

# STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT SECRETARY

December 8, 2005

#### Addendum No. 4

RE:

Contract ID: C201400 TIP Number: R-2510B

Beaufort County

Project Description: US 17 from South of SR 1149 (Price Road.) to US 17 North of SR 1509 (Springs Road.)

#### December 22, 2005 Letting

To Whom It May Concern:

Reference is made to the Request for Proposal recently furnished to you on the above project. The following revisions have been made to the Request for Proposal:

On Page 52, in the *Structures Scope of Work* has been revised. Please void Page 52 in your proposal and staple the revised Page52 thereto.

Pages 63A-63CL have been added to the *Environmental Permits Scope of Work*. Please insert the Pages 63A-63CL in your proposal.

On Pages 71-74, in the *Geoenvironmental Scope of Work* has been revised. Please void Pages No.71-74 in your proposal and staple the revised Pages 71-74 thereto.

On Page 81, in the *Geotechnical Scope of Work* has been revised. Please void Page 81 in your proposal and staple the revised Page 81 thereto.

Sincerely,

R.A. Garris, P.E. Contract Officer

TELEPHONE: 919-250-4128

c: Mr. Steve DeWitt, PE (w/)

Mr. Steve Varnedoe, PE

Mr. Ellis Powell, PE

Ms. Deborah Barbour, PE

Mr. Victor Barbour, PE (w/)

Mr. Art McMillan, PE

Mr. Rodger Rochelle, PE (w/)

Mr. Clarence Coleman, PE - FHWA (w/3)

Mr. Neil Lassiter, PE (w/)

Mr. Jay Bennett, PE

Mr. Philip Harris, PE

Mr. Stephen Morgan, PE

Mr. Carl Goode

Mr. Ed Eatmon, PE (w/3)

Mr. Haywood Daughtry, PE (w/)

Mr. Steve Hamilton, PE (w/)

Mr. Steve Kite, PE (w/)

Mr. Ray McIntyre, PE

Mr. Shannon Sweitzer, PE (w/)

Mr. David Harris, PE

Mr. Steve Walker

Mr. Brian Yamamoto, PE (w/)

Mr. Robert Memory, (w/)

Ms. Teresa Bruton, PE (w/4)

Mr. Ron Hancock, PE (w/)

Mr. Nathan Phillips, PE (w/)

Mr. Ayman Alqudwah, PE (w/)

Mr. Ron Davenport, PE (w/)

Ms. Virginia Mabry (w/)

Mr. John Emerson, PE (w/)

Ms. Jennifer Brandenburg, PE (w/)

Mr. Chris Kreider, PE (w/)

Mr. Marshall Clawson, PE - Hydraulics (w/)

Ms. Anne Gamber, PE - Hydraulics (w/)

Mr. Chris Rivenbark - Environmental Permits (w/)

Ms. LeiLani Paugh, - On-Site Mitigation (w)

Mr. Randy Griffin, - On-Site Mitigation (w)

Dr. K.J. Kim, PE (Div 1-7) - Geotechnical (w/)

Mr. Neal Strickland - Right-of-Way (w/)

Mr. Barney Blackburn, PE - Erosion & Sed. Cont. (w/2)

Mr. Roger Thomas, PE -Roadway (w/)

Mr. Lonnie Brooks, PE - Structures (w/)

Mr. Greg Smith, LG, PE - Geo-Environmental (w/)

Mr. Cyrus Parker, LG (w/)

Mr. Mitch Hendee, PE - Traffic Control (w/)

Mr. Murray Howell - Utility Coordination (w/)

Mr. Don Chen, PE - Pavement Design (w/)

Mr. Tim Williams, PE - Signals (w/)

Mr. Neil Avery – Signal Communications (w/)

Ms. Michelle Long, PE - Public Information (w/)

Mr. David Hinnant - Railroad Coordination (w/)

Mr. Tim McFadden, Signing (w/)

Mr. Tony Wyatt, PE (w/)

Mr. Wayne Johnson, PE (w/)

Mr. Roger Worthington, PE (w/)

Mr. Brian Mayhew, PE (w/)

Mr. Greg Perfetti, PE (w/)

Mr. Ron Allen, PE (w/)

Ms. Marsha Sample (w/)

Technical Review Committee Members (w/)

File (w/)

#### Structures Scope of Work

15. When using bridge deck slab overhang falsework systems that transmit torsion to the exterior girders, bracing will be required. Bracing shall limit the magnitude of torsional stresses (concrete girders) or lateral flange bending (steel girders) in the exterior girders caused by falsework system loads and limit the magnitude of stresses in the component elements, welds, or connections.

The sizing, spacing and details of the bracing elements shall be sufficient to meet the design requirements stated below. Design calculations and working drawings submitted for review should consider the horizontal force effects of the falsework on the girder and on the bracing elements themselves.

For concrete girders, torsional stresses in girders resulting from falsework and other dead loads shall not exceed one quarter of the cracking torque. Torsional stresses due to all dead loads and live loads shall not exceed one half of the cracking torque. Cracking torque of prestressed concrete girders shall be computed in accordance with ACI 318-02, Section 11.6.1. For steel girders, lateral flange bending stresses shall not exceed 2000 psi.

Bracing shall be installed prior to any application of loads from screed equipment or work platform bridges. Bracing shall be removed after the deck is cured.

- 16. Alternative details for permanent intermediate diaphragms for prestressed concrete girders may be used in accordance with recently revised NCDOT policy, regardless of the policy effective date. This policy, which allows steel intermediate diaphragms, may be extended to other concrete girder shapes. Diaphragms and associated hardware shall be metallized (8 mil and seal coat) or galvanized in accordance with the Standard Specifications.
- 17. Measures for reducing heat and cracking in mass concrete members shall be used.
- 18. NCDOT bridge deck rideability requirements apply to this bridge.
- 19. The Design-Build Team may attach sign structures to the bridge on US 17 over the Tar River by designing the bents for the sign attachments or by designing the superstructure for the sign attachments. The Design-Build Team shall indicate in the Technical Proposal the type and number of overhead sign structures to be attached to the bridge and describe the attachment method.
- 20. Access facilities (walkways, ladders, etc.) are not required on this bridge.

#### **REQUIRED SUBMITTALS**

Sufficient data, including items previously approved by other NCDOT Units (Roadway, Geotechnical, Hydraulics, Traffic, etc.) shall be submitted with (or prior to) all submittals to facilitate review. All submittals shall be in accordance with the Design-Build Submittal Guidelines available on the Design-Build website.

**Beaufort County** 

C 201400 R-2510B)

#### \*\*\*PROJECT SPECIAL PROVISIONS\*\*\*

#### **PERMITS**

The Design-Build Team's attention is directed to the following permits, which have been issued to the Department of Transportation by the authority granting the permit.

#### PERMIT

#### **AUTHORITY GRANTING THE PERMIT**

Dredge and Fill and/or

Work in Navigable Waters (404)

U. S. Army Corps of Engineers

Water Quality (401)

Division of Environmental Management, DENR, State of North Carolina

The Design-Build Team shall comply with all applicable permit conditions during construction of this project. Those conditions marked by \* are the responsibility of the department and the Design-Build Team has no responsibility in accomplishing those conditions.

Agents of the permitting authority will periodically inspect the project for adherence to the permits.

The Design-Build Team's attention is also directed to Articles 107-10 and 107-14 of the *Standard Specifications* and the following:

Should the Design-Build Team propose to utilize construction methods (such as temporary structures or fill in waters and/or wetlands for haul roads, work platforms, cofferdams, etc.) not specifically identified in the permit (individual, general, or nationwide) authorizing the project it shall be the Design-Build Team's responsibility to coordinate with the Engineer to determine what, if any, additional permit action is required. The Design-Build Team shall also be responsible for initiating the request for the authorization of such construction method by the permitting agency. The request shall be submitted through the Engineer. The Design-Build Team shall not utilize the construction method until it is approved by the permitting agency. The request normally takes approximately 60 days to process; however, no extensions of time or additional compensation will be granted for delays resulting from the Design-Build Team's request for approval of construction methods not specifically identified in the permit.

Where construction moratoriums are contained in a permit condition which restricts the Design-Build Team's activities to certain times of the year, those moratoriums will apply only to the portions of the work taking place in the waters or wetlands provided that activities outside those areas is done in such a manner as to not affect the waters or wetlands.

# IN REPLY REFER-TO

# DEPARTMENT OF THE ARMY WILMINGTON DISTRICT, CORPS OF ENGINEERS

Washington Regulatory Fleid Office P.O. Box 1000 Washington, North Carolina 27889-1000

November 28, 2005

Regulatory Division

Action ID. 199301143

Gregory J. Thorpe, Ph.D.
Environmental Manager Director
Project Development and Environmental Analysis Branch
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

In accordance with your written request of May 3, 2005, and the ensuing administrative record, enclosed are two copies of a permit to relocate and widen approximately 15 miles of US Highway 17 (Washington Bypass), starting from 0.5 mile south of Possum Track Road (NCSR 1127) south of Chocowinity, in Beaufort County and ending 0.2 mile north of Roberson Road (NCSR 1418) north of Washington, in Beaufort County, North Carolina.

You should acknowledge that you accept the terms and conditions of the enclosed permit by signing and dating each copy in the spaces provided ("Permittee" on page 3). Your signature, as Permittee, indicates that, as consideration for the issuance of this permit, you voluntarily accept and agree to comply with all of the terms and conditions of this permit. All pages of both copies of the signed permit with drawings should then be returned to the Wilmington District office for final authorization. A self-addressed envelope is enclosed for your convenience.

Title 33, Part 325.1(f), of the Code of Federal Regulations reads, in part, that, "A \$10 fee will be charged for permit applications when the work is noncommercial in nature and provides personal benefits that have no connection with a commercial enterprise..." and "A fee of \$100 will be charged for permit applications when the planned or ultimate purpose of the project is commercial or industrial in nature and is in support of operations that charge for the production, distribution, or sale of goods or services." As your application fits the first category, you are requested to remit your check for \$10, made payable to the Finance and Accounting Officer, USAED, Wilmington. The check should accompany the signed and dated copies of your permit.

After the permit is authorized in this office, the original copy will be returned to you; the duplicate copy will be permanently retained in this office.

Thank you for your time and cooperation. If you have questions, please contact Mr. William Wescott at the Washington Regulatory Field Office, telephone 252-975-1616, extension 31.

Sincerely,

David M. Lekson, Chief

Washington Regulatory Field Office

**Enclosures** 

#### DEPARTMENT OF THE ARMY PERMIT

Permittee

North Carolina Department of Transportation, Gregory J. Thorpe, Ph.D.

Permit No.

199301143 .

**Issuing Office** 

**CESAW-RG-W** 

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: Widen and relocate approximately 15 miles of US Highway 17. The proposed roadway will be a four-lane, divided highway, with grass shoulders and ditches, and a 46-foot wide grassed median. The median will be reduced to a 10-foot median divided by a barrier on the four-lane freeway bridge that will span the Tar River and the frequently inundated forested wetlands adjacent to the Tar River.

Project Location: The proposed highway widening and relocation will extend approximately 15 miles, starting from 0.5 mile south of Possum Track Road (NCSR 1127) south of Chocowinity, in Beaufort County and ending 0.2 mile north of Roberson Road (NCSR 1418) north of Washington, in Beaufort County, North Carolina.

Permit Conditions:

General Conditions:

- 1. The time limit for completing the work authorized ends on **December 31, 2008** If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
- 2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
- 3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

ENG FORM 1721, Nov 86

EDITION OF SEP 82 IS OBSOLETE.

(33 CFR 325 (Appendix A))

- 4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
- 5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
- 6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit,

**Special Conditions:** 

#### SEE ATTACHED SPECIAL CONDITIONS

#### Further Information:

- 1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
  - (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
  - (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
  - ( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
- 2. Limits of this authorization.
  - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
  - b. This permit does not grant any property rights or exclusive privileges.
  - c. This permit does not authorize any injury to the property or rights of others.
  - d. This permit does not authorize interference with any existing or proposed Federal project.
- 3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
  - d. Design or construction deficiencies associated with the permitted work.

- e. Damage claims associated with any future modification, suspension, or revocation of this permit.
- 4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
- 5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
  - a. You fail to comply with the terms and conditions of this permit.
  - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
  - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit, Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Pep	511-9	12/6/05
(PERMITTEE)	North Carolina Department of Transportation	on (DATÉ)
This permit beco	omes effective when the Federal official, designated to act for	or the Secretary of the Army, has signed below.
(DISTRICT ENC	GINEER) JOHN E. PULLIAM, JR., COLONEL	(DATE)
conditions of th	ures or work authorized by this permit are still in existence as is permit will continue to be binding on the new owner(s) associated liabilities associated with compliance with its term	of the property. To validate the transfer of this
(TRANSFEREE)	<u> </u>	(DATE)

# REQUEST SPOTTING AND AND RECEIVED AND RECEIV

Appl	icant: NCDOT, Greg Thorpe	11/28/2005	
Attac	ched is:	See Section below	
X	INITIAL PROFFERED PERMIT (Standa	ard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit	В	
	PERMIT DENIAL		С
	APPROVED JURISDICTIONAL DETE	D	
	PRELIMINARY JURISDICTIONAL DE	ETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above discussion: Additional britannation may be founded lither his ace amy mil/inst/functions/ev/receve/reg or Comes regulations at 3.3 Clif Pan 3.3.1

- A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final
  authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your
  signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights
  to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT: You may accept or appeal the permit
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.
- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINA	TION: You do not need to i	respond to the Corps
regarding the preliminary JD. The Preliminary JD is no	t appealable. If you wish, yo	u may request an
approved JD (which may be appealed), by contacting the	• • • • • • • • • • • • • • • • • • • •	-
		Struction: Auso you may
provide new information for further consideration by the	e Corps to reevaluate the ID.	
	NNG 1875 VIJETSNIPPERIONIE IN VON	Travial area area area
SECTION III—TREQUEST FOR APPEAL OF OBJECTIO	Markettan 1984 A Comment of the second of	The same of the second state of the second state of the second se
REASONS FOR APPEAL OR OBJECTIONS: (Describe		
initial proffered permit in clear concise statements. You may attack	additional information to this for	m to clarify where your reasons
or objections are addressed in the administrative record.)		
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ADDITIONAL DIFORMATION TO 11.11.14.14.14	60 1 1 1 1 1 1 1	C
ADDITIONAL INFORMATION: The appeal is limited to a review		
record of the appeal conference or meeting, and any supplemental i		
clarify the administrative record. Neither the appellant nor the Cor		
you may provide additional information to clarify the location of in		ministrative record.
POINT OF CONTACT FOR QUESTIONS OR INFOR	MIAJĪ(O)V	
If you have questions regarding this decision and/or the appeal	If you only have questions regard	ling the appeal process you may
process you may contact:	also contact:	
William Wescott	Mr. Michael Bell, Administrative	e Appeal Review Officer
Washington Regulatory Field Office	CESAD-ET-CO-R	
P.O. Box 1000	U.S. Army Corps of Engineers, S	South Atlantic Division
Washington, North Carolina 27889	60 Forsyth Street, Room 9M15	
Washington, 1 total outonia = 7 005	Atlanta, Georgia 30303-8801	
RIGHT OF ENTRY: Your signature below grants the right of entr		and any government
consultants, to conduct investigations of the project site during the		
notice of any site investigation, and will have the opportunity to pa		win be provided a 13-day
notice of any site investigation, and will have the opportunity to pa		[m]
	Date:	Telephone number:
Signature of appellant or agent		

DIVISION ENGINEER:

Commander U.S. Army Engineer Division, South Atlantic 60 Forsyth Street, Room 9M15 Atlanta, Georgia 30303-3490

#### SPECIAL CONDITIONS (Action ID. 199301143; NCDOT/TIP R-2510)

#### COMPLIANCE WITH PLANS

- a) This authorization is only for Section R-2510-A. Construction on sections R-2510-B and R-2510-C shall not commence until final design has been completed and plans have been approved by the District Engineer.
- b) All work must be performed in strict compliance with the attached plans, which are a part of this permit. Any modification to the permit plans must be approved by the USACE prior to implementation.

#### **ACTIVITIES NOT AUTHORIZED**

c) 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, nor shall any activities take place that cause the degradation of waters or wetlands. In addition, except as specified in the plans attached to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within, into, or out of waters or wetlands or to reduce the reach of waters or wetlands.

This permit does not authorize temporary placement or double handling of excavated or fill material within jurisdictional waters, including wetlands, outside the permitted area. Additionally, no construction materials or equipment will be placed or stored within jurisdictional waters, including wetlands.

#### **CONSTRUCTION PLANS**

- d) The permittee will ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Written verification shall be provided that the final construction drawings comply with the attached permit drawings prior to any active construction in waters of the United States, including wetlands. Any deviation in the construction design plans will be brought to the attention of the Corps of Engineers, Washington Regulatory Field Office prior to any active construction in waters or wetlands.
- e) Prior to commencing construction within jurisdictional waters of the United States for any portion of the proposed project, the permittee shall forward the latest version of project construction drawings to the Corps of Engineers, Washington Regulatory Field Office NCDOT Regulatory Project Manager. Half-size drawings will be acceptable.

#### POLLUTION SPILLS

f) All mechanized equipment will be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. No equipment staging or storage of construction material will occur in wetlands. Hydro-seeding equipment will not be discharged or washed out into any surface waters or wetlands. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the N.C. Division of Water Quality at (919) 733-5083 or (800) 662-7956 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

#### **NOTIFICATION**

g) The permittee shall advise the Corps in writing at least two weeks prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.

#### CLEAN FILL MATERIAL

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

#### IN-WATER MORATORIUM

i) A construction moratorium for anadromous fish from February 15 through June 15 will be adhered to for in-water work.

#### **SECTION 7 ESA CONSULTATION**

j) Prior to commencing construction within jurisdictional waters of the United States for any portion of the proposed project, the permittee shall conduct another survey for the federally threatened sensitive joint-vetch (*Aeschynomene virginica*) during its flowering season (mid July –October). Results of that survey shall be forwarded to USFWS for review. The USFWS shall submit their findings in writing to the Corps of Engineers, Washington Regulatory Field Office NCDOT Regulatory Project Manager.

#### CONTRACTOR COMPLIANCE

k) The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit, and any authorized modifications. A copy of this permit, and

any authorized modifications, including all conditions, shall be available at the project site during construction and maintenance of this project.

#### SEDIMENTATION AND EROSION CONTROL MEASURES

l) The permittee shall use 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" to assure compliance with the appropriate turbidity water quality standard. 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 assure compliance with the appropriate turbidity water quality standards. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).

Adequate sedimentation and erosion control measures must be implemented prior to any ground disturbing activities to minimize impacts to downstream aquatic resources. These measures must be inspected and maintained regularly, especially following rainfall events. All fill material must be adequately stabilized at the earliest practicable date to prevent sediment from entering into adjacent waters or wetlands.

The permittee shall remove all sediment and erosion control measures placed in wetlands or waters, and shall restore natural grades in those areas, prior to project completion.

During the clearing phase of the project, heavy equipment must not be operated in surface waters or stream channels. Temporary stream crossings will be used to access the opposite sides of stream channels. All temporary diversion channels and stream crossings will be constructed of nonerodable materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.

No fill or excavation for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless it is included on the plan drawings and specifically authorized by this permit.

#### REPORTING OF VIOLATIONS

m) The permittee will report any violation of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act in writing to the Corps of Engineers, Washington Regulatory Field Office NCDOT Regulatory Project Manager, within 24 hours of the permittee's discovery of the violation.

#### COMPLIANCE WITH SPECIAL CONDITIONS

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

#### WET CONCRETE

o) The permittee shall take measures to prevent live or fresh concrete from coming into contact with any surface waters until the concrete has hardened.

#### **CULVERTS**

p) All authorized culverts will be installed to allow the passage of low stream flows and the continued movement of fish and other aquatic life as well as to prevent headcutting of the streambed. For all box culverts and for pipes greater than 48 inches in diameter, the bottom of the pipe will be buried at least one foot below the bed of the stream unless burial would be impractical and the Corps of Engineers has waived this requirement. For culverts 48 inches in diameter or smaller, the bottom of the pipe must be buried below the bed of the stream to a depth equal to or greater than 20 percent of the diameter of the culvert. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in disequilibrium of wetlands or streambeds or banks, adjacent to, upstream or downstream of the structures. In order to allow for the continued movement of bed load and aquatic organisms, existing stream channel widths and depths will be maintained at the inlet and outlet ends of culverts. Riprap armoring of streams at culvert inlets and outlets shall be minimized above the ordinary high water elevation in favor of bioengineering techniques such as bank sloping, erosion control matting and revegetation with deep-rooted, woody plants.

#### PRECONSTRUCTION MEETING

q) The permittee shall schedule a preconstruction meeting between its representatives, the contractor's representatives, and the Corps of Engineers, Washington Regulatory Field Office, NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all of the terms and conditions contained within this Department of the Army Permit. The permittee shall provide the Corps of Engineers, Washington Regulatory Field Office, NCDOT Regulatory Project Manager, with a copy of the final plans at least two weeks prior to the preconstruction meeting along with a description of any changes that have been made to the project's design, construction methodology or construction timeframe. The permittee shall schedule the preconstruction meeting for a time when the Corps of Engineers and North Carolina Division of Water Quality (NCDWQ) Project Managers can attend. The permittee shall invite the Corps and NCDWQ

Project Managers a minimum of thirty (30) days in advance of the scheduled meeting in order to provide those individuals with ample opportunity to schedule and participate in the required meeting.

#### **BORROW AND WASTE**

r) 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 Corps of Engineers 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 Corps of Engineers before approving any borrow or waste sites that are within 400 feet of any streams or wetlands. All jurisdictional wetland boundaries on borrow and waste sites shall be verified by the Corps of Engineers and shown on the approved reclamation plans. The permittee shall ensure that all such areas comply with Special Condition b) 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 Special Condition b). All information will be available to the Corps of Engineers 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.

#### **★** EEP MITIGATION

s) Compensatory mitigation for the unavoidable impacts to 8.53 acres of riverine wetlands, 3.88 acres of non-riverine wetlands, and 4,244 linear feet of perennial stream associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated August 4, 2005 from William D. Gilmore, EEP Director. The EEP will provide the compensatory mitigation as follows:

Lower Tar-Pamlico River, CU 03020104 (17.06 acre riverine; 7.76 acres non-riverine; and 8,488 feet of stream):

In order to compensate for impacts to 4,244 linear feet of warm-water stream, 8.53 acres of Riverine wetlands (Cypres-Gum swamp), and 3.88 acres of Non-Riverine wetlands, the permittee shall make payment to the North Carolina Ecosystem Enhancement Program (NC EEP) in the amount determined by the NC EEP, sufficient to perform the restoration of 8,488 linear feet of warm water stream, 17.06 acres of Riparian (Riverine) Wetlands, and 7.76 acres of non-Riparian (non-Riverine) wetlands in the Tar-Pamlico River Basin, Cataloging Unit 03020104).

Construction within jurisdictional areas on the property shall begin only after the permittee has made full payment to the NC EEP and provided a copy of the payment documentation to the Corps, and the NC EEP has provided written confirmation to the Corps that it agrees to accept responsibility for the mitigation work required, in compliance with the MOU between the North Carolina Department of Environment and Natural Resources and the United States Army Corps of Engineers, Wilmington District, dated November 4, 1998.



13 2005

DIVISION OF HIGHWAYS

PDEA-OFFICE OF NATURAL ENVIRONMEN

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

September 6, 2005

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

Dear Dr. Thorpe:

Re: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act and Tar-Pamlico River Buffer Authorization for Proposed Improvements to US 17 (Washington Bypass) from south of SR 1127 (Possum Track Road) to north of SR 1418 (Roberson Road) in Beaufort County, TIP No. R-2510 A, B and C, State Project No. 8.T150601, Federal Aid Project No. MAF-75-3(26). DWO Project No. 050785

Attached hereto is a copy of Certification No. 3527 issued to The North Carolina Department of Transportation dated September 6, 2005.

If we can be of further assistance, do not hesitate to contact us.

Alan W. Klimek, P.E.

