



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

May 15, 2007

MEMORANDUM TO: Mr. Jon G. Nance, PE  
Division Five Engineer

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

SUBJECT: Vance County, Replace Bridge No.3 on SR 1107 over Ruin  
Creek; T.I.P. Number B-4298; Federal Aid Project BRZ-  
1107(8); State Project 8.2390801

*P.S. Harris*

Attached is the Tar-Pamlico Buffer Authorization for the above referenced project. All environmental permits have been received for the construction of this project.

PSH/gyb

Attachment

Cc:

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. Eric Midkiff, P.E., PDEA Central Region Unit Head  
Mr. Chris Murray, Division Environmental Officer

# PROJECT COMMITMENTS

Vance County  
Bridge No. 3 on SR 1107  
over Ruin Creek  
Federal Aid Project No. BRZ-1107(8)  
State Project No. 8.2390801  
T.I.P. No. B-4298

In addition to NCDOT's Best Management Practices for Protection of Surface Waters, General Certification Conditions, and Section 401 Conditions of Certification, the following special commitments have been agreed to by NCDOT:

## COMMITMENTS DEVELOPED THROUGH PROJECT DEVELOPMENT AND DESIGN

### *Structure Design Unit, Hydraulics Unit*

No proposed bents will be allowed in Ruin Creek. Where possible, the proposed bents will be pulled back from the edge of the stream bank ten feet.

Due to erosion concerns, temporary access roads for conveying construction equipment into the floodplain will be stabilized with either rock or timber matting. Rock work pads or timber matting will also be used in the floodplain for construction equipment. No construction equipment will be allowed in Ruin Creek under any circumstances.

No deck drains will be allowed to discharge into Ruin Creek.

### *Hydraulics Unit, Roadway Design Unit*

Storm water runoff will not be channeled from the road directly into the stream. The runoff from the roadway should be allowed to continue to dissipate and sheet flow over the natural vegetation before reaching Ruin Creek. The exception will be in the southwest quadrant with the existing intermittent stream.

### *Roadside Environmental Unit, Division 5*

Special sediment control fence will be used along the toe of slope that runs parallel to Ruin Creek to minimize the risk of adding sediment into the stream. Standard silt fence or temporary silt ditch will be used along the toe of slopes that are perpendicular to Ruin Creek.

All unvegetated fill slopes will be stabilized at the end of each day with an acceptable erosion control cloth, blanket, or matting as construction progresses until the fill is ready to be permanently stabilized.

***Project Development and Environmental Analysis Branch, Division 5, Structure Design Unit, Hydraulics Unit, Roadway Design Unit***

The project lies within the Tar-Pamlico River Basin and will adhere to all applicable riparian buffer rules.

NCDOT will be required to conduct a mussel survey before construction begins for dwarf wedgemussel. If any individuals of this endangered species are found, they will be relocated out of the footprint of the project before construction begins.

*Action Taken:*

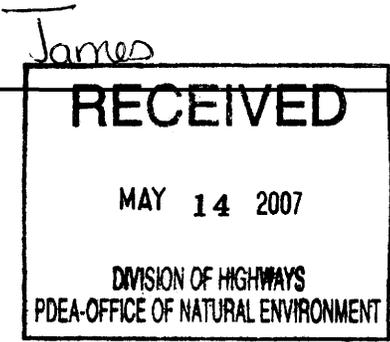
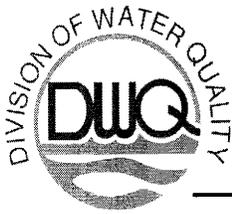
*A pre-construction survey for dwarf wedgemussel (DWM) was performed on February 27, 2007. No DWM individuals were found; therefore, no further action is necessary.*

**COMMITMENTS DEVELOPED THROUGH PERMITTING**

***Roadside Environmental Unit, Division 5***

NCDOT shall provide 403 square feet of on-site Zone 1 Buffer restoration. In accordance with 15A NCAC 02B.0260(9), riparian vegetation reestablishment shall include a minimum of at least 2 native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity.

In lieu of annual reporting, NCDOT shall provide DWQ with photographic documentation that this density has been achieved. Failure to achieve the 320 trees per acre after 5 years will require reporting by the NCDOT to DWQ. The report shall provide appropriate remedial actions to be implemented. Approval of the plan by the DWQ is required. The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal efficiencies.



May 2, 2007  
 Vance County  
 DWQ Project No. 20070683  
 Bridge No. 3 on SR 1107  
 TIP No. B-4298

**APPROVAL of TAR-PAMLICO BUFFER AUTHORIZATION with ADDITIONAL CONDITIONS**

Dr. Gregory J. Thorpe, Ph.D., Environmental Management Director  
 NCDOT, PDEA  
 1598 Mail Service Center  
 Raleigh, NC 27699

Dear Dr. Thorpe:

You have our approval, in accordance with the conditions listed below, for the following impacts for the purpose of replacing Bridge No. 3 in Vance County:

**Tar-Pamlico Riparian Buffer Impacts**

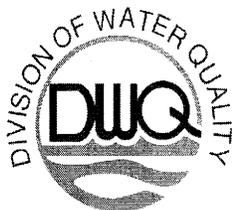
Site	Zone 1 Impact (sq ft)	minus Wetlands in Zone 1 (sq ft)	= Zone 1 Buffers (not wetlands) (sq ft)	Zone 1 Buffer Mitigation Required (using 3:1 ratio)	Zone 2 Impact (sq ft)	minus Wetlands in Zone 2 (sq ft)	= Zone 2 Buffers (not wetlands) (sq ft)	Zone 2 Buffer Mitigation Required (using 1.5:1 ratio)
1	281	0	281	843	0	0	0	0
2	159	0	159	477	0	0	0	0
3	282	0	282	846	0	0	0	0
4	679	0	679	2,037	0	0	0	0
5	1,453	0	1,453	4,359	0	0	0	0
6	4,110	0	4,110	N/A	3,709	0	3,709	N/A
7	2,782	0	2,782	N/A	1,932	0	1,932	N/A
<b>Totals</b>	<b>9,746</b>	<b>0</b>	<b>9,746</b>	<b>8,562</b>	<b>5,641</b>	<b>0</b>	<b>5,641</b>	<b>0</b>

\* n/a = No mitigation required (allowable impact).

**Total Buffer Impact for Project: 15,387 square feet.**

The project shall be constructed in accordance with your application dated received April 20, 2007. This approval is also valid for the Tar-Pamlico Riparian Buffer Rules (15A NCAC 2B.0259). In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations.

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future) exceed one acre, or of total impacts to streams (now or in the future) exceed 150 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed below.

