



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

October 27, 2008

U. S. Army Corps of Engineers
3331 Heritage Trace Drive, Suite 105
Wake Forest, NC 27587

ATTN: Mr. John Thomas
NCDOT Coordinator

Subject: **Application Addendum for Section 404 Nationwide Permits 23, 33, and Section 401 Water Quality Certification** for the proposed replacement of Bridge No. 405 over North Potts Creek on SR 1147 in Davidson County, Federal Aid Project No. BRSTP-1147(6); State Project No. 8.2604701; Division 9; TIP No. B-4097
\$240.00 debit from WBS 33455.1.1

Reference: B-4097 Permit Application Dated September 25, 2008

Dear Sir:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 405 on SR 1147 over North Potts Creek. There will be 0.05 acres of permanent riparian wetland impacts, 0.07 acres of temporary riparian wetland impacts, 30 feet of temporary surface water impacts, and 75 feet of permanent surface water impacts.

Please accept this letter as an addendum to the permit application dated September 25, 2008. Temporary impacts have increased by <0.01 acres due to the need to place erosion control devices in wetlands. Total temporary wetland impacts are now <0.07 acres. Furthermore, channel realignment of UT to North Potts Creek will be lined with permanent soil reinforcement matt (PSRM) instead of filter fabric and rip rap. Revised PCN, permit drawing sheets 4, 8, 9, and revised roadway drawing sheet 4 are enclosed.

A copy of this permit application will be posted on the NCDOT Website at:
<http://www.ncdot.org/doh/preconstruct/pe/>. If you have any questions or need additional information, please call James Pflaum at (919) 715-7217.

Sincerely,



fev Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA

w/attachment

Mr. Brian Wrenn, NCDWQ (5 copies)
Ms. Marla Chambers, NCWRC
Ms. Marella Buncick, USFWS

w/o attachment (see permit website for attachments)

Dr. David Chang, P.E., Hydraulics
Mr. Mark Staley, Roadside Environmental
Mr. Victor Barbour, P.E., Project Services Unit
Mr. Greg Perfetti, P.E., Structure Design
Mr. S. P. Ivey, P.E., Division Engineer
Mr. Kent Boyer, DEO
Mr. Jay Bennett, P.E., Roadway Design
Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Art McMillan, P.E., Highway Design
Mr. Scott McLendon, USACE, Wilmington
Mr. Dennis Pipkin, PDEA
Ms. Beth Harmon, EEP
Mr. Todd Jones, NCDOT External Audit Branch

USACE Action ID No. _____ DWQ No. _____

(If any particular item is not applicable to this project, please enter "Not Applicable" or "N/A".)

I. Processing

1. Check all of the approval(s) requested for this project:

- Section 404 Permit
- Section 10 Permit
- 401 Water Quality Certification
- Riparian or Watershed Buffer Rules
- Isolated Wetland Permit from DWQ
- Express 401 Water Quality Certification

2. Nationwide, Regional or General Permit Number(s) Requested: 23, 33

3. If this notification is solely a courtesy copy because written approval for the 401 Certification is not required, check here:

4. If payment into the North Carolina Ecosystem Enhancement Program (NCEEP) is proposed for mitigation of impacts, attach the acceptance letter from NCEEP, complete section VIII, and check here:

5. If your project is located in any of North Carolina's twenty coastal counties (listed on page 4), and the project is within a North Carolina Division of Coastal Management Area of Environmental Concern (see the top of page 2 for further details), check here:

II. Applicant Information

1. Owner/Applicant Information

Name: Gregory J. Thorpe, Ph.D., Environmental Management Director
 Mailing Address: North Carolina Department of Transportation
1598 Mail Service Center, Raleigh, NC 27699

Telephone Number: 919-733-3141 Fax Number: 919-715-5501
 E-mail Address: _____

2. Agent/Consultant Information (A signed and dated copy of the Agent Authorization letter must be attached if the Agent has signatory authority for the owner/applicant.)