Director

#### Attachments

Wilmington District Corps of Engineers

Mr. Bill Biddlecome, Corps of Engineers Washington Field Office

Mr. Christopher Militscher, US EPA, Region IV

Mr. C.E. Lassiter, Jr., PE, Division 2 Engineer, PO Box 1587, Greenville, NC 27835

Mr. Jay Johnson, Division 2 Environmental Officer, PO Box 1587, Greenville, NC 27835

Mr. Chris Underwood, NEU, 2728-168 Capital Blvd., Parker Lincoln Bldg., Raleigh, NC 27604

Mr. William Gilmore, Ecosystem Enhancement Program

Mr. Steven Sollod, NCDENR - DCM, 2728-168 Capital Blvd., Parker Lincoln Bldg., Raleigh, NC 27604

Mr. Garcy Ward, NCDWQ Washington Regional Office

Central Files

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# APPROVAL OF 401 Water Quality Certification and ADDITIONAL CONDITIONS And Tar Pamlico River Buffer Rules

THIS 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 (DWQ) Regulations in 15 NCAC 2H, Section .0500. The project shall be constructed pursuant to the application dated received August 5, 2005, to construct US 17 (Washington Bypass) from South of SR 1127 (Possum Track Road) to North of SR 1418 (Roberson Road) in Beaufort County. The approved design is that submitted in your application dated received August 5, 2005. This certification authorizes the NCDOT to impact 12.41 acres of jurisdictional wetlands, permanently impact 4,244.4 linear feet of stream, 1.49 acres of surface water and impact 383,268.8 square feet of protected Tar-Pamlico Riparian Buffers (234,117.8 square feet in Zone 1 and 149,151square feet in Zone 2) in Beaufort County. The authorized impacts are as described below:

Section A Wetland Impacts in Tar-Pamlico River Basin

Site	Fill	Fill (temporary)	Excavation	Mechanized Clearing
	(ac)	(ac)	(ac)	Method III
	•			(ac)
1	0.0784		0.0441	0.0542
2			0.0214	0.2438
3	0.0108		0.0072	0.0058
4	0.3014		0.3302	0.1425
5	0.0404		0.0877	0.0676
6	1.0470			0.1639
7	0.1491			0.0051
8	0.2530		0.0128	0.0646
9	0.1186		0.0873	0.0276
10	0.4161		0.1659	0.2455
11			0.0359	0.0079
12	0.0171			
15	0.1766		0.0154	0.0789
16	0.2049		- MANNA	0.0475
17	0.0047		0.0093	0.0055
Total	2.8080	0	0.8171	1.1604

Section B Wetland Impacts in the Tar -Pamlico River Basin

Site	Fill	Fill (temporary)	Excavation	Mechanized Clearing
	(ac)	(ac)	(ac)	(ac)
1	0.092			0.007
2			0.017	0.013
3	0.431			0.040
4	3.032			0.149
5	0.122			0.011
6	0.216	0.050		
7	1.554			
8	0.042			
9	0.126			0.017
10	0.223			
Total	5.839	0.050	0.017	0.237

Section C Wetland Impacts in the Tar-Pamlico River Basin

Site	Fill (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (ac)
1A	0.022			0.027
1B			0.074	0.021
1C			0.056	0.019
3	0.093			0.031
4	1.035			0.108
Total	1.15	0	0.13	0.206

Section A Surface Water and Stream Impacts in the Tar-Pamlico River Basin

Site	Permanent Fill in Surface Water (ac)	Temporary Fill in Surface Water (ac)	Permanent Stream Impacts (ft)
3	0.0105	0.0061	113
12	0.0140	0.0019	88
13	0.0087	0.0036	52
14	0.0119	0.0080	122
15	0.0219	0.0310	103
Total	0.0670	0.0506	478

Section B Surface Water and Stream Impacts in the Tar-Pamlico River Basin

Site	Permanent Fill in Surface	Temporary Fill in Surface	Permanent Stream Impacts
	Water (ac)	Water (ac)	(ft)
1	0.011		121.6
2	0.003		72.7
3	0.759		
4			826.1
6	0.069	0.033	
7	0.128		1118
8	0.074		
9	0.051		278.9
Total	1.095	0.033	2,417.3

Section C Surface Water and Stream Impacts in the Tar-Pamlico River Basin

Site	Permanent Fill in Surface Water (ac)	Temporary Fill in Surface Water (ac)	Permanent Stream Impacts (ft)
2	0.003		113.8
3	0.018		159.3
4	0.287		841.6
5A	0.007		107.5
5B	0.008		72.5
5C	0.006		54.4
Total	0.329	0	1,349.1

Section A Tar-Pamlico Riparian Buffer Impacts

Site	Zone 1 (sq. ft.)	Zone 2 (sq. ft.)	Wetlands in Zone 1 (sq. ft.)	Wetlands in Zone 2 (sq. ft.)	Mitigation Required Zone 1 (sq. ft.)	Mitigation Required Zone 2 (sq. ft.)
1	12,548.7	7,215	1,034.9		11,513.8	7,215
2	7,000.1	4,327.3	886.4		6,113.7	4,327.3
3	10,019.3	5,931.8			10,019.3	5,931.8
4	13,129.4	6,815.4			13,129.4	6,815.4
5	15,405	7,489	4,051	2,737.4	11,354	4,751.6
6	2,165.1	1,383.8	853		1,312.1	1,383.8
Total	60,330.6	33,162.3	6,825.3	2,737.4	53,505.3	30,424.9

Section B Tar-Pamlico Riparian Buffer Impacts

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Site	Zone 1	Zone 2	Wetlands in	Wetlands in	Mitigation Required	Mitigation Required
	(sq. ft.)	(sq. ft.)	Zone 1 (sq. ft.)	Zone 2 (sq. ft.)	Zone 1 (sq. ft.)	Zone 2 (sq. ft.)
1	6,676.6	4,450	4,312.9			
2	2,842.1	1,992.6	1,179.5	98.8		
4	49,735.4	32,361	48,299	24,287.9	1,436.4	8,073.1
6A	9,424.7	6,215.2	35.5	3		
6B	10,188.4	6,628.1	7.5	3		
6C	29,045.5	19,778.2	35.5	41.5	29,010	19,736.7
7	60,721.8	38,160.8	3,079.2	5,244.5	57,642.6	32,916.3
9	16,736.8	11,154.9	2,253.9	1,944.5	14,482.9	9,210.4
Total	185,371.3	116,290.7	59,202.9	31,623.2	102,571.9	69,936.5

Section C Tar-Pamlico Riparian Buffer Impacts

Site	Zone 1 (sq. ft.)	Zone 2 (sq. ft.)	Wetlands in Zone 1 (sq. ft.)	Wetlands in Zone 2 (sq. ft.)	Mitigation Required Zone 1 (sq. ft.)	Mitigation Required Zone 2 (sq. ft.)
1A	14,759.6	9,684.9	1,477.4	453.3	13,282.2	9,231.6
3	10,208.7	6,621.8	521.8	934.7	9,686.9	5,687.1
4	55,506.1	33,873.3	434.6	2.4	55,071.5	33,870.9
5A	8,114.1	5,294.4				
5B	6,986.8	4,080.4				
5C	3,976.1	2,628.6				
Total	99,551.5	62,183.2	2,433.9	1,390.3	78,040.6	48,789.6

Mitigation Requirements for Tar-Pamlico Riparian Buffers Project Wide

	Impact (sq. ft.)	Replacement Ratio	Total Impact (sq. ft.)	Fee schedule	Payment amount for Mitigation		
Zone 1	234,117.8	3:1	702,353.4	\$0.96/sq. ft.	\$674,259.26		
Zone 2	149,151	1.5:1	223,726.5	\$0.96/sq. ft.	\$214,777.44		
	Total N	⊥ ∕Iitigation Payme	nt Required		\$889,036.7		

The application provides adequate assurance that the discharge of fill material into the waters of the Tar-Pamlico River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application dated received August 5, 2005, as described in the Public Notice. Should your project change, you are required to 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 any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification 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 Corps of Engineers Permit, whichever is sooner.

#### Condition(s) of Certification:

- 1. 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
- All sediment and erosion control measures shall not be placed in wetlands or waters to the maximum
  extent practicable. If placement of sediment and erosion control devices in wetlands and waters is
  unavoidable, they shall be removed and the natural grade restored after the Division of Land Resources
  has released the project.
- 3. If an environmental document is required, this Certification is not valid until a FONSI or ROD is issued by the State Clearinghouse. All water quality-related conditions of the FONSI or ROD shall become conditions of this Certification;
- 4. No live or fresh concrete shall come into contact with waters of the state until the concrete has hardened.
- 5. There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities.

- 6. All channel relocations will be constructed in a dry work area, and stabilized before stream flows are diverted. Channel relocations will be completed and stabilized prior to diverting water into the new channel. Whenever possible, channel relocations shall be allowed to stabilize for an entire growing season. Vegetation used for bank stabilization shall be limited to native woody species, and should include establishment of a 30 foot wide wooded and an adjacent 20 foot wide vegetated buffer on both sides of the relocated channel to the maximum extent practical. A transitional phase incorporating coir fiber and seedling establishment is allowable. Also, rip-rap may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage requested.
- 7. Upon completion of the project, the NCDOT shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed. The responsible party shall complete the attached form and return it to the 401/Wetlands Unit of the Division of Water Quality upon completion of the project.
  - 8. The NCDOT will need to adhere to all appropriate in-water work moratoriums (including the use of pile driving or vibration techniques) prescribed by the NC Wildlife Resources Commission, the US Fish and Wildlife Service, and National Marine Fisheries Service. No in-water work is permitted between February 15 and June 15 of any year, without prior approval from the NC Division of Water Quality and the NC Wildlife Resources Commission. In addition, NCDOT shall conform with the NCDOT policy entitled "Stream Crossing Guidelines for Anadromous Fish Passage (May 12, 1997) at all times.
  - 9. When final design plans are completed for R-2510 Section B and C, a modification to the 401 Water Quality Certification and the Tar-Pamlico River Riparian Buffer Certification shall be submitted with seven copies and fees to the NC Division of Water Quality. Final designs shall reflect all appropriate avoidance, minimization, and mitigation for impacts to wetlands, streams, and other surface waters, and buffers. No construction activities that impact any wetlands, streams, surface waters, or protected riparian buffers located in R-2510 Section B and C shall begin until after NCDOT applies for, and receives a written modification 401 Water Quality Certification and Tar-Pamlico River Riparian Buffer Authorization from the NC Division of Water Quality.
- ★ 10. Compensatory mitigation for impacts 383,268.8 square feet of Tar-Pamlico Riparian Buffers shall be provided for as described below.

Zone of	Impacts	Replacement	Total Square Feet of
Impact	(Square Feet)	Ratio	Mitigation Required
Zone 1	234,117.8	3:1	702,354.4
Zone 2	149,151	1.5:1	223,726.5
Total	383,268.8		926,080.9

We understand that you have chosen to perform compensatory mitigation for impacts to protected buffers through an in lieu payment to the North Carolina Ecosystem Enhancement Program (NCEEP), and that the EEP has agreed to implement the mitigation for the project. Mitigation for unavoidable impacts to Tar-Pamlico Riparian Buffers shall be provided through an in-lieu payment to the North Carolina Ecosystem Enhancement Program (NCEEP) at a rate of \$0.96 per square foot. Therefore, a total payment of \$889,036.7shall be submitted to the NCEEP to offset the impacts. No construction activities in Tar-Pamlico River Riparian buffers shall begin until payment for buffer mitigation is made and the Ecosystem Enhancement Program receives and clears your check (made payable to DENR Ecosystem Enhancement Program). The payment to NCEEP shall be sent within two months of issuance of the 404 permit. If you have any questions concerning the Ecosystem Enhancement Program please contact them at 919-733-5208.

★ 11. Compensatory mitigation for impacts to 12.41acres of jurisdictional wetlands shall be done. Total mitigation shall be provided as described below:

Offsite Compensatory Mitigation

Compensatory mitigation for the unavoidable impacts to 8.53 acres of riparian wetlands and 3.88 acres of non-riparian wetlands in the Hydrologic Cataloging Unit 03020104, associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated August 4, 2005, and in accordance with the Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003.

12. Compensatory mitigation for impacts to 4,244.4 linear feet of streams shall be done at a replacement ratio of 2:1, except sites A3, and B7, which will be done at a ratio of 1:1. Applying a replacement ratio of 2:1 or 1:1, total mitigation for 7,255.8 linear feet of streams shall be provided as described below:

Offsite Compensatory Mitigation

Compensatory mitigation for the unavoidable impacts to 4,244.4 linear feet of streams in the Hydrologic Cataloging Unit 03020104 associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated August 4, 2005, and in accordance with the Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003.

- 13. 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.
- 14. All temporary fills in wetlands and surface waters shall be removed upon completion of the project. In addition, the post-construction removal of any temporary bridge structures or fill will need to return the project site to its preconstruction contours and elevations. The revegetation of the impacted areas with appropriate native species will be required.
- 15. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
- 16. The dimension, pattern and profile of the stream above and below the crossing should not be modified by widening the stream channel or reducing the depth of the stream. Disturbed floodplains and streams should be restored to natural geomorphic conditions.
- 17. Any riprap used must not interfere with thalweg performance and aquatic life passage during low flow conditions.
- 18. 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.
- 19. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
- 20. Two copies of the final construction drawings shall be furnished to NCDWQ prior to the pre-construction meeting. Written verification shall be provided to the NC Division of Water Quality that the final construction drawings comply with the attached permit drawings contained in your application dated August 5, 2005.
- 21. 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.
- 22. NCDOT, 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 law 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 to include conditions appropriate to assure compliance with such standards and requirements in accordance with 15A NCAC 2H.0507(d).

- 23. 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.
- 24. DOT shall schedule a preconstruction meeting for this project prior to incurring any impacts in jurisdictional waters including wetlands. The Division of Water Quality shall be notified a minimum of 30 days prior to the preconstruction conference.
- 25. Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. 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 shall be maintained if requested in writing by DWQ.
- 26. If the above condition (#25) is unable to be met, due to bedrock or other limiting features encountered during construction, please contact the NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.
- 27. There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities.
- 28. Any violations, during the construction of the approved project, of this 401 Water Quality Certification or the North Carolina State Water Quality Standards as defined in 15A NCAC 2B .0200 Rules, shall be reported immediately to the North Carolina Division of Water Quality.
- 29. 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.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit.

If this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 6th day of September 2005

DIVISION OF WATER QUALITY

Alan W. Klimek, P.E. Director

WQC No. 3527



### North Carolina Department of Environment and Natural Resources

## Division of Coastal Management

Michael F. Easley, Governor

Charles S. Jones, Director

Internative Stratute

William G. Ross Jr., Secretary

October 31, 2005

Gregory J. Thorpe, Ph.D.
Environmental Manager Director
Project Development and Environmental Analysis Branch
NC Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

SUBJECT:

CD05-052 - Consistency Concurrence for Improvements to US 17 from South of SR 1127 to North of SR 1418 (Washington Bypass, TIP No. R-2510) in Beaufort County, NC (DCM #20050063)

Dear Dr. Thorpe:

The Division of Coastal Management (DCM) received on September 19, 2005 complete documentation supporting that the above referenced project would be consistent with the enforceable policies of North Carolina's coastal management program.

North Carolina's coastal management program consists of, but is not limited to, the Coastal Area Management Act, the State's Dredge and Fill Law, and the land use plan of the County and/or local municipality in which the proposed project is located. It is the objective of DCM to manage the State's coastal resources to ensure that proposed activities are compatible with safeguarding and perpetuating the biological, social, economic and aesthetic values of the State's coastal resources.

To solicit public comments, DCM published a public notice in the "Washington Daily News" on September 21, 2005 and circulated a description of the proposed project to State agencies that would have a regulatory interest in the proposed development. No comments were received asserting that the proposed project would be inconsistent with North Carolina's coastal management program.

In accordance with the supporting documentation accompanying NCDOT's Consistency Certification for this project, no CAMA Areas of Environmental Concern (AEC's) are to be impacted by the construction of the A section, R-2510A. However, the proposed R-2510B section impacts the Public Trust Area and Public Trust Shoreline CAMA AEC's where it crosses the Tar River. The proposed R-2510C section impacts the Public Trust Area and Public Trust Shoreline CAMA AEC's where it crosses Cherry Run and Old Ford Swamp. Prior to initiating any construction on the remaining segments of this project (R-

400 Commerce Avenue, Morehead City, North Carolina 28557-3421 Phone: 252-808-2808 \ FAX: 252-247-3330 \ Internet: www.nccoastalmanagement.net

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2510B and/or R-2510C), NCDOT must submit an application for and receive a CAMA Major Development Permit.

DCM has reviewed the consistency submission pursuant to the enforceable policies of North Carolina's coastal management program; including the management objectives of Section 15A NCAC 07M of North Carolina's Administrative Code. DCM concurs, as conditioned below, that the proposed project is consistent with the enforceable policies of North Carolina's coastal management program.

- In order to be found consistent with North Carolina's coastal management program, all work is to be performed in accordance with the 401 Water Quality Certification No. 3527, issued to the NC Department of Transportation (NCDOT) on September 6, 2005 (DWQ Project No. 050785) and Stormwater Permit No. SW7050509, which was issued on June 26, 2005.
- In order to be found consistent with North Carolina's coastal management program, compensatory mitigation for unavoidable impacts to 8.53 acres of riparian wetlands, 3.88 acres of non-riparian wetlands, and 4,244.4 linear feet of streams are to be provided by the NC Ecosystem Enhancement Program (EEP) in Hydological Cataloging Unit 03020104, as outlined in the letter from the EEP dated August 4, 2005. Compensatory mitigation for impacts to 383,268.8 square feet of Tar-Pamlico Riparian Buffers shall be provided through an in-lieu fee payment to the EEP, in accordance to EEP's acceptance letter dated July 26, 2005.
- In order to be found consistent with North Carolina's coastal management program, there will be no in-water work between February 15 and June 15 of any year without prior approval of the NC Division of Water Quality and the NC Wildlife Resources Commission, in accordance with project commitments and the 401 Water Quality Certification, issued on September 6, 2005.
- In order to be found consistent with North Carolina's coastal management program, a CAMA Major Permit Application shall be submitted to DCM upon completion of final design plans for R-2510 Section B and/or Section C. No construction may begin in R-2510 Section B and/or Section C until a CAMA permit is issued or modified in accordance with the rules of the NC Coastal Resources Commission.

As a result of circulating the Consistency Certification to the agencies with regulatory interest in the proposed development, DCM received the following recommendation from the NC Division of Marine Fisheries (NCDMF):

• The Tar River is used as spawning and nursery area for Herring (Blueback and Alewife), Shad (American and Hickory), and Stripped Bass. The NCDMF requests that NCDOT take a risk avoidance approach to this project and impose an in-water moratorium from February through September to protect adult, egg, and larval stages of these migratory species. DCM encourages NCDOT to incorporate this recommendation into the proposed project.

Should the project be modified, a revised consistency certification could be necessary. This might take the form of either a supplemental consistency certification pursuant to 15 CFR 930.66, or a new consistency certification pursuant to 15 CFR 930.57. Likewise, if further project assessments reveal environmental impacts not previously considered by the proposed development, a supplemental consistency certification might be required. If you have any questions, please contact Steve Sollod at (919) 733-2293 x230 or via e-mail at steve.sollod@ncmail.net. Thank you for your consideration of the North Carolina coastal management program.

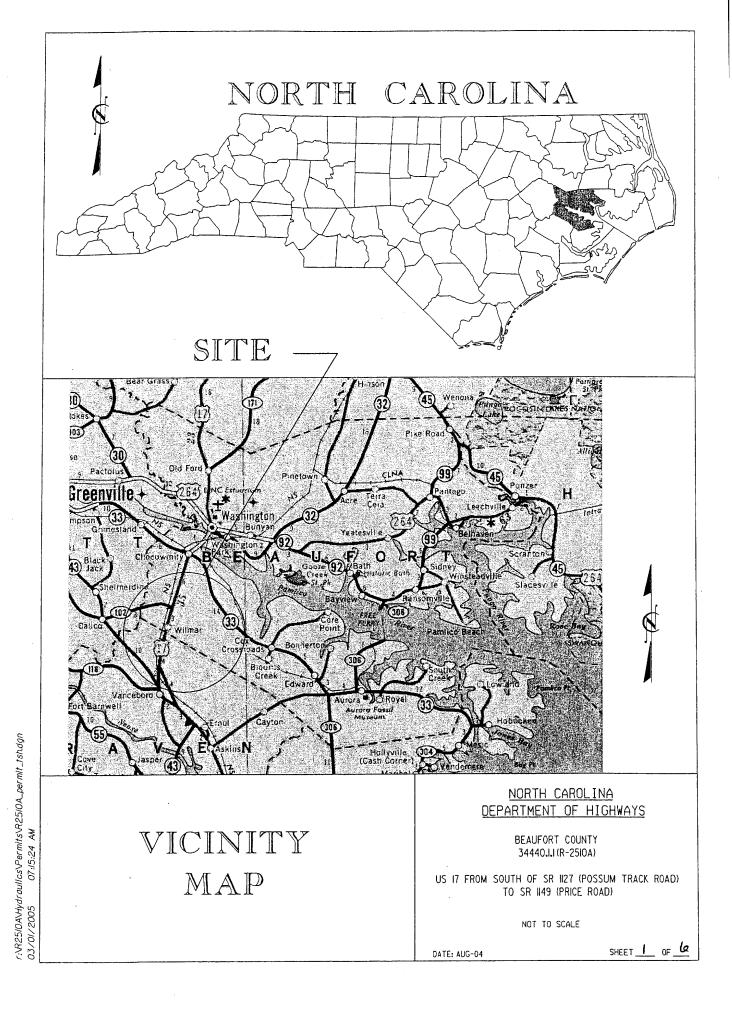
Sincerely,

Dougles V Huggett

Doug Huggett

Manager, Major Permits and Consistency Unit

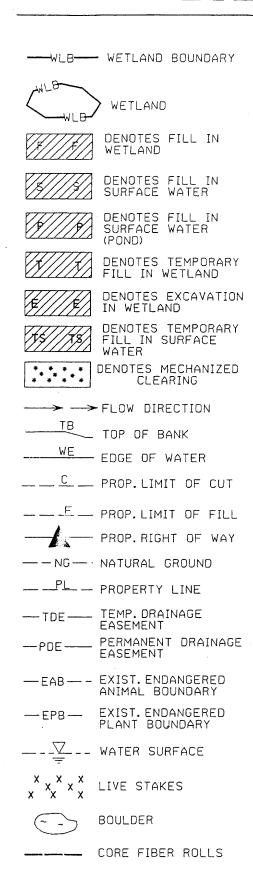
cc: Bill Arrington, DCM
Christina Breen, DWQ
Bill Gilmore, EEP
Terry Moore, DCM
Stephen Rynas, DCM
Steve Sollod, DCM
Chris Underwood, NCDOT
William Wescott, USACE

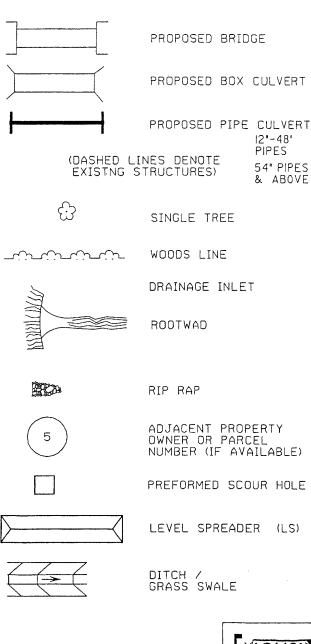


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### WETLAND LEGEND







# NORTH CAROLINA DEPARTMENT OF HIGHWAYS

BEAUFORT COUNTY 34440.I.I (R-25IOA)

US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD)
TO SR 1149 (PRICE ROAD)

