



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

May 30, 2008

MEMORANDUM TO: Mr. H. Allen Pope, PE  
Division Three Engineer

FROM: Philip S. Harris, III, P.E., Unit Head  
Natural Environment Unit  
Project Development and Environmental Analysis Branch

SUBJECT: Brunswick County, Replace Bridge No.72 on NC 179 over  
Jennys Branch; T.I.P. Number B-4031; Federal Aid Project  
No. BRSTP-0179 (2); State Project No. 8.1231701

Attached are the U.S. Army Corps of Engineers Section 404 Nationwide permit 12 and 23, Water Quality Certification and CAMA Major Development permit for the above referenced project. All environmental permits have been received for the construction of this project.

PSH/jsm

Attachment

Mr. Majed Alghandour, P. E., Programming and TIP  
Mr. Jay Bennett, P.E., Roadway Design  
Dr. David Chang, P.E., Hydraulics  
Mr. Randy Garris, P.E. State Contract Officer  
Mr. Art McMillan, P.E., Highway Design  
Mr. Greg Perfetti, P.E., Structure Design  
Mr. Mark Staley, Roadside Environmental  
Mr. John F. Sullivan, FHWA  
Mr. Rob Hanson, P.E., PDEA Eastern Region Unit Head  
Mr. Mason Herndon, Division Environmental Officer

## PROJECT COMMITMENTS

NC 179  
Bridge No. 72 over Jinnys Bridge  
Brunswick County  
Federal-Aid Project No. BRSTP-0179(2)  
State Project No. 8.1231701  
WBS Project No. 33398.1.1  
T.I.P. No. B-4031

### Conditions Developed During Project Development

#### *Division 3 Engineer:*

Construction activities will adhere to guidelines in *Precautions for Construction in Areas Which May be Used by the West Indian Manatee in North Carolina*.

Construction staging will not be located within wetlands

Disturbed areas will be replanted with native species and any temporary fill material within the floodplain will be removed at project completion

A follow-up survey for the bald eagle and the wood stork will be conducted 1 to 2 years prior to project construction.

*This was performed in August 2006.*

A follow-up inquiry to the NC Division of Marine Fisheries will be conducted 1 to 2 years prior to project construction for anadromous fish, including the shortnose sturgeon.

*This was completed in January 2007*

Road closure will be scheduled between from September to May.

#### *Hydraulic Design*

Stormwater will be designed to be carried across the bridge (no deck drain over the stream) or with a drainage system and infiltration system.

#### *Structure Design Unit*

No piers will be placed in Jinnys Branch.

Bicycle safe rails will be provided.

## **Conditions Developed During Permitting Process**

### *Division 3 Construction and Roadside Environmental Unit*

Turbidity curtains shall be used to isolate all work areas from Jinnys Branch, including pile or casement installation, pile removal, or excavation. The turbidity curtains shall be of sufficient length to extend to the substrate and shall encircle the immediate work area, however, they shall not extend across the stream or impede navigation. The turbidity curtains shall be properly maintained and retained in the water until construction is complete. The turbidity curtains shall be removed when turbidity within the curtains reaches ambient levels.

The project is located in a High Quality Water Zone, therefore, the permittee shall comply with the Design Standards in Sensitive Watersheds, 15A NCAC 4B.0124. Unless specifically altered herein, the permittee shall follow "Best Management Practices for the Protection of Surface Waters (3/97)" and shall also implement sedimentation and erosion control measures sufficient to protect aquatic resources.

The causeway restoration area shall be fully contained by silt fence and/or turbidity curtains until all of the causeway fill material has been removed and the restoration area has been restored to the approximate natural elevation of the adjacent, similar undisturbed wetlands and the appropriate areas planted in accordance with the restoration plan.

Annual monitoring reports for the mitigation sites shall be provided to DCM for a minimum of three years after mitigation site construction, or until DCM determines that the site is successful. Annual monitoring reports shall include photos, a description of species present, a visual estimate of percent vegetation coverage, and an assessment of whether the site is achieving success. Progress reports shall also be provided upon request. After three years, monitoring may cease if the permittee can demonstrate that the site has been successfully restored and written concurrence is received from DCM.

### *PDEA and Division 3 Construction*

The existing 121-foot long bridge will be replaced with a 300-foot long bridge at approximately the same location. The permittee intends to lengthen the existing bridge by approximately 179 feet and restore approximately 0.298 acres of Coastal Wetlands as on-site wetland mitigation only for this project.

In order to protect the anadromous fish during spawning periods and through embryonic, larval, and juvenile life stages, no in-water work shall be conducted from February 15th through June 15th of any year without prior approval of the NC Division of Coastal Management (DCM), in consultation with the NC Wildlife Resources Commission (WRC) and the NC Division of Marine Fisheries (DMF).

The West Indian Manatee, *Trichechus manatus*, which is listed as a federally endangered species, has been reported in North Carolina waters. Therefore, in accordance with commitments made by the permittee, and in order to protect the West Indian Manatee, all work should be done during the period from November 1 to May 31. If work must be done during the period from June through October the enclosed guidelines prepared by the U.S. Fish and Wildlife Service (USFWS), entitled "Guidelines for Avoiding Impacts to the West Indian Manatee: Precautionary Measures for Construction Activities in North Carolina Waters (rev. 06/03)" shall be followed.

Unless specifically altered herein, the NCDOT document "Best Management Practices for Bridge Demolition and Removal" (final 9/20/99) shall be followed during demolition and construction activities.

### *Division 3 Construction*

The authorized project is located within a primary nursery area (PNA). Therefore, in accordance with T15A:07H.0208 of the rules of the Coastal Resources Commission, no new dredging or excavation within the PNA shall be permitted. Dredging in any manner, including "kicking" with boat propellers is not authorized. This prohibition shall be applied and enforced throughout the entire existence of the permitted structure.

The bridge shall be constructed using top-down construction methodologies. Any other construction method shall require additional authorization from DCM. Pilings from the existing bridge, as well as any remnant pilings from previous bridges, shall be removed in their entirety, except that in the event that a piling breaks during removal and cannot be removed in its entirety, the piling may be cut off flush with the bed of the water body and DCM shall be notified of each occurrence within one working day.

Although hydraulic monitoring shall not be required, verification of the target elevation of the restored causeway, that is based on the on the elevation of the adjacent marsh, shall be provided to DCM upon project completion.



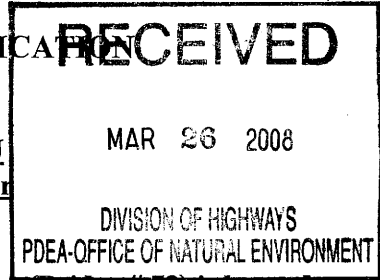
U.S. ARMY CORPS OF ENGINEERS  
WILMINGTON DISTRICT

Action ID. 2001 1171

County: Brunswick

USGS Quad: Shalotte

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION



Applicant: NC DOT  
Address: attn: Dr. Gregory Thorpe, Director, PDEA  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Agent: NC DOT  
attn: John Merritt, NEU  
1548 Mail Service Center  
Raleigh, NC 27699-1548

Size and location of property (water body, road name/number, town, etc.): The existing bridge (Bridge # 72) is located along NC 179 between Shallotte and Ocean Isle crossing Jinnys Branch, Brunswick County.

Description of projects area and activity: This verification covers the replacement of an existing 121 ft bridge with a new 300 ft span bridge at approximately the same location and roadway elevation using top-down construction. The permitted structure will result in the removal of causeway and old bridge bents not necessary with the new extended span resulting in on-site restoration of 0.298 acres of coastal marsh.

Applicable Law:  Section 404 (Clean Water Act, 33 USC 1344)  
 Section 10 (Rivers and Harbors Act, 33 USC 403)  
Authorization: Regional General Permit Number: \_\_\_\_\_  
Nationalwide Permit Number: NW-23, 12

**SEE ATTACHED SPECIAL CONDITIONS AND NATIONWIDE 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 package dated February 29, 2008. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide 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 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 permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide 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 Quality (telephone (919) 733-1786) 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 .

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 Brad Shaver at 910-251-4611.

Corps Regulatory Official Brad Shaver

Date: 3/20/2008

Expiration Date of Verification: 3/20/2010

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 the attached customer Satisfaction Survey or visit <http://www.saw.usace.army.mil/WETLANDS/index.html> to complete the survey online.

### Determination of Jurisdiction:

- Based on preliminary information, there appear to be waters of the US including wetlands within the above described project area. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331).
- There are Navigable Waters of the United States within the above described project area subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are waters of the US and/or wetlands within the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- The jurisdictional areas within the above described project area have been identified under a previous action. Please reference jurisdictional determination issued.

Basis of Jurisdictional Determination: **The subject area exhibits an ordinary high water mark (Jinnys Branch, a traditionally navigable water body subject to the ebb and flood of tides) and has abutting wetlands that meet the 1987 Corps Delineation Manual.**

Corps Regulatory Official: \_\_\_\_\_

*Brad E. Howard*

Date 3/20/2008

Expiration Date 3/20/2010

SURVEY PLATS, FIELD SKETCH, WETLAND DELINEATION FORMS, PROJECT PLANS, ETC., MUST BE ATTACHED TO THE FILE COPY OF THIS FORM, IF REQUIRED OR AVAILABLE.

Copy Furnished:

NC DOT Division 3 attn: Mason Herndon 124 Division Drive Wilmington NC 28401

NC DENR-DWQ attn: Ken Averitte 225 Green Street Suite 714 Fayetteville, NC 28301-5094

SPECIAL CONDITIONS  
Bridge Replacement No 72

Action ID 2001 1171

COMPLIANCE WITH PLANS

1. All work must be performed in strict compliance with the plans attached to the NCDOT letters dated February 29, 2008, which are authorized by this permit. Any modification to the authorized permit plans must be approved by the USACE prior to implementation.

COMPLIANCE WITH SPECIAL CONDITIONS

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

CONSTRUCTION PLANS

3. The permittee will ensure that the construction design plans for this project do not deviate from the authorized permit plans. Any deviation in the construction design plans will be brought to the attention of the Corps of Engineers, Wilmington Regulatory Field Office prior to any active construction in waters or wetlands.

CONTRACTOR COMPLIANCE

4. 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, and any authorized modifications. A copy of this permit including the authorized plans referenced in Special Condition (1) and authorized modifications, including all conditions, shall be available at the project site during construction and maintenance of this project.

ACTIVITIES NOT AUTHORIZED

5. Except as authorized by this permit or any USACE approved modification to this permit, no excavation, fill, or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands, or shall any activities take place that cause the degradation of waters or wetlands. In addition, except as specified in the plans attached to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within, into, or out of waters or wetlands or to reduce the reach of waters or wetlands.

This permit does not authorize temporary placement or double handling of excavated or fill material or construction equipment within waters or wetlands outside the permitted area.

BORROW AND WASTE

6. To ensure that all borrow and waste activities occur on high ground and do not result in the degradation of adjacent wetlands and streams, except as authorized by this permit, the permittee shall require its contractors and/or agents to identify all areas to be used to borrow material, or to dispose of dredged, fill, or waste material. The permittee shall provide the USACE with appropriate maps indicating the locations of proposed borrow or waste sites as soon as the permittee has that information. The permittee will coordinate with the USACE before

approving any borrow or waste sites that are within 400 feet of any streams or wetlands. All jurisdictional wetland lines on borrow and waste sites shall be verified by the Corps of Engineers and shown on the approved reclamation plans. The permittee shall ensure that all such areas comply with the **preceding condition** of this permit, and shall require and maintain documentation of the location and characteristics of all borrow and disposal sites associated with this project. This information will include data regarding soils, vegetation and hydrology sufficient to clearly demonstrate compliance with the **preceding condition**. All information will be available to the USACE upon request. NCDOT shall require its contractors to complete and execute reclamation plans for each waste and borrow site and provide written documentation that the reclamation plans have been implemented and all work is completed. This documentation will be provided to the Corps of Engineers within 30 days of the completion of the reclamation work.

#### REPORTING OF VIOLATIONS

7. The permittee will report any violation of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act in writing to the Wilmington District, U. S Army Corps of Engineers, within 24 hours of the permittee's discovery of the violation.

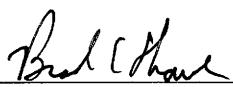
#### SEDIMENTATION AND EROSION CONTROL MEASURES

8. All fill material must be adequately stabilized at the earliest practicable date to prevent sediment from entering into adjacent waters or wetlands. The permittee shall remove all sediment and erosion control measures placed in wetlands or waters, and shall restore natural grades in those areas, prior to project completion.

9. Special care should be taken while removing the old causeway. Since the project involves wetland restoration within a tidal landscape position, sedimentation erosion control measures should be set prior to construction and should remain in place and functional until the site has been permanently stabilized.

#### DIRECTIONAL BORE

10. The directional bore should be staged on highground with all waste slurry from the operation contained on highground.

  
\_\_\_\_\_  
Brad Shaver

  3/20/2008    
Date

Action ID Number: 2001 1171

County: Brunswick

Permittee: NCDOT-Division 3

Date Verification Issued: 3/20/2008

Project Manager: Shaver

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  
WILMINGTON REGULATORY FIELD OFFICE  
POST OFFICE BOX 1890  
WILMINGTON, NORTH CAROLINA 28402-1890

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

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

**NATIONWIDE PERMIT 12**  
**DEPARTMENT OF THE ARMY**  
**CORPS OF ENGINEERS**  
**FINAL NOTICE OF ISSUANCE AND MODIFICATION OF NATIONWIDE PERMITS**  
**FEDERAL REGISTER**  
**AUTHORIZED MARCH 19, 2007**

**Utility Line Activities.** Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2 acre of waters of the United States.

Utility lines: This NWP authorizes the construction, maintenance, or repair of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for the utility lines, in all waters of the United States, provided there is no change in pre-construction contours. A “utility line” is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term “utility line” does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2 acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the total discharge from a single and complete project does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access

roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR Part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP also authorizes temporary structures, fills, and work necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) the activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10-acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 27.) (Sections 10 and 404)

Note 1: Where the proposed utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters), copies of the pre-construction notification and NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, accordance with the requirements for temporary fills.

Note 3: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to Section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

**NATIONWIDE PERMIT 23  
DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS  
FINAL NOTICE OF ISSUANCE AND MODIFICATION OF NATIONWIDE PERMITS  
FEDERAL REGISTER  
AUTHORIZED MARCH 19, 2007**

**Approved Categorical Exclusions.** Activities undertaken, assisted, authorized, regulated, funded, or financed, in whole or in part, by another Federal agency or department where:

(a) That agency or department has determined, pursuant to the Council on Environmental Quality's implementing regulations for the National Environmental Policy Act (40 CFR part 1500 et seq.), that the activity is categorically excluded from environmental documentation, because it is included within a category of actions which neither individually nor cumulatively have a significant effect on the human environment; and

(b) The Office of the Chief of Engineers (Attn: CECW-CO) has concurred with that agency's or department's determination that the activity is categorically excluded and approved the activity for authorization under NWP 23.

The Office of the Chief of Engineers may require additional conditions, including pre-construction notification, for authorization of an agency's categorical exclusions under this NWP.

Notification: Certain categorical exclusions approved for authorization under this NWP require the permittee to submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 27). The activities that require pre-construction notification are listed in the appropriate Regulatory Guidance Letters. (Sections 10 and 404)

Note: The agency or department may submit an application for an activity believed to be categorically excluded to the Office of the Chief of Engineers (Attn: CECW-CO). Prior to approval for authorization under this NWP of any agency's activity, the Office of the Chief of Engineers will solicit public comment. As of the date of issuance of this NWP, agencies with approved categorical exclusions are the: Bureau of Reclamation, Federal Highway Administration, and U.S. Coast Guard. Activities approved for authorization under this NWP as of the date of this notice are found in Corps Regulatory Guidance Letter 05-07, which is available at:

<http://www.usace.army.mil/inet/functions/cw/cecwo/reg/rglsindx.htm> . Any future approved categorical exclusions will be announced in Regulatory Guidance Letters and posted on this same web site.



## NATIONWIDE PERMIT CONDITIONS

The following General Conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States 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 of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. 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).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

15. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River 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 River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

16. Tribal Rights. No activity or its operation may impair reserved tribal rights, including but not limited to, reserved water rights and treaty fishing and hunting rights.

17. Endangered Species. (a) No activity is authorized under any NWP which is likely to 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 destroy or adversely modify the critical habitat of such species. No activity is authorized

under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may 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 and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant 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 applicant shall not begin work until the Corps has provided notification the proposed activities will have “no effect” on listed species or critical habitat, or until Section 7 consultation has been completed.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP 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 U.S. FWS or the NMFS, both lethal and non-lethal “takes” of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide Web pages at <http://www.fws.gov/> and <http://www.noaa.gov/fisheries.html> respectively.

18. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification 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 or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). 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. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. 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)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant 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 would 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 applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, 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.

19. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

20. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWP. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWP.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

21. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

22. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

23. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

24. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

25. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:  
“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate

the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

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(Transferee)

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(Date)

26. Compliance Certification. Each permittee who received an NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

- (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;
- (b) A statement that any required mitigation was completed in accordance with the permit conditions; and
- (c) The signature of the permittee certifying the completion of the work and mitigation.

27. Pre-Construction Notification. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

- (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or
- (2) Forty-five calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is “no effect” on listed species or “no potential to cause effects” on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained.

Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided result in a quicker decision.);

(4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.



(2) For all NWP 48 activities requiring pre-construction notification and for other NWP activities requiring pre-construction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) District Engineer's Decision: In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment

(after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan.

28. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

### **FURTHER INFORMATION**

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

### **DEFINITIONS**

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration, establishment (creation), enhancement, or preservation of aquatic resources for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Discharge: The term "discharge" means any discharge of dredged or fill material.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a

decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

*Ephemeral stream*: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

*Establishment (creation)*: The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

*Historic Property*: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

*Independent utility*: A test to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

*Intermittent stream*: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

*Loss of waters of the United States*: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

*Non-tidal wetland*: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

*Open water*: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or

flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

*Ordinary High Water Mark:* An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

*Perennial stream:* A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

*Practicable:* Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

*Pre-construction notification:* A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

*Preservation:* The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

*Re-establishment:* The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

*Rehabilitation:* The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

*Restoration:* The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

*Riffle and pool complex:* Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

*Riparian areas:* Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through

which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 20.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete project: The term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete project must have independent utility (see definition). For linear projects, a “single and complete project” is all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. 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 crossings of such features cannot be considered separately.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWP, a waterbody is a jurisdictional water of the United States that, during a year with normal patterns of precipitation, has water flowing or standing above ground to the extent that an ordinary high water mark (OHWM) or other indicators of jurisdiction can be determined, as well as any wetland area (see 33 CFR 328.3(b)). If a jurisdictional wetland is adjacent--meaning bordering, contiguous, or neighboring--to a jurisdictional waterbody displaying an OHWM or other indicators of jurisdiction, that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of "waterbodies" include streams, rivers, lakes, ponds, and wetlands.

## **REGIONAL CONDITIONS FOR NATIONWIDE PERMITS IN THE WILMINGTON DISTRICT**

### **1.0 Excluded Waters**

The Corps has identified waters that will be excluded from the use of all NWP's during certain timeframes. These waters are:

#### **1.1. Anadromous Fish Spawning Areas**

Waters of the United States identified by either the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC) as anadromous fish spawning areas are excluded during the period between February 15 and June 30, without prior written approval from NCDMF or NCWRC and the Corps.

#### **1.2. Trout Waters Moratorium**

Waters of the United States in the twenty-five designated trout counties of North Carolina are excluded during the period between October 15 and April 15 without prior written approval from the NCWRC. (see Section I. b. 7. for a list of the twenty-five trout counties).

#### **1.3. Sturgeon Spawning Areas**

Waters of the United States designated as sturgeon spawning areas are excluded during the period between February 1 and June 30, without prior written approval from the National Marine Fisheries Service (NMFS).

### **2.0 Waters Requiring Additional Notification**

The Corps has identified waters that will be subject to additional notification requirements for activities authorized by all NWP's. These waters are:

#### **2.1. Western NC Counties that Drain to Designated Critical Habitat**

Waters of the U.S. that requires a Pre-Construction Notification pursuant to General Condition 27 (PCN) and located in the sixteen counties listed below, applicants must provide a copy of the PCN to the US Fish and Wildlife Service, 160 Zillicoa Street, Asheville, North Carolina 28805. This PCN must be sent concurrently to the US Fish and Wildlife Service and the Corps Asheville Regulatory Field Office. Please see General Condition 17 for specific notification requirements related to Federally Endangered Species and the following website for information on the location of designated critical habitat.

Counties with tributaries that drain to designated critical habitat that require notification to the Asheville US Fish and Wildlife Service: Avery, Cherokee, Forsyth, Graham, Haywood,

Henderson, Jackson, Macon Mecklenburg, Mitchell, Stokes, Surry, Swain, Transylvania, Union and Yancey.

Website and office addresses for Endangered Species Act Information:

The Wilmington District has developed the following website for applicants which provide guidelines on how to review linked websites and maps in order to fulfill NWP general condition 17 requirements.

<http://www.saw.usace.army.mil/wetlands/ESA>

Applicants who do not have internet access may contact the appropriate US Fish and Wildlife Service offices or the US Army Corps of Engineers office listed below.

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

Asheville US Fish and Wildlife Service Office counties: All counties west of and including Anson, Stanly, Davidson, Forsyth and Stokes Counties

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

Raleigh US Fish and Wildlife Service Office counties: all counties east of and including Richmond, Montgomery, Randolph, Guilford, and Rockingham Counties.

## **2.2. Special Designation Waters**

Prior to the use of any NWP in any of the following North Carolina identified waters and contiguous wetlands, applicants must comply with Nationwide Permit General Condition 27 (PCN). The North Carolina waters and contiguous wetlands that require additional notification requirements are:

“Outstanding Resource Waters” (ORW) and “High Quality Waters” (HQW) (as designated by the North Carolina Environmental Management Commission), or “Inland Primary Nursery Areas” (IPNA) (as designated by the North Carolina Wildlife Resources Commission), or “Contiguous Wetlands” (as defined by the North Carolina Environmental Management Commission), or “Primary Nursery Areas” (PNA) (as designated by the North Carolina Marine Fisheries Commission).



### **2.3. Coastal Area Management Act (CAMA) Areas of Environmental Concern**

Non-Federal applicants for any NWP in a designated “Area of Environmental Concern” (AEC) in the twenty (20) counties of Eastern North Carolina covered by the North Carolina Coastal Area Management Act (CAMA), must also obtain the required CAMA permit. Construction activities for non-Federal projects may not commence until a copy of the approved CAMA permit is furnished to the appropriate Wilmington District Regulatory Field Office (Wilmington Field Office – P.O. Box 1890, Wilmington, NC 28402 or Washington Field Office – P.O. Box 1000, Washington, NC 27889).

### **2.4. Barrier Islands**

Prior to the use of any NWP on a barrier island of North Carolina, applicants must comply with Nationwide Permit General Condition 27 (PCN).

### **2.5. Mountain or Piedmont Bogs**

Prior to the use of any NWP in a “Mountain or Piedmont Bog” of North Carolina, applicants shall comply with Nationwide Permit General Condition 27 (PCN).

Note: The following wetland community types identified in the N.C. Natural Heritage Program document, “Classification of Natural communities of North Carolina (Michael P. Schafale and Alan S. Weakley, 1990), are subject to this regional condition.

Mountain Bogs	Piedmont Bogs
Swamp Forest-Bog Complex	Upland depression Swamp Forest
Swamp Forest-Bog Complex (Spruce Subtype)	
Southern Appalachian Bog (Northern Subtype)	
Southern Appalachian Bog (Southern Subtype)	
Southern Appalachian Fen	

### **2.6. Animal Waste Facilities**

Prior to use of any NWP for construction of animal waste facilities in waters of the US, including wetlands, applicants shall comply with Nationwide Permit General Condition 27 (PCN).

### **2.7. Trout Waters**

Prior to any discharge of dredge or fill material into streams or waterbodies within the twenty-five (25) designated trout counties of North Carolina, the applicant shall comply with

Nationwide Permit General Condition 27 (PCN). The applicant shall also provide a copy of the notification to the appropriate NCWRC office to facilitate the determination of any potential impacts to designated Trout Waters. Notification to the Corps of Engineers will include a statement with the name of the NCWRC biologist contacted, the date of the notification, the location of work, a delineation of wetlands, a discussion of alternatives to working in the mountain trout waters, why alternatives were not selected, and a plan to provide compensatory mitigation for all unavoidable adverse impacts to mountain trout waters.

#### NCWRC and NC Trout Counties

Mr. Ron Linville			
Western Piedmont Region Coordinator	Alleghany	Caldwell	Watauga
3855 Idlewild Road	Ashe	Mitchell	Wilkes
Kernersville, NC 27284-9180	Avery	Stokes	
Telephone: (336) 769-9453	Burke	Surry	

Mr. Dave McHenry			
Mountain Region Coordinator	Buncombe	Henderson	Polk
20830 Great Smoky Mtn. Expressway	Cherokee	Jackson	Rutherford
Waynesville, NC 28786	Clay	Macon	Swain
Telephone: (828) 452-2546	Graham	Madison	Transylvania
Fax: (828) 452-7772	Haywood	McDowell	Yancey

### 3.0 List of Corps Regional Conditions for All Nationwide Permits

The following conditions apply to all Nationwide Permits in the Wilmington District:

#### 3.1. Limitation of Loss of Perennial Stream Bed

NWPs may not be used for activities that may result in the loss or degradation of greater than 300 total linear feet of perennial streams. The NWPs may not be used for activities that may result in the loss or degradation of greater than 300 total linear feet of ephemeral and intermittent streams that exhibit important aquatic function(s)\* Loss of stream includes the linear feet of stream bed that is filled, excavated, or flooded by the proposed activity. The District Commander can waive the 300 linear foot limit for ephemeral and intermittent streams on a case-by-case basis if he determines that the proposed activity will result in minimal individual and cumulative adverse impacts to the aquatic environment. Waivers for the loss of ephemeral and intermittent streams must be in writing. This waiver only applies to the 300 linear feet threshold for NWPs. Mitigation may still be required for impacts to ephemeral and intermittent streams, on a case-by-case basis, depending on the impacts to the aquatic environment of the proposed project. [\*Note: The Corps uses the Stream Quality Assessment Worksheet, located with Permit Information on the Regulatory Program Web Site, to aid in the determination of aquatic function within the intermittent stream channel.]

### **3.2. Mitigation for Loss of Stream Bed Exceeding 150 Feet.**

For any NWP that results in a loss of more than 150 linear feet of perennial and/or ephemeral/intermittent stream, the applicant shall provide a mitigation proposal to compensate for the loss of aquatic function associated with the proposed activity. For stream losses less than 150 linear feet, that require a PCN, the District Commander may determine, on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effect on the aquatic environment.

### **3.3. Pre-construction Notification for Loss of Streambed Exceeding 150 Feet.**

Prior to use of any NWP for any activity which impacts more than 150 total linear feet of perennial stream or ephemeral/ intermittent stream, the applicant must comply with Nationwide Permit General Condition 27 (PCN). This applies to NWPs that do not have specific notification requirements. If a NWP has specific notification requirements, the requirements of the NWP should be followed.

### **3.4. Restriction on Use of Live Concrete**

For all NWPs which allow the use of concrete as a building material, measures will be taken to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with waters of the state until the concrete has hardened.

### **3.5. Requirements for Using Riprap for Bank Stabilization**

For all NWPs that allow for the use of riprap material for bank stabilization, the following measures shall be applied:

**3.5.1.** Filter cloth must be placed underneath the riprap as an additional requirement of its use in North Carolina waters.

**3.5.2.** The placement of riprap shall be limited to the areas depicted on submitted work plan drawings.

**3.5.3.** The riprap material shall be clean and free from loose dirt or any pollutant except in trace quantities that would not have an adverse environmental effect.

**3.5.4.** It shall be of a size sufficient to prevent its movement from the authorized alignment by natural forces under normal conditions.

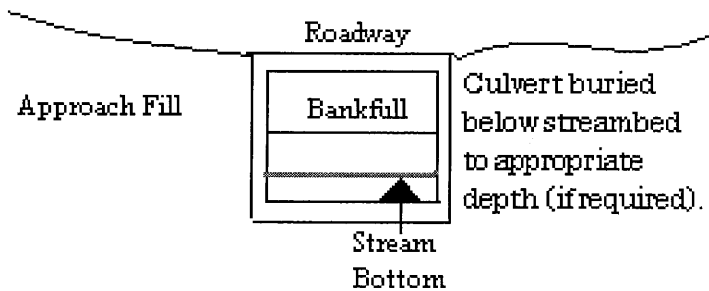
**3.5.5.** The riprap material shall consist of clean rock or masonry material such as, but not limited to, granite, marl, or broken concrete.

**3.5.6.** A waiver from the specifications in this Regional Condition may be requested in writing. The waiver will only be issued if it can be demonstrated that the impacts of complying with this Regional condition would result in greater adverse impacts to the aquatic environment.

### **3.6. Safe Passage Requirements for Culvert Placement**

For all NWP's that involve the construction/installation of culverts, measures will 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 should 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 should be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gage data, if available. In the absence of such data, bankfull flow can be used as a comparable level.

In the twenty (20) counties of North Carolina designated as coastal counties by the Coastal Area Management Act (CAMA): All pipe and culvert bottoms shall be buried at least one foot below normal bed elevation when they are placed within the Public Trust Area of Environmental Concern (AEC) and/or the Estuarine Waters AEC as designated by CAMA, and/or all streams appearing as blue lines on United States Geological Survey (USGS) quad sheets.



In all other counties: Culverts greater than 48 inches in diameter will be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter or 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 the existing channel slope. The bottom of the culvert must be placed at a depth below the natural stream bottom to provide for passage during drought or low flow conditions.

Destabilizing the channel and head cutting upstream should be considered in the placement of the culvert.

A waiver from the depth specifications in this condition may be requested in writing. The waiver will be issued if it can be demonstrated that the proposal would result in the least impacts to the aquatic environment.

All counties: Culverts placed in wetlands do not have to be buried.

### **3.7. Notification to NCDENR Shellfish Sanitation Section**

Applicants shall notify the NCDENR Shellfish Sanitation Section prior to dredging in or removing sediment from an area closed to shell fishing where the effluent may be released to an area open for shell fishing or swimming in order to avoid contamination from the disposal area and cause a temporary shellfish closure to be made. Such notification shall also be provided to the appropriate Corps of Engineers Regulatory Field Office. Any disposal of sand to the ocean beach should occur between November 1 and April 30 when recreational usage is low. Only clean sand should be used and no dredged sand from closed shell fishing areas may be used. If beach disposal were to occur at times other than stated above or if sand from a closed shell fishing area is to be used, a swimming advisory shall be posted, and a press release shall be issued.

### **3.8. Preservation of Submerged Aquatic Vegetation**

Adverse impacts to Submerged Aquatic Vegetation (SAV) are not authorized by any NWP within any of the twenty coastal counties defined by North Carolina's Coastal Area Management Act of 1974 (CAMA).

### **4.0 Additional Regional Conditions for Specific Nationwide Permits**

#### **4.1 The following regional condition is required for NWP #23 – Approved Categorical Exclusions**

No development activities authorized by this NWP may begin until the permittee obtains a consistency determination or a CAMA permit from the North Carolina Division of Coastal Management, if either required.

## **NC DIVISION OF WATER QUALITY - GENERAL CERTIFICATION CONDITIONS**

For the most recent General Certification conditions, call the NC Division of Water Quality, Wetlands/401 Certification Unit at (919) 733-1786 or access the following website:

<http://h2o.enr.state.nc.us/ncwetlands/certs.html>

## **NC DIVISION OF COASTAL MANAGEMENT - STATE CONSISTENCY**

In a letter dated May 7, 2007, the North Carolina Division of Coastal Management found this NWP consistent with the North Carolina Coastal Zone Management Program. Updates on CAMA Consistency for NC can be found on the NC DCM web site at:

<http://dcm2.enr.state.nc.us/Permits/consist.htm>

## **EASTERN BAND OF THE CHEROKEE INDIANS TRIBAL WATER QUALITY CERTIFICATIONS**

In a letter dated May 8, 2007, US EPA, on behalf of the Eastern Band of Cherokee Indians, provided Tribal General Conditions for Nationwide Permits on Cherokee Indian Reservation. These Tribal General Conditions are located on the Corps website at:

<http://www.saw.usace.army.mil/WETLANDS/NWP2007/EBCI-certs.html>

### **Citations:**

2007 Nationwide Permits Public Notice for Final Issue Date: March 15, 2007

Correction Notice for Nationwide Permits, Federal Register / Vol. 72, No. 88 / Tuesday, May 8, 2007 / Notices p.26082

2007 SAW Regional Conditions – Authorized June 1, 2007

This and other information can be found on the Corps web site at:

<http://www.saw.usace.army.mil/WETLANDS/NWP2007/nationwide-permits.html>

# Water Quality Certification N<sup>o</sup>. 3699

**GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE  
FOR U.S. ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT  
NUMBERS 12 (UTILITY LINE ACTIVITIES) AND 47 (PIPELINE SAFETY PROGRAM  
DESIGNATED TIME SENSITIVE INSPECTIONS AND REPAIRS),  
AND RIPARIAN AREA PROTECTION RULES (BUFFER RULES)**

Water Quality Certification Number 3699 is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15A NCAC 2H, Section .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters and wetland areas as described in 33 CFR 330 Appendix A (B) (12) and Nationwide Permit No. 47 of the Corps of Engineers regulations including any fill activity for utility line backfill and bedding, and for the Riparian Area Protection Rules (Buffer Rules) in 15A NCAC 2B .0200.

