



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

June 5, 2024

U.S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801

N.C. Division of Water Resources
Transportation Permitting Branch
1617 Mail Service Center
Raleigh, NC 27699-1617

ATTN: Ms. Crystal Amschler
NCDOT Coordinator

Ms. Beth Plummer
NCDOT Coordinator

Subject: **Application for Section 404 Individual Permit, Section 401 Individual Water Quality Certification, and Catawba Riparian Buffer Authorization** for the proposed widening of Williamson Road (SR 1109), from I-77 to Brawley School Road (SR 1100) in Mooresville, Iredell County, NC. Division 12. Debit \$767 from WBS No. 41890.1.2
STIP: R-5100A

Dear Madams:

NCDOT proposes to widen Williamson Road (SR 1109), from I-77 to Brawley School Road (SR 1100) in Mooresville. The purpose of this letter is to request a Clean Water Act (CWA) Section 404 Individual Permit, Section 401 Individual Water Quality Certification, and Catawba Riparian Buffer Authorization for the above referenced project. Included in this application package are the following: ENG 4345 Form, draft Boater Safety Plan, NC Division of Mitigation Services Acceptance Letter, stormwater management plan (SMP), permit drawings, utility drawings, buffer drawings, Section 7 Informal Conference Letter, No Archaeological Survey Required form, Historic Structures Report, Tribal Coordination, and Minimum Criteria Determination Checklist.

SEPA DOCUMENT STATUS

A Minimum Criteria Determination Checklist was completed and signed on June 24, 2019. A Merger Screening meeting was held on September 20, 2018. Due to the limited scope of the project as well as agreement on the best fit alignment, the attendees determined the project would not be a good candidate for the Merger Process.

PURPOSE AND NEED

The primary need for the proposed action stems from several deficiencies. As noted in the Town of Mooresville's 2008 Comprehensive Transportation Plan (CTP):

1. There are an excessive number of driveway cuts with no access management;
2. There is an inconsistent roadway cross-section due to the incremental road improvements required as different sites have been developed, and;
3. There are significant traffic delays at intersections.

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RALEIGH NC 27699-1598

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Location:
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

The purpose of the proposed action is to reduce congestion and improve safety in the corridor. The Williamson Road widening project will provide a safer, more efficient roadway network throughout the Town of Mooresville and southern Iredell County.

ALTERNATIVES ANALYSIS

The No-Build Alternative was considered but eliminated because it does not meet the purpose and need for the project. This alternative will not provide residents of southern Iredell County a safe and efficient roadway to access adjacent residential and commercial development. Only one build alternative was studied. This was due to the residential and commercial development along either side of Williamson Road, prior planning efforts with adjacent development to accommodate the future widening of Williamson Road, and the existing right-of-way. The build alternative utilizes a “best-fit” alignment along Williamson Road to avoid residential and commercial relocations and minimize impacts to adjacent properties. The median-divided facility will provide full-movement access at all signalized intersections as well as un-signalized intersections as spacing requirements permit. U-turn movements will be permitted at these locations with the exception of the Williamson Road / I-77 Southbound Exit Ramp. All other access points will be limited to right-in/right-out only access.

As transmission lines are located above the current intersection with Sundown Road and Williamston Road, Duke Energy prohibits the signalization and related infrastructure below these lines. Per their requirements, the intersection was shifted, which resulted in Impact Sites 2 and 3.

PROJECT SCHEDULE

The project is scheduled to let on July 15, 2025, with a review date of February 25, 2025.

RESOURCE STATUS

Water resources in the study area are part of Catawba River basin U.S. Geological Survey Hydrologic Unit 03050101. There are no Outstanding Resource Water (ORW), designated High Quality Waters (HQW) or water supply watersheds (WS-I or WS-II) within 1.0 mile downstream of the study area. The North Carolina 2022 Final 303(d) list of impaired waters identifies the Catawba River (Lake Norman) within the study area as an impaired water due to turbidity and PCB in fish tissue samples.

IMPACTS TO WATERS OF THE U.S.

The proposed impacts for R-5100A include 3.97 acre of permanent open water impacts, 205 linear feet of permanent stream impacts, and 0.08 acre of permanent impacts to wetlands. Additionally, there will be 1.48 acre of temporary open water impacts and <0.01 acre (29 linear feet) of temporary stream impacts.