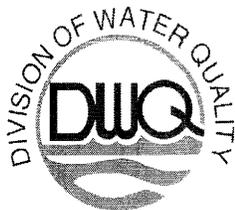


**Conditions of Certification:**

1. Compensatory mitigation for impacts to 2,854 square feet of protected riparian buffers in Zone 1 shall be required. Applying mitigation ratios, this will require 8,562 square feet of Zone 1 Buffer Mitigation.
  - a. As per your application, DOT shall provide 403 square feet of on-site Zone 1 Buffer restoration. In accordance with 15A NCAC 02B.0260(9), riparian vegetation reestablishment shall include a minimum of at least 2 native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity. In lieu of annual reporting, DOT shall provide DWQ with photographic documentation that this density has been achieved. Failure to achieve the 320 trees per acre after 5 years will require reporting by the DOT to DWQ. The report shall provide appropriate remedial actions to be implemented. Approval of the plan by the DWQ is required. The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal efficiencies.
  - b. We understand that you have chosen to perform the remaining 8,159 square feet of Zone 1 Buffer Mitigation through use of the North Carolina Ecosystem Enhancement Program (EEP). Mitigation for unavoidable impacts to Tar-Pamlico Riparian Buffers shall be provided in the Tar-Pamlico River Basin and done in accordance with 15A NCAC 2B.0259. EEP has indicated in a letter dated January 22, 2007 that they will assume responsibility for satisfying the compensatory mitigation requirements for the above-referenced project, in accordance with the Tri-Party MOA signed on July 22, 2003 and the Dual-Party MOA signed on April 12, 2004.
2. The post-construction removal of any temporary bridge structures must return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species.
3. Strict adherence to the most recent version of NCDOT's Best Management Practices For Bridge Demolition and Removal approved by the US Army Corps of Engineers is a condition of the 401 Water Quality Certification.
4. Bridge deck drains should not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of *Stormwater Best Management Practices*.
5. All stormwater runoff shall be directed as sheetflow through stream buffers at nonerosive velocities, unless otherwise approved by this certification.
6. All riparian buffers impacted by the placement of temporary fill or clearing activities shall be restored to the preconstruction contours and revegetated. Maintained buffers shall be permanently revegetated with non-woody species by the end of the growing season following completion of construction. For the purpose of this condition, maintained buffer areas are defined as areas within the transportation corridor that will be subject to regular DOT maintenance activities including mowing. The area with non-maintained buffers shall be permanently revegetated, with native woody species before the next growing season following completion of construction.
7. Pursuant to NCAC15A 2B.0259(6), sediment and erosion control devices shall not be placed in Zone 1 of any Tar-Pamlico Buffer without prior approval by the NCDWQ. At this time, the NCDWQ has approved no sediment and erosion control devices in Zone 1, outside of the approved project impacts, anywhere on this project. Moreover, sediment and erosion control devices shall be allowed in Zone 2 of the buffers provided that Zone 1 is not compromised and that discharge is released as diffuse flow.
8. Riprap should not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.



9. If concrete is used during construction, 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 and fish kills.
10. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers.
11. The dimension, pattern and profile of the stream above and below the crossing should not be modified. Disturbed floodplains and streams should be restored to natural geomorphic conditions.
12. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
13. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream.
14. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
15. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
16. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
17. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification..
18. A copy of this Water Quality Buffer Authorization shall be posted on the construction site at all times. In addition, the Water Quality Buffer Authorization and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.
19. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
20. Upon completion of the project, the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in this Buffer Authorization has been completed.
21. Native riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
22. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.



23. 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 in order to protect surface waters standards:

- a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
- b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
- c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
- d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.

24. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored upon completion of the project.

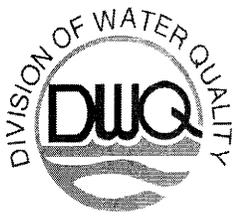
If you do not accept any of the conditions of this certification, you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition that conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699. This certification and its conditions are final and binding unless you ask for a hearing. This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please contact Rob Ridings at (919) 733-9817.

Sincerely,

Alan W. Klimek, P.E.

Attachment (Certificate of Completion form)

cc: Amy James, NCDOT PDEA  
Chris Murray, Division 5 Environmental Officer  
Eric Alsmeyer, US Army Corps of Engineers, Raleigh Field Office  
Travis Wilson, NC Wildlife Resources Commission  
Gary Jordan, US Fish and Wildlife Service  
Ecosystem Enhancement Program  
DWQ Raleigh Regional Office copy  
File Copy



DWQ Project No.: \_\_\_\_\_ County: \_\_\_\_\_

Applicant: \_\_\_\_\_

Project Name: \_\_\_\_\_

Date of Issuance of 401 Water Quality Certification: \_\_\_\_\_

**Certificate of Completion**

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to DWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

**Applicant's Certification**

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Agent's Certification**

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Engineer's Certification**

\_\_\_\_\_ Partial \_\_\_\_\_ Final

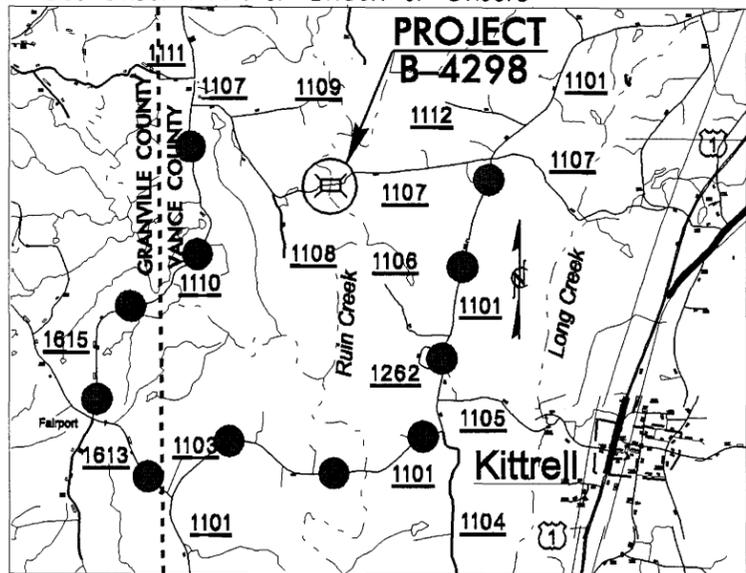
I, \_\_\_\_\_, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature \_\_\_\_\_ Registration No. \_\_\_\_\_

Date \_\_\_\_\_

89/C2/99

See Sheet 1-A For Index of Sheets



VICINITY MAP

●—● DENOTES OFF-SITE DETOUR ROUTE

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

Buffer Drawing  
Sheet 1 of 11

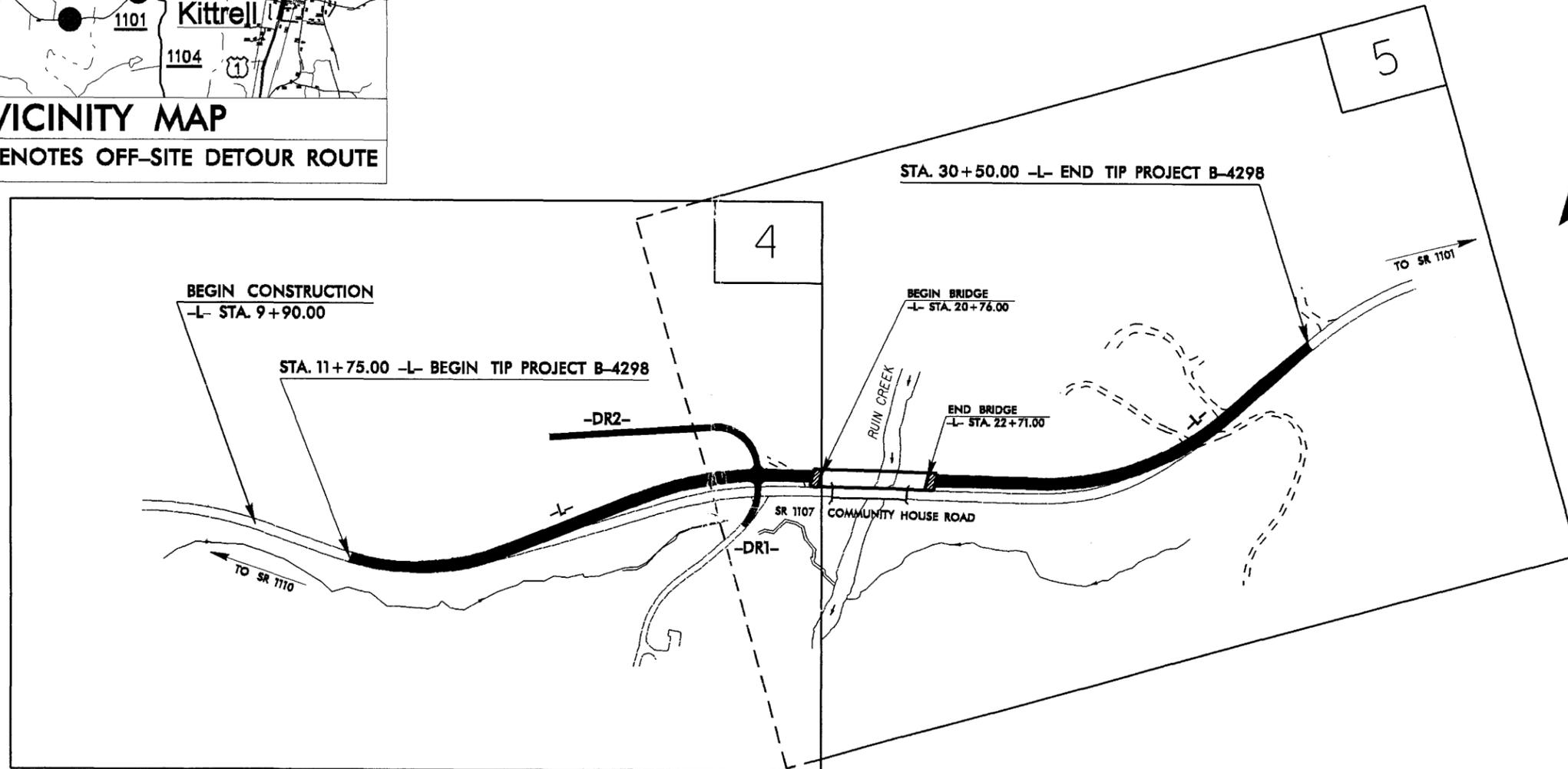
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4298	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33635.1.1	BRZ-1107(B)	PE	
33635.2.1	BRZ-1107(B)	RW & UTIL.	