NOT TO SCALE

DATE: AUG-04

SHEET 3 OF 6

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### SUMMARY OF AFFECTED PROPERTY OWNERS WETLAND SITES

TRACT NO.	PROPERTY OWNER	ADDRESS	SITE NO.
	JOHN JAY WALTON	2314 NC 33 CHOCOWINITY NC, 27817	1
4	REBECCA S. DAY	QUARTERDECK #13 RIVERBEND NEW BERN NC, 28562	1
5	JAMES A. POLLARD, et ux	1255 WARES CHAPEL LN. WASHINGTON NC, 27889	-2
12	TERRY D. ANDREWS	8059 US HWY I7 S CHOCOWINITY NC, 27817	3
(13)	J.M. HILL, et ux	3509 TRENT RD. NEW BERN NC, 28560	3,4
28	D.H. BRIGHT	?	6
32	MAUDE ELIZABETH WHITEHURST	685IUS HWY 17 S CHOCOWINITY NC, 27817	8
48)	J.J. COOK, et ux	236 E. MAIN ST. WASHINGTON NC, 27889	Ю
60)	MICHAEL MIZELL, et ux	6219 US HWY 17 S CHOCOWINITY NC, 27817	12
62)	BOBBY GENE WEATHINGTON	PO BOX 921 CHOCOWINITY NC, 27817	12
70	DANNY SMITH	PO BOX 623 CHOCOWINITY NC, 27817	13
68)	ROY MITCHELL CLARK, et ux	7450 PITT ST. GRIMESLAND NC, 27837	13
71	BETSY ROSE HADDOCK	6025 US HWY I7 S CHOCOWINITY NC, 27817	13

#### NORTH CAROLINA DEPARTMENT OF HIGHWAYS

BEAUFORT COUNTY 34440.I.I (R-2510A)

US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD) TO SR II49 (PRICE ROAD)

NOT TO SCALE

DATE: AUG-04

SHEET 4 OF 6



r:\R25IOA\Hydraulics\Permits\R25IOA\_permit\_tshdgn

3/15/2005

# SUMMARY OF AFFECTED PROPERTY OWNERS WETLAND SITES

TRACT NO.	PROPERTY OWNER	ADDRESS	SITE NO.
69	CARRIE M. TURNER, et ux	1014 VAN NORDEN ST. WASHINGTON NC, 27889	13
97)	SALLIE BLOUNT TOLER	5613 US HWY 17 S CHOCOWINITY NC, 27817	14
(107)	JASON C. SHEPPARD	PO BOX 1902 CHOCOWINITY NC, 27889	15
(IIO)	SCOTT ROBERT BATEMAN, et ux	4829 US HWY I7 S CHOCOWINITY NC, 27817	15,16
(109)	MARVIN J. HARRIS FAMILY TRUST	PO BOX 1747 WASHINGTON NC, 27889	15
(108)	A. FRANK RESPESS	4918 US HWY 17 S CHOCOWINITY NC, 27817	15
(118)	RICHARD D. PEED, JR., et ux	410 TRANTERS CREEK DR. WASHINGTON NC, 27889	17
	NORFOLK SOUTHERN RAILROAD		3,5,7,9,11
98)	C. DOUGLAS BRANCH, et ux	5614 US HWY 17 S CHOCOWINITY NC, 27817	14
		·	

# NORTH CAROLINA DEPARTMENT OF HIGHWAYS

BEAUFORT COUNTY 34440.LI (R-2510A)

US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD)
TO SR 1149 (PRICE ROAD)

NOT TO SCALE

DATE: AUG-04

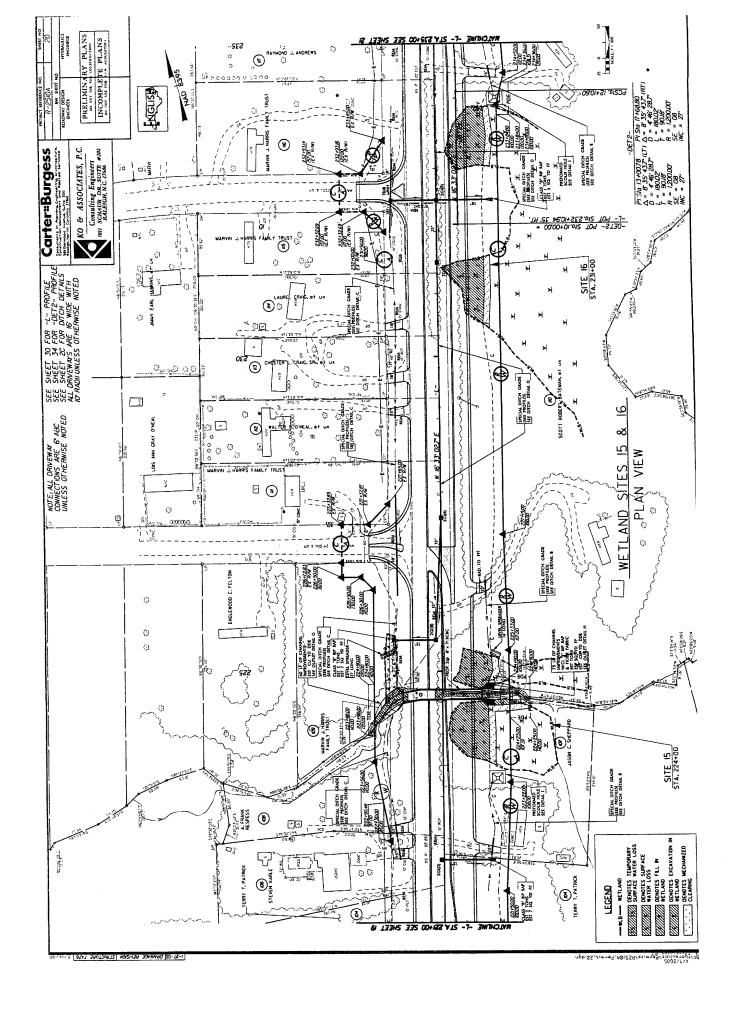
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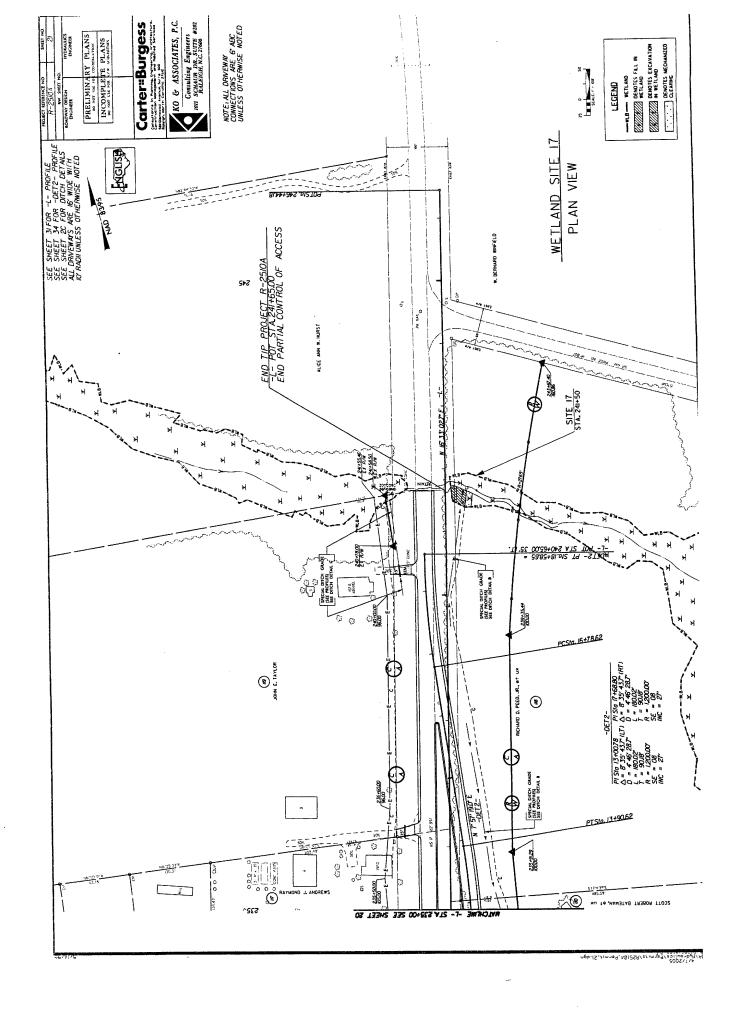
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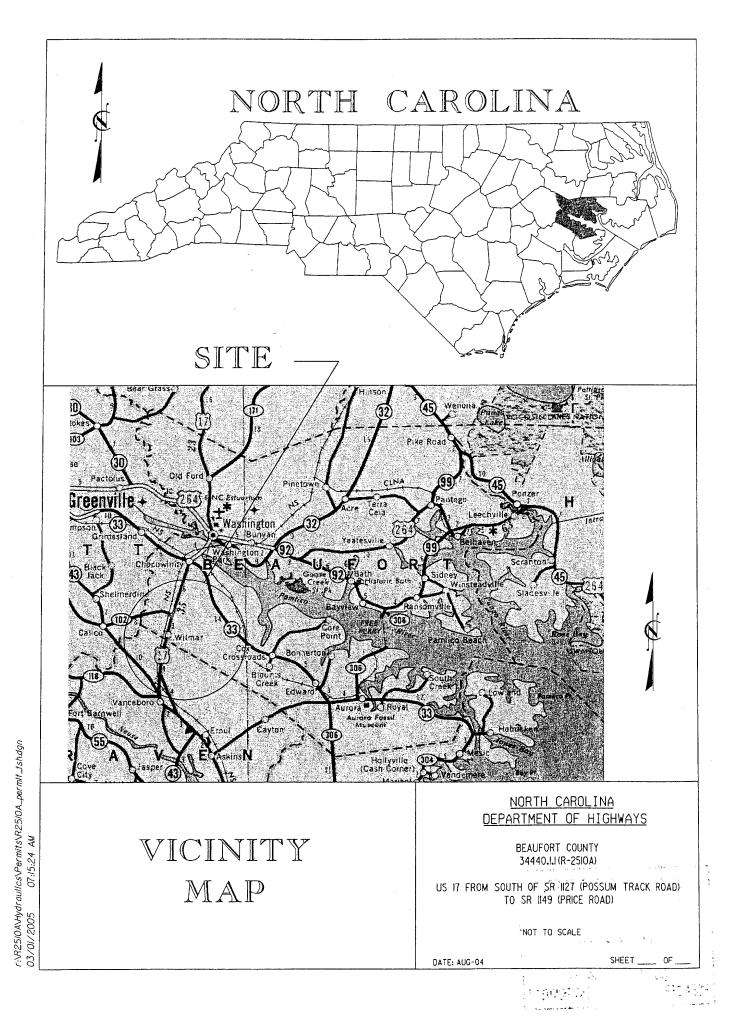
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SHEET 5 OF 6

		Natural Stream	Design (ft)	(2.)																		0	NO	Ŷ	
	MPACTS	Existing Channel	Impacted (ft)			113									88	52	122	103				478	N.C. DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS	BEAUFORT COUNTY PROJECT: 34440.1.1 (R-2510A)	4/20/2005 T (8 OF (0
	SURFACE WATER IMPACTS	Temp. Fill	In SW (Ac)			0.0061									0.0019	0.0036	0.0080	0.0310				0.0506	.C. DEPT. OF T DIVISION O	BEAUFOR PROJECT: 344	4/20 SHEFT /
	SURFA	Fill In SW	(Pond) (Ac)																			0.000.0	Z	_	
ARY		Fill In SW	(Natural) (Ac)			0.0105									0.0140	0.0087	0.0119	0.0219				0.0670	<b>L</b>		
T SUMM		Mechanized Clearing	(Method III) (Ac)	0.0142	0.0238	0.0058	0.1425	0.0676	0.1639	0.0051	0.0646	0.0276	0.0655	0.0079				0.0789	0.0475	0.0055		0.7204			
IIT IMPAC	WETLAND IMPACTS	Excavation	In Wetlands (Ac)	0.0441	0.0214	0.0072	0.3302	0.0877			0.0128	0.0873	0.1659	0.0359				0.0154		0.0093		0.8171			
WETLAND PERMIT IMPACT SUMMARY	WETLAND		in Wetlands (Ac)																			0.0000			
WETLA			wettands (Ac)	0.0784		0.0108	0.3014	0.0304	1.0470	0.1491	0.2530	0.1186	0.4161		0.0171			0.1766	0.2049	0.0047		2.8080			
		Structure	elze / Iybe			66" RCP									30" RCP	24" RCP	24" RCP	2@8ftx7ft							
		Station	(01/01/1)	29+50 Rt	33+50 Rt	57+50	63+50 to 67+00 Rt	85+00 to 90+20 Lt	86+10 to 93+60 Rt	103+15 to 105+20 Lt	107+20 to 110+20 Rt	117+15 to 120+50 Lt	132+00 to 134+60 Rt	136+90 to 138+20 Lt	155+20 Rt	162+35	185+82	223+50 to 225+30	230+40 to 234+00 Rt	241+30 to 241+65 Rt					10000 Books C. 2000
		Site		-	2	8	4	5	9	7	8	1	10	_	12	13	14		16	17		TOTALS:			ц







63AI

#### BUFFER SITE MAP 33 Ţ END PROJECT Chocowinity 3 1123 <u>1136</u> <u>114</u>9 <u>11</u>40 1184 <u>1156</u> 17 <u> 1155</u> Chicod 1150 1136 Juniper Swamp *1139* Frederick 1152 1151 Cieek Branc <u> 152</u> 1152 1152 Bay *1138* 1153 7134 <u>1154</u> BEGIN PROJECT 1136 *1168* <u>1135</u> 17 1137 1127 <u>1127</u> 1129 SITE NORTH CAROLINA DEPARTMENT OF HIGHWAYS BEAUFORT COUNTY 34440.I.I (R-2510A) US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD) TO SR 1149 (PRICE ROAD) MGLISH 3/15/2005 NOT TO SCALE SHEET OF\_ DATE: AUG-04

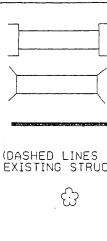
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#### BUFFER LEGEND

WLB---- WETLAND BOUNDARY WLB WETLAND ALLOWABLE IMPACTS ZONE I ALLOWABLE IMPACTS ZONE 2 MITIGABLE IMPACTS ZONE I MITIGABLE IMPACTS ZONE 2 - BZ - RIPARIAN BUFFER ZONE ----BZ1--- RIPARIAN BUFFER ZONE 1 3Ø ft (9.2m) --- B72--- RIPARIAN BUFFER ZONE 2 20 ft (6.1m) -> --> FLOW DIRECTION TOP OF BANK - WE - EDGE OF WATER  $_{-}^{ extsf{C}}$   $_{-}$  PROP.LIMIT OF CUT -E-PROP.LIMIT OF FILL - PROP. RIGHT OF WAY — — NG — — NATURAL GROUND PL - PROPERTY LINE TDE \_\_\_ TEMP. DRAINAGE EASEMENT -- PDE --- PERMANENT DRAINAGE EASEMENT --- EAB--- EXIST. ENDANGERED ANIMAL BOUNDARY -- EPB -- EXIST. ENDANGERED PLANT BOUNDARY -abla water surface x x x x x LIVE STAKES BOULDER

CORE FIBER ROLLS



PROPOSED BRIDGE

PROPOSED BOX CULVERT

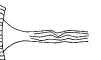
PROPOSED PIPE CULVERT 12"-48"

(DASHED LINES DENOTE EXISTING STRUCTURES)

PIPES 54" PIPES & ABOVE

SINGLE TREE

WOODS LINE



DRAINAGE INLET

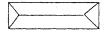
ROOTWAD

RIP RAP



ADJACENT PROPERTY OWNER OR PARCEL NUMBER IF AVAILABLE

PREFORMED SCOUR HOLE (PSH)



LEVEL SPREADER (LS)



GRASS SWALE



#### NORTH CAROLINA DEPARTMENT OF HIGHWAYS

BEAUFORT COUNTY 34440.LI (R-2510A)

US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD) TO SR II49 (PRICE ROAD)

NOT TO SCALE

DATE: AUG-04

SHEET \_\_\_

r:\R2510A\Hydroulics\Permits\R2510A\_permit\_tshdgn 3/15/2005

# SUMMARY OF AFFECTED PROPERTY OWNERS BUFFER SITES

	1	
PROPERTY OWNER	ADDRESS	SITE NO.
TERRY D. ANDREWS	8059 US HWY I7 S CHOCOWINITY NC, 27817	ı
J.M. HILL, et ux	3509 TRENT RD. NEW BERN NC,28560	1
MICHAEL MIZELL, et ux	6219 US HWY 17 S CHOCOWINITY NC, 27817	2
BOBBY GENE WEATHINGTON	PO BOX 921 CHOCOWINITY NC, 27817	2
ROY MITCHELL CLARK, et ux	7450 PITT ST. GRIMESLAND NC, 27837	3
BETSY ROSE HADDOCK	6025 US HWY I7 S CHOCOWINITY NC, 27817	3
EDWARD A.BUCK, et ux	?	4
CHARLES L. TOLER, JR.	PO BOX 398 CHOCOWINITY NC, 27817	4
SALLIE BLOUNT TOLER	5613 US HWY 17 S CHOCOWINITY NC, 27817	4
A. FRANK RESPESS	4918 US HWY 17 S CHOCOWINITY NC, 27817	5
MARVIN J. HARRIS FAMILY TRUST	PO BOX 1747 WASHINGTON NC, 27889	5
JASON C. SHEPPARD	PO BOX 1902 WASHINGTON NC, 27889	5
SCOTT ROBERT BATEMAN, et ux	4892 US HWY I7 S CHOCOWINITY NC, 27817	5
RICHARD D. PEED, JR., et ux	410 TRANTERS CREEK DR. WASHINGTON NC, 27889	6
	TERRY D. ANDREWS  J.M. HILL, et ux  MICHAEL MIZELL, et ux  BOBBY GENE WEATHINGTON  ROY MITCHELL CLARK, et ux  BETSY ROSE HADDOCK  EDWARD A. BUCK, et ux  CHARLES L. TOLER, JR.  SALLIE BLOUNT TOLER  A. FRANK RESPESS  MARVIN J. HARRIS FAMILY TRUST  JASON C. SHEPPARD  SCOTT ROBERT BATEMAN, et ux	TERRY D. ANDREWS  8059 US HWY I7 S CHOCOWINITY NC, 27817  J.M. HILL, et ux  3509 TRENT RD. NEW BERN NC, 28560  MICHAEL MIZELL, et ux  6219 US HWY I7 S CHOCOWINITY NC, 27817  BOBBY GENE WEATHINGTON  PO BOX 921 CHOCOWINITY NC, 27817  ROY MITCHELL CLARK, et ux  7450 PITT ST. GRIMESLAND NC, 27837  BETSY ROSE HADDOCK  6025 US HWY I7 S CHOCOWINITY NC, 27817  EDWARD A. BUCK, et ux  ?  CHARLES L. TOLER, JR.  PO BOX 398 CHOCOWINITY NC, 27817  SALLIE BLOUNT TOLER  A. FRANK RESPESS  4918 US HWY 17 S CHOCOWINITY NC, 27817  MARVIN J. HARRIS FAMILY TRUST  PO BOX 1747 WASHINGTON NC, 27889  SCOTT ROBERT BATEMAN, et ux  4892 US HWY 17 S CHOCOWINITY NC, 27817  410 TRANTERS CREEK DR.

## NORTH CAROLINA DEPARTMENT OF HIGHWAYS

BEAUFORT COUNTY 34440.I.I (R-25IOA)

US 17 FROM SOUTH OF SR 1127 (POSSUM TRACK ROAD)

TO SR 1149 (PRICE ROAD)

- SHEET \_\_\_\_

NOT TO SCALE

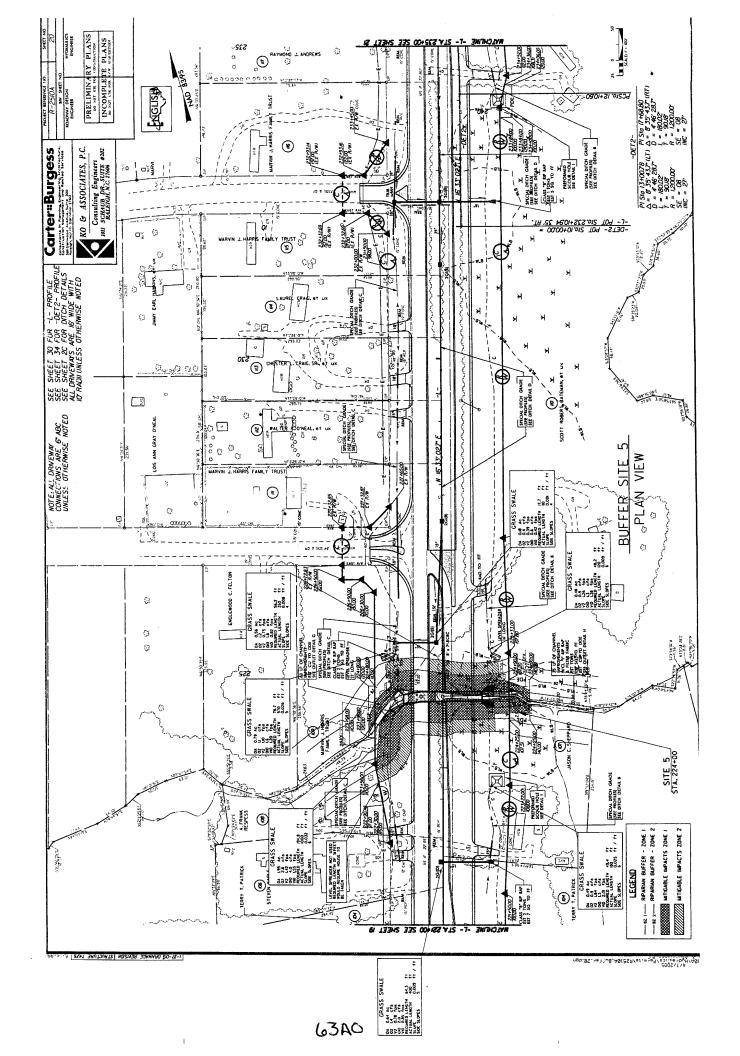
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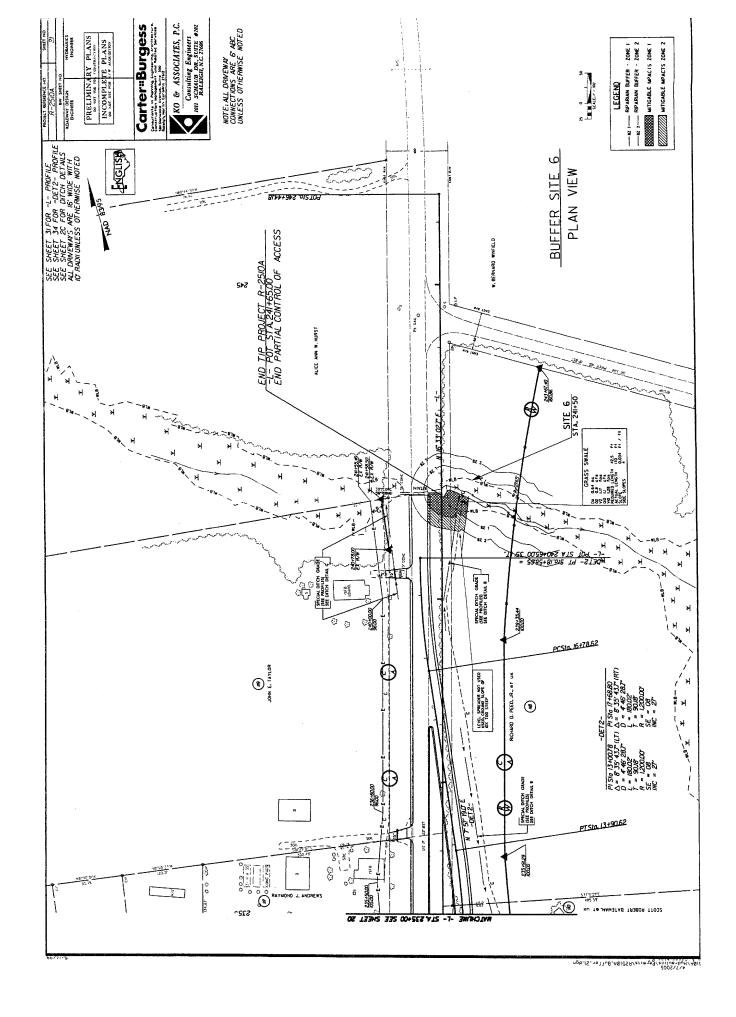
DATE: AUG-04