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.

This General Certification does *not* authorize any permanent changes in pre-construction elevation contours in waters or wetlands or stream dimension, pattern or profile.

Activities covered by this General Certification *do not* require written approval from the Division of Water Quality (the "Division") as long as they comply with the Conditions listed below. ***Written approval is required if the maintenance corridor is greater than 15 feet wide. Gas pipelines may have a maintenance corridor larger than fifteen feet if mitigation is provided for these additional wetland fills.***

**If any of these Conditions cannot be met, or if the activities are associated with, or in response to a Notice of Violation or an enforcement action initiated by the Division of Water Quality or the Division of Land Resources, then written approval from the Division is required to use this Certification. Activities that are located within river basins with Riparian Area Protection Rules (Buffer Rules) require written approval unless listed in the Table of Uses as "EXEMPT".**

In accordance with North Carolina General Statute Section 143-215.3D(e), any requirement for written approval for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, then one payment to both agencies shall be submitted and will be the higher of the two fees.

#### Conditions of Certification:

1. No Impacts Beyond Thresholds that Qualify for this Certification

No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the thresholds established for use of this Certification, including incidental impacts. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.

2. Standard Erosion and Sediment Control Practices

Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices:

## Water Quality Certification N<sup>o</sup>. 3699

- a. Design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
  - b. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
  - c. Reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.
  - d. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.
  - e. If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNA's), Trout (Tr), SA, WS-I, WS-II, High Quality (HQW), or Outstanding Resource (ORW) waters, then the sediment and erosion control requirements contained within *Design Standards in Sensitive Watersheds* (15A NCAC 04B .0124) supercede all other sediment and erosion control requirements.
3. No Sediment and Erosion Control Measures in Wetlands or Waters

Sediment and erosion control measures should not be placed in wetlands or waters without approval by the Division. . If placement of sediment and erosion control devices in wetlands and waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. All sediment and erosion control devices shall be removed and the natural grade restored within two (2) months of the date that the Division of Land Resources or locally delegated program has released the project.

4. Construction Stormwater Permit NCG010000

Upon the approval of an Erosion and Sedimentation Control Plan issued by the Division of Land Resources (DLR) or a DLR delegated local erosion and sedimentation control program, an NPDES General stormwater permit (NCG010000) administered by the Division is automatically issued to the project. This General Permit allows stormwater to be discharged during land disturbing construction activities as stipulated by conditions in the permit. If your project is covered by this permit [applicable to construction projects that disturb one (1) or more acres], full compliance with permit conditions including the sedimentation control plan, self-monitoring, record keeping and reporting requirements are required. A copy of this permit and monitoring report forms may be found at [http://h2o.enr.state.nc.us/su/Forms\\_Documents.htm](http://h2o.enr.state.nc.us/su/Forms_Documents.htm).

5. Construction Moratoriums and Coordination

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) to protect trout, anadromous fish, larval/post-larval fishes and crustaceans, or other aquatic species of concern shall be implemented.

Work within the twenty-five (25) designated trout counties or identified state or federal endangered or threatened species habitat shall be coordinated with the appropriate WRC, USFWS, NMFS, and/or DMF personnel.



# Water Quality Certification N<sup>o</sup>. 3699

## 6. Work in the Dry

All work in or adjacent to stream waters shall be conducted in a dry work 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.

## 7. Riparian Area Protection (Buffer) Rule

Activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse, Tar-Pamlico, Catawba, and Randleman (or any other basin with buffer rules), shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0233, .0259, .0250 and .0243, and shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices. All buffer rule requirements, including diffuse flow requirements, must be met.

## 8. Water Supply Watershed Buffers

The 30-foot wide vegetative buffer (low-density development) or the 100-foot wide (high-density development) must be maintained adjacent to all perennial waters except for allowances as provided in the Water Supply Watershed Protection Rules [15A NCAC 2B .0212 through .0215].

## 9. Any rip rap required for normal pipe burial and stabilization shall be buried such that the original stream elevation is restored and maintained.

## 10. Compensatory Mitigation

In accordance with 15A NCAC 2H .0506 (h), compensatory mitigation may be required for losses of 150 linear feet or more of streams and/or one (1) acre or more of wetlands. For linear, public transportation projects, impacts equal to or exceeding 150 linear feet per stream shall require mitigation.

Compensatory stream mitigation shall be required at a 1:1 ratio for all perennial and intermittent stream impacts in watersheds classified as ORW, HQW, Trout, WS-I and WS-II.

Buffer mitigation may be required for any project with Buffer Rules in effect at the time of application for buffer impacts resulting from activities classified as "Allowable with Mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules.

A determination of buffer, wetland and stream mitigation requirements shall be made by the Division for any application for this Certification. Design and monitoring protocols shall follow the US Army Corps of Engineers Wilmington District *Stream Mitigation Guidelines* (April 2003), or its subsequent updates. Compensatory mitigation plans shall be submitted for written Division approval as required in those protocols. Alternatively, the Division will accept payment into an in-lieu fee program or credit purchase from a mitigation bank.

Finally, the mitigation plan must be implemented and/or constructed before any permanent building or structure on site is occupied. In the case of public road projects, the mitigation plan must be implemented before the road is opened to the public. Proof of payment to an in-lieu fee program or mitigation bank must be provided to the Division to satisfy this requirement.

## Water Quality Certification N<sup>o</sup>. 3699

11. For all activities requiring re-alignment of streams, a stream relocation plan must be included for written Division approval. Relocated stream designs should include the same dimensions, patterns and profiles as the existing channel (or a stable reference reach if the existing channel is unstable), to the maximum extent practical. The new channel should be constructed in the dry and water shall not be turned into the new channel until the banks are stabilized. Vegetation used for bank stabilization shall be limited to native woody species, and should include establishment of a 30-foot wide wooded and an adjacent 20-foot wide vegetated buffer on both sides of the relocated channel to the maximum extent practical. A transitional phase incorporating coir fiber and seedling establishment is allowable. Rip-rap, A-Jacks, concrete, gabions or other hard structures may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage. Please note that if the stream relocation is conducted as a stream restoration as defined in the US Army Corps of Engineers Wilmington District, April 2003 *Stream Mitigation Guidelines* (or its subsequent updates), the restored length can be used as compensatory mitigation for the impacts resulting from the relocation.
12. For sewer lines, the edge of the construction corridor shall not be installed parallel to and closer than 10 feet to a stream except for the following classifications; 50 feet to waters classified as WS (except WS-I or WS-V), B, SA, ORW, HQW, or SB from normal high water (or tide elevation) and wetlands; or 100 feet to private or public water supply sources or waters classified as WS-I waters or Class I or Class II impounded reservoirs used as a source of drinking water in accordance with 15A NCAC 02T .0305(f).  
  
Utility lines shall not cross a stream channel at other than a near-perpendicular direction (i.e., stream channel crossings shall not be at an angle of less than 75 degrees or more than 105 degrees to the stream bank).
13. Any wastewater line that crosses any stream shown on the most recent version of the 1:24,000 USGS topographic map or NRCS (SCS) County Soil Survey as permanent or intermittent shall be installed either a) with no joints connected within the footprint of a stream channel or within two (2) feet of the stream banks in the case of plastic or PVC pipes or b) with properly bedded and supported ductile iron. *Otherwise, written approval from DWQ is required.*
14. If concrete is used during the construction, then a dry work area should be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete should not be discharged to surface waters due to the potential for elevated pH and possible aquatic life/fish kills.
15. Herbicides can be applied in wetlands or other waters only when applied by a certified applicator, and in strict accordance with product labeling.
16. Placement of rip-rap shall be restricted to the stream bottom and banks directly impacted by the placement of the utility line. Rip-rap shall only be used below the normal high water level. The stream berm must be restored to the original contour after construction. Placement of rip-rap or other materials shall not result in de-stabilization of the stream bed or banks upstream of downstream of the crossing.
17. Annual native species suitable for wet locations shall be planted and established within jurisdictional wetlands for soil and erosion control. Non-native perennials such as fescue are prohibited.

## Water Quality Certification N<sup>o</sup>. 3699

18. A one-time application of fertilizer to re-establish vegetation is allowed, but is restricted to no closer than 10 feet (3 meters) of streams. Any fertilizer application must comply with all other Federal, State and Local regulations.
19. The construction corridor (including access roads and stockpiling of materials) is limited to 40 feet (12.2 meters) in width in wetlands and across stream channels and must be minimized to the maximum extent practicable.
20. Permanent, maintained access corridors shall be restricted to the minimum width practicable and shall not exceed 15 feet in width except at manhole locations. A 15-foot by 15-foot perpendicular vehicle turnaround must be spaced at least 500 feet (152.4 meters) apart.
21. An anti-seep collar shall be placed at the downstream (utility line gradient) wetland boundary and every 150 feet (45.7 meters) up the gradient until the utility exits the wetland for buried utility lines. Anti-seep collars may be constructed with class B concrete, compacted clay, PVC pipe, or metal collars. Wetland crossings that are directionally drilled, and perpendicular wetland crossings that are open cut and less than 150 feet (45.7 meters) long do not require anti-seep collars. The compacted clay shall have a specific discharge of 1 X 10<sup>-5</sup> cm/sec or less. A section and plan view diagram is attached for the anti-seep collars.

The following specifications shall apply to class B concrete:

- a) Minimum cement content, sacks per cubic yard with rounded course aggregate 5.0
  - b) Minimum cement content, sacks per cubic yard with angular course aggregate 5.5
  - c) Maximum water-cement ratio gallons per sack 6.8
  - d) Slump range 2" to 4"
  - e) Minimum strength - 28 day psi 2,500
22. The applicant shall have a specific plan for restoring wetland contours. Any excess material will be removed to a high ground disposal area.
  23. If an environmental document is required under NEPA or 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.
  24. In the twenty (20) coastal counties, the appropriate DWQ Regional Office must be contacted to determine if Coastal Stormwater Regulations will be required. .
  25. This General Certification does not relieve the applicant of the responsibility to obtain all other required Federal, State or local approvals.
  26. 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 the certificate of completion attached to the approval. One copy of the certificate shall be sent to the DWQ Central Office in Raleigh at 1650 Mail Service Center, Raleigh, NC, 27699-1650.
  27. When written approval is required, the applicant is required to use the Certificate of Completion form attached to the cover letter to notify the Division when all activities authorized by this General Certification have been completed.
  28. This General Certification shall expire three (3) years from the date of issuance of the written approval letter or on the same day as the expiration date of the corresponding Nationwide Permit 12. 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

## Water Quality Certification N°. 3699

Certification. If the construction process for approved activities will overlap the expiration and renewal date of the corresponding 404 Permit and the Corps allows for continued use of the 404 Permit, then the General Certification shall also remain in effect without requiring re-application and re-approval to use this Certification for the specific impacts already approved.

29. The applicant/permittee 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 the Division 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 the Division may reevaluate and modify this General Water Quality Certification.

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

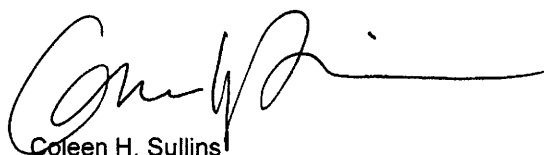
The Director of the North Carolina Division of Water Quality may require submission of a formal application for individual certification for any project in this category of activity, if it is determined that the project is likely to have a significant adverse effect upon water quality including state or federally listed endangered or threatened aquatic species or degrade the waters so that existing uses of the wetland or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Effective date: November 1, 2007

DIVISION OF WATER QUALITY

By



Coleen H. Sullins

Director

*History Note: Water Quality Certification Number 3699 replaces Water Quality Certification Number 2664 issued on January 21, 1992, Water Quality Certification Number 3022 issued on September 6, 1995, Water Quality Certification (WQC) Number 3101 issued on February 11, 1997, Water Quality Certification Number 3288 issued on June 1, 2000, Water Quality Certification Number 3374 issued on March 18, 2002, and Water Quality Certification Number 3625 issued on March 19, 2007. This General Certification is rescinded when the Corps of Engineers reauthorize Nationwide 12 or when deemed appropriate by the Director of the Division of Water Quality.*

# Water Quality Certification N<sup>o</sup>. 3701

## **GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE FOR U.S. ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBER 23 (APPROVED CATEGORICAL EXCLUSIONS) AND RIPARIAN AREA PROTECTION RULES (BUFFER RULES)**

Water Quality Certification Number 3701 is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality Regulations in 15A NCAC 2H, Section .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters and wetland areas as described in 33 CFR 330 Appendix A (B) (23) and for the Riparian Area Protection Rules (Buffer Rules) in 15A NCAC 2B .0200. The category of activities shall include only Federally-approved Categorical Exclusion projects.

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.

Any proposed fill or substantial modification of wetlands or waters (including streams) under this General Certification requires notification to the Division of Water Quality (the "Division"). Two (2) copies shall be submitted to the Division at the time of notification in accordance with 15A NCAC 2H .0501(a).

If any one (1) of the Conditions of Certification cannot be met, or, if the activities meet any one (1) of the following thresholds, then require *written approval* from the Division of Water Quality (the "Division") is required:

- I. Stream and/or buffer impacts:
  - a. Stream impacts equal or greater than 40 linear feet.
  - b. Any impacts to streams and/or buffers in the Neuse, Tar-Pamlico, Randleman and Catawba River Basins (or any other basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application [in accordance with 15A NCAC 2B .0200]), *unless* the activities are listed as "EXEMPT" from these Rules.
- II. Impacts to waters of equal to or greater than one-third (1/3) of an acre.
- III. Wetland impacts:
  - a. Equal to or greater than one-third (1/3) acre East of Interstate-95.
  - b. Equal to or greater than one-tenth (1/10) acre West of Interstate-95.
  - c. Any impacts to wetlands adjacent to waters designated as: ORW, SA, WS-I, WS-II, or Trout, or wetlands contiguous to waters designated as a North Carolina or National Wild and Scenic River.
  - d. Any impacts to coastal wetlands [15A NCAC 7H .0205], or Unique Wetlands (UWL) [15A NCAC 2H .0506].
- IV. If the activity is associated with or in response to a Notice of Violation or an enforcement action initiated by the Division and/or the Division of Land Resources.
- V. Projects with any impacts to streams, wetlands, and/or waters that have received a Notice of Violation from the Division and/or Division of Land Resources.

In accordance with North Carolina General Statute Section 143-215.3D(e), any requirement for written approval for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, then one payment to both agencies shall be submitted and will be the higher of the two fees.

# Water Quality Certification N<sup>o</sup>. 3701

## Conditions of Certification:

1. **No Impacts Beyond those Authorized in the Written Approval or Beyond the Thresholds for use of This Certification**

No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts authorized in the written approval or beyond the thresholds allowed for use of this General Certification, including incidental impacts. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.

2. **Standard Erosion and Sediment Control Practices**

Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices:

- a. Design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
- b. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
- c. Reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.
- d. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times, except for publicly funded linear transportation projects when materials can be accessed offsite in a timely manner.
- e. If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNA's), Trout (Tr), SA, WS-I, WS-II, High Quality (HQW), or Outstanding Resource (ORW) waters, then the sediment and erosion control requirements contained within *Design Standards in Sensitive Watersheds* (15A NCAC 04B .0124) supercede all other sediment and erosion control requirements.

3. **No Sediment and Erosion Control Measures in Wetlands or Waters**

Sediment and erosion control measures should not be placed in wetlands or waters outside of the permitted impact areas without prior written approval by the Division. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. All sediment and erosion control devices shall be removed and the natural grade restored within two (2) months of the date that the Division of Land Resources or locally delegated program has released the project.

# Water Quality Certification N°. 3701

## 4. Construction Stormwater Permit NCG010000

Upon the approval of an Erosion and Sedimentation Control Plan issued by the Division of Land Resources (DLR) or a DLR delegated local erosion and sedimentation control program, an NPDES General stormwater permit (NCG010000) administered by the Division is automatically issued to the project. This General Permit allows stormwater to be discharged during land disturbing construction activities as stipulated by conditions in the permit. If your project is covered by this permit [applicable to construction projects that disturb one (1) or more acres], full compliance with permit conditions including the sedimentation control plan, self-monitoring, record keeping and reporting requirements are required. A copy of this permit and monitoring report forms may be found at [http://h2o.enr.state.nc.us/su/Forms\\_Documents.htm](http://h2o.enr.state.nc.us/su/Forms_Documents.htm).

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.

