJECT REFERENCE NO. U-5760	SHEET NO. 10A
ROADWAY DESIGN ENGINEER	HYDROLOGICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR U/F ADJUSTMENT	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING  
SHEET 18 OF 22

## SITE IMPACT ZOOM: 1" = 20'

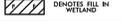


## DETAIL SHEET FOR SITES 2C, 4B

NAD 83/NA 2011

EXTENSIONS

40/11/08

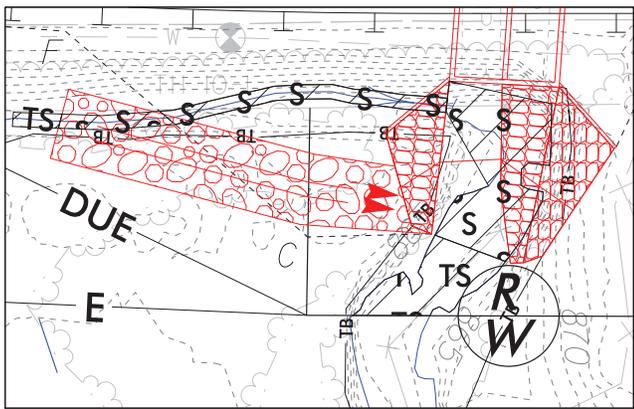
LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING

**Kimley»Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601

PROJECT REFERENCE NO.	SHEET NO.
U-5760	10A
ROADWAY DESIGN ENGINEER	PHOTOGRAMMETRIC ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR U/F ADJUSTMENT	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING  
SHEET 18 OF 22

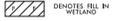
## SITE IMPACT ZOOM: 1" = 20'



## DETAIL SHEET FOR SITES 2C, 4B

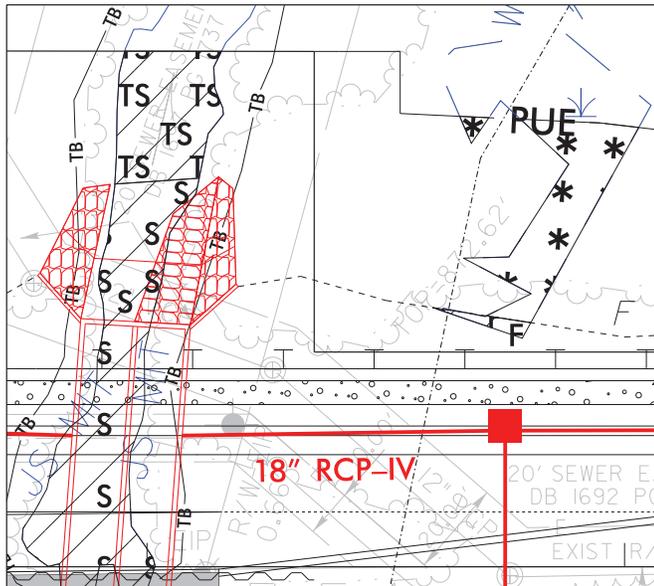
NAD 83/NA 2011

5/14/09  
 EXTENSIONS  
 40/12/08

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TRACKWAY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING

<b>Kimley»Horn</b> <small>INCORPORATED</small> 421 FAYETTEVILLE STREET, SUITE 600 RALEIGH, NC 27601 <small>TELEPHONE 919 286-8200</small> <small>FAX 919 286-8201</small>	PROJECT REFERENCE NO. <b>U-5760</b>	SHEET NO. <b>108</b>
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> <small>DO NOT USE FOR U/F ADJUSTMENT</small>		
<small>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</small>		