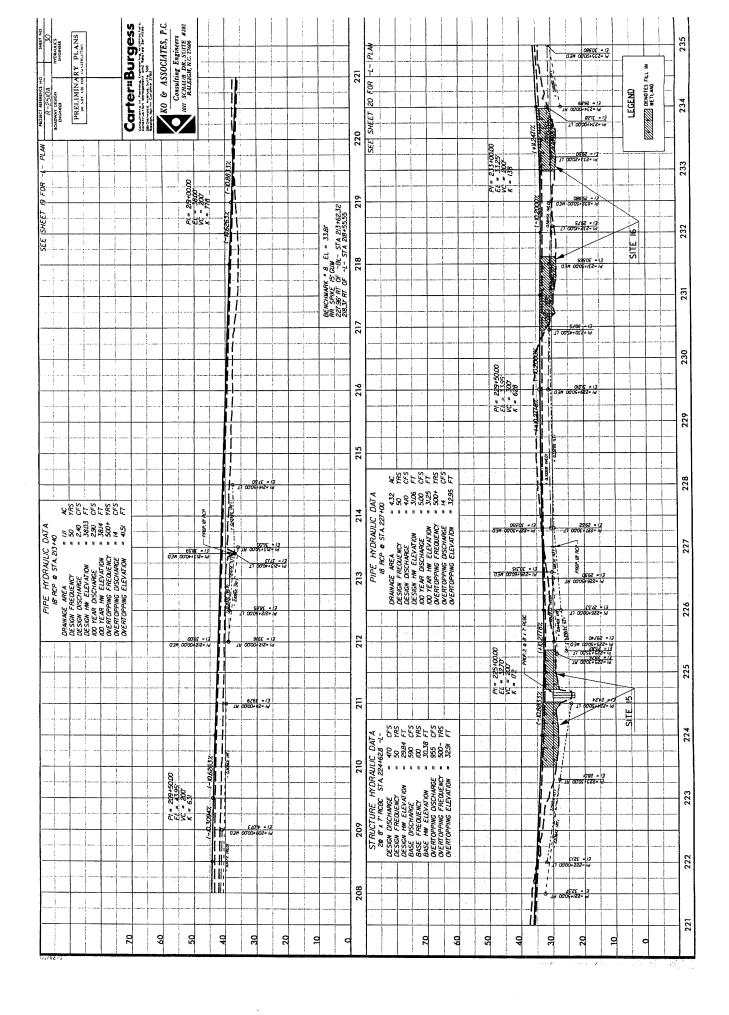
- KGI

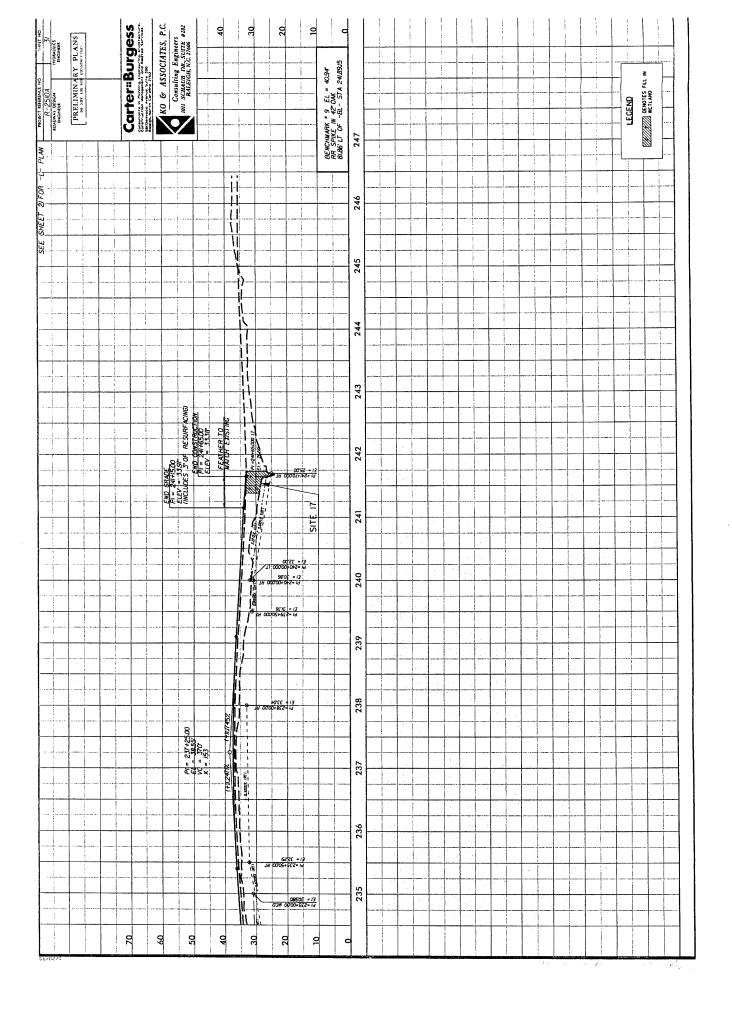
	RUFFFR	REPLACEMENT	ZONE 1 ZONE 2 (ft²)		4			0	6							0.0	NO IT VEHICLES	DEFT. OF TRANSPORTATION DIVISION OF HIGHWAYS	BEAUFORT COUNTY PROJECT: 34440.1.1 (R-2510A)	05
		Ш	TOTAL (ff²)													93492.8	OH U	SION OF L	EAUFORT CT: 34440.	4/8/2005
		MITIGABLE	ZONE 2 (ft²)	7215.0	4327.3	5931.8	6815.4	7489.0	1383.8							33162.2		N.C. DEN	BE PROJE(	
		V	ZONE 1 (ft²)	12548.7	7000.1	10019.3	13192.4	15405.0	2165.1							60330.6	1 1	,	-	
MARY	Τ	Ē	TOTAL (ft²)													0.0				
S SUM	IMPACT	ALLOWABLE	ZONE 2 (ff²)													0.0				
<b>APACT</b>		A	ZONE 1 (ff²)													0.0				
UFFER IMPACTS SUMMARY		Щ	PARALLEL IMPACT																	
BU		TYPE	ROAD CROSSING	×	×	×	×	×	×											
			STATION (FROM/TO)	56+75 to 57+80	154+80 to 156+00	161+80 to 162+90	184+00 to 186+30	223+50 to 225+20	241+10 to 241+65											
			STRUCTURE SIZE / TYPE	66" RCP	30" RCP	24" RCP	24"RCP	2@8ftx7ft	36" RCP											
			SITE NO.	1	2	3	4	5	9							TOTAL:				

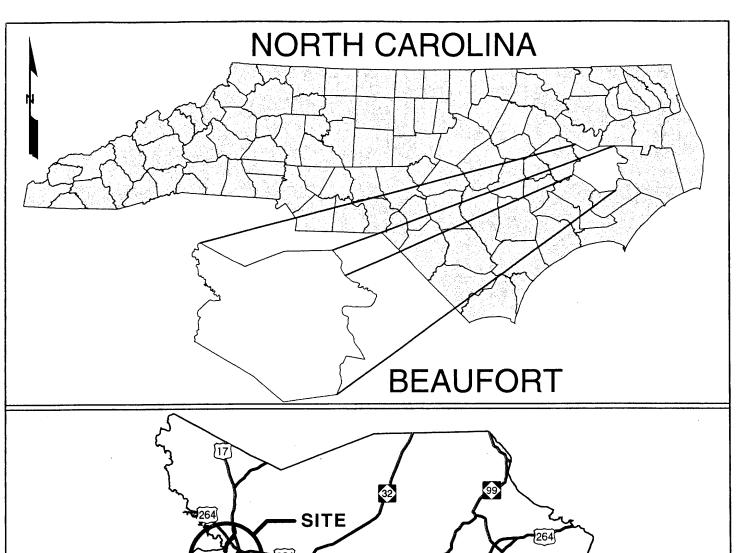
B	BUFFER IMPACTS SUMMARY	ACTS SUM	MARY		
		WETLANDS IN BUFFER	IN BUFFER		1
Site	Station	ZONE 1 (ft²)	ZONE 2 (ff <sup>2</sup> )		
_	56+75 to 57+80	1034.9	0.0		
2	154+80 to 156+00	886.4	0.0		
5	223+50 to 225+20	4051.0	2737.4		
9	241+10 to 241+65	853.0	0.0		
		6825.3	2737.4		
				N.C. DEPT. OF TRANSPORTATION	
				DIVISION OF HIGHWAYS	
				BEAUFORT COUNTY	
				PROJECT: 34440.1.1 (R-2510A)	
				4/8/2005	
				SHEET OF	

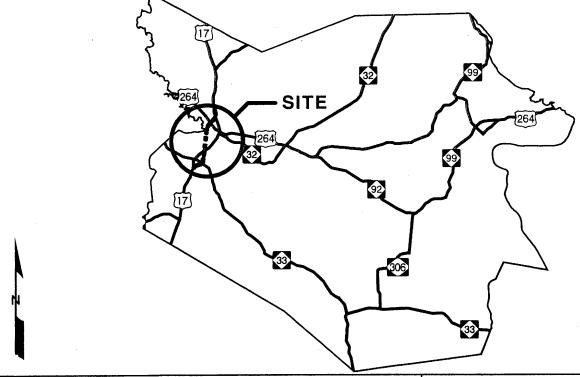










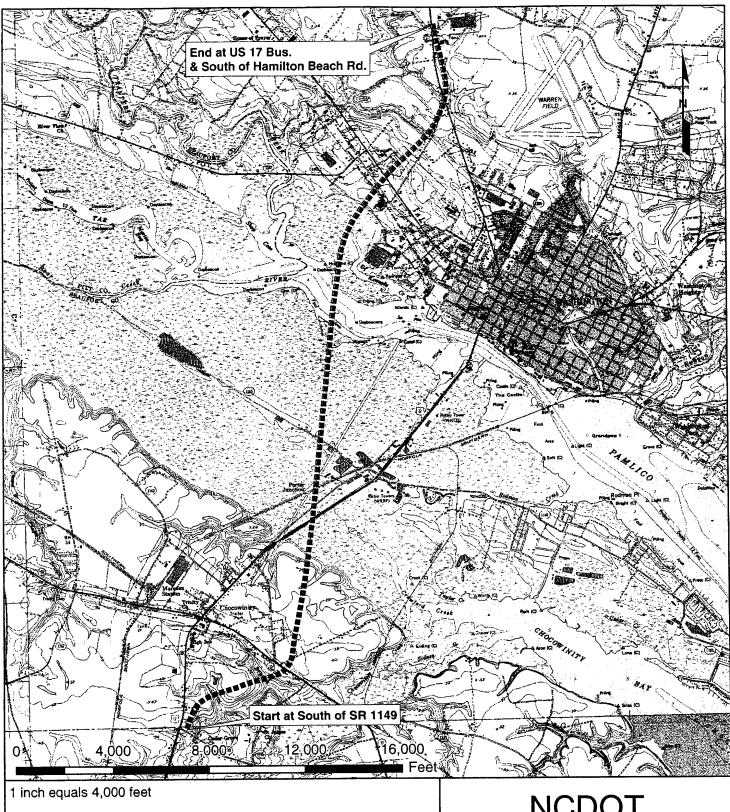


VICINITY MAPS

### **NCDOT**

DIVISION OF HIGHWAYS
BEAUFORT COUNTY
PROJECT: 34440.1.1 (R-2510B)
US 17 BYPASS

3/11/05



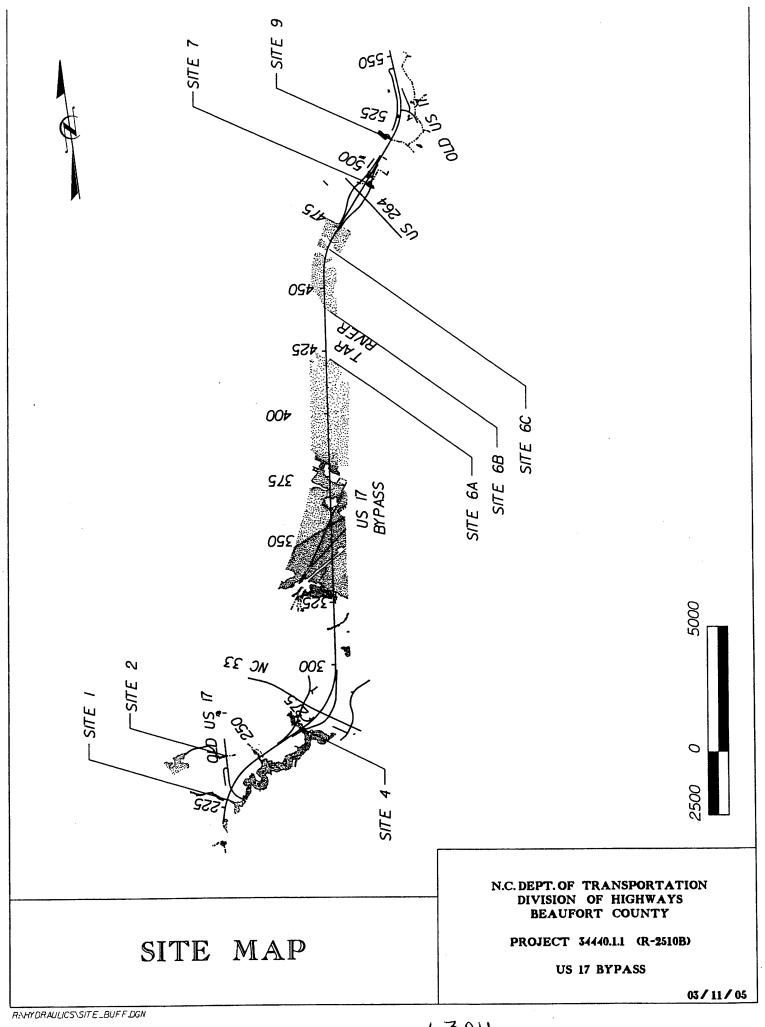
## LOCATION

### **NCDOT**

**DIVISION OF HIGHWAYS BEAUFORT COUNTY** PROJECT: 34440.1.1 (R-2510B) **US 17 BYPASS** 

3/11/05

Source: USGS 7.5 Minute Quadrangle, Washington and Hackney, NC



1/7/2005

	BUFFER	REPLACEMENT	ZONE 1 ZONE 2 (ft²) (ft²)																	N.C. DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS	SEMINOS ES	BEAUFORT COUNTY PROJECT: 34440.1.1 (R-2510B)	3/11/2005	
		111	TOTAL (ft²)			82096.4					48823.7	98882.6	27891.7						257694.4	C. DEPT. OF DIVISION		BEAUPO PROJECT: 34	8	
		MITIGABLE	ZONE 2 (ft²)			32361.0					19778.2	38160.8	11154.9						101454.9	z				
\ \ -			ZONE 1 (ft²)			49735.4					29045.5	60721.8	16736.8					- 1	7 156239.5					
MAR	Ļ	Ē	TOTAL (ff²)	11126.6	4834.8		6614.0	9025.9	6413.2	4148.6 10403.3									48417.7					
SUM	IMPACT	ALLOWABLE	ZONE 2 (ft²)	4450.0	1992.6		2628.2	3587.0	2479.5										14835.8					
ACTS		AL	ZONE 1 (ff <sup>2</sup> )	6676.6	2842.1		3985.8	5438.9	3933.7	6254.7									22455.2					
BUFFER IMPACTS SUMMARY		ЭE	PARALLEL IMPACT																					
BUFF		TYPE	ROAD	×	×	×	×	×	×	×	X	×	×											
			STATION (FROM/TO)	-L- 228+25	-BY9- 30+40	-L- 269+90	-L- 422+00	-L- 422+00	-L- 441+00	-L- 441+00	-L- 459+00-469+00	-L- 495+50	-L- 515+55											
			STRUCTURE SIZE / TYPE	Roadway	Roadway	Roadway	Perm. Bridge	Temp. Bridge	Perm. Bridge	Temp. Bridge	Bridge	Roadway	Roadway											
			SITE NO.	1	2	4	ба	6a	q9	qg	ည္မ	7	6						TOTAL:					

R:Z-MISC\HYDRO\BUFPERM\_SUMMARY\_ENGLISH.XLS

				WETLAND IMPACTS	WETLAND IMPACTS			SURFA	SURFACE WATER IMPACTS	PACTS	
Site	Station	Structure	E :	Temp. Fill		Mechanized Clearing	Fill In SW	Fill In SW	Temp. Fill	Existing Channel	Natural Stream
O	(From/10)	Size / Type	(ac)	In Wetlands (ac)	in Wetands (ac)	(Method III)	(Natural) (ac)	(Pond) (ac)	In SW (ac)	Impacted (ft)	Design (ft)
-	-L-228+25	Roadway Fill	0.092			0.007	0.011			121.6	
2	-BY9-30+40	Roadway Fill			0.017	0.013	0.003			72.7	
3	-L-250+50	Roadway Fill	0.431			0.040	0.114	0.645			
4	-L-270+00	Roadway Fill	3.032			0.149				826.1	
ა	-L-315+25	Roadway Fill	0.122			0.011					
9	-L- 324+50-476+60	Bridge Fill	0.216	0:020			0.069		0.033		
7	-L- 495+00-499+50	Roadway Fill	1.554				0.128			1118.0	
8	-L-508+00	Roadway Fill	0.042					0.074			
6	-L-515+50	Roadway Fill	0.126			0.017	0.051			278.9	
10	-L-525+50	Roadway Fill	0.223								
TOTALS:	S:		5.839	0.050	0.017	0.237	0.376	0.719	0.033	2417.3	0

NC DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

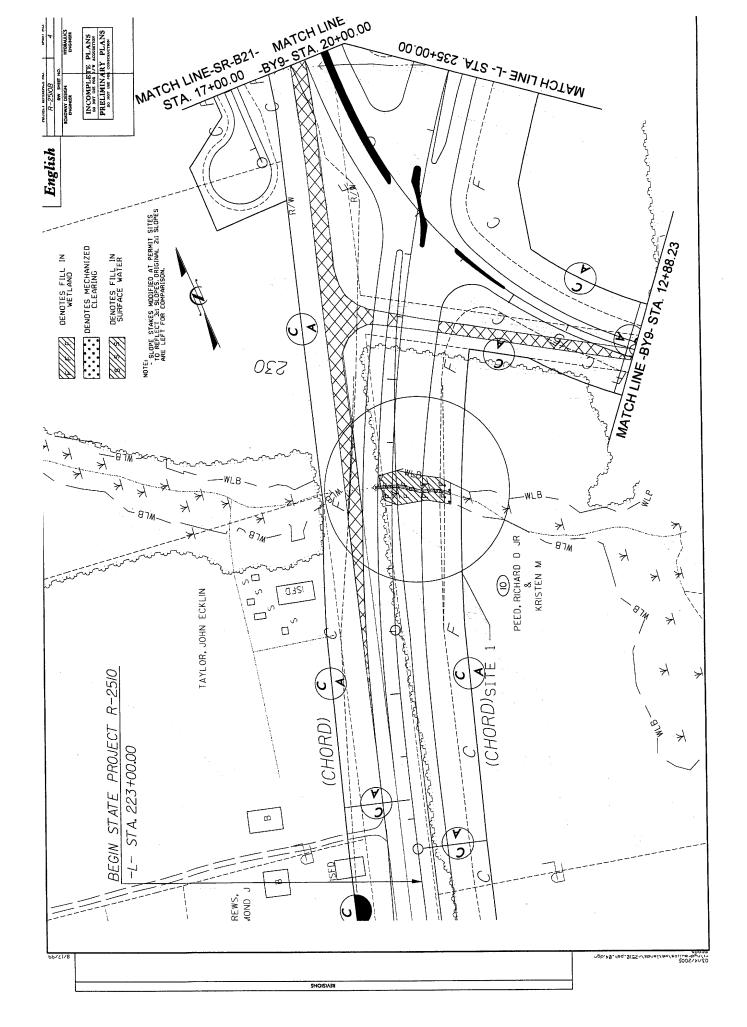
BEAUFORT COUNTY PROJECT 3.4440.1.1 (R-2510B)

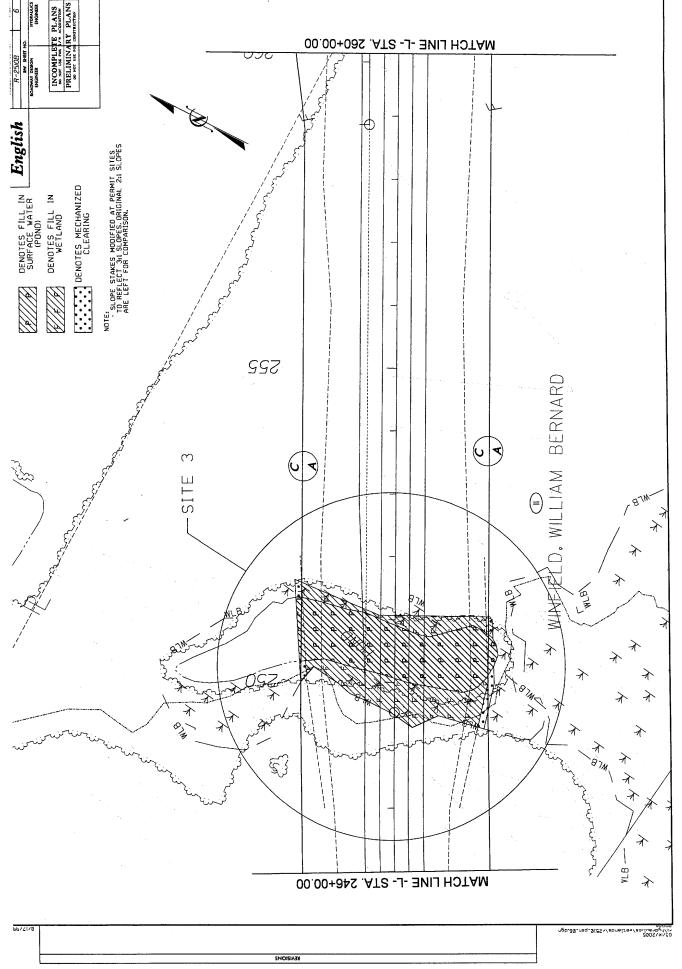
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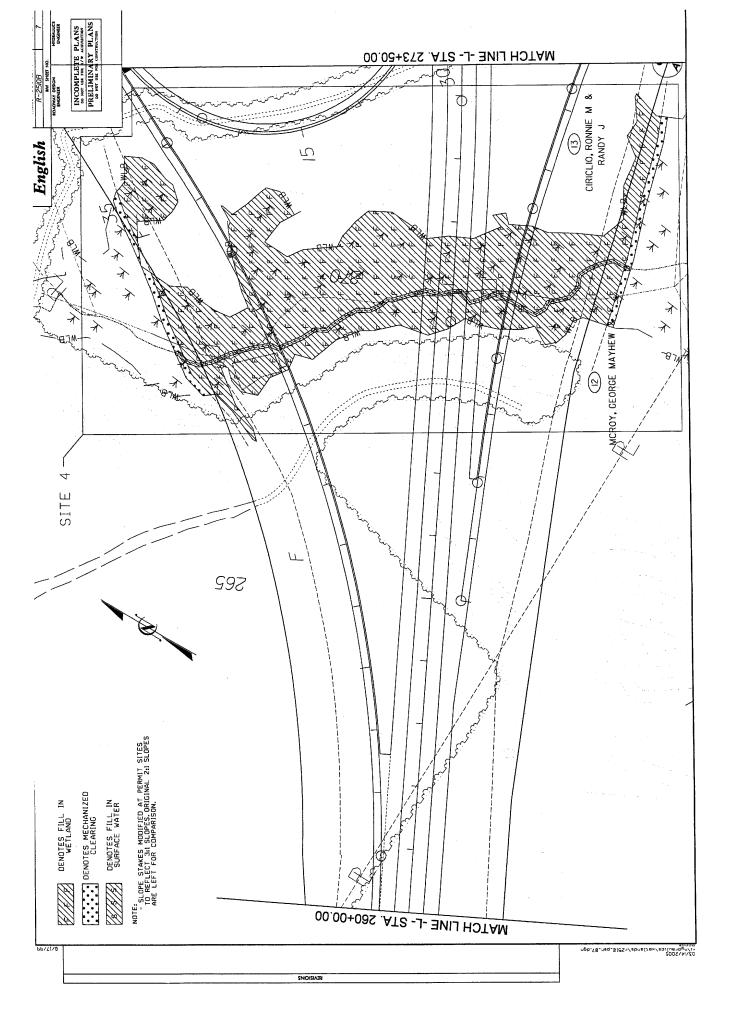
Form Revised 3/22/01