## 5. Construction Moratoriums and Coordination

If activities must occur during periods of high biological activity (i.e. sea turtle or bird nesting), then biological monitoring may be required at the request of other state or federal agencies and coordinated with these activities. This condition can be waived through written concurrence on a case-by-case basis upon reasonable justification.

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) to lessen impacts on trout, anadromous fish, larval/post-larval fishes and crustaceans, or other aquatic species of concern must be obeyed. This condition can be waived through written concurrence on a case-by-case basis upon reasonable justification.

Work within the twenty-five (25) designated trout counties or identified state or federal endangered or threatened species habitat shall be coordinated with the appropriate WRC, USFWS, NMFS, and/or DMF personnel.

## 6. If concrete is used during the construction, then a dry work area should be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete should not be discharged to surface waters due to the potential for elevated pH and possible aquatic life/fish kills.

## 7. Riparian Area Protection (Buffer) Rules

Activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse, Tar-Pamlico, Randleman, or Catawba River Basins (or any other basin with buffer rules), shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0233, .0259, .0250, and .0243, and shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices. All riparian area protection rule requirements, including diffuse flow requirements, must be met.

# Water Quality Certification N<sup>o</sup>. 3701

## 8. Water Supply Watershed Buffers

The 100-foot wide (high-density development) or the 30-foot wide vegetative buffer (all other development) shall be maintained adjacent to all perennial waters except for allowances as provided in the Water Supply Watershed Protection Rules [15A NCAC 2B .0212 through .0215].

## 9. Work in the Dry

All work in or adjacent to stream waters shall be conducted in a dry work 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. Channel realignments shall be constructed by excavating the new channel from downstream to upstream before connecting it to the existing channel. Exceptions to this condition require submittal to, and approval by, the Division of Water Quality.

10. For all activities requiring re-alignment of streams, a stream relocation plan must be included for written Division approval. Relocated stream designs should include the same dimensions, patterns and profiles as the existing channel (or a stable reference reach if the existing channel is unstable), to the maximum extent practical. The new channel should be constructed in the dry and water shall not be turned into the new channel until the banks are stabilized. Vegetation used for permanent bank stabilization shall be limited to native woody species, and should include establishment of a 30-foot wide wooded and an adjacent 20-foot wide vegetated buffer on both sides of the relocated channel to the maximum extent practical. A transitional phase incorporating appropriate erosion control matting materials and seedling establishment is allowable. Rip-rap, A-Jacks, concrete, gabions or other hard structures may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage. Please note that if the stream relocation is conducted as a stream restoration as defined in the US Army Corps of Engineers Wilmington District, April 2003 *Stream Mitigation Guidelines* (or its subsequent updates), the restored length can be used as compensatory mitigation for the impacts resulting from the relocation.

## 11. Placement of Culverts and Other Structures in Waters and Wetlands

The application must include construction plans with cross-sectional details in order to indicate that the current stability of the stream will be maintained or enhanced (i.e., not result in head cuts).

Culverts required for this project 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. Existing stream dimensions (including the cross section dimensions, pattern, and longitudinal profile) must be maintained above and below locations of each culvert. Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life unless otherwise justified and approved by the Division.

Installation of culverts in wetlands must ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. Additionally, when roadways, causeways or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges must be provided to maintain



# Water Quality Certification N°. 3701

the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.

Any rip rap required for normal pipe burial and stabilization shall be buried such that the original stream elevation is restored and maintained.

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

## 12. Compensatory Mitigation

In accordance with 15A NCAC 2H .0506 (h), compensatory mitigation maybe required for losses of 150 linear feet or more of streams and/or one (1) acre or more of wetlands. For linear, public transportation projects, impacts equal to or exceeding 150 lines feet per stream may require mitigation.

In watersheds classified as: ORW, HQW, Tr, WS-I, and WS-II, compensatory stream mitigation may be required at a 1:1 ratio for not only perennial but also intermittent stream impacts equal to or exceeding 150 feet and that require application and written approval from the Division, unless the project is a linear, publicly-funded transportation project, which has a 150-foot per-stream impact allowance.

Buffer mitigation may be required for any project with Buffer Rules in effect at the time of application for buffer impacts resulting from activities classified as "allowable with mitigation" within the Buffer Rules or require a variance under the Buffer Rules.

A determination of buffer, wetland and stream mitigation requirements shall be made for any General Certification for this Nationwide Permit.

When compensatory mitigation is required for a project, the mitigation plans must be approved by the Division, in writing, before the impacts approved by this Certification occur. The most current design and monitoring protocols from the Division shall be followed and written plans submitted for the Division approval as required in those protocols. Alternately, the Division will accept payment into an in-lieu fee program or mitigation bank. Before any permanent building or structure on site is occupied, the mitigation plan must be implemented and/or constructed or proof of payment to a mitigation bank or in-lieu fee program must be provided to the Division. In the case of public road projects, the mitigation plan must be implemented, before the road is opened to the traveling public whenever practical or at the earliest reasonable time during the construction of the project

13. If an environmental document is required under NEPA or 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.
14. For activities requiring written approval, additional site-specific conditions may be added to the cover letter projects in order to ensure compliance with all applicable water quality and effluent standards.
15. Certificate of Completion

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 the certificate of completion attached to the approval. One copy of the certificate shall be sent to the DWQ Central Office in Raleigh at 1650 Mail Service Center, Raleigh, NC, 27699-1650.

## Water Quality Certification N<sup>o</sup>. 3701

16. This General Certification shall expire three (3) years from the date of issuance of the written approval or on the same day as the expiration date of the corresponding Nationwide and Regional General Permits. In accordance with General Statute 136-44.7B, certifications issued to the NCDOT shall expire only upon expiration of the federal 404 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. If the construction process for approved activities will overlap the expiration and renewal date of the corresponding 404 Permit and the Corps allows for continued use of the 404 Permit, then the General Certification shall also remain in effect without requiring re-application and re-approval to use this Certification for the specific impacts already approved.
17. The applicant/permittee 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 the Division 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 the Division may reevaluate and modify this General Water Quality Certification.

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

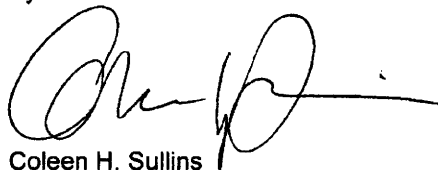
The Director of the North Carolina Division of Water Quality may require submission of a formal application for individual certification for any project in this category of activity, if it is determined that the project is likely to have a significant adverse effect upon water quality including state or federally listed endangered or threatened aquatic species or degrade the waters so that existing uses of the wetland, stream or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Effective date: November 1, 2007

DIVISION OF WATER QUALITY

By



Coleen H. Sullins

Director

*History Note: Water Quality Certification (WQC) Number 3701 replaces Water Quality Certification Number 2670 issued on January 21, 1992, WQC Number 2734 issued on May 1 1993, WQC Number 3107 issued on February 11, 1997, WQC Certification Number 3361 issued March 18, 2002, WQC Certification Number 3403 issued March 2003, and WQC Number 3632 issued March 2007. This General Certification is rescinded when the Corps of Engineers re-authorizes Nationwide Permit 23 or when deemed appropriate by the Director of the DWQ.*



North Carolina Department of Environment and Natural Resources  
**Division of Coastal Management**

Michael F. Easley, Governor

**James H. Gregson, Director**

William G. Ross Jr., Secretary

May 20, 2008

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

Dear Dr. Thorpe:

The enclosed permit constitutes authorization under the Coastal Area Management Act, and where applicable, the State Dredge and Fill Law, for you to proceed with your project proposal. The original (buff-colored form) is retained by you and it must be available on site when the project is inspected for compliance. Please sign both the original and the copy and return the copy to this office in the enclosed envelope. Signing the permit and proceeding means you have waived your right of appeal described below.

If you object to the permit or any of the conditions, you may request a hearing pursuant to NCGS 113A-121.1 or 113-229. Your petition for a hearing must be filed in accordance with NCGS Chapter 150B with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27611-6714, (919) 733-2698 within twenty (20) days of this decision on your permit. You should also be aware that if another qualified party submits a valid objection to the issuance of this permit within twenty (20) days, the matter must be resolved prior to work initiation. The Coastal Resources Commission makes the final decision on any appeal.

The project plan is subject to those conditions appearing on the permit form. Otherwise, all work must be carried out in accordance with your application. Modifications, time extensions, and future maintenance require additional approval. Please read your permit carefully prior to starting work and review all project plans, as approved. If you are having the work done by a contractor, it would be to your benefit to be sure that he fully understands all permit requirements.

From time to time, Department personnel will visit the project site. To facilitate this review, we request that you complete and mail the enclosed Notice Card just prior to work initiation. However, if questions arise concerning permit conditions, environmental safeguards, or problem areas, you may contact Department personnel at any time for assistance. By working in accordance with the permit, you will be helping to protect our vitally important coastal resources.

Sincerely,

Douglas V. Huggett  
Major Permits and Consistency Manager

Enclosure

400 Commerce Avenue, Morehead City, North Carolina 28557  
Phone: 252-808-2808 \ FAX: 252-247-3330 \ Internet: [www.nccoastalmanagement.net](http://www.nccoastalmanagement.net)

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Permit Class  
**NEW**

Permit Number  
**80-08**

STATE OF NORTH CAROLINA  
Department of Environment and Natural Resources  
and  
Coastal Resources Commission

# Permit

for

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

Excavation and/or filling pursuant to NCGS 113-229

Issued to **N.C. Department of Transportation, 1598 Mail Service Center, Raleigh, NC 27699-1548**

Authorizing development in Brunswick County at Jinnys Branch, Bridge No. 72  
on NC 179 as requested in the permittee's application dated 2/29/08,  
including the attached thirteen (13) drawings as referenced in Condition No. 1 of this permit.

This permit, issued on 5/20/08, 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.

### Bridge No. 72 Replacement (TIP No. B-4031)

- 1) All work authorized by this permit shall be carried out in accordance with the following workplan drawings, except as specifically modified herein:  
  
1/2 size drawings: Four (4) drawings dated 4/26/06; seven (7) drawings dated 1/30/08; one (1) drawing dated 9/10/07; and one (1) drawing dated 9/11/07.
- 2) Unless specifically altered herein, the permittee shall implement NCDOT's Stream Crossing Guidelines for Anadromous Fish Passage.

**(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. An appeal requires resolution prior to work initiation or continuance as the case may be.

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

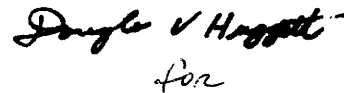
Any maintenance work or project modification not covered hereunder requires further Division approval.

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.

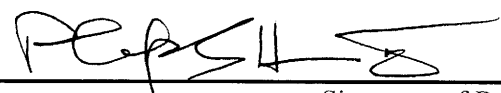
Signed by the authority of the Secretary of DENR and the Chairman of the Coastal Resources Commission.



for

James H. Gregson, Director  
Division of Coastal Management

This permit and its conditions are hereby accepted.



Signature of Permittee

### ADDITIONAL CONDITIONS

- 3) In order to protect the anadromous fish during spawning periods and through embryonic, larval, and juvenile life stages, no in-water work shall be conducted from February 15th through June 15th of any year without prior approval of the NC Division of Coastal Management (DCM), in consultation with the NC Wildlife Resources Commission (WRC) and the NC Division of Marine Fisheries (DMF).
- 4) The West Indian Manatee, *Trichechus manatus*, which is listed as a federally endangered species, has been reported in North Carolina waters. Therefore, in accordance with commitments made by the permittee, and in order to protect the West Indian Manatee, all work should be done during the period from November 1 to May 31. If work must be done during the period from June through October the enclosed guidelines prepared by the U.S. Fish and Wildlife Service (USFWS), entitled "Guidelines for Avoiding Impacts to the West Indian Manatee: Precautionary Measures for Construction Activities in North Carolina Waters (rev. 06/03)" shall be followed.
- 5) Unless specifically altered herein, the NCDOT document "Best Management Practices for Bridge Demolition and Removal" (final 9/20/99) shall be followed during demolition and construction activities.
- 6) The authorized project is located within a primary nursery area (PNA). Therefore, in accordance with T15A:07H.0208 of the rules of the Coastal Resources Commission, no new dredging or excavation within the PNA shall be permitted. Dredging in any manner, including "kicking" with boat propellers is not authorized. This prohibition shall be applied and enforced throughout the entire existence of the permitted structure.
- 7) The bridge shall be constructed using top-down construction methodologies. Any other construction method shall require additional authorization from DCM.
- 8) Debris resulting from demolition of the existing bridge, including deck components, shall not enter wetlands or waters of the State, even temporarily.
- 9) Any waste materials or debris generated in the demolition and removal of the existing bridge and/or construction of the new bridge or roadway shall be disposed of at an approved upland site or shall be recycled in an environmentally appropriate manner provided appropriate authorizations from any relevant state, federal, or local authorities are obtained.
- 10) The installation of bridge piles shall be accomplished by pile driving or vibratory hammer. Should the permittee and/or ~~NS~~ contractor desire to utilize another type of pile installation, such as drilled shaft construction or jetting, additional authorization from DCM shall be required.
- 11) Pilings from the existing bridge, as well as any remnant pilings from previous bridges, shall be removed in their entirety, except that in the event that a piling breaks during removal and cannot be removed in its entirety, the piling may be cut off flush with the bed of the water body and DCM shall be notified of each occurrence within one working day.
- 12) Live concrete shall not be allowed to contact waters of the State or water that will enter waters of the State.

**ADDITIONAL CONDITIONS**

- 13) Turbidity curtains shall be used to isolate all work areas from Jinnys Branch, including pile or casement installation, pile removal, or excavation. The turbidity curtains shall be of sufficient length to extend to the substrate and shall encircle the immediate work area, however, they shall not extend across the stream or impede navigation. The turbidity curtains shall be properly maintained and retained in the water until construction is complete. The turbidity curtains shall be removed when turbidity within the curtains reaches ambient levels.

**Excavation and Fill**

- 14) All fill material shall be clean and free of any pollutants except in trace quantities.
- 15) Excavated material may either be used in fill areas associated with the project or shall be removed from the site and taken to a high ground location.
- 16) All excavated materials shall be confined above normal water level 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.
- 17) No excavated or fill material shall be placed at any time in any vegetated wetlands or surrounding waters outside of the alignment of the fill areas as indicated on the attached workplan drawings, without permit modification.
- 18) The temporary placement or double handling of excavated or fill materials within waters or vegetated wetlands are not authorized.
- 19) The permittee shall minimize the need to cross wetlands in transporting equipment to the maximum extent practicable.
- 20) This project will temporarily impact approximately 250 square feet of coastal wetlands due to hand clearing. No additional temporary impacts to wetlands or waters of the State are authorized by this permit without prior approval from DCM.
- 21) Wetland areas to be hand cleared shall not be grubbed.
- 22) Construction staging areas shall be located only in upland areas, and not in wetlands or waters of the State.
- 23) There shall be no clearing or grubbing of wetlands outside of the areas indicated on the attached workplan drawings without prior approval from the Division of Coastal Management.
- 24) Placement of riprap shall be limited to the areas as depicted on the attached work plan drawings. The riprap material shall be free from loose dirt or any pollutant. The riprap material shall consist of clean rock or masonry materials, such as but not limited to, granite, marl, or broken concrete.
- 25) Bridge deck drains shall not be located over the open waters of Jinnys Branch and shall not cause erosion of adjacent wetlands.

## ADDITIONAL CONDITIONS

### Sedimentation and Erosion Control

- 26) The project is located in a High Quality Water Zone, therefore, the permittee shall comply with the Design Standards in Sensitive Watersheds, 15A NCAC 4B .0124.
- 27) Unless specifically altered herein, the permittee shall follow "Best Management Practices for the Protection of Surface Waters (3/97)" and shall also implement sedimentation and erosion control measures sufficient to protect aquatic resources.
- 28) Appropriate sedimentation and erosion control devices, measures or structures shall be implemented to ensure that eroded materials do not enter adjacent wetlands, watercourses and property (e.g. silt fence, diversion swales or berms, etc.).
- 29) This project shall conform to all requirements of the NC Sedimentation Pollution Control Act and NC DOT's Memorandum of Agreement with the Division of Land Resources.
- 30) In order to protect water quality, runoff from construction shall not visibly increase the amount of suspended sediments in adjacent waters.

### Subaqueous Utility Lines

- 31) Any relocation of utility lines that is not already depicted on the attached work plan drawings or approved under CAMA General Permit No. 51037 shall require additional approval by DCM, either under the authority of this permit or by the utility company obtaining separate authorization.

### Stormwater Management

- 32) The Division of Water Quality (DWQ) approval of this project under stormwater management rules of the Environmental Management Commission is covered by way of Stormwater Permit No. SW8060564, which was issued on 7/2/07. Any violation of the permit approved by the DWQ shall be considered a violation of this CAMA permit.