**VANCE COUNTY**

LOCATION: BRIDGE NO. 3 OVER RUIN CREEK AND APPROACHES  
ON SR 1107 (COMMUNITY HOUSE ROAD)

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

TAR - PAMLICO  
BUFFER ZONE PERMIT  
DRAWINGS  
09/16/2006



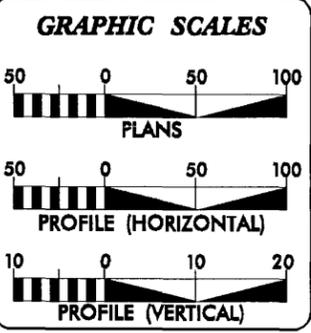
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

CLEARING ON THIS PROJECT SHOULD BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

\*\* DESIGN EXCEPTION FOR DESIGN SPEED REQUIRED

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

CONTRACT: C201599 TIP PROJECT: B-4298



**DESIGN DATA**

ADT 2007 =	750
ADT 2025 =	1200
DHV =	13 %
D =	55 %
T =	3 % *
** V =	40 MPH
* TTST 1% DUAL 2%	
FUNC CLASS =	LOCAL

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT B-4298	=	0.318 MILES
LENGTH STRUCTURE TIP PROJECT B-4298	=	0.037 MILES
TOTAL LENGTH OF TIP PROJECT B-4298	=	0.355 MILES

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JANUARY 30, 2006

LETTING DATE: MARCH 20, 2007

ROGER D. THOMAS, PE  
PROJECT ENGINEER

SAMUEL L. ST. CLAIR  
PROJECT DESIGN ENGINEER

**HYDRAULICS ENGINEER**

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

**ROADWAY DESIGN ENGINEER**

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

**DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA**

\_\_\_\_\_  
STATE DESIGN ENGINEER P.E.

**DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION**

\_\_\_\_\_  
APPROVED DIVISION ADMINISTRATOR

\_\_\_\_\_  
DATE

18-SEP-2006 15:46  
r:\hydra\caulics\permit\p4298\_rdy\_tsh.dgn  
pshpard A HY212438

PROJECT REFERENCE NO. B-4298	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Buffer Drawing  
Sheet 2 of 11

RECEIVED

JAN 2 2007

DIVISION OF HIGHWAYS  
PDEA-OFFICE OF NATURAL ENVIRONMENT

DETAIL 5  
DITCH LINER  
(Not to Scale)

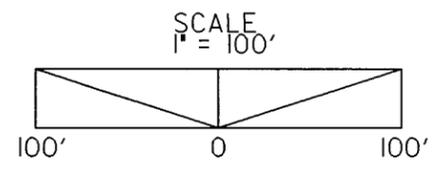
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FROM STA. TO STA. 12+00 TO 19+00 -L- LT  
STA. 9+00 TO 12+80 -DRI- RT

DETAIL 6  
SPECIAL CUT DITCH  
(Not to Scale)

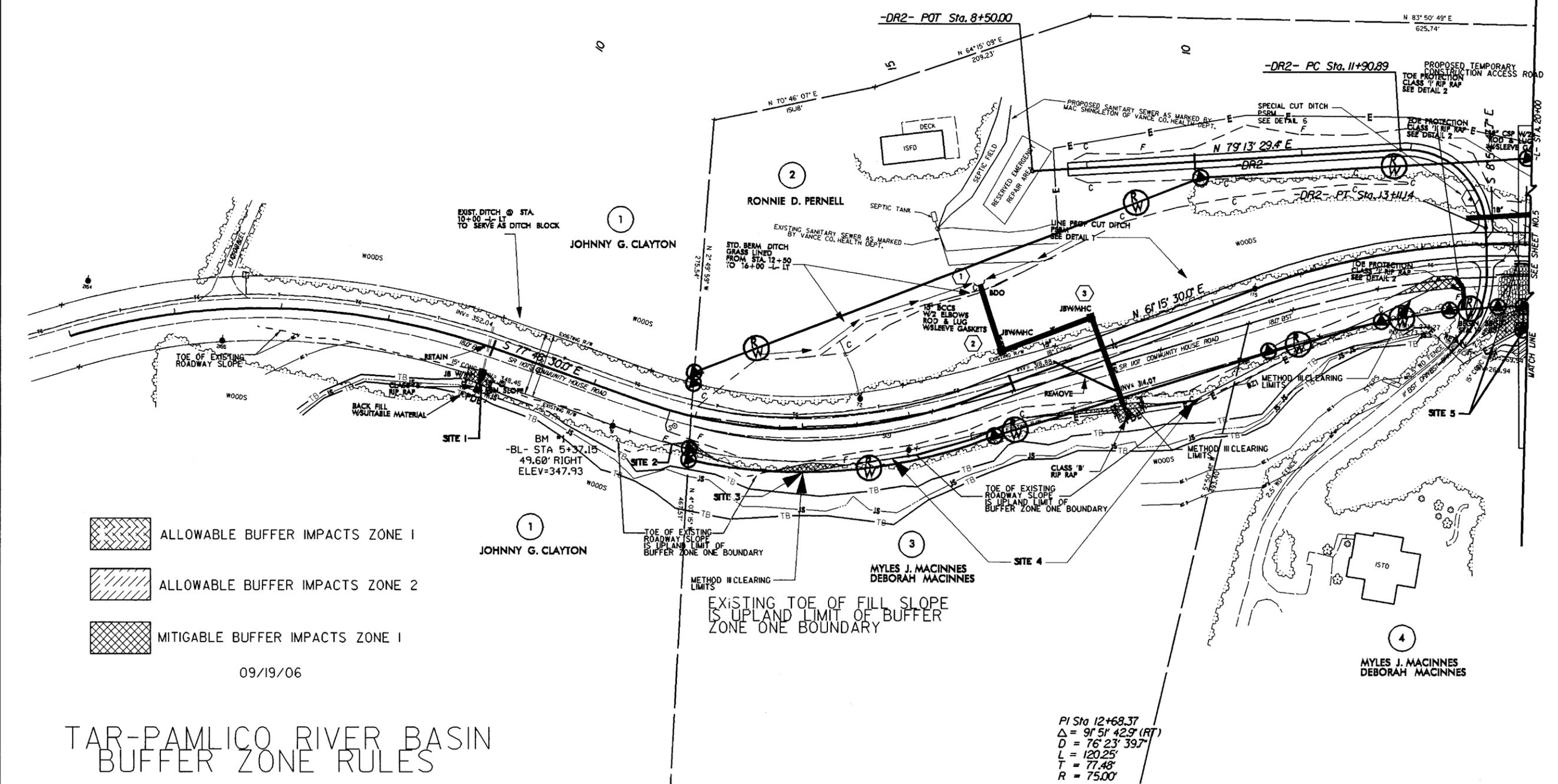
Type of Liner= PSRM  
FROM STA. 12+80 TO STA. 13+00 -DR2- RT