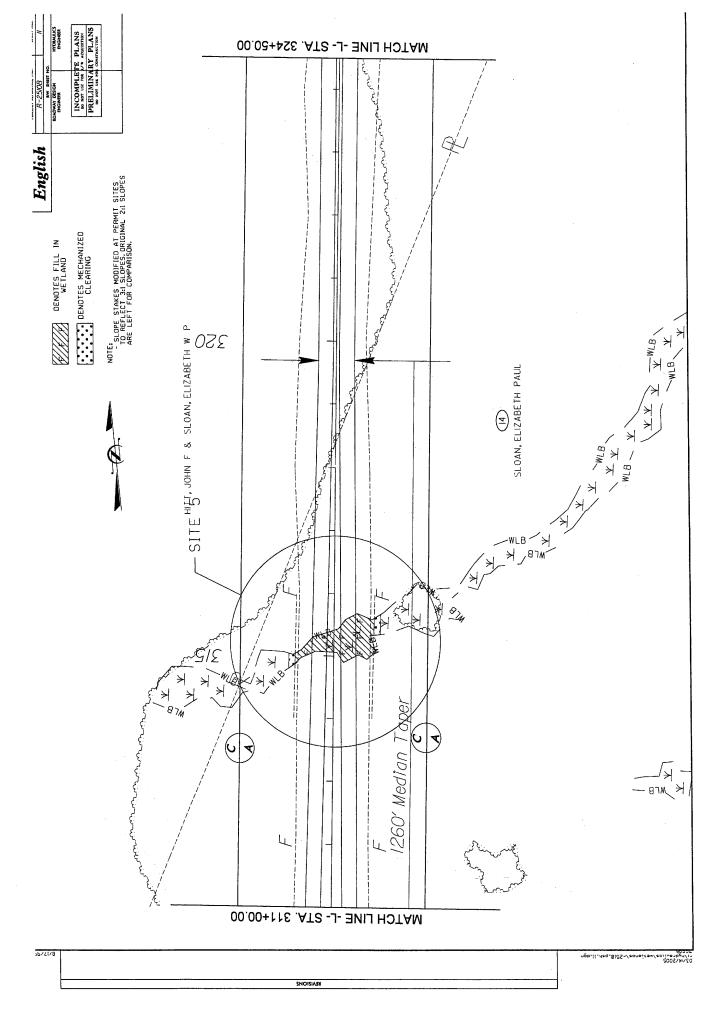
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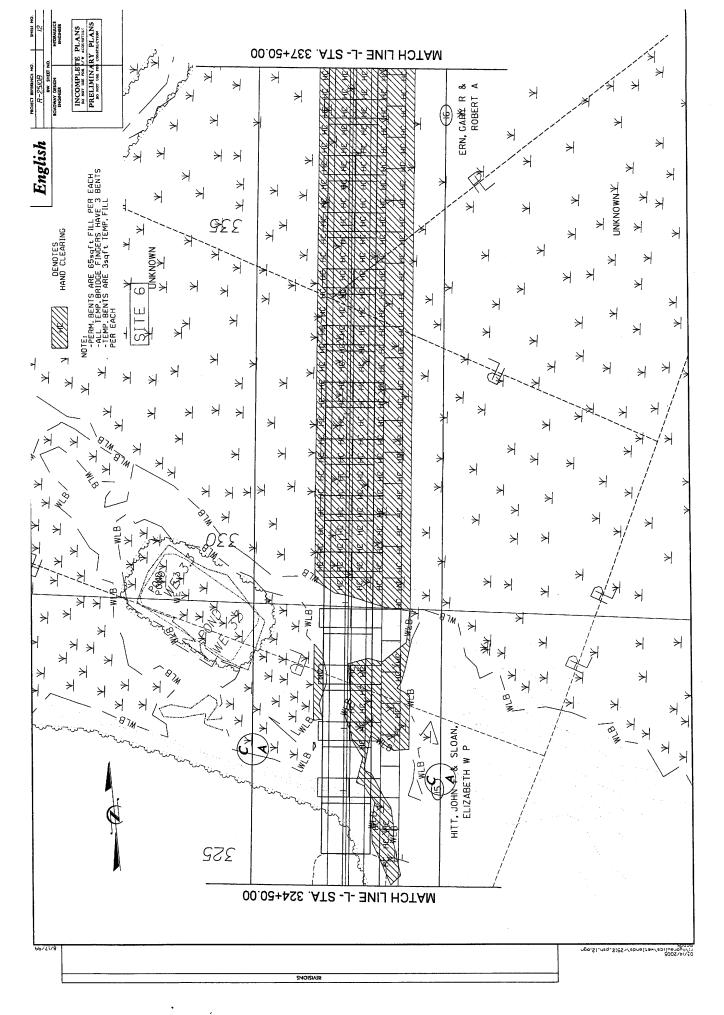
BRIDGE SHADING: 24.9 &C (DOES NOT INCUDE TAR RIVER OR KENNEDY'S CREEK) AVERAGE BRIDGE HEIGHT OVER TAR RIVER: APPR. 39 ft