## SITE IMPACT ZOOM: 1"=20'

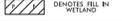


## DETAIL SHEET FOR SITES 4A, 5

5/14/09

DIMENSIONS

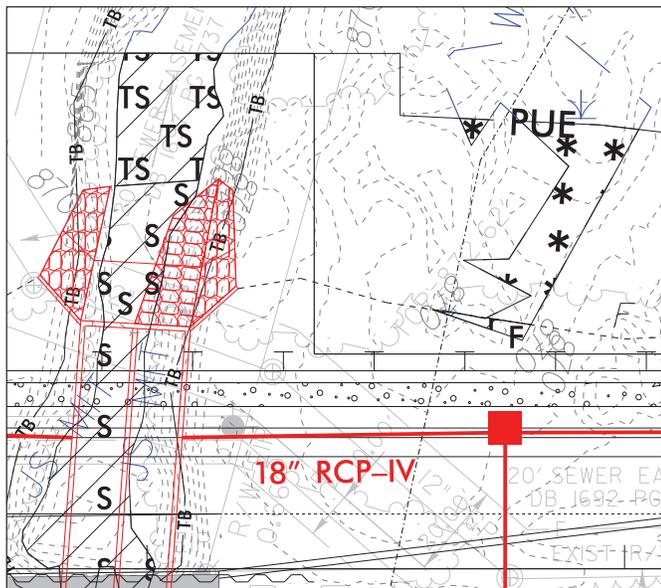
60/11/08

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING

<b>Kimley»Horn</b> <small>421 FAYETTEVILLE STREET, SUITE 600          RALEIGH, NC 27601</small>	PROJECT REFERENCE NO. <b>U-5760</b>	SHEET NO. <b>108</b>
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> <small>DO NOT USE FOR U/F ACQUISITION</small>		
<small>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</small>		

PERMIT DRAWING SHEET 21 OF 22

## SITE IMPACT ZOOM: 1"=20'



## DETAIL SHEET FOR SITES 4A, 5

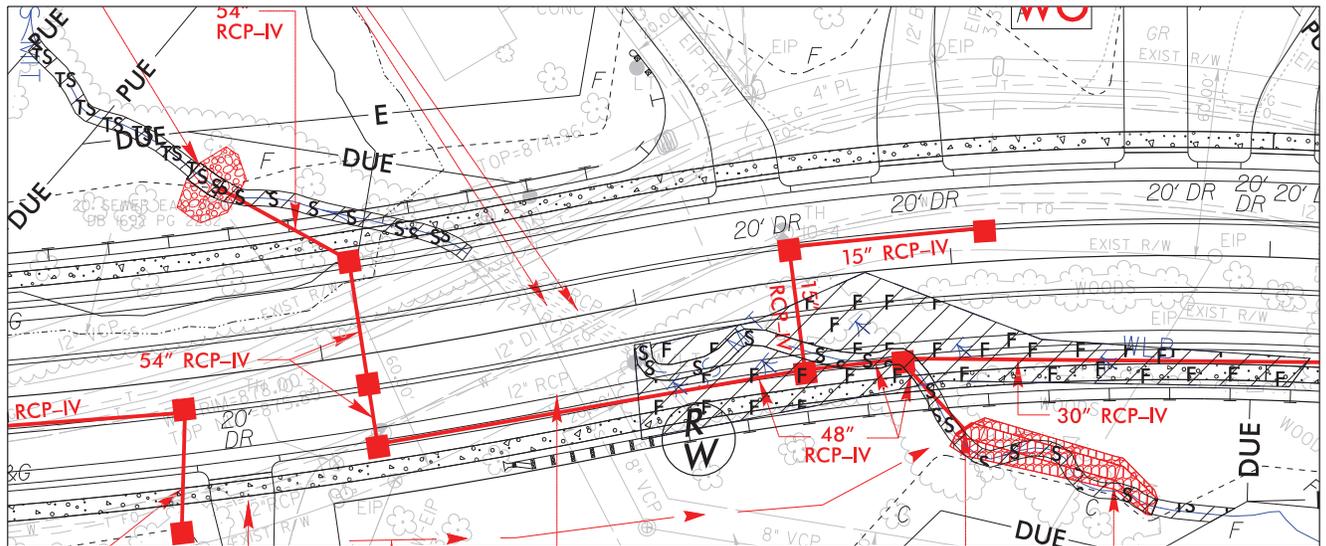


5/14/09  
 EXTENSIONS  
 40/100'S

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES MECHANIZED CLEARING

<b>Kimley &amp; Horn</b> 421 FAYETTEVILLE STREET, SUITE 600 RALEIGH, NC 27601 <small>MEMBER SINCE 1997</small>	PROJECT REFERENCE NO. U-5760	SHEET NO. 100
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PERMIT DRAWING SHEET 22 OF 22		<b>INCOMPLETE PLANS</b> DO NOT USE FOR CONSTRUCTION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

## SITE IMPACT ZOOM: 1" = 30'



## DETAIL SHEET FOR SITES 6A, 6B

8/14/09  
 60' X 100'