NAD 83/95

1  
JOHNNY G. CLAYTON  
GOLDIE E. CLAYTON



REVISIONS  
10/02/06 R/W REV. PARCEL 2 - ADDED DRIVE AND T.C.E.; PARCEL 4 - REDUCED PROPOSED R/W AT -DRI-.sis



- ALLOWABLE BUFFER IMPACTS ZONE 1
- ALLOWABLE BUFFER IMPACTS ZONE 2
- MITIGABLE BUFFER IMPACTS ZONE 1

09/19/06

## TAR-PAMLICO RIVER BASIN BUFFER ZONE RULES

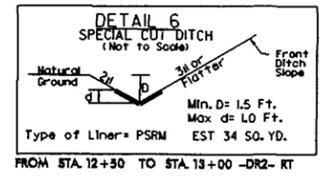
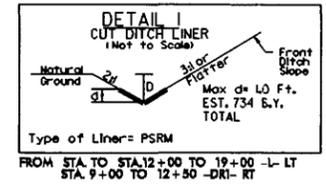
PI Sta 12+68.37  
 $\Delta = 91^{\circ} 51' 42.9''$  (RT)  
 $D = 76^{\circ} 23' 39.7''$   
 $L = 120.25'$   
 $T = 77.48'$   
 $R = 75.00'$

NOTES: (1) SEE SHEET 6 FOR -L- & -DRI- PROFILES,  
AND SHEET 7 FOR -DR2- PROFILE  
(2) SEE SHEET 2-A FOR DITCH DETAILS

22-DEC-2006 10:03  
H:\pde\pamlico\pde022\sh4.dgn

PROJECT REFERENCE NO. B-4298	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

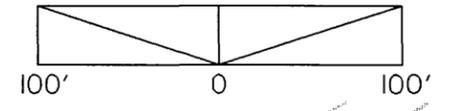
Buffer Drawing  
Sheet 3 of 11



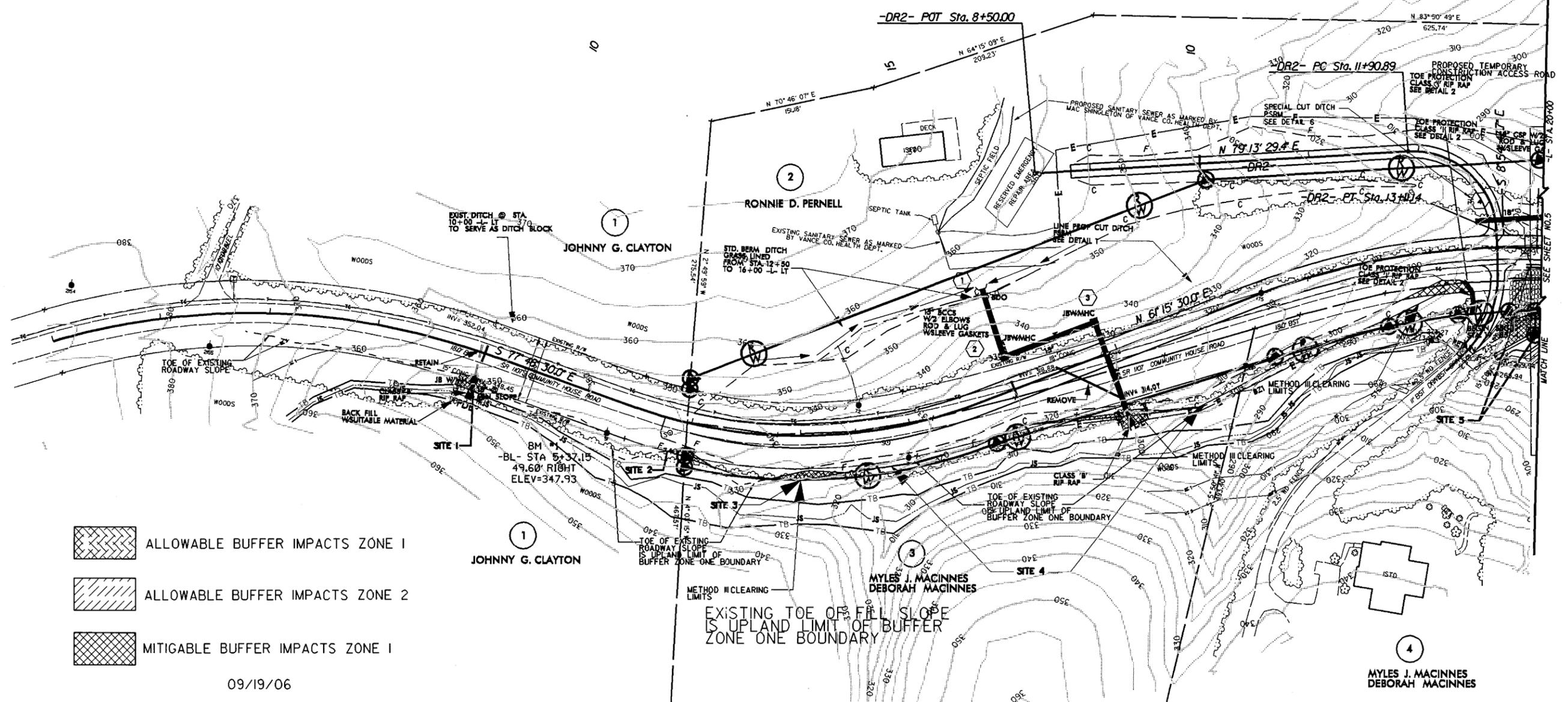
NAD 83/95

1  
JOHNNY G. CLAYTON  
GOLDIE E. CLAYTON

SCALE  
1" = 100'



10/02/06 R/W REV: PARCEL 2 - ADDED DRIVE AND T.C.E.; PARCEL 4 - REDUCED PROPOSED R/W AT -DRI- .sis



- ALLOWABLE BUFFER IMPACTS ZONE 1
- ALLOWABLE BUFFER IMPACTS ZONE 2
- MITIGABLE BUFFER IMPACTS ZONE 1

09/19/06

# TAR-PAMLICO RIVER BASIN BUFFER ZONE RULES

PI Sta 12+68.37  
Δ = 91° 51' 42.9" (RT)  
D = 76' 23' 39.7"  
L = 120.25'  
T = 77.48'  
R = 75.00'

