STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J.R. "JOEY" HOPKINS
SECRETARY

December 11, 2023

MEMO TO: Derek Pielech, PE
Division Bridge Program Engineer

FROM: Mason Herndon
Division PDEA Engineer

SUBJECT: Brunswick County; Replace Culvert #003 over UT to Sand Hill Creek and Three Other Culverts on NC 133 (River Road); WBS No. 67139.1.1; **TIP No. BR-0139**

Please find attached the following permits for the subject project:

Agency	**Permit Type**	**Permit Expiration**
U.S. Army Corps of Engineers Section 404	Regional Genenral Permit 50	May 25, 2025
N.C. Division of Water Resources Section 401 Water Quality Certification	General Certification No. 4135	May 25, 2025
N.C. Division of Coastal Management	CAMA Major Development Permit 145-23	N/A

If you have any questions or if I can be of any further assistance, please do not hesitate to contact me.

cc: w/attachment

David Leonard, P.E. Division Project Team Lead
Eric Murray, Assistant Bridge Program Engineer
Jon Giles, Division Environmental Officer
Tim Godwin, Division Utility Coordinator
Brad Chilton, Environmental Analysis Unit

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
5505 BARBADOS BOULEVARD
CASTLE HAYNE, NC 28429-5647

Telephone: 910-341-2001
Fax: 910-675-7827
Customer Service: 1-877-368-4968

Website: ncdot.gov

Location:
5505 BARBADOS BOULEVARD
CASTLE HAYNE, NC 28429-5647

U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT

Action Id. **SAW-2017-02322** County: **Brunswick County** U.S.G.S. Quad: **Carolina Beach**

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Permittee: **Mason Herndon**
NCDOT-Division 3
Address: **5501 Barbados Blvd**
Castle Hayne NC, 28429
Telephone Number: **********

Size (acres) **.45 Acres** Nearest Town **Boiling Springs**

Nearest Waterway **Sand Hill Creek** River Basin **Cape Fear**
USGS HUC **03030005** Coordinates Latitude: **34.098732;** Longitude: **-77.968460**
Location description: NC 133 crossing Sand Hill Creek near Boiling Springs, Brunswick County, NC.

Description of projects area and activity: Applicant proposes to replace two 36-inch RCP and one 48-inch CMP with a new 7-span 385-foot cored slab bridge at Site 1. Site 2 proposes replacing an existing 60" culvert with an 84" culvert. This verification authorizes at Site 1: .030 acres of 404 wetland fill, excavation of .036 acres of 404 wetlands and .124 acres of coastal wetland, and 0.18 acres of hand clearing in 404 wetlands and .073 acres in coastal wetlands. At Site 2: .181 acres of wetland fill,.104 acres mechanized clearing, 39 ln ft of permanent stream impacts and 31 ln ft of temporary stream impacts.

Applicable Law: ☒ Section 404 (Clean Water Act, 33 USC 1344);
☐ Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: Regional General Permit Number and/or Nationwide Permit Number: **GP 50 - NCDOT - Bridge, Road Widenings and Interchanges**
SEE ATTACHED RGP or NWP GENERAL, REGIONAL AND/OR SPECIAL CONDITIONS

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached conditions and your submitted application and attached information dated September 20, 2023 Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order, a Class I administrative penalty, and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide and/or regional general permit authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide and/or regional general permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide and/or regional general permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide and/or regional general permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide and/or regional general permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management in Morehead City, NC, at (252) 808-2808.

This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact **Tom Steffens at 910-251-4615 or Thomas.a.steffens@usace.army.mil**.

Corps Regulatory Official: _____ Date: **September 28, 2023**
Expiration Date of Verification: **May 25, 2025**

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete our Customer Satisfaction Survey, located online at https://regulatory.ops.usace.army.mil/customer-service-survey/

Copy furnished:

Robert Turnbull
Environmental Services, Inc
524 S New Hope Rd
Raleigh NC, 27610

SAW-2017-02322

SPECIAL CONDITIONS

1. Work Limits: All work authorized by this permit shall be performed in strict compliance with the attached permit plans dated September 20, 2023, 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 U.S. Army Corps of Engineers (Corps) prior to any active construction in waters or wetlands.

2. **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 and drawings shall be available at the project site during construction and maintenance of this project.

3. 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, Washington Regulatory Field Office, Attn: Tom Steffens, 2407 West 5th St. Washington, NC 27889 or Thomas.a.steffens@usace.army.mil . The Permittee shall reference the following permit number, SAW-2017-02322, on all submittals.

4. **Endangered Species:** The U.S. Fish and Wildlife Service's (USFWS's) Programmatic Biological Opinion (PBO) titled, "NCDOT Program Effects on the Northern Long-eared Bat in Divisions 1-8", dated November 6, 2020, contains agreed upon conservation measures for the NLEB. As noted in the PBO, applicability of these conservation measures varies depending on the location of the project. Your authorization under this Department of the Army permit is conditional upon your compliance with all applicable conservation measures in the PBO, which are incorporated by reference in this permit. Failure to comply with the applicable conservation measures would constitute non-compliance with your Department of the Army permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO, and with the ESA.

Tri-colored bat: No tree clearing will occur within 150 feet of a known maternity roost tree May 1 - July 31 in order to protect non-volant young. Winter roost trees are not considered maternity roost trees. NCDOT will cross-reference information given by USFWS on the locations of maternity roosts (as they are discovered) to stay in compliance with this condition.

5. 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.

6. Mitigation: The Permittee shall fully implement the compensatory mitigation plan, entitled Wetland Restoration Plan, NC133 Brunswick County, dated July 27,2023 for the unavoidable impacts to 0.340 acres of wetlands. Activities prescribed by this plan shall be initiated prior to, or concurrently with, commencement of any construction activities within jurisdictional areas authorized by this permit. The Permittee shall restore 0.340 acres of wetlands and 0.160 acres of wetlands in accordance with the plan and with the following conditions:

1) The Permittee, NCDOT, is the party responsible for the implementation, performance and long-term management of the compensatory mitigation project.

2) Any changes or modifications to your mitigation plan shall be first approved by the Corps.

3) The Permittee shall maintain the entire mitigation site in its natural condition, as altered by the work in the mitigation plan, in perpetuity. Prohibited activities within the mitigation site specifically include, but are not limited to: Filling; grading; excavating; earth movement of any kind; construction of roads, walkways, buildings, signs, or any other structure; any activity that may alter the drainage patterns on the property; the destruction, cutting, removal, mowing, or other alteration of vegetation on the property; disposal or storage of any garbage, trash, debris or other waste material; graze or water animals, or use for any agricultural or horticultural purpose; or any other activity which would result in the property being adversely impacted or destroyed, except as specifically authorized by this permit. <or reference Condition x above>.

4) The Permittee shall not sell or otherwise convey any interest in the mitigation property used to satisfy the mitigation requirements for this permit to any third party, without prior written approval from the Wilmington District Corps of Engineers.

5) Within 60 days of notification by the Corps that the compensatory mitigation is unsuccessful, the Permittee shall submit to the Corps an alternate compensatory mitigation proposal to fully offset the functional loss that occurred as a result of the project. The alternate compensatory mitigation proposal may be required to include additional mitigation to compensate for the temporal loss of wetland function associated with the unsuccessful compensatory mitigation activities. The Corps reserves the right to fully evaluate, amend, and

approve or reject the alternate compensatory mitigation proposal. Within 120 days of Corps approval, the Permittee will complete the alternate compensatory mitigation proposal.

6) 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.

Stream mitigation will be provided by a private mitigation bank. NCDOT has purchased 1840 Stream Credits from the Lower Cape Fear Umbrella Mitigation Bank in Brunswick County, utilizing the Sneeden mitigation site. BR-0139 impacts consist of 39 linear feet of perennial stream impacts that require mitigation at a 2:1 ratio. The Sponsor will debit the Bank for 78 stream mitigation credits from the Sneeden Site.

Failure to institute and carry out the details of special conditions 1-6, may result in a directive to cease all ongoing and permitted work within waters and/or wetlands associated with BR-0139, or such other remedy as the District Engineer or his authorized representatives may seek.

Action ID Number: SAW-2017-02322 **County:** Brunswick County

Permittee: Mason Herndon
NCDOT-Division 3

Project Name: NCDOT / 17BP.3.C.3 / BR 0139 / Brunswick C3 /NC 133 crossing of Sand Hill Creek / Division 3

Date Verification Issued: September 28, 2023

Project Manager: Tom Steffens

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: Tom Steffens
2407 West 5th St
Washington, NC 28403

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 authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.

_____ _____

Signature of Permittee **Date**

DEPARTMENT OF THE ARMY
Wilmington District, Corps of Engineers
69 Darlington Avenue
Wilmington, North Carolina 28403-1343

Regional General Permit No. SAW-2019-02350 (RGP 50)
Name of Permittee: North Carolina Department of Transportation
Effective Date: May 26, 2020
Expiration Date: May 25, 2025

DEPARTMENT OF THE ARMY
REGIONAL GENERAL PERMIT

A regional general permit (RGP) to perform work in or affecting navigable waters of the United States and waters of the United States, upon recommendation of the Chief of Engineers, pursuant to Section 10 of the Rivers and Harbors Act of March 3, 1899 (33 U.S.C. 403), and Section 404 of the Clean Water Act (33 U.S.C. 1344), is hereby issued by authority of the Secretary of the Army by the

District Commander
U.S. Army Engineer District, Wilmington
Corps of Engineers
69 Darlington Avenue
Wilmington, North Carolina 28403-1343

TO AUTHORIZE THE DISCHARGE OF DREDGED OR FILL MATERIAL IN WATERS OF THE UNITED STATES (U.S.), INCLUDING WETLANDS, ASSOCIATED WITH MAINTENANCE, REPAIR, AND CONSTRUCTION PROJECTS CONDUCTED BY THE VARIOUS DIVISIONS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT), INCLUDING THE NCDOT DIVISION OF HIGHWAYS, RAIL, BICYCLE/PEDESTRIAN, ETC.

Activities authorized by this RGP:

a. (1) Road widening, and/or (2) construction, maintenance, and/or repair of bridges. For bridge projects, work can include the approaches.

b. (1) Improvement of interchanges or intersections, or (2) construction of interchanges or intersections over, or on, existing roads.

Full descriptions/terms of "a" and "b":

a. (1) Road widening, and/or (2) construction, maintenance, and/or repair of bridges. For bridge projects, work can include the approaches.

Permanent impacts that result in a loss of waters of the U.S., excluding stream relocation(s), must be less than or equal to 500 linear feet (lf) of stream and/or one (1) acre of wetland/open water for each single and complete linear project.

Single and complete linear project. As noted in 33 CFR 330.2(i), for linear projects, the ''single and complete project'' (i.e., single and complete crossing) will apply to each crossing of a separate water of the U.S. (i.e., single waterbody) at that location; except that for linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly-shaped wetland or lake, etc., are not separate waterbodies and crossing of such features cannot be considered separately.

Also authorized under "a": (1) stream relocation(s) and (2) temporary impacts, such as those from temporary structures, fills, dewatering, and other work necessary to conduct the activities listed under "a". Stream relocation(s) and temporary impacts will be evaluated independently and are not limited to the permanent loss limits of 500 lf of stream and/or 1 acre of wetland/open water (i.e., stream relocations and/or temporary impacts do not factor into these limits) for each single and complete linear project; however, if the Corps determines that the proposed stream relocation(s) and/or temporary impacts are of such magnitude that they cannot be authorized under this section ("a") of RGP 50, even if the permanent losses from road widening, and/or construction, maintenance, and repair of bridges do not exceed the impact limits for this section ("a") of RGP 50, an Individual Permit will be required.

If the Corps determines, on a case-by-case basis, that the concerns for the aquatic environment so indicate, he/she may exercise discretionary authority to override this RGP and require an Individual Permit.

b. (1) Improvement of interchanges or intersections, or (2) construction of interchanges or intersections, over or, on existing roads.

For activities authorized under "b", the limits for permanent impacts that result in a loss of waters of the U.S. depend on the location of the impacts, as described below:

- In the coastal plain of North Carolina (both inner coastal plain and outer coastal plain) - permanent impacts that result in a loss of waters of the U.S., excluding stream relocation(s), must be less than or equal to 1,000 lf of stream and/or 3 acres of wetland/open water for the entire interchange or intersection project.

• All other areas of North Carolina - permanent impacts that result in a loss of waters of the U.S., excluding stream relocation(s), must be less than or equal to 1,000 lf of stream and/or 2 acres of wetland/open water for the entire interchange or intersection project.

Coastal plain – See http://saw-reg.usace.army.mil/JD/LRRs_PandT.pdf for Land Resource Areas LRRP (inner coastal plain) and LRRT (outer coastal plain).

When proposed impacts to waters of the U.S. are located both inside AND outside of the coastal plain, the Corps will determine, based on the location(s) of proposed impacts to waters of the U.S., if a project is a "coastal plain project".

Single and complete project. For permitting purposes, each interchange or intersection is considered to be one single and complete project. For example, an interchange project cannot result in a permanent loss (excluding stream relocation), of (1) greater than 1,000 lf of stream and/or 3 acres of wetland/open water in the coastal plain OR (2) greater than 1,000 lf of stream and/or 2 acres of wetland/open water in all other areas of North Carolina.

Approach fills may be considered to be part of an interchange or intersection project if the Corps determines that inclusion of these areas meet the terms of this section ("b") of RGP 50. Early coordination with the Corps is encouraged.

Intersections, regardless of the mode of transportation (e.g., railroad, other roadways, etc.), may be at grade or grade separated if the Corps determines that the project would meet the terms of this section ("b") of RGP 50. Early coordination with the Corps is encouraged.

Also authorized under "b": (1) stream relocation(s) and (2) temporary impacts, such as those from temporary structures, fills, dewatering, and other work necessary to conduct the activities listed under "b". Stream relocation(s) and temporary impacts will be evaluated independently and are not limited to the permanent loss limits of (1) 1,000 lf of stream and/or 3 acres of wetland/open water in the coastal plain OR (2) 1,000 lf of stream and/or 2 acres of wetland/open water in all other areas of North Carolina (i.e., stream relocations and/or temporary impacts do not factor into these limits) for each interchange or intersection project; however, if the Corps determines that the proposed stream relocation(s) and/or temporary impacts are of such magnitude that they cannot be authorized under this section ("b") of RGP 50, even if the permanent losses from improvement of interchanges or intersections, or construction of interchanges or intersections over, or on, existing roads do not exceed the impact limits for this section ("b") of RGP 50, an Individual Permit will be required.

If the Corps determines, on a case-by-case basis, that the concerns for the aquatic environment so indicate, he/she may exercise discretionary authority to override this RGP and require an Individual Permit.

1. Special Conditions.

a. The prospective permittee must submit a pre-construction notification (PCN) and applicable supporting information to the District Engineer and receive written verification from the Corps that the proposed work complies with this RGP prior to commencing any activity authorized by this RGP.

b. If the project will not impact a designated "Area of Environmental Concern" (AEC) in the twenty* (20) counties of North Carolina covered by the North Carolina Coastal Area Management Act (CAMA) ("CAMA counties"), a consistency submission is not required. If the project will impact a designated AEC and meets the definition of "development", the prospective permittee must obtain the required CAMA permit. Development activities shall not commence until a copy of the approved CAMA permit is furnished to the appropriate Corps Regulatory Field Office (Wilmington Field Office – 69 Darlington Avenue, Wilmington, NC 28403 or Washington Field Office – 2407 West 5th Street, Washington, NC 27889).

***The 20 CAMA counties in North Carolina include Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Gates, Hertford, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrrell, and Washington.**

c. No work shall be authorized by this RGP within the 20* CAMA counties without prior consultation with the National Oceanic and Atmospheric Administration's (NOAA) Habitat Conservation Division. For each activity reviewed by the Corps where it is determined that the activity may affect Essential Fish Habitat (EFH) for federally managed species, an EFH Assessment shall be prepared by the prospective permittee and forwarded to the Corps and NOAA Fisheries for review and comment prior to authorization of work.

d. Culverts and pipes. The following conditions [(1)-(8)] apply to the construction of culverts/pipes, and work on existing culverts/pipes.

Additionally, if the proposed work would affect an existing culvert/pipe (e.g., culvert/pipe extensions), the prospective permittee must include actions (in the PCN) to correct any existing deficiencies that are located:

- At the inlet and/or outlet of the existing culvert/pipe, IF these deficiencies are/were caused by the existing culvert/pipe, or

- Near the inlet or outlet of the existing culvert/pipe, IF these deficiencies are/were caused by the existing culvert/pipe.

These deficiencies may include, but are not limited to, stream over-widening, bank erosion, streambed scour, perched culvert/pipes, and inadequate water depth in culvert(s). Also note if the proposed work would address the existing deficiency or eliminate it – e.g., bank erosion on left bank, but the culvert extension will be placed in this eroded area. If the prospective permittee is unable to correct the deficiencies caused by the existing culvert/pipe, they must document the reasons in the PCN for Corps consideration.

(1) No activity may result in substantial, permanent disruption of the movement of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area. Measures will be included that will promote the safe passage of fish and other aquatic organisms.

(2) The dimension, pattern, and profile of the stream above and below a culvert/pipe shall not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. It is acceptable to use rock vanes at culvert/pipe outlets to ensure, enhance, or maintain aquatic passage. Pre-formed scour holes are acceptable when designed for velocity reduction. 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 will be determined from gauge data, if available. In the absence of such data, bankfull flow will be used as a comparable level.

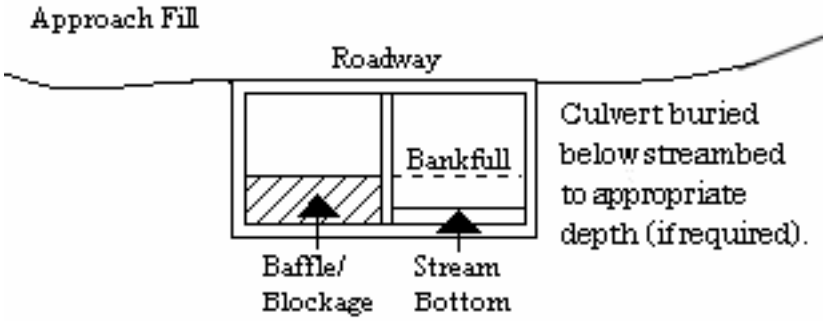
(3) Burial/depth specifications: If the project is located within any of the 20* CAMA counties, culvert/pipe inverts will be buried at least one foot below normal bed elevation when they are placed within the Public Trust AEC and/or the Estuarine Waters AEC as designated by CAMA. If the project is located outside of the 20* CAMA counties, culvert/pipe inverts will be buried at least one foot below the bed of the stream for culverts/pipes that are greater than 48 inches in diameter. Culverts/pipes that are 48 inches in diameter or less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, to include passage during drought or low flow conditions. Every effort shall be made to maintain the existing channel slope. A waiver from the burial/depth specifications in this condition may be requested in writing. The prospective permittee is encouraged to request agency input about waiver requests as early as possible, and prior to submitting the PCN for a specific project; this will allow the agencies time to conduct a site visit, if necessary, and will prevent time delays and potential project revisions for the prospective permittee. The waiver will only be issued by the Corps if it can be demonstrated that the impacts of complying with burial requirements would result in more adverse impacts to the aquatic environment.

