




STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

April 4, 2007

MEMORANDUM TO: Mr. C. E. Lassiter, Jr., PE
Division Two Engineer

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

SUBJECT: Greene County, Replace Bridge No.43 on SR 1438 over
Rainbow Creek; T.I.P. Number B-4127; Federal Aid
Project – BRZ-1438(5); State Project 8.2180401

Attached is the U. S. Army Corps of Engineers Nationwide Permit Number 23, the 401 Water Quality Certification and the Neuse 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. Rob Hanson, P.E., PDEA Eastern Region Unit Head
Mr. Jay B. Johnson, Division Environmental Officer

PROJECT COMMITMENTS

Greene County
Bridge No. 43 on SR 1438
Over Rainbow Creek
Federal Aid Project - BRZ-1438(5)
State Project 8.2180401
TIP No. B-4127

In addition to the standard Nationwide Permit #23 Conditions, the General Nationwide Permit Conditions, Section 404 Only Conditions, Regional Conditions, State Consistency Conditions, NCDOT's Guidelines for Best Management Practices for Bridge Demolition and Removal, "Design Standards in Sensitive Watersheds", General Certification Conditions, Neuse Riparian Buffer Rules, and the Section 401 Conditions of Certification; the following Special Commitments have been agreed to by NCDOT:

Commitments Developed During Project Development:

PDEA – Project Design Engineer

Coordination should be continued with Greene County Transportation to insure that a survey of demand is completed for the proposed van service to accommodate pedestrians during construction. In May 2005 Mike Lovett of Greene County Transportation will be contacted to follow up on the survey.

All Design Groups – High Quality Wetlands

The footprint of the project should be minimized to the extent practical to reduce the impact to the surrounding wetlands.

All Design Groups/ Division Construction Engineer – Anadromous Fish

The North Carolina Division of Marine Fisheries (NCDMF) has indicated that a moratorium on in-water construction will be in place from February 1 to September 30 of any given year.

The moratorium has been rescinded by NCDMF. Please see the attached email.

To the extent practical, construction should be accomplished without the use of construction pads.

To the extent practical, bridge demolition should occur without getting into the water.

PDEA/ Structure Design/ Division Resident Engineer – Streetlight and aesthetic considerations

The town of Hookerton has requested that the bridge include aesthetic considerations including mountings for lighting. PDEA will facilitate discussion between Structure Design and the town council to work out the details.

Structure Design/ Roadway Design/ Division Resident Engineer – Bicycle and pedestrian facilities

The new bridge and approaches within the project limits shall include a sidewalk along the north side of the project limits with pedestrian safe rail. The project shall also be designed to accommodate bicycles with bicycle safe rail on the south side. The appropriate cross section is referenced in Section III Part A of this document (B-4127 Categorical Exclusion).

Commitments Developed During Permitting:

Division 4 Construction/ PDEA

Compensatory mitigation for the unavoidable impacts to 0.256 acres of riparian wetlands associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated September 11, 2006, from William D. Gilmore, EEP Director. Pursuant to the EEP Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003, the EEP will provide 0.51 acres of restoration equivalent riparian wetlands in the Neuse River Basin (Hydrologic Cataloging Unit 03020203) in accordance with Section X of the MOA. For wetlands, a minimum of 1: 1 (impact to mitigation) must be in the form of wetland restoration. The NCDOT shall, within 30 days of the issue date of this permit, certify that sufficient funds have been provided to EEP to complete the required mitigation, pursuant to Paragraph V. of the MOA.

Division 4 Construction

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 the 401 Certification has been completed.

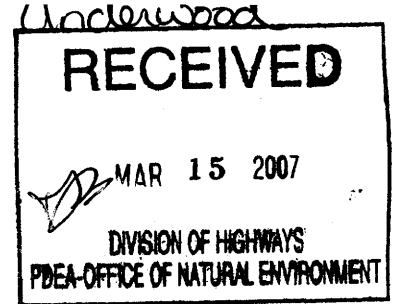
A copy of this Water Quality Certification shall be posted on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on- site project manager.



IN REPLY REFER TO

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
Washington Regulatory Field Office
P.O. Box 1000
Washington, North Carolina 27889-1000

March 8, 2007



Regulatory Division

Subject: Action ID No. SAW 2006-41550-140 and Nationwide Permit No. 23 (Approved Categorical Exclusions)

Dr. Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

Reference your Categorical Exclusion Document, approved on July 9, 2004, your subsequent correspondence dated October 18, 2006, and the Department of the Army (DA) Nationwide 23, Categorical Exclusion issued to you on November 28, 2006, associated with the replacement of Bridge No. 43 on NCSR 1438 over Rainbow Creek, Federal Aid Project No. BRZ-1438 (5), State Project No. 8.2180401, T.I.P. No. B-4127, Greene County, North Carolina. Also reference your subsequent written request dated March 2, 2007, for a permit modification to impact an additional 0.03 acres of jurisdictional wetlands and 0.013 acres of open waters. The project involves an off site detour and will replace the existing structure in approximately the same location (7.5-foot offset to the north) with a 115-foot bridge utilizing top-down construction adversely impacting 0.46 acres of riverine wetlands adjacent to Rainbow Creek.

For the purposes of the Corps of Engineers Regulatory Program, Title 33, Code of Federal Regulations (CFR), Part 330.6, published in the Federal Register on November 22, 1991, lists nationwide permits. Authorization pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act, was provided for activities undertaken, assisted, authorized, regulated, funded or financed, in whole or part, by another Federal agency or department where that agency or department has determined, pursuant to the CEQ Regulation for the Implementing the Procedural Provisions of the National Environmental Policy Act, that the activity, work or discharge 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 the Office of the Chief of Engineers has been furnished notice of the agency's or department's application for the categorical exclusion and concurs with that determination.

Review of this project indicates that the construction of the new bridge will adversely impact 0.46 acres of riverine wetlands consisting of 0.1 acres of permanent fill, 0.18 acres of mechanized land clearing, and 0.18 acres of temporary impacts from hand-clearing activities in wetlands. In addition, a total of 0.006 acres of surface waters will be permanently impacted and 0.007 acres of surface waters will be temporarily impacted for the placement of rip rap along the bank of Rainbow Creek. Review of your proposed modification revealed no objection and your modification request is hereby approved. Please replace the original permit letter approval dated November 28, 2006, with this approval letter.

Your work is authorized under Nationwide Permit 23, Categorical Exclusion, provided it is accomplished in strict accordance with the enclosed Nationwide Permit Conditions and the following special conditions:

a. Compensatory mitigation for the unavoidable impacts to 0.28 acres of riparian wetlands associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated February 13, 2007, from William D. Gilmore, EEP Director. Pursuant to the EEP Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003, the EEP will provide 0.56 acres of restoration equivalent riparian wetlands in the Neuse River Basin (Hydrologic Cataloging Unit 03020203) in accordance with Section X of the MOA. For wetlands, a minimum of 1:1 (impact to mitigation) must be in the form of wetland restoration. The NCDOT shall, within 30 days of the issue date of this permit, certify that sufficient funds have been provided to EEP to complete the required mitigation, pursuant to Paragraph V. of the MOA.

b. All measures will be taken to avoid any temporary fill from entering into Rainbow Creek from bridge demolition. Bridge demolition shall follow NCDOT best management practices for construction and maintenance activities dated August 2003 and incorporate NCDOT policy entitled "Bridge Demolition and Removal in Waters of the United States" dated September 20, 1999.

c. No bridge demolition debris or excavated or fill material will be placed at any time, in any wetlands or surrounding waters, outside of the alignment of the fill area indicated on the work plans.

d. All excavated materials will be confined above normal high water and landward of regularly or irregularly flooded wetlands behind adequate dikes or retaining structures to prevent spillover of solids into any wetlands or surrounding waters.

e. 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 any activities that cause the degradation of waters or wetlands, except as authorized by this permit, or any

modification to this permit. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area. There shall be no excavation from, waste disposal into, or degradation of, jurisdictional waters or wetlands associated with this permit without appropriate modification of this permit, including appropriate compensatory mitigation. This prohibition applies to all borrow and fill activities connected with this project.

f. 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. The permittee shall ensure that all such areas comply with condition (e) 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 (e). 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.

g. The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions and any Corps approved modifications shall be available at the project site during construction and maintenance of this project.

h. Any violation of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act must be reported in writing to the Wilmington District, U.S. Army Corps of Engineers, within 24 hours of the violation.

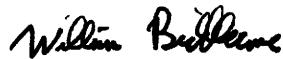
i. All temporary fill (rip-rap work pad) shall be removed in its entirety upon completion of the construction at the site.

j. Failure to institute and carry out the details of special conditions a. - i., above, may result in a directive to cease all ongoing and permitted work within waters and/or wetlands associated with TIP No. B-4127, or such other remedy as the District Engineer or his authorized representatives may seek.

This nationwide permit does not relieve you of the responsibility to obtain any required State or local approval. This permit is valid until the NWP is modified, reissued, or revoked. All of the existing NWPs are scheduled to be modified, reissued, or revoked prior to March 18, 2007. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. If, prior to the expiration date of March 18, 2007, the nationwide permit authorization is reissued and/or modified, this verification will remain valid until March 18, 2007, provided it complies with all new and/or modified terms and conditions. The District Engineer may, at any time, exercise his discretionary authority to modify, suspend, or revoke a case specific activity's authorization under any NWP.

Thank you for your time and cooperation. If you have any questions, you may contact Mr. William Wescott at the Washington Regulatory Field Office, Post Office Box 1000, Washington, North Carolina, 27889, or telephone 252-975-1616, extension 31.