NOTES: (1) SEE SHEET 6 FOR -L- & -DRI- PROFILES, AND SHEET 7 FOR -DR2- PROFILE  
(2) SEE SHEET 2-A FOR DITCH DETAILS

8/17/99  
22-DEC-2006 10:02  
C:\Hydraulics\perms\5\jsh4.dgn  
jsh4



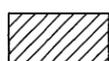
-DR2- POT Sta. 8+50.00

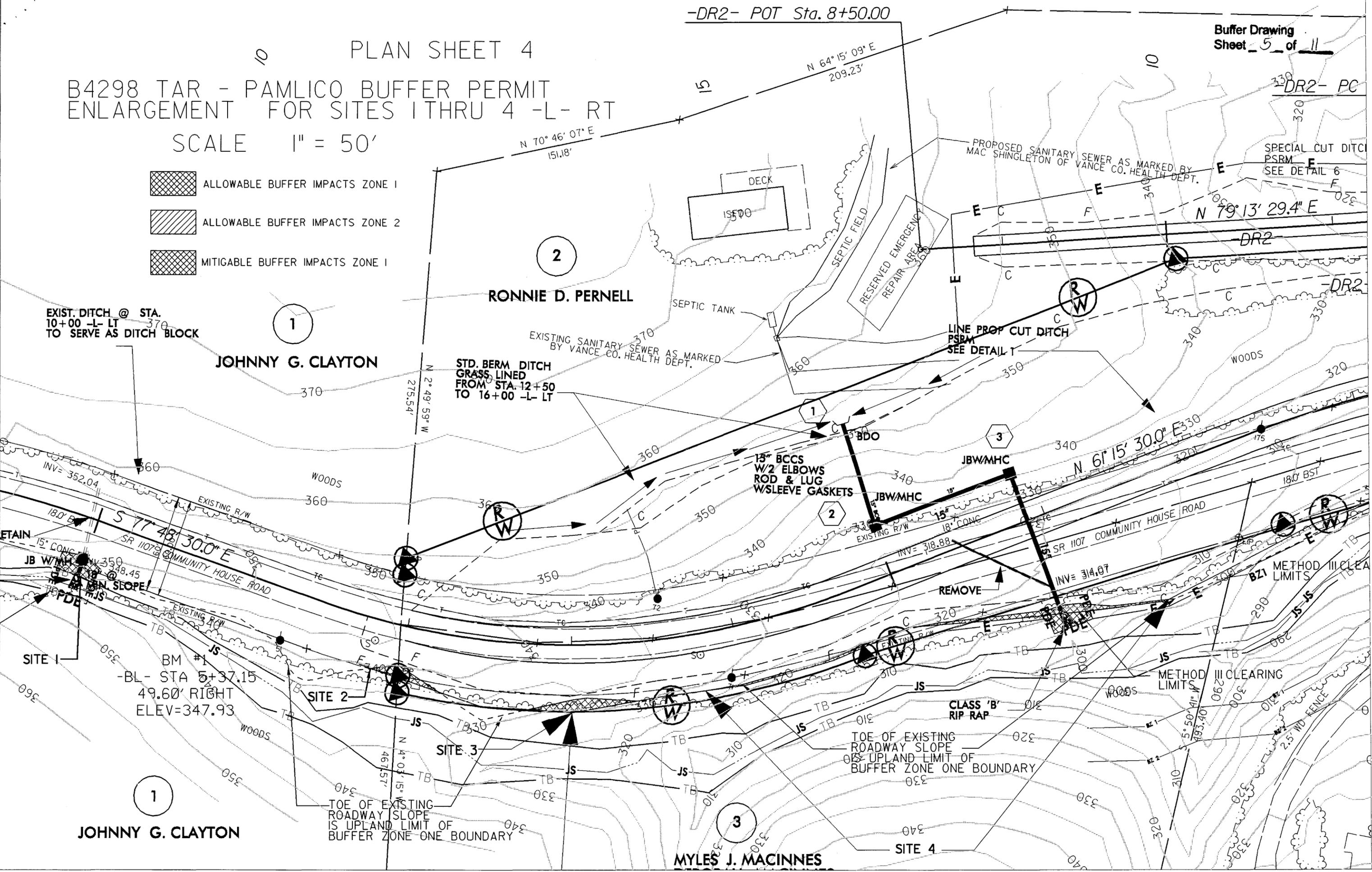
Buffer Drawing  
Sheet 5 of 11

# PLAN SHEET 4

## B4298 TAR - PAMLICO BUFFER PERMIT ENLARGEMENT FOR SITES 1 THRU 4 -L- RT

SCALE 1" = 50'

-  ALLOWABLE BUFFER IMPACTS ZONE 1
-  ALLOWABLE BUFFER IMPACTS ZONE 2
-  MITIGABLE BUFFER IMPACTS ZONE 1



EXIST. DITCH @ STA. 10+00 -L- LT TO SERVE AS DITCH BLOCK

JOHNNY G. CLAYTON

RONNIE D. PERNELL

STD. BERM DITCH GRASS LINED FROM STA. 12+50 TO 16+00 -L- LT

15" BCCS W/2 ELBOWS ROD & LUG W/SLEEVE GASKETS

REMOVE

CLASS 'B' RIP RAP

TOE OF EXISTING ROADWAY SLOPE IS UPLAND LIMIT OF BUFFER ZONE ONE BOUNDARY

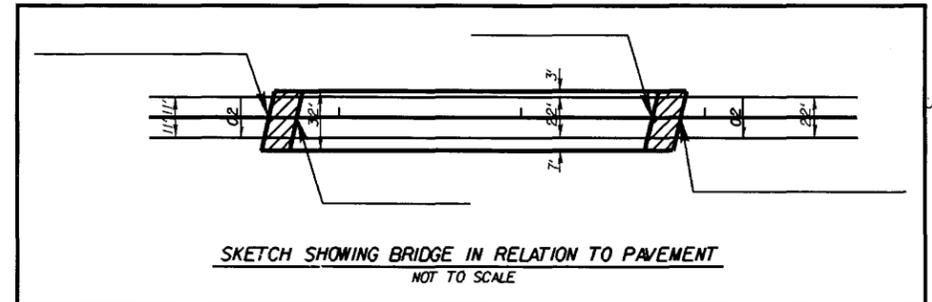
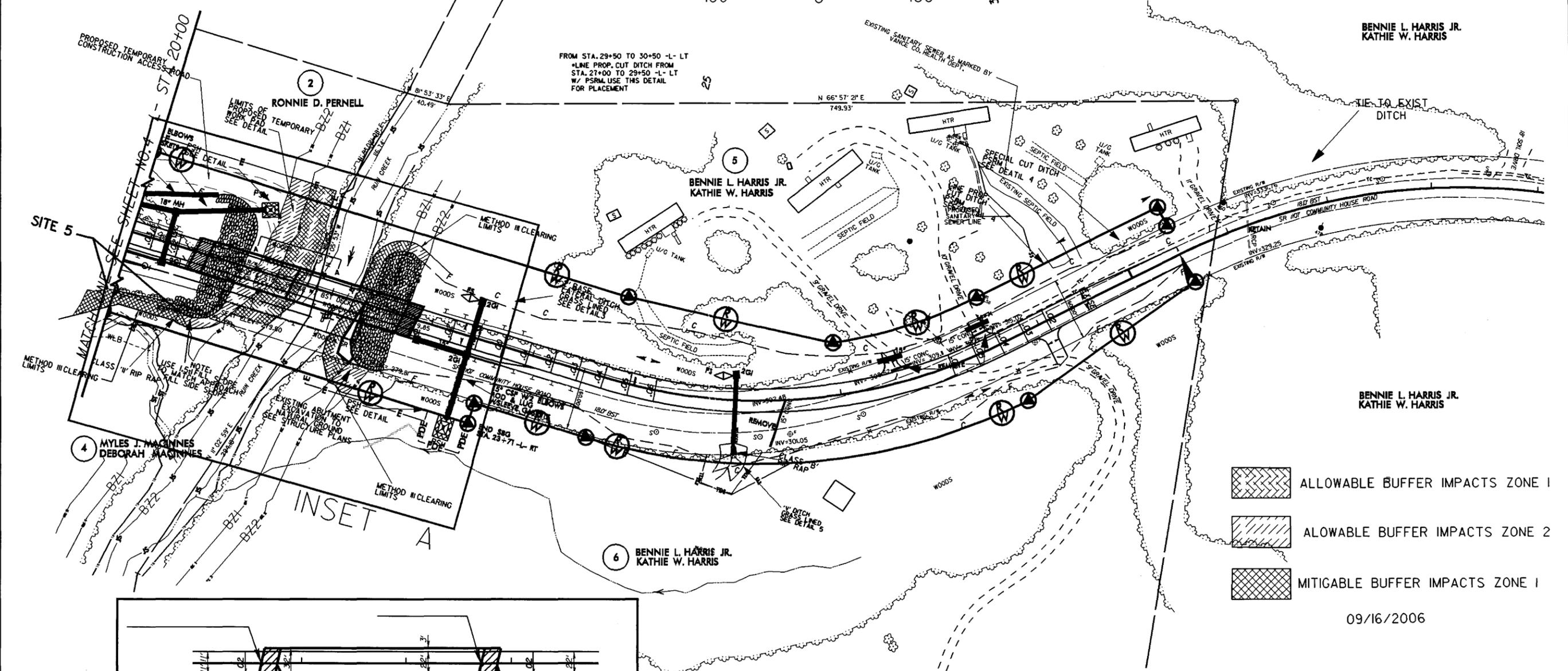
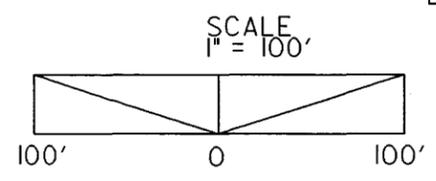
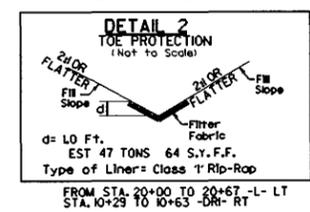
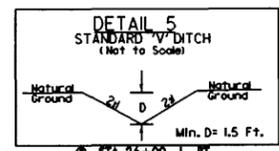
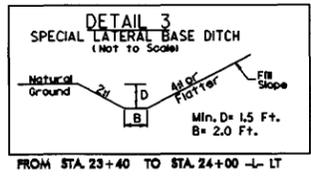
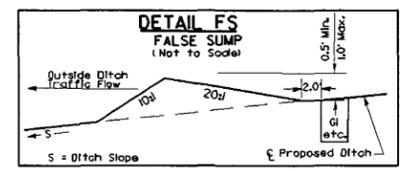
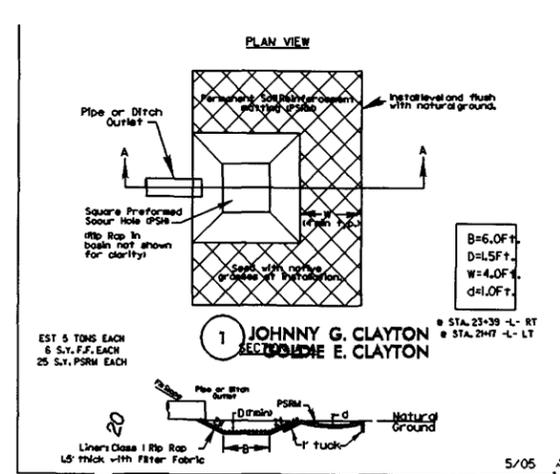
METHOD III CLEARING LIMIT