(4) Appropriate actions to prevent destabilization of the channel and head cutting upstream shall be incorporated in the design and placement of culverts/pipes.

(5) Culverts/pipes placed within riparian and/or riverine wetlands must be installed in a manner that does not restrict the flow and circulation patterns of waters of the U.S. Culverts/pipes placed across wetland fills purely for the purposes of equalizing surface

water do not have to be buried, but must be of adequate size and/or number to ensure unrestricted transmission of water.

(6) Bankfull flows (or less) shall be accommodated through maintenance of the existing bankfull channel cross sectional area in no more than one culvert/pipe or culvert/pipe barrel. Additional culverts/pipes or barrels at such crossings shall be allowed only to receive flows exceeding the bankfull flow. A waiver from this condition may be requested in writing; this request must be specific as to the reason(s) for the request. The waiver will be issued if it can be demonstrated that it is not practicable to comply with this condition.



(7) Where adjacent floodplain is available, flows exceeding bankfull will be accommodated by installing culverts/pipes at the floodplain elevation. When multiple culverts/pipes are used, baseflow must be maintained at the appropriate width and depth by the construction of floodplain benches, sills, and/or construction methods to ensure that the overflow culvert(s)/pipe(s) is elevated above the baseflow culvert(s)/pipe(s).

(8) The width of the baseflow culvert/pipe shall be comparable to the width of the bankfull width of the stream channel. If the width of the baseflow culvert/pipe is wider than the stream channel, the culvert/pipe shall include baffles, benches and/or sills to maintain the width of the stream channel. A waiver from this condition may be requested in writing; this request must be specific as to the reason(s) for the request. The waiver will be issued if it can be demonstrated that it is not practicable or necessary to include baffles, benches or sills.

See the remaining special conditions for additional information about culverts/pipes in specific areas.

e. Discharges into waters of the U.S. designated by either the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC) as anadromous fish spawning areas are prohibited during the period between February 15th and June 30th, without prior written approval from the Corps and the appropriate wildlife agencies (NCDMF, NCWRC, and/or the National Marine Fisheries Service (NMFS)). Discharges into waters of the U.S. designated by NCWRC as primary nursery areas in inland waters are prohibited during the period between February 15th and September 30th, without prior written approval from the Corps and the appropriate wildlife agencies. Discharges into waters of the U.S. designated by NCDMF as primary nursery areas shall be coordinated with NCDMF prior to being authorized by

this RGP. Coordination with NCDMF may result in a required construction moratorium during periods of significant biological productivity or critical life stages.

The prospective permittee should contact:

NC Division of Marine Fisheries	**North Carolina Wildlife Resources Commission**
3441 Arendell Street	**Habitat Conservation Division**
Morehead City, NC 28557	**1721 Mail Service Center**
Telephone 252-726-7021	**Raleigh, NC 27699-1721**
or 800-682-2632	**Telephone (919) 707-0220**

f. This permit does not authorize the use of culverts in areas designated as anadromous fish spawning areas by the NCDMF or the NCWRC.

g. No in-water work shall be conducted in Waters of the U.S. designated as Atlantic sturgeon critical habitat during the periods between February 1st and June 30th. No in-water work shall be conducted in Waters of the U.S. in the Roanoke River designated as Atlantic sturgeon critical habitat during the periods between February 1st and June 30th, and between August 1st to October 31st, without prior written approval from NMFS.

h. Before discharging dredged or fill material into waters of the U.S. in designated trout watersheds in North Carolina, the PCN will be sent to the NCWRC and the Corps concurrently. See https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/Trout.aspx for the designated trout watersheds. The PCN shall summarize alternatives to conducting work in waters of the U.S. in trout watersheds that were considered during the planning process and detail why alternatives were or were not selected. For proposals where (1) a bridge in a trout stream will be replaced with a culvert, or (2) a culvert will be placed in a trout stream, the PCN must also include a compensatory mitigation plan for all loss of stream bed, and details of any on-site evaluations that were conducted to determine that installation of a culvert will not adversely affect passage of fish or other aquatic biota at the project site. The evaluation information must include factors such as the proposed slope of the culvert and determinations of how the slope will be expected to allow or impede passage, the necessity of baffles and/or sills to ensure passage, design considerations to ensure that expected baseflow will be maintained for passage and that post-construction velocities will not prevent passage, site conditions that will or will not allow proper burial of the culvert, existing structures (e.g., perched culverts, waterfalls, etc.) and/or stream patterns up and downstream of the culvert site that could affect passage and bank stability, and any other considerations regarding passage. The level of detail for this information shall be based on site conditions (i.e., culverts on a slope over 3% will most likely require more information than culverts on a slope that is less than 1%, etc.). Also, in order to evaluate potential impacts, the prospective permittee will describe bedforms that will be impacted by the proposed culvert – e.g., pools, glides, riffles, etc. The NCWRC will respond to both the prospective permittee and the Corps.

i. For all activities authorized by this RGP that involve the use of riprap material for bank stabilization, the following measures shall be applied:

(1) Where bank stabilization is conducted as part of an activity, natural design, bioengineering, and/or geoengineering methods that incorporate natural durable materials, native seed mixes, and native plants and shrubs are to be utilized, as appropriate to site conditions, to the maximum extent practicable.

(2) Filter cloth must be placed underneath the riprap as an additional requirement of its use in North Carolina waters; however, the prospective permittee may request a waiver from this requirement. The waiver request must be in writing. The Corps will only issue a waiver if the prospective permittee demonstrates that the impacts of complying with this requirement would result in greater adverse impacts to the aquatic environment. Note that filter fabric is not required if the riprap will be pushed or "keyed" into the bank of the waterbody.

(3) The placement of riprap shall be limited to the areas depicted on submitted work plan drawings.

(4) Riprap shall not be placed in a manner that prevents or impedes fish passage.

(5) Riprap shall be clean and free from loose dirt or any pollutant except in trace quantities that will not have an adverse environmental effect.

(6) Riprap shall be of a size sufficient to prevent its movement from the authorized alignment by natural forces under normal conditions.

(7) Riprap material shall consist of clean rock or masonry material such as, but not limited to, granite, marl, or broken concrete.

j. Discharges of dredged or fill material into waters of the U.S., including wetlands, must be minimized or avoided to the maximum extent practicable.

k. Generally, off-site detours are preferred to avoid and minimize impacts to the human and natural environment; however, if an off-site detour is considered impracticable, then an on-site detour may be considered as a necessary component of the actions authorized by this RGP. Impacts from the detour may be considered temporary and may not require compensatory mitigation if the impacted area is restored to pre-construction elevations and contours after construction is complete. The permittee shall also restore natural hydrology and stream corridors (if applicable), and reestablish native vegetation/riparian corridors. If the construction of a detour (on-site or off-site) includes standard undercutting methods, removal of all material and backfilling with suitable material is required. See special condition "s" for additional information.

l. All activities authorized by this RGP shall, to the maximum extent practicable, be

conducted "in the dry", with barriers installed between work areas and aquatic habitat to protect that habitat from sediment, concrete, and other pollutants. Where concrete is utilized, measures will be taken to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with waters of the U.S. until the concrete has set and cured. All water in the work area that has been in contact with concrete shall only be returned to waters of the U.S. when it no longer poses a threat to aquatic organisms (concrete is set and cured).

m. In cases where new alignment approaches are to be constructed and the existing approach fill in waters of the U.S. is to be abandoned and no longer maintained as a roadway, the abandoned fill shall be removed and the area will be restored to pre-construction elevations and contours. The permittee shall also restore natural hydrology and stream corridors (if applicable), and reestablish native vegetation/riparian corridors, to the extent practicable. This activity may qualify as compensatory mitigation credit for the project and will be assessed on a case-by-case basis in accordance with Special Conditions “q” and “r” in this document. Any proposed on-site wetland restoration area must be void of utility conflicts and/or utility maintenance areas. A restoration plan detailing this activity will be required with the submittal of the PCN.

n. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

o. The project must be implemented and/or conducted so that all reasonable and practicable measures to ensure that equipment, structures, fill pads, and work associated with the project do not adversely affect upstream and/or downstream reaches. Adverse effects include, but are not limited to, channel instability, scour, flooding, and/or shoreline/streambank erosion. During construction, the permittee shall routinely monitor for these effects, cease all work if/when detected, take initial corrective measures to correct actively eroding areas, and notify the Corps immediately. Permanent corrective measures may require additional authorization from the Corps.

p. All PCNs will describe sedimentation and erosion control structures and measures proposed for placement in waters of the U.S. To the maximum extent practicable, structures and measures will be depicted on maps, surveys or drawings showing location and impacts to jurisdictional wetlands and streams. In addition, appropriate soil and erosion control measures must be established and maintained during construction. All fills, temporary and permanent, must be adequately stabilized at the earliest practicable date to prevent erosion of fill material into adjacent waters or wetlands.

q. Compensatory mitigation will be required for permanent impacts resulting in a loss of waters of the U.S. due to culvert/pipe installation and other similar activities. Mitigation may be required for stream relocation projects (see Special Condition "r" below). When compensatory mitigation is required, the prospective permittee will attach a proposed mitigation plan to the PCN. Compensatory mitigation proposals will be written in accordance with currently approved Wilmington District guidance and Corps mitigation regulations, unless the purchase of mitigation credits from an approved mitigation bank or the North Carolina Division of Mitigation Services (NCDMS) is proposed to address all compensatory mitigation requirements. The Corps Project Manager will make the final determination concerning the appropriate amount and type of mitigation.

r. Stream Relocations (non-tidal only) - for the purposes of permitting, stream relocations are considered a loss of waters of the U.S. Depending on the condition and location of (1) the existing stream, and (2) the relocated channel, stream relocation(s) may provide a functional uplift. The Corps will determine if an uplift is possible based on the information submitted with the PCN. If the anticipated uplift(s) occurs, it may offset, either partially or fully, the loss associated with a stream relocation(s) - (i.e., due to the uplift, either no compensatory mitigation would be required for the stream relocation itself, or compensatory mitigation would be required at a reduced ratio).

Because the amount of potential uplift is dependent upon the condition (or quality) of the channel to be relocated, there is no pre-determined amount of uplift needed to satisfy the requirements for a successful relocation project. After performing the evaluation(s) noted in this document, the prospective permittee will propose a certain amount of uplift potential and the Corps project manager will make the final determination. Baseline conditions and subsequent monitoring must show that the relocated channel is providing/will provide aquatic function at, or above, the level provided by the baseline (pre-project) condition. If the required uplift is not achieved, the work will not be in compliance with this special condition of RGP 50 and remediation will be required through repair (and continued monitoring), or by the permittee providing compensatory mitigation (e.g., mitigation credit through an approved bank, mitigation credit through NCDMS, etc.).

Compensatory mitigation, in addition to the stream relocation activity, may be required if the Corps determines that (a) no uplift in stream function is achievable, (b) the proposed uplift in stream function is not sufficient, by itself, (c) the risks associated with achieving potential uplifts in stream function are excessive, and/or (d) the time period for achieving the potential uplifts/functional success is too great.

On-site compensatory mitigation is not the same as stream relocation. While stream relocation simply moves a stream to a nearby, geographically similar area, it does not generate mitigation credits. If NCDOT proposes to generate compensatory mitigation on a project site, NCDOT must submit a mitigation plan that complies with 33 CFR 332.4.

The prospective permittee is required to submit the following information for any proposed project that involves stream relocation, regardless of the size/length of the stream relocation (note that 1-5 below only apply to stream relocations and not to compensatory mitigation):

(1) A statement detailing why relocating the stream is unavoidable. In order to ensure that this action is separate from a compensatory mitigation project, the need for the fill must be related to road/interchange/intersection construction or improvement, and the project must meet the requirements set forth in the full descriptions/terms of "a" and "b" on pages 2 and 3 of this permit.

(2) An evaluation of effects on the relocated stream and buffer from utilities, or potential for impact from utility placement in the future.

(3) An evaluation of the baseline condition of the stream to be relocated. In order to demonstrate a potential uplift, the prospective permittee must provide the baseline (pre-impact) condition of the stream that is proposed for relocation. The prospective permittee will document the baseline condition of the stream by using the Corps' (Wilmington District's) current functional assessment method - e.g., the North Carolina Stream Assessment Method (NCSAM). The functional assessment must be used to identify specific areas where an uplift would reasonably be expected to occur, and also show important baseline functions that will remain after the relocation.

(4) An evaluation of the potential uplifts to stream function for the relocated channel. The amount of detail required in the plan will be commensurate with the functional capacity of the original stream and proposed uplift(s). Low functional capacity will warrant less monitoring and less detail in the plan in order to ensure that the relocated channel provides the same, or better/increased, suite of aquatic functions as the existing channel.

(5) A proposed monitoring plan for the relocated channel (and buffer, if applicable), will be prepared in accordance with current District guidance. The level of detail needed in the plan will be directly related to the quality of baseline functions and the anticipated uplift, therefore it is recommended that a pre-application discussion occur with the Corps Project Manager as early as possible. For example, if the risk for achieving the anticipated functional uplift is moderate or low, or if there is a low amount of proposed uplift, less information and monitoring will be required in the proposed relocation plan; similar to the requirements found in the "2003 Stream Mitigation Guidelines". If the risk for uplift is higher, or if there is a high amount of proposed uplift, additional monitoring and information will be required, trending toward the prescriptions found in the most recent Wilmington District Compensatory Mitigation Guidance – e.g., the 2016 Wilmington District Stream and Wetland Compensatory Mitigation Update. All monitoring will be for at least 5 years unless the Corps project manager determines that (a) a specific project requires less than 5 years due to site conditions or limited risk/uplift potential, and/or complexity (or simplicity) of the existing channel and/or the

relocation work, or (b) the Corps project manager determines (during the monitoring period) that the 5 years of monitoring may be reduced (or that no further monitoring is required) based on monitoring information received once the stream relocation has been completed.

s. Upon completion of any work authorized by this RGP, all temporary fills (to include culverts, pipes, causeways, etc.) will be completely removed from waters of the U.S. and the areas will be restored to pre-construction elevations and contours. The permittee shall also restore natural hydrology and stream corridors (if applicable), and reestablish native vegetation/riparian corridors. This work will be completed within 60 days of completion of project construction. If this timeframe occurs while a required moratorium of this permit is in effect, the temporary fill shall be removed in its entirety within 60 days of the moratorium end date. If vegetation cannot be planted due to the time of the year, all disturbed areas will be seeded with a native mix appropriate for the impacted area, and vegetation will be planted during the next appropriate time frame. A native seed mix may contain non-invasive small grain annuals (e.g. millet and rye grain) to ensure adequate cover while native vegetation becomes established. The PCN must include a restoration plan showing how all temporary fills and structures will be removed and how the area will be restored to pre-project elevations and contours.

t. Once the authorized work in waters of the U.S. is complete, the permittee shall sign and return the compliance certificate that is attached to the RGP verification letter.

u. The District Engineer will consider any comments from Federal and/or State agencies concerning the proposed activity's compliance with the terms and conditions of this RGP.

v. The Corps may place additional special conditions, limitations, or restrictions on any verification of the use of RGP 50 on a project-by-project basis.

2. General Conditions.

a. Except as authorized by this RGP or any Corps approved modification to this RGP, no excavation, fill or mechanized land-clearing activities shall take place within waters or wetlands, at any time during construction or maintenance of the project. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area. This prohibition applies to all borrow and fill activities connected with the project.

b. Authorization under this RGP does not obviate the need to obtain other federal, state, or local authorizations.

c. All work authorized by this RGP must comply with the terms and conditions of the applicable CWA Section 401 Water Quality Certification for this RGP issued by the North Carolina Division of Water Resources (NCDWR).

d. The permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside of the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).

e. The activities authorized by this RGP must not interfere with the public's right to free navigation on all navigable waters of the U.S. No attempt will be made by the permittee to prevent the full and free use by the public of all navigable waters at, or adjacent to, the authorized work for a reason other than safety.

f. The permittee understands and agrees that if future operations by the U.S. require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.

g. The permittee, upon receipt of a notice of revocation of this RGP for the verified individual activity, may apply for an individual permit, or will, without expense to the U.S. and in such time and manner as the Secretary of the Army or his/her authorized representative may direct, restore the affected water of the U.S. to its former conditions.

h. This RGP does not authorize any activity that would conflict with a federal project's congressionally authorized purposes, established limitations or restrictions, or limit an agency's ability to conduct necessary operation and maintenance functions. Per Section 14 of the Rivers and Harbors Act of 1899, as amended (33 U.S.C. 408), no project that has the potential to take possession of or make use of for any purpose, or build upon, alter, deface, destroy, move, injure, or obstruct a federally constructed work or project, including, but not limited to, levees, dams, jetties, navigation channels, borrow areas, dredged material disposal sites, flood control projects, etc., shall be permitted unless the project has been reviewed and approved by the appropriate Corps approval authority. Permittees shall not begin the activity authorized by this RGP until notified by the Corps that the activity may proceed.

i. The permittee shall obtain a Consent to Cross Government Easement from the appropriate Corps District's Land Use Coordinator prior to any crossing of a Corps easement and/or prior to commencing construction of any structures, authorized dredging, or other work within the right-of-way of, or in proximity to, a federally designated disposal area.

j. The permittee will allow the Wilmington District Engineer or his/her representative to inspect the authorized activity at any time deemed necessary to ensure that the activity is being performed or maintained in strict accordance with the Special and General Conditions of this permit.

k. This RGP does not grant any property rights or exclusive privileges.

l. This RGP does not authorize any injury to the property or rights of others.

m. This RGP does not authorize the interference with any existing or proposed federal project.

n. In issuing this permit, the Federal Government does not assume any liability for the following:

(1) Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

(2) Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the U.S. in the public interest.

(3) Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

(4) Design or construction deficiencies associated with the permitted work.

(5) Damage claims associated with any future modification, suspension, or revocation of this permit.

o. Authorization provided by this RGP may be modified, suspended or revoked in whole, or in part, if the Wilmington District Engineer, acting for the Secretary of the Army, determines that such action would be in the best public interest. The term of this RGP shall be five (5) years unless subject to modification, suspension, or revocation. Any modification, suspension, or revocation of this authorization will not be the basis for any claim for damages against the U.S. Government.

p. No activity may occur in a component of the National Wild and Scenic Rivers System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or "study river" (e.g., National Park Service, U.S. Forest Service, etc.).

q. Endangered Species.

(1) No activity is authorized under this RGP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under this RGP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(2) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal prospective permittees (and when FHWA is the lead federal agency) must provide the District Engineer with the appropriate documentation to demonstrate compliance with those requirements. The District Engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the RGP activity, or whether additional ESA consultation is necessary.

(3) Non-federal prospective permittees - for activities that might affect federally-listed endangered or threatened species or designated critical habitat, the PCN must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The District Engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat. In cases where the non-federal prospective permittee has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the prospective permittee shall not begin work until the Corps has provided notification that the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed.

(4) As a result of formal or informal consultation with the U.S. Fish and Wildlife Service (USFWS) or NMFS, the District Engineer may add species-specific endangered species conditions to the RGP verification letter for a project.