### Causeway Removal and Wetland Mitigation

**NOTE:** The existing 121-foot long bridge will be replaced with a 300-foot long bridge at approximately the same location. The permittee intends to lengthen the existing bridge by approximately 179 feet and restore approximately 0.298 acres of Coastal Wetlands as on-site wetland mitigation only for this project.

- 33) Unless specifically altered herein, on-site mitigation shall be carried out as described in the document titled "Onsite Wetland Restoration Plan at Bridge No. 072 over Jinnys Branch on NC 179, Brunswick County" dated August 30, 2007.

### ADDITIONAL CONDITIONS

- 34) Any subsequent changes to the mitigation plan authorized by this CAMA permit shall require additional authorization from the N.C. Division of Coastal Management.
- 35) The causeway restoration area shall be fully contained by silt fence and/or turbidity curtains until all of the causeway fill material has been removed and the restoration area has been restored to the approximate natural elevation of the adjacent, similar undisturbed wetlands and the appropriate areas planted in accordance with the restoration plan.
- 36) Although hydraulic monitoring shall not be required, verification of the target elevation of the restored causeway, that is based on the on the elevation of the adjacent marsh, shall be provided to DCM upon project completion.
- 37) Annual monitoring reports for the mitigation sites shall be provided to DCM for a minimum of three years after mitigation site construction, or until DCM determines that the site is successful. Annual monitoring reports shall include photos, a description of species present, a visual estimate of percent vegetation coverage, and an assessment of whether the site is achieving success. Progress reports shall also be provided upon request. After three years, monitoring may cease if the permittee can demonstrate that the site has been successfully restored and written concurrence is received from DCM.

### General

- 38) Unless specifically altered herein, any mitigative measures or environmental commitments specifically made by the permittee in the attached permit application or the Categorical Exclusion dated 11/22/04, shall be implemented, regardless of whether or not such commitments are addressed by individual conditions of this permit.
- 39) If it is determined that additional permanent and/or temporary impacts will occur that are not shown on the attached permit drawings, additional authorization from DCM shall be required.
- 40) The permittee shall exercise all available precautions in the day-to-day operation of the facility to prevent waste and/or debris from entering the adjacent waters and wetlands.
- 41) The N.C. Division of Water Quality (DWQ) authorized the proposed project under General 401 Water Quality Certification Numbers 3699 and 3701 (DWQ Project No. 20080392), on 2/29/08. Any violation of the Certification approved by the DWQ shall be considered a violation of this CAMA permit.

**NOTE:** The U.S. Army Corps of Engineers authorized the proposed project under Nationwide Permit Number 12 and Nationwide Permit Number 23 (Action ID No. 20011171), which were issued on 3/20/08.

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



**ADDITIONAL CONDITIONS**

**NOTE:** The permittee and/or his contractor is strongly encouraged to contact the N.C. Division of Coastal Management Transportation Project Coordinator in Morehead City to request a pre-construction conference prior to project initiation.



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Raleigh Field Office  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726

### **GUIDELINES FOR AVOIDING IMPACTS TO THE WEST INDIAN MANATEE Precautionary Measures for Construction Activities in North Carolina Waters**

The West Indian manatee (*Trichechus manatus*), also known as the Florida manatee, is a Federally-listed endangered aquatic mammal protected under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) and the Marine Mammal Protection Act of 1972, as amended (16 U.S.C. 1461 *et seq.*). The manatee is also listed as endangered under the North Carolina Endangered Species Act of 1987 (Article 25 of Chapter 113 of the General Statutes). The U.S. Fish and Wildlife Service (Service) is the lead Federal agency responsible for the protection and recovery of the West Indian manatee under the provisions of the Endangered Species Act.

Adult manatees average 10 feet long and weigh about 2,200 pounds, although some individuals have been recorded at lengths greater than 13 feet and weighing as much as 3,500 pounds. Manatees are commonly found in fresh, brackish, or marine water habitats, including shallow coastal bays, lagoons, estuaries, and inland rivers of varying salinity extremes. Manatees spend much of their time underwater or partly submerged, making them difficult to detect even in shallow water. While the manatee's principal stronghold in the United States is Florida, the species is considered a seasonal inhabitant of North Carolina with most occurrences reported from June through October.

To protect manatees in North Carolina, the Service's Raleigh Field Office has prepared precautionary measures for general construction activities in waters used by the species. Implementation of these measure will allow in-water projects which do not require blasting to proceed without adverse impacts to manatees. In addition, inclusion of these guidelines as conservation measures in a Biological Assessment or Biological Evaluation, or as part of the determination of impacts on the manatee in an environmental document prepared pursuant to the National Environmental Policy Act, will expedite the Service's review of the document for the fulfillment of requirements under Section 7 of the Endangered Species Act. These measures include:

1. The project manager and/or contractor will inform all personnel associated with the project that manatees may be present in the project area, and the need to avoid any harm to these endangered mammals. The project manager will ensure that all construction personnel know the general appearance of the species and their habit of moving about completely or partially submerged in shallow water. All construction personnel will be informed that they are responsible for observing water-related activities for the presence of manatees.
2. The project manager and/or the contractor will advise all construction personnel that

there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act and the Endangered Species Act.

3. If a manatee is seen within 100 yards of the active construction and/or dredging operation or vessel movement, all appropriate precautions will be implemented to ensure protection of the manatee. These precautions will include the immediate shutdown of moving equipment if a manatee comes within 50 feet of the operational area of the equipment. Activities will not resume until the manatee has departed the project area on its own volition (i.e., it may not be herded or harassed from the area).

4. Any collision with and/or injury to a manatee will be reported immediately. The report must be made to the U.S. Fish and Wildlife Service (ph. 919.856.4520 ext. 16), the National Marine Fisheries Service (ph. 252.728.8762), and the North Carolina Wildlife Resources Commission (ph. 252.448.1546).

5. A sign will be posted in all vessels associated with the project where it is clearly visible to the vessel operator. The sign should state:

CAUTION: The endangered manatee may occur in these waters during the warmer months, primarily from June through October. Idle speed is required if operating this vessel in shallow water during these months. All equipment must be shut down if a manatee comes within 50 feet of the vessel or operating equipment. A collision with and/or injury to the manatee must be reported immediately to the U.S. Fish and Wildlife Service (919-856-4520 ext. 16), the National Marine Fisheries Service (252.728.8762), and the North Carolina Wildlife Resources Commission (252.448.1546).

6. The contractor will maintain a log detailing sightings, collisions, and/or injuries to manatees during project activities. Upon completion of the action, the project manager will prepare a report which summarizes all information on manatees encountered and submit the report to the Service's Raleigh Field Office.

7. All vessels associated with the construction project will operate at "no wake/idle" speeds at all times while in water where the draft of the vessel provides less than a four foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

8. If siltation barriers must be placed in shallow water, these barriers will be: (a) made of material in which manatees cannot become entangled; (b) secured in a manner that they cannot break free and entangle manatees; and, (c) regularly monitored to ensure that manatees have not become entangled. Barriers will be placed in a manner to allow manatees entry to or exit from essential habitat.

Figure 1. The whole body of the West Indian manatee may be visible in clear water; but in the dark and muddy waters of coastal North Carolina, one normally sees only a small part of the head when the manatee raises its nose to breathe.

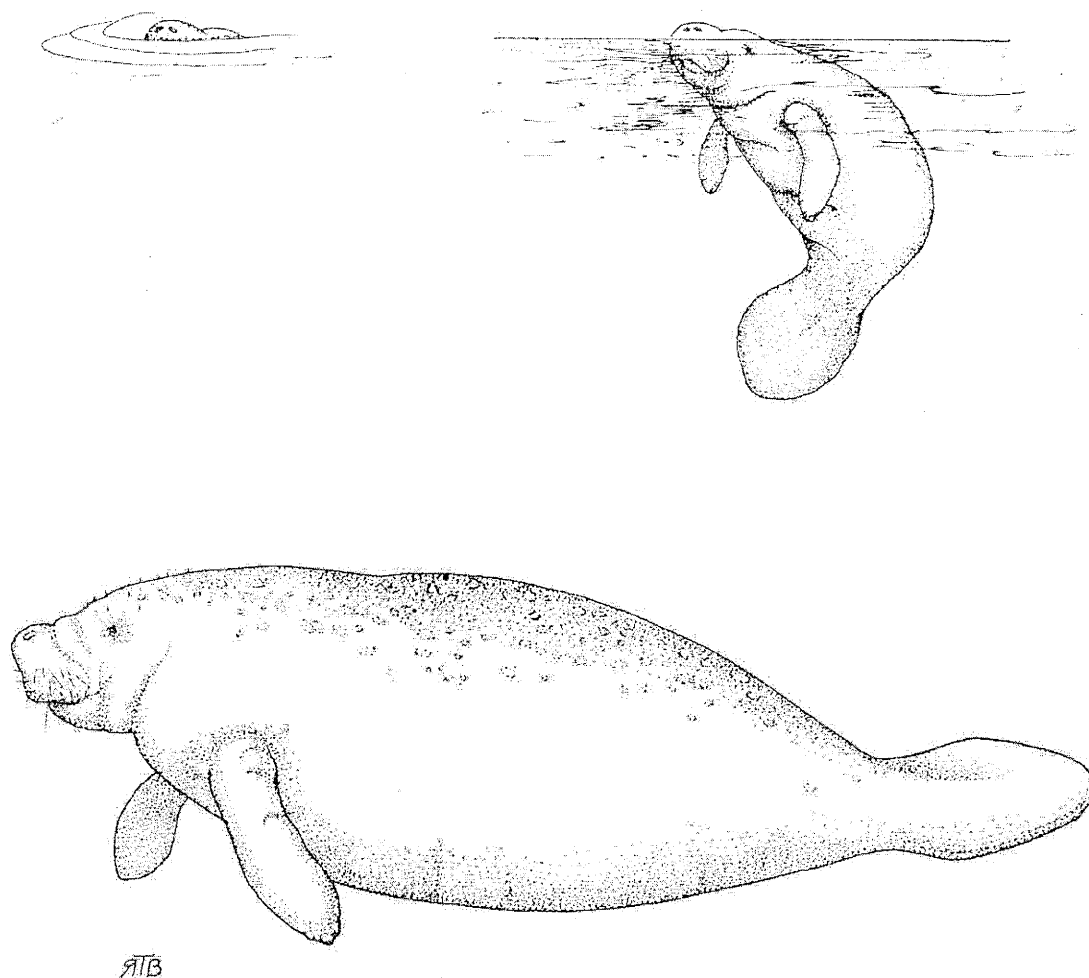


Illustration used with the permission of the North Carolina State Museum of Natural Sciences. Source: Clark, M. K. 1987. Endangered, Threatened, and Rare Fauna of North Carolina: Part I. A re-evaluation of the mammals. Occasional Papers of the North Carolina Biological Survey 1987-3. North Carolina State Museum of Natural Sciences. Raleigh, NC. pp. 52.

**Onsite Wetland Restoration Plan  
At Bridge No. 072 over Jinnys Branch  
on NC 179  
Brunswick County**

**TIP B-4031  
Federal Aid Project No. BRSTP-0179(2)  
WBS No. 33398.1.1**

**August 30, 2007**

The North Carolina Department of Transportation (NCDOT) will perform on-site mitigation for coastal marsh wetland impacts at Bridge No. 72 over Jinnys Branch in Brunswick County. This mitigation site occurs within Transportation Improvement Program (TIP) B-4031. The project begins approximately 270 feet south of existing Bridge No. 72 and continues to approximately 530 to the north of the bridge and will lengthen the existing bridge by approximately 179 feet. As a result, NCDOT will restore approximately 0.298 acres of coastal salt marsh wetland as onsite mitigation for B-4031.

#### **EXISTING CONDITIONS**

The project is located in Brunswick County on NC 179 over Jinnys Branch between the towns of Shallotte and Ocean Isle Beach. The project study area land use is mainly salt marsh or adjacent upland natural communities. Land use of uplands also consists of residential areas and a golf course. Jinnys Branch is designated as a High Quality Water, primary nursery habitat, primary trust waters, tidal salt waters, coastal waters and coastal shoreline within the project area.

The Natural Systems Technical Report for TIP B-4031, dated January 2002, provides further details concerning existing roadway and project study area conditions.

The existing causeway for the northern approach to Bridge No. 72 is located in the intertidal area of Jinnys Branch. This area exists on both sides of the causeway and is comprised of a tidal marsh wetland community. This community is dominated by herbaceous species consisting of smooth cordgrass (*Spartina alterniflora*), saltmeadow grass (*Spartina patens*), sea lavender (*Limonium carolinianum*) and blackneedle rush (*Juncus roemerianus*). Marsh elder (*Iva frutescens*) and wax myrtle (*Myrica cerifera*) dominate the edge of the salt marsh, specifically in the transition zone where the coastal marsh wetland grades into the existing causeway slope. A narrow band of this wetland also exists along the southern bank of Jinnys Branch and is adjacent to the southern approach to the bridge.

## **PROPOSED CONDITIONS DESIGN**

The proposed wetland mitigation will consist of restoring 0.298 acres of coastal salt marsh wetland. Restoration will involve removing causeway fill mainly along the northern approach with a small area along the southern approach to Bridge No. 72. The restoration area will be graded to a range of 1.3 – 1.9 feet MSL based on the elevations of the adjacent existing marsh. The lower range of elevations, 1.3 feet, will be found nearest the creek and graded with a slight increase in elevation to 1.9 feet towards the end of the bridge. Excavated areas will be ripped and disked prior to planting of the site if necessary. Only the areas adjacent to the proposed bridge will be planted with appropriate species. The areas directly under the bridge will not be planted due to the sunlight restrictions caused by low bridge heights. By removing the causeway, the surface hydrologic functions and connectivity of these areas will be restored.

The Natural Environment Engineering Group shall be contacted to provide construction oversight to ensure that the wetland mitigation area is constructed appropriately.

## **VEGETATION PLANTING**

The restoration site will be planted following the successful completion of the site grading. The site will be planted with smooth cordgrass (*Spartina alterniflora*), saltmeadow grass (*Spartina patens*) and blackneedle rush (*Juncus roemerianus*) on 3 foot centers. Areas under the bridge will not be planted, however this area may naturally revegetate.

## **MONITORING:**

Upon successful completion of construction, the following monitoring strategy is proposed for the mitigation site. NCDOT will document monitoring activities on the site in an annual report distributed to the regulatory agencies.

## **HYDROLOGIC MONITORING**

No specific hydrological monitoring is proposed for this restoration site. The target elevation will be based on the adjacent wetland and verified during construction. Constructing the site at the adjacent wetland elevation will ensure the hydrology in the restored area is similar to the hydrology in the reference area.

## **VEGETATION SUCCESS CRITERIA**

NCDOT shall monitor the restoration site by visual observation and photo points for survival and aerial cover of vegetation. NCDOT shall monitor the site for a minimum of three years or until the site is deemed successful. Monitoring will be initiated upon completion of the site planting.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4031	1	
W.S.A. ELEMENT	F.A. PROJ. NO.	DESCRIPTION	
33398.1.1	BRSTP-0179(2)	P.E.	
33398.2.1	BRSTP-0179(2)	R/W & UTL.	