Sincerely,



William Biddlecome
Project Manager

Enclosures

Copies Furnished (without enclosures)

Mr. David Wainwright
Water Quality Section
North Carolina Division of Environment
and Natural Resources
1650 Mail Service Center
Raleigh, North Carolina 27699-1650

Mr. Travis Wilson
Eastern Region Highway Project Coordinator
Habitat Conservation Program
1142 I-85 Service Road
Credmoor, North Carolina 27522

Mr. Gary Jordan
U.S. Fish and Wildlife Service
Fish and Wildlife Enhancement
Post Office Box 33726
Raleigh, North Carolina 27636-3726

Mr. Ron Sechler
National Marine Fisheries Service
101 Pivers Island
Beaufort, North Carolina 28516

Ms. Kathy Matthews
USEPA-Region 4 Wetlands Section
109 T.W. Alexander Drive
Durham, North Carolina 27711
Mail Code:E143-04

Mr. William D. Gilmore, P.E.
EEP Director
North Carolina Ecosystem Enhancement Program
1652 Mail Service Center
Raleigh, North Carolina 27699-1652

Mr. Garcy Ward
NCDWQ Washington Regional Office
943 Washington Square Mall
Washington, North Carolina 27889



Michael F. Easley, Governor

William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director
Division of Water Quality

April 2, 2007
Greene County
DWQ Project No. 20061695 v.2
TIP B-4127

MODIFICATION of APPROVAL of 401 WATER QUALITY CERTIFICATION and NEUSE RIVER BUFFER RULES with ADDITIONAL CONDITIONS

Dr. Gregory J. Thorpe, PhD., Manager
Planning & Environmental Branch
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina, 27699-1548

Dear Dr. Thorpe:

You have our approval, in accordance with the attached conditions and those listed below, for the following impacts:

Site Number	Wetlands (acres)			Buffer Zone 1 (square ft)	Buffer Zone 2 (square ft)	Streams (acres)
	Fill	Mechanized Clearing	Temporary Hand Clearing			
TIP B-4127 original amount permitted	0.065	0.18	0.018	9707	3183	0
TIP B-4127 additional amount with this modification	0.035	0	0	0	0	0.01
Net Total Impacts	0.298 acres			12,890 ft ²		0.01 acres

The project shall be constructed in accordance with your application dated March 2, 2007 for the purpose of replacing Bridge Number 43 over Rainbow Creek on SR 1438 in Greene County. All the authorized activities and conditions associated with the original Water Quality Certification dated January 16, 2007 and all subsequent modifications still apply except where superseded by this certification. After reviewing your application, we have decided that these impacts are covered by General Water Quality Certification Number 3632. This certification corresponds to Nationwide Permit 23, issued by the Corps of Engineers. This approval is also valid for the Neuse River Buffer Rules (15A NCAC 2B .0233). 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 will expire with the accompanying 404 permit issued by the US Army Corps of Engineers (this supercedes Condition 10 of General Certification 3632 issued March 19, 2007).

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 total impacts to streams or buffers (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 in the attached certification.

- 1.) 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 the 401 Certification has been completed.



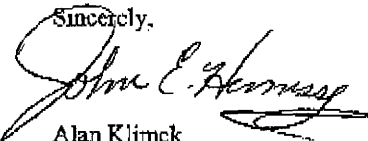
- 2.) The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If DWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, DWQ may reevaluate and modify this certification.
- 3.) Placement of culverts and other structures in waters, streams, and wetlands shall 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. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by DWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NC DWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.
- 4.) 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.
- 5.) 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.
- 6.) 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.
- 7.) 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.
- 8.) The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage.
- 9.) Heavy equipment may be operated within the stream channels however, its usage shall be minimized.
- 10.) 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.
- 11.) No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
- 12.) Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.

- 13.) All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification.
- 14.) 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.
- 15.) Native riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
- 16.) 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.
- 17.) All stormwater runoff shall be directed as sheetflow through stream buffers at nonerosive velocities, unless otherwise approved by this certification.
- 18.) 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.
- 19.) 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.
- 20.) Bridge deck drains should not discharge directly into the stream. Stormwater should 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*.
- 21.) 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.
- 22.) A copy of this Water Quality Certification shall be posted on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.

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, P.O. Box 27447, Raleigh, N.C. 27611-7447. 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 Garcy Ward at (252) 948-3922.

Sincerely,



for Alan Klimck
Director, Division of Water Quality

Attachment

cc: Wilmington District Corps of Engineers
Mr. William Wescott, US Army Corps of Engineers, Washington Field Office
Mr. Jay Johnson, Division 2 Environmental Officer, NCDOT
Garcy Ward, NC DWQ
Central Files
File copy

Certification of Completion

DWQ Project No.: _____ County: _____

Applicant: _____

Project Name: _____

Date of Issuance of Wetland Permit: _____

Certificate of Completion

Upon completion of all work approved within the **401 Water Quality Certification and Buffer Rules**, and any subsequent modifications, the applicant is required to return this certificate to the 401 Oversight/Express 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: _____

If this project was designed by a Certified Professional

I, _____, as a duly registered Professional _____ (i.e., Engineer, Landscape Architect, Surveyor, etc.) 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 _____

WQC #3632

GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE FOR CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBER 23 (APPROVED CATEGORICAL EXCLUSIONS) AND RIPARIAN AREA PROTECTION RULES (BUFFER RULES)

This General Certification 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. This Certification replaces Water Quality Certification Number 2670 issued on January 21, 1992, Certification Number 2734 issued on May 1 1993, Certification Number 3107 issued on February 11, 1997 and Water Quality Certification Number 3361 issued March 18, 2002 and WQC Number 3403 issued March 28, 2003. This WQC is rescinded when the Corps of Engineers re-authorizes Nationwide Permit 23 or when deemed appropriate by the Director of the DWQ.

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.

Conditions of Certification:

1. Proposed fill or substantial modification of wetlands or waters (including streams) under this General Certification requires notification to the Division of Water Quality. Two copies shall be submitted to DWQ at the time of notification in accordance with 15A NCAC 2H .0501(a). Written concurrence from DWQ is not required unless any standard conditions of this Certification cannot be met;
2. Appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" whichever is more appropriate (available from the Division of Land Resources (DLR) in the DENR Regional or Central Offices) shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to assure compliance with the appropriate turbidity water quality standard;
3. In accordance with 15A NCAC 2H .0506 (h) compensatory mitigation may be required for impacts to 150 linear feet or more of streams and/or one acre or more of wetlands. In addition, 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 for any Certification for this Nationwide Permit. The most current design and monitoring protocols from DWQ shall be followed and written plans submitted for DWQ approval as required in those protocols. When compensatory mitigation is required for a project, the mitigation plans must be approved by DWQ in writing before the impacts approved by the Certification occur. The mitigation plan must be implemented and/or constructed before any permanent building or structure on

WQC #3632

- site is occupied. In the case of public road projects, the mitigation plan must be implemented before the road is opened to the travelling public;
4. Compensatory stream mitigation shall 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 to DWQ in watersheds classified as ORW, HQW, Tr, WS-I and WS-II unless the project is a linear, publicly-funded transportation project, which has a 150-foot per-stream impact allowance;
 5. All sediment and erosion control measures placed in wetlands or waters shall be removed and the original grade restored within two months after the Division of Land Resources has released the project;
 6. Measures shall be taken to prevent live or fresh concrete from coming into contact with freshwaters of the state until the concrete has hardened;
 7. In accordance with North Carolina General Statute Section 143-215.3D(e), any request for written concurrence for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, one payment to both agencies shall be submitted and will be the higher of the two fees;
 8. Impacts to any stream length in the Neuse, Tar-Pamlico, Randleman and Catawba River Basins (or any other river basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) requires written concurrence from DWQ in accordance with 15A NCAC 2B.0200. Activities listed as "exempt" from these rules do not need to apply for written concurrence under this Certification. New development activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse, Tar-Pamlico, Randleman and Catawba River Basins shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0200. All new development 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;
 9. Additional site-specific conditions may be added to projects for which written concurrence is required or requested under this Certification in order to ensure compliance with all applicable water quality and effluent standards;
 10. Concurrence from DWQ that this Certification applies to an individual project shall expire three years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding Nationwide and Regional General Permits, whichever is sooner;
 11. When written concurrence is required, the applicant is required to use the most recent version of the Certification of Completion form to notify DWQ when all work included in the 401 Certification has been completed.

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

WQC #3632

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 that requires written concurrence under this certification, if it is determined that the project is likely to have a significant adverse effect upon water quality 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: 19 March 2007

DIVISION OF WATER QUALITY

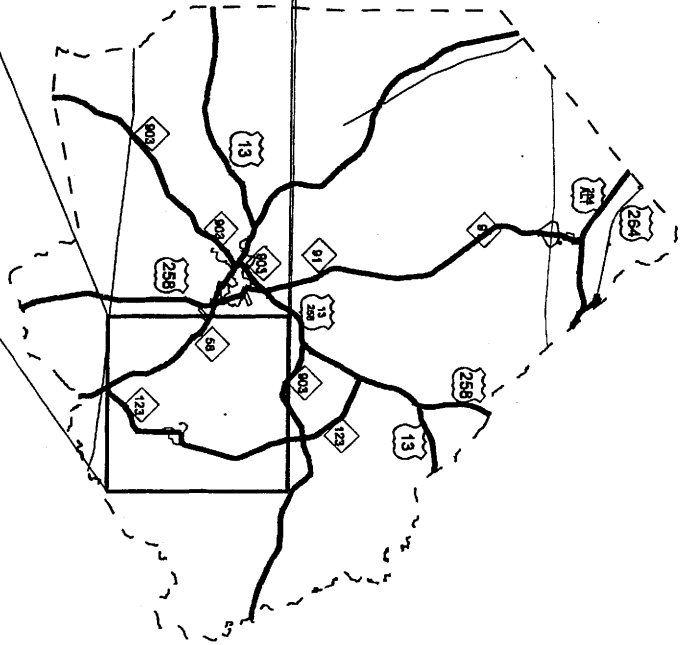
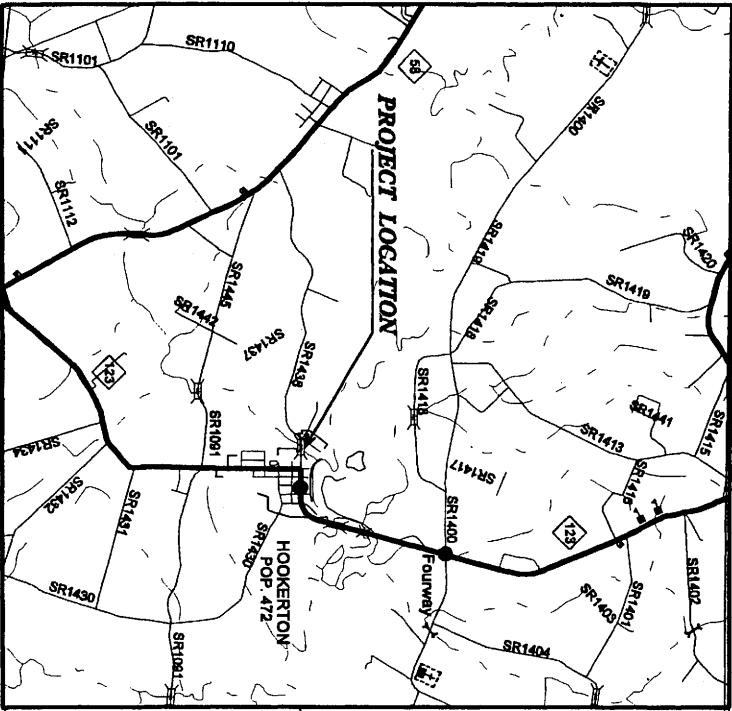
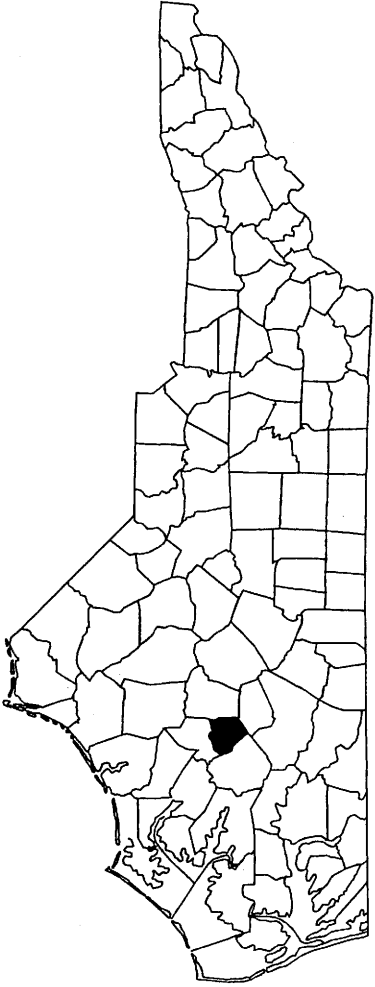
By



Alan W. Klimek, P.E.