(5) Authorization of an activity by a RGP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, the ESA prohibits any person subject to the jurisdiction of the U.S. to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(6) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the USFWS in North Carolina at the addresses provided below, or from the USFWS and NMFS via their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.noaa.gov/fisheries.html respectively.

USFWS offices in North Carolina:

The Asheville USFWS Office covers all NC counties west of, and including, Anson, Stanly, Davidson, Forsyth and Stokes Counties.

US Fish and Wildlife Service
Asheville Field Office
160 Zillicoa Street
Asheville, NC 28801
Telephone: (828) 258-3939

The Raleigh USFWS Office covers all NC counties east of, and including, Richmond, Montgomery, Randolph, Guilford, and Rockingham Counties.

US Fish and Wildlife Service
Raleigh Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Telephone: (919) 856-4520

r. The Wilmington District, USFWS, NCDOT, and the FHWA have conducted programmatic Section 7(a)(2) consultation for a number of federally listed species and habitat, and programmatic consultation concerning other federally listed species and/or habitat may occur in the future. The result of completed programmatic consultation is a Programmatic Biological Opinion (PBO) issued by the USFWS. These PBOs contain mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" of whichever species or critical habitat is covered by a specific PBO. Authorization under RGP 50 is conditional upon the permittee's compliance with all the mandatory terms and conditions associated with incidental take of the applicable PBO (or PBOs), which are incorporated by reference in RGP 50. Failure to comply with the terms and conditions associated with incidental take of an applicable PBO, where a take of the federally listed species occurs, would constitute an unauthorized take by the permittee, and would also constitute permittee non-compliance with the authorization under RGP 50. If the terms and conditions of a specific PBO (or PBOs) apply to a project, the Corps will include this/these requirements in any RGP 50 verification that may be issued for a project. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its PBO, and with the ESA.

s. Northern long-eared bat (NLEB) (*Myotis septentrionalis*). Standard Local Operating Procedures for Endangered Species (SLOPES) for the NLEB have been approved by the Corps and the U.S. Fish and Wildlife Service. See http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Agency-Coordination/ESA/ . This SLOPES details how the Corps will make determinations of effect to the NLEB when the Corps is the lead federal agency for an NCDOT project that is located in the western 41 counties of North Carolina. This SLOPES does not address NCDOT projects (either federal or state funded) in the eastern 59 counties in North Carolina. Note that if another federal agency is the lead federal agency for a project in the western 41 counties, procedures for satisfying the requirements of Section 7(a)(2) of the ESA will be dictated by that agency and will not be applicable for consideration under the SLOPES; however, information that demonstrates the lead federal agency's (if other than the Corps) compliance with Section 7(a)(2) / 4(d) Rule for the NLEB, will be required in the PCN. Note that at the time of issuance of RGP 50, the federal listing status of the NLEB as "Threatened" is being litigated at the National level. If, as a result of litigation, the NLEB is federally listed as "Endangered", this general condition ("s") will no longer be applicable because the 4(d) Rule, and this NLEB SLOPES, will no longer apply/be valid.

t. For proposed activities the sixteen (16) counties listed below, prospective permittees must provide a copy of the PCN to the USFWS, 160 Zillicoa Street, Asheville, North Carolina 28801. This PCN must be sent concurrently to the USFWS and the Corps Project Manager for that specific county.

The 16 counties with tributaries that drain to designated critical habitat that require notification to the Asheville USFWS are: Avery, Cherokee, Forsyth, Graham, Haywood, Henderson, Jackson, Macon Mecklenburg, Mitchell, Stokes, Surry, Swain, Transylvania, Union and Yancey.

u. If the permittee discovers or observes any live, damaged, injured or dead individual of an endangered or threatened species during construction, the permittee shall immediately notify the Wilmington District Engineer so that required coordination can be initiated with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service.

v. Historic Properties.

(1) In cases where the District Engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places (NRHP), the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(2) Federal prospective permittees (or when FHWA is the lead federal agency) should follow their own procedures for complying with the requirements of Section 106 of the NHPA. Federal prospective permittees must provide the District Engineer with the appropriate documentation to demonstrate compliance with those requirements; this includes copies of correspondence sent to all interested, federally recognized tribes and a summary statement about

tribal consultation efforts or, if the Corps enters into a Programmatic Agreement (PA) with the FHWA/NCDOT, documentation that the FHWA/NCDOT has complied with PA requirements. The District Engineer will review the documentation and determine whether it is sufficient to address Section 106 compliance for this RGP activity, or whether additional Section 106 consultation is necessary.

(3) Non-federal prospective permittees - the PCN must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer (SHPO) and/or Tribal Historic Preservation Officer (THPO), as appropriate, and the NRHP (see 33 CFR 330.4(g)). When reviewing PCNs, the District Engineer will comply with the current procedures for addressing the requirements of Section 106 of the NHPA. The District Engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the District Engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties.

(4) Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)).

(5) Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to a prospective permittee who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit will relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the prospective permittee. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the prospective permittee, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

w. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this general 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.

x. Permittees are advised that development activities in or near a floodway may be subject to the National Flood Insurance Program that prohibits any development, including fill, within a floodway that results in any increase in base flood elevations. This general permit does not authorize any activity prohibited by the National Flood Insurance Program.

y. The permittee must install and maintain, at his/her expense, any signal lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, on authorized facilities. For further information, the permittee should contact Coast Guard Sector North Carolina at (910) 772-2191 or email Coast Guard Fifth District at cgd5waterways@uscg.mil.

z. The permittee must maintain any structure or work authorized by this general permit in good condition and in conformance with the terms and conditions of this general permit. The permittee is not relieved of this requirement if the permittee abandons the structure or work. Transfer in fee simple of the work authorized by this general permit will automatically transfer this general permit to the property's new owner, with all of the rights and responsibilities enumerated herein. The permittee must inform any subsequent owner of all activities undertaken under the authority of this general permit and provide the subsequent owner with a copy of the terms and conditions of this general permit.

aa. At his or her sole discretion, any time during the processing cycle, the Wilmington District Engineer may determine that this general permit will not be applicable to a specific proposal. In such case, the procedures for processing an individual permit in accordance with 33 CFR 325 will be available.

bb. Except as authorized by this general permit or any Corps approved modification to this general permit, all fill material placed in waters or wetlands shall be generated from an upland source and will be clean and free of any pollutants except in trace quantities. Metal products, organic materials (including debris from land clearing activities), or unsightly debris will not be used.

cc. Except as authorized by this general permit or any Corps approved modification to this general permit, all excavated material will be disposed of in approved upland disposal areas.

dd. Activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon this general permit will remain authorized provided the activity is completed within twelve months of the date of the general permit's expiration, modification, or revocation. Activities completed under the authorization of this general permit that were in effect at the time the activity was completed continue to be authorized by the general permit.

ee. The permittee is responsible for obtaining any “take” permits required under the USFWS’s regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the USFWS to determine if such “take” permits are required for a particular activity.

ff. The activity must comply with applicable FEMA approved state or local floodplain management requirements.

gg. There will be no unreasonable interference with navigation or the right of the public to riparian access by the existence or use of activities authorized by this RGP.

hh. Unless authorization to fill those specific wetlands or mudflats has been issued by the Corps, heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

ii. This RGP will not be applicable to proposed construction when the Wilmington District Engineer determines that the proposed activity will significantly affect the quality of the human environment and determines that an EIS must be prepared.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Robert J. Clark
Colonel, U. S. Army
District Commander

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
RICHARD E. ROGERS, JR.
Director

NORTH CAROLINA
Environmental Quality

October 3, 2023

DWR # 20231296
TIP BR-0139
Brunswick County

Mr. Mason Herndon
Project Development Environmental Engineer
Division 3
5501 Barbados Blvd
Castle Hayne, NC 28429

Subject: APPROVAL OF 401 WATER QUALITY CERTIFICATION WITH ADDITIONAL CONDITONS
NCDOT BR-0139, Replace Culvert 003 over Sand Hill Creek, Three Culverts on NC 133 with Bridge in Brunswick County.
Sand Hill Creek [Cape Fear River Basin, 18-83, C;Sw]

Dear Mr. Herndon:

You have our approval for the impacts listed below for the purpose of replacing Culvert 003 over Sand Hill Creek, Three Culverts on NC 133 with Bridge as described in your application dated received by the Division of Water Resources on September 18, 2023. These impacts are covered by the attached Water Quality General Certification Number 4135 and the conditions listed below. This certification is associated with the use of the Reginal General Permit 201902350 once it is issued to you by the U.S. Army Corps of Engineers. Please note that you should get any other federal, state or local permits before proceeding with your project, including those required by (but not limited to) Sediment and Erosion Control, Non-Discharge, and Water Supply Watershed regulations.

The Division has determined that the proposed project will comply with water quality requirements provided that you adhere to the conditions listed in the enclosed certification and to the additional conditions itemized below.
The following proposed impacts are hereby approved. No other impacts are approved, including incidental impacts. [15A NCAC 02H .0506(b)]

Wetland Impacts in the Cape Fear River Basin

Site	Station (From/To)	Fill (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Total Impacts (ac)
Site 1	L Sta. 18+12 to Sta. 23+16	0.030	---	0.160	0.021	0.091	0.302
Site 2	L Sta. 30+58 to Sta. 38+30	0.181	---	---	0.104	---	0.285
Totals		0.211	---	0.160	0.125	0.091	0.587

Total Wetland Impact for Project: 0.587 acres
(permanent impacts: 0.496 ac)

Stream Impacts in the Cape River Basin

Site	Station (From/To)	Permanent Fill in Intermittent Stream (lf)	Temporary Fill in Intermittent Stream (lf)	Permanent Fill in Perennial Stream (lf)	Temporary Fill in Perennial Stream (lf)	Total Stream Impact (lf)	Stream Impacts Requiring Mitigation (lf)
Site 2	L Sta. 30+58 to Sta. 38+30	---	---	39	31	70	N/A
Total		---	---	39	31	70	39 lf

Total Stream Impacts for Project: 70 linear feet
(permanent perennial: 39 lf)

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 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)]. If total wetland fill for this project (now or in the future) exceed 1/10th acre, or total impacts to streams (now or in the future) exceed 300 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7).

If you are unable to comply with any of the conditions of the attached Water Quality General Certification or with the additional conditions itemized below, you must notify the DWR Transportation Permitting Branch within 24 hours (or the next business day if a weekend or holiday) from the time the permittee becomes aware of the circumstances.

The permittee shall report to the Wilmington Regional Office any noncompliance with, and/or any violation of, stream or wetland standards [15A NCAC 02B .0200] including but not limited to sediment impacts to streams or wetlands. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the permittee became aware of the non-compliance circumstances.

Additional Conditions:

1. 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.

2. 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)]

3. Compensatory mitigation for impacts to 0.496 acres of jurisdictional wetlands. The permittee shall comply with the on-site wetland restoration plan submitted on July 27, 2023. All on-site mitigation sites shall be protected in perpetuity by a conservation easement or through NCDOT fee simple acquisition and recorded in the NCDOT Natural Environment Unit mitigation geodatabase. Success of the mitigation site shall be determined by the NCDWR during an on-site visit at or near the end of the monitoring period.

4. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization, including all non-commercial borrow and waste sites associated with the project, 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]

5. 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)]

6. 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]

7. 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)]

8. 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)]

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. 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)]

11. 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]

    a. 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 *North Carolina Sediment and Erosion Control Manual,* or for linear transportation projects, the *NCDOT Sediment and Erosion Control Manual.*

b. 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.

c. 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.

d. If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNAs), SA, WS-1, WS-11, High Quality Waters (HQW), or Outstanding Resource Waters (ORW), then the sedimentation and erosion control designs shall comply with the requirements set forth in 15A NCAC 04B .0124, *Design Standards in Sensitive Watershed*. [15A NCAC 02H.0506(b)(3) and (c)(3); GC 4135]

12. Sediment and erosion control measures shall not be placed in wetlands or surface waters or within 5 feet of the top of bank without prior approval from DWR. [15A NCAC 02H.0506(b)(3) and (c)(3)]

13. Erosion control matting that incorporates plastic mesh and/or plastic twine shall not be used along streambanks or within wetlands. Exceptions to this condition require application to and written approval from DWR. [15A NCAC 02B .0201]

14. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, then design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands, stream beds, or banks, adjacent to or upstream and downstream of the above structures. All sediment and erosion control devices shall be removed from wetlands and waters and the natural grade restored within two (2) months of the date that the Division of Energy, Mining and Land Resources (DEMLR) or locally delegated program has released the specific area within the project. [15A NCAC 02H.0506(b)(3) and (c)(3)]

15. 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)]

16. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) where possible before entering the stream. To meet the requirements of NCDOT's NPDES permit NCS0000250, please refer to the most recent version of the North Carolina Department of Transportation Stormwater Best Management Practices Toolbox manual for approved measures. [15A NCAC 02H .0507(d)(2) and 15A NCAC 02H .0506(b)(5)]

17. 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)]

18. 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)]

19. 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)]

20. 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)]

21. Any rip-rap required for proper culvert placement, stream stabilization, or restoration of temporarily disturbed areas shall be restricted to the area directly impacted by the approved construction activity. All rip-rap shall be placed such that the original streambed elevation and streambank contours are restored and maintained and shall consist of clean rock or masonry material free of debris or toxic pollutants. Placement of rip-rap or other approved materials shall not result in de-stabilization of the stream bed or banks upstream or downstream of the area or be installed in a manner that precludes aquatic life passage. [15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c)]

22. Any rip-rap used for stream or shoreline stabilization shall be of a size and density to prevent movement by wave, current action, or stream flows, and shall consist of clean rock or masonry material free of debris or toxic pollutants. Rip-rap shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures. [15A NCAC 02H .0506(b); 15A NCAC 02H .0507(c); 15A NCAC 02B .0201]

23. 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)]

24. 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)]

25. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited. [15A NCAC 02H.0506(b)(3)]

26. NCDOT shall be in compliance with the NCS00250 issued to the NCDOT, including the applicable requirements of the NCG01000.

27. 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]

28. 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)]

29. The NCDOT will conduct a pre-construction meeting with all appropriate staff to ensure that the project supervisor and essential staff understand the permit conditions and any potential issues at the permitted site. NCDWR staff shall be invited to the pre-construction meeting. [15A NCAC 02H.0506(b)(2) and (b)(3)]

30. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete the "Certification of Completion Form" to notify the NCDWR when all work included in the 401 Certification has been completed. [15A NCAC 02H.0502(f)]

31. 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)] .

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 Hannah Sprinkle at hannah.sprinkle@deq.nc.gov if you have any questions or concerns.

Sincerely,

DocuSigned by:
4F4DD2F21EA846E...

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

cc:

Thomas A. Steffens, USACE Washington Regulatory Field Office (via email)
Jon W. Giles, Division 3 Environmental Officer
Steven Lane, NC Division of Coastal Management
Cathy Brittingham, NC Division of Coastal Management
Gary Jordan, US Fish and Wildlife Service
Travis Wilson, NC Wildlife Resources Commission
Hannah Sprinkle, NC Division of Water Resources Wilmington Regional Office
File Copy

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 _____

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER RESOURCES

WATER QUALITY GENERAL CERTIFICATION NO. 4135

GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE FOR US ARMY CORPS OF ENGINEERS

- **NATIONWIDE PERMIT NUMBER 14 (LINEAR TRANSPORTATION PROJECTS), AND**
- **REGIONAL GENERAL PERMIT 198200031 (NCDOT BRIDGES, WIDENING PROJECTS, INTERCHANGE IIMPROVEMENTS)**

Water Quality Certification Number 4135 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 Regulations in 15A NCAC 02H .0500 and 15A NCAC 02B .0200 for the discharge of fill material to surface waters and wetland areas as described in 33 CFR 330 Appendix A (B) (14) of the US Army Corps of Engineers regulations and Regional General Permit 198200031.

The State of North Carolina certifies that the specified category of activity will not violate applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

Effective date: December 1, 2017

Signed this day: December 1, 2017

By

for Linda Culpepper
Interim Director

Activities meeting any one (1) of the following thresholds or circumstances require *written approval* for a 401 Water Quality Certification from the Division of Water Resources (DWR):

a) If any of the conditions of this Certification (listed below) cannot be met; or
b) Any temporary or permanent impacts to wetlands, open waters and/or streams, except for construction of a driveway to a single family residential lot that is determined to not be part of a larger common plan of development, as long as the driveway involves a travel lane of less than 25 feet and total stream impacts of less than 60 feet, including any topographic/slope stabilization or in-stream stabilization needed for the crossing; or
c) Any stream relocation or stream restoration; or
d) Any high-density project, as defined in 15A NCAC 02H .1003(2)(a) and by the density thresholds specified in 15A NCAC 02H .1017, which:
    i. Disturbs one acre or more of land (including a project that disturbs less than one acre of land that is part of a larger common plan of development or sale); and
    ii. Has permanent wetland, stream or open water impacts; and
    iii. Is proposing new built-upon area; and
    iv. Does not have a stormwater management plan reviewed and approved under a state stormwater program[1] or a state-approved local government stormwater program[2].

    Projects that have vested rights, exemptions, or grandfathering from state or locally-implemented stormwater programs and projects that satisfy state or locally-implemented stormwater programs through use of community in-lieu programs **require written approval**; or
e) Any permanent impacts to waters, or to wetlands adjacent to waters, designated as: ORW (including SAV), HQW (including PNA), SA, WS-I, WS-II, or North Carolina or National Wild and Scenic River.
f) Any permanent impacts to waters, or to wetlands adjacent to waters, designated as Trout except for driveway projects that are below threshold (b) above provided that:
    i. The impacts are not adjacent to any existing structures
    ii. All conditions of this General Certification can be met, including adherence to any moratoriums as stated in Condition #10; and
    iii. A *Notification of Work in Trout Watersheds Form* is submitted to the Division at least 60 days prior to commencement of work; or
g) Any permanent impacts to coastal wetlands [15A NCAC 07H .0205], or Unique Wetlands (UWL); or
h) Any impact associated with a Notice of Violation or an enforcement action for violation(s) of NC Wetland Rules (15A NCAC 02H .0500), NC Isolated Wetland Rules (15A NCAC 02H .1300), NC Surface Water or Wetland Standards (15A NCAC 02B .0200), or State Regulated Riparian Buffer Rules (15A NCAC 02B .0200); or

[1] e.g. Coastal Counties, HQW, ORW, or state-implemented Phase II NPDES
[2] e.g. Delegated Phase II NPDES, Water Supply Watershed, Nutrient-Sensitive Waters, or Universal Stormwater Management Program

i) Any impacts to subject water bodies and/or state regulated riparian buffers along subject water bodies in the Neuse, Tar-Pamlico, or Catawba River Basins or in the Randleman Lake, Jordan Lake or Goose Creek Watersheds (or any other basin or watershed with State Regulated Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) *unless:*
   i. The activities are listed as "EXEMPT" from these rules; or
   ii. A Buffer Authorization Certificate is issued by the NC Division of Coastal Management (DCM); or
   iii. A Buffer Authorization Certificate or a Minor Variance is issued by a delegated or designated local government implementing a state riparian buffer program pursuant to 143-215.23

Activities included in this General Certification that do not meet one of the thresholds listed above do not require written approval.