JOHNNY G. CLAYTON

MYLES J. MACINNES

PROJECT REFERENCE NO. B-4298	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

Buffer Drawing  
Sheet 6 of 11



- ALLOWABLE BUFFER IMPACTS ZONE 1
- ALLOWABLE BUFFER IMPACTS ZONE 2
- MITIGABLE BUFFER IMPACTS ZONE 1

09/16/2006

# TAR-PAMLICO RIVER BASIN BUFFER ZONES

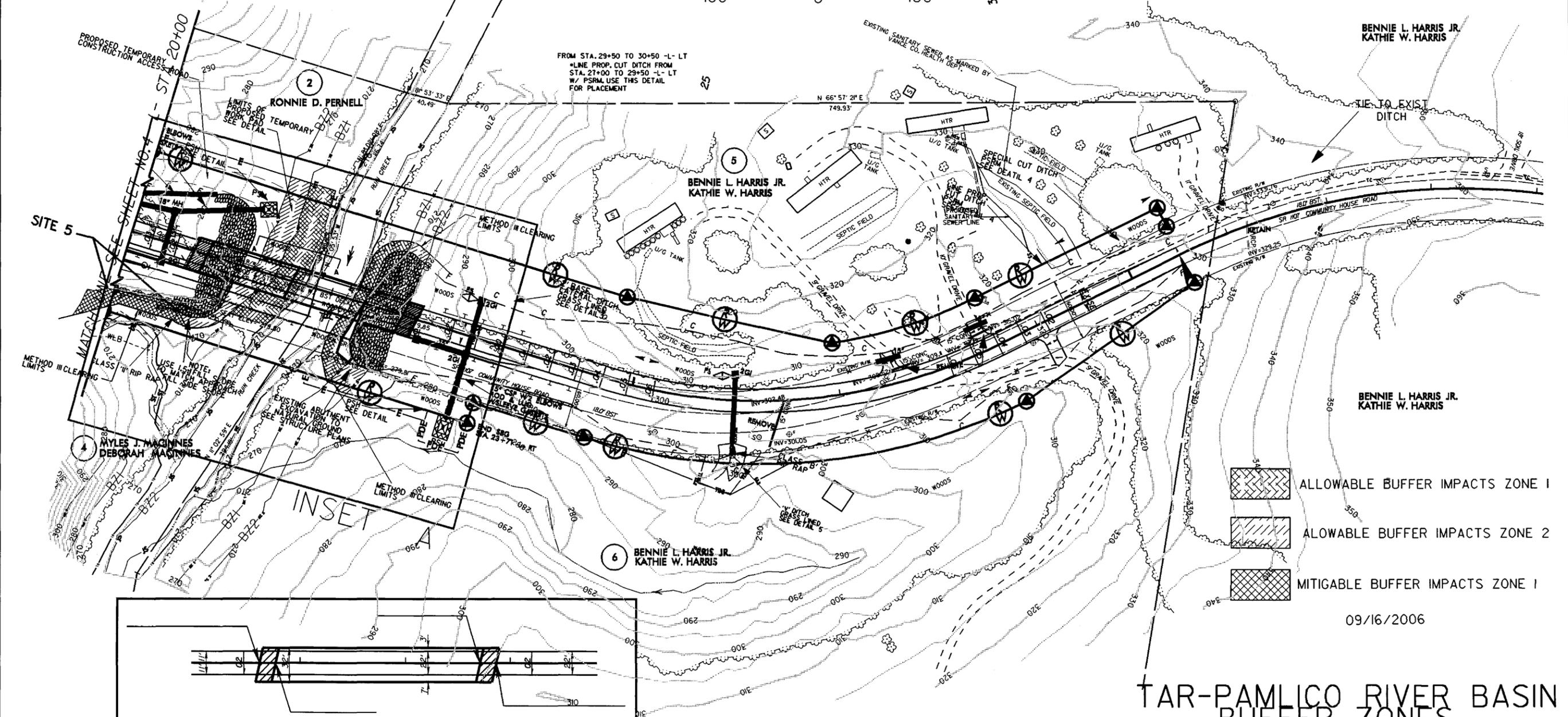
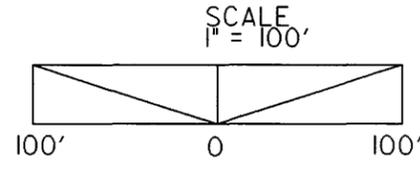
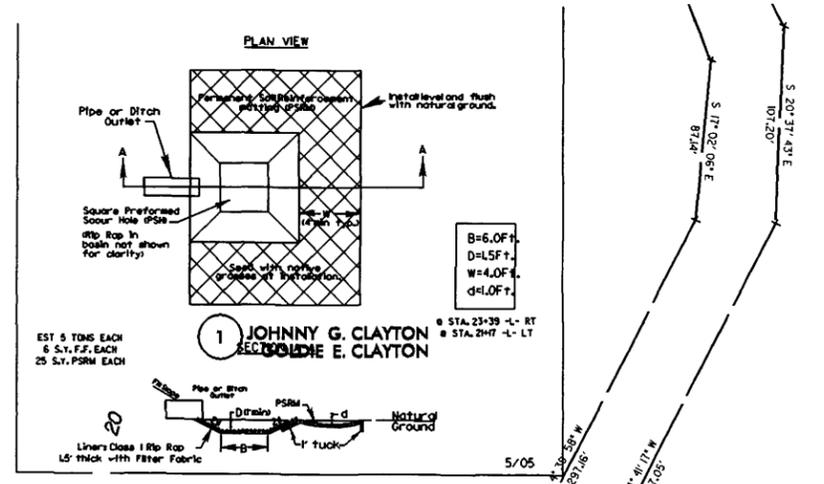
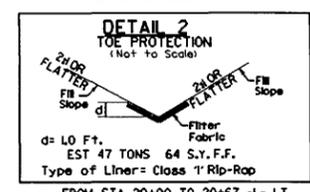
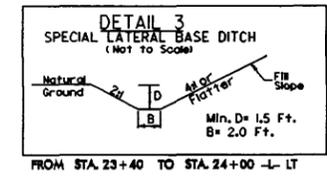
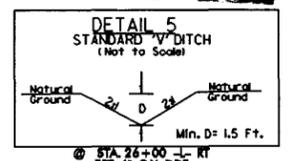
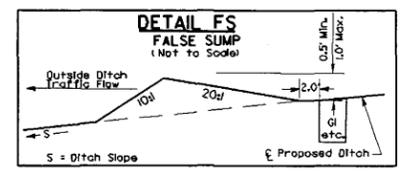
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8/17/99