Director

WQC # 3632

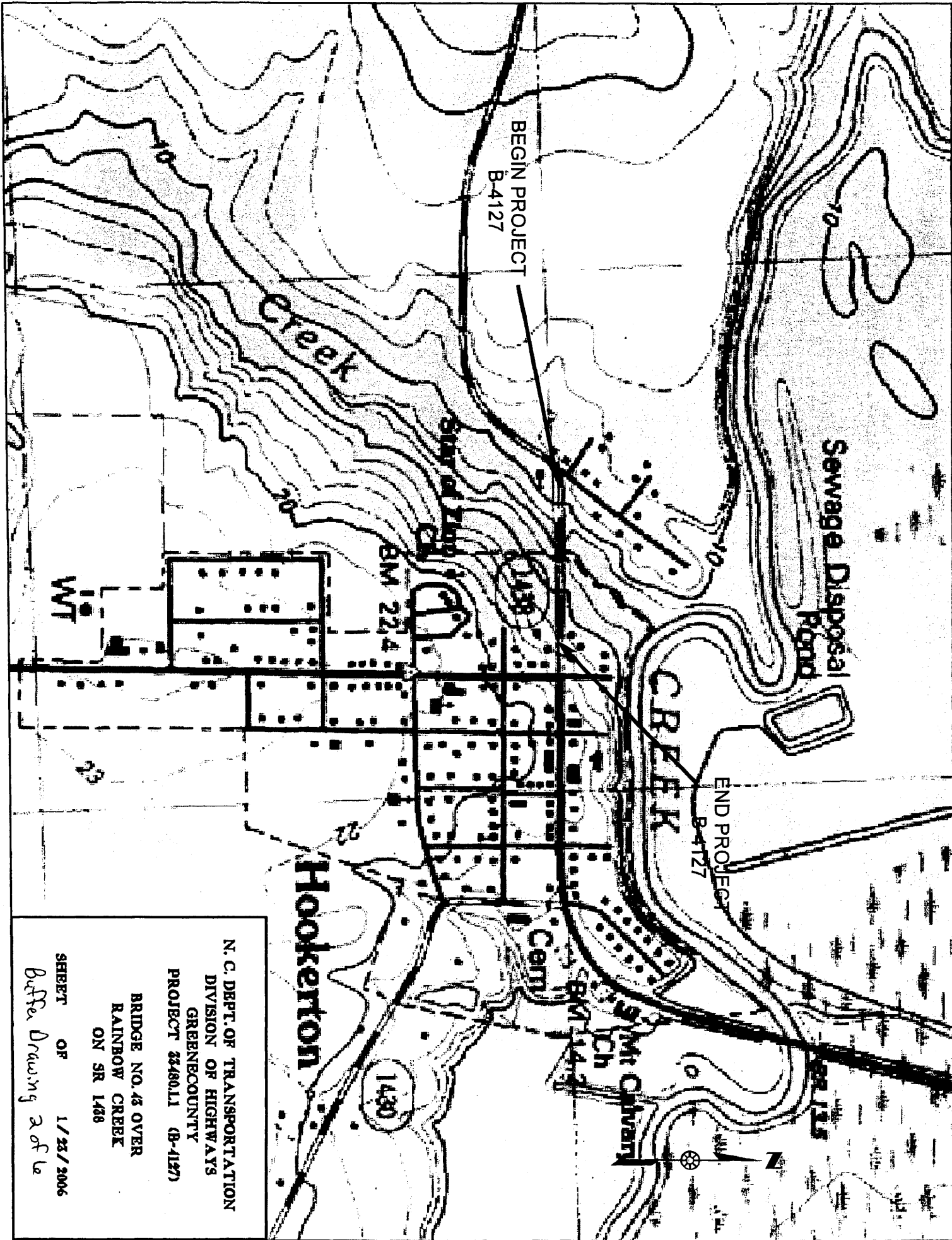


Buffer Permit

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 GREENECOUNTY
 PROJECT 3348011 (B-4127)

BRIDGE NO. 43 OVER
 RAINBOW CREEK
 ON SR 1438

SHEET OF 1 / 23 / 2006
Buffer Drawing 1 of 6



N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 GREENECOUNTY
 PROJECT 32480.11 (B-4127)

BRIDGE NO. 45 OVER
 RAINBOW CREEK
 ON SR 1430

SHEET OF 1/25/2006
 Buffer Drawing 2 of 6

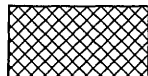
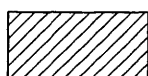

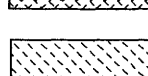
BUFFER IMPACTS SUMMARY

SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	TYPE		ALLOWABLE			MITIGABLE			BUFFER REPLACEMENT	
			ROAD CROSSING	BRIDGE	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)	ZONE 1 (ft ²)	ZONE 2 (ft ²)	TOTAL (ft ²)	ZONE 1 (ft ²)	ZONE 2 (ft ²)
1	BRIDGE, 4 SPAN (2@47.5', 2@42.5') 2" CORED SLAB	-L-12+81.44 to 14+63.56		X	6057.9	996.6	7054.4	3648.8	2461.5	6110.3		
TOTAL:					6057.9	996.6	7054.4	3648.8	2461.5	6110.3		

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
GREENE COUNTY
PROJECT: 33480.1.1 (B-4127)

NUMBER	OWNER	DEED BOOK	DEED PAGE	MAP BOOK	MAP PAGE
1	TRUSTEES of FAITH HOPE TEMPLE HOLINESS	150	152	7	31
2 & 27	JASPER BARFIELD, JR., et ux	450	403		
3	SARA STOCKS	503	623		
4 & 4Z	GREENE COUNTY	440	271		
6 & 6Z	CLARA PATRICK HEIRS	53	406		
7	J. WALTER BURTON HEIRS	68	206		
8	JUANITA SUGGS	N/A	N/A		
9	FIRST NATION BANK	DEED NOT FOUND			
10	LILLIE CONNER	461	108	68	201
11					
12	LILLIE CONNER	461	369	68	201
13	SHERRY B. MCLAWHORN	482	142		
14	GEORGE LAWS	461	689	68	201
15	SHERRY B. MCLAWHORN	482	142		
16	ED CONNER et ux	150	36		
17	DAVID CONNER	436	438		
18	CYNTHIA A. HARPER	540	757		

BUFFER PERMIT

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

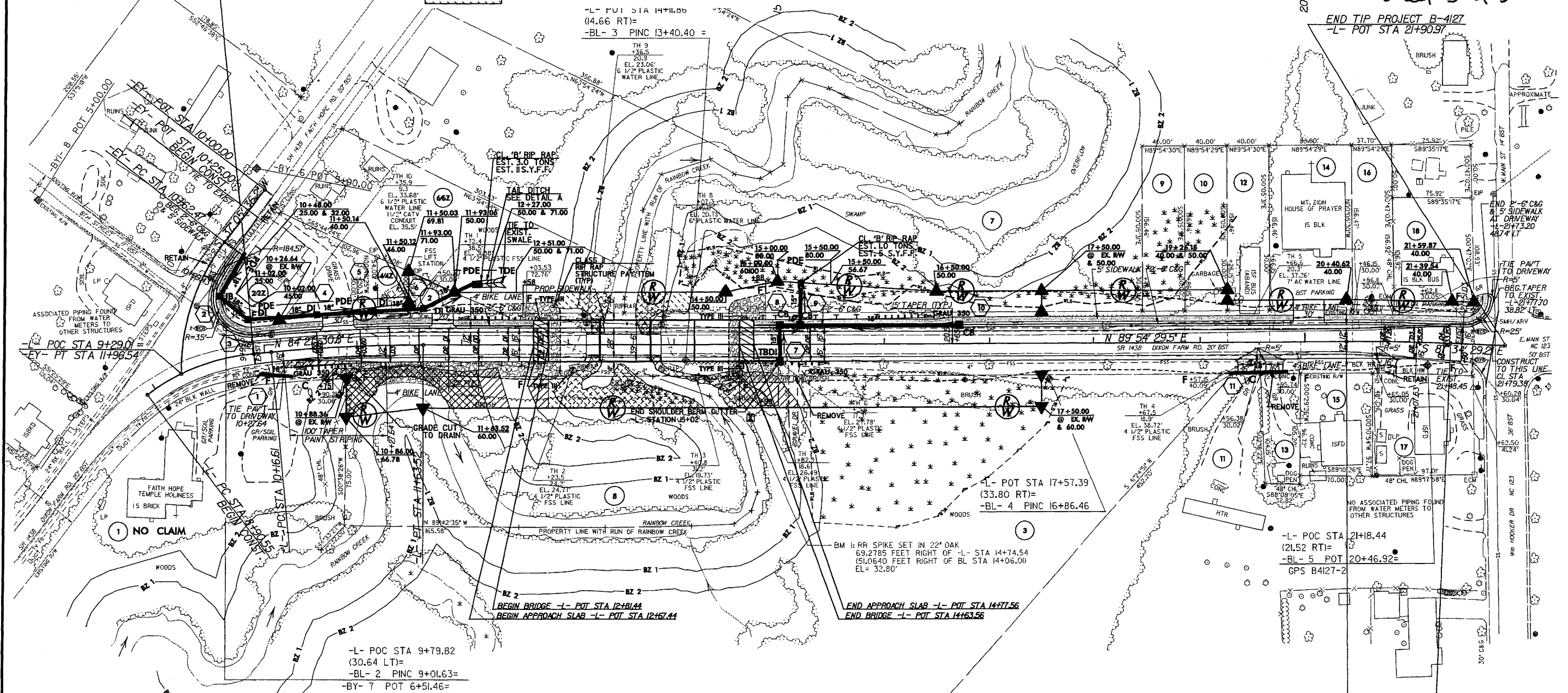
-EY-
 PI Sta 11+32.17
 $\Delta = 38^{\circ} 40' 57.6" (LT)$
 $D = 28^{\circ} 5' 12.9"$
 $L = 134.07'$
 $T = 69.70'$
 $R = 198.57'$