I. ACTIVITY SPECIFIC CONDITIONS:

1. If this Water Quality Certification is used to access residential, commercial or industrial building sites, then all parcels owned by the applicant that are part of the single and complete project authorized by this Certification must be buildable without additional impacts to streams or wetlands. If required in writing by DWR, the applicant shall provide evidence that the parcels are buildable without requiring additional impacts to wetlands, waters, or state regulated riparian buffers. [15A NCAC 02H .0506(b)(4) and (c)(4)]

2. For road and driveway construction purposes, this Certification shall only be utilized from natural high ground to natural high ground. [15A NCAC 02H .0506(b)(2) and (c)(2)]

3. Deed notifications or similar mechanisms shall be placed on all lots with retained jurisdictional wetlands, waters, and state regulated riparian buffers within the project boundaries in order to assure compliance with NC Wetland Rules (15A NCAC 02H .0500), NC Isolated Wetland Rules (15A NCAC 02H .1300), and/or State Regulated Riparian Buffer Rules (15A NCAC 02B .0200). These mechanisms shall be put in place at the time of recording of the property or individual parcels, whichever is appropriate. [15A NCAC 02H .0506(b)(4) and (c)(4)]

4. For the North Carolina Department of Transportation, compliance with the NCDOT's individual NPDES permit NCS000250 shall serve to satisfy this condition. All other high-density projects that trigger threshold item (d) above shall comply with one of the following requirements: [15A NCAC 02H .0506(b)(5) and (c)(5)]

a. Provide a completed Stormwater Management Plan (SMP) for review and approval, including all appropriate stormwater control measure (SCM) supplemental forms and associated items, that complies with the high-density development requirements of 15A NCAC 02H .1003. Stormwater management shall be provided throughout the entire project area in accordance with 15A NCAC 02H .1003. For the purposes of 15A NCAC 02H .1003(2)(a), density thresholds shall be determined in accordance with 15A NCAC 02H .1017.

b. Provide documentation (including calculations, photos, etc.) that the project will not cause degradation of downstream surface waters. Documentation shall include a detailed analysis of the hydrological impacts from stormwater runoff when considering the volume and velocity of stormwater runoff from the project built upon area and the size and existing condition of the receiving stream(s).

Exceptions to this condition require application to and written approval from DWR.

II. GENERAL CONDITIONS:

1. When written authorization is required, the plans and specifications for the project are incorporated into the authorization by reference and are an enforceable part of the Certification. Any modifications to the project require notification to DWR and may require an application submittal to DWR with the appropriate fee. [15A NCAC 02H .0501 and .0502]

2. No waste, spoil, solids, or fill of any kind shall occur in wetlands or waters beyond the footprint of the impacts (including temporary impacts) as authorized in the written approval from DWR; or beyond the thresholds established for use of this Certification without written authorization. [15A NCAC 02H .0501 and .0502]

   No removal of vegetation or other impacts of any kind shall occur to state regulated riparian buffers beyond the footprint of impacts approved in a Buffer Authorization or Variance or as listed as an exempt activity in the applicable riparian buffer rules. [15A NCAC 02B .0200]

3. In accordance with 15A NCAC 02H .0506(h) and Session Law 2017-10, compensatory mitigation may be required for losses of greater than 300 linear feet of perennial streams and/or greater than one (1) acre of wetlands. Impacts associated with the removal of a dam shall not require mitigation when the removal complies with the requirements of Part 3 of Article 21 in Chapter 143 of the North Carolina General Statutes. Impacts to isolated and other non-404 jurisdictional wetlands shall not be combined with 404 jurisdictional wetlands for the purpose of determining when impact thresholds trigger a mitigation requirement. For linear publicly owned and maintained transportation projects that are not determined to be part of a larger common plan of development by the US Army Corps of Engineers, compensatory mitigation may be required for losses of greater than 300 linear feet per perennial stream.

Compensatory stream and/or wetland mitigation shall be proposed and completed in compliance with G.S. 143-214.11. For applicants proposing to conduct mitigation within a project site, a complete mitigation proposal developed in accordance with the most recent guidance issued by the US Army Corps of Engineers Wilmington District shall be submitted for review and approval with the application for impacts.

4. All activities shall be in compliance with any applicable State Regulated Riparian Buffer Rules in Chapter 2 of Title 15A.

5. 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]

   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 *North Carolina Sediment and Erosion Control Manual*, or for linear transportation projects, the *NCDOT Sediment and Erosion Control Manual*.

   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.

   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.

   If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNAs), SA, WS-I, WS-II, High Quality Waters (HQW), or Outstanding Resource Waters (ORW), then the sedimentation and erosion control designs shall comply with the requirements set forth in 15A NCAC 04B .0124, *Design Standards in Sensitive Watersheds*.

6. Sediment and erosion control measures shall not be placed in wetlands or waters except within the footprint of temporary or permanent impacts authorized under this Certification. Exceptions to this condition require application to and written approval from DWR. [15A NCAC 02H .0501 and .0502]

7. Erosion control matting that incorporates plastic mesh and/or plastic twine shall not be used along streambanks or within wetlands. Exceptions to this condition require application to and written approval from DWR. [15A NCAC 02B .0201]

8. An NPDES Construction Stormwater Permit (NCG010000) is required for construction projects that disturb one (1) or more acres of land. The NCG010000 Permit allows stormwater to be discharged during land disturbing construction activities as stipulated in the conditions of the permit. If the project is covered by this permit, full compliance with permit conditions including the erosion & sedimentation control plan, inspections and maintenance, self-monitoring, record keeping and reporting requirements is required. [15A NCAC 02H .0506(b)(5) and (c)(5)]

   The North Carolina Department of Transportation (NCDOT) shall be required to be in full compliance with the conditions related to construction activities within the most recent version of their individual NPDES (NCS000250) stormwater permit. [15A NCAC 02H .0506(b)(5) and (c)(5)]

9. All work in or adjacent to streams shall be conducted so that the flowing stream does not come in contact with the disturbed area. Approved best management practices from the most current version of the *NC Sediment and Erosion Control Manual*, or the *NC DOT Construction and Maintenance Activities Manual*, such as sandbags, rock berms, cofferdams, and other diversion structures shall be used to minimize excavation in flowing water. Exceptions to this condition require application to and written approval from DWR. [15A NCAC 02H .0506(b)(3) and (c)(3)]

10. If activities must occur during periods of high biological activity (e.g. sea turtle nesting, fish spawning, or bird nesting), then biological monitoring may be required at the request of other state or federal agencies and coordinated with these activities. [15A NCAC 02H .0506 (b)(2) and 15A NCAC 04B .0125]

    All moratoriums on construction activities established by the NC Wildlife Resources Commission (WRC), US Fish and Wildlife Service (USFWS), NC Division of Marine Fisheries (DMF), or National Marine Fisheries Service (NMFS) shall be implemented. Exceptions to this condition require written approval by the resource agency responsible for the given moratorium. A copy of the approval from the resource agency shall be forwarded to DWR.

    Work within a designated trout watershed of North Carolina (as identified by the Wilmington District of the US Army Corps of Engineers), or identified state or federal endangered or threatened species habitat, shall be coordinated with the appropriate WRC, USFWS, NMFS, and/or DMF personnel.

11. Culverts shall be designed and installed in such a manner that the original stream profiles are not altered and allow for aquatic life movement during low flows. 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 culvert shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. [15A NCAC 02H .0506(b)(2) and (c)(2)]

Placement of culverts and other structures in streams shall be below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20% of the culvert diameter for culverts having a diameter less than or equal to 48 inches, to allow low flow passage of water and aquatic life.

If multiple pipes or barrels are required, they shall be designed to mimic the existing stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel shall be avoided.

When topographic constraints indicate culvert slopes of greater than 5%, culvert burial is not required, provided that all alternative options for flattening the slope have been investigated and aquatic life movement/connectivity has been provided when possible (e.g. rock ladders, cross vanes, etc.). Notification, including supporting documentation to include a location map of the culvert, culvert profile drawings, and slope calculations, shall be provided to DWR 60 calendar days prior to the installation of the culvert.

When bedrock is present in culvert locations, culvert burial is not required provided that there is sufficient documentation of the presence of bedrock. Notification, including supporting documentation such as, a location map of the culvert, geotechnical reports, photographs, etc. shall be provided to DWR a minimum of 60 calendar days prior to the installation of the culvert. If bedrock is discovered during construction, then DWR shall be notified by phone or email within 24 hours of discovery.

If other site-specific topographic constraints preclude the ability to bury the culverts as described above and/or it can be demonstrated that burying the culvert would result in destabilization of the channel, then exceptions to this condition require application to and written approval from DWR.

Installation of culverts in wetlands shall ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. When roadways, causeways, or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges shall be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.

The establishment of native woody vegetation and other soft stream bank stabilization techniques shall be used where practicable instead of rip-rap or other bank hardening methods.

12. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means to the maximum extent practicable (e.g. grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Exceptions to this condition require application to and written approval from DWR. [15A NCAC 02H .0506(b)(5)]

13. Application of fertilizer to establish planted/seeded vegetation within disturbed riparian areas and/or wetlands shall be conducted at agronomic rates and shall comply with all other Federal, State and Local regulations. Fertilizer application shall be accomplished in a manner that minimizes the risk of contact between the fertilizer and surface waters. [15A NCAC 02B .0200 and 15A NCAC 02B .0231]

14. If concrete is used during construction, then all necessary measures shall be taken to prevent direct contact between uncured or curing concrete and waters of the state. Water that inadvertently contacts uncured concrete shall not be discharged to waters of the state. [15A NCAC 02B .0200]

15. All proposed and approved temporary fill and culverts shall be removed and the impacted area shall be returned to natural conditions within 60 calendar days after the temporary impact is no longer necessary. The impacted areas shall be restored to original grade, including each stream's original cross sectional dimensions, planform pattern, and longitudinal bed profile. For projects that receive written approval, no temporary impacts are allowed beyond those included in the application and authorization. All temporarily impacted sites shall be restored and stabilized with native vegetation. [15A NCAC 02H .0506(b)(2) and (c)(2)]

16. All proposed and approved temporary pipes/culverts/rip-rap pads etc. in streams shall be installed as outlined in the most recent edition of the *North Carolina Sediment and Erosion Control Planning and Design Manual* or the *North Carolina Surface Mining Manual* or the *North Carolina Department of Transportation Best Management Practices for Construction and Maintenance Activities* so as not to restrict stream flow or cause dis-equilibrium during use of this Certification. [15A NCAC 02H .0506(b)(2) and (c)(2)]

17. Any rip-rap required for proper culvert placement, stream stabilization, or restoration of temporarily disturbed areas shall be restricted to the area directly impacted by the approved construction activity. All rip-rap shall be placed such that the original stream elevation and streambank contours are restored and maintained. Placement of rip-rap or other approved materials shall not result in de-stabilization of the stream bed or banks upstream or downstream of the area or in a manner that precludes aquatic life passage. [15A NCAC 02H .0506(b)(2)]

18. Any rip-rap used for stream or shoreline stabilization shall be of a size and density to prevent movement by wave, current action, or stream flows and shall consist of clean rock or masonry material free of debris or toxic pollutants. Rip-rap shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures. [15A NCAC 02H .0506(b)(2)]

19. Applications for rip-rap groins proposed in accordance with 15A NCAC 07H .1401 (NC Division of Coastal Management General Permit for construction of Wooden and Rip-rap Groins in Estuarine and Public Trust Waters) shall meet all the specific conditions for design and construction specified in 15A NCAC 07H .1405.

20. All mechanized equipment operated near surface waters shall be inspected and maintained regularly to prevent contamination of surface waters from fuels, lubricants, hydraulic fluids, or other toxic materials. Construction shall be staged in order to minimize the exposure of equipment to surface waters to the maximum extent practicable. Fueling, lubrication and general equipment maintenance shall be performed in a manner to prevent, to the maximum extent practicable, contamination of surface waters by fuels and oils. [15A NCAC 02H .0506(b)(3) and (c)(3) and 15A NCAC 02B .0211 (12)]

21. Heavy equipment working in wetlands shall be placed on mats or other measures shall be taken to minimize soil disturbance. [15A NCAC 02H .0506(b)(3) and (c)(3)]

22. In accordance with 143-215.85(b), the applicant shall report any petroleum spill of 25 gallons or more; any spill regardless of amount that causes a sheen on surface waters; any petroleum spill regardless of amount occurring within 100 feet of surface waters; and any petroleum spill less than 25 gallons that cannot be cleaned up within 24 hours.

23. If an environmental document is required under the State Environmental Policy Act (SEPA), then this General Certification is not valid until a Finding of No Significant Impact (FONSI) or Record of Decision (ROD) is issued by the State Clearinghouse. If an environmental document is required under the National Environmental Policy Act (NEPA), then this General Certification is not valid until a Categorical Exclusion, the Final Environmental Assessment, or Final Environmental Impact Statement is published by the lead agency. [15A NCAC 01C .0107(a)]

24. This General Certification does not relieve the applicant 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.

25. The applicant and their authorized agents shall conduct all 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 DWR determines that such standards or laws are not being met, including 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, then DWR may revoke or modify a written authorization associated with this General Water Quality Certification. [15A NCAC 02H .0507(d)]

26. 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 Certification. A copy of this Certification, including all conditions shall be available at the project site during the construction and maintenance of this project. [15A NCAC 02H .0507 (c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]

27. When written authorization is required for use of this Certification, upon completion of all permitted impacts included within the approval and any subsequent modifications, the applicant shall be required to return a certificate of completion (available on the DWR website https://edocs.deq.nc.gov/Forms/Certificate-of-Completion). [15A NCAC 02H .0502(f)]

28. Additional site-specific conditions, including monitoring and/or modeling requirements, may be added to the written approval letter for projects proposed under this Water Quality Certification in order to ensure compliance with all applicable water quality and effluent standards. [15A NCAC 02H .0507(c)]

29. If the property or project is sold or transferred, the new permittee shall be given a copy of this Certification (and written authorization if applicable) and is responsible for complying with all conditions. [15A NCAC 02H .0501 and .0502]

III. GENERAL CERTIFICATION ADMINISTRATION:

1. In accordance with North Carolina General Statute 143-215.3D(e), written approval for a 401 Water Quality General Certification must include the appropriate fee. An applicant for a CAMA permit under Article 7 of Chapter 113A of the General Statutes for which a Water Quality Certification is required shall only make one payment to satisfy both agencies; the fee shall be as established by the Secretary in accordance with 143-215.3D(e)(7).

2. This Certification neither grants nor affirms any property right, license, or privilege in any waters, or any right of use in any waters. This Certification does not authorize any person to interfere with the riparian rights, littoral rights, or water use rights of any other person and this Certification does not create any prescriptive right or any right of priority regarding any usage of water. This 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 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.

3. This Certification grants permission to the Director, an authorized representative of the Director, or DWR staff, upon the presentation of proper credentials, to enter the property during normal business hours. [15A NCAC 02H .0502(e)]

4. This General Certification shall expire on the same day as the expiration date of the corresponding Nationwide Permit and/or Regional General Permit. The conditions in effect on the date of issuance of Certification for a specific project shall remain in effect for the life of the project, regardless of the expiration date of this Certification. This General Certification is rescinded when the US Army Corps of Engineers reauthorizes any of the corresponding Nationwide Permits and/or Regional General Permits or when deemed appropriate by the Director of the Division of Water Resources.

5. Non-compliance with or violation of the conditions herein set forth by a specific project may result in revocation of this General Certification for the project and may also result in criminal and/or civil penalties.

6. The Director of the North Carolina Division of Water Resources may require submission of a formal application for Individual Certification for any project in this category of activity if it is deemed in the public's best interest or determined that the project is likely to have a significant adverse effect upon water quality, including state or federally listed endangered or threatened aquatic species, or degrade the waters so that existing uses of the water or downstream waters are precluded.

History Note: Water Quality Certification (WQC) Number 4135 issued December 1, 2017 replaces WQC Number 4088 issued March 3, 2017; WQC 3886 issued March 12, 2012; WQC Number 3820 issued April 6, 2010; WQC Number 3627 issued March 2007; WQC Number 3404 issued March 2003; WQC Number 3375 issued March 18, 2002; WQC Number 3289 issued June 1, 2000; WQC Number 3103 issued February 11, 1997; WQC Number 2732 issued May 1, 1992; WQC Number 2666 issued January 21, 1992; WQC Number 2177 issued November 5, 1987.

Permit Class
NEW

Permit Number
145-23

STATE OF NORTH CAROLINA
Department of Environmental Quality
and
Coastal Resources Commission

Permit

for

X Major Development in an Area of Environmental Concern pursuant to NCGS 113A-118

X Excavation and/or filling pursuant to NCGS 113-229

Issued to **N.C. Department of Transportation, 5501 Barbados Boulevard, Castle Hayne, NC 28429-5647**

Authorizing development in Brunswick County at Sand Hill Creek and a UT to Sand Hill Creek, NC 133 (River Road), as requested in the permittee's application dated 9/18/23, including the attached workplan drawings (50): as referenced in Condition No. 1 of this permit.

This permit, issued on **December 8, 2023**, is subject to compliance with the application (where consistent with the permit), all applicable regulations, special conditions and notes set forth below. Any violation of these terms may be subject to fines, imprisonment or civil action; or may cause the permit to be null and void.

TIP No. BR-0139, Replacement of three culverts with a bridge at the headwaters of Sand Hill Creek and replace a culvert with a culvert at a UT to Sand Hill Creek

1) Unless specifically altered herein, all work authorized by this permit shall be carried out in accordance with the following attached workplan drawings [07J .0202(c)]:
Wetland and Surface Water Impacts (14 sheets): dated 11/27/23.
Utility drawings (3 sheets): dated 8/10/23.
Roadway plans (32 sheets): 30 dated 3/14/23; and 2 dated 3/16/23.
Wetland restoration plan (1 sheet): dated 7/26/23

2) In accordance with commitments made by the permittee, the authorized culvert at the UT to Sand Hill Creek shall be buried at least one foot below normal bed elevation to allow for passage of water and aquatic life [07J .0202(c)].

(See attached sheets for Additional Conditions)

This permit action may be appealed by the permittee or other qualified persons within twenty (20) days of the issuing date.

This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

No expiration date, pursuant to GS 136-44.7B

In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

Signed by the authority of the Secretary of DEQ and the Chair of the Coastal Resources Commission.

Braxton C. Davis, Director
Division of Coastal Management

This permit and its conditions are hereby accepted.

Signature of Permittee

ADDITIONAL CONDITIONS

3) All construction access shall be through the use of the existing causeway, partially constructed new bridge and/or existing high ground areas [07J .0202(c)].

4) The installation of the bridge piles shall be accomplished using driven piles (hammer or vibratory). Should the permittee and/or its contractor propose to utilize another method of pile installation, such as jetting, additional authorization from DCM shall be required [07J .0202(c)*;* 07J .0405(a)].

5) No excavation or filling shall take place at any time in any vegetated wetlands or surrounding waters outside of the alignment of the areas indicated on the attached workplan drawings, without permit modification [G.S 113A-120(b); 07J .0209(a)*;* 07J .0405(a)].

6) All fill material shall be clean and free of any pollutants except in trace quantities [07H .0208(a)(2)(B)].

7) Material excavated at the project site may be used in fill areas associated with the project once properly dewatered or shall be removed from the site and taken to a high ground location [07H .0208(a)(2)].