Name: _____
 Company Affiliation: _____
 Mailing Address: _____

Telephone Number: _____ Fax Number: _____
 E-mail Address: _____

III. Project Information

Attach a **vicinity map** clearly showing the location of the property with respect to local landmarks such as towns, rivers, and roads. Also provide a detailed **site plan** showing property boundaries and development plans in relation to surrounding properties. Both the vicinity map and site plan must include a scale and north arrow. The specific footprints of all buildings, impervious surfaces, or other facilities must be included. If possible, the maps and plans should include the appropriate USGS Topographic Quad Map and NRCS Soil Survey with the property boundaries outlined. Plan drawings, or other maps may be included at the applicant's discretion, so long as the property is clearly defined. For administrative and distribution purposes, the USACE requires information to be submitted on sheets no larger than 11 by 17-inch format; however, DWQ may accept paperwork of any size. DWQ prefers full-size construction drawings rather than a sequential sheet version of the full-size plans. If full-size plans are reduced to a small scale such that the final version is illegible, the applicant will be informed that the project has been placed on hold until decipherable maps are provided.

1. Name of project: replacement of Bridge No.405 over North Potts Creek on SR 1147
2. T.I.P. Project Number or State Project Number (NCDOT Only): B-4097
3. Property Identification Number (Tax PIN): _____
4. Location
County: Davidson Nearest Town: Meadowview
Subdivision name (include phase/lot number): _____
Directions to site (include road numbers/names, landmarks, etc.): SR 1147 (Old Salisbury Road) south west out of Lexington through Meadowview over North Potts Creek

5. Site coordinates (For linear projects, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)
Decimal Degrees (6 digits minimum): _____°N _____°W
6. Property size (acres): Project Study Area is approximately 5.0 acres.
7. Name of nearest receiving body of water: Yadkin River, High Rock Lake
8. River Basin: Yadkin (HUC 03040103)
(Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at <http://h2o.enr.state.nc.us/admin/maps/>.)
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: rural, residential housing

10. Describe the overall project in detail, including the type of equipment to be used:

A 180-foot long 33-foot wide cord slab bridge in approximately the same location and roadway elevation as the existing structure. The new bridge will span North Potts Creek, avoiding the need for bents in the creek. An on-site detour will be used to route traffic during construction. The on-site detour bridge will be approximately 70-foot long, 30-foot wide, and 25-foot south of Bridge No. 405. Heavy duty excavation equipment will be used such as trucks, dozers, cranes and other equipment necessary for roadway construction.

11. Explain the purpose of the proposed work: Improve safety and efficiency of overall traffic operations.

IV. Prior Project History

If jurisdictional determinations and/or permits have been requested and/or obtained for this project (including all prior phases of the same subdivision) in the past, please explain. Include the USACE Action ID Number, DWQ Project Number, application date, and date permits and certifications were issued or withdrawn. Provide photocopies of previously issued permits, certifications or other useful information. Describe previously approved wetland, stream and buffer impacts, along with associated mitigation (where applicable). If this is a NCDOT project, list and describe permits issued for prior segments of the same T.I.P. project, along with construction schedules.

Jurisdictional Determination 8/20/2003 USACE Action ID # 20031038
Expiration 8/20/2008

V. Future Project Plans

Are any future permit requests anticipated for this project? If so, describe the anticipated work, and provide justification for the exclusion of this work from the current application.

VI. Proposed Impacts to Waters of the United States/Waters of the State

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to wetlands, open water, and stream channels associated with the project. Each impact must be listed separately in the tables below (e.g., culvert installation should be listed separately from riprap dissipater pads). Be sure to indicate if an impact is temporary. All proposed impacts, permanent and temporary, must be listed, and must be labeled and clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) should be shown on a delineation map, whether or not impacts are proposed to these systems. Wetland and stream evaluation and delineation forms should be included as appropriate. Photographs may be included at the applicant's discretion. If this proposed impact is strictly for

wetland or stream mitigation, list and describe the impact in Section VIII below. If additional space is needed for listing or description, please attach a separate sheet.