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES TEMPORARY IMPACTS BY SURFACE WATER
	DENOTES MECHANIZED CLEARING

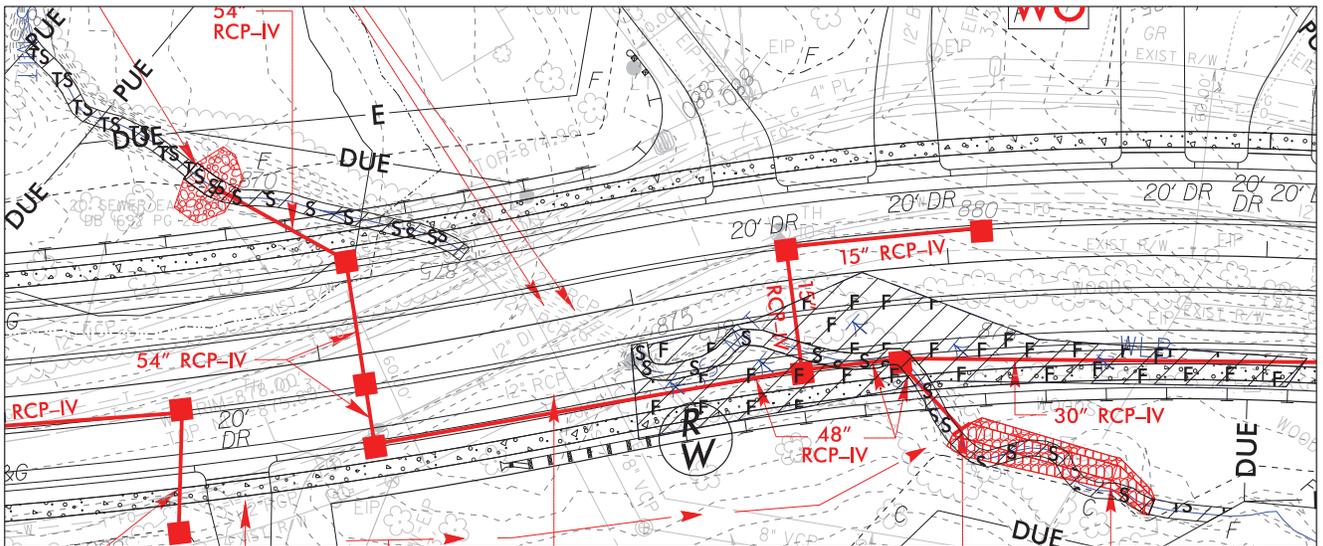
**Kimley»Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, NC 27601

PROJECT REFERENCE NO. U-5760	SHEET NO. 10C
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR U/F ADJUSTMENT	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PERMIT DRAWING  
SHEET 23 OF 27



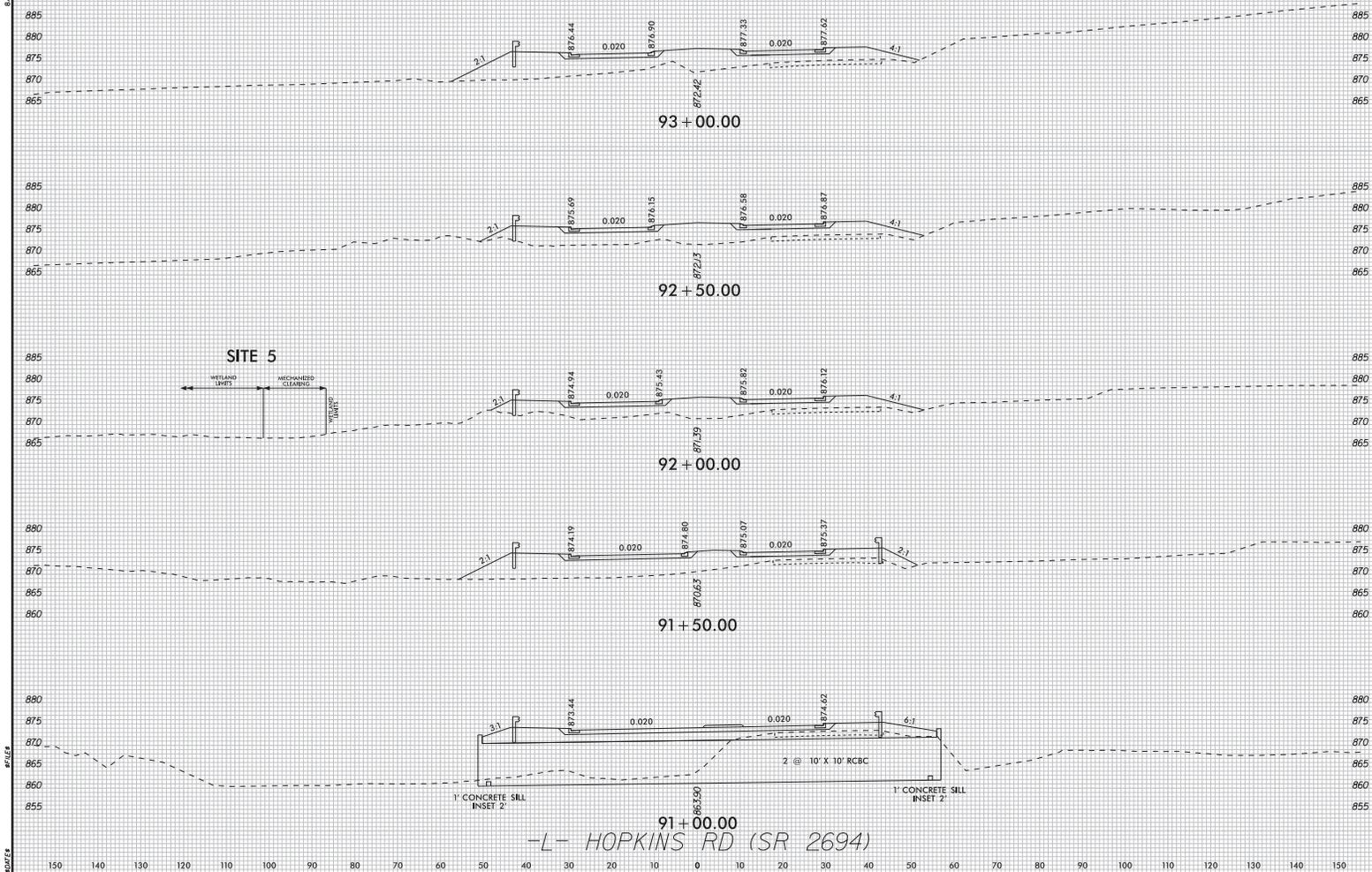
## SITE IMPACT ZOOM: 1"=30'