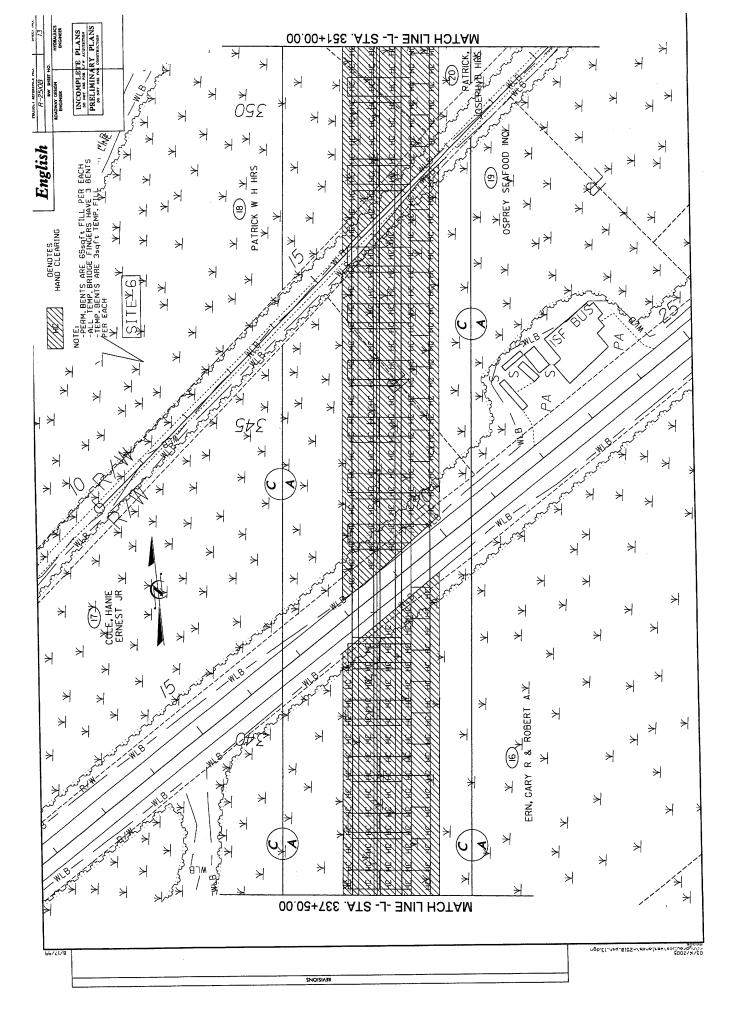


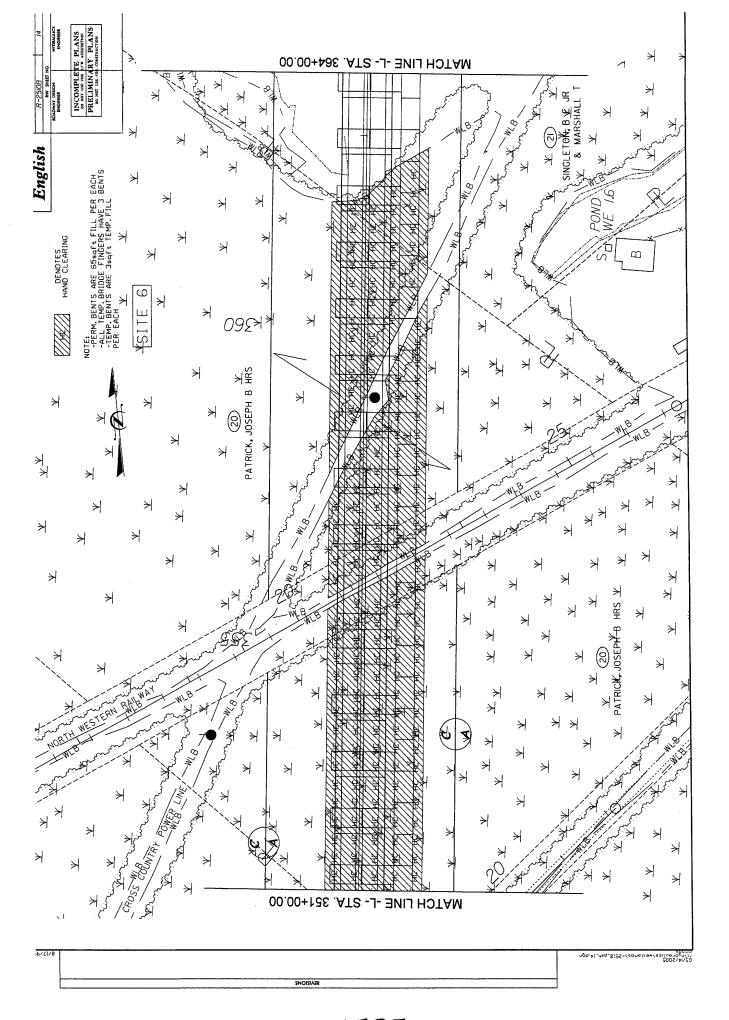


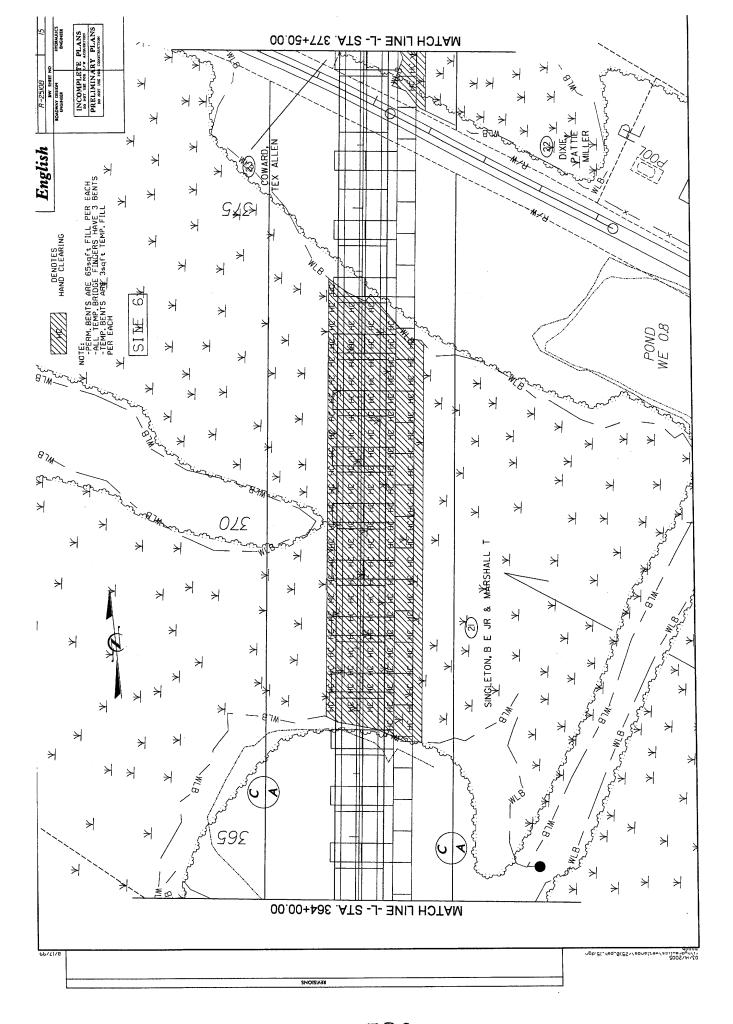


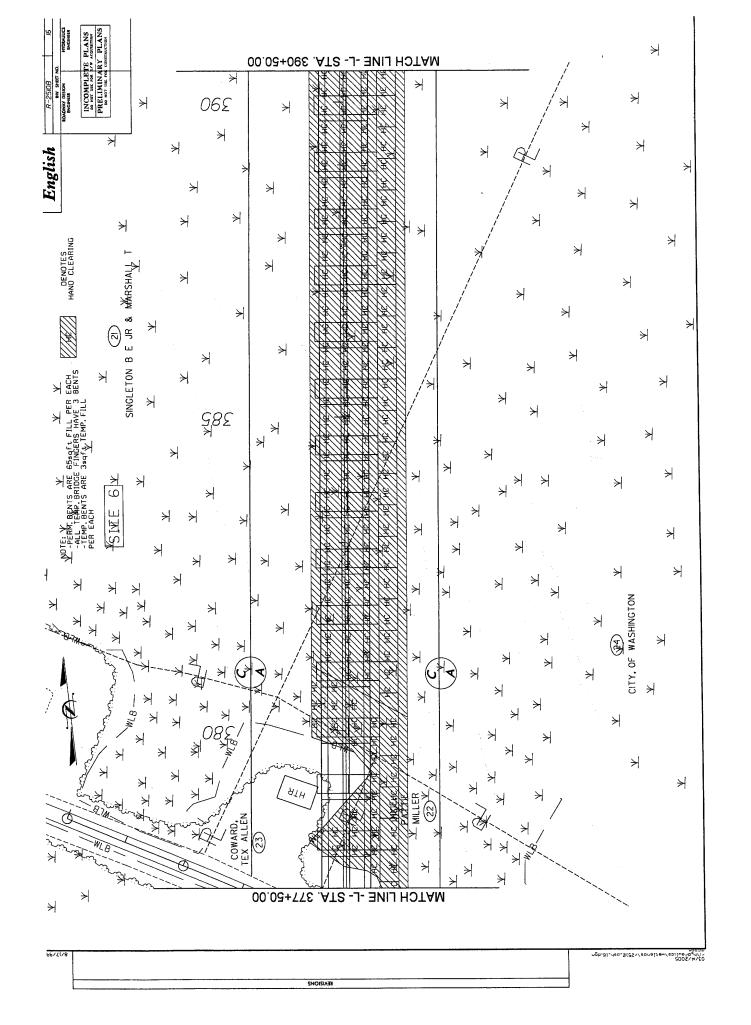


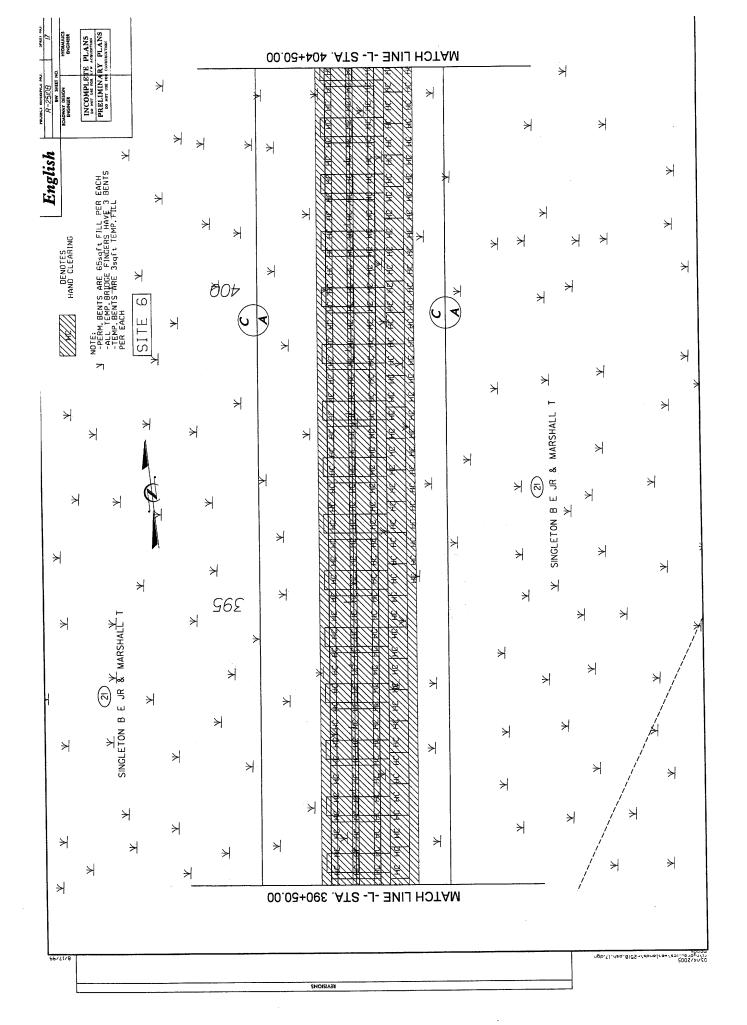


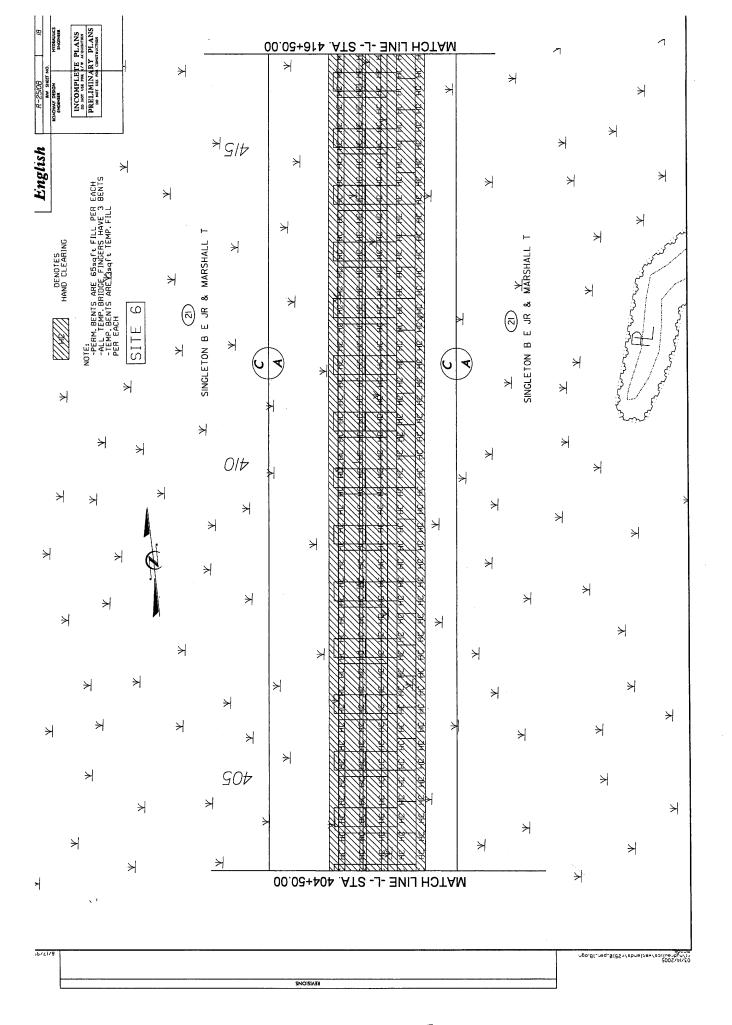


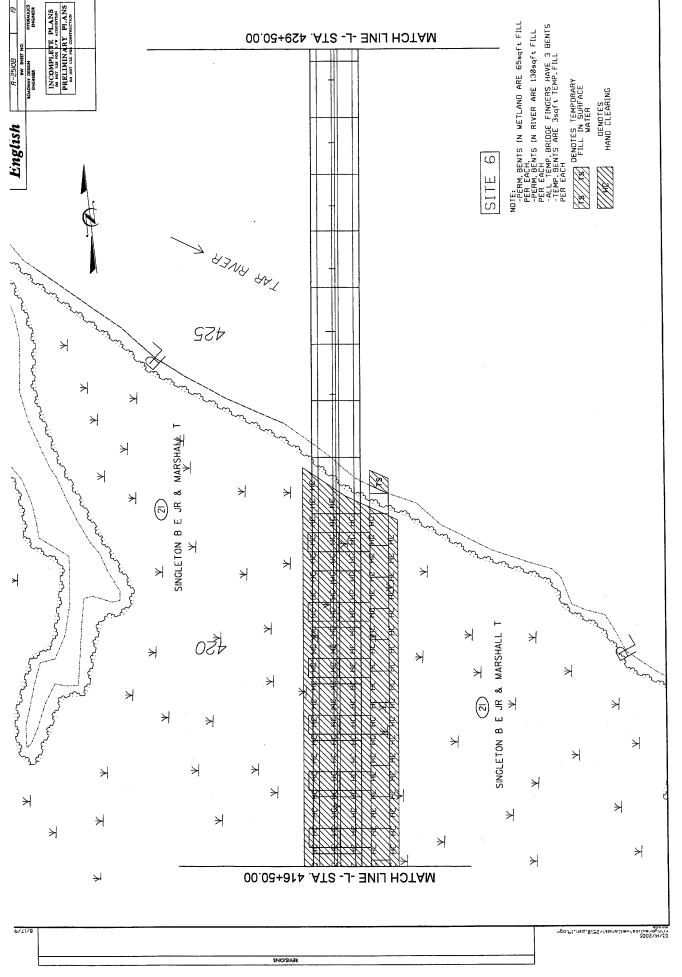


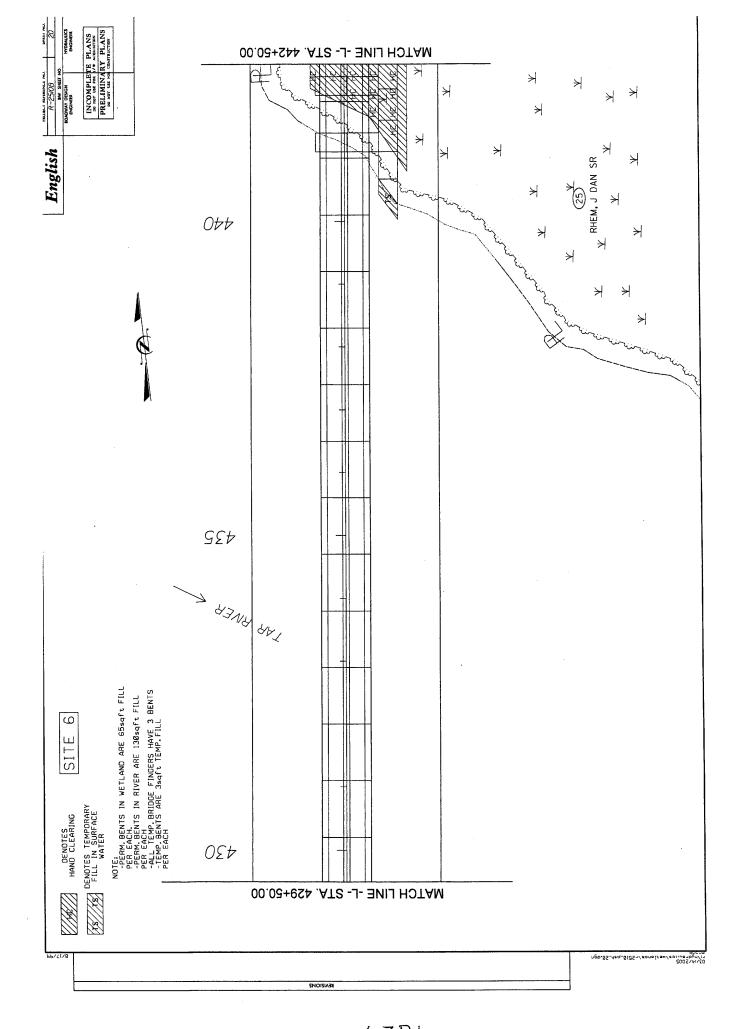


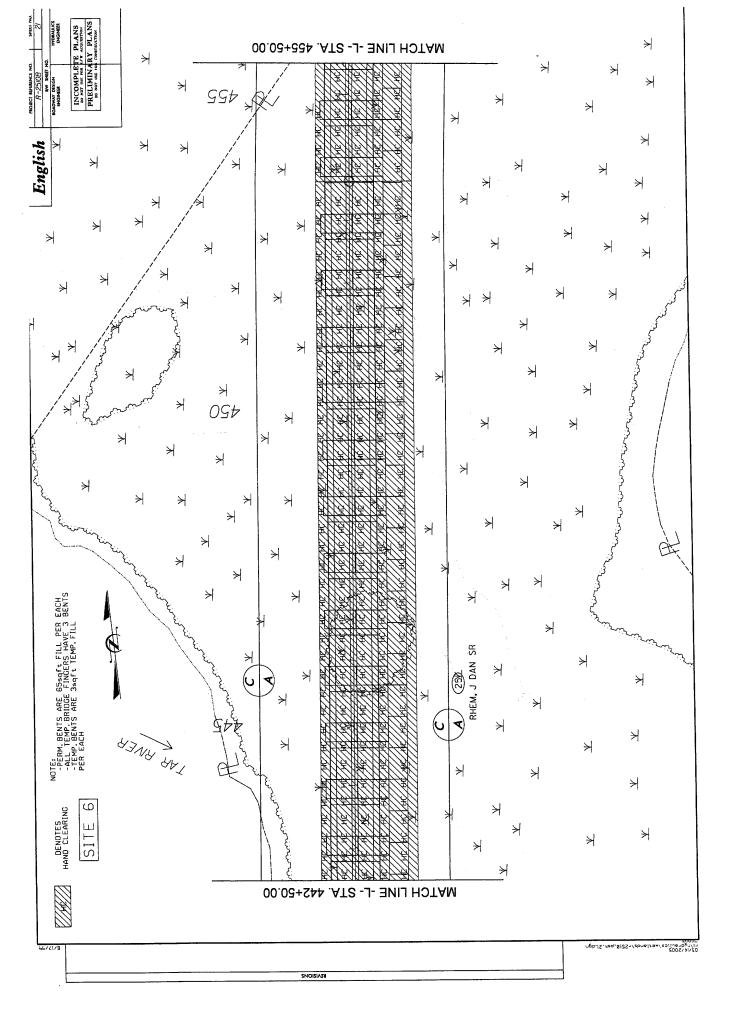


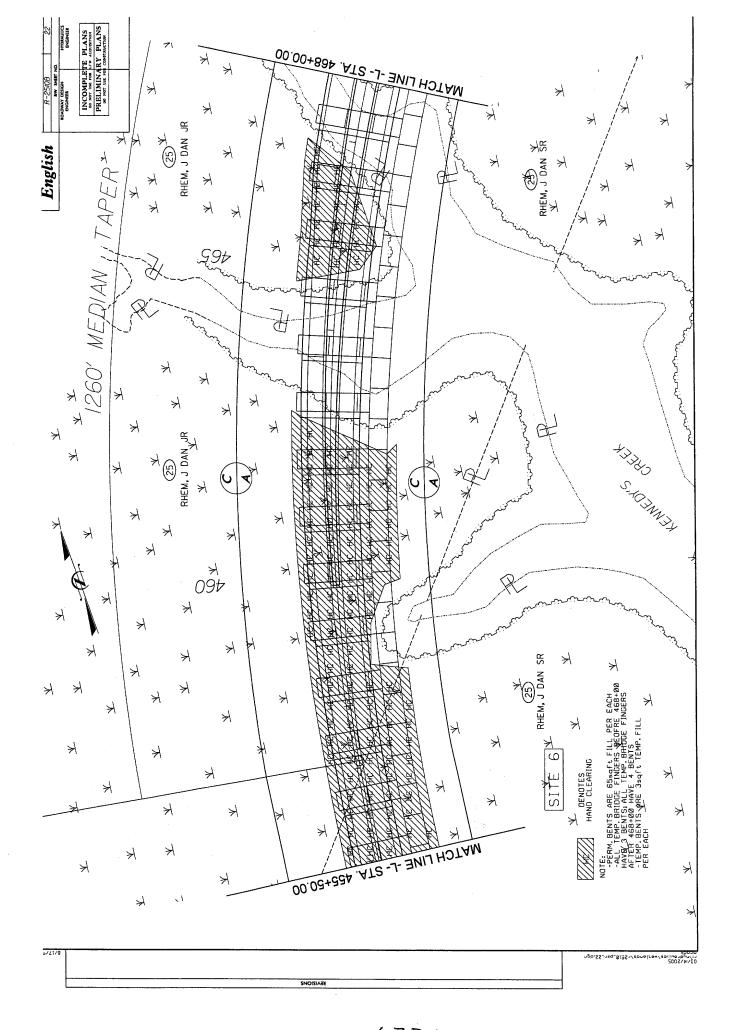


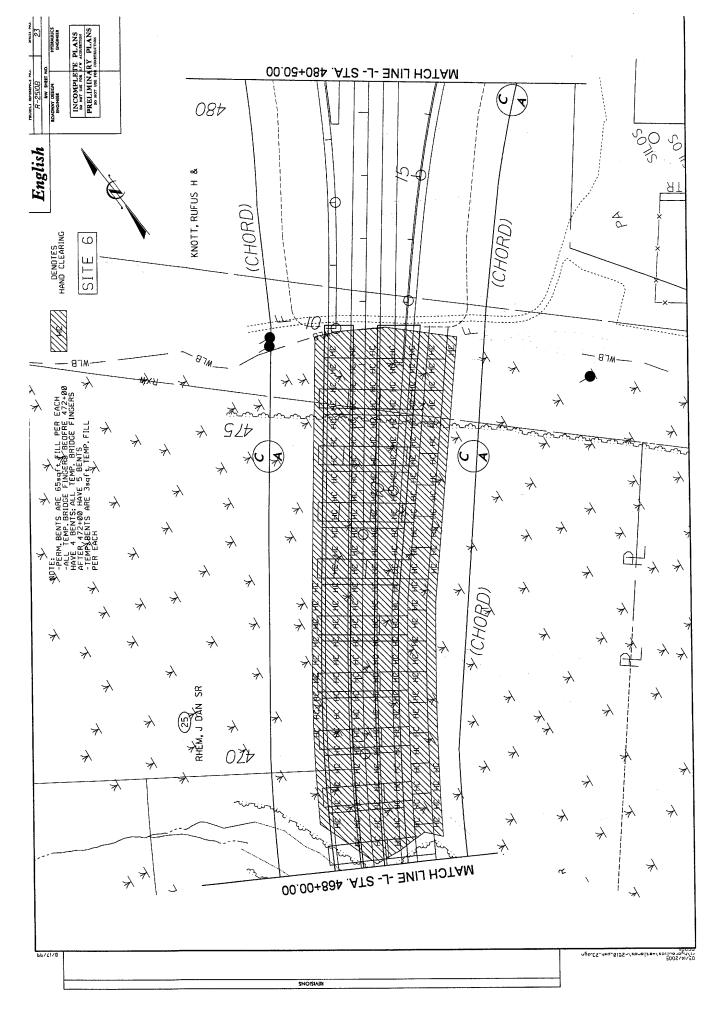


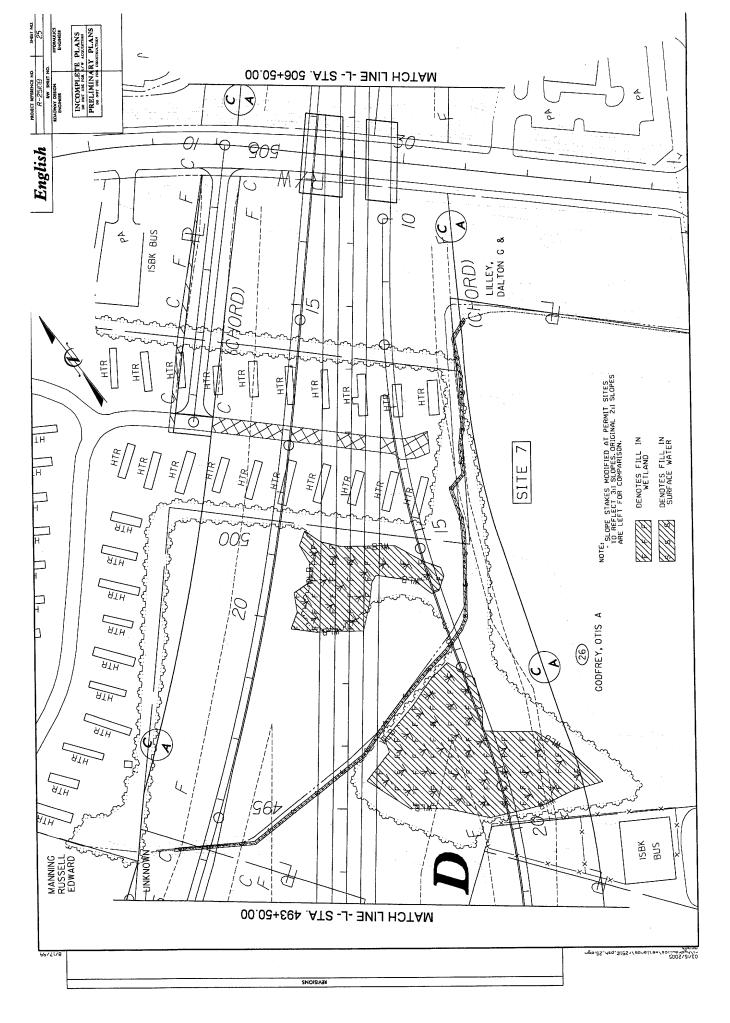


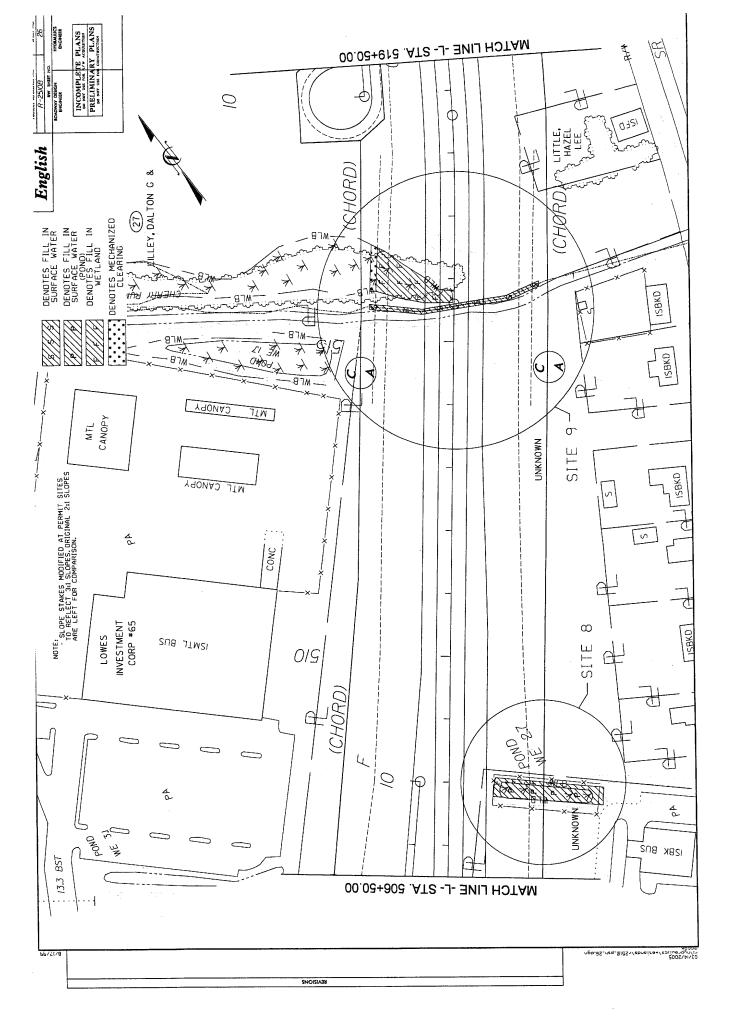


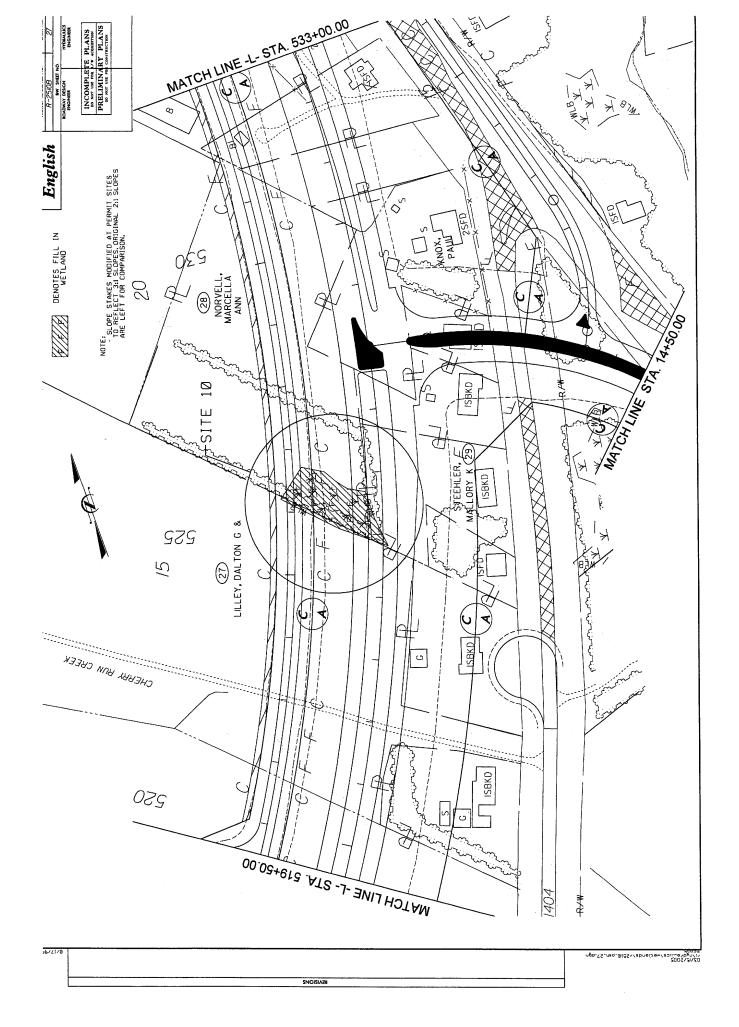


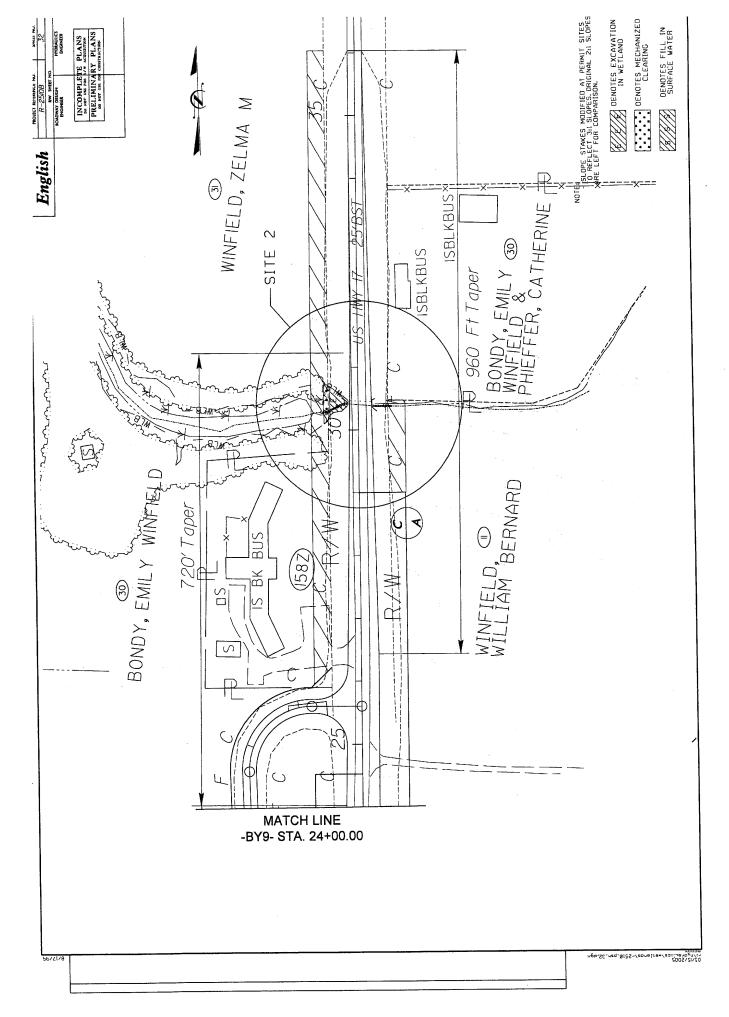