NAD 8395

BEGIN TIP PROJECT B-4127
 -L- PT STA 10+00.00

END TIP PROJECT B-4127
 -L- POT STA 21+90.97

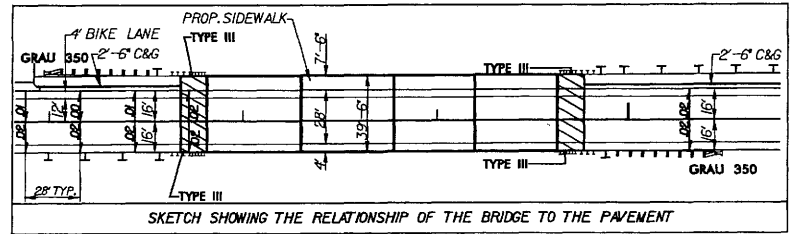
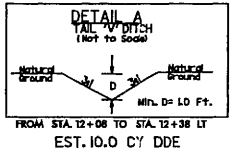
Buffer permit
 Sheet 3 of 5



DESIGN DATA

ADT 2007 = 2000
ADT 2027 = 3300
DHY = 10 %
D = 60 %
T = 4 % *
V = 40 MPH
FUNC CLASS = LOCAL
* TIST 2% + DUAL 2%

PI Sta	RT	PI Sta	RT	PI Sta	RT
9+46.71	31° 38' 50.6"	10+90.12	5° 26' 58.7"	20+90.09	2° 31' 01.4"
$\Delta = 31^{\circ} 38' 50.6" (RT)$		$\Delta = 5^{\circ} 26' 58.7" (RT)$		$\Delta = 2^{\circ} 31' 01.4" (RT)$	
$D = 28^{\circ} 54' 55.3"$		$D = 3^{\circ} 42' 34.0"$		$D = 2^{\circ} 32' 40.1"$	
$L = 109.45'$		$L = 146.91'$		$L = 98.92'$	
$T = 56.16'$		$T = 73.51'$		$T = 49.47'$	
$R = 198.15'$		$R = 1,544.59'$		$R = 2,251.77'$	



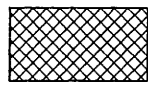
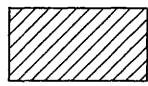
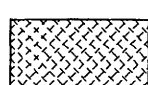

SEE SHEET 5 FOR -L- PROFILE
 SEE SHEETS S-1 thru S- FOR STRUCTURE PLANS

FILENAME: \$FILES\$
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 \$\$\$\$SYTIME\$\$\$\$
 \$\$\$\$SYTIME\$\$\$\$
 \$\$\$\$SYTIME\$\$\$\$

8/17/17

-EY-
PI Sta 11+32.17
Δ = 38° 40' 57.6" (LT)
D = 28° 51' 12.9"
L = 134.07'
T = 69.70'
R = 198.57'

BUFFER PERMIT

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

NUMBER	OWNER	DEED BOOK	DEED PAGE	MAP BOOK	MAP PAGE
1	TRUSTEES of FAITH HOPE TEMPLE HOLINESS	150	152	7	31
2 & 2Z	JASPER BARFIELD, JR., et ux	450	403		
3	SARA STOCKS	503	623		
4 & 4Z	GREENE COUNTY	440	271		
6 & 6Z	CLARA PATRICK HEIRS	53	406		
7	J. WALTER BURTON HEIRS	68	206		
8	JUANITA SUGGS	N/A	N/A		
9	FIRST NATION BANK	DEED NOT FOUND			
10	LILLIE CONNER	461	108	68	201
11	LILLIE CONNER	461	369	68	201
12	SHERRY B. McLAWHORN	482	142		
13	SHERRY B. McLAWHORN	461	689	68	201
14	GEORGE LAWS	482	142		
15	SHERRY B. McLAWHORN	482	142		
16	ED CONNER et ux	150	36		
17	DAVID CONNER	436	438		
18	CYNTHIA A. HARPER	540	757		

PROJECT NUMBER: B-4127 SHEET NO. 4

R/W SHEET NO.

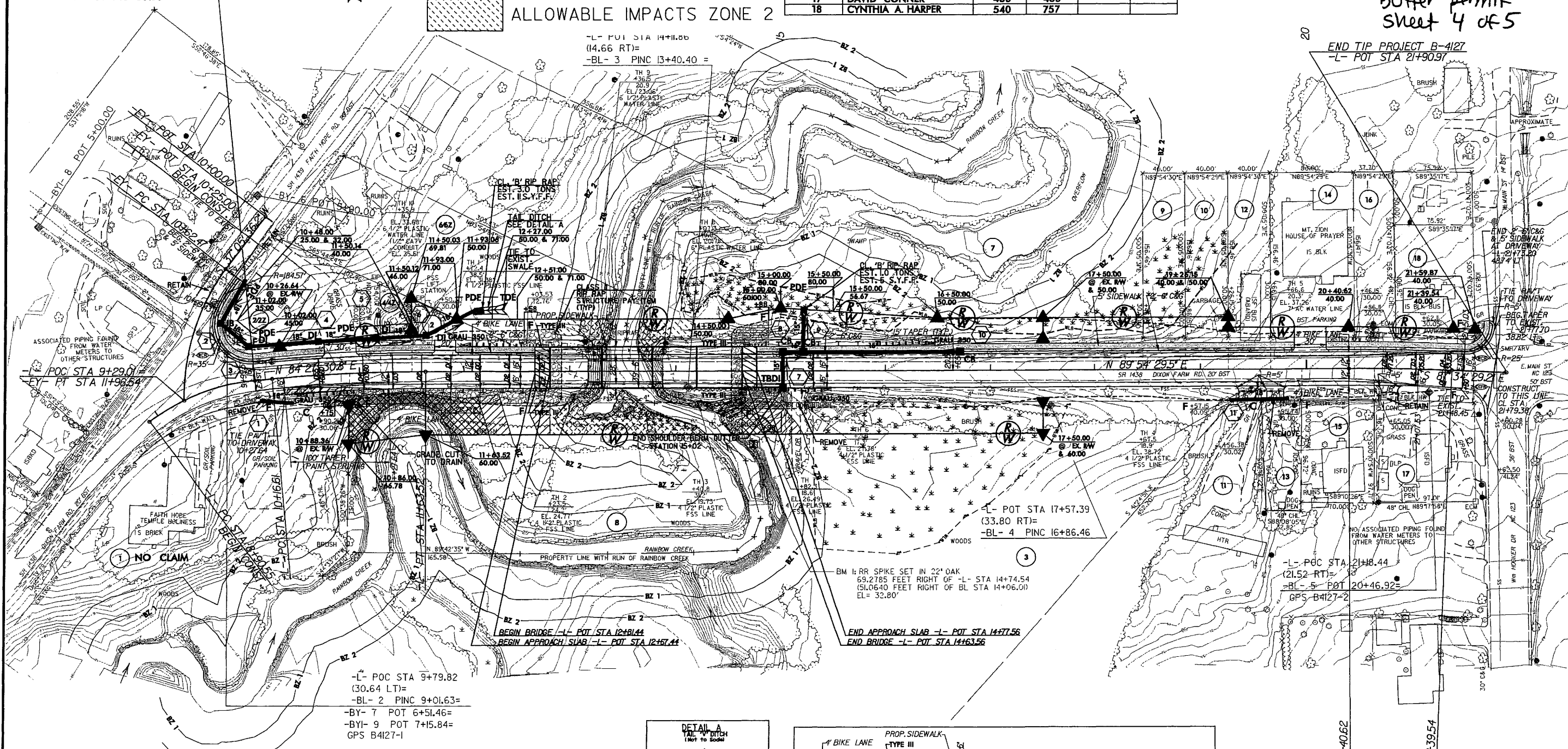
ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 17306

HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 21656

PLANS PREPARED BY: FLORENCE & HUTCHESON, INC. CONSULTING ENGINEERS

Buffer permit Sheet 4 of 5

BEGIN TIP PROJECT B-4127
-L- PT STA 10+00.00



END TIP PROJECT B-4127
-L- POT STA 21+39.97

DESIGN DATA

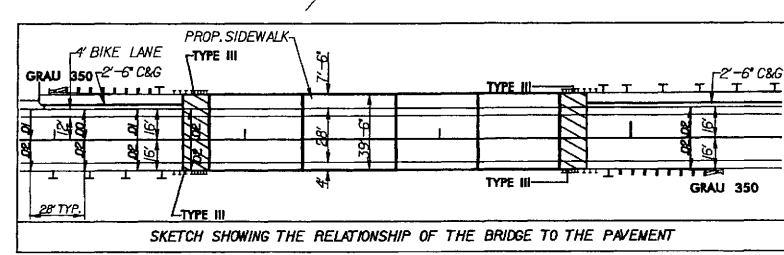
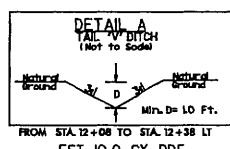
ADT 2007 = 2000
ADT 2027 = 3300
DHY = 10 %
D = 60'
T = 4 %
V = 40 MPH
FUNC CLASS = LOCAL
* TIST 2% + DUAL 2%

-L- POC STA 9+79.82 (30.64 LT)=
-BL- 2 PINC 9+01.63=
-BY- 7 POT 6+51.46=
-BYI- 9 POT 7+15.84=
GPS B4127-1

-L- POC STA 9+46.71 Δ = 31° 38' 50.6" (RT)
D = 28° 54' 55.3"
L = 109.45'
T = 56.16'
R = 198.15'

-L- POC STA 10+90.12 Δ = 5° 26' 58.7" (RT)
D = 3° 42' 34.0"
L = 146.91'
T = 73.51'
R = 1,544.59'

-L- POC STA 20+90.09 Δ = 2° 31' 01.4" (RT)
D = 2° 32' 40.1"
L = 98.92'
T = 49.47'
R = 2,251.77'