1. Provide a written description of the proposed impacts:

Permanent Impacts: There will be 0.05 acres of riparian wetland impacts due to the placement of a 2:1 roadway fill slope at Site 3. There will be 75 feet of surface water impacts due to the placement of fill and bridge piles at Site 1.

Temporary Impacts: There will be 0.06 acres of temporary riparian wetland impacts due to the placement of fill for the on-site detour at Site 3. There will be <0.01 acres of temporary fill in wetlands in the hand clearing areas for the installation of erosion control measures, including temporary silt fence and/or special sediment control fence. There will be 30 feet (0.01 acres) of temporary channel impacts to North Potts Creek due to the placement of a temporary rock causeway at Site 1.

Hand Clearing: There will be 0.02 acres of hand clearing in riparian wetlands at Sites 2 and 3.

Utility Impacts: There will be no impacts to surface waters or wetlands from sewer, water, electric or other utilities associated with this bridge replacement project.

2. Individually list wetland impacts. Types of impacts include, but are not limited to mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.

Wetland Impact Site Number (indicate on map)	Type of Impact	Type of Wetland (e.g., forested, marsh, herbaceous, bog, etc.)	Located within 100-year Floodplain (yes/no)	Distance to Nearest Stream (linear feet)	Area of Impact (acres)
Site 3	Permanent Fill	herbaceous	Yes	125 feet	0.05
Site 3	Temporary Fill	herbaceous	Yes	125 feet	0.06
Erosion Control	Temporary Fill	herbaceous	Yes	125 feet	<0.01
Total Wetland Impact (acres)					<0.12

3. List the total acreage (estimated) of all existing wetlands on the property: 0.60 acres
4. Individually list all intermittent and perennial stream impacts. Be sure to identify temporary impacts. Stream impacts include, but are not limited to placement of fill or culverts, dam construction, flooding, relocation, stabilization activities (e.g., cement walls, rip-rap, crib walls, gabions, etc.), excavation, ditching/straightening, etc. If stream relocation is proposed, plans and profiles showing the linear footprint for both the original and relocated streams must be included. To calculate acreage, multiply length X width, then divide by 43,560.

Stream Impact Number (indicate on map)	Stream Name	Type of Impact	Perennial or Intermittent?	Average Stream Width Before Impact	Impact Length (linear feet)	Area of Impact (acres)
Site 1	North Potts Creek	Temporary Fill	Perennial	20 feet	30	0.01
Site 4	UT to North Potts Creek	Permanent Fill	Perennial	6 feet	75	<0.01
Total Stream Impact (by length and acreage)					105	<0.02

5. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.). Open water impacts include, but are not limited to fill, excavation, dredging, flooding, drainage, bulkheads, etc.

Open Water Impact Site Number (indicate on map)	Name of Waterbody (if applicable)	Type of Impact	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)	Area of Impact (acres)
Total Open Water Impact (acres)				

6. List the cumulative impact to all Waters of the U.S. resulting from the project:

Stream Impact (acres):	<0.02
Wetland Impact (acres):	<0.12
Open Water Impact (acres):	0
Total Impact to Waters of the U.S. (acres)	<0.14
Total Stream Impact (linear feet):	105

7. Isolated Waters

Do any isolated waters exist on the property? Yes No

Describe all impacts to isolated waters, and include the type of water (wetland or stream) and the size of the proposed impact (acres or linear feet). Please note that this section only applies to waters that have specifically been determined to be isolated by the USACE.

No Impacts to isolated waters occur on this project. One isolated wetland is located east of North Potts Creek at the end of detour construction work station 19+58.49.

8. Pond Creation

If construction of a pond is proposed, associated wetland and stream impacts should be included above in the wetland and stream impact sections. Also, the proposed pond should be described here and illustrated on any maps included with this application.