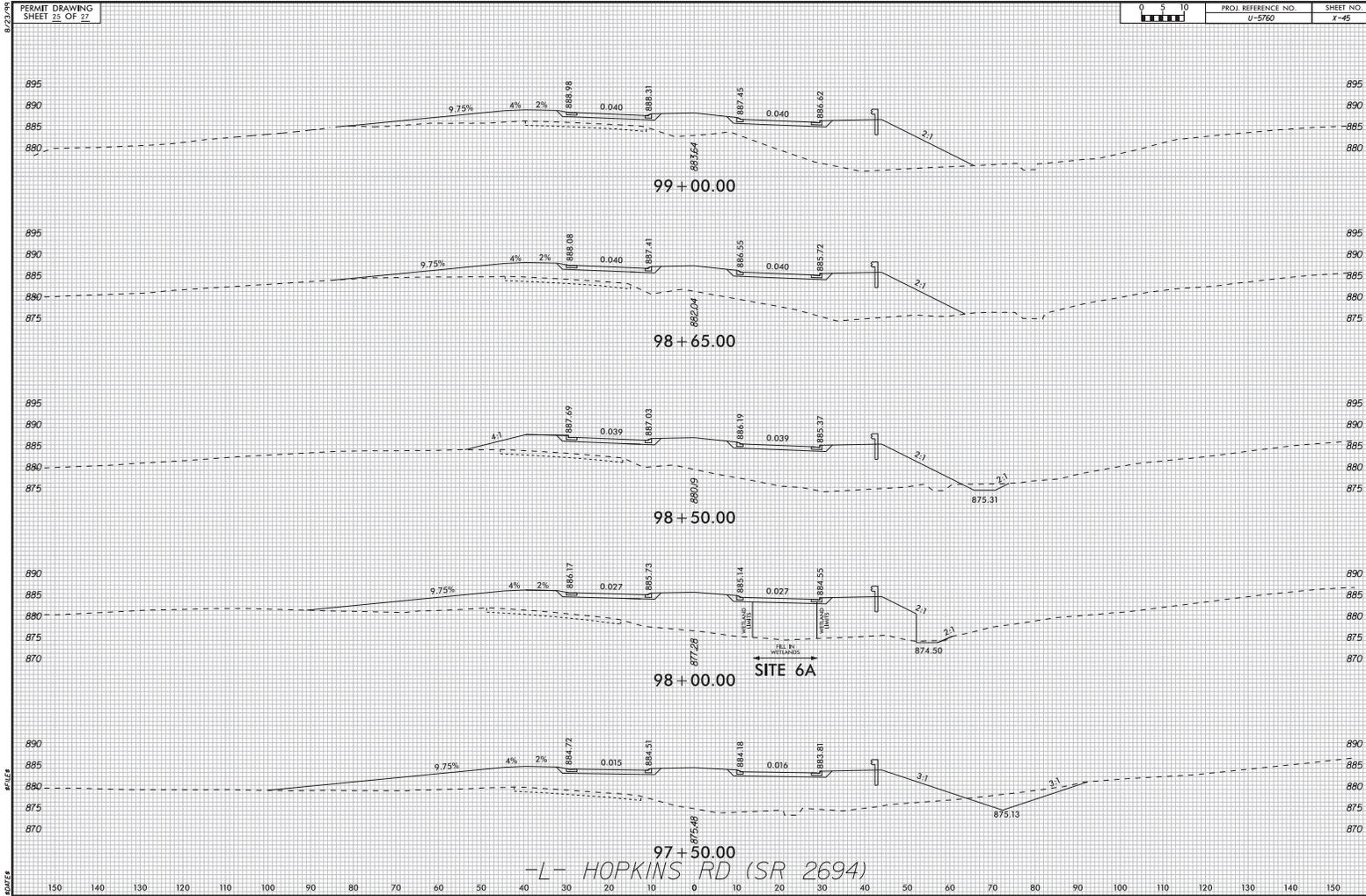
## DETAIL SHEET FOR SITES 6A, 6B

REVISIONS

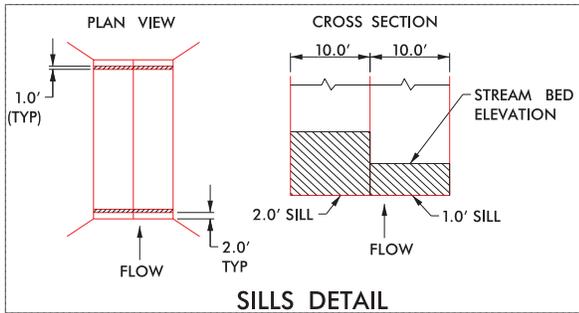
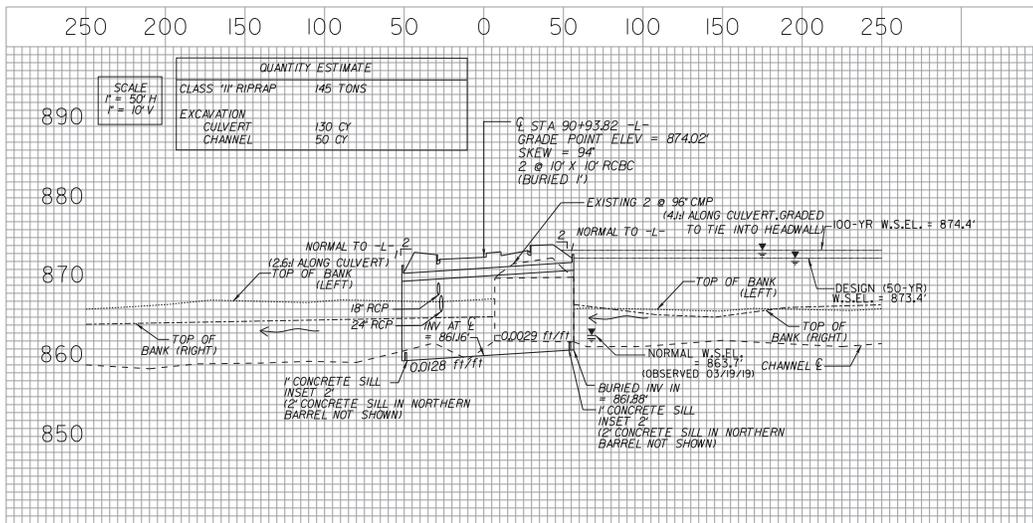
8/14/09



-L- HOPKINS RD (SR 2694)



# SITE 4A /4B – CULVERT REPLACEMENT



NOTE: FOR CUT CONDITION, USE CLASS II RIP RAP FLOODPLAIN BENCH BORDER WITH NATURAL GROUND COVERED WITH COIR FIBER MAT INSIDE BORDER. IN FILL CONDITION, USE CLASS II RIP RAP FILL THROUGHOUT WITH NATIVE BED MATERIAL FILLING THE VOIDS ON TOP.

