



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

June 27, 2024

MEMORANDUM TO: Division Environmental and Construction Units

FROM: *mat* Michael A. Turchy, ECAP Group Leader
Environmental Analysis Unit

SUBJECT: Environmental Permits for the Replacement of Bridge 109 on SR 1706
(Martin Luther King Jr. Avenue) over US 29 (N. Cannon Blvd.) in
Cabarrus County, Division 10, **TIP: B-5372.**

Please find enclosed the following permits for this project:

Agency	Permit Type	Permit Expiration
US Army Corps of Engineers Section 404 Clean Water Act Permit	Nationwide Permit 14	March 14, 2026
NC Division of Water Resources Section 401 Water Quality Certification	Individual Certification	March 14, 2026

Work is authorized by the above referenced permit provided it is accomplished in strict accordance with the permitted plans. The Environmental Coordination and Permitting Group or the Division Environmental Office must be consulted if any deviation from the permit(s) is required.

The General Conditions and Certifications for Nationwide and Regional Permits can be referenced at:
https://xfer.services.ncdot.gov/pdea/PermIssued/_General_Conditions_and_Certifications/

The Project Commitments "Greensheet" is located on the Preconstruction SharePoint Dashboard at:
<https://connect.ncdot.gov/site/preconstruction>



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT
WILMINGTON REGULATORY OFFICE
69 DARLINGTON AVENUE
WILMINGTON NORTH CAROLINA 28403

June 26, 2024

Regulatory Division
SAW-2024-00888

Sent Via email: recrowther@ncdot.gov

Mr. Robert Crowther
Environmental Program Consultant, EAU
NCDOT
1598 Mail Service Center
Raleigh, NC 27699-1598

Dear Mr. Crowther:

This letter is in response to the Pre-Construction Notification (PCN) you submitted to the Wilmington District on April 29, 2024, for a Department of the Army Nationwide permit (NWP) verification. This project has been assigned the file number SAW-2024-00888 and is known as NCDOT B-5372 SR 1706, Bridge# 109 Replacement. This file number should be referenced in all correspondence concerning this project.

A review of the information provided indicates that the proposed work would include the replacement of the existing NCDOT Bridge # 109 on SR 1709 across US 29 in Kannapolis, Cabarrus County. The activities in waters of the United States include the replacement of the existing overpass bridge and construction of improved bridge approach/ramp for the new bridge. The project involves replacement of an existing culvert within the roadway/bridge approach that will include a total of 235 linear feet of permanent impacts from the placement of the culvert/channel relocation and 24 linear feet of temporary dewatering activities. The project area for this determination includes approximately 2 acres area which is illustrated on the enclosed site plans/maps. The project/review area is located across an unnamed tributary to Cold Water Creek; east of the existing SR 1706 (Martin Luther King Jr. Avenue) bridge across US 29, at Latitude 35.492650 and Longitude -80.611050; in Kannapolis, Cabarrus County, North Carolina.

We have determined that the proposed work is authorized by Nationwide Permit 14 (NWP-14) pursuant to authorities under Section 404 of the Clean Water Act (33 U.S.C § 1344). The proposed work must be accomplished in strict accordance with the general permit conditions, any regional conditions, the special conditions listed in this letter, the application materials, and the enclosed plans. If the extent of the project area and/or nature of the authorized impacts to waters are modified, a revised PCN must be submitted to this office for written approval before work is initiated. Any violation of

permit conditions or deviation from your submitted plans may subject the permittee to enforcement action.

This verification is valid until March 14, 2026, unless prior to this date the subject NWP(s) is suspended, revoked, or is modified such that the activity no longer complies with the terms and conditions of this NWP. If you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

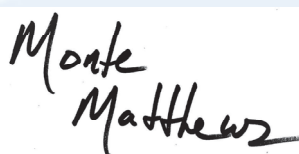
Project Specific Special Conditions:

1. All work must be performed in strict compliance with (a) the description of work in the PCN and (b) the Wetlands and Surface Water Impact Permit Drawing(s) (Permit Plans) in the application dated April 3, 2020. Any modification to the description of work and/or the permit plans must be approved by the USAGE prior to implementation.
2. The permittee shall require its contractors and/or agents to comply with the terms and conditions of this authorization letter 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 authorization letter, all conditions, and any authorized modifications. A copy of this authorization letter, all conditions, and any authorized modifications, shall be available at the project site during construction and maintenance of this project.
3. The permittee agrees to implement the follow conservation measures for the NCDOT NCDOT B-5372 SR 1706, Bridge # 109 Replacement in Cabarrus County: **See subsequent permit modification letter from USACE dated 10/24/24**
 - a. Tree clearing will take place from October 16 to March 31, pending federal listing of the tricolored bat (*Perimyotis subflavus*).
 - b. Bridge demolition will occur outside of the bat active season.
 - c. Should night work occur during the bat active season (April 1-October 15), temporary lighting will only be used to illuminate work areas and will avoid lighting the surrounding landscape.
 - d. No additional permanent lighting will be added to the roadway.
 - e. No blasting will occur.
4. 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 Forms. The requirements of these forms, including any special conditions listed on these forms, are hereby incorporated as special conditions of this permit authorization.