Tables 1 through 4 summarize the proposed impacts to jurisdictional resources. Site numbers correspond with the permit drawings included in this application. The stream and wetland numbers correspond to the 2021 Preliminary Jurisdictional Determination package information.

Summary of Utility Impacts:

Locations where utilities cross under streams are summarized here and noted on the plans. A temporary 16” bypass water line will be temporarily placed resulting in 0.001 acre of temporary fill on the lake bottom prior to a new 16” permanent water line which will be attached to the new bridge. The existing 16” water line will be abandoned.

Table 1. Wetland Impacts in 03050101 (Catawba)

Permit Site / Wetland ID ^{1/}	NC WAM / Hydraulic Classification HUC	Wetland Size (ac)	Perm. Fill in Wetlands (ac)	Excavation (ac)	Mechanized Clearing (ac)	Impact Description/ Avoidance and Minimization
2 / WB	Headwater Forest/ Riparian	0.19	0.059	--	0.02	Minimized impacts from fill and mechanized clearing by utilizing 2:1 slopes. Roadway fill for road widening and installation of 1-15" RCP and 1-42" RCP.
Totals by Impact Type			0.059	0	0.02	
Total Permanent Wetland Impacts			0.079			
²Total Requested from DMS			0.079 (@ 2:1=0.158)			

^{1/} Wetland IDs correspond to R-5100A PJD labeling.

^{2/} Rounded totals are sum of actual impacts to 1/1000th.

Table 2. Stream Impacts in HUC 03050101 (linear feet)

Permit Site	Stream Name/ PJD/ID	Status/ Class	Permanent		Temp. Channel Impacts lf (ac)	ACOE Required Mitigation	DWR Required Mitigation	Impacts Description
			Channel Impacts	Bank Stabilization				
2	UT to Catawba River (Lake Norman)/SA	Perennial WS-IV, B;CA	167	16	9 (0.001)	167	--	Installation of 1- 15" RCP and 1-42"RCP and bank stabilization. 2:1 slopes utilized to minimize impacts.
3	UT to Catawba River (Lake Norman)/SB	Intermittent WS-IV, B;CA	--	--	12 (0.001)	--	--	Installation of 1- 60" RCP. 2:1 slopes utilized to minimize impacts.
3	UT to Catawba River (Lake Norman)/BA	Perennial WS-IV, B;CA	--	22	8 (0.001)	--	--	Installation of 1- 60" RCP and bank stabilization at the outlet. 2:1 slopes utilized to minimize impacts.
Total Stream Impacts			167	38	29 (0.003)	167	--	
Total Permanent Impacts			205			167	--	
Total Stream Impact Requested from DMS						167 (@ 2:1=334)		

Table 3. Buffer Impacts in HUC 03050101

Permit Site No.	Stream Name/ JD ID	Permanent or Temporary	Buffer Mitigation Required	Zone 1 Impact (sqft)	Zone 2 Impact (sqft)	Impact Description
1	Lake Norman/Reeds Creek Lake Norman/Reeds Creek	Permanent	Yes	3,630	2,592	Roadway fill for the bridge construction directly adjacent to Lake Norman/Reeds Creek
2	Lake Norman/Reeds Creek Lake Norman/Reeds Creek	Permanent	No	1,091	622	Roadway fill for the bridge construction directly adjacent to Lake Norman/Reeds Creek
3	Lake Norman/Reeds Creek Lake Norman/Reeds Creek	Permanent	No	1,035	705	Roadway fill for the bridge construction directly adjacent to Lake Norman/Reeds Creek
4	Lake Norman/Reeds Creek Lake Norman/Reeds Creek	Permanent	Yes	6,879	4,768	Roadway fill for the bridge construction directly adjacent to Lake Norman/Reeds Creek
Totals by Impact Type				12,635	8,687	
Total Requested from DMS		Zone 1:10,509 (@ 2:1=21,018) & Zone 2:7,360 (@ 2:1=14,720)				