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**BRUNSWICK COUNTY**

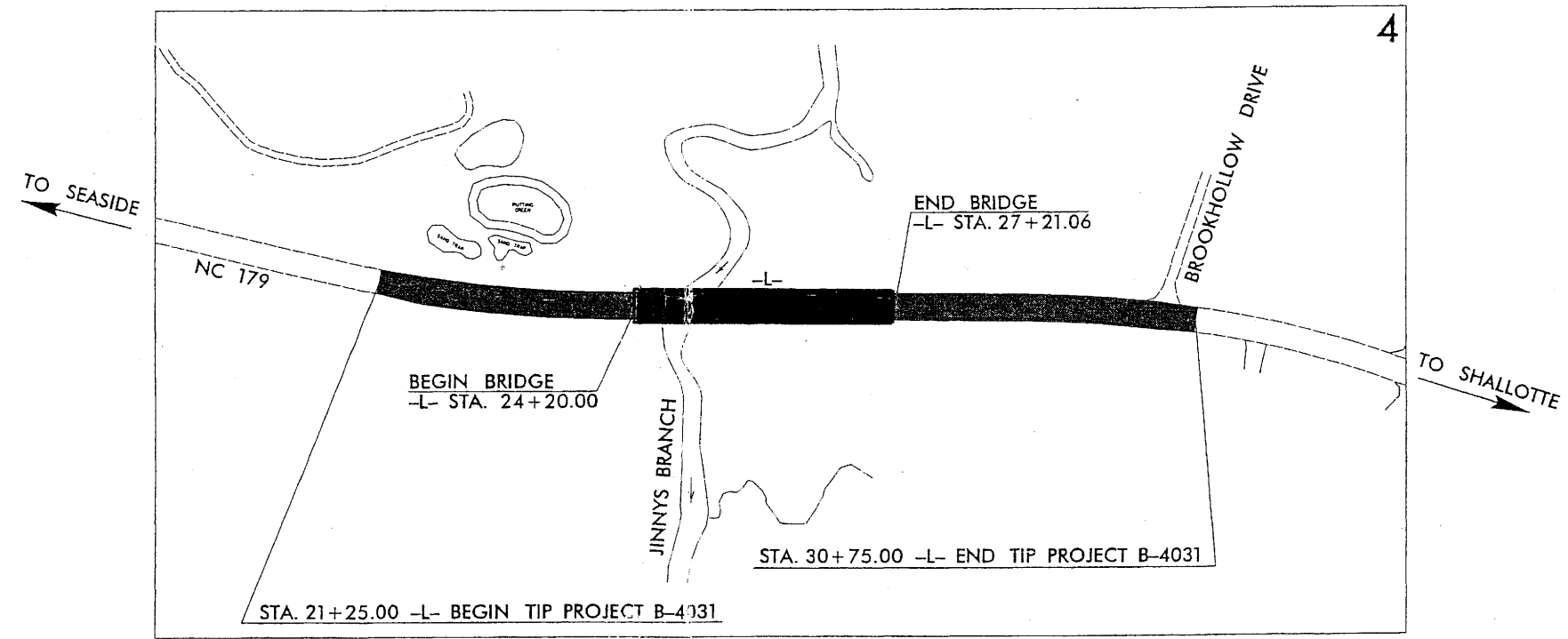
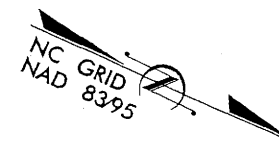
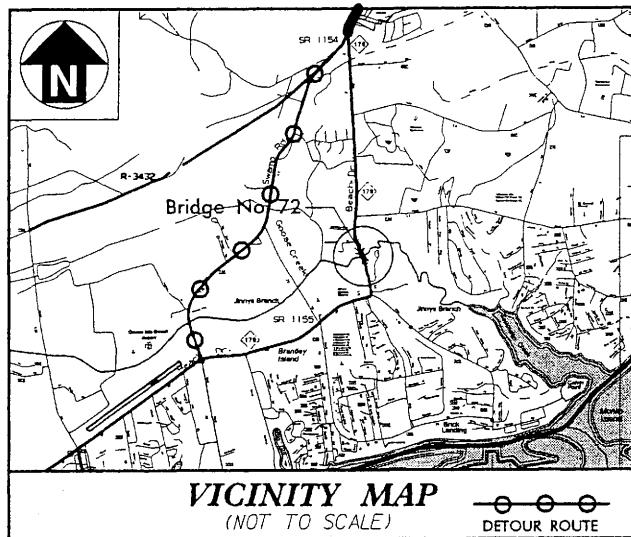
LOCATION: BRIDGE NO. 72 OVER JINNY'S BRANCH ON NC 179  
TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

RECEIVED  
MAR 3 2008

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

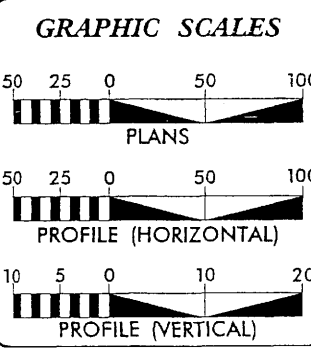
Morehead City DGM

See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional Symbols



**MULKEY**  
ENGINEERS & CONSULTANTS  
PO Box 33127  
RALEIGH, N.C. 27636  
(919) 851-1912  
(919) 851-1918 (FAX)  
WWW.MULKEYINC.COM

Permit Drawing  
Sheet 1 of 5



DESIGN DATA

ADT 2007 =	9,100
ADT 2027 =	16,800
DHV =	15%
D =	55%
* T =	4%
** V =	60 mph
* Duals 3%	TTST 1%
** Design Exception - Sag vertical Curve K Horizontal Curve Radius	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4031	=	0.123 MILE
LENGTH STRUCTURE TIP PROJECT B-4031	=	0.057 MILE
TOTAL LENGTH STATE TIP PROJECT B-4031	=	0.180 MILE

Prepared in the Office of:  
**Mulkey Engineers & Consultants**  
FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JUNE 16, 2006

LETTING DATE: JUNE 19, 2007

NC DOT CONTACT: CATHY S. HOUSER, P.E.  
ROADWAY DESIGN - PROJECT ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

ROADWAY DESIGN ENGINEER

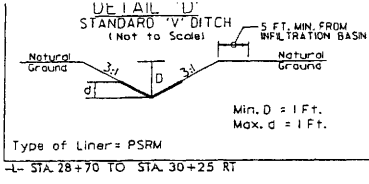
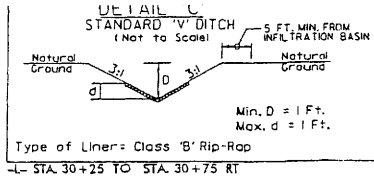
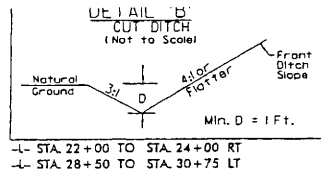
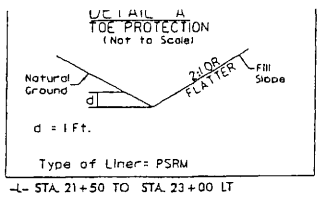
SIGNATURE: \_\_\_\_\_ P.E.

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

CONTRACT: TIP PROJECT: B-4031

1/26/2006 2:00:13 PM \\Roadway\Proj\B4031.rdy\_tsh.dgn



**MULKEY**  
ENGINEERS & CONSULTANTS  
PO Box 22137  
Raleigh, NC 27622  
919 871-1112  
919 871-1114 FAX  
WWW.MULKEYINC.COM

**ENGLISH**

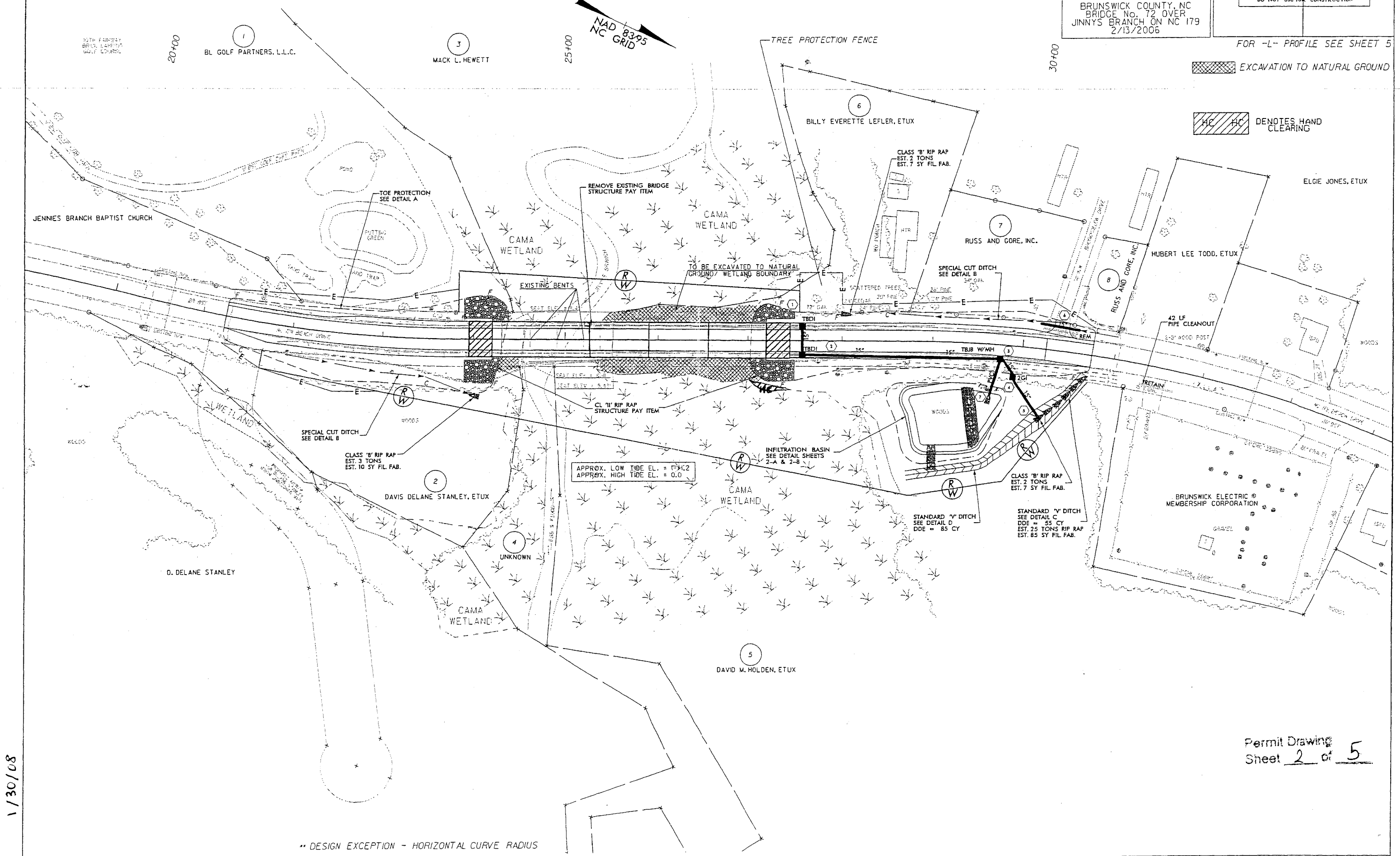
BRUNSWICK COUNTY, NC  
BRIDGE No. 72 OVER  
JINNY'S BRANCH ON NC 179  
2/13/2006

PROJECT NO. B-4031		SHEET NO. 4	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

FOR -L- PROFILE SEE SHEET 5

EXCAVATION TO NATURAL GROUND

DENOTES HAND CLEARING

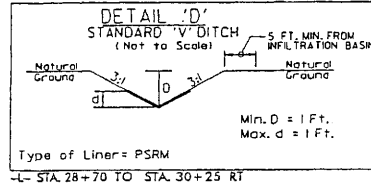
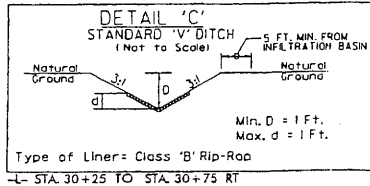
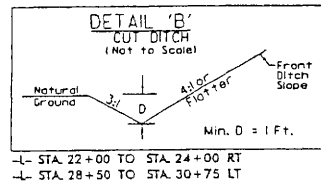
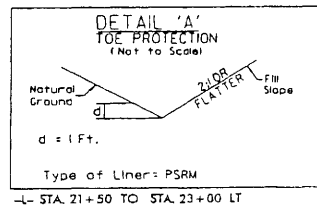


\*\* DESIGN EXCEPTION - HORIZONTAL CURVE RADIUS

Permit Drawing  
Sheet 2 of 5

1/30/08





**MULKEY**  
ENGINEERS & CONSULTANTS  
100 W. 33 ST.  
RAVENNA, OH 44260  
(313) 881-1111 (FAX)  
WWW.MULKEYINC.COM

**ENGLISH**

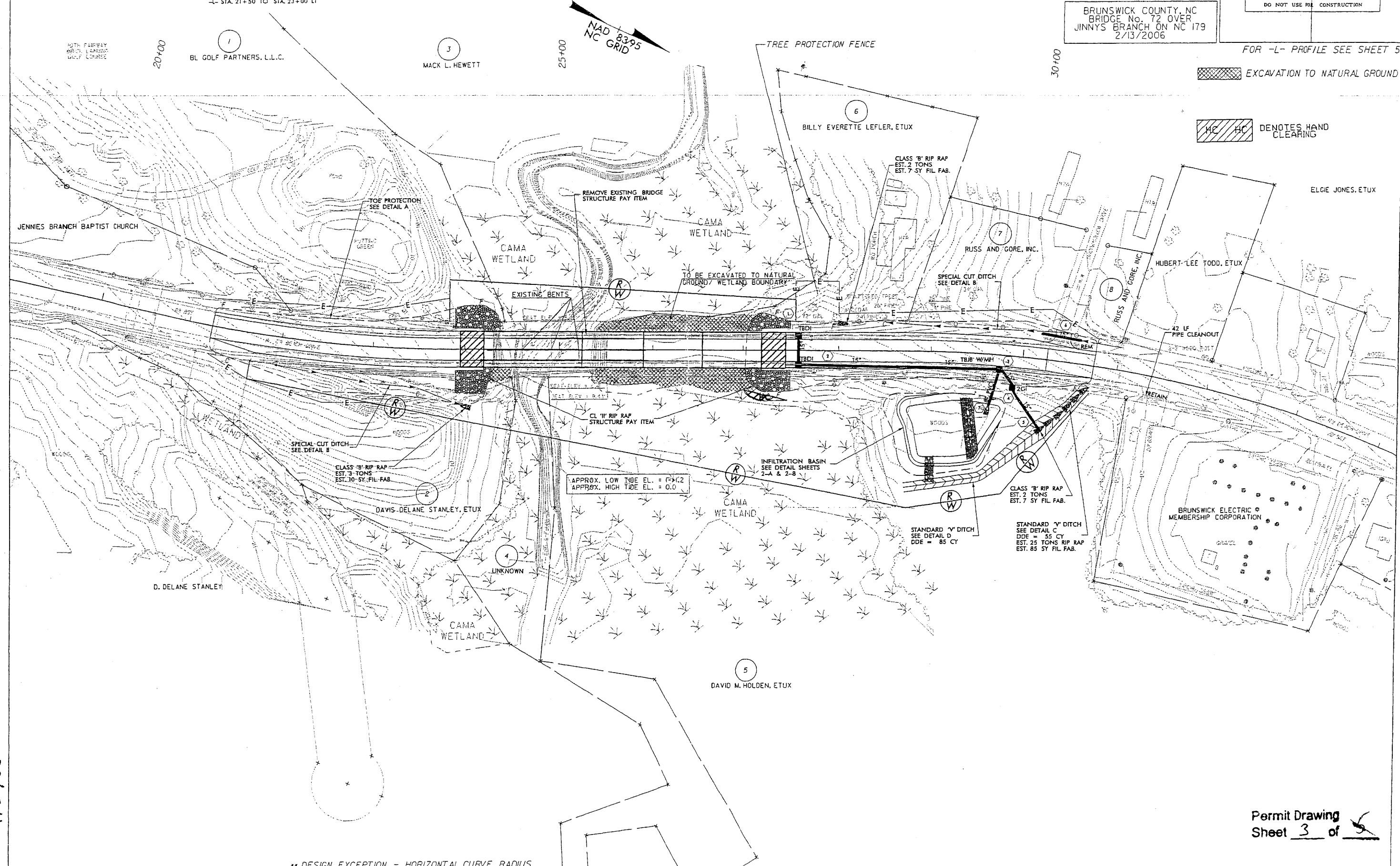
BRUNSWICK COUNTY, NC  
BRIDGE No. 72 OVER  
JINNYS BRANCH ON NC 179  
2/13/2006

PROJECT REFERENCE NO. B-4031	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

FOR -L- PROFILE SEE SHEET 5

EXCAVATION TO NATURAL GROUND

HC HC DENOTES HAND CLEARING



1/30/08

\*\* DESIGN EXCEPTION - HORIZONTAL CURVE RADIUS



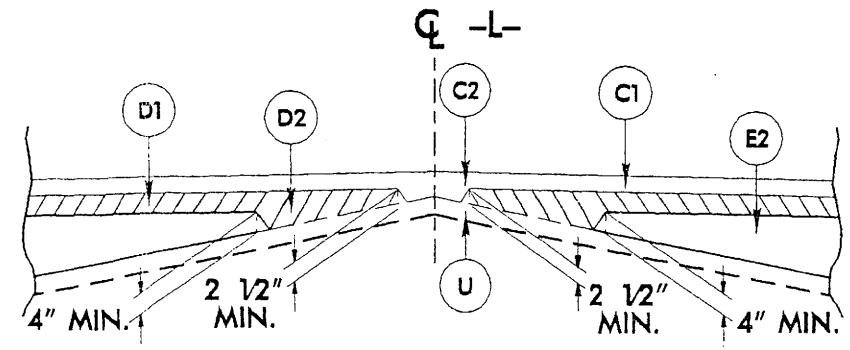
B/17/99

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
A	CONCRETE WEARING SURFACE (STRUCTURE PAY ITEM)
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1 1/2" IN DEPTH OR GREATER THAN 2" IN DEPTH
D1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 4" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	WEDGING (SEE WEDGING DETAIL)