This NWP verification does not preclude the necessity to obtain any other Federal, State, or local permits, licenses, and/or certifications, which may be required.

If you have any questions related to this verification or have issues accessing documents referenced in this letter, please contact Stephen Brumagin, WRDA Project Manager of the Charlotte Field Office at (704) 798-6471, by mail at the above address, or by email at stephen.a.brumagin@usace.army.mil. Please take a moment to complete our customer satisfaction survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey/>.

Sincerely,

A handwritten signature in black ink that reads "Monte Matthews". The signature is written in a cursive style with a large "M" and "M".

2024.06.26

14:26:07 -04'00'

Monte K. Matthews
NCDOT/WRDA Branch Chief
Wilmington District

Enclosures

Permit Plans
401WQC
NWP-14

cc (w/enclosures)

Michael Turchy, NCDOT (via maturchy@ncdot.gov)
Erin Cheely, NCDOT (via ekcheely@ncdot.gov)

Compliance Certification Form

File Number: SAW-2024-00888

County: Cabarrus

Permittee: NCDOT, Mr. Robert Crowther

Project Name: NCDOT B-5372 SR 1706, Bridge# 109 Replacement

Date Verification Issued: 6/26/2024

Project Manager: Stephen Brumagin

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

**US ARMY CORPS OF ENGINEERS
Wilmington District
Attn: Stephen Brumagin
Charlotte Field Office
8430 University Executive Park Suite 615
Charlotte, NC 28262
or
stephen.a.brumagin@usace.army.mil**

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. Failure to comply with any terms or conditions of this authorization may result in the Corps suspending, modifying or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

I hereby certify that the work, and mitigation (if applicable), authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit including any general or specific conditions.

Date Authorized Work Started: - - - - - **Completed: - - - - -**

Describe any deviations from permit (attach drawing(s) depicting the deviations):

***Note: The description of any deviations on this form does not constitute approval by the Corps.**

Signature of Permittee

Date



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT
WILMINGTON REGULATORY OFFICE
69 DARLINGTON AVENUE
WILMINGTON NORTH CAROLINA 28403

October 24, 2024

Regulatory Program/Division

SAW-2024-00888 NCDOT B-5372 SR 1706, Bridge #109 Cabarrus Co

Sent Via Email: ekcheely@ncdot.gov

Ms. Erin Cheely, Western Team Lead
NC Department of Transportation, Environmental Coordination & Permitting
Environmental Analysis Unit
1598 Mail Service Center
Raleigh, NC 27699-1598

Dear Ms. Cheely:

Please reference the following projects and permit verifications issued on the below corresponding dates:

Corps Project Number	Project Description	Date of Authorization
SAW-2024-00888	B-5372, SR 1706, Bridge #109 Replacement in Kannapolis, Cabarrus County	June 26, 2024

Please note, when this permit verification was issued this project fell within the range of the Tricolored Bat (*Perimyotis subflavus*) (TCB) and the U.S. Army Corps of Engineers (Corps) determined that this project may affect but was not likely to adversely affect this species. The U.S. Fish and Wildlife Service (USFWS) concurred with the determination and conditions were included in the project permit verification to protect the TCB.

By email dated April 8, 2024, the USFWS notified the Corps that the TCB range maps had been updated. The Corps reviewed the new range mapping and determined that this project is currently outside of the TCB range. Therefore, the Corps determination for this project is revised to no effect. A map depicting the current limits of the TCB range in relation to this project is attached for your reference.

Because of the effect determination change as stated above, the special conditions related to conservation measures included in the June 26, 2024, authorization to protect TCB are no longer required for this project and are hereby modified. Specifically, Special Condition 3.a.- 3.e. will no longer apply to this project. However, since the TCB remains proposed for listing as an endangered species and may become listed during

the duration of the construction of the B-5372 Cabarrus project, the Corps will include the following special condition with the modified authorization to construct the B-5372 Cabarrus project:

“Suitable habitat for the tricolored bat (*Perimyotis subflavus*, TCB) may be present at the site. On September 14, 2022, the U.S. Fish and Wildlife Service (USFWS) published a proposal in the Federal Register to list the TCB as endangered under the Endangered Species Act (ESA). If the USFWS list the TCB and the identified project is located within TCB range, the proposed action may affect its suitable habitat. If work associated with the project is not completed before the listing’s effective date, then work must cease, and the permittee must contact Mr. Stephen Brumagin, WRDA Project Manager, to determine if additional coordination with the USFWS is required under Section 7 of the ESA prior to continuing work.”

Please note that all other permit conditions included in the authorization for this project issued on June 26, 2024 (to include the expiration date) are still applicable.