Pond to be created in (check all that apply): uplands stream wetlands
Describe the method of construction (e.g., dam/embankment, excavation, installation of draw-down valve or spillway, etc.): _____

Proposed use or purpose of pond (e.g., livestock watering, irrigation, aesthetic, trout pond, local stormwater requirement, etc.): _____

Current land use in the vicinity of the pond: _____

Size of watershed draining to pond: _____ Expected pond surface area: _____

VII. Impact Justification (Avoidance and Minimization)

Specifically describe measures taken to avoid the proposed impacts. It may be useful to provide information related to site constraints such as topography, building ordinances, accessibility, and financial viability of the project. The applicant may attach drawings of alternative, lower-impact site layouts, and explain why these design options were not feasible. Also discuss how impacts were minimized once the desired site plan was developed. If applicable, discuss construction techniques to be followed during construction to reduce impacts.

The new bridge will span North Potts Creek with no bents in the water. NCDOT will implement Best Management Practices for Bridge Demolition and Removal. NCDOT BMP's for the protection of surface waters will be strictly enforced during the construction of this project.

VIII. Mitigation

DWQ - In accordance with 15A NCAC 2H .0500, mitigation may be required by the NC Division of Water Quality for projects involving greater than or equal to one acre of impacts to freshwater wetlands or greater than or equal to 150 linear feet of total impacts to perennial streams.

USACE – In accordance with the Final Notice of Issuance and Modification of Nationwide Permits, published in the Federal Register on January 15, 2002, mitigation will be required when necessary to ensure that adverse effects to the aquatic environment are minimal. Factors including size and type of proposed impact and function and relative value of the impacted aquatic resource will be considered in determining acceptability of appropriate and practicable mitigation as proposed. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland and/or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferable in the same watershed.

If mitigation is required for this project, a copy of the mitigation plan must be attached in order for USACE or DWQ to consider the application complete for processing. Any application lacking a required mitigation plan or NCEEP concurrence shall be placed on hold as incomplete. An applicant may also choose to review the current guidelines for stream restoration in DWQ's Draft Technical Guide for Stream Work in North Carolina (see DWQ website for most current version.).

1. Provide a brief description of the proposed mitigation plan. The description should provide as much information as possible, including, but not limited to: site location (attach directions and/or map, if offsite), affected stream and river basin, type and amount (acreage/linear feet) of mitigation proposed (restoration, enhancement, creation, or preservation), a plan view, preservation mechanism (e.g., deed restrictions, conservation easement, etc.), and a description of the current site conditions and proposed method of construction. Please attach a separate sheet if more space is needed.

Mitigation for the 75 feet of permanent stream impacts are proposed at a 1:1 ratio. UT to North Potts Creek is incised, impacted from heavy sedimentation, and trash (tires). No mitigation is proposed for the permanent riparian wetland impacts (0.05 acres) because the impacts are minimal. The wetland at site 3 has been significantly disturbed by livestock grazing and frequent mowing. It is a low quality wetland lacking a canopy and shrub layer with moderate herbaceous coverage.

2. Mitigation may also be made by payment into the North Carolina Ecosystem Enhancement Program (NCEEP). Please note it is the applicant's responsibility to contact the NCEEP at (919) 715-0476 to determine availability, and written approval from the NCEEP indicating that they are will to accept payment for the mitigation must be attached to this form. For additional information regarding the application process for the NCEEP, check the NCEEP website at <http://www.nceep.net/pages/inlieureplace.htm>. If use of the NCEEP is proposed, please check the appropriate box on page five and provide the following information:

Amount of stream mitigation requested (linear feet): 75

Amount of buffer mitigation requested (square feet): 0

Amount of Riparian wetland mitigation requested (acres): 0

Amount of Non-riparian wetland mitigation requested (acres): 0

Amount of Coastal wetland mitigation requested (acres): 0

IX. Environmental Documentation (required by DWQ)

1. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? Yes No
2. If yes, does the project require preparation of an environmental document pursuant to the requirements of the National or North Carolina Environmental Policy Act (NEPA/SEPA)?