Table 4. Surface Water Impacts in HUC 03050101

Permit Site No.	Stream Name/ JD ID	Permanent (Acres)	Temporary (Acres)	Mitigation Required	Impact Description
1	Lake Norman/Reeds Creek Lake Norman/Reeds Creek	3.950	--	No	Roadway fill. 1.75:1 slopes from 1 foot above the full pond elevation
1	Lake Norman/Reeds Creek Lake Norman/Reeds Creek	--	1.473	No	Roadway fill. 1.75:1 slopes from 1 foot above the full pond elevation
1	Lake Norman/Reeds Creek Lake Norman/Reeds Creek	0.021	--	No	Bank stabilization
1	Lake Norman/Reeds Creek Lake Norman/Reeds Creek	--	0.006	No	Bank stabilization
U1	Lake Norman/Reeds Creek Lake Norman/Reeds Creek	--	0.001	No	Water line
Totals by Impact Type		3.971	1.48		
Total Surface Water Impacts		5.45			

FEDERALLY PROTECTED SPECIES

Plants and animals with Federal classification of Endangered (E) or Threatened (T) are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of April 20, 2024, the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) lists the following species in the project area provided below in Table 5.

Table 5. The USFWS lists the following federally protected species in the study area:

Common Name	Habitat Present	Biological Conclusion	Last Survey/Applicable Programmatic Agreement
bog turtle	No	Not Required	Not Required
dwarf-flowered heartleaf	Yes	No Effect	4/2024
Schweinitz's sunflower	Yes	No Effect	9/2023
tricolored bat	Yes	May Affect-Not Likely to Adversely Affect	7/2023

On July 18, 2023, the study area was assessed for potential bat habitat. Roosting habitat is present however no evidence of bats was found in any of the structures that were inspected. Informal Conference for tricolored bat was issued by USFWS on 5/30/24.

MITIGATION OPTIONS

The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize jurisdictional impacts, and to provide full compensatory mitigation of all remaining, unavoidable jurisdictional impacts. Avoidance measures were taken during the planning and SEPA compliance stages and minimization measures were incorporated as part of the project design.

Avoidance and Minimization:

NCDOT has avoided impacting many wetlands and streams to the greatest extent practicable. In addition, specific examples of minimization measures include:

- All proposed outfalls within the project limits will utilize Rip Rap Outlet pads to provide energy dissipation and lessen erosive velocities.
- To minimize surface water impacts to Lake Norman, the fill slopes on the causeway were steepened to 1.75:1 from 1 foot above the full pond elevation.
- 2:1 slopes will be used in fill areas to reduce impacts to surrounding wetlands and jurisdictional streams.
- Treatment will be achieved for approximately 90' by flattening the grass-lined ditch to a 0.003 ft/ft slope for the begin bridge LT ditch outlet. Treatment will be achieved at the end bridge LT ditch outlet for approximately 20' in BZ 2 with the same approach. It was not practicable to meet treatment requirements in the other quadrants due to required ditch grades and the necessary addition of rip rap to achieve non-erosive velocities.
- Design Standards in Sensitive Watersheds will be implemented during construction.
- The bridge will not discharge deck drains over open water or buffers.

Summary of Mitigation:

The NCDOT has avoided and minimized impacts to jurisdictional resources to the greatest extent practicable as described above. R-5100A will permanently impact 0.079 acre of wetlands, 167 linear feet of streams, and 17,869 sq ft of riparian buffers requiring mitigation. Mitigation for the unavoidable impacts for this project will be handled by the NC Division of Mitigation Services (DMS). Included in this application package is the DMS Mitigation Acceptance Letter. Below is a summary of the mitigation sources for the project.

Table 6. Mitigation Summary

Wetlands			
HUC	Site Name	Mitigation Source	Amount Secured (ac)
03050101	n/a	DMS	0.08
Streams			
HUC	Site Name	Mitigation Source	Amount Secured (lf)
03050101	n/a	DMS	167
Buffers			
HUC	Site Name	Mitigation Source	Amount Secured (sqft)
03050101	n/a	DMS	Zone 1: 10,509 Zone 2: 7,360

* DMS commits to implementing sufficient compensatory mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the timeline listed in Section F.3.c.iii of the In-Lieu Fee Instrument dated July 28, 2010.