This letter, along with the original permit verifications listed above, constitute the entirety of the Section 10/404 decision for this project. If you have any questions related to this letter, please contact Stephen Brumagin, WRDA Project Manager at 704-798-6471, or by email at stephen.a.brumagin@usace.army.mil. Please take a moment to complete our customer satisfaction survey located at: <https://regulatory.ops.usace.army.mil/customer-service-survey/>.

Sincerely,

A handwritten signature in black ink that reads "M. Scott Jones". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

M. Scott Jones, PWS
WRDA / Transportation Branch Chief
USACE - Wilmington District

Enclosures

USFWS Tricolored bat range map with B-5372 Cabarrus project
Prepared by the Corps 10-24-24

tricolored bat
range-green
polygon

B-5372
Cabarrus
Project area



NCDOT B-5372 SR 1706 Bridge # 109 Replacement,
Cabarrus Co. created from USFWS tricolored bat range
map 10-24-2024

US Army Corps of Engineers – Wilmington District
Compensatory Mitigation Responsibility Transfer Form

Permittee: Mr. Robert Crowther
Project Name: NCDOT B-5372 SR 1706, Bridge # 109 Replacement

Action ID: SAW-2024-00888
County: Cabarrus

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: 03040105, Yadkin River Basin

Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
235						

*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: 03040105, Yadkin River Basin

Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
470						

Mitigation Site Debited: NCDMS

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 – MRTF 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: NCDMS Mitigation Acceptance Letter dated February 16, 2024.

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).***

Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

USACE Project Manager: Stephen Brumagin

USACE Field Office: Charlotte Field Office
US Army Corps of Engineers
8430 University Executive Park
Charlotte

Email: stephen.a.brumagin@usace.army.mil


Digitally signed by
BRUMAGIN.STEPHEN.A.12835
20737
Date: 2024.06.26 09:29:16
-04'00'

Wilmington District Project Manager Signature

June 26, 2024

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

ELIZABETH S. BISER
Secretary

RICHARD E. ROGERS, JR.
Director



June 25, 2024
Cabarrus County
NCDWR Project No. 20210444
Bridge 109 on SR 1706
STIP No. B-5372
WBS Element No. 46087.1.1

APPROVAL of 401 WATER QUALITY CERTIFICATION with ADDITIONAL CONDITIONS

Mr. Robert Crowther
Environmental Analysis Unit
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 with
ADDITIONAL CONDITIONS for Proposed improvements to Bridge 109 on State Road 1706 (Martin
Luther King Jr. Avenue) in Cabarrus County, TIP B-5372, NCDWR Project No. 20210444, WBS Element
No. 46087.1.1.

Dear Mr. Crowther:

Attached hereto is a copy of Certification No. 4246 issued to The North Carolina Department of Transportation
(NCDOT) dated June 25, 2024.

This approval is for the purpose and design described in your application. The plans and specifications for this
project are incorporated by reference as part of this Water Quality Certification. If you change your project, you
must notify the Division and you may be required to submit a new application package with the appropriate fee. If
the property is sold, the new owner must be given a copy of this Certification and is responsible for complying with
all conditions. [15A NCAC 02H .0507(d)(2)]. This Certification does not relieve the permittee of the responsibility
to obtain all other required Federal, State, or Local approvals before proceeding with the project, including those
required by, but not limited to, Sediment and Erosion Control, Non-Discharge, Water Supply Watershed, and Trout
Buffer regulations.

This letter completes the review of the Division under section 401 of the Clean Water Act and 15A NCAC 02H
.0500. Please contact Mary Plummer at 704-235-2193 or mary.plummer@deq.nc.gov if you have any questions or
concerns.

Sincerely,
Designated by:

Richard E. Rogers Jr., Director
Division of Water Resources

Electronic copy only distribution:

Erin Cheely, NC Department of Transportation
Joel Howard, NC Department of Transportation, Division 10
Steve Brumagin, US Army Corps of Engineers, Charlotte Field Office
Rebekah Reid, US Fish and Wildlife Service
David McHenry, NC Wildlife Resources Commission
File Copy



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

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 259 linear feet of jurisdictional streams in Cabarrus County. The project shall be constructed pursuant to the application dated and received April 29, 2024. The authorized impacts are as described below:

Stream Impacts (Linear Feet) in the Yadkin-Pee Dee River Basin.

SD Site	Site	Perm Fill in Perennial Stream		Temp Fill in Perennial Stream	Total Stream Impacts	Stream Impacts Requiring Mitigation
		Culvert	Relocation	Construction		
SD 1	1	45	-	-	45	45
SD 1	2	-	85	-	85	85
SD 1	3	-	-	12	12	-
SD 2	4	50	-	-	50	50
SD 2	5	-	55	-	55	55
SD 2	6	-	-	12	12	-
Totals		95	140	24	259	235
		235				

Total Stream Impacts for Project: 259 linear feet.