SEE SHEET 5 FOR -L- PROFILE
SEE SHEETS S-1 thru S- FOR STRUCTURE PLANS

5/28/

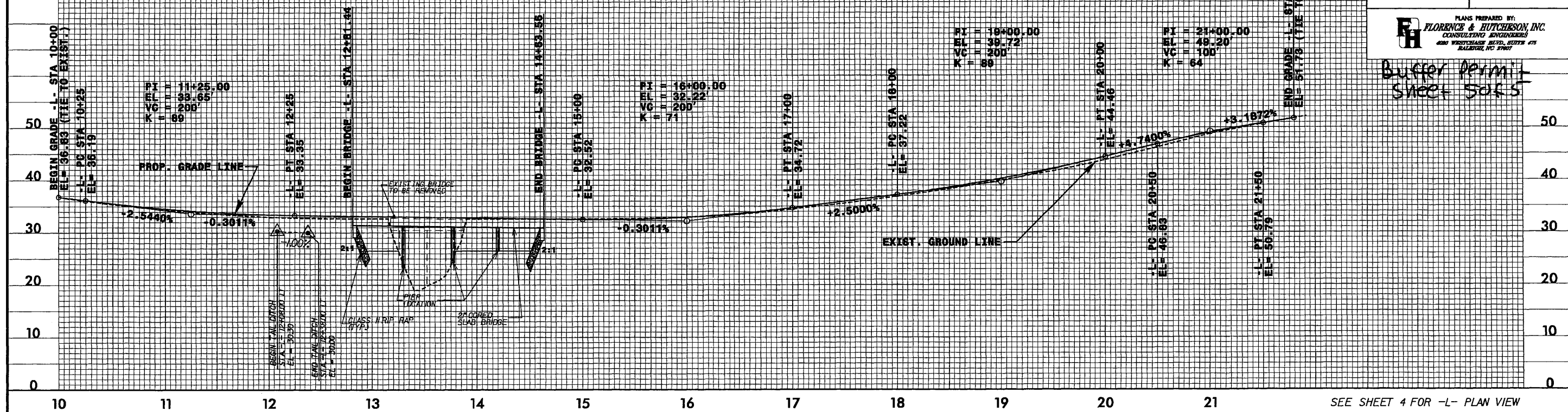
BUFFER PERMIT

BM 1: RR SPIKE SET IN 22" OAK
69.2785 FEET RIGHT OF -L- STA 14+74.54
(51.0640 FEET RIGHT OF BL STA 14+06.01)
EL= 32.80'

PROJECT REFERENCE NO. B-4127	SHEET NO. 5
ROADWAY DESIGN ENGINEER CLAUDETTE M. K. LOGGIE SEAL 17306 NORTH CAROLINA PROFESSIONAL ENGINEER	HYDRAULICS ENGINEER ROGER S. WOOD SEAL 21656 NORTH CAROLINA PROFESSIONAL ENGINEER

PLANS PREPARED BY:
FLORENCE & BUTCHERSON, INC.
CONSULTING ENGINEERS
400 WINDYBUSH DRIVE, SUITE 415
RALEIGH, NC 27603

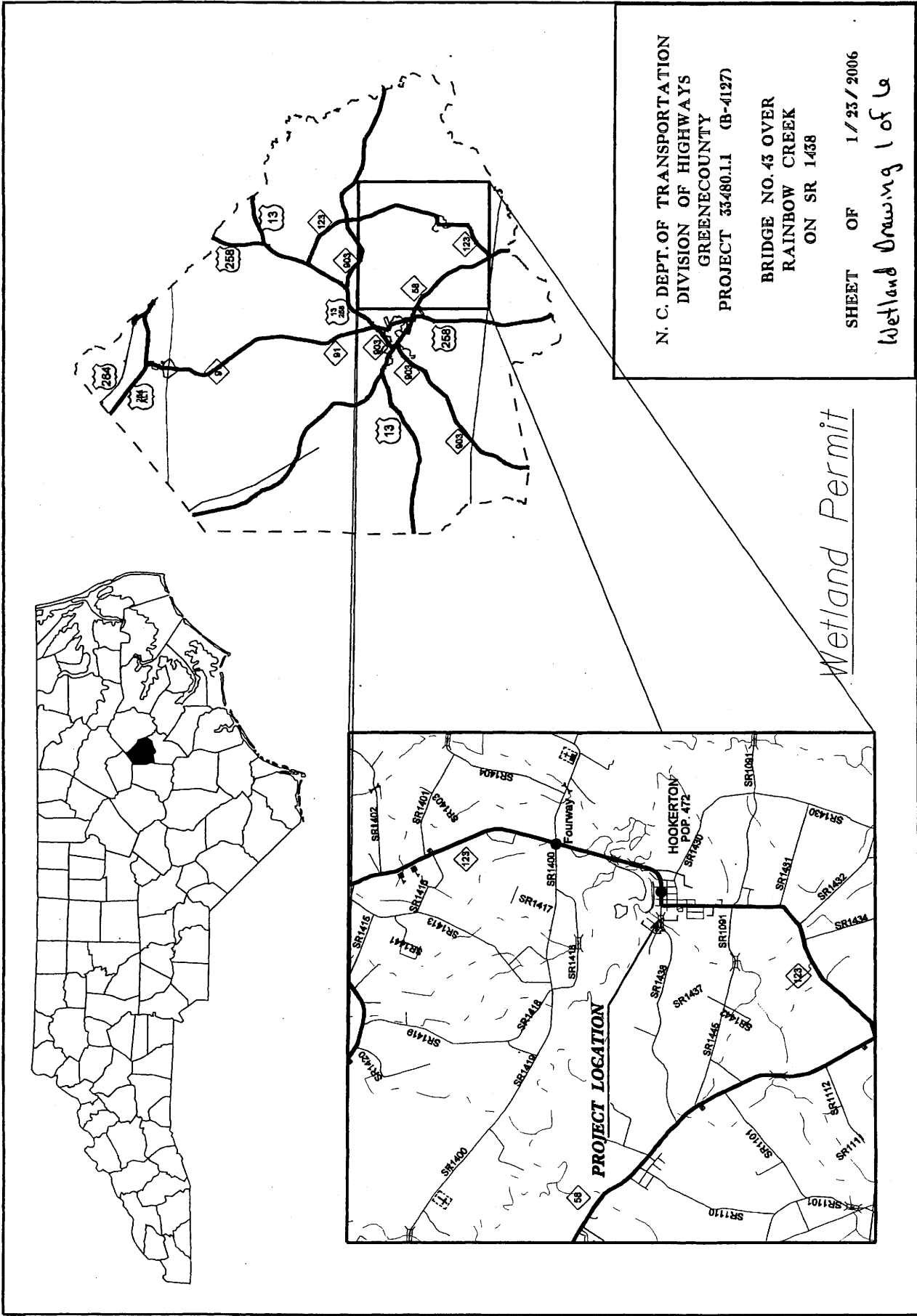
Buffer Permit
Sheet 5 of 5

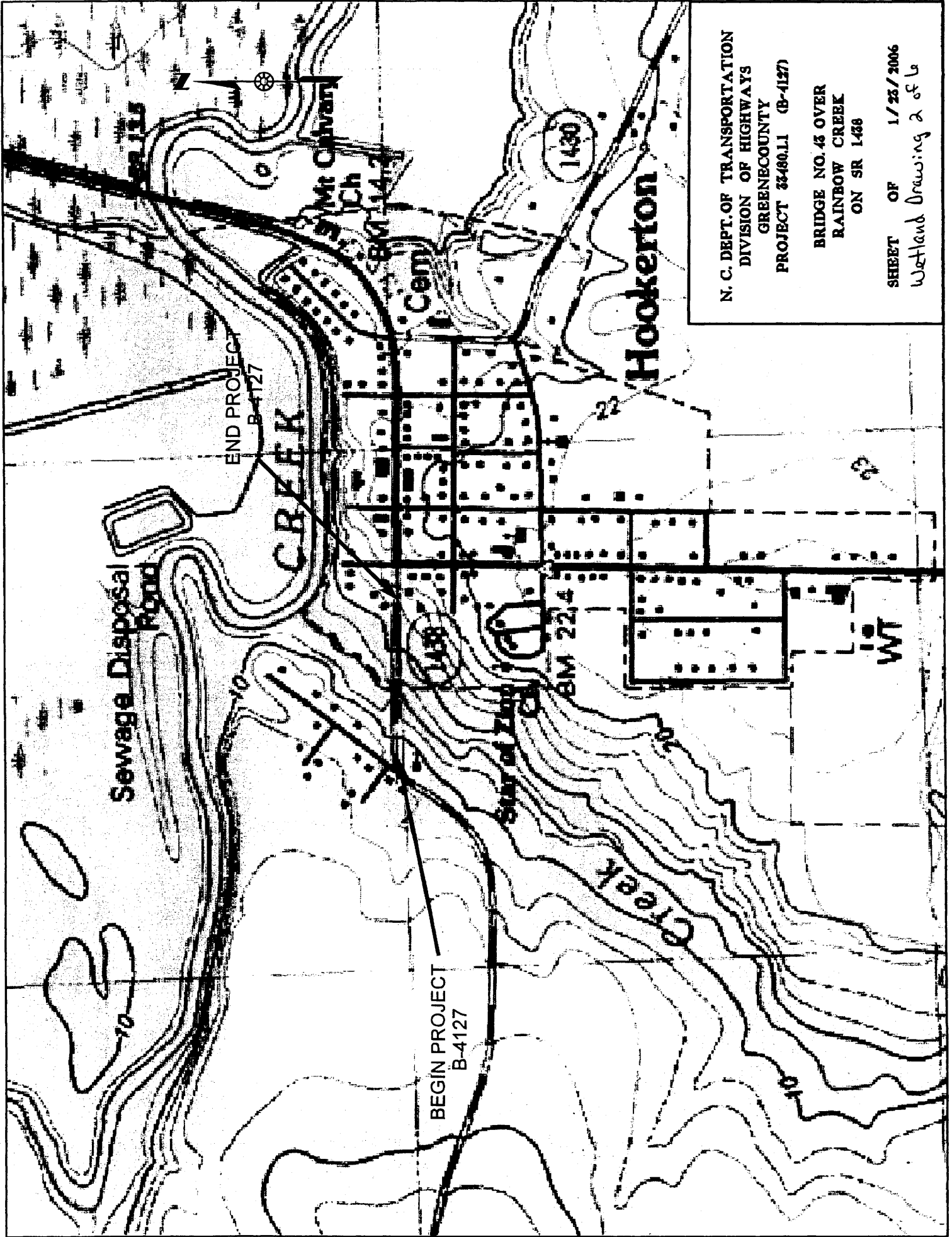


SEE SHEET 4 FOR -L- PLAN VIEW

BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 1420 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 33.2 FT
BASE DISCHARGE	= 2600 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 34.9 FT
OVERTOPPING DISCHARGE	= 1060 CFS
OVERTOPPING FREQUENCY	= 10 YRS
OVERTOPPING ELEVATION	= 32.5 FT

CONSTRUCTION CONDITIONS





N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
GREENECOUNTY
PROJECT 33480.11 (B-4127)

BRIDGE NO. 45 OVER
RAINBOW CREEK
ON SR 1488

SHEET OF 1/23/2006
Wetland Drawing 2 of 6

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)	Natural Stream Design (ft)	
1	-L- 13+72.5	BRIDGE, 4 SPAN (2@47.5' & 2@42.5') 21" CORED SLAB	0.100			0.184			0.006	0.007		
TOTALS:			0.100			0.184			0.006	0.007		