Note: If you are not sure whether a NEPA/SEPA document is required, call the SEPA coordinator at (919) 733-5083 to review current thresholds for environmental documentation.
 Yes No

3. If yes, has the document review been finalized by the State Clearinghouse? If so, please attach a copy of the NEPA or SEPA final approval letter. Yes No

X. Proposed Impacts on Riparian and Watershed Buffers (required by DWQ)

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to required state and local buffers associated with the project. The applicant must also provide justification for these impacts in Section VII above. All proposed impacts must be listed herein, and must be clearly identifiable on the accompanying site plan. All buffers must be shown on a map, whether or not impacts are proposed to the buffers. Correspondence from the DWQ Regional Office may be included as appropriate. Photographs may also be included at the applicant's discretion.

1. Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 02B .0243 (Catawba) 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify _____)? Yes No
2. If "yes", identify the square feet and acreage of impact to each zone of the riparian buffers. If buffer mitigation is required calculate the required amount of mitigation by applying the buffer multipliers.

Zone*	Impact (square feet)	Multiplier	Required Mitigation
1		3 (2 for Catawba)	
2		1.5	
Total			

* Zone 1 extends out 30 feet perpendicular from the top of the near bank of channel; Zone 2 extends an additional 20 feet from the edge of Zone 1.

3. If buffer mitigation is required, please discuss what type of mitigation is proposed (i.e., Donation of Property, Riparian Buffer Restoration / Enhancement, or Payment into the Riparian Buffer Restoration Fund). Please attach all appropriate information as identified within 15A NCAC 2B .0242 or .0244, or .0260. _____

XI. Stormwater (required by DWQ)

Describe impervious acreage (existing and proposed) versus total acreage on the site. Discuss stormwater controls proposed in order to protect surface waters and wetlands downstream from the property. If percent impervious surface exceeds 20%, please provide calculations demonstrating total proposed impervious level. _____

XII. Sewage Disposal (required by DWQ)

Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility.

XIII. Violations (required by DWQ)

Is this site in violation of DWQ Wetland Rules (15A NCAC 2H .0500) or any Buffer Rules?

Yes No

Is this an after-the-fact permit application? Yes No

XIV. Cumulative Impacts (required by DWQ)

Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? Yes No

If yes, please submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent North Carolina Division of Water Quality policy posted on our website at <http://h2o.enr.state.nc.us/ncwetlands>. If no, please provide a short narrative description: _____

XV. Other Circumstances (Optional):

It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g., draw-down schedules for lakes, dates associated with Endangered and Threatened Species, accessibility problems, or other issues outside of the applicant's control).

As of January 31, 2008 the United States Fish and Wildlife Service lists two federally protected species for Davidson County, the Bog turtle and Schweinitz's sunflower. All biological conclusions in the Categorical Exclusion remain valid. No further documentation or concurrence from the USFWS is required.

E. F. Lusk

10-27-08

Applicant/Agent's Signature

Date

(Agent's signature is valid only if an authorization letter from the applicant is provided.)