The application provides adequate assurance that the discharge of fill material into the waters of the Yadkin-Pee Dee 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 and received April 29, 2024. 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.

This Water Quality Certification neither grants nor affirms any property right, license, or privilege in any lands or waters, or any right of use in any waters. This Water Quality Certification does not authorize any person to interfere with the riparian rights, littoral rights, or water use rights of any other person and does not create any prescriptive right or any right of priority regarding any usage of water. This Water Quality Certification shall not be interposed as a defense in any action respecting the determination of riparian or littoral rights or other rights to water use. No consumptive user is deemed by virtue of this Water Quality Certification to possess any prescriptive or other right of priority with respect to any other consumptive user regardless of the quantity of the withdrawal or the date on which the withdrawal was initiated or expanded. Upon the presentation of proper credentials, the Division may inspect the property.

Condition(s) of Certification:



Project Specific Conditions

1. All work in or adjacent to stream waters shall be conducted per approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual. [15A NCAC 02H.0506(b)(3) and (c)(3)]
2. As a condition of this 401 Water Quality Certification, the bridge demolition and construction must be accomplished in strict compliance with the most recent version of NCDOT's Best Management Practices for Construction and Maintenance Activities. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
3. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (as described in the stormwater management plan) before entering the stream. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]
4. Riprap 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. [15A NCAC 02H. 0506(b)(2)]
5. The post -construction removal of any temporary bridge structures must return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species. [15A NCAC 02H. 0506(b)(2)]
6. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited without prior written approval from the NCDWR first. [15A NCAC 02H.0506(b)(2)]
7. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly. [15A NCAC 02H. 0506(b)(3)]
8. A turbidity curtain will be installed in the stream if driving or drilling activities occur within the stream channel, on the stream bank, or within 5 feet of the top of bank, or during the removal of bents from an old bridge. This condition can be waived with prior approval from the NCDWR. [15A NCAC 02H 0506(b)(3)]
9. All bridge construction shall be performed from the existing bridge, temporary work bridges, temporary causeways, or floating or sunken barges. If work conditions require barges, they shall be floated into position and then sunk. The barges shall not be sunk and then dragged into position. Under no circumstances should barges be dragged along the bottom of the surface water. [15A NCAC 02H 0506(b)(3)]
10. Design and placement of culverts and other structures shall be installed in such a manner that the original stream profiles are not altered (i.e., the depth of the channel must not be reduced by a widening of the streambed). Existing stream dimensions (including pattern and profile) are to be maintained above and below locations of each culvert. The structures shall be designed and installed to allow for fish and other wildlife movement as well as prevent headcutting of the stream. The applicant may be required to provide evidence that the equilibrium has been maintained if requested in writing by the NCDWR. [15A NCAC 02H.0506(b)(2)]
11. 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 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 the NCDWR. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NCDWR for guidance on how to proceed and to determine whether or not a permit modification will be required. [15A NCAC 02H.0506(b)(2)]



12. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross sections 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. [15A NCAC 02H.0506(b)(2)]
13. 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 the stream bank stability. Any applicable riparian buffer impact for access to stream channel shall be temporary and be revegetated with native riparian species. [15A NCAC 02H.0506(b)(2)]
14. Compensatory mitigation for 235 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 February 16, 2024 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.

General Conditions

1. 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]
2. 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)]
3. 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)]
4. 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)]
5. 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)]
6. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]
7. 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]
8. 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)]
9. A copy of this Water Quality Certification shall always be maintained on the construction site. 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)]
10. 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. [15A NCAC 02H.0501 and .0502]

11. 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.
12. 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)]
13. 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)(3) and (c)(3)]
14. 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)]
15. 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 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.
16. 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. [15A NCAC 02H.0506(b)(2)]
17. 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)]
18. 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)]
19. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream. [15A NCAC 02H. 0506(b)(3)]
20. 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)]

21. 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)]
22. When applicable, all construction activities shall be performed and maintained in full compliance with G.S. Chapter 113A Article 4 (Sediment and Pollution Control Act of 1973). Regardless of applicability of the Sediment and Pollution Control Act, all projects shall incorporate appropriate Best Management Practices for the control of sediment and erosion so that no violations of state water quality standards, statutes, or rules occur. [15A NCAC 02H .0506(b)(3) and (c)(3) and 15A NCAC 02B .0200]
23. Design, installation, operation, and maintenance of all sediment and erosion control measures shall be equal to or exceed the requirements specified in the most recent version of the *NCDOT Sediment and Erosion Control Manual*.
24. All devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) sites, including contractor-owned or leased borrow pits associated with the project. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.
25. For borrow pit sites, the erosion and sediment control measures shall be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*. Reclamation measures and implementation shall comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.

This approval and its conditions are final and binding unless contested [G.S. 143-215.5]. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

This Certification can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) within sixty (60) calendar days. Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition and Petition forms may be accessed at <http://www.ncoah.com/> or by calling the OAH Clerk's Office at (919) 431-3000.