NOTE: NATIVE BED MATERIAL SHALL BE PLACED BETWEEN THE SILLS IN THE LOW FLOW CULVERT. NATIVE MATERIALS CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAM BED OR FLOODPLAIN AT THE PROJECT SITE DURING CULVERT CONSTRUCTION. RIP RAP MAY BE USED TO SUPPLEMENT THE NATIVE MATERIAL. IF RIP RAP IS USED, THE NATIVE MATERIAL SHOULD BE PLACED ON TOP TO FACILITATE ANIMAL PASSAGE. THE TOP SURFACE OF THE NATURAL STREAM BED MATERIAL SHALL BE PLACED AND LEVELED TO A FLAT SURFACE TO ALLOW FOR ANIMAL PASSAGE. THE HIGH FLOW BARRELS SHALL BE BACK FILLED WITH NATIVE MATERIAL AND/OR RIP RAP. NATIVE MATERIAL AND RIP RAP ARE SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.

5/14/09  
REVISIONS  
40/RTS

**WETLAND AND SURFACE WATER IMPACTS SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1A	58+66/59+59 -Y1- (LT)	1 @ 6' x 9' RCBC Extension						< 0.01		25		
	58+66/59+59 -Y1- (LT)	Channel Improvements						< 0.01	0.02	31	82	
1B	21+97/25+90 -L- (RT)	1 @ 6' x 7' RCBC Extension						0.09		522		
	21+97/25+90 -L- (RT)	Channel Improvements						< 0.01	< 0.01	20	20	
2A	83+40/85+80 -L- (RT)	Roadway Fill			< 0.01	< 0.01		0.02	< 0.01	233	10	
2B	86+38/86+80 -L- (RT)	66" RCP						< 0.01		24		
		Channel Improvements						< 0.01	< 0.01	25	10	
2C	89+96/90+79 -L- (RT)	Roadway Fill						< 0.01	< 0.01	82	10	
3	83+60/84+62 -L- (RT)	Roadway Fill			< 0.01	< 0.01						
4A	90+74/91+16 -L- (LT)	2 @ 10' x 10' RCBC						0.02		61		
		Channel Improvements						< 0.01	0.01	30	28	
4B	90+59/91+00 -L- (RT)	Channel Improvements						0.01	< 0.01	35	19	
5	91+60/92+06 -L- (LT)	Roadway Fill	< 0.01			0.01						
6A	96+98/98+87 -L- (RT)	48" RCP						0.01		122		
		Channel Change						< 0.01	< 0.01	70	22	
		Roadway Fill	0.09									
6B	95+22/96+53 -L- (LT)	54" RCP						< 0.01		82		
		Channel Improvements						< 0.01	< 0.01	10	65	
<b>TOTALS*:</b>			0.09		< 0.01	0.01		0.21	0.04	1372	266	0

\*Rounded totals are sum of actual impacts  
 NOTES:

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 03/06/2020  
 FORSYTH  
 U-5760  
 46381.1.1  
 SHEET 27 OF 27

**U.S. ARMY CORPS OF ENGINEERS**  
**Wilmington District**  
**Compensatory Mitigation Responsibility Transfer Form**

**Permittee:** NCDOT, Div. 9

**Action ID:** SAW 2016-01337

**Project Name:** TIP U-5760\_Big Mill Farm Rd wid.ext\_ Hopkins Rd wid.\_new interch.

**County:** Forsyth

**Instructions to Permittee:** The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

**Instructions to Sponsor:** The Sponsor verifies that the mitigation requirements (credits) shown below have been released and are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated ledger to the Permittee, the Project Manager who issued the permit, the Bank Project Manager, and the District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

**Permitted Impacts and Compensatory Mitigation Requirements**

**Permitted Impacts Requiring Mitigation\*:** **8-digit HUC and Basin:** 03040101, Yadkin River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
1,372				0.11		

\*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

**Compensatory Mitigation Requirements:** **8-digit HUC and Basin:** Choose the 8-digit HUC

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
2,744				0.22		

**Mitigation Site Debited:** NCDMS

(List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCDMS, list NCDMS. If the NCDMS acceptance letter identifies a specific site, also list the specific site to be debited).