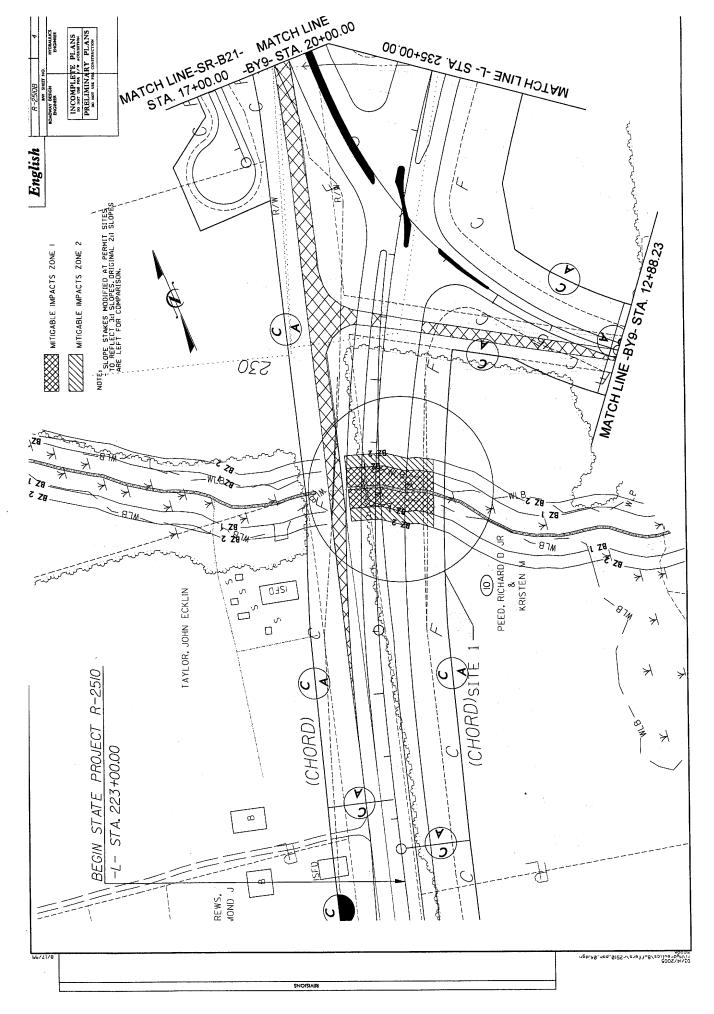




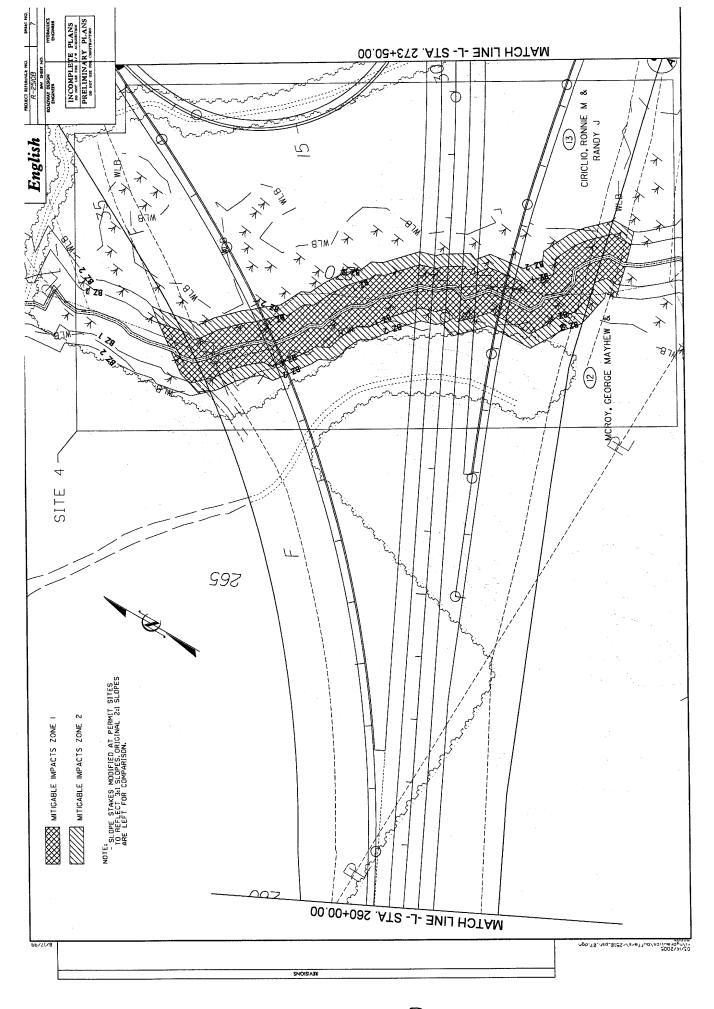


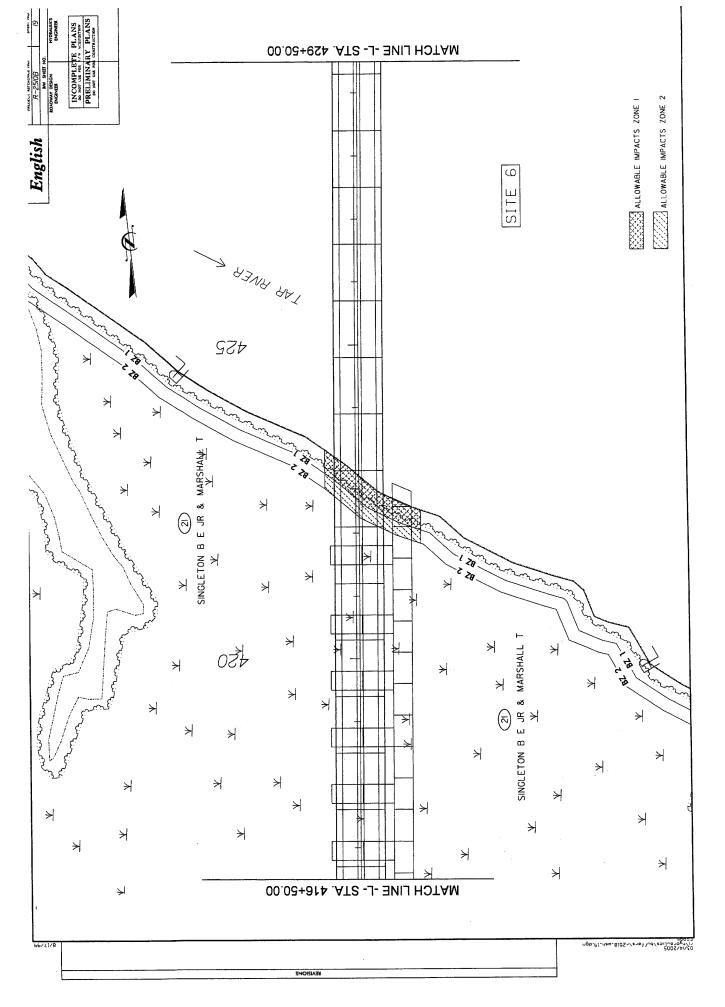


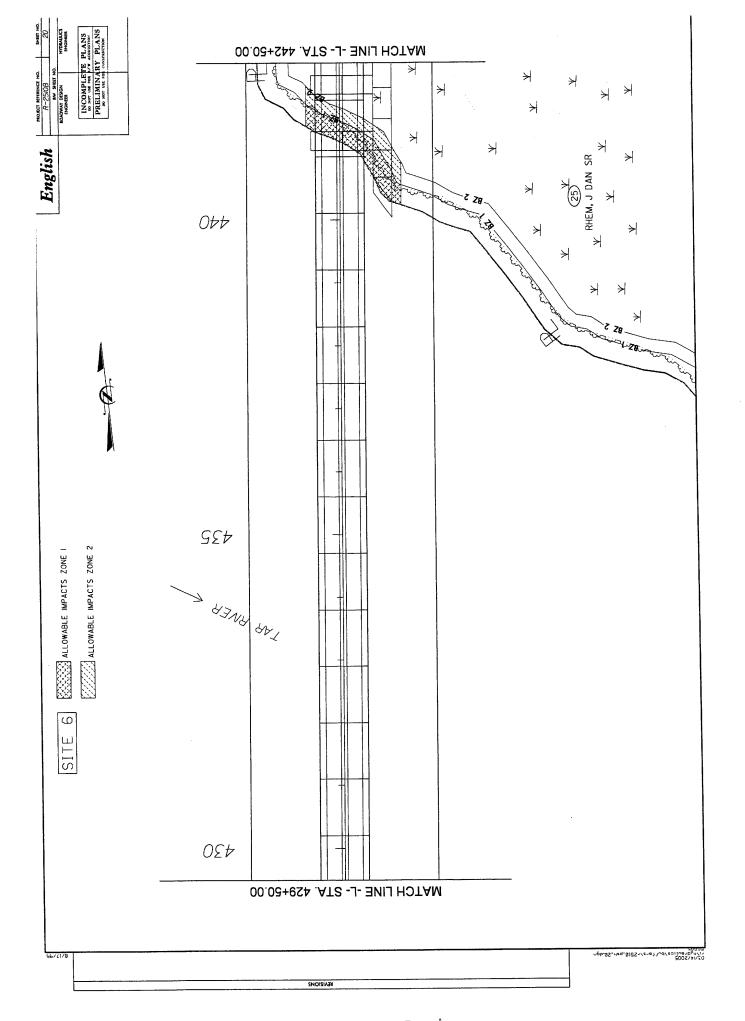


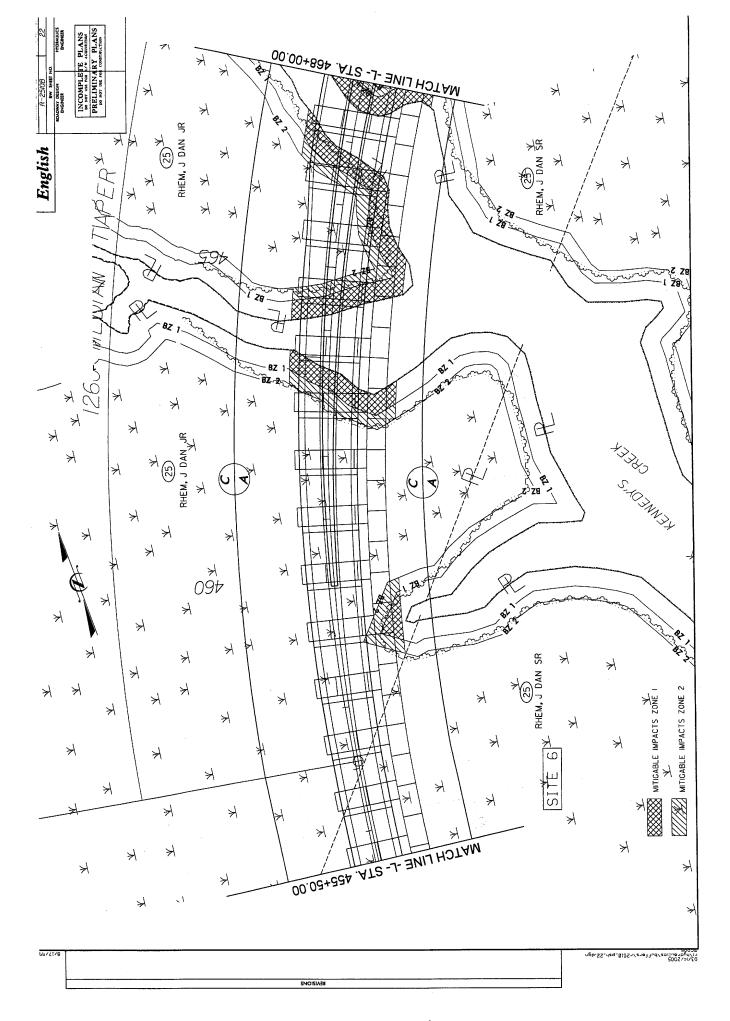


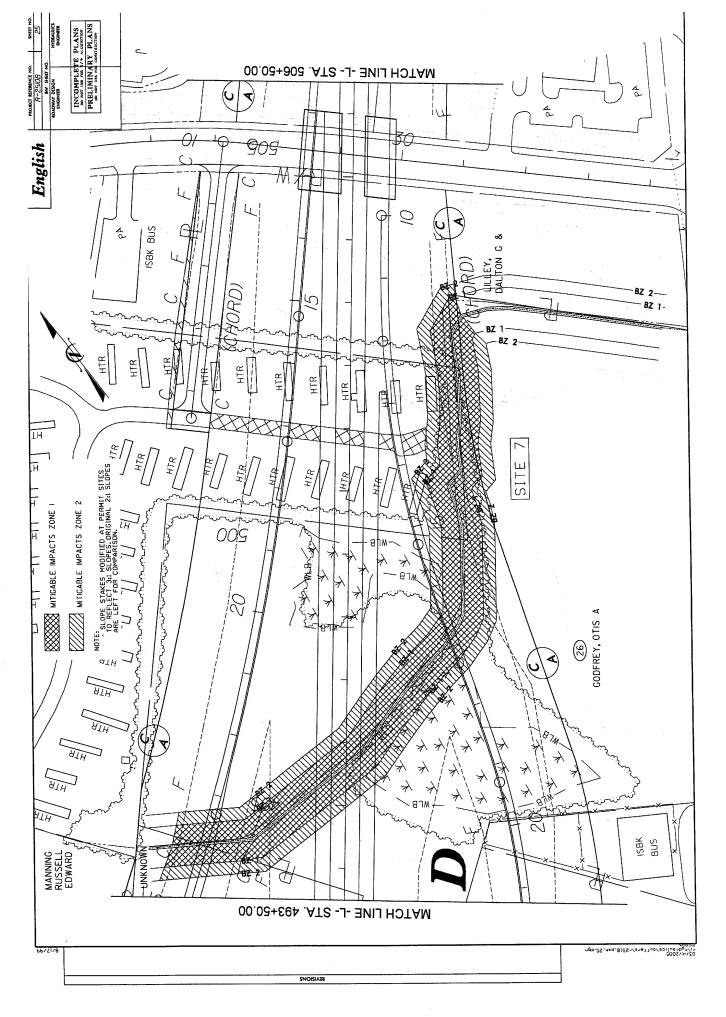
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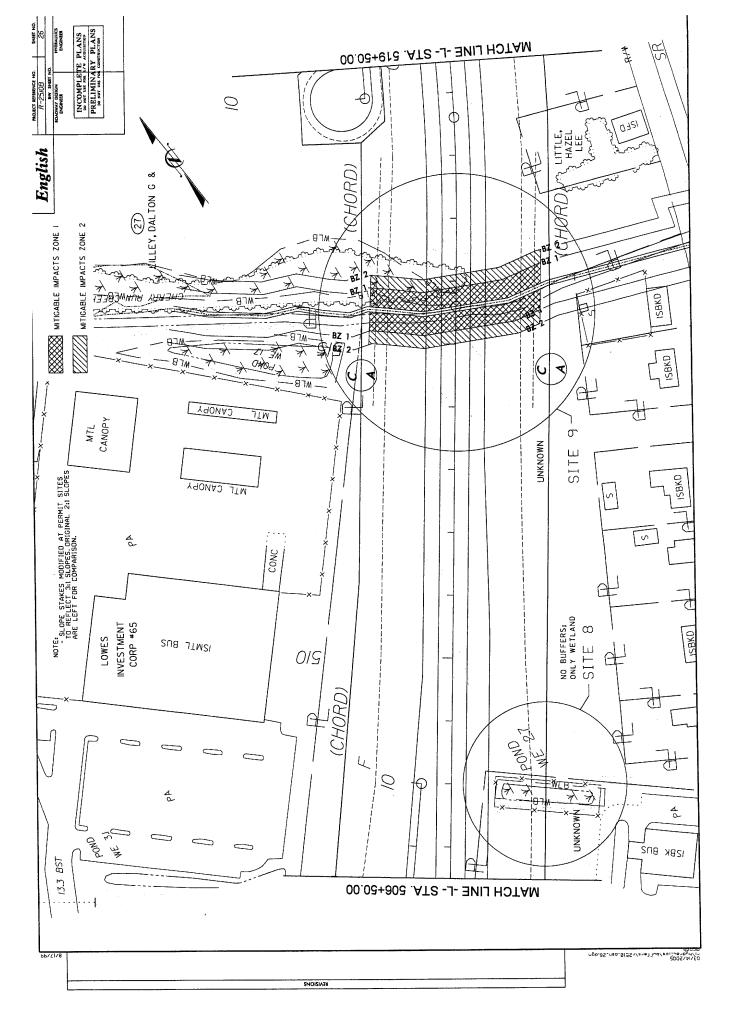


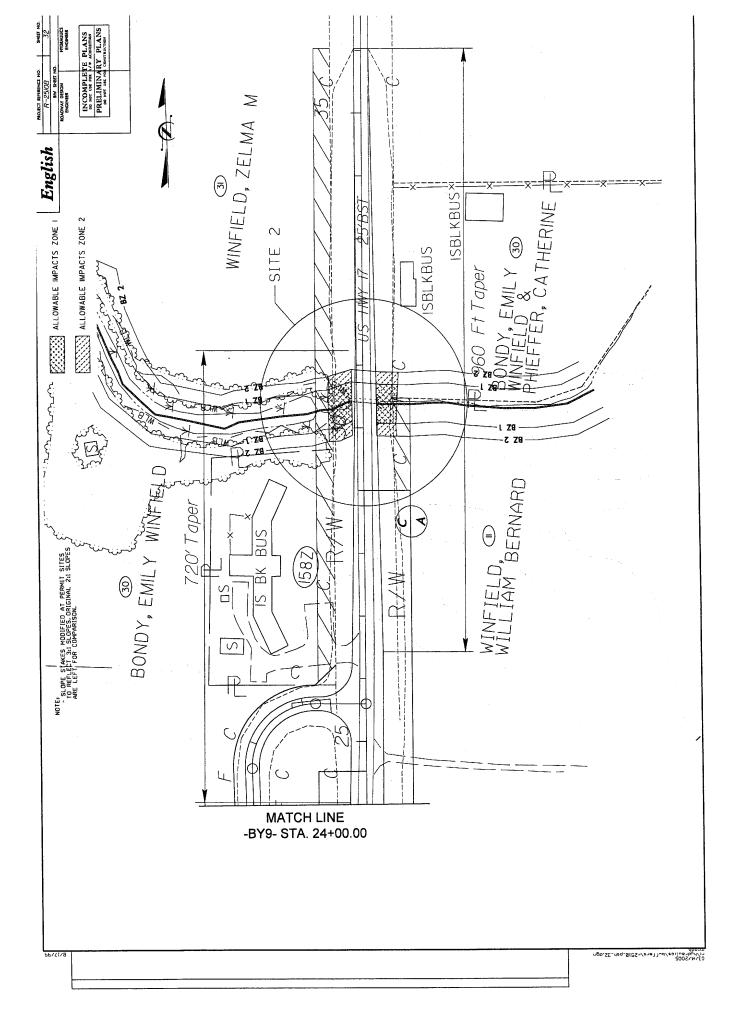


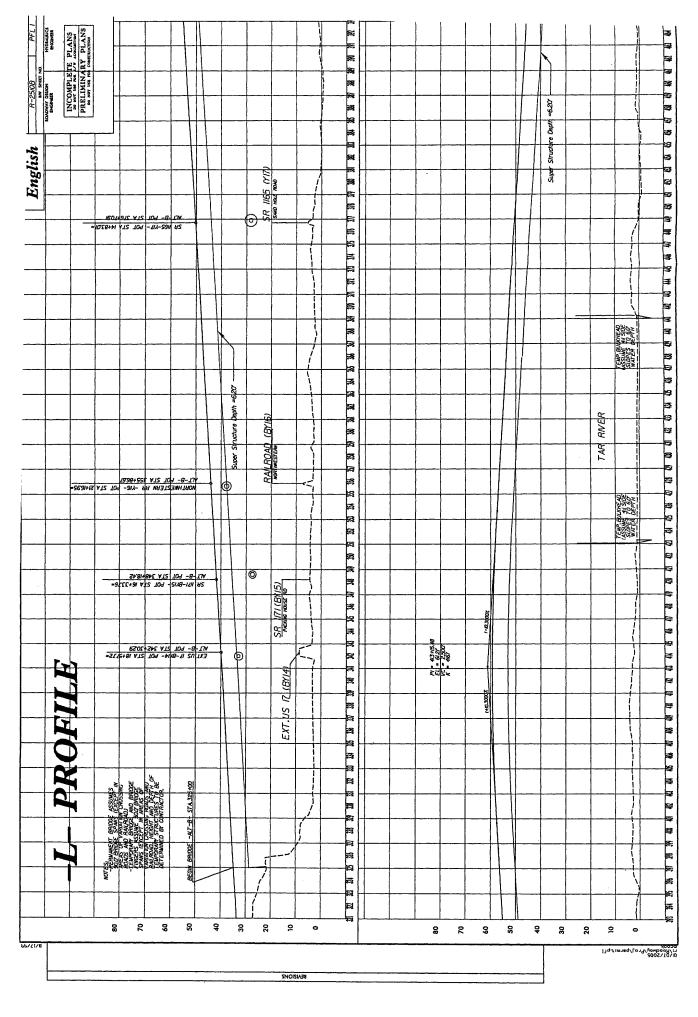






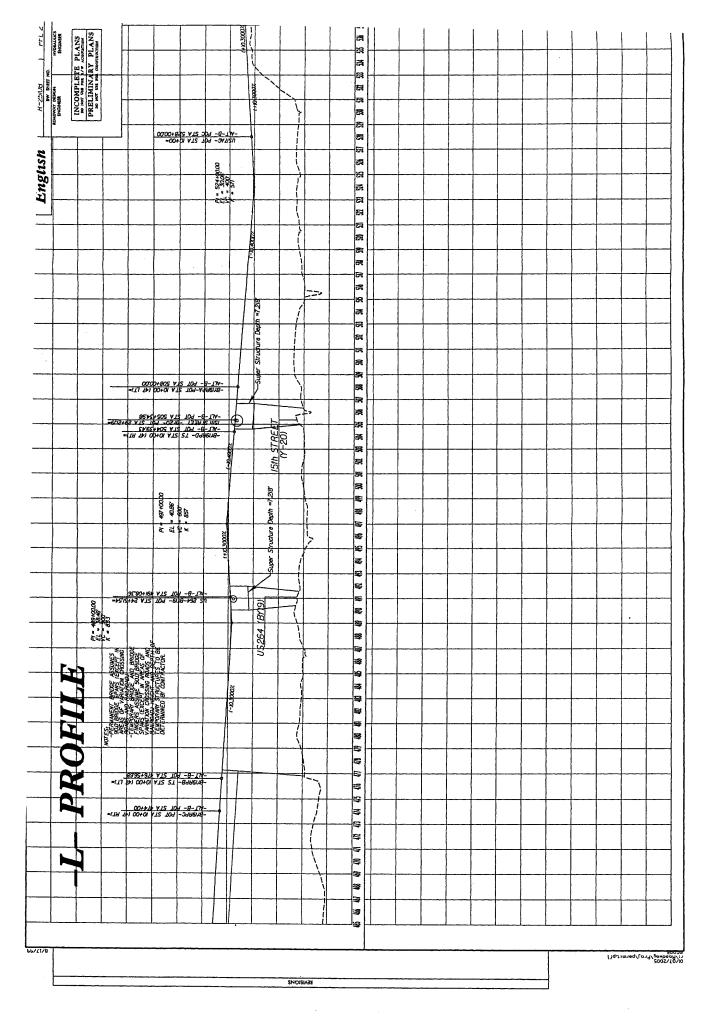


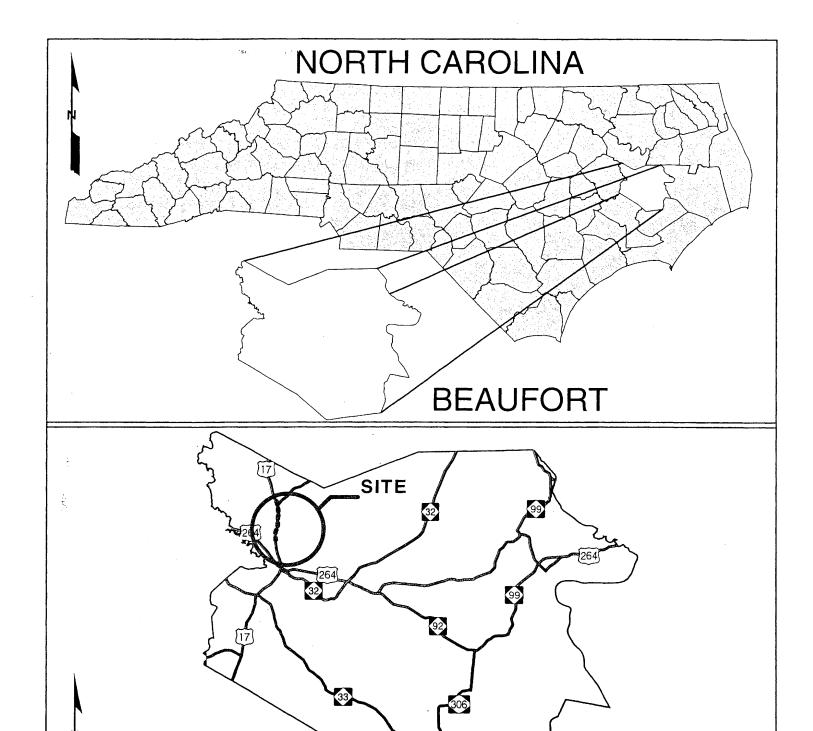




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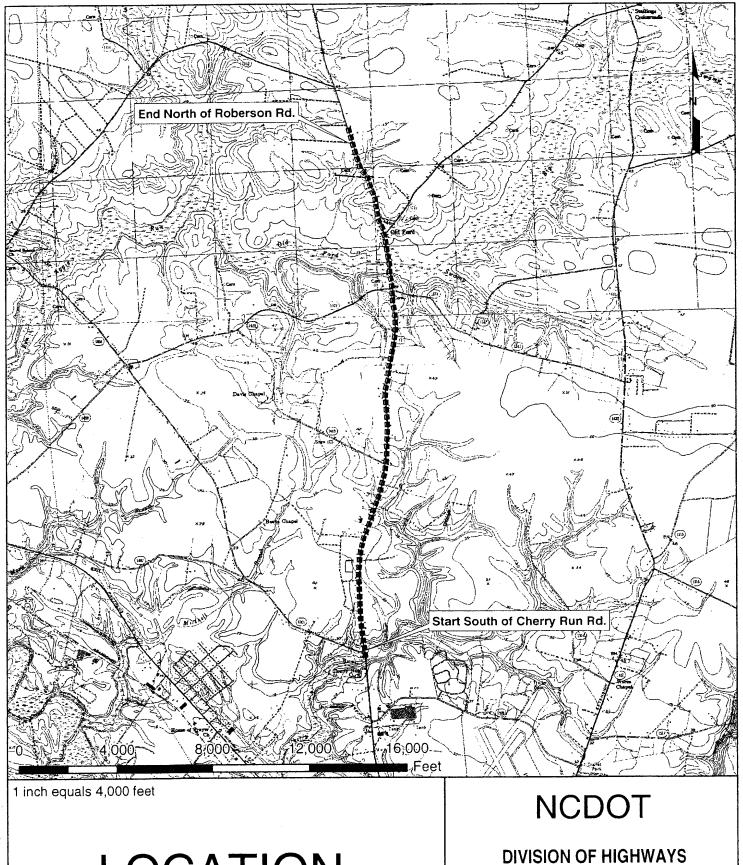