CULTURAL RESOURCES

In order to comply with Section 106 of the National Historic Preservation Act (1966, as amended), NCDOT must evaluate the project’s impact upon any extant architectural and archaeological resources and determine if additional measures will be necessary to mitigate any adverse effects of the project upon any significant properties and sites.

A NCDOT architectural historian conducted a study of potential historic properties within the project Area of Potential Effects (APE) in August 2018 and found several properties over 50 years of age within the APE. Surveys were required to determine if any of the properties require National Register Eligibility Evaluation. One resource, the Chester Farmstead, warranted intensive National Register eligibility evaluation. It was determined that the Chester Farmstead is not eligible for listing in the National Register of Historic Places. No additional surveys were required (see Historic Structures Survey Report, December 2018 in the Appendix).

NCDOT conducted an internal map review and file search at the Office of State Archaeology (OSA) in May 2019. The APE is in a developed, disturbed context over commonly eroded soils that suggest intact, significant archaeological sites would not be encountered by the construction of the proposed road widening of an existing, urbanized roadway. Several previous surveys have resulted in no recommendations for surveys due to erosion and disturbances associated with modern development and grading. Further, background checks did not reveal any recorded significant archaeological sites in the immediate proximity of the project. No archaeological survey is recommended for this road widening project (see No Archaeological Survey Required Form in the Appendix).

REGULATORY APPROVALS

Application is hereby made for the following regulatory approvals for the above-described activities:

Section 404: USACE Individual Section 404 Permit.

Section 401 and Buffer Certification: Individual Section 401 Water Quality Certification and Buffer Certification from the N.C. Division of Water Resources. In compliance with Section 143 215.3D(e) of the NCAC, we will provide \$767.00 to act as payment for processing the Section 401 permit application previously noted in this application (see Subject line).

FERC Conveyance:

A Federal Energy Regulatory Commission Conveyance will be required prior to project construction commencement. This approval will be obtained after the Section 404 Permit, 401 Individual Water Quality Certification, and Catawba Riparian Buffer Authorization are obtained.

A significant component of the FERC Permitting process with Duke Energy will be to comply with their extensive requirements for ensuring waterway safety by way of a "Boater Safety Plan," which will include outreach to designated agencies and organizations. As such, the draft Boater Safety plan as provided in this application package is subject to change during the FERC permitting process, which cannot formally occur until issuance of the 404 and 401 permits. NCDOT will forward a copy of the Boater Safety Plan to satisfy the USACE River Users Safety component once the FERC Permit is acquired.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Michael Turchy at maturchy@ncdot.gov. A copy of this application and distribution list will also be posted on the NCDOT website at: <http://connect.ncdot.gov/resources/Environmental/Pages>.

Sincerely,



Michael Turchy
ECAP Group Leader- NCDOT

ec: NCDOT Permit Application Standard Distribution List.

USACE

ENG

4345

17. DIRECTIONS TO THE SITE

Please see attached Vicinity Map and Cover Letter.

18. Nature of Activity (Description of project, include all features)

NCDOT proposes to widen Williamson Road (SR 1109), from I-77 to Brawley School Road (SR 1100) in Mooresville.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the proposed action is to reduce congestion and improve safety in the corridor. The Williamson Road widening project will provide a safer, more efficient roadway network throughout the Town of Mooresville and southern Iredell County.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

The existing roadway will be widened with proposed C&G with sidewalk behind the curb. The existing bridge over I-77 will be widened to accommodate the additional lanes and proposed C&G. The existing bridge over Lake Norman (5@45' reinforced concrete decking, on I beams with concrete caps) will be replaced with a 3@ 80' 45" prestressed girder bridge with 4'-0" Caps.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type	Type	Type
Amount in Cubic Yards	Amount in Cubic Yards	Amount in Cubic Yards

Please see attached Cover Letter

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres
or
Linear Feet Please see attached Cover Letter

23. Description of Avoidance, Minimization, and Compensation (see instructions)

Please see attached Cover Letter

24. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- See attached List of Property Owners

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.


SIGNATURE OF APPLICANT

06/04/2024
DATE

SIGNATURE OF AGENT

DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.