A party filing a Petition must serve a copy of the Petition on:

William F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

If the party filing the Petition is not the permittee, then the party must also serve the recipient of the Certification in accordance with N.C.G.S 150B-23(a).

This letter completes the review of the Division under section 401 of the Clean Water Act and 15A NCAC 02H .0500. Please contact Mary Plummer at 704-235-2193 or mary.plummer@deq.nc.gov if you have any questions or concerns.



This the 25th day of 2024

DIVISION OF WATER RESOURCES

DocuSigned by:

80ECA32C7C38490...
Richard E. Rogers, Jr, Director

WQC No. 4246



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000

ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director

NORTH CAROLINA
Environmental Quality

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 _____

Completed hard copies can be emailed to kristilynn.carpenter@deq.nc.gov or mailed to:

NCDEQ Transportation Permitting

1617 Mail Service Center

Raleigh NC 27699-1617



North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617
919.707.9000



North Carolina Department of Transportation
Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS



(Version 3.00; Released August 2021)

WBS Element: 46087.1.1		TIP/Proj No: B-5372		County(ies): Cabarrus		Page 1 of 3	
General Project Information							
WBS Element:		46087.1.1		TIP Number: B-5372		Project Type: Bridge Replacement	
NCDOT Contact:		David Stutts, PE		Contractor / Designer:		Jon Ford, PE	
	Address:	1000 Birch Ridge Drive Raleigh, NC 27610			Address:	2550 West Tyvola Road Suite 120 Charlotte, NC 28217	
	Phone:	919-707-6442			Phone:	704-357-0488	
	Email:	dstutts@ncdot.gov			Email:	jcford@imt.com	
City/Town:		Kannapolis		County(ies):		Cabarrus	
River Basin(s):		Yadkin-Pee Dee		CAMA County?		No	
Wetlands within Project Limits?		No					
Project Description							
Project Length (lin. miles or feet):		885 feet		Surrounding Land Use:		Suburban	
		Proposed Project		Existing Site			
Project Built-Up Area (ac.)		0.2 ac.		1.7 ac.			
Typical Cross Section Description:		2-lane road to bridge with sidewalks over 4-lane divided highway		2-lane road with 5' bike lanes and curb and gutter to bridge over 4-lane divided highway			
Annual Avg Daily Traffic (veh/hr/day):		Design/Future: 5600		Year: 2040		Existing: 3,520	
General Project Narrative: (Description of Minimization of Water Quality Impacts)		B-5372 involves replacing bridge number 109 on SR-1706 (Martin Luther King Jr Ave) in Kannapolis, NC. The existing road and bridge is a 2-lane road without curb and gutter. The proposed typical section is a 2-lane road with curb and gutter and sidewalks before and after the bridge. The improvements will include the installation of a surface drainage network that will outfall into the jurisdictional stream on site. Rip rap pads will be installed at pipe outlets across the project to reduce flow velocities and erosivity. The existing 66" RCP culvert for the unnamed tributary to Cold Water Creek will be removed and replaced with a 72" welded steel culvert, the channel will be shifted to align with the new culvert.					



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS

(Version 3.00; Released August 2021)

WBS Element: 46087.1.1 TIP/Proj No.: B-5372 County(ies): Cabarrus Page 2 of 3

General Project Information

Waterbody Information

Surface Water Body (1):	UT to Cold Water Creek		NCDWR Stream Index No.:	13-17-9-4-2-(1)	
NCDWR Surface Water Classification for Water Body	Primary Classification:	Water Supply IV (WS-IV)			
	Supplemental Classification:	None			
Other Stream Classification:					
Impairments:					
Aquatic T&E Species?		Comments:			
NRTR Stream ID:	SA		Buffer Rules in Effect:	N/A	
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	No
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

Surface Water Body (2):	UT to Cold Water Creek		NCDWR Stream Index No.:	13-17-9-4-2-(1)	
NCDWR Surface Water Classification for Water Body	Primary Classification:	Water Supply IV (WS-IV)			
	Supplemental Classification:	None			
Other Stream Classification:					
Impairments:					
Aquatic T&E Species?		Comments:			
NRTR Stream ID:	SB		Buffer Rules in Effect:	N/A	
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	N/A
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

Surface Water Body (3):	UT to Cold Water Creek		NCDWR Stream Index No.:	13-17-9-4-2-(1)	
NCDWR Surface Water Classification for Water Body	Primary Classification:	Water Supply IV (WS-IV)			
	Supplemental Classification:	None			
Other Stream Classification:					
Impairments:					
Aquatic T&E Species?		Comments:			
NRTR Stream ID:	SC		Buffer Rules in Effect:	N/A	
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A	Dissipator Pads Provided in Buffer?	N/A
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					



North Carolina Department of Transportation
Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS

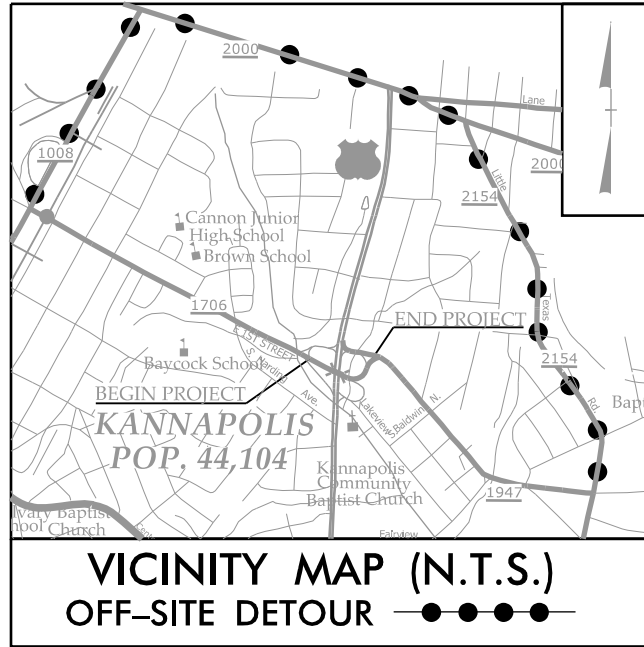


(Version 3.00; Released August 2021)

WBS Element:	46087.1.1	TIP No.:	B-5372	County(ies):	Cabarrus	Page	3	of	3
Additional Waterbody Information									
Surface Water Body (4):	UT to Cold Water Creek			NCDWR Stream Index No.:	13-17-9-4-2-(1)				
NCDWR Surface Water Classification for Water Body			Primary Classification:	Water Supply IV (WS-IV)					
			Supplemental Classification:	None					
Other Stream Classification:									
Impairments:									
Aquatic T&E Species?		Comments:							
NRTR Stream ID:	SD			Buffer Rules in Effect:		N/A			
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	N/A		Dissipator Pads Provided in Buffer?		N/A		
Deck Drains Discharge Over Water Body?		N/A		(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)			
(If yes, provide justification in the General Project Narrative)									