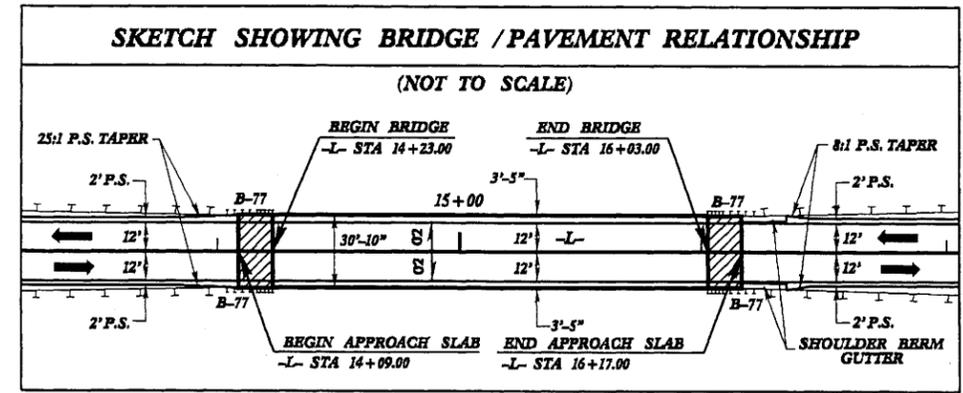
WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS				SURFACE WATER IMPACTS						
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)	
1	-L-15+30 TO 15+40 LT / RT	1 SPAN@40', 2@50', 1 @ 40', 21" CORED SLAB BRIDGE									0.010	30	
2	-L-13+00 TO 13+44 LT	EMBANKMENT						<0.01					
3	-L-12+79 TO 13+85 RT	EMBANKMENT	0.050										
3	-DET- 13+30 TO 14+45 RT	EMBANKMENT		0.060				0.020					
4	-L-14+65 TO 15+25 LT	BRIDGE PILES								<0.01		75	
TOTALS:			0.050	0.060	0.000	0.000	<0.030	<0.01	0.010	75.000	30.000	0.000	

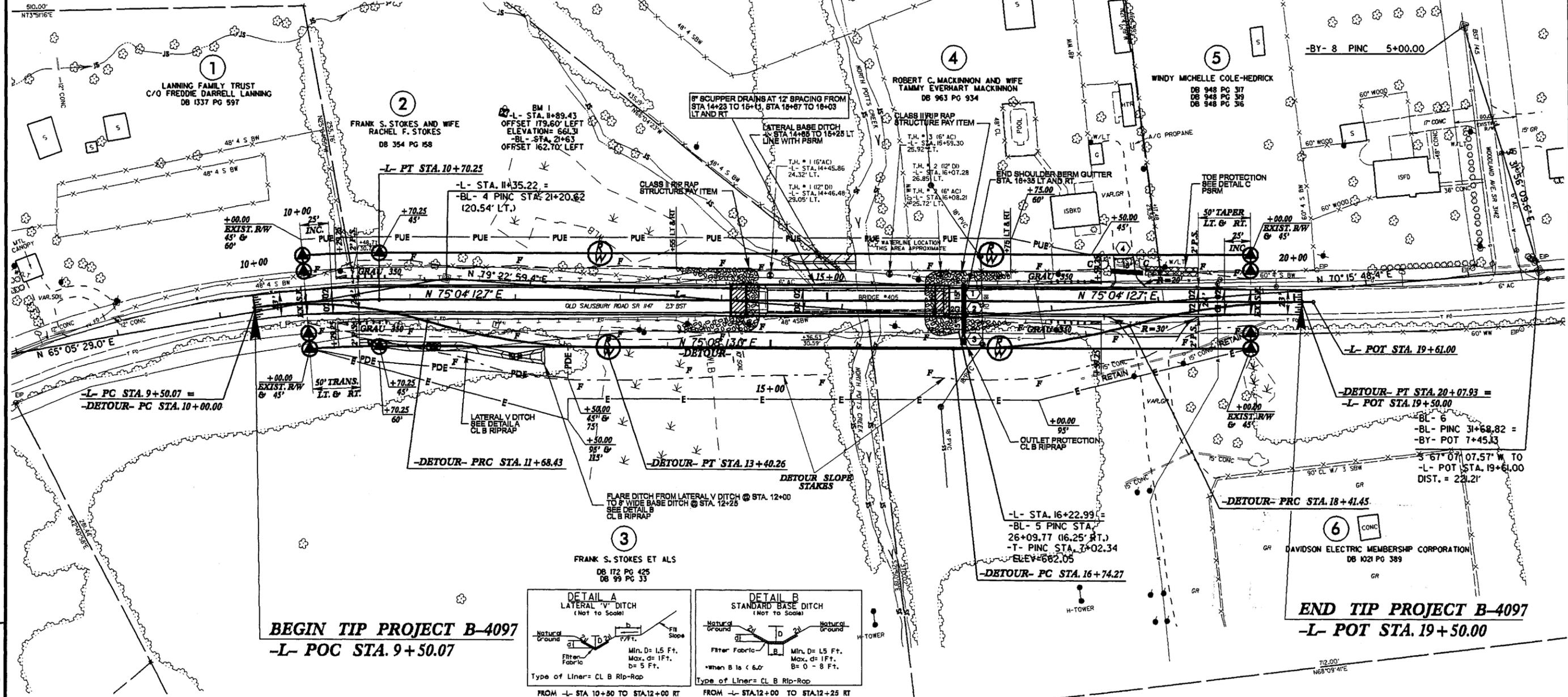
<0.01 acres of Temporary Fill in Wetlands in the Hand Clearing areas for erosion control measures.