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

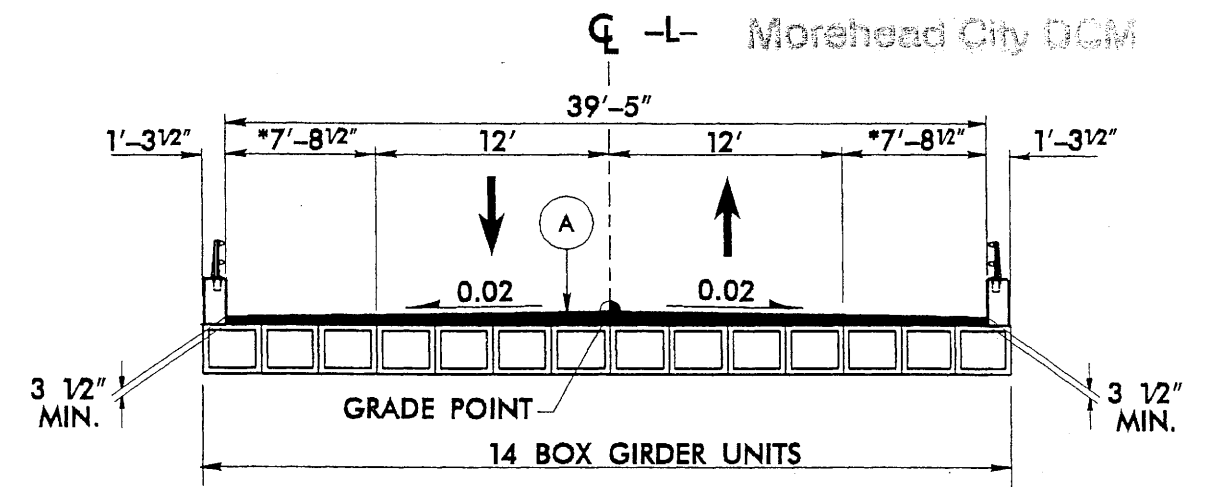
**MULKEY**  
ENGINEERS & CONSULTANTS  
1000 W. 10TH ST. SUITE 100  
DENVER, CO 80202  
TEL: 303.733.1111  
WWW.MULKEYENR.COM

PROJECT REFERENCE NO. B-4031	SHEET NO. 2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



**DETAIL SHOWING METHOD OF WEDGING**  
USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1

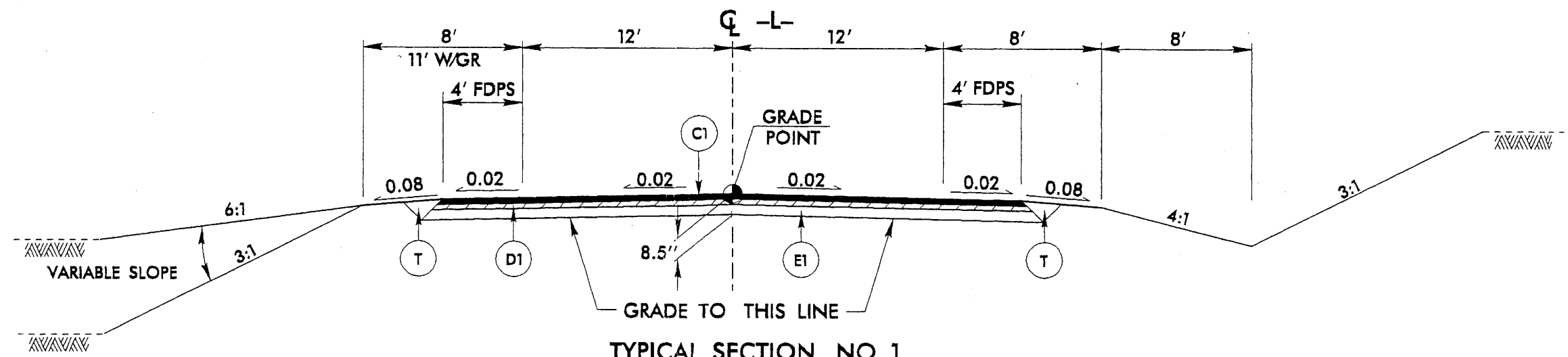
RECEIVED  
MAR 03 2006



**DETAIL OF BRIDGE**

-L- STA 24+20.00 TO STA 27+21.06

\* WIDENED FOR HYDRAULIC SPREAD ON STRUCTURE

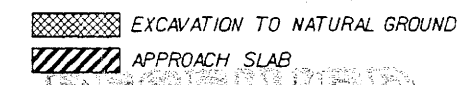
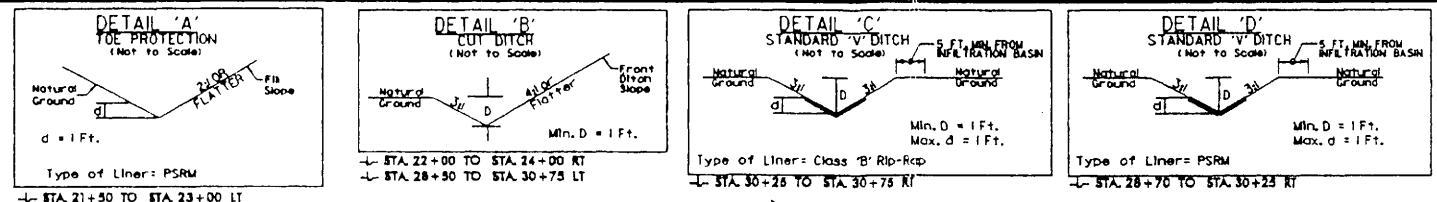


**TYPICAL SECTION NO. 1**

USE TYPICAL SECTION NO. 1  
AT THE FOLLOWING LOCATION:

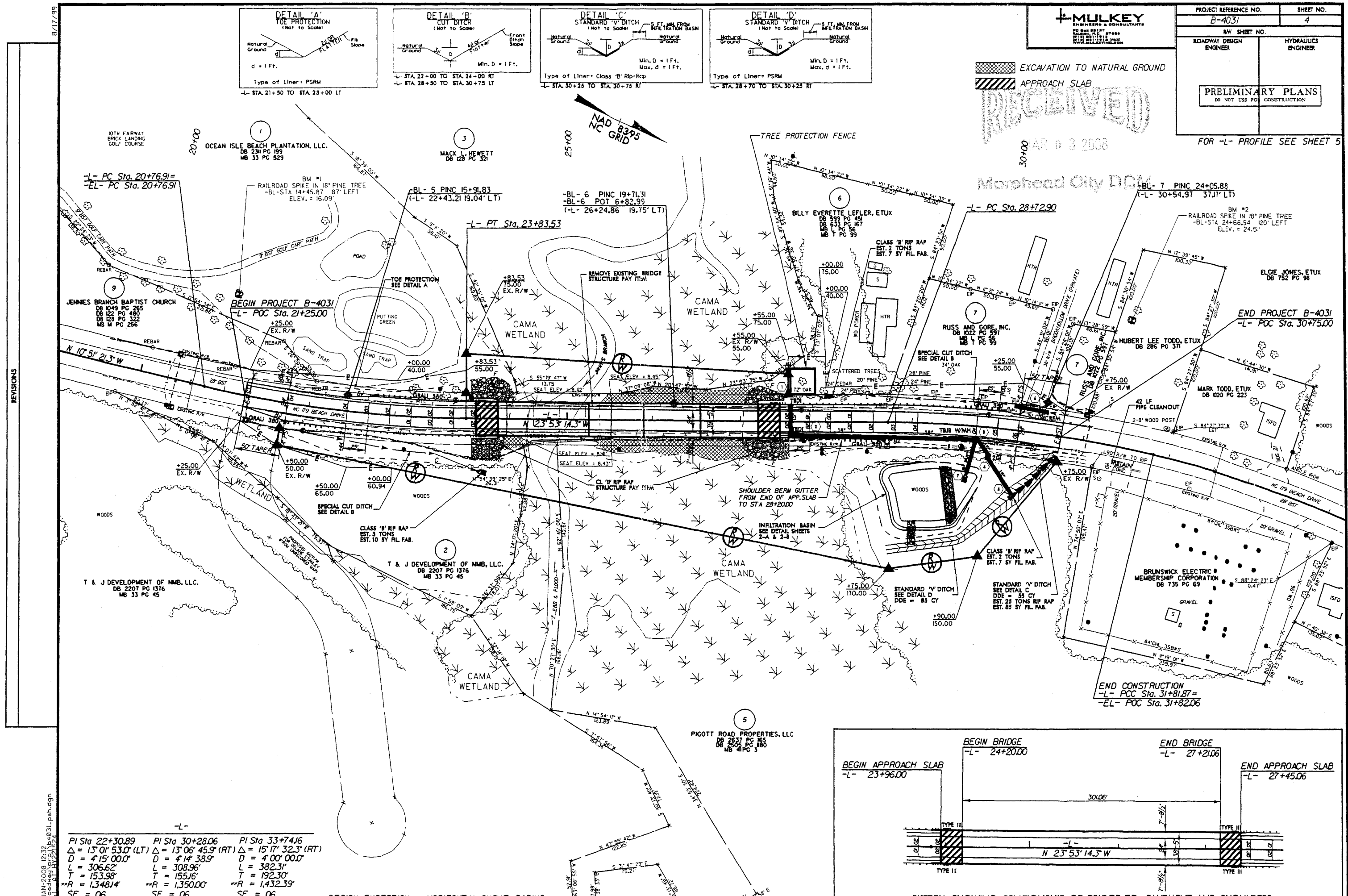
- TRANSITION FROM EXISTING TO T.S. NO. 1 FROM  
-L- STA. 21+25 TO STA. 21+75
- L- STA 21+75.00 TO STA 24+20.00 (BEGIN BRIDGE)
- L- STA 27+21.06 (END BRIDGE) TO STA 30+25.00
- TRANSITION FROM T.S. NO. 1 TO EXISTING FROM  
-L- STA. 30+25 TO STA 30+75

30-JAN-2006 12:35  
P:\roadway\B20154931\_rdy\_typ.dgn  
10/11/06 11:22:52



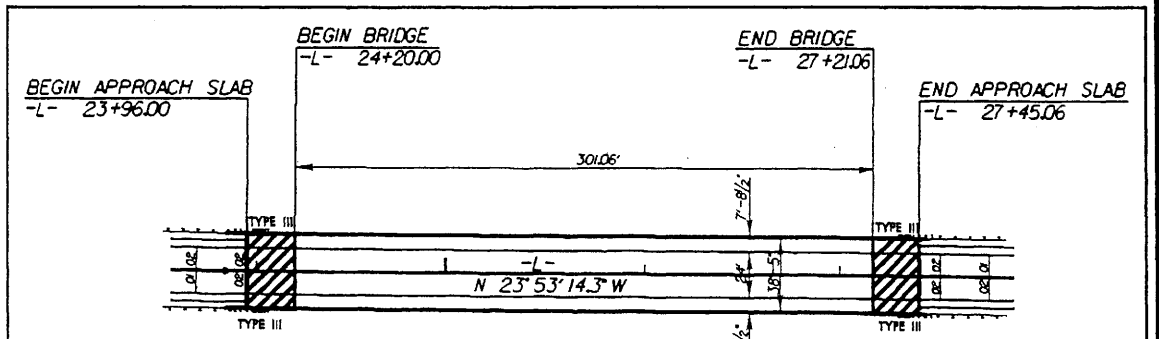
RECEIVED

MAR 18 2008



PI Sta 22+30.89	PI Sta 30+28.06	PI Sta 33+74.16
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D = 415' 00.0"	D = 414' 38.9"	D = 400' 00.0"
L = 306.62'	L = 308.96'	L = 382.31'
T = 153.98'	T = 155.16'	T = 192.30'
**R = 1,348.14'	**R = 1,350.00'	**R = 1,432.39'
SE = 06	SE = 06	SE = 06
DS = 60	DS = 60	DS = 60

\*\* DESIGN EXCEPTION - HORIZONTAL CURVE RADIUS



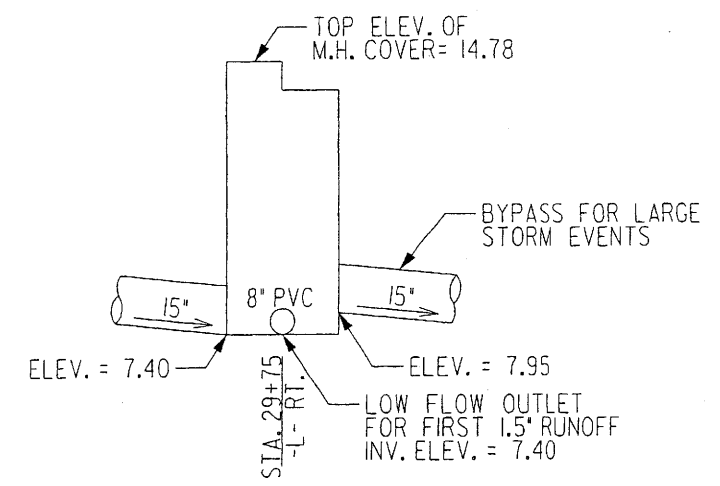
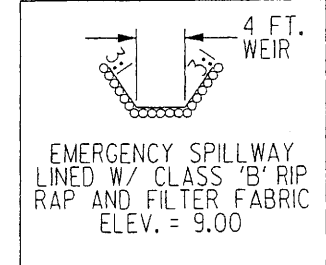
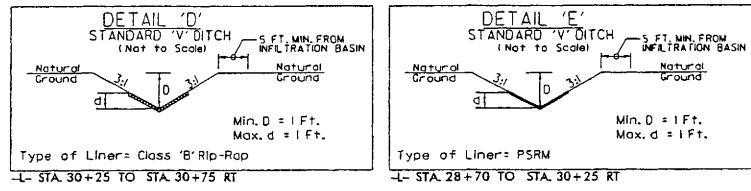
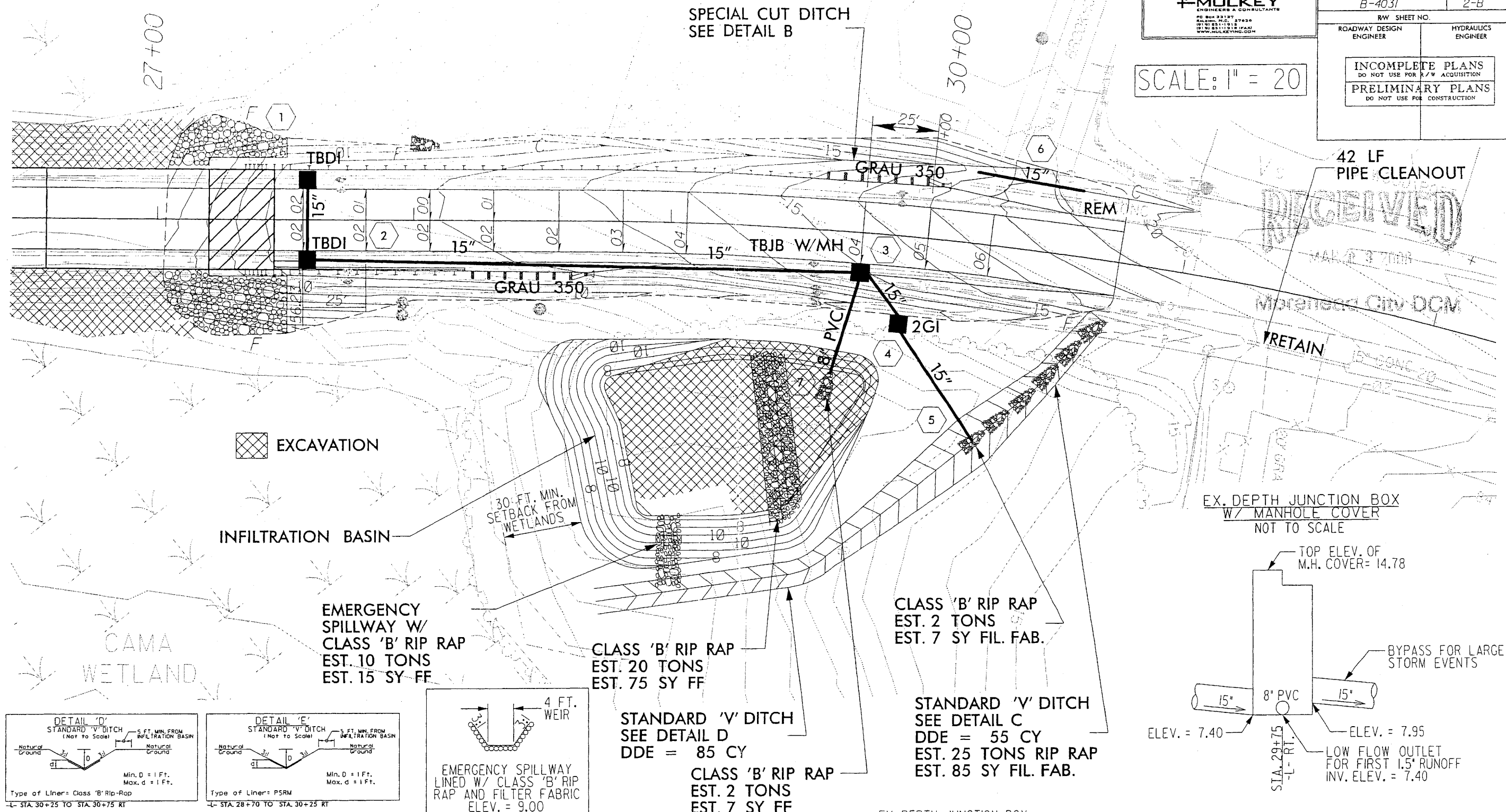
SKETCH SHOWING RELATIONSHIP OF BRIDGE TO PAVEMENT AND SHOULDERS