PROJECT REFERENCE NO. B-4298	SHEET NO. 5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

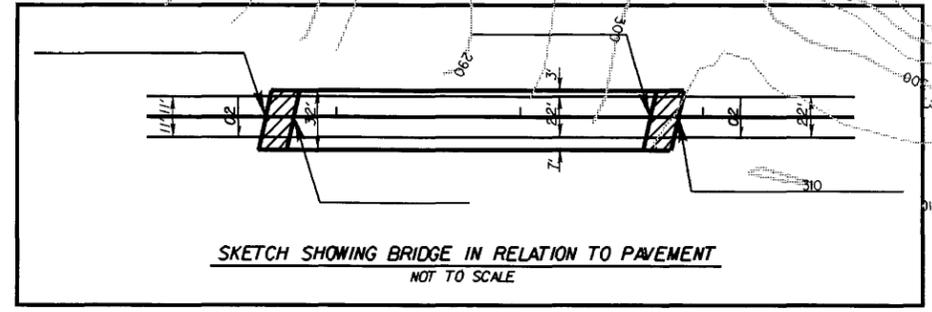
Buffer Drawing  
Sheet 7 of 11



- ALLOWABLE BUFFER IMPACTS ZONE 1
- ALLOWABLE BUFFER IMPACTS ZONE 2
- MITIGABLE BUFFER IMPACTS ZONE 1

09/16/2006

# TAR-PAMLICO RIVER BASIN BUFFER ZONES



REVISIONS  
12/13/06 R/W REV. PARCEL 6 - REDUCED PDE

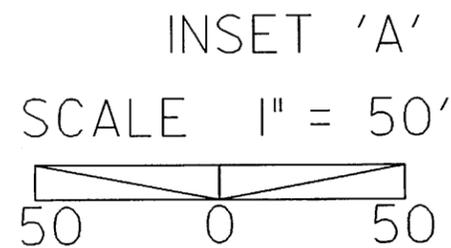
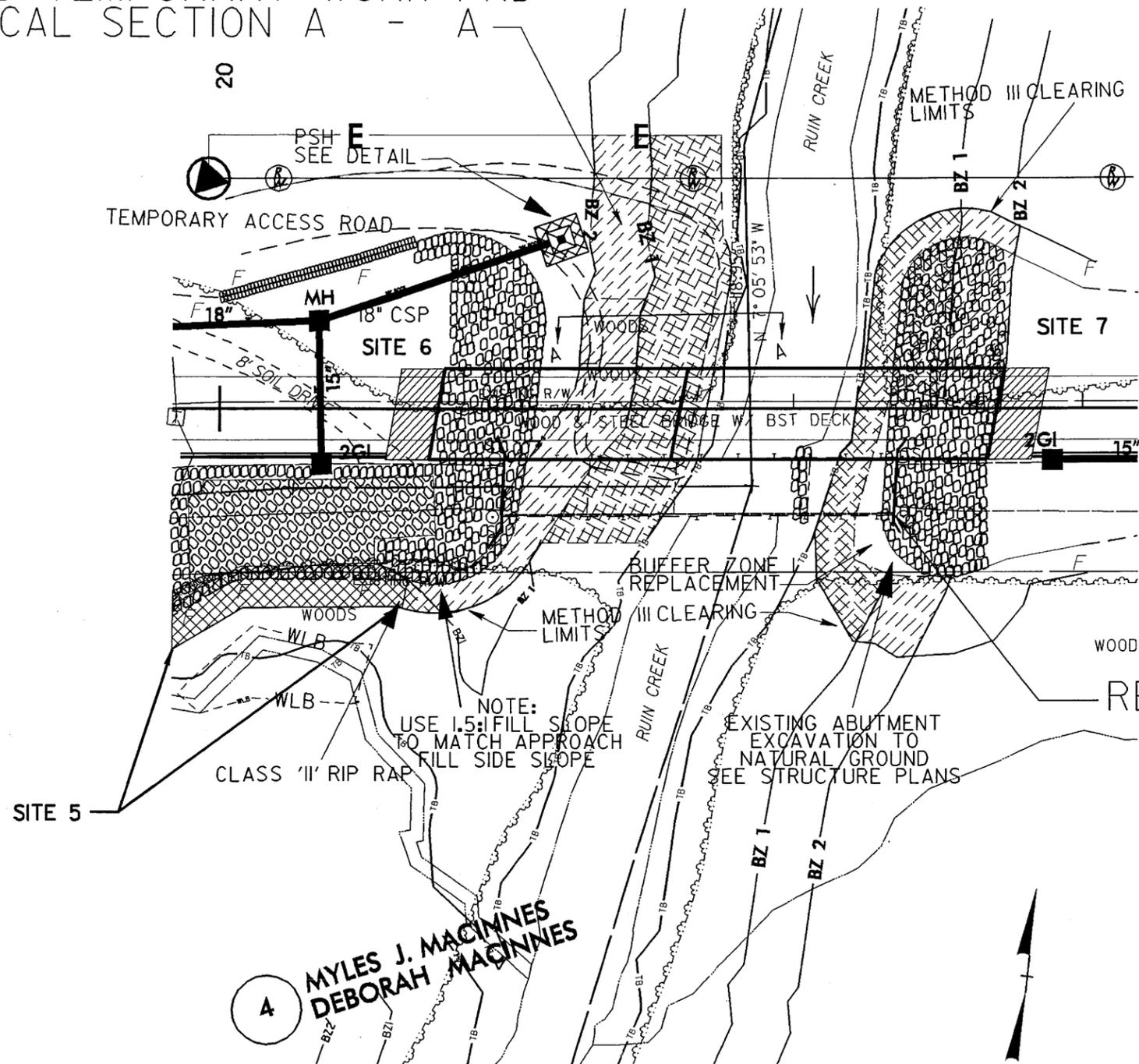
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5/14/99

PROJECT REFERENCE NO. B-4298	SHEET NO. 5
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

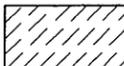
Buffer Drawing  
Sheet 8 of 11

PROPOSED TEMPORARY WORK PAD  
SEE TYPICAL SECTION A - A



REMOVE EXISTING BRIDGE

TAR-PAMLICO RIVER BASIN  
BUFFER ZONES

- PLAN VIEW**
-  ALLOWABLE BUFFER IMPACTS ZONE 1
  -  ALLOWABLE BUFFER IMPACTS ZONE 2
  -  MITIGABLE BUFFER IMPACTS ZONE 1