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GREENE COUNTY

WBS - 33+80.1.1 (B-4127)

BRIDGE NO. 43 OVER RAINBOW CREEK


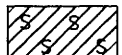
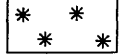
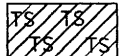
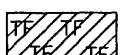
SHEET 3 of 6

2/19/2007

-EY-
 PI Sta 11+32.17
 $\Delta = 38^{\circ} 40' 57.6" (LT)$
 $D = 28^{\circ} 51' 12.9"$
 $L = 134.07'$
 $T = 69.70'$
 $R = 198.57'$

NAD 8395


WETLAND PERMIT


-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT
-  TEMPORARY FILL IN WETLAND

NUMBER	OWNER	DEED BOOK	DEED PAGE	MAP BOOK	MAP PAGE
1	TRUSTEES of FAITH HOPE TEMPLE HOLINESS	150	152	7	31
2 & 2Z	JASPER BARFIELD, JR., et ux	450	403		
3	SARA STOCKS	503	623		
4 & 4Z	GREENE COUNTY	440	271		
6 & 6Z	CLARA PATRICK HEIRS	53	406		
7	J. WALTER BURTON HEIRS	68	206		
8	JUANITA SUGGS	NA	NA		
9	FIRST NATION BANK	DEED NOT FOUND			
10	LILLIE CONNER	461	108	68	201
11					
12	LILLIE CONNER	461	369	68	201
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15	SHERRY B. McLAWHORN	482	142		
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18	CYNTHIA A. HARPER	540	757		

PROJECT REFERENCE NO. B-4127 SHEET NO. 4

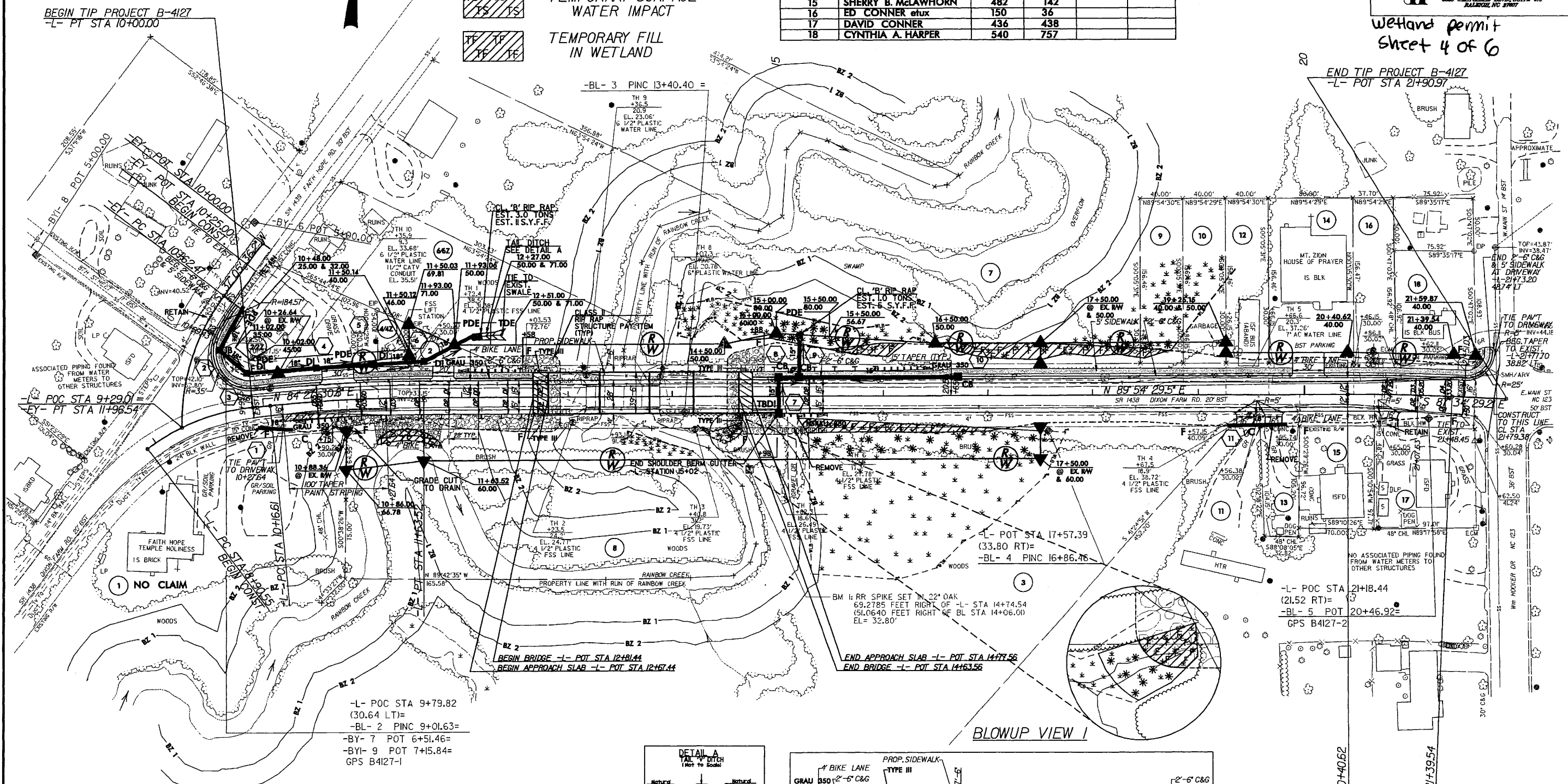
R/W SHEET NO.

ROADWAY DESIGN ENGINEER


HYDRAULICS ENGINEER


PLANS PREPARED BY:
FLORENCE & HUTCHESON, INC.
 CONSULTING ENGINEERS
 400 WESTCHASE BLVD., SUITE 415
 RALEIGH, NC 27607

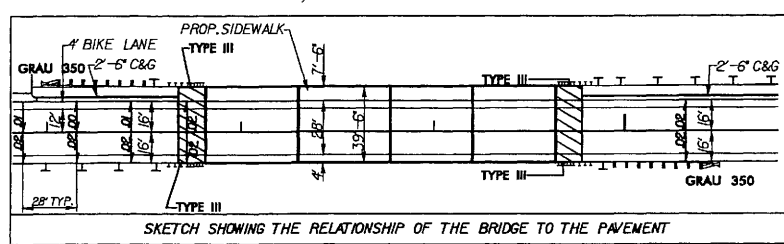
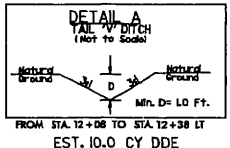
Wetland permit
 Sheet 4 of 6



DESIGN DATA

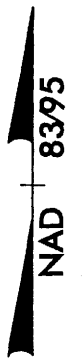
- ADT 2007 = 2000
- ADT 2027 = 3300
- DHY = 10 %
- D = 60'
- T = 4 %
- V = 40 MPH
- FUNC CLASS = LOCAL
- * TST 2% + DUAL 2%

PI Sta	Delta	D	L	T	R
9+46.71	31° 38' 50.6" (RT)	28° 54' 55.3"	109.45'	56.16'	198.15'
10+90.12	5° 26' 58.7" (RT)	3° 42' 34.0"	146.91'	73.51'	1,544.59'
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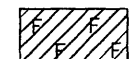
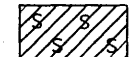

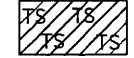
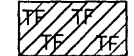


SEE SHEET 5 FOR -L- PROFILE
 SEE SHEETS S-1 thru S- FOR STRUCTURE PLANS

-EY-
PI Sta 11+32.77
Δ = 38° 40' 57.6" (LT)
D = 28° 51' 12.9"
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R = 198.57'



WETLAND PERMIT


-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT
-  TEMPORARY FILL IN WETLAND

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6 & 6Z	CLARA PATRICK HEIRS	53	406		
7	J. WALTER BURTON HEIRS	68	206		
8	JUANITA SUGGS	N/A	N/A		
9	FIRST NATION BANK	DEED NOT FOUND			
10	LILLIE CONNER	461	108	68	201
11					
12	LILLIE CONNER	461	369	68	201
13	SHERRY B. McLAWHORN	482	142		
14	GEORGE LAWS	461	689	68	201
15	SHERRY B. McLAWHORN	482	142		
16	ED CONNER et ux	150	36		
17	DAVID CONNER	436	438		
18	CYNTHIA A. HARPER	540	757		

PROJECT REFERENCE NO. B-4127 SHEET NO. 4


R/W SHEET NO.