8) All excavated materials shall be confined above normal high water and landward of regularly or irregularly flooded wetlands behind adequate dikes or other retaining structures to prevent spillover of solids into any wetlands or surrounding waters [07H .0208(a)(2)(B)].

9) The temporary placement and/or double handling of any excavated or fill material within wetlands or waters of the State is not authorized [07H .0208(a)(2)(B)].

10) All reasonable efforts shall be made to contain all debris and excess materials associated with the authorized activities, with the intent that materials/debris do not enter wetlands or waters of the State, even temporarily [07H .0208(a)(2)(B)].

11) The placement of riprap and rock plating shall be limited to the areas as indicated on the attached workplan drawings. It shall be of a size sufficient to prevent its movement from the authorized alignment. If the riprap and/or rock plating becomes dislodged from the approved alignment at any point in the future, the permittee shall immediately contact DCM to determine the appropriate course of action. The riprap and/or rock plating material shall consist of clean rock or masonry materials such as but not limited to granite, marl, or broken concrete without exposed rebar, or other suitable materials approved by DCM [07J .0202(c)].

12) Uncured concrete or water that has been in contact with uncured concrete shall not be allowed to contact waters of the State, or water that will enter waters of the State [07H .0208(a)(2)(B)].

13) Construction staging areas shall be located only in upland areas, and not in wetlands or waters of the State [07H .0208(a)(2)(B)].

14) Any waste materials or debris generated in the authorized activities shall be disposed of at an approved upland site or shall be recycled in an environmentally appropriate manner provided appropriate authorizations are obtained from any relevant state, federal, or local authorities. [G.S 113A-120(b); 07J .0209(a)].

ADDITIONAL CONDITIONS

Sedimentation and Erosion Control

15) Turbidity curtains shall be used to isolate all work areas from the adjacent waters of Sand Hill Creek and the UT to Sand Hill Creek. The turbidity curtains shall be sufficient to prevent a visible increase in the amount of suspended sediments in adjacent waters. The turbidity curtains shall be properly maintained and retained in the water until construction is complete and shall only be removed when turbidity within the curtains reaches ambient levels. [07H .0208(a)(2); 07H .0209(d)(4)].

16) The wetland restoration areas shall be fully contained by silt fence and/or turbidity curtains until all of the unsuitable fill material has been removed and the restoration areas have been restored to the approximate natural elevation of the adjacent, similar undisturbed wetlands and stabilized with appropriate Coastal Wetland vegetation. Turbidity curtains shall be used between the wetland restoration areas and the adjacent water body in the location of the existing causeway, until such a time as the areas have returned to ambient conditions [07H .0208(a)(2)].

17) This project shall conform to all requirements of the N.C. Sedimentation Pollution Control Act and the N.C. Department of Transportation's (NCDOT's) Memorandum of Agreement with the N.C. Division of Energy, Mineral and Land Resources [07J .0209(a)].

18) In order to protect water quality, runoff from construction shall not visibly increase the amount of suspended sediments in adjacent waters [07H .0209(d)(4); G.S. 113A-102(a); 07H .0208(a)(2)].

Impacts to Wetlands and Waters of the State and Compensatory Mitigation

NOTE: This project will permanently impact approximately 5,405 square feet of Coastal Wetlands (3 square feet due to fill and 5,402 square feet due to excavation within the existing road shoulder for the wetland restoration). This project will temporarily impact approximately 3,188 square feet of Coastal Wetlands due to hand clearing.

NOTE: This project will permanently impact approximately 16,308 square feet of 404 Wetlands (approximately 9,205 square feet due to permanent fill, approximately 1,566 square feet of excavation within the existing road shoulder for the wetland restoration, and approximately 5,537 square feet due to mechanized clearing). This project will temporarily impact approximately 773 square feet of 404 Wetlands due to hand clearing.

NOTE: This project will permanently impact approximately 306 square feet of surface waters and will temporarily impact approximately 279 square feet of surface waters.

19) There shall be no clearing or grubbing of wetlands outside of the areas indicated for impacts on the attached workplan drawings without prior approval from DCM [07H .0208(a)(2)(B)].

20) Wetland areas to be temporarily impacted by hand clearing shall not be grubbed [07H .0205].

21) Construction mats shall be utilized to support equipment within Coastal Wetland areas to minimize temporary wetland impacts. These mats shall be removed immediately when they are no longer necessary [07H .0205].

ADDITIONAL CONDITIONS

22) The permittee shall minimize the need to cross wetlands in transporting equipment to the maximum extent practicable [07H .0208(a)(2)(B)].

23) In accordance with the permit application, compensatory mitigation for 39 linear feet of permanent stream impacts shall be provided with a debit of 78 stream mitigation credits from the Sneeden mitigation site, which is one site within the Lower Cape Fear Umbrella Mitigation Bank.

24) Unless specifically altered herein, on-site mitigation shall be carried out as described in the document titled "Wetland Restoration Plan, NC 133, River Road, Brunswick County" dated July 27, 2023 [07H .0208(a)(3)].

NOTE: The approved mitigation site includes 34 dissipator pads that will encompass approximately 1,224 square feet.

25) Any subsequent changes to the approved wetland restoration plan shall require additional authorization from DCM [07J .0202(c)].

26) The permittee shall restore approximately 0.34 acres of Coastal Wetlands through the removal of the existing roadway fill, and grading to match the existing adjacent reference wetland elevations, as well as ripped and disked if necessary. The permittee shall enhance approximately 0.16 acres of Coastal Wetlands by adjusting the grade of existing Coastal Wetlands that are growing on the road shoulders to the elevation of adjacent, natural and undisturbed Coastal Wetlands [07H .0205; 07J .0202(c)].

27) Approximately 0.11 acres of the restoration areas, and all of the 0.16 acres of enhancement areas shall be planted with predominantly Coastal Wetland species as identified by 07H .0205. Planting of the restoration area underneath the bridge (approximately 0.23 acres) is not required due to sunlight restrictions caused by the low bridge height [07H .0205; 07J .0202(c)].

28) The fill material that is removed from the wetland restoration area shall be taken to an offsite high ground location [07J .0202(c)].

29) An as-built survey report for the mitigation site shall be submitted to DCM within 60 days after the mitigation site has been constructed [07J .0202(c)].

30) The onsite wetland mitigation sites shall be protected in perpetuity in their restored state and owned by the permittee or its approved designee. An appropriate conservation easement, deed restriction or other appropriate instrument shall be attached to the title for the subject property. Failure to adequately protect mitigation sites may result in further mitigation requirements [07H .0208(a)(3)].

31) The permittee shall submit annual monitoring reports for the mitigation site to DCM for a minimum of five years after mitigation site construction, or until mitigation success criteria are met. Annual monitoring reports shall include photographs and an assessment of whether the site is achieving success based on the success criteria stated in the mitigation plan. Progress reports shall also be provided upon request. Monitoring may cease when the permittee can demonstrate that success criteria have been met and written concurrence is received from DCM [07H .0208(a)(3)].

ADDITIONAL CONDITIONS

32) The wetland mitigation provided by this project shall not generate any excess mitigation credits for use on future projects [07H .0208(a)(3)].

Utility Impacts

NOTE: Construction of the new bridge will also require relocation of AT&T and Spectrum/Charter utilities.

33) The authorized utility work shall not result in any permanent or temporary impacts to wetlands or waters of the State, without permit modification [07J .0202(c)].

34) Any utility work associated with this project that is not specifically depicted on the attached workplan drawings, or described within the attached permit application, shall require approval from DCM, either under the authority of this permit, or by the utility company obtaining separate authorization [07J .0202(c)*;* 07J .0201; 07J .0405(a)].

NOTE: If the permittee plans to conduct any work (re-location, installation, extend utilities, etc.) involving the public water supply system per Title 15A Subchapter 18C Section .0301 Rules Governing Public Water Systems, plans and specifications should be submitted and approved by the N.C. Division of Water Resources Public Water Supply Section for all new waterlines prior to construction beginning. Please also be aware of separation requirements in regards to water/sewer according to 15A NCAC 18C Section .0906 Rules Governing Public Water Systems. Check with the local water system for cross-connection requirements for this project. Public Water Supply Section guidelines are listed in Appendix B, Figure 2 in the Rules Governing Public Water Systems but the water system may have additional requirements. Contact the N.C. Division of Water Resources, Public Water Supply Plan Review Section at (910) 796-7215 with any questions.

Stormwater Management

NOTE: This project shall be constructed in accordance with the permittee's Stormwater Management Plan dated 8/7/19, and the provisions of the NCDOT's National Pollutant Discharge Elimination (NPDES) Stormwater Permit NCS000250, including the application requirements of the NCG01000.

Historical and Cultural Resource Protection

35) The Categorical Exclusion Action Classification Form dated June 30, 2022 includes a "Historic Architecture and Landscapes No Survey Required Form" and a "No Archaeological Survey Required Form". Prior to the initiation of construction, the permittee shall verify with the State Historic Preservation Office that there have not been any changes that would require that this documentation be updated [07H .0208(a)(2)(C); 07J .0202(c)].

ADDITIONAL CONDITIONS

General

NOTE: It is strongly recommended that the permittee exercise all available precautions in the construction, operation and maintenance of the bridge and adjacent roadway to prevent waste from entering the adjacent waters and wetlands. Such discharge, either directly or indirectly, to adjacent waters could contravene state water quality standards, thereby violating state law.

36) Development authorized by this permit shall only be conducted on lands owned by NCDOT, appropriate utility entities, and/or its Right-of-Ways and/or easements [G.S. 113-229(b)].

37) If it is determined that additional permanent and/or temporary impacts are necessary, that are not shown on the attached workplan drawings or described in the authorized permit application a permit modification and/or additional authorization from DCM may be required. In addition, any changes in the approved plan may also require a permit modification and/or additional authorization from DCM. The permittee shall contact a representative of DCM prior to commencement of any such activity for this determination and any permit modification [07J .0201].

38) The permittee and/or its contractor shall contact the DCM Transportation Project Field Representative by phone at (252) 515-5408 or by email at stephen.lane@deq.nc.gov to request a preconstruction conference prior to project initiation [G.S 113A-120(b); 07J .0209(a)].

NOTE: The N.C. Division of Water Resources (DWR) authorized the proposed project on 10/3/23 (DWR Project No. 20231296) under General Water Quality Certification No. 4135.

NOTE: The U.S. Army Corps of Engineers authorized the proposed project under Regional General Permit Number 50 (COE Action ID No. SAW-2017-02322), which was issued on 9/28/23.

NOTE: This permit does not eliminate the need to obtain any additional permits, approvals or authorizations that may be required.

NOTE: An application processing fee of $475 was received by DCM for this project. This fee also satisfied the Section 401 application processing fee requirements of DWR.

11/27/2023

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR NCDOT PROJECTS

(Version 3.00; Released August 2021)

General Project Information

WBS Element:	67139.1	**TIP Number:**	BR-0139	**Project Type:**	Bridge Replacement	**Date:**	5/5/2023
NCDOT Contact:	Mason Herndon			**Contractor / Designer:**	HNTB North Carolina, P.C. / James A. Byrd, P.E.		
	Address: 5501 Barbados Blvd Castle Hayne, NC 28429			**Address:**	343 E. Six Forks Road Suite 200 Raleigh, NC 27609		
	Phone: 910-341-2036			**Phone:**	(919)-424-0437		
	Email: tmherndon@ncdot.gov			**Email:**	jabyrd@hntb.com		
City/Town:				**County(ies):**	Brunswick		
River Basin(s):	Cape Fear			**CAMA County?**	Yes		
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	0.53	**Surrounding Land Use:**	Rural, Residential, and Agriculture		
	Proposed Project			**Existing Site**	
Project Built-Upon Area (ac.)	2.5	ac.		1.8	ac.
Typical Cross Section Description:	2-12' asphalt paved lanes with 4' paved shoulders.			2-12' asphalt paved lanes with grass shoulders.	
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 13200	Year:	2044	Existing: 7300	Year: 2024

General Project Narrative: (Description of Minimization of Water Quality Impacts)

State project BR-0139 involves the replacement of pipes on NC 133 (River Road) in Brunswick County. The existing structures consist of 2 @ 36" RCP and 1 @ 48" CMP carrying Sand Hill Creek and 1 @ 60" RCP carrying UT to Sandhill Creek. Existing pipes are to be replaced with 7 @ 55'-0", 24" Cored Slab with spill thru abutments and 1 @ 84" Corrugated Aluminum Pipe buried 1' with aluminum head wall.

Sand Hill Creek crossing:
The proposed bridge contains deck drains and dissipater pads. Wetlands are present in all four quadrants. All storm water from the bridge and approaches will be discharged through deck drains and by storm drainage systems on southeast and southwest quadrants. Rip-Rap pads at end of storm drain pipes are being utilized to minimize wetland impacts. Roadside ditches in all four quadrants dissipate into wetlands at existing locations matching the existing drainage patterns. Rock plating is used in areas where the proposed fill slope impacts wetlands.

UT to Sand Hill Creek crossing:
Wetlands are present in all four quadrants. Rock plating is used in areas where the proposed fill slope impacts wetlands. Roadside ditch in the southeast quadrants dissipate into wetlands at existing location matching the existing drainage pattern.

11/27/2023

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

(Version 3.00; Released August 2021)

WBS Element: 67139.1 **TIP/Proj No.:** BR-0139 **County(ies):** Brunswick

General Project Information

Waterbody Information

Surface Water Body (1):	Sand Hill Creek		**NCDWR Stream Index No.:**	18-83		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Swamp Waters (Sw)			
Other Stream Classification:						
Impairments:						
Aquatic T&E Species?		Comments:				
NRTR Stream ID:				**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	Yes	**Deck Drains Discharge Over Buffer?**	No	**Dissipator Pads Provided in Buffer?**		
Deck Drains Discharge Over Water Body?	Yes	(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 Sand Hill Creek		**NCDWR Stream Index No.:**	18-83		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Swamp Waters (Sw)			
Other Stream Classification:						
Impairments:						
Aquatic T&E Species?		Comments:				
NRTR Stream ID:				**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):			**NCDWR Stream Index No.:**			
NCDWR Surface Water Classification for Water Body		**Primary Classification:**				
		Supplemental Classification:				
Other Stream Classification:						
Impairments:						
Aquatic T&E Species?		Comments:				
NRTR Stream ID:				**Buffer Rules in Effect:**		
Project Includes Bridge Spanning Water Body?		**Deck Drains Discharge Over Buffer?**		**Dissipator Pads Provided in Buffer?**		
Deck Drains Discharge Over Water Body?		(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: 67139.1 **TIP/Proj No.:** BR-0139 **County(ies):** Brunswick

Swale

Sheet No.	Line	Station	Location (LT,RT,CL)	Latitude	Longitude	Surface Water Body	Base Width (ft)	Front Slope (H:1)	Back Slope (H:1)	Drainage Area (ac)	Recommended Treatm't Length (ft)	Actual Length (ft)	Longitudinal Slope (%)	Q2 (cfs)	V2 (fps)	Q10 (cfs)	V10 (fps)	Rock Checks Used	BMP Associated w/ Buffer Rules?
4	L	18+50	LT	34.100774	-77.969672	(1)Sand Hill Creek	5.0	3.0	3.0	2.3	233	400	2.60%	5.5	0.8	7.1	0.8	No	No
4	L	23+35	LT	34.099572	-77.968968	(1)Sand Hill Creek	0.0	3.0	3.0	0.9	92	365	0.60%	2.8	1.4	3.7	1.5	No	No
4	L	17+85	RT	34.100839	-77.969997	(1)Sand Hill Creek	5.0	3.0	3.0	1.3	125	500	0.30%	3.0	0.7	3.9	0.7	No	No
4	L	23+35	RT	34.099462	-77.969177	(1)Sand Hill Creek	5.0	3.0	3.0	1.5	148	400	1.76%	3.5	1.4	4.5	1.5	No	No
5	L	38+30	LT	34.095968	-77.966579	(2)UT to Sand Hill Creek	5.0	3.0	3.0	1.5	147	150	2.64%	4.0	1.3	5.2	1.4	No	No
5	L	37+40	RT	34.096075	-77.966895	(2)UT to Sand Hill Creek	5.0	4.0	3.0	0.9	94	160	2.60%	2.4	1.3	3.2	1.4	No	No

Additional Comments

11/27/2023

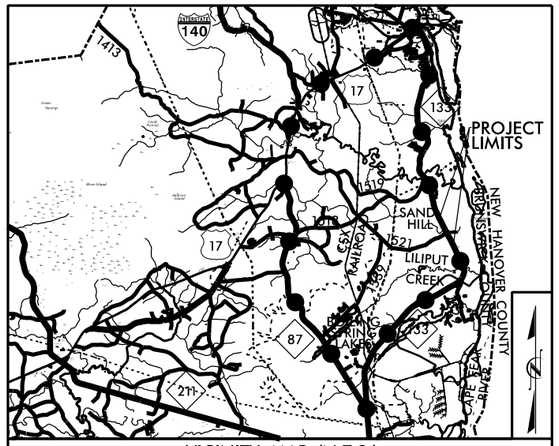
09/08/99

11/27/2023

CONTRACT:

TIP PROJECT: BR-0139

See Sheet 1A For Index of Sheets
See Sheet 1B For Standard Symbology Sheet



VICINITY MAP (N.T.S.)
OFFSITE DETOUR

ROW REVISION– AUGUST 17, 2023

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BRUNSWICK COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BR–0139	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
67139.1		PE
67139.2		UTIL & R/W
67139.3		CONSTRUCTION

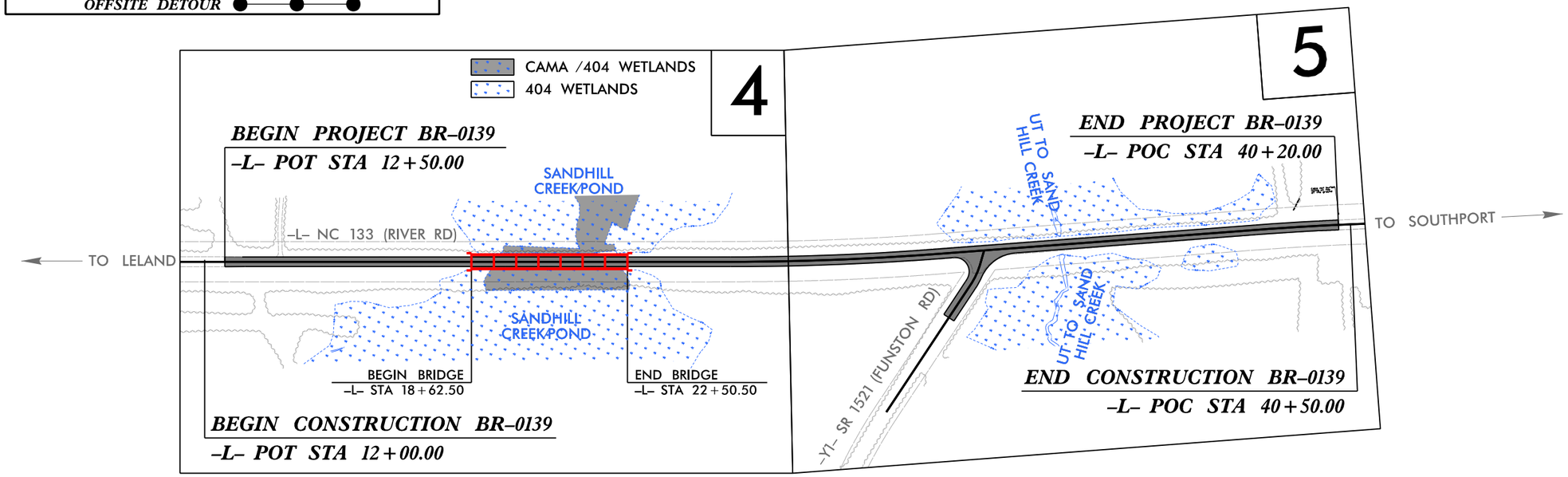
PERMIT DRAWING
SHEET 1 OF 14

LOCATION: REPLACE CULVERT #003 OVER SAND HILL CREEK AND THREE OTHER CULVERTS ON NC 133 (RIVER RD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, CULVERT AND STRUCTURE

WETLAND AND SURFACE WATER IMPACTS PERMIT

NAD 83/NA 2011



THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

CLEARING LIMITS ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III (MODIFIED).