30-JAN-2008 12:32  
C:\p31\p31.psh.dgn





SCALE: 1" = 20'

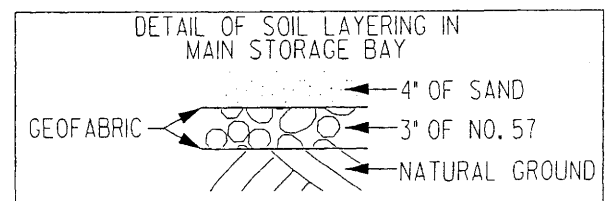
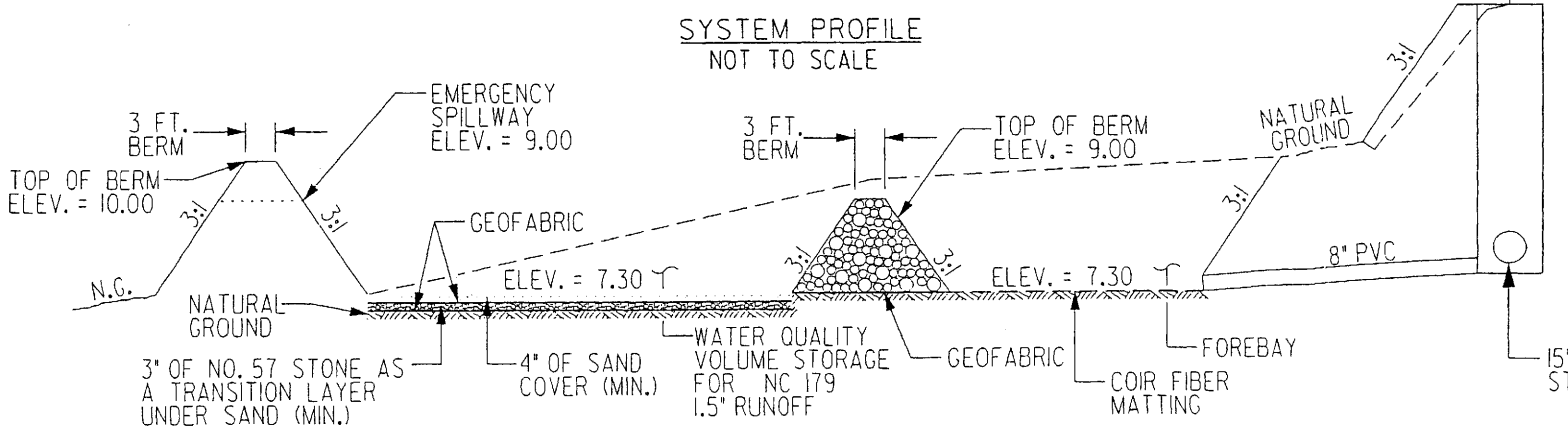


**INFILTRATION BASIN**

- BOTTOM ELEV. = 7.30
- EMERGENCY SPILLWAY ELEV. = 9.00
- BERM ELEV. = 10.00
- DESIGN STORM = FIRST 1.5' RUNOFF
- DESIGN VOLUME = 2396 FT<sup>3</sup>
- VOLUME PROVIDED = 2412 FT<sup>3</sup>

**GENERAL NOTES:**

- ALL SIDE SLOPES ARE TO BE 3:1 OR FLATTER AND STABILIZED WITH VEGETATED COVER
- BOTTOM OF POND IS TO BE COVERED WITH A LAYER OF CLEAN SAND TO AN AVERAGE DEPTH OF 4 INCHES
- FOREBAY MUST RECEIVE REGULAR MAINTENANCE TO REMAIN EFFECTIVE



30-JAN-2008

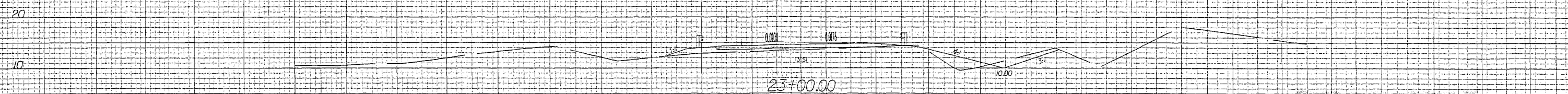


8/22/99

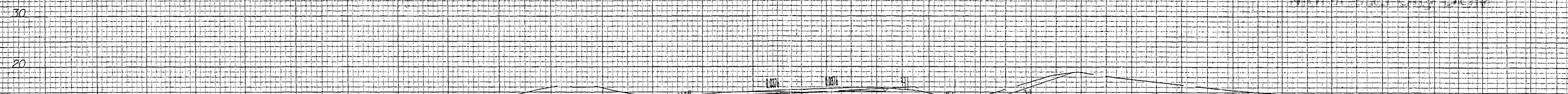


PROJ. REFERENCE NO. B-4031 SHEET NO. X-2

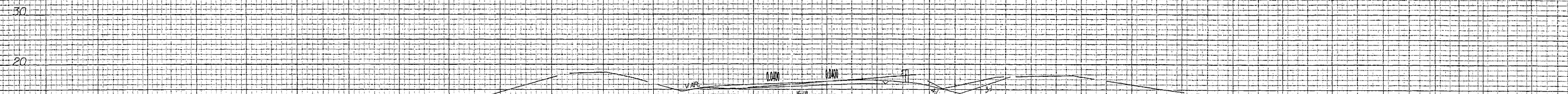
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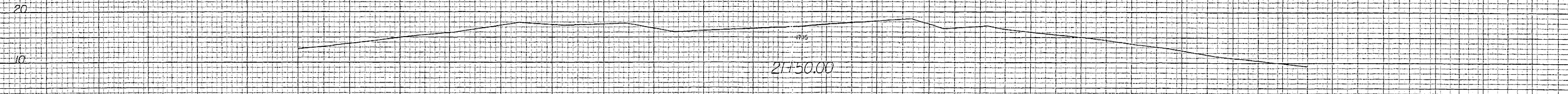
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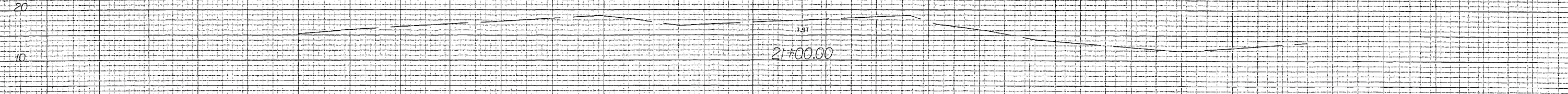
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PROJ. REFERENCE NO.  
B-4031

SHEET NO.  
X-4

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EXCAVATION

END BRIDGE STA 27+21.06

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27+00.00

0.000 0.000

26+50.00

0.000 0.000

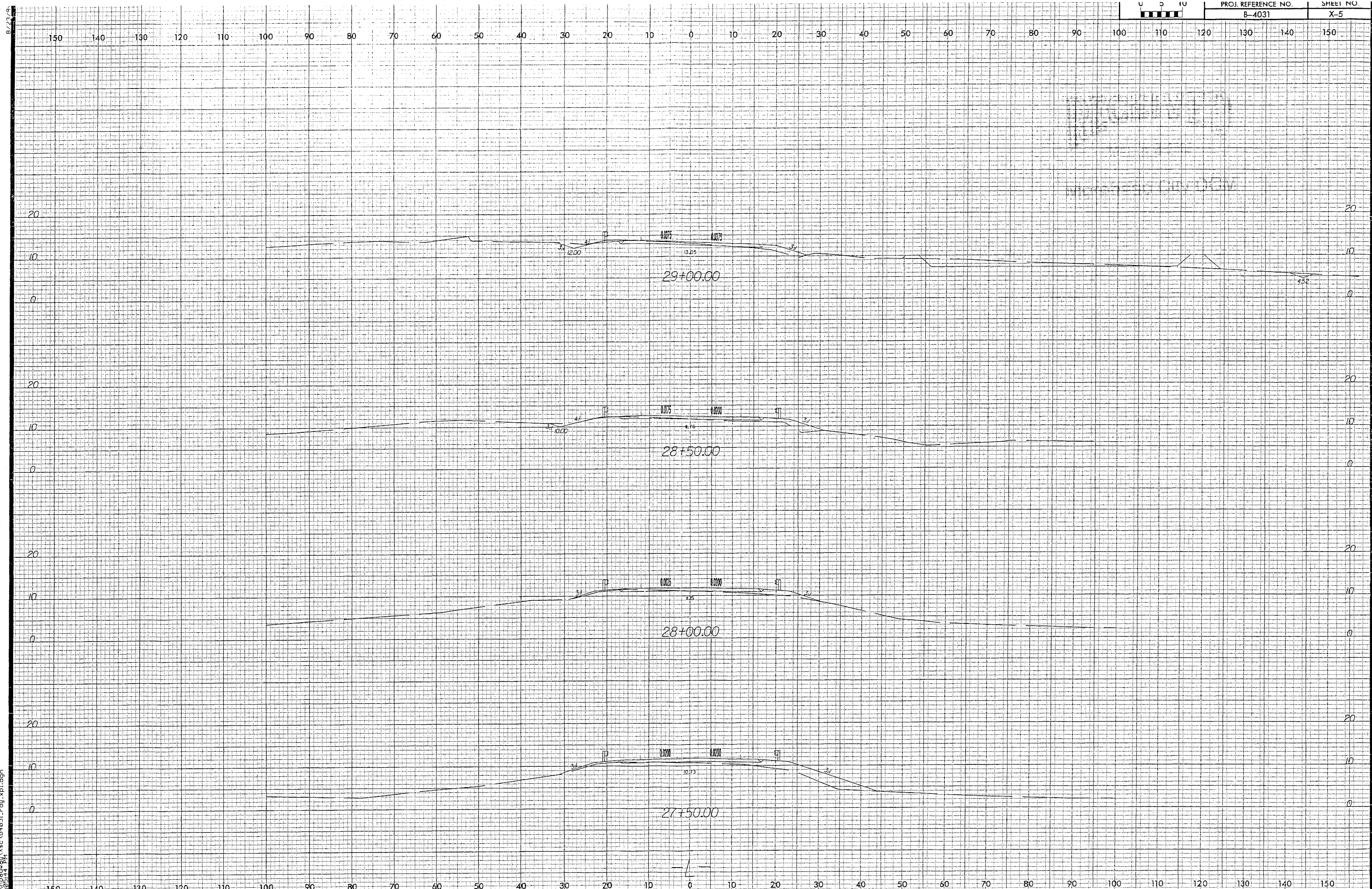
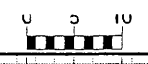
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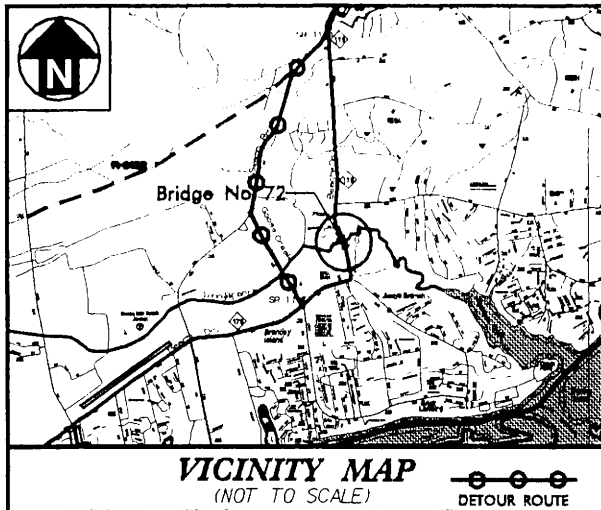
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9/23/99





See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional Symbols



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**BRUNSWICK COUNTY  
PERMIT DRAWING**

**LOCATION: BRIDGE NO. 72 OVER JINNY'S  
BRANCH ON NC 179**

**TYPE OF WORK: UTILITIES**

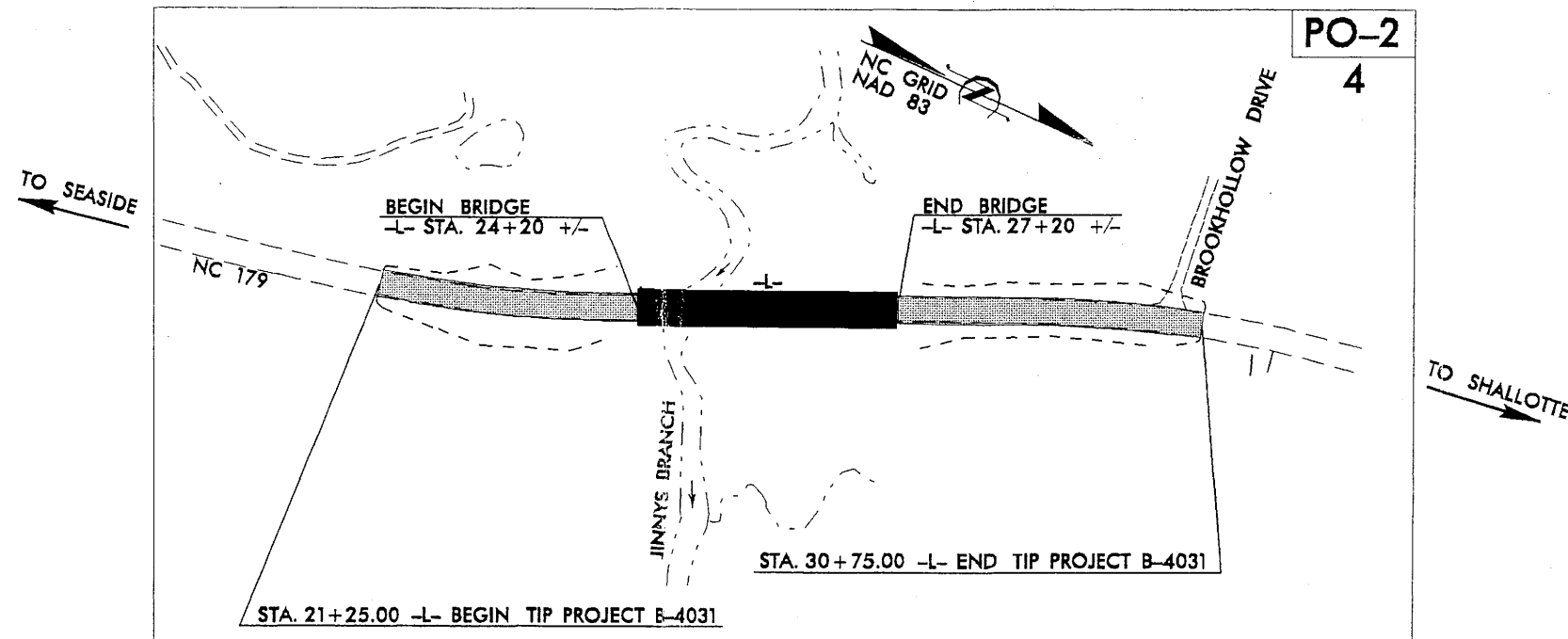
T.I.P. NO.	SHEET NO.
B-4031	PO-1

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MAR 3 2008

Sheet 1 of 2

Morehead City DCM


TIP B-4031



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INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
PO-1	TITLE SHEET
PO-2	PERMIT DRAWINGS

- WATER AND SEWER OWNERS ON PROJECT**
- (1) ATLANTIC TELEPHONE MEMBERSHIP CORP.
  - (2) BRUNSWICK ELECTRIC MEMBERSHIP CORP.
  - (3) BRUNSWICK COUNTY PUBLIC UTILITIES (WATER)



PREPARED IN THE OFFICE OF:  
**DIVISION OF HIGHWAYS  
PROJECT SERVICES  
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RALEIGH NC 27699-1591  
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<u>Steve Mches, P.E.</u>	UTILITIES SQUAD LEADER PROJECT ENGINEER
<u>Alonza Yancey</u>	UTILITIES PROJECT DESIGNER