ROADWAY DESIGN ENGINEER



CLAUDETTE M.K. CONNER

HYDRAULICS ENGINEER



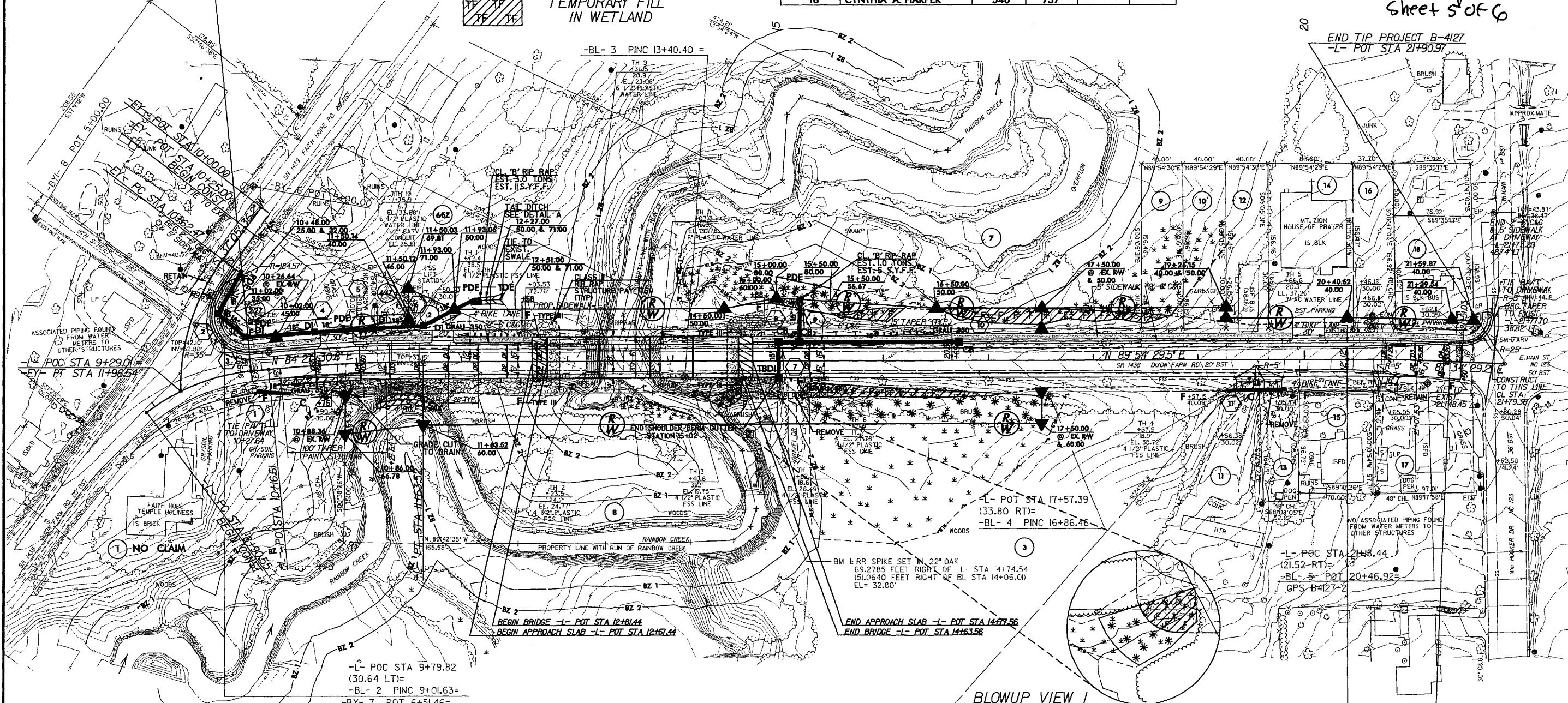
ROGER S. MEADOR

PLANS PREPARED BY:
FLORENCE & HUTCHESON, INC.
CONSULTING ENGINEERS
400 WESTCHASE BLVD., SUITE 475
KALAMAZOO, MI 49001

wetland permit
Sheet 5 of 6

BEGIN TIP PROJECT B-4127
-L- PT STA 10+00.00

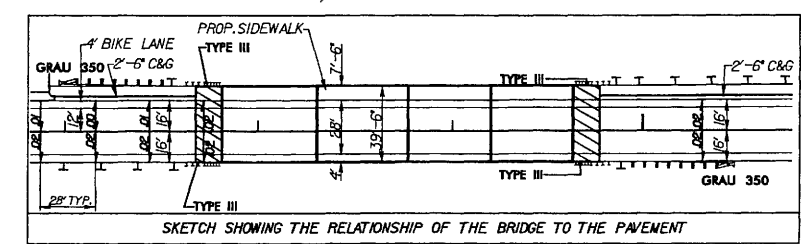
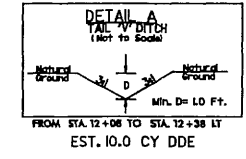
END TIP PROJECT B-4127
-L- POT STA 21+90.97



DESIGN DATA

ADT 2007 = 2000
ADT 2027 = 3300
DHY = 10 %
D = 60'
T = 4 % *
V = 40 MPH
FUNC CLASS = LOCAL
*TST 2% + DUAL 2%

-L- PI Sta 9+46.71 Δ = 31° 38' 50.6" (RT) D = 28° 54' 55.3" L = 109.45' T = 56.16' R = 198.15'	-L- PI Sta 10+90.12 Δ = 5° 26' 58.7" (RT) D = 3° 42' 34.0" L = 146.91' T = 73.51' R = 1,544.59'	-L- PI Sta 20+90.09 Δ = 2° 31' 01.4" (RT) D = 2° 32' 40.1" L = 98.92' T = 49.47' R = 2,251.77'
--	---	--



SEE SHEET 5 FOR -L- PROFILE
SEE SHEETS S-1 thru S- FOR STRUCTURE PLANS

5/28/14

WETLAND PERMIT

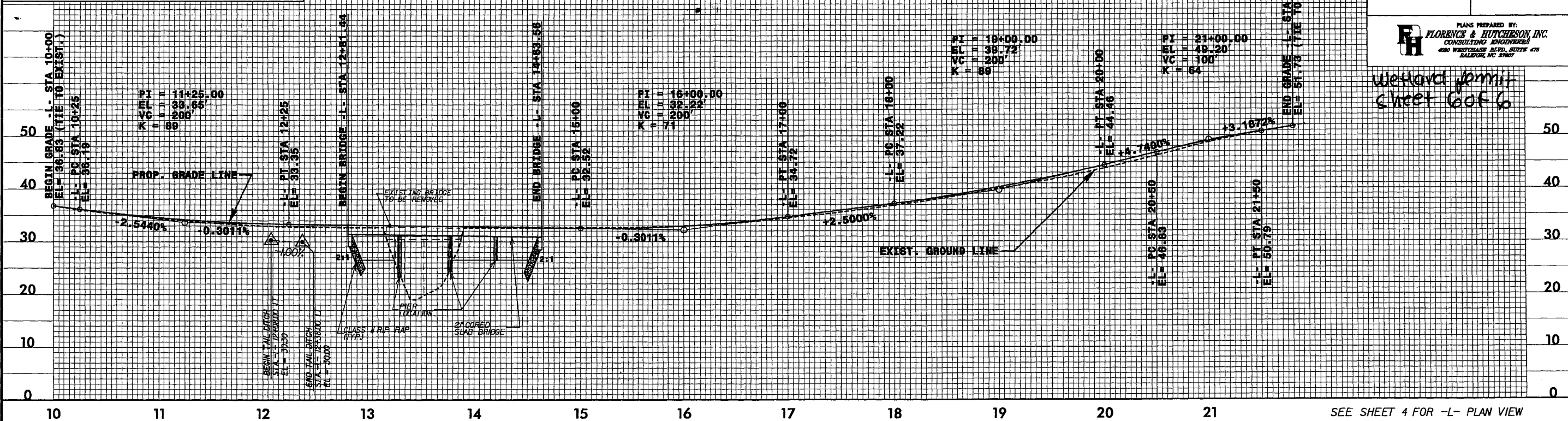
BM 1: RR SPIKE SET IN 22" OAK
69.2785 FEET RIGHT OF -L- STA 14+74.54
(51.0640 FEET RIGHT OF BL STA 14+06.01)
EL= 32.80'

-L-

PROJECT REFERENCE NO. B-4127	SHEET NO. 5
ROADWAY DESIGN ENGINEER CLAUDETTE M. LOUPE	HYDRAULICS ENGINEER ROGER S. WARDON

PLANS PREPARED BY:
FH FLORENCE & HUTCHISON, INC.
CONSULTING ENGINEERS
400 WESTCHASE BLVD, SUITE 470
RALEIGH, NC 27607

Wetland Permit
Sheet 6 of 6



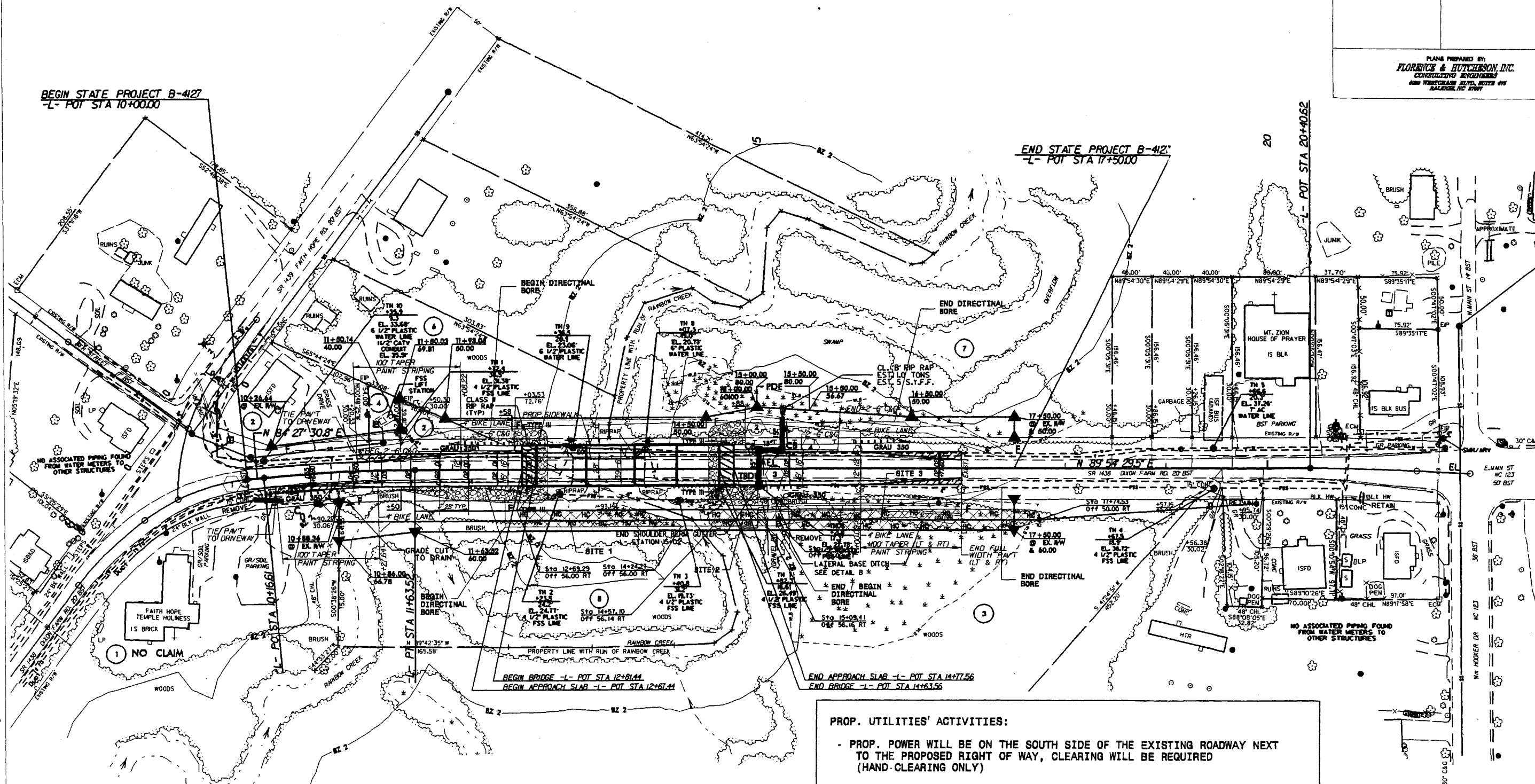
SEE SHEET 4 FOR -L- PLAN VIEW

DESIGN DISCHARGE	= 1420 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 33.2 FT
BASE DISCHARGE	= 2600 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 34.9 FT
OVERTOPPING DISCHARGE	= 1060 CFS
OVERTOPPING FREQUENCY	= 10 YRS
OVERTOPPING ELEVATION	= 32.5 FT