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2024 = 7,300
ADT 2044 = 13,200
K = 10 %
D = 55 %
T = 8 % *
V = 60 MPH
* TTST=2% DUAL=6%
FUNC CLASS =
MINOR ARTERIAL
REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY T.I.P. PROJECT BR–0139 = 0.452 MI

LENGTH OF STRUCTURES T.I.P. PROJECT BR–0139 = 0.073 MI

TOTAL LENGTH OF T.I.P. PROJECT BR–0139 = 0.525 MI

Prepared in the Office of:

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
APRIL 27, 2023

LETTING DATE:
APRIL 16, 2024

BRIAN P. BLACKWELL, PE
PROJECT ENGINEER

TANNER A. ROBERTS, PE
PROJECT DESIGN ENGINEER

DEREK PIELECH, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION ·

9/12/2023
BR0139 HYD prm tsh.dgn
HNTB

8/17/99

11/27/2023

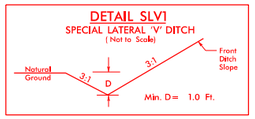
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO.	SHEET NO.
BR-0139	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NA 2011

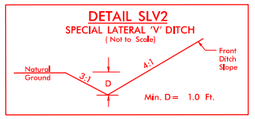
PERMIT DRAWING SHEET 2 OF 14

DETAIL SLV1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



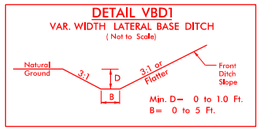
FROM -L- STA. 17+00 TO STA. 17+50 LT
FROM -L- STA. 15+00 TO STA. 17+00 RT
FROM -L- STA. 23+35 TO STA. 25+50 LT
FROM -L- STA. 24+00 TO STA. 24+50 RT

DETAIL SLV2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



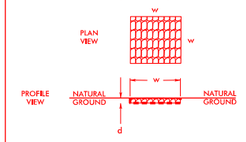
FROM -L- STA. 12+00 TO STA. 15+00 RT
FROM -L- STA. 13+00 TO STA. 17+00 LT
FROM -L- STA. 24+50 TO STA. 26+50 RT
FROM -L- STA. 25+50 TO STA. 26+50 LT

DETAIL VBD1
VAR. WIDTH LATERAL BASE DITCH
(Not to Scale)



FROM -L- STA. 17+00 TO STA. 17+85 RT
FROM -L- STA. 17+50 TO STA. 18+50 LT
FROM -L- STA. 23+35 TO STA. 24+00 RT

DETAIL DP1
DECK DRAIN DISSIPATER PAD
(Not to Scale)



Type of Liner=
CLASS 'I' Rip-Rap
w=6 FT
d=1.5 FT

2.8 TONS CLASS 'I' Rip-Rap
5.0 SY GEOTEXTILE
2.0 CY EXCAVATION

NOTE: PAD TO BE CENTERED UNDER DECK DRAIN

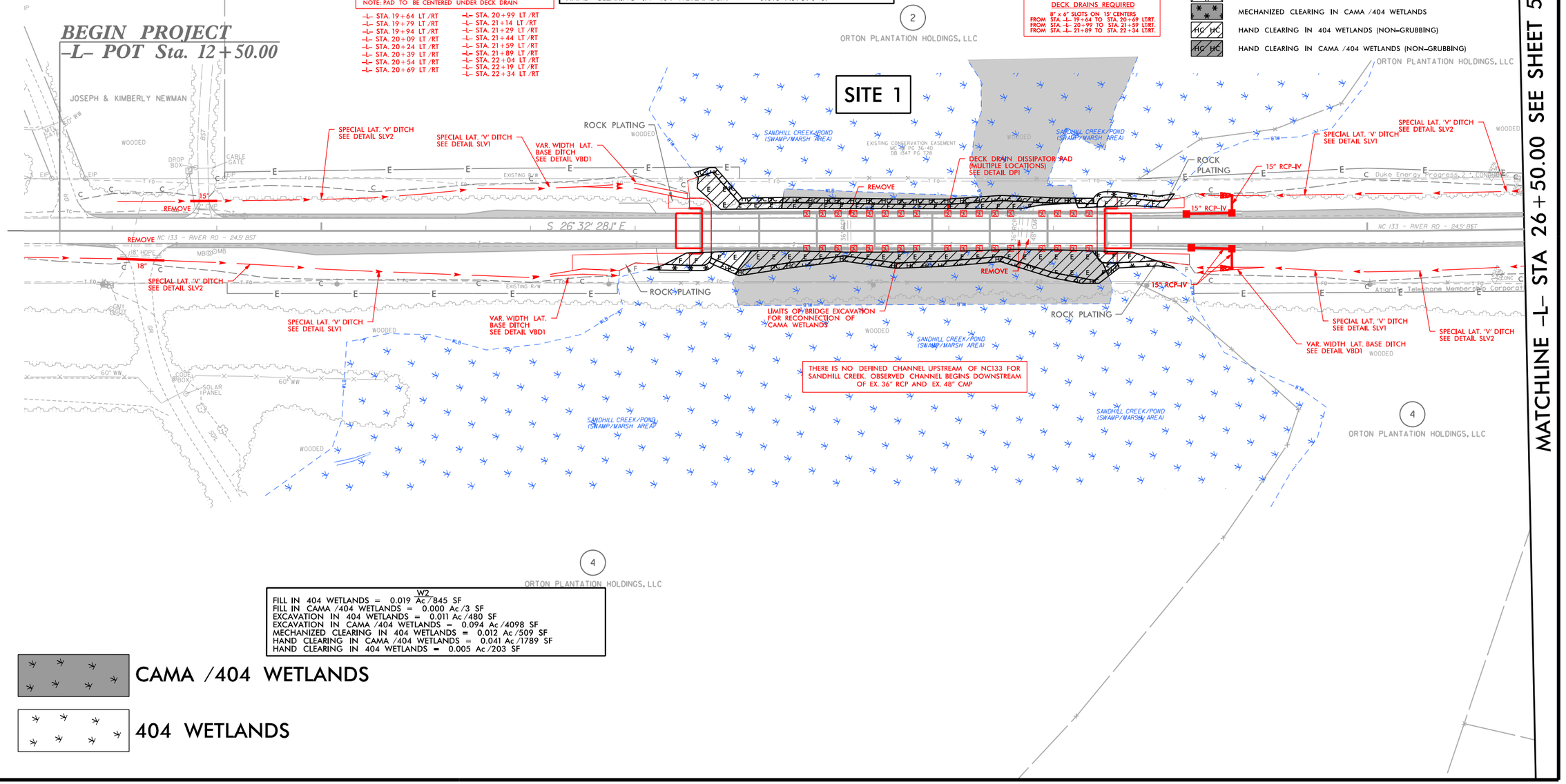
-L- STA. 19+64 LT /RT
-L- STA. 19+79 LT /RT
-L- STA. 19+94 LT /RT
-L- STA. 20+09 LT /RT
-L- STA. 20+24 LT /RT
-L- STA. 20+39 LT /RT
-L- STA. 20+54 LT /RT
-L- STA. 20+69 LT /RT
-L- STA. 20+99 LT /RT
-L- STA. 21+14 LT /RT
-L- STA. 21+29 LT /RT
-L- STA. 21+44 LT /RT
-L- STA. 21+59 LT /RT
-L- STA. 21+89 LT /RT
-L- STA. 22+04 LT /RT
-L- STA. 22+19 LT /RT
-L- STA. 22+34 LT /RT

WETLAND & STREAM IMPACTS

W1
FILL IN 404 WETLANDS = 0.011 Ac / 474 SF
EXCAVATION IN 404 WETLAND = 0.025 Ac /1086 SF
EXCAVATION IN CAMA /404 WETLAND = 0.030 Ac /1304 SF
MECHANIZED CLEARING IN 404 WETLANDS = 0.009 Ac /390 SF
HAND CLEARING IN CAMA /404 WETLANDS = 0.032 Ac /1399 SF
HAND CLEARING IN 404 WETLANDSM = 0.013 Ac /570 SF

DECK DRAINS REQUIRED
8" x 6" SLOTS ON 15' CENTERS
FROM STA. -L- 19+64 TO STA. 20+69 LTRT.
FROM STA. -L- 20+99 TO STA. 21+59 LTRT.
FROM STA. -L- 21+89 TO STA. 22+34 LTRT.

LEGEND
- FILL IN 404 WETLANDS
- FILL IN CAMA /404 WETLANDS
- EXCAVATION IN 404 WETLANDS
- EXCAVATION IN CAMA /404 WETLANDS
- MECHANIZED CLEARING IN 404 WETLANDS
- MECHANIZED CLEARING IN CAMA /404 WETLANDS
- HAND CLEARING IN 404 WETLANDS (NON-GRUBBING)
- HAND CLEARING IN CAMA /404 WETLANDS (NON-GRUBBING)



W2
FILL IN 404 WETLANDS = 0.019 Ac / 845 SF
FILL IN CAMA /404 WETLANDS = 0.000 Ac /3 SF
EXCAVATION IN 404 WETLANDS = 0.011 Ac /480 SF
EXCAVATION IN CAMA /404 WETLANDS = 0.094 Ac /4098 SF
MECHANIZED CLEARING IN 404 WETLANDS = 0.012 Ac /509 SF
HAND CLEARING IN CAMA /404 WETLANDS = 0.041 Ac /1789 SF
HAND CLEARING IN 404 WETLANDS = 0.005 Ac /203 SF

CAMA /404 WETLANDS

404 WETLANDS

10/4/2023
BR0139_HYD_prm_psh4.dgn
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8/17/99

11/27/2023

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HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO.	SHEET NO.
BR-0139	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NA 2011

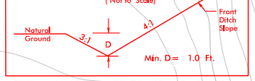
PERMIT DRAWING SHEET 3 OF 14

WETLAND & STREAM IMPACTS

DETAIL SLV1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

FROM -L- STA. 17+00 TO STA. 17+50 LT
FROM -L- STA. 15+00 TO STA. 17+00 RT
FROM -L- STA. 23+35 TO STA. 25+50 LT
FROM -L- STA. 24+00 TO STA. 24+50 RT

DETAIL SLV2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

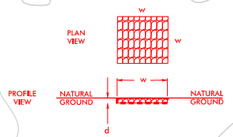


FROM -L- STA. 12+00 TO STA. 15+00 RT
FROM -L- STA. 13+00 TO STA. 17+00 LT
FROM -L- STA. 24+50 TO STA. 26+50 RT
FROM -L- STA. 25+50 TO STA. 26+50 LT

DETAIL VBD1
VAR. WIDTH LATERAL BASE DITCH
(Not to Scale)

FROM -L- STA. 17+00 TO STA. 17+85 RT
FROM -L- STA. 17+50 TO STA. 18+50 LT
FROM -L- STA. 23+35 TO STA. 24+00 RT

DETAIL DP1
DECK DRAIN DISSIPATER PAD
(Not to Scale)



Type of Liner= CLASS 'I' Rip-Rap
w=6 FT
d=1.5 FT
2.8 TONS CLASS 'I' Rip-Rap
5.0 SY GEOTEXTILE
2.0 CY EXCAVATION
NOTE: PAD TO BE CENTERED UNDER DECK DRAIN

-L- STA. 19+64 LT /RT
-L- STA. 19+79 LT /RT
-L- STA. 19+94 LT /RT
-L- STA. 20+09 LT /RT
-L- STA. 20+24 LT /RT
-L- STA. 20+39 LT /RT
-L- STA. 20+54 LT /RT
-L- STA. 20+69 LT /RT
-L- STA. 20+99 LT /RT
-L- STA. 21+14 LT /RT
-L- STA. 21+29 LT /RT
-L- STA. 21+44 LT /RT
-L- STA. 21+59 LT /RT
-L- STA. 21+89 LT /RT
-L- STA. 22+04 LT /RT
-L- STA. 22+19 LT /RT
-L- STA. 22+34 LT /RT

W1

FILL IN 404 WETLANDS =	0.011 Ac / 474 SF
EXCAVATION IN 404 WETLAND =	0.025 Ac /1086 SF
EXCAVATION IN CAMA /404 WETLAND =	0.030 Ac /1304 SF
MECHANIZED CLEARING IN 404 WETLANDS =	0.009 Ac /390 SF
HAND CLEARING IN CAMA /404 WETLANDS =	0.032 Ac /1399 SF
HAND CLEARING IN 404 WETLANDSM =	0.013 Ac /570 SF

DECK DRAINS REQUIRED
8" x 6" SLOTS ON 15' CENTERS
FROM STA. -L- 19+64 TO STA. 20+69 LTRT.
FROM STA. -L- 20+99 TO STA. 21+59 LTRT.
FROM STA. -L- 21+89 TO STA. 22+34 LTRT.

LEGEND
- FILL IN 404 WETLANDS
- FILL IN CAMA /404 WETLANDS
- EXCAVATION IN 404 WETLANDS
- EXCAVATION IN CAMA /404 WETLANDS
- MECHANIZED CLEARING IN 404 WETLANDS
- MECHANIZED CLEARING IN CAMA /404 WETLANDS
- HAND CLEARING IN 404 WETLANDS (NON-GRUBBING)
- HAND CLEARING IN CAMA /404 WETLANDS (NON-GRUBBING)

BEGIN PROJECT -L- POT Sta. 12+50.00

SITE 1

JOSEPH & KIMBERLY NEWMAN

ORTON PLANTATION HOLDINGS, LLC

SPECIAL LAT. 'V' DITCH SEE DETAIL SLV2
SPECIAL LAT. 'V' DITCH SEE DETAIL SLV1
VAR. WIDTH LAT. BASE DITCH SEE DETAIL VBD1
ROCK PLATING
DECK DRAIN DISSIPATOR PAD (MULTIPLE LOCATIONS) SEE DETAIL DP1
REMOVE
15" RCP-IV
18" RCP
LIMITS OF BRIDGE EXCAVATION FOR RECONNECTION OF CAMA WETLANDS
THERE IS NO DEFINED CHANNEL UPSTREAM OF NC133 FOR SANDHILL CREEK. OBSERVED CHANNEL BEGINS DOWNSTREAM OF EX. 36" RCP AND EX. 48" CMP
SANDHILL CREEK/POND (SWAMP/MARSH AREA)
EXISTING CONSERVATION EASEMENT NC DEQ DB 1541 PG 128
S 26°32'28.4" E
NC 133 - RIVER RD - 24.5' BST
Duke Energy Progress, LLC
Atlantic Telephone Membership Corporation

W2

FILL IN 404 WETLANDS =	0.019 Ac / 845 SF
FILL IN CAMA /404 WETLANDS =	0.000 Ac /3 SF
EXCAVATION IN 404 WETLANDS =	0.011 Ac /480 SF
EXCAVATION IN CAMA /404 WETLANDS =	0.094 Ac /4098 SF
MECHANIZED CLEARING IN 404 WETLANDS =	0.012 Ac /509 SF
HAND CLEARING IN CAMA /404 WETLANDS =	0.041 Ac /1789 SF
HAND CLEARING IN 404 WETLANDS =	0.005 Ac /203 SF

CAMA /404 WETLANDS

404 WETLANDS

MATCHLINE -L- STA 26+50.00 SEE SHEET 5

10/4/2023
\\BR0139_HYD_prm_pst4.dgn
HNTB

8/17/99

11/27/2023

HNTB	HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554

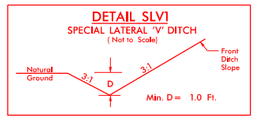
PROJECT REFERENCE NO.	SHEET NO.
BR-0139	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NA 2011

PERMIT DRAWING SHEET 4 OF 14

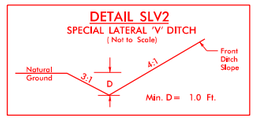
WETLAND & STREAM IMPACTS

DETAIL SLV1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



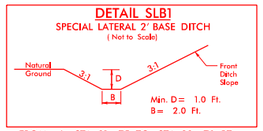
FROM –L– STA. 39+00 TO STA. 40+50 LT

DETAIL SLV2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



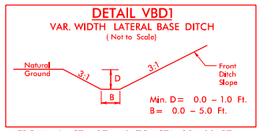
FROM –L– STA. 26+50 TO STA. 28+00 LT
FROM –L– STA. 26+50 TO STA. 28+00 RT
FROM –L– STA. 30+00 TO STA. 30+75 RT
FROM –L– STA. 38+00 TO STA. 39+00 RT
FROM –Y1– STA. 10+62 TO STA. 11+50 RT

DETAIL SLB1
SPECIAL LATERAL 2' BASE DITCH
(Not to Scale)



FROM –L– STA. 31+75 TO STA. 32+70 RT

DETAIL VBD1
VAR. WIDTH LATERAL BASE DITCH
(Not to Scale)



FROM –L– STA. 37+40 TO STA. 38+00 RT
FROM –L– STA. 38+30 TO STA. 39+00 LT

DETAIL C1 (Not to Scale)
CULVERT CHANNEL IMPROVEMENTS (UPSTREAM)

D = Varies, 2' to 3' (To Top of Bank)
L = 11'
Est. 22 Tons Class 'I' Rip-Rap
Est. 36 SY Geotextile Fabric

–L– STA. 33+27 RT

DETAIL C2
CULVERT CHANNEL IMPROVEMENTS (DOWNSTREAM)

D=Varies, 2' to 4' (To Top of Bank)
L = 10'
Est. 10 Tons Class 'I' Rip-Rap (Placed On Channel Banks Only)
Est. 19 SY Geotextile Fabric

–L– 33+27 LT

DETAIL TP1
TOE PROTECTION
(Not to Scale)

d= 1.0 Ft.
b= 3.0 Ft.
Type of Liner= CL B Rip-Rap

FROM –L– STA. 34+65 TO STA. 38+30 LT

W1
FILL IN 404 WETLANDS = 0.054 Ac / 2333 SF
MECHANIZED CLEARING IN 404 WETLANDS = 0.031 Ac / 1329 SF
SURFACE WATER IMPACTS = 0.003 Ac / 119 SF / 22 LF
TEMPORARY SURFACE WATER IMPACTS = 0.004 Ac / 190 SF / 21 LF