**Section to be completed by the Mitigation Sponsor**

**Statement of Mitigation Liability Acceptance:** I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

**Mitigation Sponsor Name:** \_\_\_\_\_

**Name of Sponsor's Authorized Representative:** \_\_\_\_\_

\_\_\_\_\_  
**Signature of Sponsor's Authorized Representative**

\_\_\_\_\_  
**Date of Signature**

**USACE Wilmington District  
Compensatory Mitigation Responsibility Transfer Form, Page 2**

**Conditions for Transfer of Compensatory Mitigation Credit:**

- Once this document has been signed by the Mitigation Sponsor and the District is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
- Construction within jurisdictional areas authorized by the permit identified on page one of this form can begin only after the District is in receipt of a copy of this document signed by the Sponsor, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein. When NCDMS provides mitigation for authorized impacts conducted by the North Carolina Department of Transportation (NCDOT), construction within jurisdictional areas may proceed upon permit issuance; however, a copy of this form signed by NCDMS must be provided to the District within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the District has received this form, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein.
- Signed copies of this document must be retained by the Permittee, Mitigation Sponsor, and in the USACE administrative records for both the permit and the Bank/ILF Instrument. It is the Permittee's responsibility to ensure that the District Project Manager (address below) is provided with a signed copy of this form.
- If changes are proposed to the type, amount, or location of mitigation after this form has been signed and returned to the District, the Sponsor must obtain case-by-case approval from the District Project Manager and/or North Carolina Interagency Review Team (NCIRT). If approved, higher mitigation ratios may be applied, as per current District guidance and a new version of this form must be completed and included in the District administrative records for both the permit and the Bank/ILF Instrument.

**Comments/Additional Conditions:**

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. ***Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to [SAWMIT@usace.army.mil](mailto:SAWMIT@usace.army.mil)).*** Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

**USACE Project Manager:** Eric Alsmeyer  
**USACE Field Office:** Raleigh Regulatory Field Office  
US Army Corps of Engineers  
3331 Heritage Trade Drive, Suite 105  
Wake Forest, NC 27587  
**Email:** [eric.c.alsmeyer@usace.army.mil](mailto:eric.c.alsmeyer@usace.army.mil)

 Eric C. Alsmeyer 2020.07.29 12:47:34  
-04'00'

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**Wilmington District Project Manager Signature**

July 29, 2020

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**Date of Signature**

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.

**ROY COOPER**

*Governor*

**MICHAEL S. REGAN**

*Secretary*

**S. DANIEL SMITH**

*Director*



**NORTH CAROLINA**  
*Environmental Quality*

July 13, 2020

Mr. Philip S. Harris, III, P.E., CPM  
Natural Environment Section Head  
Project Development and Environmental Analysis  
North Carolina Department of Transportation  
1598 Mail Service Center  
Raleigh, North Carolina, 27699-1598

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act for the proposed widening and extension of Big Mill Farm Road and widening of Hopkins Road From I-40 Business/US 421 to West Mountain Street with a new partial cloverleaf interchange at I-40 Business/US 421 in Forsyth County; STIP No. U-5760; WBS Element NO. 46381.1.1. NCDWR Project No. 20200628.

Dear Mr. Harris:

Attached hereto is a copy of Certification No. WQ004231 issued to The North Carolina Department of Transportation (NCDOT) dated July 13, 2020.

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

Sincerely,

DocuSigned by:

*Amy Chapman*

9C9896312DCD474  
S. Daniel Smith, Director  
Division of Water Resources

Attachments

Electronic copy only distribution:

Eric Alsmeyer, US Army Corps of Engineers, Raleigh Field Office  
Amy Euliss, Division 9 Environmental Officer  
Claire Ellwanger, US Fish and Wildlife Service  
Marla Chambers, NC Wildlife Resources Commission  
Beth Harmon, Division of Mitigation Services  
File Copy



**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 Resources (NCDWR) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact 0.110 acres of jurisdictional wetlands and 1,638 linear feet of jurisdictional streams in Forsyth County. The project shall be constructed pursuant to the application dated received May 7, 2020. The authorized impacts are as described below:

**Stream Impacts in the Yadkin Pee Dee River Basin (U-5760)**

Site	Permanent Fill in Perennial Stream (linear ft)					Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
	Fill	Culvert		Channel				
		New	Extension	Change	Improvements			
1A	-	-	25	-	31	82	138	-
1B	-	-	522	-	20	20	562	542
2A	233	-	-	-	-	10	243	233
2B	-	24	-	-	25	10	59	49
2C	82	-	-	-	-	10	92	82
4A	-	-	61	-	30	28	119	-
4B	-	-	-	-	35	19	54	-
6A	-	122	-	70	-	22	214	-
6B	-	82	-	-	10	65	157	-
<b>Totals</b>	<b>315</b>	<b>228</b>	<b>608</b>	<b>70</b>	<b>151</b>	<b>266</b>	<b>1,638</b>	<b>906</b>