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PROJECT REFERENCE NO.	SHEET NO.
B-4127	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PLANS PREPARED BY: FLORENCE & HUTCHERSON, INC. CONSULTING ENGINEERS 400 WOODBRIDGE BLVD. SUITE 400 BALAIRE, NC 27007	



	DENOTES: HAND-CLEARING
	DENOTES: MECHANIZED-CLEARING

PROP. UTILITIES' ACTIVITIES:

- PROP. POWER WILL BE ON THE SOUTH SIDE OF THE EXISTING ROADWAY NEXT TO THE PROPOSED RIGHT OF WAY, CLEARING WILL BE REQUIRED (HAND-CLEARING ONLY)
- PROPOSED SANITARY SEWER FORCE MAIN WILL BE DIRECTIONAL BORED ON THE SOUTH SIDE OF THE EXISTING ROADWAY NEAR THE PROPOSED RIGHT OF WAY
- PROPOSED TELEPHONE CABLE WILL BE PLOWED IN ON THE NORTH SIDE OF THE EXISTING ROADWAY ABOUT ONE (1.0) FOOT AWAY FROM THE PROPOSED ROW LINE. TELEPHONE WILL DIRECTIONAL BORE THROUGH BUFFER ZONES, STREAM, AND WETLAND AREAS.
- PROPOSED WATER LINE WILL BE DIRECTIONAL BORED ON THE NORTH SIDE OF THE EXISTING ROADWAY
- PROPOSED HAND-CLEARING ONLY

WETLANDS AND/OR BUFFERS AFFECTED BY UTILITIES' ACTIVITIES = 0.18 ACRES

Utility Map Showing Directional Bore Area

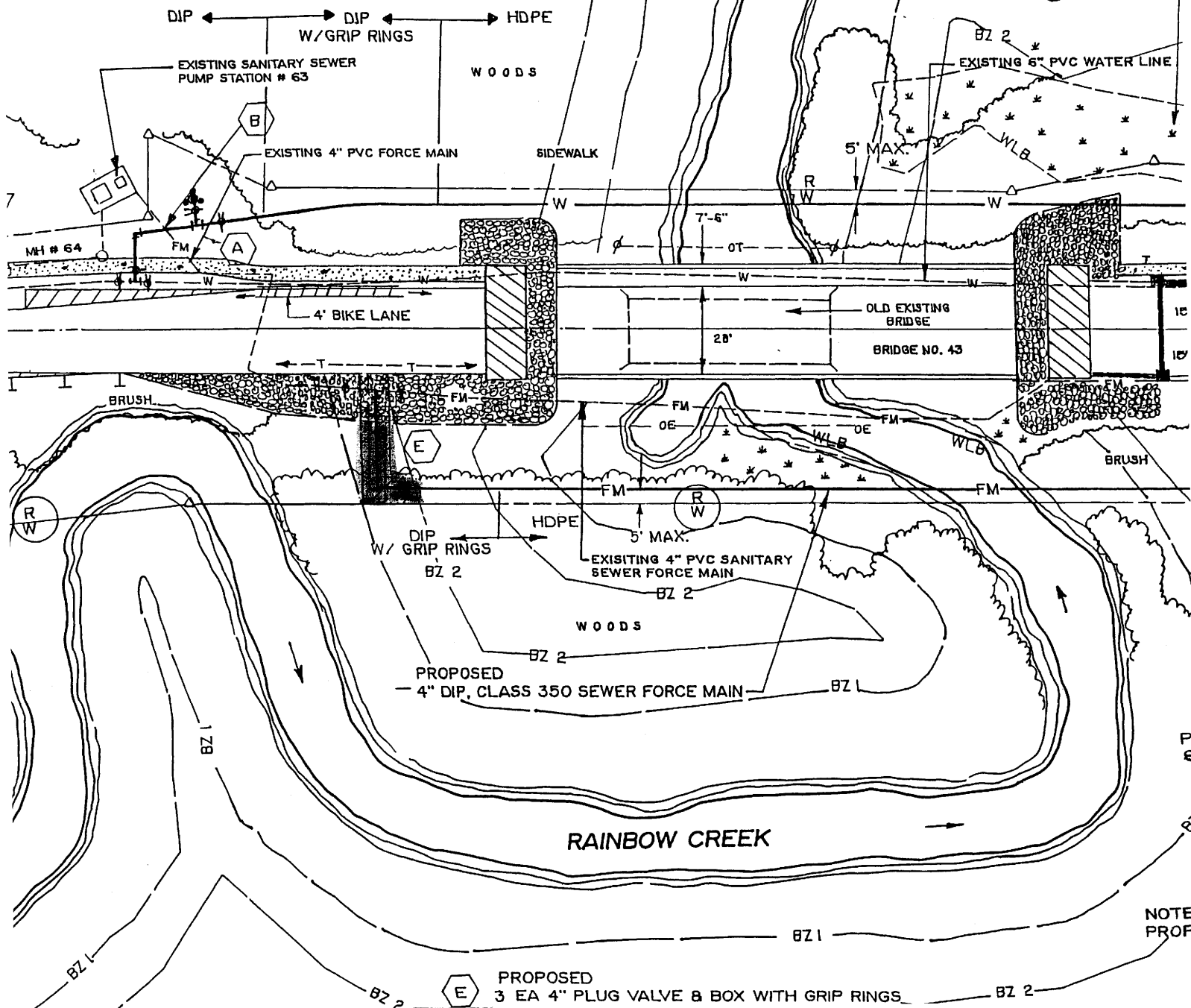
NCSR 1439
FAITH HOPE ROAD

1/W

B PROPOSED
20 LF 4" DIP, CLASS 350 SEWER FORCE MAIN REPLACEMENT

A PROPOSED
5 EA 6" GATE VALVE & BOX WITH GRIP RINGS
1 EA 6" 90° BEND, DI WITH GRIP RINGS
2 EA 6" X 6" TEE, DI WITH GRIP RINGS
1 EA FIRE HYDRANT, 4 1/2"
65± LF 6" DIP, CLASS 350 WATER LINE

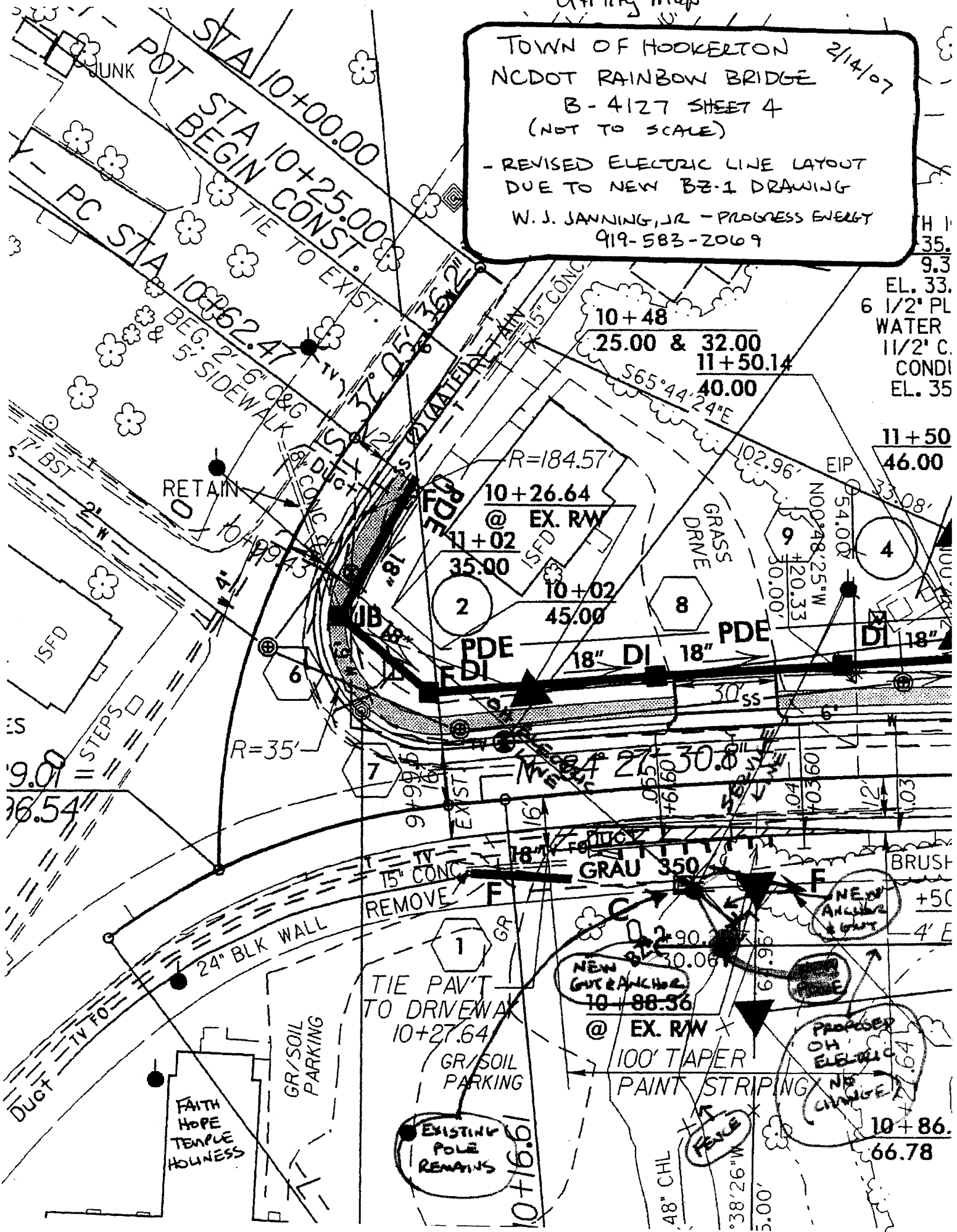
NOTE:
PROPOSED TIE-IN TO EXISTING 6" PVC WATER LINE



NOTE
PROP

Utility Map

TOWN OF HOOKERTON
 NCDOT RAINBOW BRIDGE 2/14/07
 B-4127 SHEET 4
 (NOT TO SCALE)
 - REVISED ELECTRIC LINE LAYOUT
 DUE TO NEW BZ-1 DRAWING
 W. J. JANNING, JR - PROGRESS ENERGY
 919-583-2069



H 1
 35.5
 9.3
 EL. 33.6
 1 1/2' PL
 WATER
 1 1/2' C.
 CONDI
 EL. 35

11+50
 46.00

33.08'
 4

54.00'
 9
 20.33'
 30.00'

18\"/>
 DI 18\"/>
 DI 18\"/>

30'
 SS
 104'
 103'
 12'
 103'

BRUSH
 +50'
 4' E

NEW
 ANCHOR
 & PWT

PROPOSED
 OH
 ELECTRIC
 NB
 CHANGE

10+86.
 66.78

48\"/>
 CHL
 38'26\"/>
 W
 5.00'