W2
FILL IN 404 WETLANDS = 0.123 Ac / 5365 SF
MECHANIZED CLEARING IN 404 WETLANDS = 0.055 Ac / 2372 SF

LEGEND
- F F — FILL IN 404 WETLANDS
- F * * F — MECHANIZED CLEARING IN 404 WETLANDS
- S S — SURFACE WATER IMPACTS
- TS TS — TEMPORARY SURFACE WATER IMPACTS

W3
FILL IN 404 WETLANDS = 0.002 Ac / 86 SF
MECHANIZED CLEARING IN 404 WETLANDS = 0.005 Ac / 194 SF
SURFACE WATER IMPACTS = 0.004 Ac / 187 SF / 17 LF
TEMPORARY SURFACE WATER IMPACTS = 0.002 Ac / 89 SF / 10 LF

W4
FILL IN 404 WETLANDS = 0.002 Ac / 102 SF
MECHANIZED CLEARING IN 404 WETLANDS = 0.013 Ac / 554 SF

MATCHLINE –L– STA 26+50.00 SEE SHEET 4

MATCHLINE –L– STA 35+00

MATCHLINE –L– STA 40+00

SITE 2

2 ORTON PLANTATION HOLDINGS, LLC

4 ORTON PLANTATION HOLDINGS, LLC

8 BRYAN MARSHBURN & BRENDA BRYANT

9 ORTON PLANTATION HOLDINGS, LLC

RIVER ROAD FUNDING 2 LLC

SPECIAL LAT. 'V' DITCH SEE DETAIL SLV2
SPECIAL LAT. 'V' DITCH SEE DETAIL SLV1
DOWNSTREAM CULVERT CHANNEL IMPROVEMENTS SEE DETAIL C2
ROCK PLATING
TOE PROTECTION EST 178 TONS CL B RIP RAP EST 390 SY GEOTEXTILE SEE DETAIL TP1
VAR. WIDTH LAT. BASE DITCH SEE DETAIL VBD1
SPECIAL LATERAL 2' BASE DITCH SEE DETAIL SLB1
UPSTREAM CULVERT CHANNEL IMPROVEMENTS SEE DETAIL C1
REMOVE EXISTING 18" RCP (CAN'T BE BURIED)
18" RCP
EXISTING CONSERVATION EASEMENT MC 118 PG 36-40 DB 1347 PG 728
EXISTING R/W
NC133 (RIVER RD) 24.5' BST
MARSH AREA
UT TO SANDY HILL CREEK
STREAM
WOODED
GRASS
BRICK WALL EXISTING R/W
Cable not buried laying on top of the ground
RETAIN

8/17/99

11/27/2023

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HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
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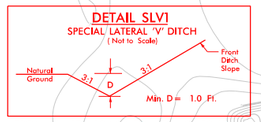
PROJECT REFERENCE NO.	SHEET NO.
BR-0139	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NA 2011

WETLAND & STREAM IMPACTS

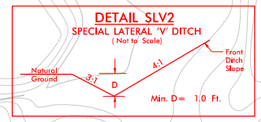
PERMIT DRAWING SHEET 5 OF 14

DETAIL SLV1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



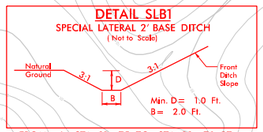
FROM -L- STA. 39+00 TO STA. 40+50 LT

DETAIL SLV2
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



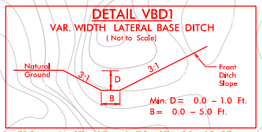
FROM -L- STA. 26+50 TO STA. 28+00 LT
FROM -L- STA. 26+50 TO STA. 28+00 RT
FROM -L- STA. 30+00 TO STA. 30+75 RT
FROM -L- STA. 38+00 TO STA. 39+00 RT
FROM -Y1- STA. 10+62 TO STA. 11+50 RT

DETAIL SLB1
SPECIAL LATERAL 2' BASE DITCH
(Not to Scale)



FROM -L- STA. 31+75 TO STA. 32+70 RT

DETAIL VBD1
VAR. WIDTH LATERAL BASE DITCH
(Not to Scale)



FROM -L- STA. 37+40 TO STA. 38+00 RT
FROM -L- STA. 38+30 TO STA. 39+00 LT

DETAIL C1
(Not to Scale)
CULVERT CHANNEL IMPROVEMENTS (UPSTREAM)

D = Varies, 2' to 3' (To Top of Bank)
L = 11'
Est. 22 Tons Class 'I' Rip-Rap
Est. 36 SY Geotextile Fabric

-L- STA. 33+27 RT

DETAIL C2
CULVERT CHANNEL IMPROVEMENTS (DOWNSTREAM)

D=Varies, 2' to 4' (To Top of Bank)
L = 10'
Est. 10 Tons Class 'I' Rip-Rap (Placed On Channel Banks Only)
Est. 19 SY Geotextile Fabric

-L- 33+27 LT

DETAIL TP1
TOE PROTECTION
(Not to Scale)

d= 1.0 Ft.
b= 3.0 Ft.
Type of Liner= CL B Rip-Rap

FROM -L- STA. 34+65 TO STA. 38+30 LT

W1
FILL IN 404 WETLANDS = 0.054 Ac / 2333 SF
MECHANIZED CLEARING IN 404 WETLANDS = 0.031 Ac / 1329 SF
SURFACE WATER IMPACTS = 0.003 Ac / 119 SF / 22 LF
TEMPORARY SURFACE WATER IMPACTS = 0.004 Ac / 190 SF / 21 LF

W2
FILL IN 404 WETLANDS = 0.123 Ac / 5365 SF
MECHANIZED CLEARING IN 404 WETLANDS = 0.055 Ac / 2372 SF

W3
FILL IN 404 WETLANDS = 0.002 Ac / 86 SF
MECHANIZED CLEARING IN 404 WETLANDS = 0.005 Ac / 194 SF
SURFACE WATER IMPACTS = 0.004 Ac / 187 SF / 17 LF
TEMPORARY SURFACE WATER IMPACTS = 0.002 Ac / 89 SF / 10 LF

W4
FILL IN 404 WETLANDS = 0.002 Ac / 102 SF
MECHANIZED CLEARING IN 404 WETLANDS = 0.013 Ac / 554 SF

LEGEND
- FILL IN 404 WETLANDS
- MECHANIZED CLEARING IN 404 WETLANDS
- SURFACE WATER IMPACTS
- TEMPORARY SURFACE WATER IMPACTS

SITE 2

MATCHLINE -L- STA 26+50.00 SEE SHEET 4

35+00 -L-

40+00 -L-

ORTON PLANTATION HOLDINGS, LLC

BRYAN MARSHBURN & BRENDA BRYANT

RIVER ROAD FUNDING 2 LLC

NDOLYN T

SPECIAL LAT. 'V' DITCH SEE DETAIL SLV2

SPECIAL LAT. 'V' DITCH SEE DETAIL SLV1

DOWNSTREAM CULVERT CHANNEL IMPROVEMENTS SEE DETAIL C2

ROCK PLATING

TOE PROTECTION EST 178 TONS CL B RIP RAP EST 390 SY GEOTEXTILE SEE DETAIL TP1

VAR. WIDTH LAT. BASE DITCH SEE DETAIL VBD1

SPECIAL LATERAL 2' BASE DITCH SEE DETAIL SLB1

UPSTREAM CULVERT CHANNEL IMPROVEMENTS SEE DETAIL C1

MARSH AREA

UT TO SAND HILL CREEK

STREAM

WOODED

GRASS

EXISTING CONSERVATION EASEMENT MC PB 36-40 DB 1347 PG 728

NC133 (RIVER RD) 24.5' BST

Brunswick EMC 4" Conduit

Charter Communications

10/4/2023
\\HNTB\BR0139_HYD_prm_psh5.dgn
HNTB

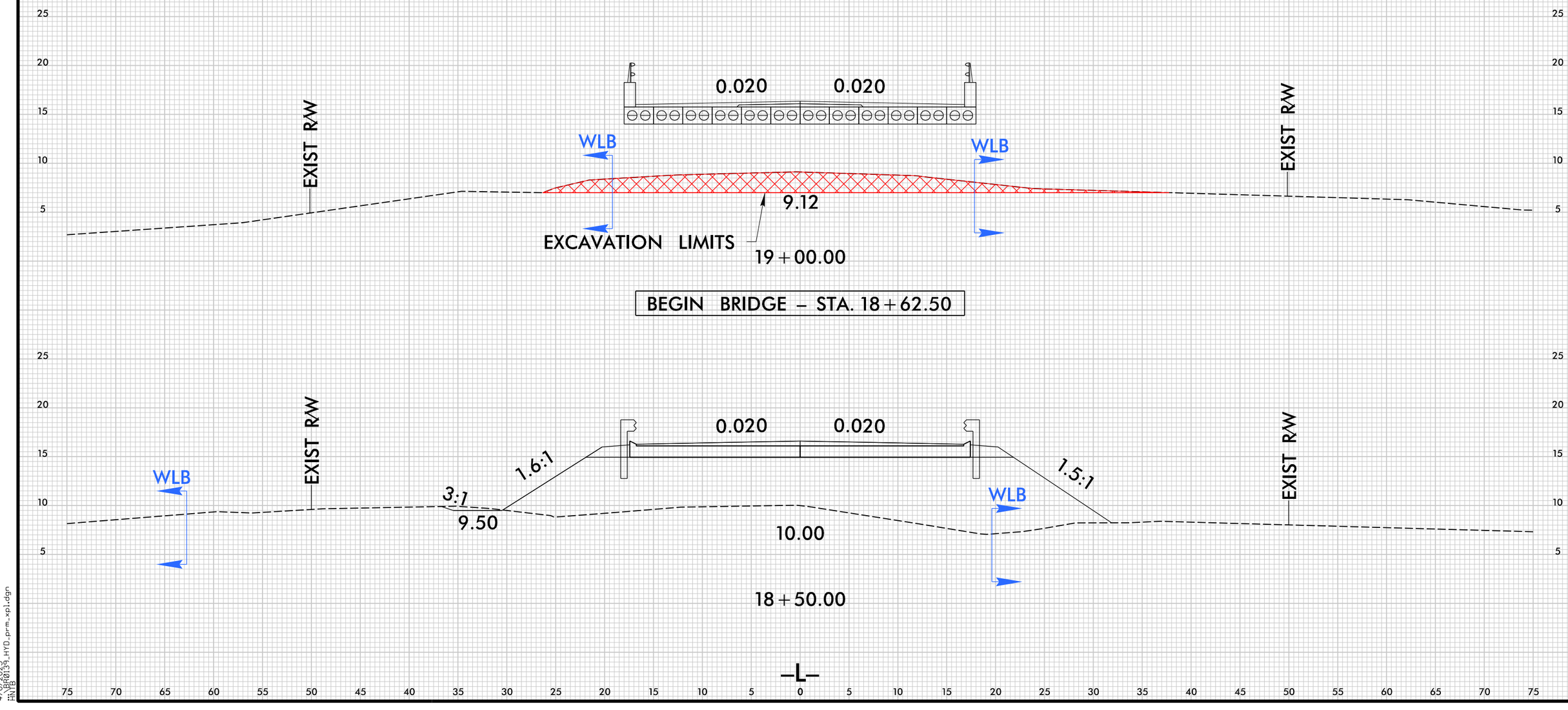
8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	BR-0139	X-8

PERMIT DRAWING
SHEET 6 OF 14

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 6

SITE 1



11/27/2023

4/6/2023
11:18
BR0139_HYD_prm_xpl.dgn

8/23/99

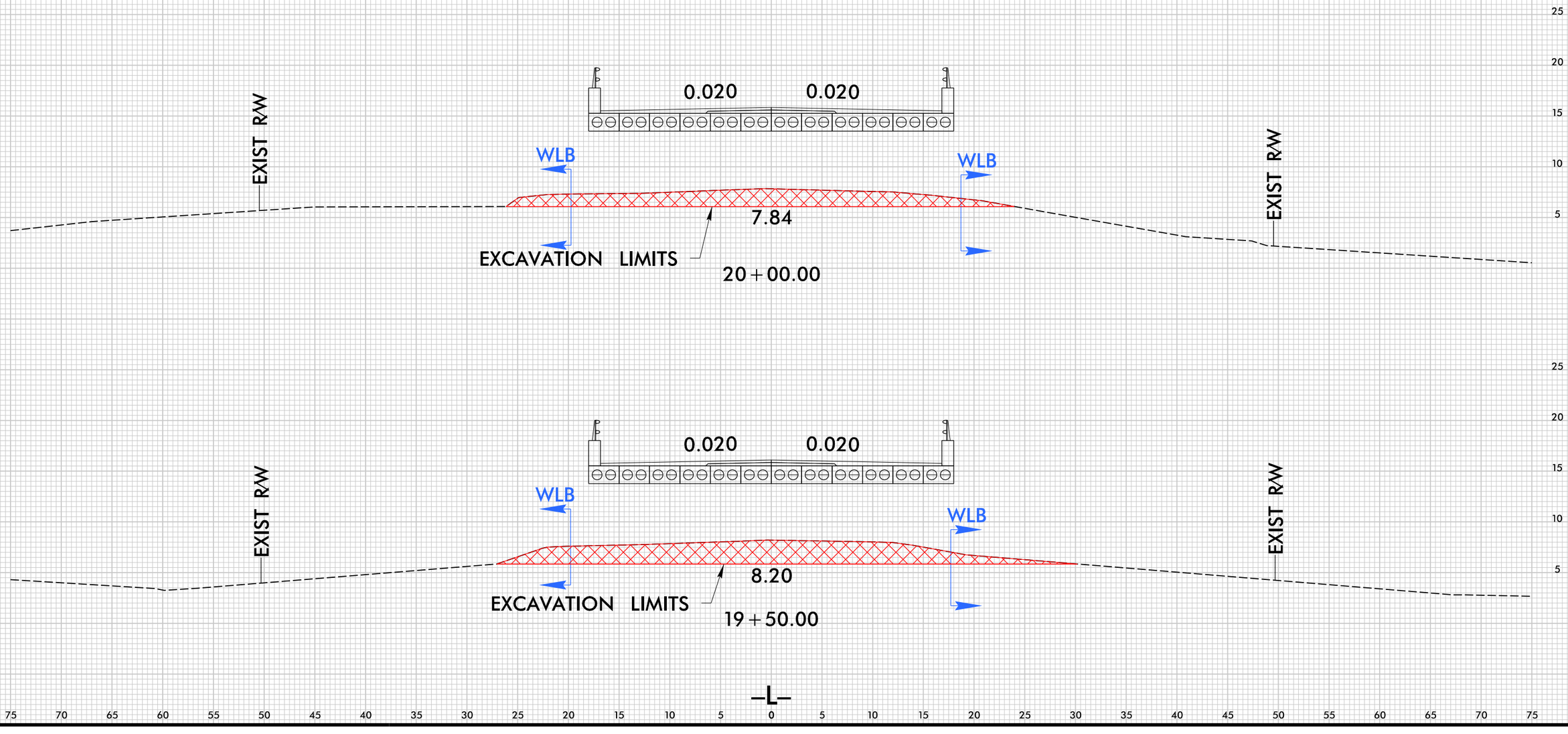
0 2.5 5

PROJ. REFERENCE NO.	SHEET NO.
BR-0139	X-9

PERMIT DRAWING
SHEET 7 OF 14

11/27/2023

SITE 1



4/6/2023
HNTB
BR0139_HYD_prm_xp1.dgn

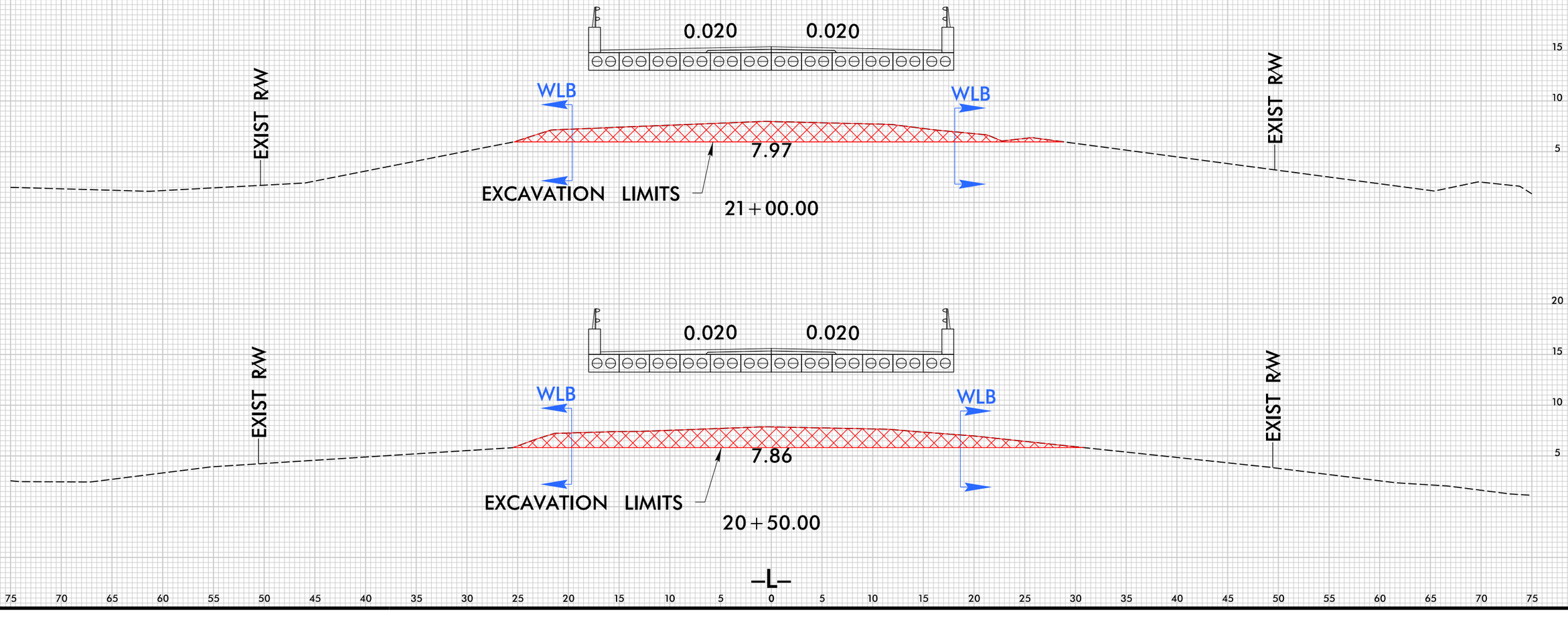
8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	BR-0139	X-10