09.08/99

TIP PROJECT: B-5372



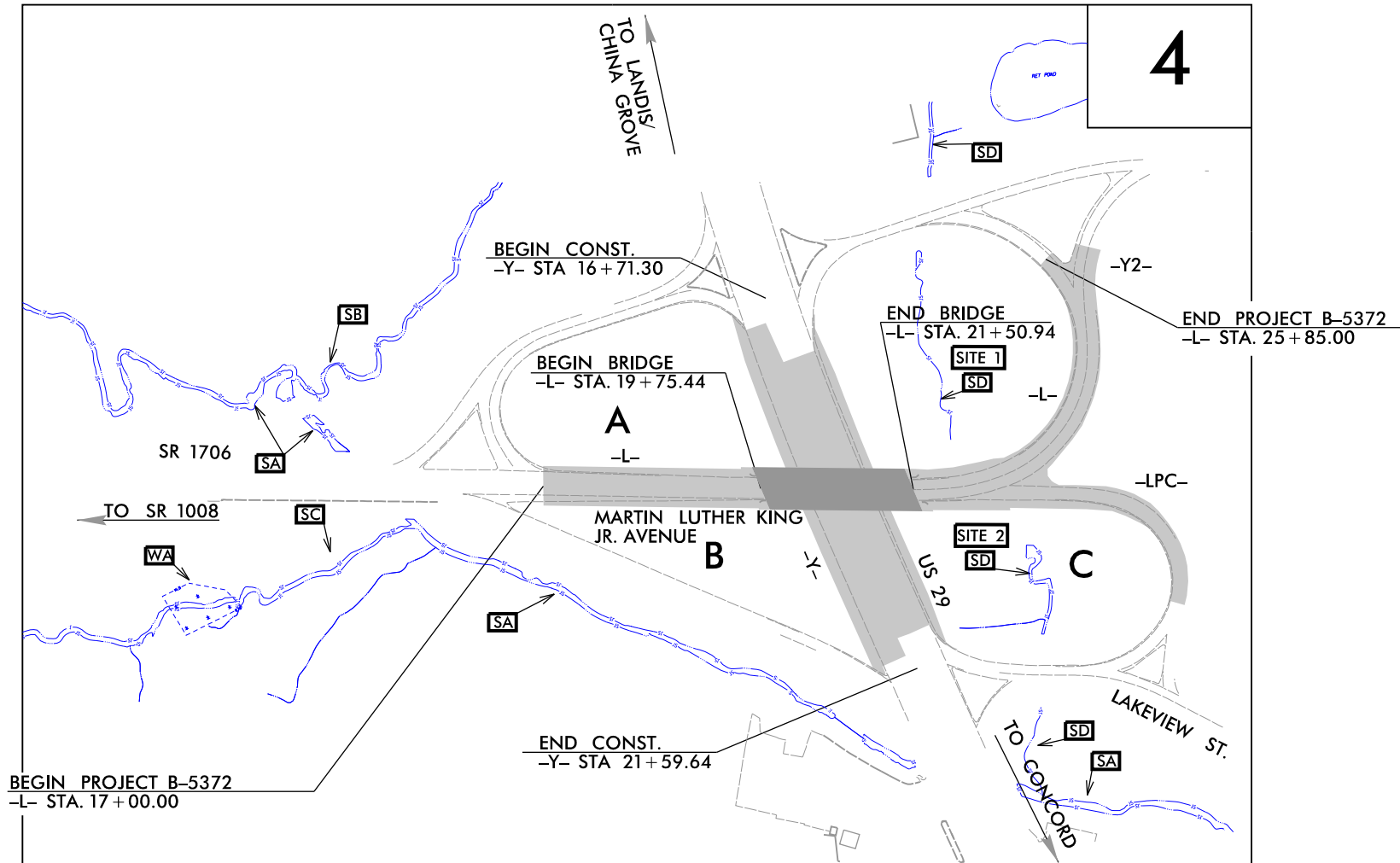
VICINITY MAP (N.T.S.)
OFF-SITE DETOUR

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CABARRUS COUNTY

LOCATION: BRIDGE NO. 109 ON SR 1706 (MLK JR. AVE) OVER US 29
TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE
WETLAND AND SURFACE WATER IMPACTS PERMIT

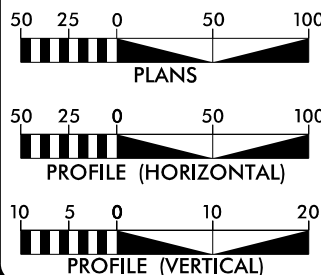
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5372	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
46087.1.1		P.E.	
46087.2.1		ROW	

PERMIT DRAWING
SHEET 1 OF 7



THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARY OF KANNAPOLIS
THIS PROJECT IS PARTIAL ACCESS CONTROL.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

GRAPHIC SCALES



DESIGN DATA

ADT 2020 = 3,520
ADT 2040 = 5,600
K = 11%
D = 55%
T = 5% *
V = 40 MPH
* TTST = 1% DUAL = 4%
FUNC CLASS =
MINOR COLLECTOR
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5372 = 0.133 MILES
LENGTH STRUCTURE TIP PROJECT B-5372 = 0.035 MILES
TOTAL LENGTH TIP PROJECT B-5372 = 0.168 MILES



Johnson, Mirmiran, & Thompson Inc.
2550 West Tyvola Road, Suite 120,
Charlotte, NC, 28217
License No: C-3097

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
APRIL 26, 2024

LETTING DATE:
NOVEMBER 29, 2024

REECE M. SCHULER, P.E., P.L.S.
PROJECT ENGINEER

JON FORD, P.E.
PROJECT DESIGN ENGINEER

DAVID STUTTS, P.E.
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: P.E.