**Total Stream Impacts for this Section: 1,638 linear feet**

**Wetland (Riverine) Impacts in the Yadkin Pee Dee River Basin (U-5760)**

Site	Fill (ac)	Excavation (ac)	Mechanized Clearing (ac)	Total Wetland Impact (ac)	Impacts Requiring Mitigation (ac)
2A	-	0.001	0.001	0.002	-
3	-	0.001	0.001	0.002	-
5	0.001	-	0.012	0.013	-
6A	0.093	-	-	0.093	-
<b>Total</b>	<b>0.094</b>	<b>0.002</b>	<b>0.014</b>	<b>0.110</b>	<b>-</b>

**Total Wetland Impacts: 0.110 acres.**

The application provides adequate assurance that the discharge of fill material into the waters of the Yadkin 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 May 7, 2020. Should your project change, you are required to notify the NCDWR 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 300 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.

**Condition(s) of Certification:**

*Mitigation Requirements*

Compensatory mitigation for 906 linear feet of impact to streams is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Division of Mitigation Service (DMS) (formerly NCEEP), and that the DMS has agreed to implement the mitigation for the project. The DMS has indicated in a letter dated April 13, 2020 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the DMS Mitigation Banking Instrument signed July 28, 2010.

1. 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. However, the pipe system at Site 6 is exempt from this condition as was explained in the application. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in disequilibrium of wetlands or streambeds or banks, adjacent to or upstream and downstream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWR for guidance on how to proceed and to determine whether a permit modification will be required. [15A NCAC 02H.0506(b)(2)]
2. 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. [15A NCAC 02B.0200]
3. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S. [15A NCAC 02H.0506(b)(2)]
4. 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. [15A NCAC 02H.0506(b)(2)]
5. 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. [15A NCAC 02H.0506(b)(2)]
6. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
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. [15A NCAC 02H.0506(b)(3) and (c)(3)]

8. Heavy equipment shall be operated from the banks rather than in the stream channel to minimize sedimentation and reduce the introduction of other pollutants into the stream. [15A NCAC 02H.0506(b)(3)]
9. 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. [15A NCAC 02H.0506(b)(3)]
10. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification. [15A NCAC 02H.0506(b)(3)]
11. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
12. 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 the NCDWR determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, the NCDWR may reevaluate and modify this certification. [15A NCAC 02B.0200]
13. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification. [15A NCAC 02H.0506(b)(2)]
14. 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. [15A NCAC 02H .0507(c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]
15. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing or flagging prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification. [15A NCAC 02H.0501 and .0502]
16. The issuance of this certification does not exempt the Permittee from 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.
17. The Permittee shall report any violations of this certification to the Division of Water Resources within 24 hours of discovery. [15A NCAC 02B.0506(b)(2)]
18. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer (or appointee) shall complete and return the enclosed "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]
19. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction. [15A NCAC 02H.0506(b)(2)]
20. 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.[15A NCAC 02H.0506(b)(3) and (c)(3)]
21. 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 [15A NCAC 02H.0506(b)(3) and (c)(3)]:
  - 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.

22. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. [15A NCAC 02H.0506(b)(3) and (c)(3)]

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) 431-3000, Facsimile: (919) 431-3100

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

Mr. Bill F. Lane, General Counsel  
Department of Environmental Quality  
1601 Mail Service Center

This the 13th day of July in 2020

DIVISION OF WATER RESOURCES  
DocuSigned by:  
  
9C9886312DCD474  
S. Daniel Smith, Director

WQC No. WQC004231



NORTH CAROLINA  
Environmental Quality

ROY COOPER  
Governor

MICHAEL S. REGAN  
Secretary

S. DANIEL SMITH  
Director

NCDWR Project No.: \_\_\_\_\_ County: \_\_\_\_\_

Applicant: \_\_\_\_\_

Project Name: \_\_\_\_\_

Date of Issuance of 401 Water Quality Certification: \_\_\_\_\_

**Certificate of Completion**

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

**Applicant's Certification**

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Agent's Certification**

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Engineer's Certification**

\_\_\_\_\_ Partial \_\_\_\_\_ Final

I, \_\_\_\_\_, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature \_\_\_\_\_ Registration No. \_\_\_\_\_  
Date \_\_\_\_\_