PERMIT DRAWING
SHEET 8 OF 14

11/27/2023

SITE 1



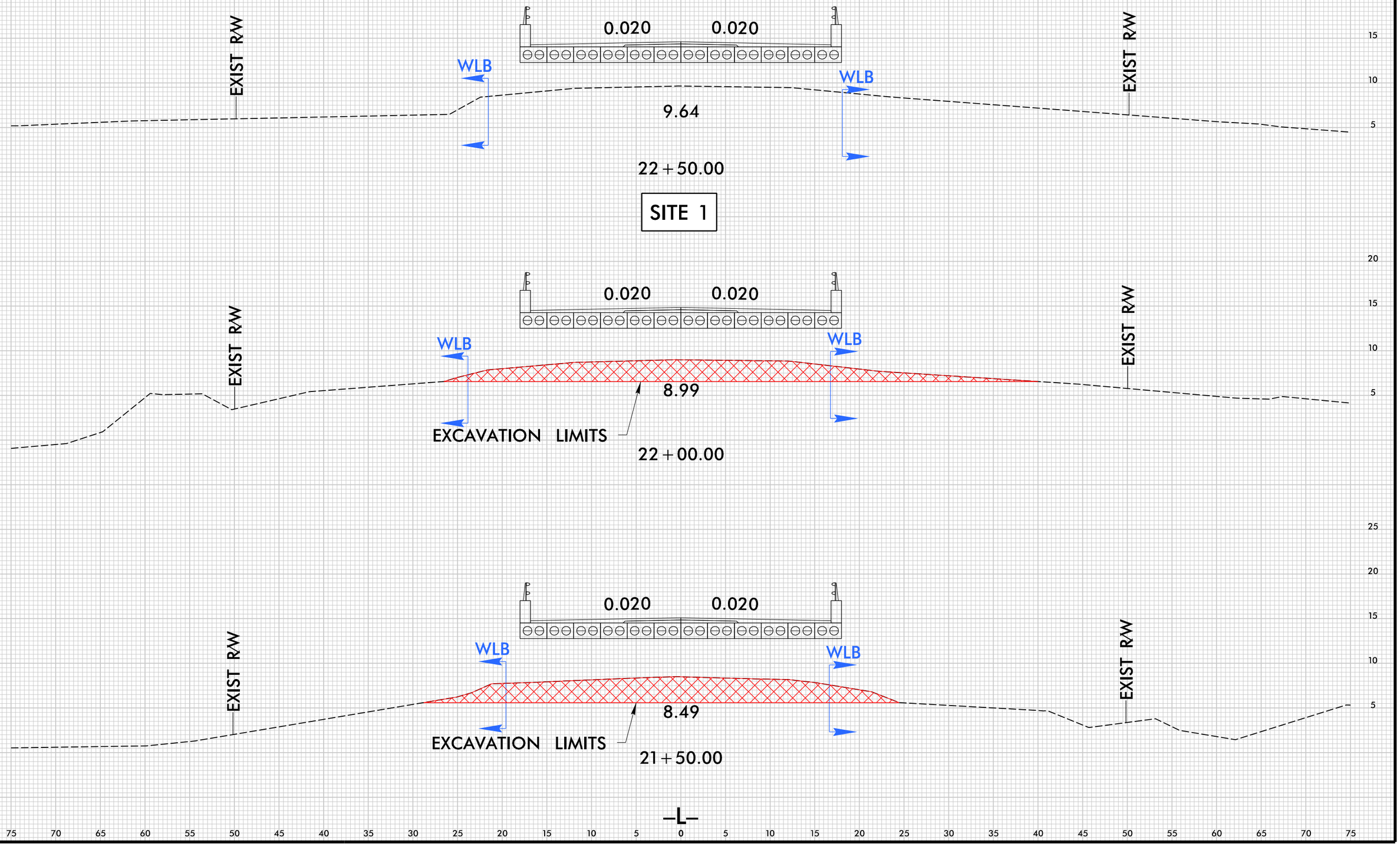
4/6/2023
jhite
BR0139_HYD_prm_xp1.dgn

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	BR-0139	X-11

PERMIT DRAWING
SHEET 9 OF 14

END BRIDGE – STA. 22+50.50



11/27/2023

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11:18
BR0139_HYD_prm_xpl.dgn

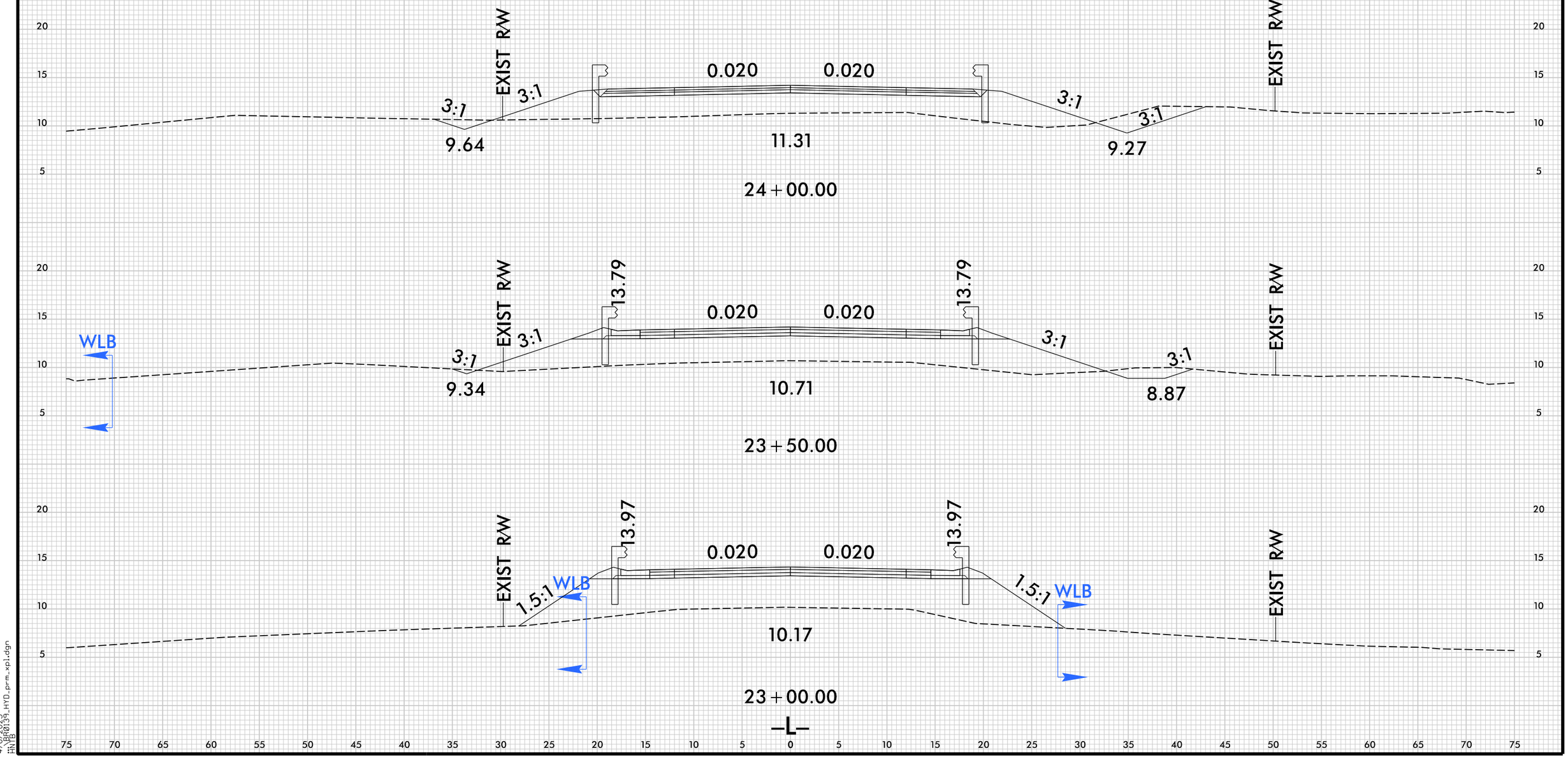
8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	BR-0139	X-12

PERMIT DRAWING
SHEET 10 OF 14

11/27/2023

SITE 1



4/6/2023
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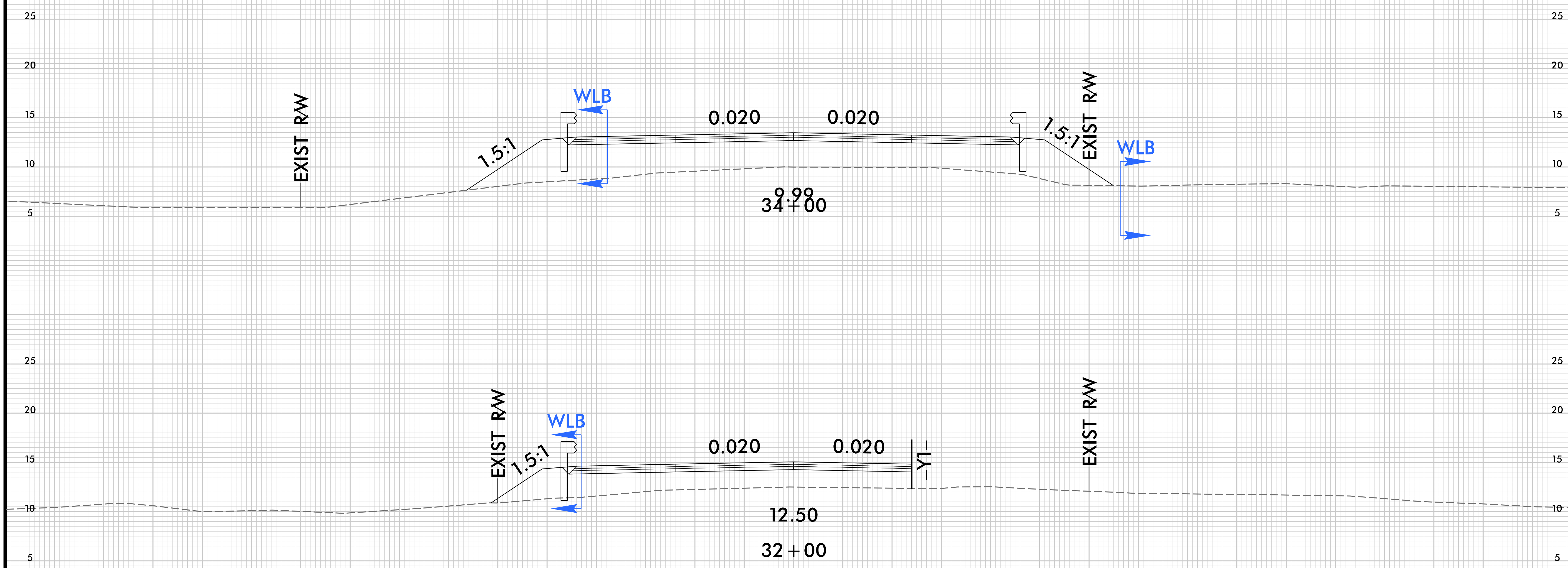
jinlg

PROJ. REFERENCE NO.	SHEET NO.

PERMIT DRAWING
SHEET 11 OF 14

WETLAND CROSS SECTIONS



SITE 2

11/27/2023

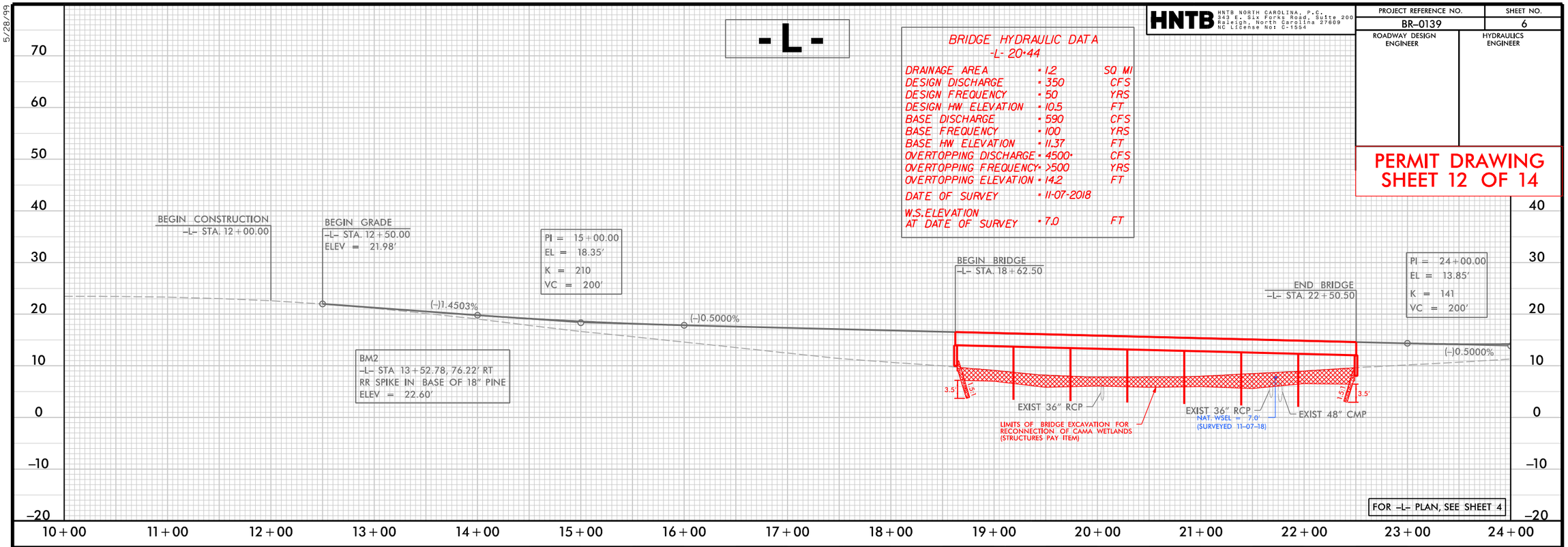
5/28/99

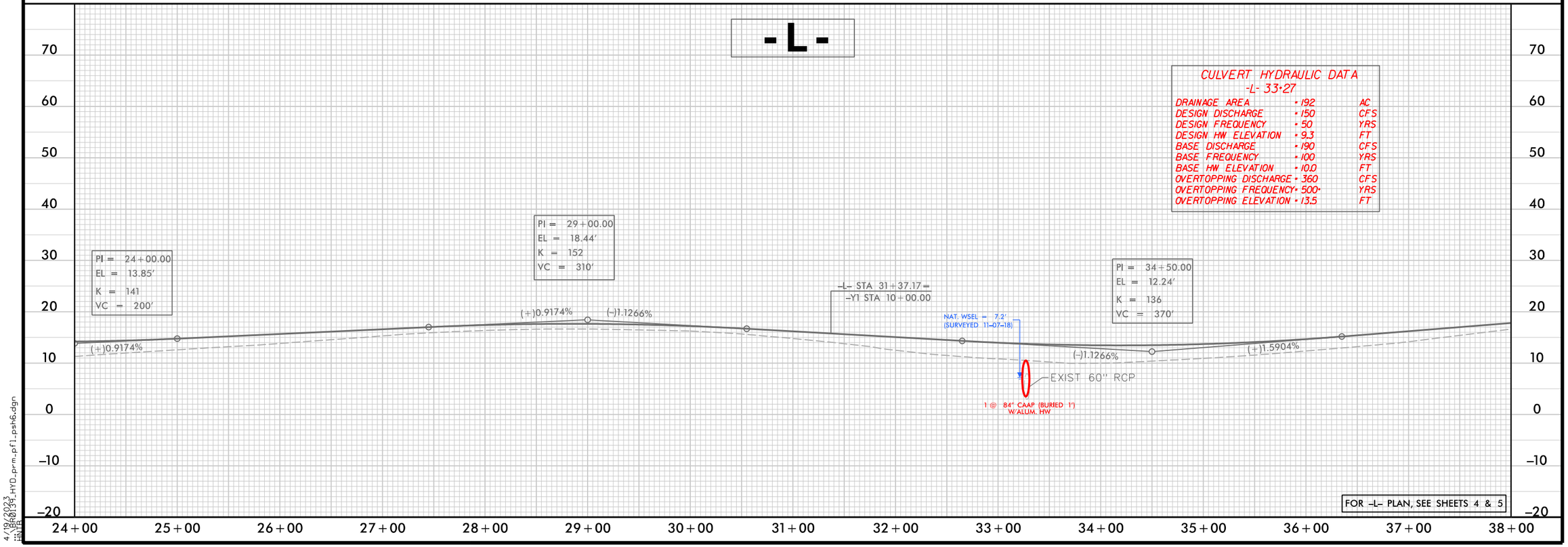
11/27/2023

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO.	SHEET NO.
BR-0139	6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING SHEET 12 OF 14





4/19/2023
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HNTB

5/28/99

HNTB
HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO.	SHEET NO.
BR-0139	7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 13 OF 14

-L-

END GRADE
-L- STA. 40+20.00
ELEV = 21.31'

END CONSTRUCTION
-L- STA. 40+50.00

(+)1.5904%

FOR -L- PLAN, SEE SHEET 5

70 60 50 40 30 20 10 0 –10 –20

38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00

-Y1-

BEGIN GRADE
-Y1- STA. 10+12.78 =
-L- STA. 31+32.78, 12.00' RT
ELEV = 15.58'

BM3
-Y1- STA. 12+50.33, 24.02' LT
RR SPIKE IN BASE OF 14" PINE
ELEV = 17.17'

END GRADE
-Y1- STA. 11+90.00
ELEV = 14.96'

(–)2.4751% (+)0.8028%

PI = 10+75.00
EL = 14.04'
K = 31
VC = 100'
V = 25 MPH

CULVERT HYDRAULIC DATA
-Y1- 10•44

DRAINAGE AREA	0.94	AC
DESIGN DISCHARGE	3.8	CFS
DESIGN FREQUENCY	25	YRS
DESIGN HW ELEVATION	12.9	FT
BASE DISCHARGE	4.4	CFS
BASE FREQUENCY	100	YRS
BASE HW ELEVATION	12.9	FT
OVERTOPPING DISCHARGE	>5.2	CFS
OVERTOPPING FREQUENCY	500	YRS
OVERTOPPING ELEVATION	14.6	FT

FOR -Y1- PLAN, SEE SHEET 5

10+00 11+00 12+00 13+00

4/6/2023
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HNTB

WETLAND AND SURACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS							SURFACE WATER IMPACTS			
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In 404 Wetlands (ac)	Permanent Fill In CAMA / 404 Wetlands (ac)	Excavation in 404 Wetlands (ac)	Excavation in CAMA / 404 Wetlands (ac)	Mechanized Clearing in 404 Wetlands (ac)	Hand Clearing in 404 Wetlands (ac)	Hand Clearing in CAMA / 404 Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)
1	L Sta. 18+12 to Sta. 23+16	24" CORED SLAB BRIDGE	0.030	0.000	0.036	0.124	0.021	0.018	0.073				
2	L Sta. 30+58 to Sta. 38+30	84" Corrugated Aluminum Pipe	0.181				0.104			0.007	0.006	39	31
TOTALS*:			0.211	0.000	0.036	0.124	0.125		0.073	0.007	0	39	31

*Rounded totals are sum of actual impacts

NOTES:

Permanent Fill in 404 Wetlands: 9205 SF

Permanent Fill in CAMA / 404 Wetlands: 3 SF

Excavation in 404 Wetlands: 1566 SF

Excavation in CAMA / 404 Wetlands: 5402 SF

Mechanized Clearing in 404 Wetlands: 5537 SF

Hand Clearing in 404 Wetlands: 773 SF

Hand Clearing in CAMA / 404 Wetlands: 3188 SF

Permanent Surface Water Impacts: 306 SF

Temporary Surface Water Impacts: 279 SF

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
6/22/2023
Brunswick
BR-0139