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## BUFFER IMPACTS SUMMARY

			IMPACT									BUFFER REPLACEMENT	
SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	TYPE			ALLOWABLE			MITIGABLE			ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )	TOTAL (ft <sup>2</sup> )	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )	TOTAL (ft <sup>2</sup> )		
1	18" RCP	STA. 9+96 -L- RT			X	0	0	0	281	0	281		
2	N/A	STA. 11+83 TO 12+27 -L- RT			X	0	0	0	159	0	159		
3	N/A	STA. 12+74 TO 13+40 -L- RT			X	0	0	0	282	0	282		
4	15" RCP	STA. 13+75 TO 16+51 -L- RT			X	0	0	0	679	0	679		
5	N/A	STA. 19+70 TO 20+65 -L- RT			X	0	0	0	1453	0	1453		
6	BRIDGE	STA. 20+63 TO 21+78 -L- LT/RT		X		4110	3709	7819	0	0	0		
7	BRIDGE	STA. 22+08 TO 22+79 -L- LT/RT		X		2782	1932	4714	0	0	0	403	0
<b>TOTAL:</b>						6892	5641	12533	2854	0	2854	403	0

METHOD III CLEARING

BUFFER ZONE 1 REPLACEMENT WILL BE IN FRONT OF THE EASTERN MOST EXISTING ABUTMENT REMOVAL BY EXCAVATION OF EXISTING FILL TO NATURAL GROUND.

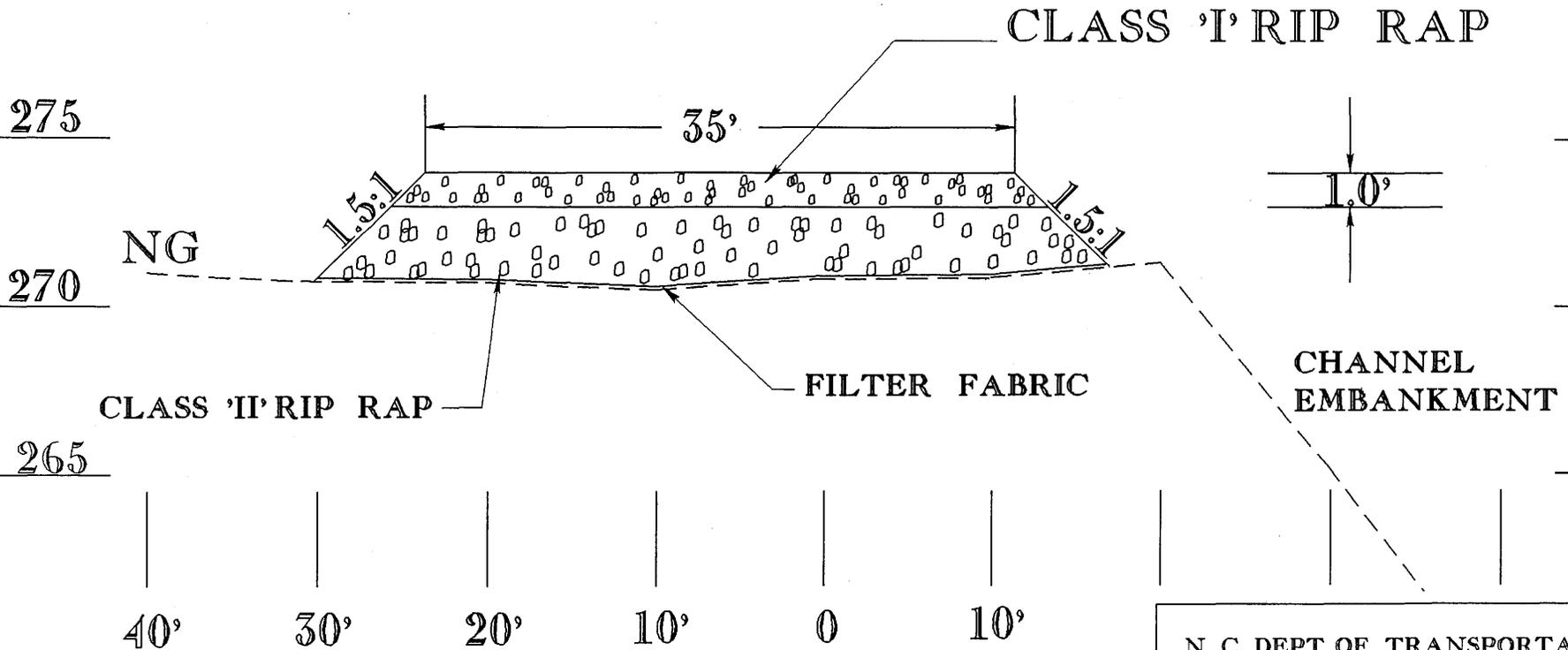
CONSTRUCTION LIMITS OF TEMPORARY WORK PAD WILL NOT ENCROACH INTO RUIN CREEK.

N.C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

VANCE COUNTY  
PROJECT: 33635.1.1. (B-4298)

9/19/2006  
SHEET 9 OF 11

TYPICAL  
SECTION A - A  
WORK PAD



ESTIMATE OF QUANTITIES

VOLUME OF CLASS II RIP RAP BELOW O.H.W. = 0.0

N. C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
VANCE COUNTY  
PROJECT: 33635.1.1 (B-4298)  
REPLACE BRIDGE #03  
OVER RUIN CREEK  
ALONG SR 1107  
(COMMUNITY HOUSE RD.)

# Property Owner Contact Report



TIP # **B-4298 VANCE Co.**

<i>Owner Last Name/ Business</i>	<i>Owner First Name</i>	<i>Address</i>	<i>City/Town</i>	<i>State</i>	<i>Zip Code</i>	<i>Contact/ Relationship</i>	<i>Home Phone</i>	<i>Contacted By</i>	<i>Contact Date</i>	<i>How Contacted</i>	<i>Comments</i>
① Clayton	Johnny G.	1621 Community House Rd.	Oxford	NC	27565			Watts Fearington	2/3/03	Letter	Certified Mail
Clayton	Johnny G.	1621 Community House Rd.	Oxford	NC	27565			Watts Fearington	2/3/03	Letter	Certified Mail
⑤ Harris	Bennie L., Jr.	535 B. L. Harris Rd.	Oxford	NC	27565			Watts Fearington	2/3/03	Letter	Certified Mail
⑥ Harris	Bennie L., Jr.	535 B. L. Harris Rd.	Oxford	NC	27565			Watts Fearington	2/3/03	Letter	Certified Mail
Harris	Joel S. & Bennie L., Jr.	130 B. L. Harris Rd.	Oxford	NC	27565			Watts Fearington	2/3/03	Letter	Certified Mail
Harris	Joel S. & Bennie L., Jr.	130 B. L. Harris Rd.	Oxford	NC	27565			Watts Fearington	2/3/03	Letter	Certified Mail
③ MacInnes	Myles J. & Deborah H.	1355 Community House Rd.	Henderson	NC	27536			Watts Fearington	2/3/03	Letter	Certified Mail
④ MacInnes	Myles J. & Deborah H.	1355 Community House Rd.	Henderson	NC	27536			Watts Fearington	2/3/03	Letter	Certified Mail
MacInnes	Myles J. & Deborah H.	1355 Community House Rd.	Henderson	NC	27536			Watts Fearington	2/3/03	Letter	Certified Mail
MacInnes	Myles J. & Deborah H.	1355 Community House Rd.	Henderson	NC	27536			Watts Fearington	2/3/03	Letter	Certified Mail
② Pernell	Ronnie D.	1558 Community House Rd.	Oxford	NC	27565			Watts Fearington	2/3/03	Letter	Certified Mail
Pernell	Ronnie D.	1558 Community House Rd.	Oxford	NC	27565			Watts Fearington	2/3/03	Letter	Certified Mail

Buffer Drawing  
Sheet 11 of 11