# VICINITY MAPS

# **NCDOT**

DIVISION OF HIGHWAYS
BEAUFORT COUNTY
PROJECT: 34440.1.1 (R-2510C)
US 17 BYPASS

3/11/05

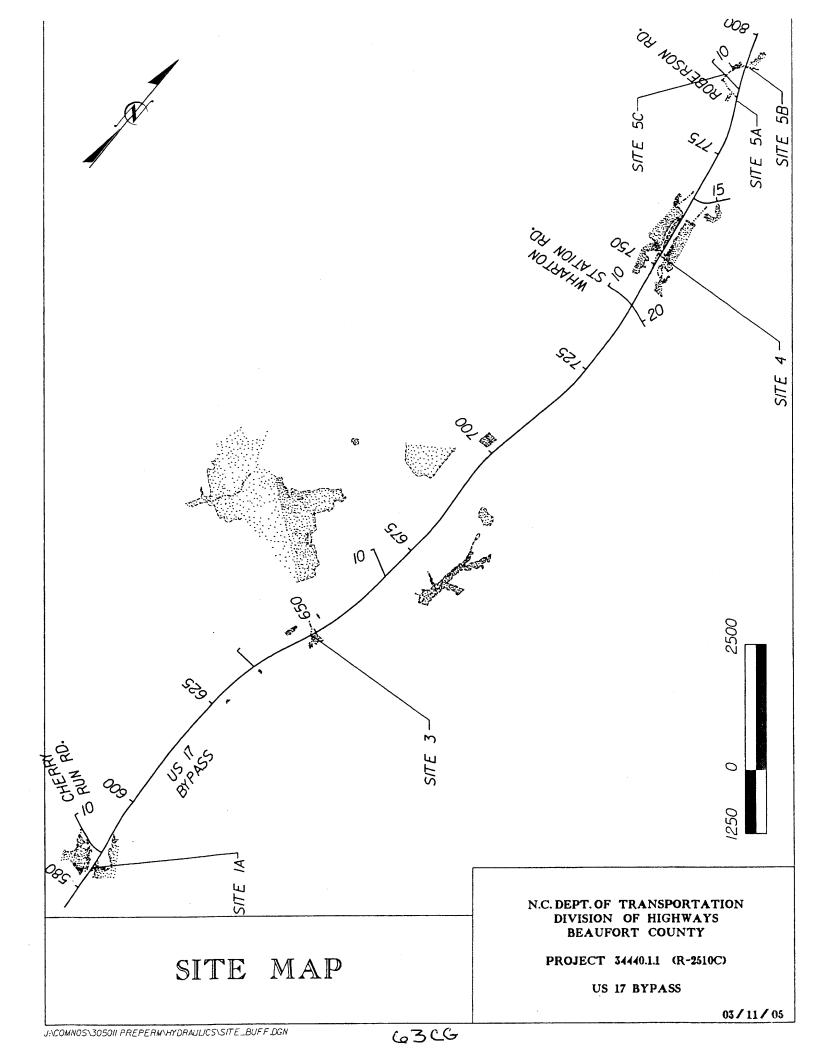


LOCATION

DIVISION OF HIGHWAYS
BEAUFORT COUNTY
PROJECT: 34440.1.1 (R-2510C)
US 17 BYPASS

3/11/05

Source: USGS 7.5 Minute Quadrangle, Washington and Old Ford, NC



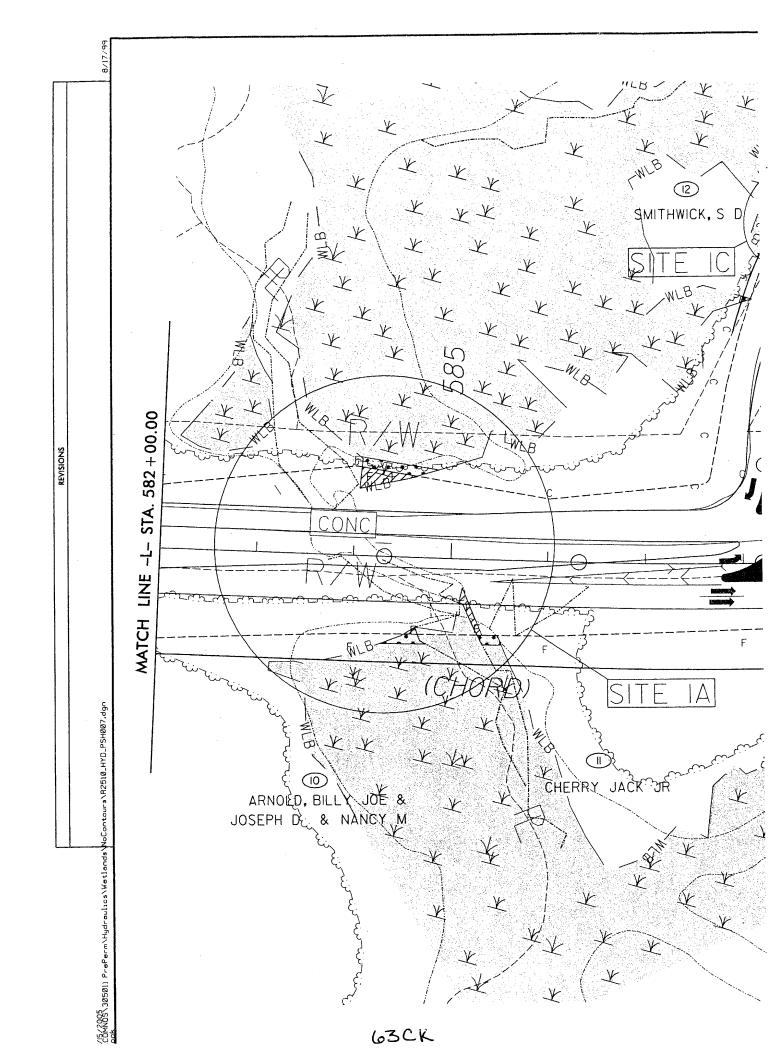
PROP. NO.	PROPERTY OWNER NAME	PROP. OWNER MAILING ADDRESS
0 T E T T E D	ARNOLD, BILLY JOE & JOSEPH D. A& NANCY M. CHERRY, JACK JR HOPKINS, MARY BROWN BRANTLEY, MINNIE LEE BAKER, MELBER PRYOR PARISH, PEGGY M & H JOHN HODGES, MILTON EUGENE & JOANNE CARRAWAY, ARAH BELL	2125 US 17 HWY N, WASHINGTON, NC 27889 707 OAKWOOD AVE SOUTH, BRANDON, FL 33511 952 WHARTON STATION RD, WASHINGTON, NC 27889 5595 HWY 17 N, WASHINGTON, NC 27817-9790 5666 US HWY 17 N, WASHINGTON, NC 27889 5548 US HWY 17 N, WASHINGTON, NC 27889 6361 US HWY 17 N, WASHINGTON, NC 27889
		N C DEBT OF TBANCBOBTATION
		DIVISION OF HIGHWAYS
		BEAUFORT COUNTY PROJECT: 34440.1.1 (R-2510C)
		3/8/2005

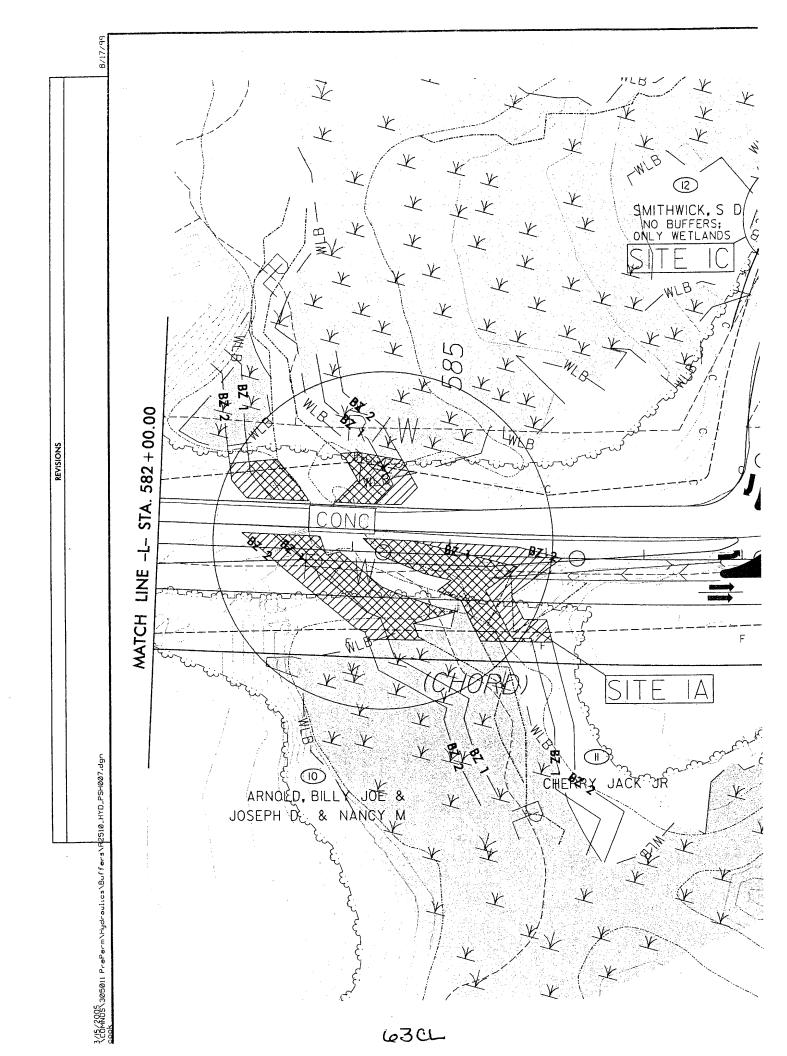
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BUFFER IMPACTS SUMMARY	WETLANDS IN BUFFER	ZONE 1 ZONE 2 (fr²2) (fr²2)												2433.9 1390.3	N.C. DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS	STANDILL D. NOISIAID	BEAUFORT COUNTY PROJECT: 344401.1 (R-2510C)	3/22/2005
BUFF		Site Station	1A -L- 582+75-585+75	3 -L-648+50-650+15	4 -L- 743+50-761+90													

	BUFFER	REPLACEMENT	ZONE 1 ZONE 2 (ft²) (ft²)																N.C. DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS	BEAUFORT COUNTY PROJECT: 3440.1.1 (R-2510C)	3/15/2005	
		LE	TOTAL (ft²)	2444.5			16830.5	89379.4										130654.3	C. DEP1. C	BEAU PROJECT:		
		MITIGABLE	ZONE 2 (ft²)	9684.9			6621.8	33873.3										50179.9	z		-	
		V	ZONE 1 (ft <sup>2</sup> )	14759.6			10208.7	55506.1										80474.4				
MARY	CT	LE	TOTAL (ft²)						13408.5	11067.2	6604.7							31080.4				
SUMI	IMPACT	ALLOWABLE	ZONE 2 (ft²)						5294.4	4080.4	2628.6							12003.3				
ACTS		AL	ZONE 1 (ft²)						8114.1	6986.8	3976.1							19077.1				
R IMP		Ę	PARALLEL IMPACT					×														
BUFFER IMPACTS SUMMARY		TYPE	ROAD CROSSING	×			×	×	×	×	×											
			STATION (FROM/TO)	-L- 582+75-585+75 LT/RT	-L- 590+70-592+70 RT	-Y26- 15+30-16+75 RT	-L- 648+50-650+15 LT/RT	-L- 743+50-761+90 LT/RT	-L- 786+20-788+05 LT/RT	-L- 792+40-794+15 LT/RT	ROADWAY FILE -Y31- 13+15-14+60 LT/RT				der unter der der der der der der der der der d							
			STRUCTURE SIZE / TYPE	ROADWAY FILL	ROADWAY FILL	ROADWAY FILL	ROADWAY FILL	ROADWAY FILL	ROADWAY FILL	ROADWAY FILL	ROADWAY FILL											
			SITE NO.	1A	18	10	3	4	5A	58	5C							TOTAL:				

				WETLAND	IMPACTS	WETLAND IMPACTS		SURFA	SURFACE WATER IMPACTS	PACTS	
						Mechanized				Existing	Natural
Site No.	Station (From/To)	Structure Size / Type	Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation In Wetlands (ac)	Clearing (Method III) (ac)	Fill In SW (Natural) (ac)	Fill In SW (Pond) (ac)	lemp. Fill In SW (ac)	Channel Impacted (ft)	Stream Design (ft)
14	-I - 582+75-585+75 LT/RT	ROADWAY FILL	0.022			0.027					
19	-L- 590+70-592+70 RT	ROADWAY FILL			0.074	0.021					
1 2	-Y26- 15+30-16+75 RT	ROADWAY FILL			0.056	0.019				*	
2	-L- 634+10-634+85 RT	ROADWAY FILL					0.003			113.8	
1 (0	-L- 648+50-650+15 LT/RT	ROADWAY FILL	0.093			0.031	0.018			159.3	
4	-L- 743+50-761+90 LT/RT	ROADWAY FILL	1.035			0.108	0.287			841.6	
5A	-L- 786+20-788+05 LT/RT	ROADWAY FILL					0.007			107.5	
5B	-L- 792+40-794+15 LT/RT	ROADWAY FILL					0.008			72.5	
25	-Y31- 13+15-14+60 LT/RT	ROADWAY FILL					0.006			54.4	
TOTALS:	· · · · · · · · · · · · · · · · · · ·		1.150	0.000	0.130	0.206	0.329	0.000	0.000	1349.1	0.000
OTE: W	NOTE: WETLANDS IN CUT RUN PERPINDICULAR AND AWAY FROM THE ROADWAY, NOT PARALLEL. THEREFORE, DRAWDOWN EFFECT WAS NOT CALCULATED.	D AWAY FROM THE ROADWA T WAS NOT CALCULATED.	·-					NC DEP	ARTMENT DIVISION (	NC DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	ORTATI
JURISE	• JURISDICTIONAL STREAM NOT IN GPS FILE. APPROXIMATE IMPACT 50LF +/- (FROM PREVIOUS ENVIRONMENTAL DOCUMENTATION.)	ROXIMATE IMPACT 50LF +/- (F	ROM PREVIOUS EN	IVIRONMENTAL DOC	SUMENTATION.)			PRC	BEAUFO JJECT 3.44	BEAUFORT COUNTY PROJECT 3.4440.1.1 (R-2510C)	Y 2510C)





#### GEOENVIRONMENTAL SCOPE OF WORK

"The NCDOT is considered the regulatory generator of hazardous materials excavated and removed from this project. This status applies whether the excavation and disposal is done by the Design-Build Team or a third-party contractor hired by the Department.

So long as the Design-Build Team takes reasonable steps to eliminate or minimize excavation within the limits of the four areas of known contamination as discussed herein and uses reasonable care in their design and construction, the Department shall release the Design-Build Team from contract liability arising from any release of pre-existing contamination and/or contaminants resulting from final project designs/plans approved by the Department within Sites 1 through 4.

If, without negligence on the part of the Design-Build Team, the Design-Build Team is held liable for the cost of remediation of a hazardous material or substance solely by reason of performing the work as required by this Request for Proposals, the Department shall release the Design-Build Team from liability of all cost and expense thereby incurred."

#### I. **DEFINITION**

For the purpose of this scope of work, contamination/contaminants are defined as any substance, which when discharged in any quantity may present an imminent and substantial danger to the public health or welfare. Petroleum is defined as any oil of any kind and in any form, including, but not limited to, crude oil, diesel fuel, fuel oil, gasoline, lubrication oil, oil refuse, oil mixed with other waste, oil sludge, petroleum related products or by-products, and all other liquid hydrocarbons, regardless of specific gravity, whether singly or in combination with other substances.

#### II. DESCRIPTION OF WORK

The Department identified four known contaminated areas within the project corridor. The areas include one agricultural chemical retailer, two dump sites, and a federal Superfund site, as follows:

- 1) Southside Home and Garden, Station 278+00 to 281+00 -L- (325' to 800' RT)
- 2) Former Chocowinity Dump, Station 5+00 to 17+00 –BY15- (100' LT & RT)
- 3) Former Washington Dump, Station 468+00 to 476+50 -L- (450' LT & RT)
- 4) Former FCX agricultural chemical facility (Including Fitness Unlimited, Arin's Social Club, and Adam's Paint), Station 476+50 to 487+00 -L- (450' LT & RT)

The Design-Build Team shall eliminate or minimize excavation within the limits of the areas defined above and delineated on the GeoEnvironmental Plan Sheets provided by the Department. If the Design-Build Team's design is such that no excavation is required within the limits of the contaminated areas above, the Design-Build Team is not responsible for removal of any contaminated material from these sites. In the Technical Proposal, the Design-Build Team shall quantify the amount of excavation required by their design within each of the above contaminated areas.

#### Right of Way Acquisition:

The Design-Build Team shall acquire the right of way for Sites 1 and 4 noted above as early as possible. The Department will remove the existing buildings, structures,

underground storage tanks and underlying contaminated materials from these areas to the extent required for construction and subject to the limits specified below. The Department will require 120 days to conduct this work after notification that the right of way has been acquired and the property is vacated. The Design-Build Team shall notify the State Alternative Delivery Systems Engineer in writing roughly 30 days prior to the anticipated date of acquisition of each of these two properties. The Design-Build Team shall adhere to all Right of Way Branch procedures regarding the acquisition of contaminated property and the Right of Way Acquisition Recommendations provided by the Department.

# Removal of Contaminated Soil by the Department for Unavoidable Excavation:

Unavoidable excavation is defined as all excavation within Sites 1 and 4 required by the Design-Builds Team's design and as submitted in the Technical Proposal. If the Design-Build Team's design requires unavoidable excavation in the areas above, the Department will remove these materials to a maximum quantity equal to the amount noted in the Technical Proposal. In such case, the Design-Build Team shall provide plans and cross sections for the proposed excavation. For removal of these materials, the Design-Build Team shall allow the Department 120 days from (1) the time the plans and cross sections are submitted or (2) the date the property is vacated as noted above, whichever is later. If the plans and cross-sections change for any reason, including the Department's or agencies' review comments, the Department will remove additional material from Sites 1 and 4 on one additional occasion. The removal performed by the Department can occur prior to the acquisition of permits.

# Removal of Contaminated Soil by the Design-Build Team for Excessive Excavation:

Excessive excavation is defined as any excavation within Sites 1 and 4 that exceeds the amounts noted in the Technical Proposal or any excavation omitted from both the initial and second submittal of excavation plans and cross-sections. The Design-Build Team shall only be responsible for the removal of contaminated soils from Sites 1 and 4 that is due to excessive excavation. The removal performed by the Design-Build Team cannot occur prior to obtaining all permits for the project. All contaminated soils shall be removed in accordance with Section V below.

#### **Drilled Shaft Excavation and Construction:**

If the Design-Build Team elects to use drilled piers within the limits of Site 3, the excavation of material and water from the drilled shaft shall be removed and disposed of by the Design-Build Team in accordance with Section V. Drilled piers in this area shall be constructed with permanent steel casing that extends a minimum of 5 ft. below the bottom of the landfill.

## **Drainage within Contaminated Areas:**

If excavation is required for drainage purposes within the contaminated areas, the Design-Build Team shall construct a sealed drainage system in these areas.

#### **Contamination by Design-Build Team:**

The Design-Build Team shall be responsible for any costs (direct or indirect) associated with damage and or cleanup of a hazardous substance and / or oil spill caused by it or its agent. This responsibility shall extend to freight carriers hired by the Design-Build Team

to deliver a commodity or service to the Department. The Design-Build Team shall comply with all Local, State, and Federal requirements for the proper handling of hazardous substances and/or oil. In addition, the Design-Build Team agrees to indemnify and hold the Department harmless against all claims, liabilities, and costs, including attorneys' fees, incurred in the defense of any claim brought against the Department resulting from such a spill.

## III. INFORMATION PROVIDED BY NCDOT:

- Preliminary Site Assessment for Southside Home and Garden
- Water and Soil/Sediment Sampling Report Former Chocowinity Dump
- Revised Letter Report of Environmental Services Former Washington Dump
- Preliminary Site Assessment for Former FCX Facilities
- Right of Way Recommendations
- GeoEnvironmental Plan Sheets Nos. 1, 2 and 3
- FCX Washington Superfund Site Status Letter from USEPA

# IV. UNKNOWN CONTAMINATED SITES:

The Design-Build Team shall immediately notify the Department when the Design-Build Team's operations encounter or expose any abnormal condition which may indicate the presence of a hazardous, contaminated, and / or toxic material not previously identified in the Preliminary Environmental Site Assessments. Unknown contaminated sites will be addressed in accordance with Article 107-26 of the Standard Special Provisions, Division One contained elsewhere in this RFP. If the Engineer elects to have the Design-Build Team remove and dispose of contaminated material within an unknown contaminated site, the removal and disposal of this material shall be performed in accordance with Article 107-26 and Section V below.

# V. DESIGN-BUILD TEAM REMOVAL OF CONTAMINATED SOILS:

This Section V applies only if removal of contaminated material or water is to be performed by the Design-Build Team.

The Design-Build Team shall employ a fully experienced and qualified geoenvironmental firm to dispose of contaminated soil and groundwater and any other contaminants removed from within the project right of way during construction activities. The Design-Build Team shall furnish and deliver to the Department three (3) reports accompanied by all documents necessary to meet the laws, rules and regulations of the environmental regulatory agency(ies) having jurisdiction over each respective site from which waste materials are removed. Reports documenting the Design-Build Team's work and laboratory analyses of collected samples shall be submitted to the Department within 30 calendar days after its completion. If the Design-Build Team removes any unanticipated underground storage tanks, a UST Closure Report shall be presented to the Department within twenty-five (25) calendar days after receipt of laboratory data. The Design-Build Team shall not submit any reports directly to the regulatory agencies.

Contaminated material and/or water removed during construction shall be transported to a waste treatment / disposal facility that is fully approved and permitted by all applicable environmental regulatory agencies to receive, treat and / or dispose of the material. It shall be the Design-Build Team's responsibility to locate such a facility. Departmental

approval of the specific facility identified for use by the Design-Build Team shall occur prior to removal of any materials from the project limits. The Design-Build Team shall provide to the Department all transportation manifests and certificates of acceptance from the receiving disposal facility on a weekly basis. The Design-Build Team shall present all disposal manifests to the Engineer within twenty (20) days of completion of the excavation. The Design-Build Team shall provide to the Department a Certificate of Remediation from the disposing / treating facility within sixty (60) days after removal of the materials from the project site unless alternate arrangements are approved in writing by the Department. The Department will be the regulatory generator of all waste excavated and removed from within its right of way. The Design-Build Team shall act as agents of the Department for signing all waste transportation and disposal manifests as necessary.

The Design-Build Team shall maintain qualified personnel onsite at all times during removal of materials from within known areas of contamination to monitor ambient air quality. The qualified personnel shall be knowledgeable with the use of an Organic Vapor Analyzer, Flame Ionization Detector, Photo Ionization Detector, or similar equipment.

The Design-Build Team shall be entirely responsible for compliance with all OSHA, EPA, DOT, DENR and local rules and regulations pertaining to excavation, transportation and treatment / disposal of the contaminated media. Examples of such rules and regulations include, but are not limited to, 29 CFR 1910 and 1926, 40 CFR 260 - 265, 49 CFR 173 and 178, 15A NCAC 13A North Carolina Hazardous Waste Management Rules, NCGS 130A - 310 Inactive Hazardous Sites, the Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Federal Resource Conservation and Recovery Act (RCRA). It must be noted that inclusion of this paragraph is meant to highlight the Design-Build Team's responsibility for regulatory compliance in all phases of work on this project.

#### **Disposal of Contaminated Water:**

Contaminated water shall be appropriately collected, containerized and disposed of by the Design-Build Team at a disposal facility fully licensed to handle contaminated materials.

# Cleaning of Equipment and Vehicles:

All equipment, tools, etc. utilized in the removal of contaminated materials, including drilled shaft excavation, shall be thoroughly cleaned to the satisfaction of the Engineer prior to leaving the project limits. In addition, all water used in the cleaning operation shall be appropriately collected, containerized and disposed of by the Design-Build Team as required by regulations in the preceding paragraph.

No vehicles exiting the known contaminated areas are to leave soil or other debris on public or private roadways. Provisions for ensuring all vehicle tires are free from contaminated soil or debris prior to exiting the project limits shall be the responsibility of the Design-Build Team for the duration of the project.

Dust is not to be produced by the excavation activities in areas of known contamination. It is the Design-Build Team's responsibility to provide dust control throughout the duration of the project.

#### Geotechnical Scope of Work

whether the proposed PDA locations are for production or non-production piles. Test piles in accordance with ASTM D 4945-89, Standard Test Method for High Strain Dynamic Testing of Piles and this scope of work.

Use current NCDOT inspection forms for drilled piers available on the Geotechnical Engineering Unit's webpage. The Design-Build Team shall provide an inspection device to inspect the bottom of each drilled pier just prior to placing concrete. The inspection device shall be a Mini-SID made by GPE, Inc. or an equivalent device approved by the Engineer. Perform SID testing in accordance with the Drilled Piers Special Provision and provide personnel to conduct the testing and document results. In addition to completing the NCDOT SID inspection form, take video and audio recordings of each test and save this information in a manner that can be reviewed if needed.

Install Crosshole Sonic Logging (CSL) tubes in all drilled piers. CSL testing will be required for up to 25% of the drilled piers for each bridge. If a CSL test identifies defect in the drilled pier, then CSL testing more than 25% of drilled piers may be required at the discretion of the Engineer. The Design-Build Team, in conjunction with the Resident Engineer, shall determine which piers will be CSL tested. After consultation with the Geotechnical Engineering firm of the Design-Build Team, the Geotechnical Engineering Unit will determine if the CSL results are acceptable.

Verify bearing on rock for spread footings in the field during construction.

Provide field quality control for all bridge foundations, including pile driving records and drilled pier inspection forms. The Design-Build Team shall submit completed pile driving records to the Resident Engineer within 24 hours of pile installation. Submittals shall include all pertinent data about the pile, hammer, and driving record. Prior to beginning pile driving operations, the Design-Build Team shall coordinate with the Resident Engineer for required information. Provide field quality control for all retaining wall and sound barrier foundations including verifying subsurface conditions for drilled piers and bearing for shallow foundations.

The pre-qualified geotechnical firm that did the original design shall perform any changes to the foundation designs. All changes must be based upon additional information, subsurface investigation and/or testing. Drilled pier tip elevations may not be changed during construction unless the prequalified geotechnical firm that did the bridge foundation design redesigns the drilled pier from an SPT/rock core or CPT boring in accordance with ASTM standards at the subject pier location or observations of the drilled pier excavation. If a drilled pier is designed based on a boring, do not drill a boring inside an open drilled pier excavation. Locate the boring within three pier diameters of the center of the subject pier and drill to a depth of two pier diameters below the revised tip elevation. If a drilled pier is redesigned based upon observations of the drilled pier excavation, the geotechnical engineer of record must be present during the excavation to determine the actual subsurface conditions. Send copies of revised designs including additional subsurface information, calculations and any other supporting documentation sealed by a professional engineer registered in the State of North Carolina to the Geotechnical Engineering Unit. Also, send copies of any inspection forms related to foundations, settlement or retaining walls to the Geotechnical Engineering Unit.

#### IV. INFORMATION PROVIDED BY NCDOT

- A. NCDOT Geotechnical Unit Guidelines and Procedure Manual
- B. Geotechnical Engineering Unit Roadway and Structure Foundation Guidelines
- C. NCDOT Project Special Provisions
- D. Standard Settlement Plate Detail.