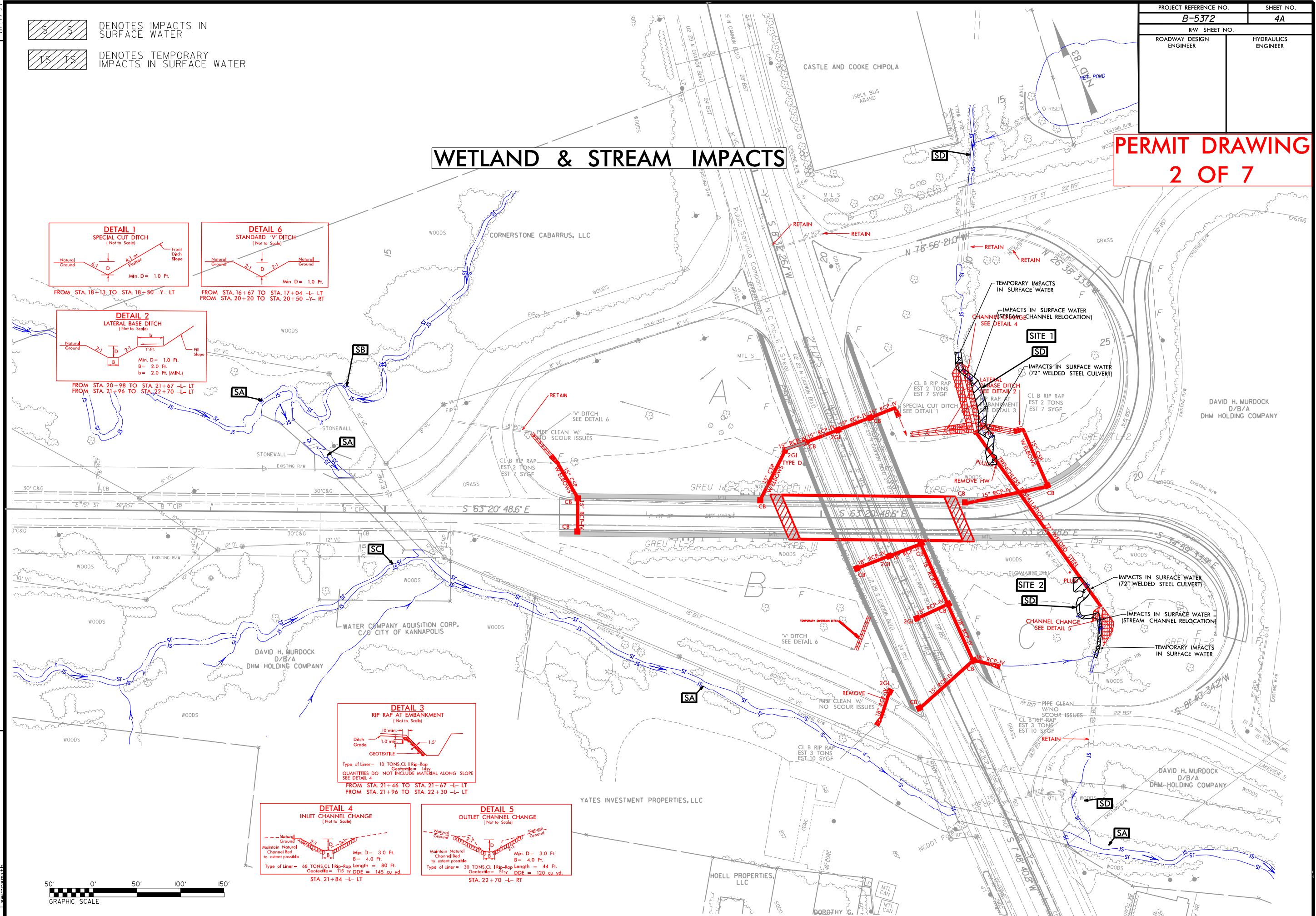
ROADWAY DESIGN
ENGINEER

SIGNATURE: P.E.

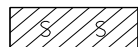
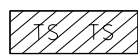
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CONTRACT:

PERMIT DRAWING
2 OF 7



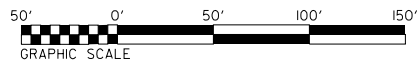
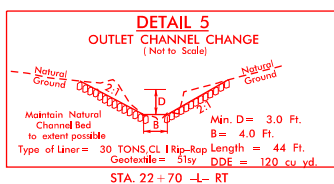
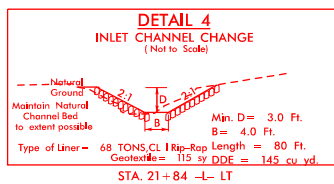
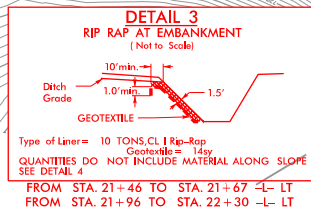
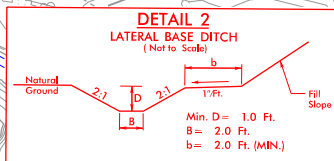
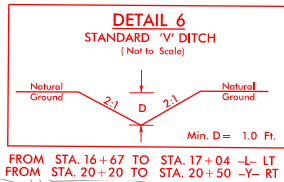
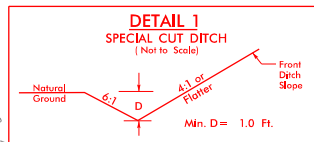
8/17/99

 DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PROJECT REFERENCE NO.		SHEET NO.
B-5372		4B
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	

WETLAND & STREAM IMPACTS

PERMIT DRAWING
SHEET 3 OF 7

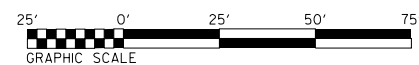


REVISIONS

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 DENOTES IMPACTS IN SURFACE WATER

 DENOTES TEMPORARY IMPACTS IN SURFACE WATER



WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Stream Name Stream ID	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)
1	UT to Cold Water Creek	-Y- 18+73 to 19+17 LT	Replacement 72" Welded Steel Culvert, New Headwall 45 ft Upstream						0.009		45		
1	UT to Cold Water Creek	-Y- 17+76 to 18+73 LT	Stream Channel Relocation, Inlet Channel Change						0.017	0.002	85	12	
2	UT to Cold Water Creek	-Y- 20+77 to 21+22 LT	Replacement 72" Welded Steel Culvert, New Outlet 53 ft Downstream						0.009		50		
2	UT to Cold Water Creek	-Y- 21+22 to 21+71 LT	Stream Channel Relocation, Outlet Channel Change						0.014	0.001	55	12	
TOTALS*:									0.05	< 0.01	235	24	

*Rounded totals are sum of actual impacts

NOTES:

*1: Emedding Riprap

*2: No Riprap in Channel

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
02/09/2024
Cabarrus County
B-5372