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 DAVIDSON COUNTY
 PROJECT 33455.1.1 (B-4097)
 BRIDGE NO. 405 OVER
 NORTH POTTS CREEK ON SR 1147
 SHEET 4 OF 11 8/1/2008

REV 10/21/08

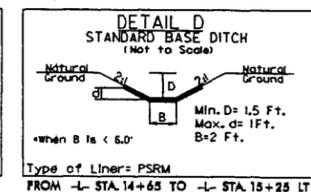
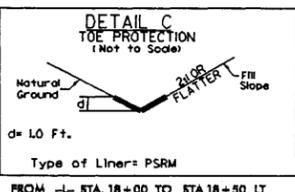
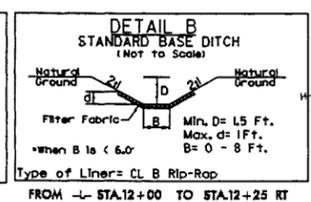
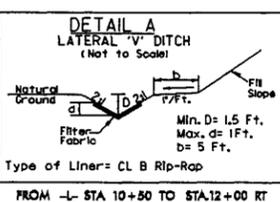


NAD 8395



BEGIN TIP PROJECT B-4097
-L- POC STA. 9+50.07

END TIP PROJECT B-4097
-L- POT STA. 19+50.00



-L-	-DETOUR-				
PI STA. 10+10.25	PI STA. 10+85.48	PI STA. 12+54.94	PI STA. 17+58.41	PI STA. 19+25.23	
N 67° 25' 08.3" E (BACK)	N 67° 25' 08.3" E (BACK)	Δ = 16° 24' 30.1" (LT)	Δ = 15° 57' 52.5" (LT)	N 75° 04' 12.7" E (AHEAD)	
Δ = 7° 39' 04.3" (RT)	Δ = 24° 07' 34.8" (RT)	D = 9° 32' 57.5"	D = 9° 32' 57.5"	Δ = 15° 53' 52.2" (RT)	
D = 6° 21' 58.3"	D = 14° 19' 26.2"	L = 171.83'	L = 167.18'	D = 9° 32' 57.5"	
L = 120.18'	L = 168.43'	T = 86.51'	T = 84.14'	L = 166.48'	
T = 60.18'	T = 85.48'	R = 600.00'	R = 600.00'	T = 83.78'	
R = 900.00'	R = 400.00'	SE = 0.02	SE = 0.02	R = 600.00'	
SE = SEE PLANS	SE = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS	SE = SEE PLANS	
RO = SEE PLANS	RO = SEE PLANS			RO = SEE PLANS	

- NOTES:**
- 1.) FOR -L- PROFILE SEE SHEET 5
 - 2.) FOR -DETOUR- PLAN VIEW SEE SHEET 2-A
 - 3.) FOR -DETOUR- PROFILE SEE SHEET 5
 - 4.) ALL DRIVEWAY RADII ARE 10' UNLESS NOTED OTHERWISE ON PLANS.
 - 5.) FOR STRUCTURE PLANS SEE SHEETS S-1 THRU S-7

B/17/95

REVISIONS

15-OCT-2008 09:00 b4097_r.dwg psh04.dgn